

ALMANAC LIV TRANSITS VISIBLE FROM SATURN IN CE

The almanac LIV contains a list of transits visible from Saturn from the 1st millennium CE to the 125th millennium CE.

During the period of 250 000 years, the total number of transits visible from Saturn is 194 432 transits visible from Saturn (73 583 transits of Mercury, 55 349 transits of Venus, 28 373 transits of Earth, 28 360 transits of Moon, 8 607 transits of Mars, 160 transits of Jupiter).

1ST MILLENNIUM CE

This is a list of transits visible from Saturn in the 1st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	3-01-03 14:38 J		1722156.07	1722156.11	1722156.18	0.0292	0.0284	
Moon	3-01-03 17:31 J		1722156.19	1722156.23	1722156.27	0.0292	0.0287	
Mercury	9-04-28 22:04 J		1724463.29	1724463.42	1724463.54	0.0271	0.0196	
Mercury	9-07-26 18:00 J		1724552.07	1724552.25	1724552.43	0.0270	0.0050	
Mercury	9-10-23 13:55 J		1724640.92	1724641.08	1724641.26	0.0269	0.0098	
Venus	9-11-08 10:04 J		1724656.74	1724656.92	1724657.12	0.0269	0.0116	
Mercury	10-01-20 10:19 J		1724729.87	1724729.93	1724730.01	0.0269	0.0245	
Venus	10-06-25 12:43 J		1724885.83	1724886.03	1724886.23	0.0268	0.0082	
Earth	18-07-06 15:50 J		1727819.07	1727819.16	1727819.28	0.0269	0.0242	
Moon	18-07-06 19:26 J		1727819.19	1727819.31	1727819.45	0.0269	0.0229	*
Mercury	24-11-18 04:04 J		1730145.58	1730145.67	1730145.76	0.0290	0.0212	
Mercury	25-02-14 16:47 J		1730234.07	1730234.20	1730234.33	0.0291	0.0077	
Mercury	25-05-14 05:16 J		1730322.59	1730322.72	1730322.85	0.0292	0.0058	
Venus	25-07-19 07:12 J		1730388.60	1730388.80	1730389.01	0.0292	0.0079	
Mercury	25-08-10 17:45 J		1730411.14	1730411.24	1730411.34	0.0292	0.0193	
Venus	26-03-06 06:14 J		1730618.60	1730618.76	1730618.93	0.0294	0.0181	
Moon	31-12-28 19:26 J		1732742.07	1732742.31	1732742.56	0.0293	0.0043	
Earth	31-12-28 22:19 J		1732742.20	1732742.43	1732742.67	0.0293	0.0045	*
Mars	35-05-25 09:21 J		1733985.59	1733985.89	1733986.19	0.0282	0.0097	
Mercury	38-09-15 23:02 J		1735195.36	1735195.46	1735195.55	0.0271	0.0228	
Mercury	38-12-13 18:57 J		1735284.12	1735284.29	1735284.46	0.0270	0.0083	
Mercury	39-03-12 15:07 J		1735372.95	1735373.13	1735373.30	0.0270	0.0065	
Venus	39-05-21 17:02 J		1735443.01	1735443.21	1735443.41	0.0269	0.0084	
Mercury	39-06-09 11:31 J		1735461.87	1735461.98	1735462.09	0.0269	0.0213	
Venus	40-01-05 19:26 J		1735672.13	1735672.31	1735672.51	0.0268	0.0115	

Moon	47-07-01 17:16 J	1738405.97	1738406.22	1738406.46	0.0268	0.0022
Earth	47-07-01 20:38 J	1738406.11	1738406.36	1738406.61	0.0268	0.0008 *
Mars	51-05-09 07:26 J	1739813.54	1739813.81	1739814.08	0.0279	0.0024
Mercury	54-04-07 07:26 J	1740877.73	1740877.81	1740877.89	0.0289	0.0237
Mercury	54-07-04 20:09 J	1740966.21	1740966.34	1740966.46	0.0290	0.0103
Mercury	54-10-01 08:38 J	1741054.73	1741054.86	1741054.99	0.0291	0.0032
Mercury	54-12-28 21:07 J	1741143.27	1741143.38	1741143.49	0.0291	0.0166
Venus	55-01-29 18:14 J	1741175.05	1741175.26	1741175.47	0.0292	0.0038
Venus	55-09-16 17:16 J	1741405.09	1741405.22	1741405.37	0.0293	0.0223
Mercury	68-02-02 22:47 J	1745927.43	1745927.45	1745927.47	0.0271	0.0268
Venus	68-04-15 17:31 J	1746000.18	1746000.23	1746000.30	0.0271	0.0259
Mercury	68-05-01 18:28 J	1746016.12	1746016.27	1746016.44	0.0270	0.0124
Mercury	68-07-29 14:38 J	1746104.93	1746105.11	1746105.29	0.0270	0.0023
Mercury	68-10-26 10:47 J	1746193.82	1746193.95	1746194.10	0.0269	0.0171
Venus	68-11-30 21:07 J	1746229.17	1746229.38	1746229.59	0.0269	0.0057
Venus	69-07-17 23:16 J	1746458.29	1746458.47	1746458.65	0.0267	0.0140
Earth	76-06-25 18:00 J	1748993.23	1748993.25	1748993.28	0.0267	0.0265
Mercury	83-08-25 09:21 J	1751609.85	1751609.89	1751609.93	0.0290	0.0276
Mercury	83-11-21 22:04 J	1751698.30	1751698.42	1751698.54	0.0290	0.0141
Venus	83-12-25 02:24 J	1751731.51	1751731.60	1751731.70	0.0291	0.0257
Mercury	84-02-18 10:47 J	1751786.81	1751786.95	1751787.08	0.0291	0.0009
Mercury	84-05-16 23:16 J	1751875.35	1751875.47	1751875.59	0.0292	0.0129
Venus	84-08-11 00:43 J	1751961.32	1751961.53	1751961.75	0.0293	0.0005
Mercury	84-08-13 11:31 J	1751963.93	1751963.98	1751964.04	0.0293	0.0263
Venus	85-03-29 00:00 J	1752191.41	1752191.50	1752191.61	0.0294	0.0261
Moon	90-12-30 10:47 J	1754293.71	1754293.95	1754294.18	0.0293	0.0059
Earth	90-12-30 13:55 J	1754293.84	1754294.08	1754294.32	0.0293	0.0055 *
Mercury	97-09-18 19:40 J	1756748.17	1756748.32	1756748.47	0.0271	0.0155
Venus	97-10-27 00:28 J	1756786.41	1756786.52	1756786.64	0.0270	0.0227
Mercury	97-12-16 15:35 J	1756836.97	1756837.15	1756837.34	0.0270	0.0011

Mercury	98-03-15 11:45 J	1756925.84	1756925.99	1756926.15	0.0269	0.0139
Venus	98-06-13 03:50 J	1757015.45	1757015.66	1757015.88	0.0269	0.0026
Venus	99-01-28 06:14 J	1757244.60	1757244.76	1757244.93	0.0267	0.0172
Earth	106-07-03 07:55 J	1759957.59	1759957.83	1759958.07	0.0268	0.0075
Moon	106-07-03 08:24 J	1759957.62	1759957.85	1759958.09	0.0268	0.0062 *
Mercury	113-04-10 01:40 J	1762430.46	1762430.57	1762430.69	0.0290	0.0163
Venus	113-07-06 14:38 J	1762517.98	1762518.11	1762518.26	0.0290	0.0214
Mercury	113-07-07 14:24 J	1762518.97	1762519.10	1762519.23	0.0290	0.0028
Mercury	113-10-04 02:52 J	1762607.50	1762607.62	1762607.75	0.0291	0.0106
Mercury	113-12-31 15:21 J	1762696.06	1762696.14	1762696.21	0.0292	0.0239
Venus	114-02-21 13:12 J	1762747.84	1762748.05	1762748.26	0.0292	0.0043
Earth	119-12-25 00:57 J	1764880.45	1764880.54	1764880.65	0.0294	0.0265
Moon	119-12-25 04:33 J	1764880.57	1764880.69	1764880.81	0.0294	0.0254 *
Mars	123-10-20 07:12 J	1766275.48	1766275.80	1766276.12	0.0282	0.0019
Mercury	127-02-05 20:09 J	1767480.21	1767480.34	1767480.46	0.0271	0.0191
Mercury	127-05-05 16:04 J	1767568.99	1767569.17	1767569.35	0.0270	0.0046
Venus	127-05-09 06:14 J	1767572.62	1767572.76	1767572.90	0.0270	0.0196
Mercury	127-08-02 12:00 J	1767657.84	1767658.00	1767658.17	0.0269	0.0101
Mercury	127-10-30 08:24 J	1767746.79	1767746.85	1767746.92	0.0269	0.0248
Venus	127-12-24 09:07 J	1767801.67	1767801.88	1767802.10	0.0268	0.0005
Venus	128-08-09 11:02 J	1768030.82	1768030.96	1768031.10	0.0267	0.0199
Moon	135-06-28 04:33 J	1770544.52	1770544.69	1770544.87	0.0267	0.0197
Earth	135-06-28 05:16 J	1770544.54	1770544.72	1770544.90	0.0267	0.0184 *
Mars	139-10-03 13:26 J	1772102.81	1772103.06	1772103.31	0.0280	0.0105
Mercury	142-08-28 03:35 J	1773162.55	1773162.65	1773162.75	0.0290	0.0203
Mercury	142-11-24 16:19 J	1773251.05	1773251.18	1773251.31	0.0291	0.0068
Venus	143-01-16 20:24 J	1773304.18	1773304.35	1773304.51	0.0291	0.0180
Mercury	143-02-21 04:47 J	1773339.57	1773339.70	1773339.83	0.0292	0.0067
Mercury	143-05-20 17:16 J	1773428.12	1773428.22	1773428.32	0.0292	0.0201
Venus	143-09-03 18:57 J	1773534.09	1773534.29	1773534.50	0.0293	0.0079

Earth	150-01-01 06:43 J	1775845.58	1775845.78	1775845.98	0.0293	0.0158
Moon	150-01-01 06:43 J	1775845.59	1775845.78	1775845.97	0.0293	0.0162 *
Mercury	156-06-24 21:07 J	1778212.28	1778212.38	1778212.48	0.0271	0.0223
Mercury	156-09-21 17:02 J	1778301.04	1778301.21	1778301.38	0.0270	0.0078
Venus	156-11-18 12:57 J	1778358.88	1778359.04	1778359.21	0.0270	0.0165
Mercury	156-12-19 12:57 J	1778389.87	1778390.04	1778390.22	0.0270	0.0069
Mercury	157-03-18 09:21 J	1778478.79	1778478.89	1778479.00	0.0269	0.0216
Venus	157-07-05 15:50 J	1778587.96	1778588.16	1778588.38	0.0268	0.0036
Venus	158-02-19 17:45 J	1778817.15	1778817.24	1778817.36	0.0267	0.0231
Earth	165-07-04 19:12 J	1781509.10	1781509.30	1781509.51	0.0269	0.0157
Moon	165-07-04 23:02 J	1781509.26	1781509.46	1781509.67	0.0269	0.0145 *
Mercury	172-01-15 07:26 J	1783894.72	1783894.81	1783894.89	0.0290	0.0225
Mercury	172-04-12 19:55 J	1783983.21	1783983.33	1783983.46	0.0290	0.0091
Mercury	172-07-10 08:38 J	1784071.73	1784071.86	1784071.99	0.0291	0.0045
Venus	172-07-29 08:52 J	1784090.69	1784090.87	1784091.06	0.0291	0.0136
Mercury	172-10-06 21:07 J	1784160.27	1784160.38	1784160.48	0.0292	0.0178
Venus	173-03-16 07:40 J	1784320.63	1784320.82	1784321.02	0.0293	0.0124
Moon	178-12-26 19:55 J	1786432.11	1786432.33	1786432.54	0.0294	0.0148
Earth	178-12-26 19:55 J	1786432.13	1786432.33	1786432.54	0.0294	0.0156 *
Mercury	185-11-11 21:50 J	1788944.36	1788944.41	1788944.48	0.0271	0.0255
Mercury	186-02-08 17:45 J	1789033.08	1789033.24	1789033.41	0.0270	0.0110
Mercury	186-05-08 13:40 J	1789121.89	1789122.07	1789122.26	0.0270	0.0036
Venus	186-05-31 19:12 J	1789145.12	1789145.30	1789145.49	0.0269	0.0133
Mercury	186-08-05 09:50 J	1789210.78	1789210.91	1789211.05	0.0269	0.0182
Venus	187-01-15 22:04 J	1789374.21	1789374.42	1789374.62	0.0268	0.0066
Venus	187-09-01 23:31 J	1789603.44	1789603.48	1789603.53	0.0267	0.0260
Moon	194-06-29 13:12 J	1792095.83	1792096.05	1792096.28	0.0267	0.0116
Earth	194-06-29 17:02 J	1792095.98	1792096.21	1792096.44	0.0267	0.0102 *
Mercury	201-06-03 08:52 J	1794626.83	1794626.87	1794626.93	0.0290	0.0266
Mercury	201-08-30 21:50 J	1794715.29	1794715.41	1794715.53	0.0291	0.0131

Mercury	201-11-27 10:19 J	1794803.80	1794803.93	1794804.07	0.0291	0.0010
Venus	202-02-08 14:24 J	1794876.90	1794877.10	1794877.30	0.0292	0.0101
Mercury	202-02-23 22:47 J	1794892.34	1794892.45	1794892.57	0.0292	0.0139
Mercury	202-05-23 11:16 J	1794980.93	1794980.97	1794981.02	0.0293	0.0272
Venus	202-09-26 13:26 J	1795106.88	1795107.06	1795107.23	0.0294	0.0159
Earth	209-01-02 23:45 J	1797397.39	1797397.49	1797397.60	0.0292	0.0261
Moon	209-01-03 02:52 J	1797397.54	1797397.62	1797397.73	0.0292	0.0266 *
Mars	212-03-16 07:40 J	1798565.56	1798565.82	1798566.11	0.0281	0.0137
Mercury	215-06-28 18:14 J	1799765.12	1799765.26	1799765.42	0.0270	0.0146
Mercury	215-09-25 14:24 J	1799853.92	1799854.10	1799854.28	0.0270	0.0002
Venus	215-12-12 01:26 J	1799931.37	1799931.56	1799931.76	0.0269	0.0103
Mercury	215-12-23 10:33 J	1799942.79	1799942.94	1799943.10	0.0269	0.0147
Venus	216-07-28 04:04 J	1800160.47	1800160.67	1800160.87	0.0268	0.0096
Earth	224-07-06 06:00 J	1803060.65	1803060.75	1803060.88	0.0269	0.0238
Moon	224-07-06 07:55 J	1803060.70	1803060.83	1803060.97	0.0269	0.0227 *
Mars	228-02-28 11:16 J	1804392.79	1804392.97	1804393.15	0.0280	0.0211
Mercury	230-10-21 12:28 J	1805359.02	1805359.02	1805359.02	0.0289	0.0289
Mercury	231-01-18 01:12 J	1805447.44	1805447.55	1805447.67	0.0290	0.0155
Mercury	231-04-16 13:55 J	1805535.95	1805536.08	1805536.22	0.0291	0.0020
Mercury	231-07-14 02:24 J	1805624.48	1805624.60	1805624.73	0.0291	0.0115
Venus	231-08-22 02:24 J	1805663.39	1805663.60	1805663.81	0.0292	0.0058
Mercury	231-10-10 14:52 J	1805713.05	1805713.12	1805713.19	0.0292	0.0248
Venus	232-04-08 01:26 J	1805893.41	1805893.56	1805893.72	0.0293	0.0203
Moon	237-12-28 09:21 J	1807983.66	1807983.89	1807984.14	0.0293	0.0047
Earth	237-12-28 13:12 J	1807983.81	1807984.05	1807984.29	0.0293	0.0051 *
Venus	244-11-06 04:47 J	1810488.70	1810488.70	1810488.73	0.0271	0.0270
Mercury	244-11-14 19:40 J	1810497.18	1810497.32	1810497.46	0.0271	0.0174
Mercury	245-02-11 15:35 J	1810585.97	1810586.15	1810586.33	0.0270	0.0030
Mercury	245-05-11 11:31 J	1810674.82	1810674.98	1810675.15	0.0269	0.0116
Venus	245-06-23 08:09 J	1810717.64	1810717.84	1810718.05	0.0269	0.0069

Mercury	245-08-08 07:55 J	1810763.80	1810763.83	1810763.86	0.0269	0.0263
Venus	246-02-07 10:33 J	1810946.76	1810946.94	1810947.13	0.0267	0.0128
Moon	253-07-01 01:40 J	1813647.33	1813647.57	1813647.81	0.0267	0.0035
Earth	253-07-01 03:35 J	1813647.41	1813647.65	1813647.90	0.0267	0.0022 *
Mercury	260-06-06 02:38 J	1816179.52	1816179.61	1816179.71	0.0290	0.0198
Venus	260-07-16 08:38 J	1816219.81	1816219.86	1816219.91	0.0290	0.0280
Mercury	260-09-02 15:21 J	1816268.01	1816268.14	1816268.28	0.0291	0.0063
Mercury	260-11-30 04:04 J	1816356.54	1816356.67	1816356.80	0.0292	0.0072
Mercury	261-02-26 16:33 J	1816445.09	1816445.19	1816445.28	0.0292	0.0206
Venus	261-03-03 06:43 J	1816449.57	1816449.78	1816449.99	0.0292	0.0025
Venus	261-10-19 06:00 J	1816679.63	1816679.75	1816679.88	0.0294	0.0236
Mercury	274-04-03 19:40 J	1821229.22	1821229.32	1821229.44	0.0271	0.0213
Venus	274-05-19 10:04 J	1821274.83	1821274.92	1821275.01	0.0270	0.0242
Mercury	274-07-01 15:35 J	1821317.98	1821318.15	1821318.33	0.0270	0.0068
Mercury	274-09-28 11:45 J	1821406.81	1821406.99	1821407.16	0.0269	0.0078
Mercury	274-12-26 07:55 J	1821495.73	1821495.83	1821495.93	0.0269	0.0224
Venus	275-01-03 13:26 J	1821503.85	1821504.06	1821504.27	0.0269	0.0041
Venus	275-08-20 15:21 J	1821732.98	1821733.14	1821733.32	0.0267	0.0156
Mercury	289-10-24 06:00 J	1826911.67	1826911.75	1826911.84	0.0290	0.0223
Mercury	290-01-20 18:43 J	1827000.16	1827000.28	1827000.41	0.0291	0.0089
Venus	290-01-26 19:26 J	1827006.20	1827006.31	1827006.44	0.0291	0.0239
Mercury	290-04-19 07:26 J	1827088.68	1827088.81	1827088.94	0.0291	0.0046
Mercury	290-07-16 19:55 J	1827177.23	1827177.33	1827177.44	0.0292	0.0180
Venus	290-09-13 18:00 J	1827236.04	1827236.25	1827236.47	0.0292	0.0019
Venus	291-05-01 17:31 J	1827466.18	1827466.23	1827466.30	0.0294	0.0279
Moon	296-12-30 02:09 J	1829535.36	1829535.59	1829535.82	0.0293	0.0051
Earth	296-12-30 04:04 J	1829535.44	1829535.67	1829535.91	0.0293	0.0049 *
Mars	300-08-11 12:43 J	1830855.95	1830856.03	1830856.13	0.0281	0.0269
Mercury	303-08-21 20:52 J	1831961.30	1831961.37	1831961.46	0.0271	0.0242
Mercury	303-11-18 16:47 J	1832050.03	1832050.20	1832050.37	0.0270	0.0098

Venus	303-11-29 17:02 J	1832061.09	1832061.21	1832061.36	0.0270	0.0208
Mercury	304-02-15 12:43 J	1832138.85	1832139.03	1832139.21	0.0270	0.0048
Mercury	304-05-14 08:52 J	1832227.75	1832227.87	1832228.00	0.0269	0.0194
Venus	304-07-15 20:09 J	1832290.13	1832290.34	1832290.55	0.0268	0.0007
Venus	305-03-01 22:04 J	1832519.27	1832519.42	1832519.57	0.0267	0.0188
Earth	312-07-02 12:28 J	1835198.78	1835199.02	1835199.27	0.0267	0.0055
Moon	312-07-02 14:38 J	1835198.88	1835199.11	1835199.36	0.0267	0.0043 *
Mars	316-07-24 08:38 J	1836681.83	1836681.86	1836681.91	0.0280	0.0276
Mercury	319-03-13 07:12 J	1837643.75	1837643.80	1837643.85	0.0290	0.0270
Mercury	319-06-09 19:55 J	1837732.21	1837732.33	1837732.45	0.0290	0.0135
Venus	319-08-08 22:33 J	1837792.30	1837792.44	1837792.59	0.0291	0.0210
Mercury	319-09-06 08:38 J	1837820.73	1837820.86	1837820.99	0.0291	0.0000
Mercury	319-12-03 21:07 J	1837909.26	1837909.38	1837909.50	0.0292	0.0134
Mercury	320-03-01 09:21 J	1837997.85	1837997.89	1837997.95	0.0293	0.0268
Venus	320-03-25 21:07 J	1838022.17	1838022.38	1838022.59	0.0293	0.0048
Mercury	333-04-06 16:19 J	1842782.03	1842782.18	1842782.33	0.0270	0.0141
Venus	333-06-10 20:52 J	1842847.22	1842847.37	1842847.53	0.0270	0.0182
Mercury	333-07-04 12:14 J	1842870.83	1842871.01	1842871.19	0.0270	0.0004
Mercury	333-10-01 08:24 J	1842959.70	1842959.85	1842960.00	0.0269	0.0150
Venus	334-01-26 00:00 J	1843076.29	1843076.50	1843076.71	0.0268	0.0018
Venus	334-09-12 01:55 J	1843305.45	1843305.58	1843305.71	0.0267	0.0213
Moon	341-06-27 11:31 J	1845785.84	1845785.98	1845786.15	0.0267	0.0211
Earth	341-06-27 13:55 J	1845785.92	1845786.08	1845786.25	0.0267	0.0196 *
Mercury	348-10-26 22:47 J	1848464.34	1848464.45	1848464.56	0.0290	0.0165
Mercury	349-01-23 11:31 J	1848552.85	1848552.98	1848553.12	0.0291	0.0030
Venus	349-02-18 08:09 J	1848578.68	1848578.84	1848579.02	0.0291	0.0170
Mercury	349-04-22 00:14 J	1848641.38	1848641.51	1848641.63	0.0292	0.0105
Mercury	349-07-19 12:28 J	1848729.95	1848730.02	1848730.10	0.0292	0.0238
Venus	349-10-06 07:12 J	1848808.59	1848808.80	1848809.00	0.0293	0.0088
Earth	356-01-01 14:09 J	1851086.89	1851087.09	1851087.32	0.0293	0.0138

Moon	356-01-01 16:47 J	1851086.99	1851087.20	1851087.41	0.0293	0.0136 *
Mercury	362-08-24 17:16 J	1853514.09	1853514.22	1853514.37	0.0271	0.0171
Mercury	362-11-21 13:12 J	1853602.87	1853603.05	1853603.23	0.0270	0.0026
Venus	362-12-22 03:35 J	1853633.49	1853633.65	1853633.84	0.0270	0.0148
Mercury	363-02-18 09:21 J	1853691.72	1853691.89	1853692.05	0.0269	0.0120
Mercury	363-05-18 05:31 J	1853780.71	1853780.73	1853780.76	0.0269	0.0266
Venus	363-08-08 06:28 J	1853862.56	1853862.77	1853862.98	0.0268	0.0052
Venus	364-03-24 07:40 J	1854091.75	1854091.82	1854091.91	0.0267	0.0246
Earth	371-07-04 18:57 J	1856750.07	1856750.29	1856750.51	0.0267	0.0126
Moon	371-07-04 22:33 J	1856750.21	1856750.44	1856750.67	0.0267	0.0113 *
Mars	374-11-01 10:47 J	1857965.83	1857965.95	1857966.08	0.0277	0.0244
Mercury	378-03-15 23:45 J	1859196.40	1859196.49	1859196.58	0.0290	0.0213
Mercury	378-06-12 12:28 J	1859284.89	1859285.02	1859285.15	0.0291	0.0078
Venus	378-08-31 10:33 J	1859364.76	1859364.94	1859365.13	0.0291	0.0142
Mercury	378-09-09 01:12 J	1859373.42	1859373.55	1859373.68	0.0291	0.0056
Mercury	378-12-06 13:26 J	1859461.97	1859462.06	1859462.17	0.0292	0.0190
Venus	379-04-18 09:07 J	1859594.69	1859594.88	1859595.08	0.0293	0.0116
Moon	384-12-25 09:21 J	1861672.73	1861672.89	1861673.06	0.0295	0.0217
Earth	384-12-25 11:45 J	1861672.84	1861672.99	1861673.17	0.0295	0.0218 *
Mercury	392-01-11 16:04 J	1864246.07	1864246.17	1864246.28	0.0271	0.0219
Mercury	392-04-09 12:00 J	1864334.83	1864335.00	1864335.17	0.0270	0.0074
Venus	392-07-03 05:45 J	1864419.56	1864419.74	1864419.94	0.0269	0.0126
Mercury	392-07-07 07:55 J	1864423.66	1864423.83	1864424.01	0.0269	0.0071
Mercury	392-10-04 04:04 J	1864512.57	1864512.67	1864512.78	0.0269	0.0217
Venus	393-02-17 08:38 J	1864648.66	1864648.86	1864649.07	0.0268	0.0074
Moon	400-06-28 14:38 J	1867336.91	1867337.11	1867337.32	0.0267	0.0144
Earth	400-06-28 18:00 J	1867337.05	1867337.25	1867337.48	0.0267	0.0130 *
Mercury	407-08-03 02:09 J	1869928.52	1869928.59	1869928.66	0.0290	0.0247
Mercury	407-10-30 14:52 J	1870017.00	1870017.12	1870017.25	0.0290	0.0113
Mercury	408-01-27 03:35 J	1870105.52	1870105.65	1870105.79	0.0291	0.0023

Venus	408-03-12 18:43 J	1870151.08	1870151.28	1870151.48	0.0292	0.0105
Mercury	408-04-24 16:04 J	1870194.06	1870194.17	1870194.29	0.0292	0.0157
Mercury	408-07-22 04:33 J	1870282.68	1870282.69	1870282.71	0.0293	0.0289
Venus	408-10-28 17:31 J	1870381.06	1870381.23	1870381.42	0.0293	0.0154
Earth	415-01-02 20:09 J	1872638.18	1872638.34	1872638.51	0.0293	0.0214
Moon	415-01-02 23:31 J	1872638.32	1872638.48	1872638.65	0.0293	0.0212 *
Mercury	421-05-30 17:02 J	1874978.15	1874978.21	1874978.28	0.0271	0.0250
Mercury	421-08-27 12:43 J	1875066.87	1875067.03	1875067.20	0.0270	0.0106
Mercury	421-11-24 08:38 J	1875155.68	1875155.86	1875156.04	0.0270	0.0039
Venus	422-01-13 12:14 J	1875205.82	1875206.01	1875206.22	0.0269	0.0092
Mercury	422-02-21 04:47 J	1875244.57	1875244.70	1875244.83	0.0269	0.0185
Venus	422-08-30 14:38 J	1875434.92	1875435.11	1875435.31	0.0268	0.0107
Moon	430-07-05 22:04 J	1878301.24	1878301.42	1878301.62	0.0267	0.0182
Earth	430-07-05 22:47 J	1878301.28	1878301.45	1878301.63	0.0267	0.0191 *
Mercury	437-03-18 15:35 J	1880749.04	1880749.15	1880749.27	0.0290	0.0163
Mercury	437-06-15 04:19 J	1880837.55	1880837.68	1880837.82	0.0291	0.0029
Mercury	437-09-11 16:47 J	1880926.08	1880926.20	1880926.33	0.0291	0.0106
Venus	437-09-22 19:55 J	1880937.13	1880937.33	1880937.54	0.0291	0.0080
Mercury	437-12-09 05:16 J	1881014.65	1881014.72	1881014.80	0.0292	0.0238
Venus	438-05-10 18:43 J	1881167.12	1881167.28	1881167.45	0.0293	0.0180
Moon	443-12-27 12:28 J	1883223.82	1883224.02	1883224.23	0.0295	0.0145
Earth	443-12-27 15:35 J	1883223.94	1883224.15	1883224.36	0.0295	0.0145 *
Mercury	451-01-14 10:47 J	1885798.81	1885798.95	1885799.10	0.0271	0.0159
Mercury	451-04-13 06:43 J	1885887.60	1885887.78	1885887.96	0.0270	0.0015
Mercury	451-07-11 02:38 J	1885976.46	1885976.61	1885976.78	0.0269	0.0131
Venus	451-07-26 13:12 J	1885991.85	1885992.05	1885992.25	0.0269	0.0072
Venus	452-03-11 15:35 J	1886220.97	1886221.15	1886221.34	0.0268	0.0126
Earth	459-06-30 19:40 J	1888888.08	1888888.32	1888888.57	0.0267	0.0069
Moon	459-06-30 20:24 J	1888888.13	1888888.35	1888888.59	0.0267	0.0080 *
Mars	463-03-28 01:40 J	1890254.39	1890254.57	1890254.77	0.0278	0.0192

Mercury	466-08-05 17:45 J	1891481.14	1891481.24	1891481.34	0.0290	0.0200
Mercury	466-11-02 06:28 J	1891569.64	1891569.77	1891569.90	0.0291	0.0066
Mercury	467-01-29 19:12 J	1891658.17	1891658.30	1891658.43	0.0291	0.0068
Venus	467-04-05 02:38 J	1891723.41	1891723.61	1891723.82	0.0292	0.0046
Mercury	467-04-28 07:40 J	1891746.72	1891746.82	1891746.91	0.0292	0.0201
Venus	467-11-21 01:55 J	1891953.44	1891953.58	1891953.72	0.0294	0.0215
Moon	474-01-03 21:50 J	1894189.34	1894189.41	1894189.50	0.0293	0.0277
Earth	474-01-03 22:19 J	1894189.37	1894189.43	1894189.50	0.0293	0.0282 *
Mercury	480-06-02 11:16 J	1896530.85	1896530.97	1896531.10	0.0271	0.0193
Venus	480-06-20 15:07 J	1896549.05	1896549.13	1896549.24	0.0271	0.0241
Mercury	480-08-30 07:12 J	1896619.62	1896619.80	1896619.98	0.0270	0.0049
Mercury	480-11-27 03:07 J	1896708.47	1896708.63	1896708.80	0.0270	0.0097
Venus	481-02-04 18:57 J	1896778.08	1896778.29	1896778.50	0.0269	0.0039
Mercury	481-02-23 23:16 J	1896797.40	1896797.47	1896797.55	0.0269	0.0243
Venus	481-09-21 21:07 J	1897007.22	1897007.38	1897007.56	0.0268	0.0158
Moon	489-07-06 19:55 J	1899852.25	1899852.33	1899852.44	0.0267	0.0247
Earth	489-07-07 00:00 J	1899852.43	1899852.50	1899852.59	0.0267	0.0251 *
Mercury	495-12-23 18:28 J	1902213.20	1902213.27	1902213.33	0.0289	0.0251
Venus	496-02-28 06:00 J	1902279.69	1902279.75	1902279.83	0.0290	0.0274
Mercury	496-03-21 07:12 J	1902301.67	1902301.80	1902301.92	0.0290	0.0118
Mercury	496-06-17 19:40 J	1902390.19	1902390.32	1902390.46	0.0291	0.0018
Mercury	496-09-14 08:09 J	1902478.73	1902478.84	1902478.96	0.0291	0.0149
Venus	496-10-15 03:50 J	1902509.45	1902509.66	1902509.87	0.0292	0.0021
Mercury	496-12-11 20:38 J	1902567.33	1902567.36	1902567.39	0.0292	0.0281
Venus	497-06-02 02:38 J	1902739.49	1902739.61	1902739.73	0.0293	0.0239
Earth	502-12-28 15:35 J	1904774.93	1904775.15	1904775.39	0.0295	0.0081
Moon	502-12-28 16:33 J	1904774.97	1904775.19	1904775.41	0.0295	0.0084 *
Mercury	509-10-20 08:52 J	1907262.81	1907262.87	1907262.94	0.0271	0.0250
Venus	509-12-31 14:52 J	1907335.01	1907335.12	1907335.24	0.0271	0.0224
Mercury	510-01-17 04:33 J	1907351.53	1907351.69	1907351.86	0.0271	0.0106

Mercury	510-04-16 00:28 J	1907440.35	1907440.52	1907440.70	0.0270	0.0040
Mercury	510-07-13 20:38 J	1907529.23	1907529.36	1907529.50	0.0269	0.0185
Venus	510-08-17 18:28 J	1907564.06	1907564.27	1907564.48	0.0269	0.0022
Venus	511-04-03 20:38 J	1907793.21	1907793.36	1907793.53	0.0267	0.0176
Earth	518-07-01 19:40 J	1910439.07	1910439.32	1910439.57	0.0267	0.0012
Moon	518-07-01 23:31 J	1910439.23	1910439.48	1910439.73	0.0267	0.0019 *
Mercury	525-08-08 08:52 J	1913033.76	1913033.87	1913033.98	0.0290	0.0159
Venus	525-09-09 11:16 J	1913065.85	1913065.97	1913066.08	0.0290	0.0242
Mercury	525-11-04 21:35 J	1913122.26	1913122.40	1913122.53	0.0291	0.0026
Mercury	526-02-01 10:04 J	1913210.80	1913210.92	1913211.04	0.0291	0.0109
Venus	526-04-27 09:07 J	1913295.67	1913295.88	1913296.09	0.0292	0.0012
Mercury	526-04-30 22:33 J	1913299.37	1913299.44	1913299.51	0.0292	0.0241
Venus	526-12-13 08:09 J	1913525.77	1913525.84	1913525.93	0.0294	0.0272
Mercury	539-06-06 04:47 J	1918083.55	1918083.70	1918083.86	0.0271	0.0142
Venus	539-07-13 19:55 J	1918121.20	1918121.33	1918121.49	0.0271	0.0193
Mercury	539-09-03 00:43 J	1918172.35	1918172.53	1918172.72	0.0270	0.0008
Mercury	539-11-30 20:52 J	1918261.22	1918261.37	1918261.52	0.0270	0.0149
Venus	540-02-27 23:45 J	1918350.28	1918350.49	1918350.70	0.0269	0.0010
Venus	540-10-14 01:55 J	1918579.45	1918579.58	1918579.72	0.0268	0.0206
Earth	547-06-26 18:28 J	1921026.27	1921026.27	1921026.28	0.0265	0.0265
Mars	551-08-21 03:35 J	1922542.44	1922542.65	1922542.88	0.0276	0.0164
Mercury	554-12-26 09:21 J	1923765.80	1923765.89	1923765.99	0.0289	0.0210
Venus	555-03-22 12:14 J	1923851.88	1923852.01	1923852.15	0.0290	0.0219
Mercury	555-03-24 22:04 J	1923854.29	1923854.42	1923854.55	0.0290	0.0077
Mercury	555-06-21 10:47 J	1923942.82	1923942.95	1923943.08	0.0291	0.0057
Mercury	555-09-17 23:02 J	1924031.37	1924031.46	1924031.57	0.0291	0.0190
Venus	555-11-07 09:50 J	1924081.71	1924081.91	1924082.13	0.0292	0.0036
Earth	561-12-29 13:26 J	1926325.82	1926326.06	1926326.30	0.0295	0.0023
Moon	561-12-29 17:02 J	1926325.97	1926326.21	1926326.45	0.0295	0.0029 *
Mercury	568-10-23 01:55 J	1928815.47	1928815.58	1928815.70	0.0271	0.0202

Mercury	569-01-19 21:50 J	1928904.23	1928904.41	1928904.59	0.0271	0.0058
Venus	569-01-22 18:57 J	1928907.14	1928907.29	1928907.46	0.0271	0.0177
Mercury	569-04-18 17:45 J	1928993.07	1928993.24	1928993.42	0.0270	0.0088
Mercury	569-07-16 14:09 J	1929082.00	1929082.09	1929082.18	0.0269	0.0235
Venus	569-09-08 22:33 J	1929136.23	1929136.44	1929136.65	0.0269	0.0025
Venus	570-04-26 00:57 J	1929365.42	1929365.54	1929365.66	0.0267	0.0222
Earth	577-07-02 18:00 J	1931990.01	1931990.25	1931990.50	0.0267	0.0043
Moon	577-07-02 18:57 J	1931990.04	1931990.29	1931990.55	0.0267	0.0038 *
Mercury	584-05-14 10:47 J	1934497.89	1934497.95	1934498.02	0.0289	0.0253
Mercury	584-08-10 23:45 J	1934586.37	1934586.49	1934586.61	0.0290	0.0119
Venus	584-10-01 16:47 J	1934638.04	1934638.20	1934638.36	0.0290	0.0189
Mercury	584-11-07 12:14 J	1934674.88	1934675.01	1934675.15	0.0291	0.0017
Mercury	585-02-04 00:43 J	1934763.42	1934763.53	1934763.65	0.0291	0.0147
Mercury	585-05-03 13:12 J	1934852.02	1934852.05	1934852.09	0.0292	0.0279
Venus	585-05-19 14:38 J	1934867.90	1934868.11	1934868.32	0.0292	0.0067
Mercury	598-03-12 01:55 J	1939547.51	1939547.58	1939547.67	0.0272	0.0240
Mercury	598-06-08 21:50 J	1939636.24	1939636.41	1939636.58	0.0271	0.0095
Venus	598-08-05 00:00 J	1939693.32	1939693.50	1939693.68	0.0271	0.0146
Mercury	598-09-05 17:45 J	1939725.06	1939725.24	1939725.42	0.0270	0.0051
Mercury	598-12-03 13:55 J	1939813.96	1939814.08	1939814.21	0.0270	0.0197
Venus	599-03-22 03:07 J	1939922.43	1939922.63	1939922.84	0.0269	0.0056
Venus	599-11-06 05:31 J	1940151.66	1940151.73	1940151.80	0.0268	0.0252
Moon	606-06-27 16:04 J	1942577.05	1942577.17	1942577.31	0.0265	0.0221
Earth	606-06-27 17:16 J	1942577.09	1942577.22	1942577.39	0.0265	0.0212 *
Mercury	613-12-29 00:28 J	1945318.41	1945318.52	1945318.63	0.0289	0.0169
Mercury	614-03-27 13:12 J	1945406.92	1945407.05	1945407.18	0.0290	0.0036
Venus	614-04-13 18:28 J	1945424.09	1945424.27	1945424.44	0.0290	0.0164
Mercury	614-06-24 01:40 J	1945495.45	1945495.57	1945495.70	0.0290	0.0096
Mercury	614-09-20 13:55 J	1945584.01	1945584.08	1945584.17	0.0291	0.0229
Venus	614-11-29 16:04 J	1945653.97	1945654.17	1945654.37	0.0292	0.0091

Earth	620-12-30 09:21 J	1947876.65	1947876.89	1947877.13	0.0295	0.0032
Moon	620-12-30 09:50 J	1947876.66	1947876.91	1947877.16	0.0295	0.0020 *
Mercury	627-10-26 18:28 J	1950368.13	1950368.27	1950368.42	0.0271	0.0158
Mercury	628-01-23 14:38 J	1950456.93	1950457.11	1950457.29	0.0271	0.0013
Venus	628-02-14 22:19 J	1950479.25	1950479.43	1950479.62	0.0270	0.0131
Mercury	628-04-21 10:47 J	1950545.79	1950545.95	1950546.10	0.0270	0.0134
Venus	628-10-01 01:40 J	1950708.37	1950708.57	1950708.78	0.0269	0.0071
Venus	629-05-18 03:50 J	1950937.66	1950937.66	1950937.69	0.0267	0.0267
Moon	636-07-03 12:57 J	1953540.81	1953541.04	1953541.28	0.0267	0.0094
Earth	636-07-03 16:19 J	1953540.95	1953541.18	1953541.41	0.0267	0.0095 *
Mars	640-01-14 04:47 J	1954830.47	1954830.70	1954830.94	0.0277	0.0138
Mercury	643-05-18 01:40 J	1956050.48	1956050.57	1956050.66	0.0289	0.0214
Mercury	643-08-14 14:24 J	1956138.97	1956139.10	1956139.23	0.0290	0.0081
Venus	643-10-24 21:50 J	1956210.23	1956210.41	1956210.60	0.0290	0.0135
Mercury	643-11-11 03:07 J	1956227.50	1956227.63	1956227.76	0.0290	0.0052
Mercury	644-02-07 15:21 J	1956316.04	1956316.14	1956316.25	0.0291	0.0184
Venus	644-06-10 19:55 J	1956440.14	1956440.33	1956440.52	0.0292	0.0121
Mercury	657-03-14 18:43 J	1961100.16	1961100.28	1961100.40	0.0272	0.0195
Mercury	657-06-11 14:38 J	1961188.93	1961189.11	1961189.28	0.0271	0.0050
Venus	657-08-27 03:07 J	1961265.44	1961265.63	1961265.83	0.0271	0.0101
Mercury	657-09-08 10:33 J	1961277.78	1961277.94	1961278.11	0.0271	0.0097
Mercury	657-12-06 06:43 J	1961366.72	1961366.78	1961366.87	0.0270	0.0244
Venus	658-04-13 06:28 J	1961494.58	1961494.77	1961494.97	0.0269	0.0101
Earth	665-06-28 16:04 J	1964127.99	1964128.17	1964128.39	0.0265	0.0158
Moon	665-06-28 19:12 J	1964128.12	1964128.30	1964128.50	0.0265	0.0165 *
Mercury	672-10-04 02:52 J	1966782.57	1966782.62	1966782.68	0.0288	0.0260
Mercury	672-12-31 15:35 J	1966871.03	1966871.15	1966871.27	0.0289	0.0127
Mercury	673-03-30 04:19 J	1966959.54	1966959.68	1966959.81	0.0289	0.0009
Venus	673-05-06 00:43 J	1966996.34	1966996.53	1966996.73	0.0290	0.0109
Mercury	673-06-26 16:47 J	1967048.08	1967048.20	1967048.31	0.0290	0.0137

Mercury	673-09-23 05:02 J	1967136.66	1967136.71	1967136.76	0.0291	0.0267
Venus	673-12-21 22:33 J	1967226.26	1967226.44	1967226.62	0.0292	0.0147
Moon	680-01-01 02:24 J	1969427.36	1969427.60	1969427.83	0.0294	0.0071
Earth	680-01-01 06:00 J	1969427.52	1969427.75	1969427.98	0.0294	0.0087 *
Mercury	686-08-01 15:21 J	1971832.09	1971832.14	1971832.20	0.0272	0.0257
Mercury	686-10-29 11:16 J	1971920.81	1971920.97	1971921.13	0.0271	0.0113
Mercury	687-01-26 07:12 J	1972009.63	1972009.80	1972009.98	0.0271	0.0034
Venus	687-03-09 01:26 J	1972051.36	1972051.56	1972051.76	0.0270	0.0085
Mercury	687-04-25 03:21 J	1972098.51	1972098.64	1972098.78	0.0270	0.0181
Venus	687-10-24 04:47 J	1972280.51	1972280.70	1972280.90	0.0269	0.0116
Moon	695-07-05 12:43 J	1975091.84	1975092.03	1975092.24	0.0267	0.0150
Earth	695-07-05 15:21 J	1975091.94	1975092.14	1975092.35	0.0267	0.0149 *
Mercury	702-05-20 16:47 J	1977603.10	1977603.20	1977603.32	0.0289	0.0172
Mercury	702-08-17 05:31 J	1977691.60	1977691.73	1977691.87	0.0290	0.0040
Mercury	702-11-13 18:00 J	1977780.13	1977780.25	1977780.38	0.0290	0.0093
Venus	702-11-16 04:19 J	1977782.49	1977782.68	1977782.89	0.0290	0.0080
Mercury	703-02-10 06:28 J	1977868.69	1977868.77	1977868.86	0.0291	0.0224
Venus	703-07-04 02:38 J	1978012.44	1978012.61	1978012.78	0.0292	0.0178
Earth	708-12-25 07:40 J	1980013.70	1980013.82	1980013.94	0.0295	0.0254
Moon	708-12-25 11:16 J	1980013.88	1980013.97	1980014.07	0.0295	0.0269 *
Venus	716-02-02 01:26 J	1982608.52	1982608.56	1982608.63	0.0272	0.0262
Mercury	716-03-17 11:16 J	1982652.82	1982652.97	1982653.12	0.0272	0.0151
Mercury	716-06-14 07:12 J	1982741.62	1982741.80	1982741.98	0.0271	0.0008
Mercury	716-09-11 03:21 J	1982830.49	1982830.64	1982830.80	0.0271	0.0142
Venus	716-09-18 06:28 J	1982837.56	1982837.77	1982837.98	0.0271	0.0056
Venus	717-05-05 09:35 J	1983066.73	1983066.90	1983067.09	0.0269	0.0146
Earth	724-06-29 16:19 J	1985678.95	1985679.18	1985679.41	0.0266	0.0101
Moon	724-06-29 19:12 J	1985679.07	1985679.30	1985679.54	0.0266	0.0106 *
Mars	728-06-08 14:38 J	1987118.86	1987119.11	1987119.37	0.0276	0.0101
Mercury	731-10-07 18:28 J	1988335.18	1988335.27	1988335.36	0.0288	0.0215

Mercury	732-01-04 06:57 J	1988423.67	1988423.79	1988423.92	0.0289	0.0084
Mercury	732-04-01 19:40 J	1988512.19	1988512.32	1988512.45	0.0289	0.0049
Venus	732-05-28 08:24 J	1988568.64	1988568.85	1988569.06	0.0290	0.0051
Mercury	732-06-29 07:55 J	1988600.73	1988600.83	1988600.94	0.0290	0.0180
Venus	733-01-13 06:00 J	1988798.61	1988798.75	1988798.91	0.0292	0.0205
Moon	739-01-02 02:24 J	1990978.39	1990978.60	1990978.81	0.0294	0.0129
Earth	739-01-02 03:50 J	1990978.45	1990978.66	1990978.87	0.0294	0.0146 *
Mercury	745-08-04 08:09 J	1993384.74	1993384.84	1993384.96	0.0272	0.0212
Venus	745-08-14 00:28 J	1993394.44	1993394.52	1993394.62	0.0272	0.0244
Mercury	745-11-01 04:19 J	1993473.50	1993473.68	1993473.85	0.0272	0.0066
Mercury	746-01-29 00:14 J	1993562.34	1993562.51	1993562.69	0.0271	0.0081
Venus	746-03-31 05:16 J	1993623.51	1993623.72	1993623.93	0.0270	0.0039
Mercury	746-04-27 20:38 J	1993651.27	1993651.36	1993651.46	0.0270	0.0228
Venus	746-11-15 08:38 J	1993852.69	1993852.86	1993853.03	0.0269	0.0162
Earth	754-07-06 15:50 J	1996643.01	1996643.16	1996643.32	0.0267	0.0206
Moon	754-07-06 17:45 J	1996643.09	1996643.24	1996643.39	0.0267	0.0211 *
Mercury	761-02-23 19:40 J	1999067.27	1999067.32	1999067.38	0.0288	0.0258
Venus	761-04-22 15:35 J	1999125.09	1999125.15	1999125.23	0.0289	0.0271
Mercury	761-05-23 08:24 J	1999155.73	1999155.85	1999155.98	0.0289	0.0127
Mercury	761-08-19 21:07 J	1999244.24	1999244.38	1999244.51	0.0290	0.0006
Mercury	761-11-16 09:35 J	1999332.78	1999332.90	1999333.02	0.0290	0.0137
Venus	761-12-08 12:28 J	1999354.81	1999355.02	1999355.23	0.0291	0.0021
Mercury	762-02-12 21:50 J	1999421.36	1999421.41	1999421.46	0.0291	0.0268
Venus	762-07-26 10:33 J	1999584.82	1999584.94	1999585.06	0.0292	0.0237
Earth	767-12-27 06:28 J	2001564.60	2001564.77	2001564.96	0.0295	0.0194
Moon	767-12-27 07:40 J	2001564.65	2001564.82	2001565.00	0.0295	0.0208 *
Mercury	774-12-22 08:24 J	2004116.79	2004116.85	2004116.93	0.0273	0.0249
Venus	775-02-24 05:45 J	2004180.61	2004180.74	2004180.87	0.0272	0.0215
Mercury	775-03-21 04:19 J	2004205.52	2004205.68	2004205.85	0.0272	0.0104
Mercury	775-06-18 00:28 J	2004294.34	2004294.52	2004294.70	0.0271	0.0043

Mercury	775-09-14 20:38 J	2004383.24	2004383.36	2004383.49	0.0271	0.0190
Venus	775-10-11 10:19 J	2004409.72	2004409.93	2004410.15	0.0271	0.0010
Venus	776-05-27 13:40 J	2004638.93	2004639.07	2004639.23	0.0269	0.0192
Moon	783-07-01 16:04 J	2007229.91	2007230.17	2007230.42	0.0266	0.0041
Earth	783-07-01 18:00 J	2007230.01	2007230.25	2007230.50	0.0266	0.0042 *
Mercury	790-10-10 10:33 J	2009887.83	2009887.94	2009888.05	0.0288	0.0164
Venus	790-11-02 21:50 J	2009911.30	2009911.41	2009911.53	0.0288	0.0239
Mercury	791-01-06 23:02 J	2009976.33	2009976.46	2009976.60	0.0289	0.0034
Mercury	791-04-05 11:31 J	2010064.86	2010064.98	2010065.11	0.0289	0.0098
Venus	791-06-20 18:28 J	2010141.05	2010141.27	2010141.48	0.0290	0.0012
Mercury	791-07-02 23:45 J	2010153.42	2010153.49	2010153.58	0.0290	0.0229
Venus	792-02-05 16:04 J	2010371.09	2010371.17	2010371.26	0.0292	0.0267
Earth	798-01-03 05:16 J	2012529.55	2012529.72	2012529.88	0.0294	0.0211
Moon	798-01-03 07:55 J	2012529.66	2012529.83	2012530.01	0.0294	0.0196 *
Mars	800-11-10 15:07 J	2013572.08	2013572.13	2013572.21	0.0285	0.0278
Mercury	804-08-07 01:40 J	2014937.43	2014937.57	2014937.72	0.0272	0.0161
Venus	804-09-05 05:31 J	2014966.59	2014966.73	2014966.88	0.0272	0.0196
Mercury	804-11-03 21:50 J	2015026.23	2015026.41	2015026.59	0.0272	0.0015
Mercury	805-01-31 18:00 J	2015115.09	2015115.25	2015115.41	0.0271	0.0132
Venus	805-04-22 10:04 J	2015195.71	2015195.92	2015196.13	0.0270	0.0009
Venus	805-12-07 13:26 J	2015424.93	2015425.06	2015425.19	0.0269	0.0209
Mars	816-11-01 23:16 J	2019407.21	2019407.47	2019407.74	0.0276	0.0062
Mercury	820-02-27 11:45 J	2020619.90	2020619.99	2020620.09	0.0288	0.0207
Venus	820-05-15 01:40 J	2020697.43	2020697.57	2020697.72	0.0289	0.0209
Mercury	820-05-26 00:28 J	2020708.39	2020708.52	2020708.65	0.0289	0.0076
Mercury	820-08-22 12:57 J	2020796.91	2020797.04	2020797.18	0.0290	0.0057
Mercury	820-11-19 01:26 J	2020885.46	2020885.56	2020885.66	0.0290	0.0187
Venus	820-12-30 22:19 J	2020927.23	2020927.43	2020927.64	0.0291	0.0043
Moon	826-12-28 05:31 J	2023115.52	2023115.73	2023115.95	0.0295	0.0142
Earth	826-12-28 08:38 J	2023115.64	2023115.86	2023116.08	0.0295	0.0126 *

Mercury	833-12-25 02:09 J	2025669.47	2025669.59	2025669.71	0.0273	0.0198
Venus	834-03-18 11:02 J	2025752.80	2025752.96	2025753.13	0.0272	0.0166
Mercury	834-03-23 22:04 J	2025758.25	2025758.42	2025758.60	0.0272	0.0052
Mercury	834-06-20 18:14 J	2025847.09	2025847.26	2025847.43	0.0271	0.0095
Mercury	834-09-17 14:38 J	2025936.03	2025936.11	2025936.19	0.0271	0.0243
Venus	834-11-02 15:35 J	2025981.94	2025982.15	2025982.36	0.0270	0.0040
Venus	835-06-19 18:57 J	2026211.20	2026211.29	2026211.39	0.0269	0.0240
Moon	842-07-02 18:14 J	2028781.02	2028781.26	2028781.51	0.0266	0.0027
Earth	842-07-02 21:50 J	2028781.17	2028781.41	2028781.66	0.0266	0.0022 *
Mercury	849-07-16 14:24 J	2031352.03	2031352.10	2031352.18	0.0287	0.0240
Mercury	849-10-13 03:07 J	2031440.50	2031440.63	2031440.76	0.0288	0.0109
Venus	849-11-25 09:35 J	2031483.73	2031483.90	2031484.07	0.0288	0.0174
Mercury	850-01-09 15:35 J	2031529.02	2031529.15	2031529.29	0.0289	0.0022
Mercury	850-04-08 04:04 J	2031617.56	2031617.67	2031617.78	0.0289	0.0152
Mercury	850-07-05 16:19 J	2031706.15	2031706.18	2031706.21	0.0290	0.0281
Venus	850-07-13 06:14 J	2031713.55	2031713.76	2031713.96	0.0290	0.0077
Earth	857-01-04 09:50 J	2034080.87	2034080.91	2034080.98	0.0294	0.0286
Moon	857-01-04 12:57 J	2034080.95	2034081.04	2034081.14	0.0294	0.0270 *
Mercury	863-05-14 00:14 J	2036401.45	2036401.51	2036401.58	0.0273	0.0250
Mercury	863-08-10 20:09 J	2036490.17	2036490.34	2036490.50	0.0272	0.0105
Venus	863-09-28 12:00 J	2036538.83	2036539.00	2036539.18	0.0272	0.0145
Mercury	863-11-07 16:04 J	2036579.00	2036579.17	2036579.35	0.0271	0.0042
Mercury	864-02-04 12:14 J	2036667.89	2036668.01	2036668.15	0.0271	0.0189
Venus	864-05-14 16:19 J	2036767.98	2036768.18	2036768.39	0.0270	0.0060
Venus	864-12-29 19:40 J	2036997.27	2036997.32	2036997.38	0.0269	0.0259
Earth	871-06-27 17:02 J	2039368.11	2039368.21	2039368.32	0.0266	0.0238
Moon	871-06-27 20:38 J	2039368.25	2039368.36	2039368.47	0.0266	0.0237 *
Mercury	878-12-03 16:04 J	2042084.14	2042084.17	2042084.20	0.0287	0.0280
Mercury	879-03-02 04:47 J	2042172.58	2042172.70	2042172.82	0.0288	0.0149
Mercury	879-05-29 17:16 J	2042261.09	2042261.22	2042261.36	0.0289	0.0020

Venus	879-06-07 14:24 J	2042269.92	2042270.10	2042270.28	0.0289	0.0142
Mercury	879-08-26 05:45 J	2042349.62	2042349.74	2042349.87	0.0290	0.0113
Mercury	879-11-22 18:14 J	2042438.19	2042438.26	2042438.33	0.0291	0.0243
Venus	880-01-23 11:02 J	2042499.77	2042499.96	2042500.16	0.0291	0.0111
Moon	885-12-29 12:00 J	2044666.78	2044667.00	2044667.24	0.0294	0.0064
Earth	885-12-29 14:52 J	2044666.89	2044667.12	2044667.36	0.0294	0.0048 *
Mars	889-04-06 07:12 J	2045860.60	2045860.80	2045861.03	0.0285	0.0213
Mercury	892-12-27 20:38 J	2047222.21	2047222.36	2047222.51	0.0273	0.0141
Mercury	893-03-26 16:33 J	2047311.01	2047311.19	2047311.38	0.0272	0.0009
Venus	893-04-09 18:14 J	2047325.07	2047325.26	2047325.45	0.0272	0.0114
Mercury	893-06-23 12:43 J	2047399.89	2047400.03	2047400.19	0.0271	0.0154
Venus	893-11-24 22:19 J	2047554.24	2047554.43	2047554.64	0.0270	0.0091
Earth	901-07-04 03:50 J	2050332.43	2050332.66	2050332.90	0.0267	0.0091
Moon	901-07-04 04:04 J	2050332.46	2050332.67	2050332.90	0.0267	0.0099 *
Mars	905-03-29 07:55 J	2051696.56	2051696.83	2051697.10	0.0276	0.0015
Mercury	908-07-19 07:40 J	2052904.72	2052904.82	2052904.93	0.0287	0.0178
Mercury	908-10-15 20:24 J	2052993.22	2052993.35	2052993.48	0.0288	0.0047
Venus	908-12-17 23:45 J	2053056.29	2053056.49	2053056.68	0.0289	0.0105
Mercury	909-01-12 08:52 J	2053081.74	2053081.87	2053082.00	0.0289	0.0083
Mercury	909-04-10 21:07 J	2053170.29	2053170.38	2053170.47	0.0290	0.0212
Venus	909-08-04 20:38 J	2053286.18	2053286.36	2053286.54	0.0291	0.0148
Mercury	922-05-16 19:26 J	2057954.18	2057954.31	2057954.44	0.0273	0.0188
Mercury	922-08-13 15:21 J	2058042.96	2058043.14	2058043.32	0.0272	0.0043
Venus	922-10-20 20:24 J	2058111.15	2058111.35	2058111.55	0.0272	0.0090
Mercury	922-11-10 11:16 J	2058131.81	2058131.97	2058132.15	0.0271	0.0105
Mercury	923-02-07 07:40 J	2058220.76	2058220.82	2058220.89	0.0271	0.0252
Venus	923-06-07 00:28 J	2058340.34	2058340.52	2058340.72	0.0270	0.0114
Moon	930-06-28 23:45 J	2060919.30	2060919.49	2060919.70	0.0266	0.0165
Earth	930-06-28 23:45 J	2060919.31	2060919.49	2060919.70	0.0266	0.0168 *
Mercury	937-12-06 09:21 J	2063636.81	2063636.89	2063636.98	0.0288	0.0218

Mercury	938-03-04 22:04 J	2063725.29	2063725.42	2063725.55	0.0289	0.0087
Mercury	938-06-01 10:33 J	2063813.81	2063813.94	2063814.08	0.0289	0.0045
Venus	938-06-30 04:47 J	2063842.50	2063842.70	2063842.91	0.0290	0.0072
Mercury	938-08-28 23:02 J	2063902.36	2063902.46	2063902.57	0.0290	0.0174
Venus	939-02-15 01:55 J	2064072.42	2064072.58	2064072.75	0.0291	0.0183
Earth	944-12-31 00:57 J	2066218.31	2066218.54	2066218.79	0.0294	0.0039
Moon	944-12-31 02:09 J	2066218.36	2066218.59	2066218.82	0.0294	0.0023 *
Venus	951-09-15 21:35 J	2068668.36	2068668.40	2068668.45	0.0273	0.0266
Mercury	951-10-03 20:09 J	2068686.24	2068686.34	2068686.44	0.0273	0.0222
Mercury	951-12-31 16:04 J	2068775.00	2068775.17	2068775.34	0.0272	0.0077
Mercury	952-03-29 12:14 J	2068863.83	2068864.01	2068864.18	0.0272	0.0070
Venus	952-05-02 03:07 J	2068897.42	2068897.63	2068897.84	0.0271	0.0059
Mercury	952-06-26 08:24 J	2068952.75	2068952.85	2068952.96	0.0271	0.0218
Venus	952-12-17 07:12 J	2069126.63	2069126.80	2069126.98	0.0270	0.0145
Earth	960-07-05 11:45 J	2071883.80	2071883.99	2071884.20	0.0267	0.0164
Moon	960-07-05 15:21 J	2071883.96	2071884.14	2071884.34	0.0267	0.0174 *
Mercury	967-04-25 12:43 J	2074368.97	2074369.03	2074369.11	0.0287	0.0242
Venus	967-05-25 19:55 J	2074399.29	2074399.33	2074399.39	0.0287	0.0278
Mercury	967-07-23 01:26 J	2074457.44	2074457.56	2074457.69	0.0288	0.0112
Mercury	967-10-19 14:09 J	2074545.95	2074546.09	2074546.22	0.0288	0.0020
Venus	968-01-10 15:50 J	2074628.95	2074629.16	2074629.37	0.0289	0.0031
Mercury	968-01-16 02:24 J	2074634.49	2074634.60	2074634.72	0.0289	0.0149
Mercury	968-04-13 14:38 J	2074723.08	2074723.11	2074723.15	0.0290	0.0278
Venus	968-08-27 12:57 J	2074858.91	2074859.04	2074859.18	0.0291	0.0223
Earth	973-12-25 08:38 J	2076804.82	2076804.86	2076804.93	0.0295	0.0287
Mars	977-08-31 11:45 J	2078149.71	2078149.99	2078150.28	0.0285	0.0124
Mercury	981-02-19 19:55 J	2079418.29	2079418.33	2079418.37	0.0273	0.0263
Venus	981-03-28 01:40 J	2079454.48	2079454.57	2079454.68	0.0273	0.0238
Mercury	981-05-19 15:35 J	2079506.99	2079507.15	2079507.31	0.0272	0.0119
Mercury	981-08-16 11:31 J	2079595.80	2079595.98	2079596.16	0.0272	0.0028

Venus	981-11-12 06:43 J	2079683.57	2079683.78	2079683.99	0.0271	0.0032
Mercury	981-11-13 07:40 J	2079684.69	2079684.82	2079684.97	0.0271	0.0174
Venus	982-06-29 10:33 J	2079912.78	2079912.94	2079913.11	0.0269	0.0171
Moon	989-06-30 05:31 J	2082470.50	2082470.73	2082470.97	0.0266	0.0088
Earth	989-06-30 08:52 J	2082470.65	2082470.87	2082471.11	0.0266	0.0093 *
Mars	993-08-23 09:07 J	2083985.63	2083985.88	2083986.14	0.0277	0.0084
Mercury	996-09-11 14:24 J	2085101.09	2085101.10	2085101.14	0.0287	0.0282
Venus	996-12-05 00:57 J	2085185.44	2085185.54	2085185.66	0.0288	0.0246
Mercury	996-12-09 03:21 J	2085189.53	2085189.64	2085189.76	0.0288	0.0150
Mercury	997-03-07 16:04 J	2085278.03	2085278.17	2085278.30	0.0289	0.0021
Mercury	997-06-04 04:19 J	2085366.56	2085366.68	2085366.81	0.0290	0.0112
Venus	997-07-22 21:21 J	2085415.18	2085415.39	2085415.60	0.0290	0.0005
Mercury	997-08-31 16:47 J	2085455.13	2085455.20	2085455.27	0.0290	0.0241
Venus	998-03-09 18:43 J	2085645.19	2085645.28	2085645.38	0.0292	0.0259

2ND MILLENNIUM CE

This is a list of transits visible from Saturn in the 2nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	1004-01-02 14:38 J		2087769.90	2087770.11	2087770.33	0.0294	0.0134	
Moon	1004-01-02 18:28 J		2087770.06	2087770.27	2087770.50	0.0294	0.0118 *	
Mercury	1010-10-06 16:33 J		2090239.04	2090239.19	2090239.33	0.0273	0.0153	
Venus	1010-10-08 08:24 J		2090240.72	2090240.85	2090240.99	0.0273	0.0207	
Mercury	1011-01-03 12:28 J		2090327.84	2090328.02	2090328.20	0.0272	0.0008	

Mercury	1011-04-02 08:24 J	2090416.70	2090416.85	2090417.01	0.0271	0.0141
Venus	1011-05-25 13:26 J	2090469.85	2090470.06	2090470.28	0.0271	0.0005
Venus	1012-01-09 17:16 J	2090699.09	2090699.22	2090699.37	0.0269	0.0202
Earth	1019-07-07 21:35 J	2093435.31	2093435.40	2093435.52	0.0268	0.0242
Moon	1019-07-08 00:00 J	2093435.42	2093435.50	2093435.59	0.0268	0.0250 *
Mercury	1026-04-28 06:57 J	2095921.69	2095921.79	2095921.90	0.0287	0.0172
Venus	1026-06-17 12:57 J	2095971.90	2095972.04	2095972.20	0.0288	0.0204
Mercury	1026-07-25 19:40 J	2096010.19	2096010.32	2096010.45	0.0288	0.0042
Mercury	1026-10-22 08:09 J	2096098.71	2096098.84	2096098.97	0.0289	0.0088
Mercury	1027-01-18 20:24 J	2096187.27	2096187.35	2096187.44	0.0290	0.0218
Venus	1027-02-02 09:21 J	2096201.68	2096201.89	2096202.10	0.0290	0.0046
Moon	1032-12-26 21:35 J	2098356.24	2098356.40	2098356.58	0.0294	0.0201
Earth	1032-12-27 01:26 J	2098356.38	2098356.56	2098356.75	0.0294	0.0184 *
Mercury	1040-02-23 16:48 J	2100971.07	2100971.20	2100971.33	0.0273	0.0189
Venus	1040-04-19 13:55 J	2101026.92	2101027.08	2101027.25	0.0272	0.0176
Mercury	1040-05-22 12:28 J	2101059.85	2101060.02	2101060.20	0.0272	0.0045
Mercury	1040-08-19 08:38 J	2101148.69	2101148.86	2101149.03	0.0271	0.0102
Mercury	1040-11-16 05:02 J	2101237.64	2101237.71	2101237.78	0.0271	0.0249
Venus	1040-12-04 18:43 J	2101256.07	2101256.28	2101256.49	0.0271	0.0030
Venus	1041-07-21 22:04 J	2101485.32	2101485.42	2101485.53	0.0269	0.0230
Moon	1048-07-01 17:02 J	2104021.96	2104022.21	2104022.45	0.0266	0.0011
Earth	1048-07-01 19:26 J	2104022.06	2104022.31	2104022.56	0.0266	0.0015 *
Mercury	1055-09-15 08:38 J	2106653.78	2106653.86	2106653.96	0.0288	0.0212
Mercury	1055-12-12 21:21 J	2106742.26	2106742.39	2106742.53	0.0289	0.0081
Venus	1055-12-28 18:14 J	2106758.09	2106758.26	2106758.43	0.0289	0.0171
Mercury	1056-03-10 10:04 J	2106830.79	2106830.92	2106831.05	0.0289	0.0050
Mercury	1056-06-06 22:19 J	2106919.33	2106919.43	2106919.54	0.0290	0.0181
Venus	1056-08-14 14:38 J	2106987.91	2106988.11	2106988.32	0.0291	0.0081
Earth	1063-01-04 07:26 J	2109321.67	2109321.81	2109321.95	0.0293	0.0235
Moon	1063-01-04 08:24 J	2109321.70	2109321.85	2109322.02	0.0293	0.0220 *

Mars	1066-01-26 09:07 J	2110439.56	2110439.88	2110440.20	0.0284	0.0011
Mercury	1069-07-12 17:31 J	2111703.13	2111703.23	2111703.34	0.0273	0.0223
Mercury	1069-10-09 13:26 J	2111791.89	2111792.06	2111792.23	0.0272	0.0078
Venus	1069-10-30 20:24 J	2111813.18	2111813.35	2111813.54	0.0272	0.0145
Mercury	1070-01-06 09:21 J	2111880.72	2111880.89	2111881.07	0.0271	0.0068
Mercury	1070-04-05 05:45 J	2111969.63	2111969.74	2111969.85	0.0271	0.0215
Venus	1070-06-17 01:11 J	2112042.35	2112042.55	2112042.76	0.0270	0.0061
Venus	1071-02-01 04:48 J	2112271.66	2112271.70	2112271.76	0.0269	0.0261
Earth	1077-06-27 01:11 J	2114609.49	2114609.55	2114609.64	0.0266	0.0252
Moon	1077-06-27 04:19 J	2114609.60	2114609.68	2114609.76	0.0266	0.0252 *
Mars	1082-01-18 06:14 J	2116275.58	2116275.76	2116275.97	0.0277	0.0188
Mercury	1085-02-01 12:28 J	2117385.95	2117386.02	2117386.10	0.0287	0.0232
Mercury	1085-05-01 01:11 J	2117474.43	2117474.55	2117474.68	0.0288	0.0101
Venus	1085-07-10 06:43 J	2117544.59	2117544.78	2117544.97	0.0289	0.0127
Mercury	1085-07-28 13:55 J	2117562.94	2117563.08	2117563.21	0.0289	0.0030
Mercury	1085-10-25 02:09 J	2117651.48	2117651.59	2117651.71	0.0289	0.0159
Mercury	1086-01-21 14:38 J	2117740.10	2117740.11	2117740.12	0.0290	0.0287
Venus	1086-02-25 03:21 J	2117774.45	2117774.64	2117774.83	0.0290	0.0125
Moon	1091-12-29 19:11 J	2119908.08	2119908.30	2119908.52	0.0294	0.0093
Earth	1091-12-29 19:55 J	2119908.10	2119908.33	2119908.56	0.0294	0.0077 *
Mercury	1098-11-29 18:14 J	2122435.21	2122435.26	2122435.33	0.0273	0.0255
Mercury	1099-02-26 14:09 J	2122523.93	2122524.09	2122524.25	0.0272	0.0111
Venus	1099-05-13 03:07 J	2122599.44	2122599.63	2122599.82	0.0272	0.0111
Mercury	1099-05-26 10:04 J	2122612.74	2122612.92	2122613.10	0.0272	0.0035
Mercury	1099-08-23 06:14 J	2122701.63	2122701.76	2122701.90	0.0271	0.0181
Venus	1099-12-28 07:11 J	2122828.61	2122828.80	2122829.01	0.0270	0.0093
Earth	1107-07-04 06:14 J	2125573.53	2125573.76	2125574.01	0.0267	0.0066
Moon	1107-07-04 08:09 J	2125573.62	2125573.84	2125574.08	0.0267	0.0074 *
Mercury	1114-06-21 14:09 J	2128118.05	2128118.09	2128118.13	0.0287	0.0272
Mercury	1114-09-18 02:52 J	2128206.50	2128206.62	2128206.74	0.0288	0.0141

Mercury	1114-12-15 15:35 J	2128295.01	2128295.15	2128295.28	0.0289	0.0012
Venus	1115-01-20 11:16 J	2128330.78	2128330.97	2128331.18	0.0289	0.0095
Mercury	1115-03-14 04:04 J	2128383.55	2128383.67	2128383.79	0.0290	0.0120
Mercury	1115-06-10 16:19 J	2128472.12	2128472.18	2128472.25	0.0290	0.0249
Venus	1115-09-07 08:09 J	2128560.67	2128560.84	2128561.02	0.0291	0.0159
Mercury	1128-07-15 14:38 J	2133255.97	2133256.11	2133256.27	0.0272	0.0147
Mercury	1128-10-12 10:48 J	2133344.77	2133344.95	2133345.13	0.0272	0.0005
Venus	1128-11-22 09:07 J	2133385.68	2133385.88	2133386.09	0.0271	0.0082
Mercury	1129-01-09 06:43 J	2133433.63	2133433.78	2133433.94	0.0271	0.0145
Venus	1129-07-09 13:26 J	2133614.87	2133615.06	2133615.25	0.0270	0.0122
Moon	1136-06-28 09:21 J	2136160.70	2136160.89	2136161.10	0.0266	0.0170
Earth	1136-06-28 11:31 J	2136160.80	2136160.98	2136161.18	0.0266	0.0174 *
Mercury	1144-02-05 06:28 J	2138938.66	2138938.77	2138938.88	0.0288	0.0164
Mercury	1144-05-03 19:11 J	2139027.17	2139027.30	2139027.44	0.0289	0.0033
Mercury	1144-07-31 07:40 J	2139115.70	2139115.82	2139115.95	0.0289	0.0097
Venus	1144-08-01 23:31 J	2139117.27	2139117.48	2139117.69	0.0289	0.0051
Mercury	1144-10-27 20:09 J	2139204.26	2139204.34	2139204.42	0.0290	0.0227
Venus	1145-03-19 20:38 J	2139347.21	2139347.36	2139347.51	0.0291	0.0203
Earth	1150-12-31 13:55 J	2141459.84	2141460.08	2141460.32	0.0294	0.0029
Moon	1150-12-31 16:33 J	2141459.96	2141460.19	2141460.43	0.0294	0.0016 *
Mars	1154-06-23 19:11 J	2142730.03	2142730.30	2142730.60	0.0284	0.0132
Venus	1157-10-18 11:45 J	2143942.91	2143942.99	2143943.06	0.0273	0.0252
Mercury	1157-12-02 16:04 J	2143988.04	2143988.17	2143988.31	0.0273	0.0175
Mercury	1158-03-01 12:00 J	2144076.82	2144077.00	2144077.18	0.0272	0.0031
Mercury	1158-05-29 07:55 J	2144165.67	2144165.83	2144166.00	0.0271	0.0115
Venus	1158-06-04 16:33 J	2144171.98	2144172.19	2144172.40	0.0271	0.0046
Mercury	1158-08-26 04:04 J	2144254.63	2144254.67	2144254.72	0.0271	0.0262
Venus	1159-01-19 20:24 J	2144401.19	2144401.35	2144401.53	0.0270	0.0156
Earth	1166-07-05 16:48 J	2147125.00	2147125.20	2147125.42	0.0267	0.0145
Moon	1166-07-05 20:38 J	2147125.17	2147125.36	2147125.58	0.0267	0.0155 *

Mars	1170-06-14 09:07 J	2148564.80	2148564.88	2148564.98	0.0277	0.0261
Mercury	1173-06-24 08:09 J	2149670.74	2149670.84	2149670.93	0.0288	0.0205
Venus	1173-06-27 07:40 J	2149673.75	2149673.82	2149673.90	0.0288	0.0268
Mercury	1173-09-20 20:38 J	2149759.23	2149759.36	2149759.50	0.0289	0.0075
Mercury	1173-12-18 09:21 J	2149847.76	2149847.89	2149848.02	0.0289	0.0056
Venus	1174-02-12 03:50 J	2149903.45	2149903.66	2149903.87	0.0290	0.0020
Mercury	1174-03-16 21:50 J	2149936.31	2149936.41	2149936.51	0.0290	0.0186
Venus	1174-09-30 00:57 J	2150133.42	2150133.54	2150133.67	0.0292	0.0236
Mercury	1187-04-21 16:04 J	2154720.07	2154720.17	2154720.29	0.0273	0.0214
Venus	1187-04-30 16:33 J	2154729.08	2154729.19	2154729.32	0.0273	0.0225
Mercury	1187-07-19 12:00 J	2154808.83	2154809.00	2154809.18	0.0272	0.0069
Mercury	1187-10-16 07:55 J	2154897.66	2154897.83	2154898.01	0.0271	0.0076
Venus	1187-12-15 21:50 J	2154958.20	2154958.41	2154958.62	0.0271	0.0018
Mercury	1188-01-13 04:04 J	2154986.57	2154986.67	2154986.78	0.0271	0.0222
Venus	1188-08-01 01:40 J	2155187.42	2155187.57	2155187.72	0.0269	0.0184
Moon	1195-06-30 17:31 J	2157712.00	2157712.23	2157712.47	0.0267	0.0090
Earth	1195-06-30 21:07 J	2157712.15	2157712.38	2157712.62	0.0267	0.0098 *
Mercury	1202-11-11 11:16 J	2160402.90	2160402.97	2160403.06	0.0288	0.0230
Venus	1203-01-07 18:43 J	2160460.15	2160460.28	2160460.41	0.0288	0.0226
Mercury	1203-02-08 00:14 J	2160491.38	2160491.51	2160491.64	0.0288	0.0098
Mercury	1203-05-07 12:43 J	2160579.90	2160580.03	2160580.17	0.0289	0.0034
Mercury	1203-08-04 01:11 J	2160668.44	2160668.55	2160668.67	0.0290	0.0162
Venus	1203-08-25 15:07 J	2160689.92	2160690.13	2160690.34	0.0290	0.0023
Venus	1204-04-11 12:28 J	2160919.97	2160920.02	2160920.09	0.0292	0.0279
Earth	1210-01-02 05:02 J	2163011.51	2163011.71	2163011.94	0.0294	0.0129
Moon	1210-01-02 08:24 J	2163011.63	2163011.85	2163012.08	0.0294	0.0113 *
Mercury	1216-09-07 17:31 J	2165452.16	2165452.23	2165452.32	0.0273	0.0241
Venus	1216-11-10 00:43 J	2165515.38	2165515.53	2165515.68	0.0272	0.0188
Mercury	1216-12-05 13:26 J	2165540.89	2165541.06	2165541.23	0.0272	0.0097
Mercury	1217-03-04 09:21 J	2165629.71	2165629.89	2165630.07	0.0272	0.0048

Mercury	1217-06-01 05:16 J	2165718.60	2165718.72	2165718.85	0.0271	0.0194
Venus	1217-06-27 05:16 J	2165744.51	2165744.72	2165744.93	0.0271	0.0018
Venus	1218-02-11 08:38 J	2165973.75	2165973.86	2165974.00	0.0269	0.0218
Earth	1225-07-07 02:38 J	2168676.47	2168676.61	2168676.75	0.0267	0.0221
Moon	1225-07-07 02:09 J	2168676.48	2168676.59	2168676.73	0.0267	0.0233 *
Mars	1228-09-22 00:57 J	2169849.41	2169849.54	2169849.70	0.0275	0.0232
Mercury	1232-03-30 12:43 J	2171134.99	2171135.03	2171135.06	0.0287	0.0274
Mercury	1232-06-27 01:26 J	2171223.44	2171223.56	2171223.68	0.0288	0.0143
Venus	1232-07-19 21:35 J	2171246.26	2171246.40	2171246.57	0.0288	0.0199
Mercury	1232-09-23 14:09 J	2171311.95	2171312.09	2171312.22	0.0289	0.0015
Mercury	1232-12-21 02:38 J	2171400.49	2171400.61	2171400.73	0.0290	0.0118
Venus	1233-03-06 18:14 J	2171476.05	2171476.26	2171476.47	0.0290	0.0053
Mercury	1233-03-19 14:52 J	2171489.06	2171489.12	2171489.19	0.0290	0.0247
Moon	1238-12-27 02:09 J	2173597.45	2173597.59	2173597.74	0.0295	0.0234
Earth	1238-12-27 05:02 J	2173597.56	2173597.71	2173597.88	0.0295	0.0217 *
Mars	1242-11-18 05:16 J	2175019.53	2175019.72	2175019.91	0.0284	0.0228
Mercury	1246-04-24 12:57 J	2176272.89	2176273.04	2176273.20	0.0272	0.0140
Venus	1246-05-23 04:48 J	2176301.53	2176301.70	2176301.87	0.0272	0.0161
Mercury	1246-07-22 08:52 J	2176361.69	2176361.87	2176362.05	0.0272	0.0007
Mercury	1246-10-19 04:48 J	2176450.56	2176450.70	2176450.86	0.0271	0.0151
Venus	1247-01-07 09:35 J	2176530.69	2176530.90	2176531.11	0.0270	0.0044
Venus	1247-08-24 12:43 J	2176759.96	2176760.03	2176760.13	0.0269	0.0244
Earth	1254-07-02 04:48 J	2179263.45	2179263.70	2179263.95	0.0266	0.0025
Moon	1254-07-02 04:48 J	2179263.46	2179263.70	2179263.94	0.0266	0.0016 *
Mercury	1261-11-14 04:19 J	2181955.58	2181955.68	2181955.80	0.0288	0.0170
Venus	1262-01-30 07:55 J	2182032.65	2182032.83	2182033.00	0.0289	0.0158
Mercury	1262-02-10 17:16 J	2182044.08	2182044.22	2182044.35	0.0289	0.0040
Mercury	1262-05-10 05:45 J	2182132.61	2182132.74	2182132.87	0.0289	0.0091
Mercury	1262-08-06 18:14 J	2182221.17	2182221.26	2182221.34	0.0290	0.0221
Venus	1262-09-17 04:33 J	2182262.49	2182262.69	2182262.89	0.0291	0.0094

Moon	1269-01-03 17:16 J	2184563.05	2184563.22	2184563.40	0.0294	0.0206
Earth	1269-01-03 17:45 J	2184563.08	2184563.24	2184563.40	0.0294	0.0220 *
Mercury	1275-09-11 14:24 J	2187004.97	2187005.10	2187005.24	0.0273	0.0167
Venus	1275-12-03 12:28 J	2187087.83	2187088.02	2187088.21	0.0272	0.0125
Mercury	1275-12-09 10:19 J	2187093.75	2187093.93	2187094.11	0.0272	0.0024
Mercury	1276-03-07 06:00 J	2187182.60	2187182.75	2187182.92	0.0271	0.0123
Mercury	1276-06-04 02:24 J	2187271.58	2187271.60	2187271.62	0.0271	0.0268
Venus	1276-07-19 16:33 J	2187317.00	2187317.19	2187317.40	0.0270	0.0080
Mercury	1291-04-03 05:31 J	2192687.64	2192687.73	2192687.82	0.0288	0.0215
Mercury	1291-06-30 18:14 J	2192776.13	2192776.26	2192776.39	0.0288	0.0085
Venus	1291-08-12 10:19 J	2192818.75	2192818.93	2192819.12	0.0289	0.0131
Mercury	1291-09-27 06:57 J	2192864.65	2192864.79	2192864.92	0.0289	0.0046
Mercury	1291-12-24 19:11 J	2192953.20	2192953.30	2192953.41	0.0290	0.0175
Venus	1292-03-29 06:57 J	2193048.60	2193048.79	2193048.99	0.0291	0.0122
Earth	1297-12-28 15:07 J	2195148.92	2195149.13	2195149.35	0.0295	0.0130
Moon	1297-12-28 16:19 J	2195148.98	2195149.18	2195149.38	0.0295	0.0145 *
Mercury	1305-01-28 13:11 J	2197736.95	2197737.05	2197737.17	0.0273	0.0215
Mercury	1305-04-27 09:07 J	2197825.71	2197825.88	2197826.05	0.0272	0.0071
Venus	1305-06-14 15:07 J	2197873.93	2197874.13	2197874.32	0.0272	0.0102
Mercury	1305-07-25 05:02 J	2197914.54	2197914.71	2197914.88	0.0271	0.0074
Mercury	1305-10-22 01:11 J	2198003.45	2198003.55	2198003.66	0.0271	0.0220
Venus	1306-01-29 19:40 J	2198103.12	2198103.32	2198103.51	0.0270	0.0102
Earth	1313-07-03 10:33 J	2200814.69	2200814.94	2200815.18	0.0266	0.0044
Moon	1313-07-03 13:55 J	2200814.84	2200815.08	2200815.32	0.0266	0.0055 *
Mars	1317-02-16 03:35 J	2202138.43	2202138.65	2202138.87	0.0275	0.0159
Mercury	1320-08-20 07:55 J	2203419.77	2203419.83	2203419.90	0.0287	0.0248
Mercury	1320-11-16 20:52 J	2203508.25	2203508.37	2203508.49	0.0288	0.0117
Mercury	1321-02-13 09:35 J	2203596.76	2203596.90	2203597.03	0.0289	0.0015
Venus	1321-02-21 18:28 J	2203605.08	2203605.27	2203605.48	0.0289	0.0094
Mercury	1321-05-12 22:04 J	2203685.30	2203685.42	2203685.53	0.0290	0.0143

Mercury	1321-08-09 10:19 J	2203773.89	2203773.93	2203773.98	0.0290	0.0273
Venus	1321-10-09 15:35 J	2203834.97	2203835.15	2203835.33	0.0291	0.0160
Moon	1328-01-05 21:35 J	2206114.36	2206114.40	2206114.46	0.0294	0.0287
Mercury	1334-06-17 14:38 J	2208469.04	2208469.11	2208469.19	0.0273	0.0243
Mercury	1334-09-14 10:19 J	2208557.77	2208557.93	2208558.10	0.0272	0.0100
Mercury	1334-12-12 06:14 J	2208646.58	2208646.76	2208646.94	0.0272	0.0045
Venus	1334-12-25 22:19 J	2208660.23	2208660.43	2208660.64	0.0272	0.0066
Mercury	1335-03-11 02:09 J	2208735.47	2208735.59	2208735.72	0.0271	0.0190
Venus	1335-08-12 02:24 J	2208889.42	2208889.60	2208889.79	0.0270	0.0137
Moon	1342-06-28 07:26 J	2211401.64	2211401.81	2211401.98	0.0265	0.0198
Earth	1342-06-28 10:19 J	2211401.79	2211401.93	2211402.10	0.0265	0.0204 *
Mercury	1350-04-05 21:50 J	2214240.30	2214240.41	2214240.52	0.0288	0.0164
Mercury	1350-07-03 10:33 J	2214328.80	2214328.94	2214329.07	0.0288	0.0035
Venus	1350-09-03 20:38 J	2214391.15	2214391.36	2214391.56	0.0289	0.0067
Mercury	1350-09-29 23:02 J	2214417.33	2214417.46	2214417.59	0.0289	0.0096
Mercury	1350-12-27 11:16 J	2214505.89	2214505.97	2214506.06	0.0290	0.0225
Venus	1351-04-21 17:16 J	2214621.06	2214621.22	2214621.38	0.0291	0.0186
Earth	1356-12-29 20:52 J	2216700.14	2216700.37	2216700.61	0.0295	0.0053
Moon	1356-12-30 00:43 J	2216700.30	2216700.53	2216700.77	0.0295	0.0067 *
Venus	1363-11-20 18:00 J	2219217.18	2219217.25	2219217.33	0.0273	0.0253
Mercury	1364-02-01 08:24 J	2219289.71	2219289.85	2219290.00	0.0273	0.0153
Mercury	1364-04-30 04:19 J	2219378.50	2219378.68	2219378.86	0.0272	0.0008
Venus	1364-07-06 23:31 J	2219446.27	2219446.48	2219446.69	0.0271	0.0046
Mercury	1364-07-28 00:14 J	2219467.36	2219467.51	2219467.67	0.0271	0.0137
Venus	1365-02-21 03:35 J	2219675.49	2219675.65	2219675.83	0.0270	0.0158
Earth	1372-07-04 13:55 J	2222365.85	2222366.08	2222366.31	0.0266	0.0108
Moon	1372-07-04 16:19 J	2222365.95	2222366.18	2222366.41	0.0266	0.0118 *
Venus	1379-07-30 07:40 J	2224947.78	2224947.82	2224947.88	0.0287	0.0279
Mercury	1379-08-24 00:00 J	2224972.40	2224972.50	2224972.60	0.0288	0.0199
Mercury	1379-11-20 12:43 J	2225060.90	2225061.03	2225061.16	0.0288	0.0068

Mercury	1380-02-17 01:11 J	2225149.42	2225149.55	2225149.69	0.0289	0.0062
Venus	1380-03-16 03:35 J	2225177.44	2225177.65	2225177.86	0.0289	0.0032
Mercury	1380-05-15 13:40 J	2225237.98	2225238.07	2225238.18	0.0290	0.0191
Venus	1380-11-01 00:43 J	2225407.40	2225407.53	2225407.67	0.0291	0.0222
Venus	1393-06-02 00:43 J	2230003.41	2230003.53	2230003.66	0.0273	0.0219
Mercury	1393-06-20 09:21 J	2230021.76	2230021.89	2230022.02	0.0273	0.0184
Mercury	1393-09-17 05:02 J	2230110.54	2230110.71	2230110.89	0.0272	0.0041
Mercury	1393-12-15 00:57 J	2230199.38	2230199.54	2230199.71	0.0272	0.0106
Venus	1394-01-17 06:14 J	2230232.55	2230232.76	2230232.97	0.0271	0.0011
Mercury	1394-03-13 21:07 J	2230288.32	2230288.38	2230288.45	0.0271	0.0251
Venus	1394-09-03 10:04 J	2230461.78	2230461.92	2230462.07	0.0270	0.0191
Moon	1401-06-29 11:16 J	2232952.77	2232952.97	2232953.19	0.0265	0.0134
Earth	1401-06-29 13:55 J	2232952.87	2232953.08	2232953.30	0.0265	0.0141 *
Mars	1405-07-12 13:26 J	2234426.82	2234427.06	2234427.31	0.0274	0.0118
Mercury	1409-01-10 00:43 J	2235704.46	2235704.53	2235704.60	0.0287	0.0247
Venus	1409-02-08 09:21 J	2235733.80	2235733.89	2235733.99	0.0287	0.0254
Mercury	1409-04-08 13:26 J	2235792.94	2235793.06	2235793.19	0.0288	0.0117
Mercury	1409-07-06 02:09 J	2235881.45	2235881.59	2235881.72	0.0288	0.0014
Venus	1409-09-26 04:48 J	2235963.49	2235963.70	2235963.92	0.0289	0.0010
Mercury	1409-10-02 14:24 J	2235969.99	2235970.10	2235970.22	0.0289	0.0142
Mercury	1409-12-30 02:52 J	2236058.58	2236058.62	2236058.67	0.0290	0.0269
Venus	1410-05-14 01:40 J	2236193.46	2236193.57	2236193.69	0.0291	0.0246
Earth	1415-12-31 22:33 J	2238251.20	2238251.44	2238251.68	0.0295	0.0014
Moon	1415-12-31 22:48 J	2238251.21	2238251.45	2238251.70	0.0295	0.0007 *
Mercury	1422-11-07 06:57 J	2240753.71	2240753.79	2240753.88	0.0273	0.0241
Venus	1422-12-13 00:28 J	2240789.39	2240789.52	2240789.67	0.0273	0.0201
Mercury	1423-02-04 02:38 J	2240842.45	2240842.61	2240842.78	0.0273	0.0097
Mercury	1423-05-03 22:33 J	2240931.27	2240931.44	2240931.62	0.0272	0.0048
Venus	1423-07-30 06:00 J	2241018.54	2241018.75	2241018.97	0.0271	0.0008
Mercury	1423-07-31 18:28 J	2241020.16	2241020.27	2241020.41	0.0271	0.0195

Venus	1424-03-15 10:04 J	2241247.79	2241247.92	2241248.06	0.0269	0.0209
Moon	1431-07-06 12:57 J	2243916.86	2243917.04	2243917.24	0.0266	0.0179
Earth	1431-07-06 15:07 J	2243916.95	2243917.13	2243917.33	0.0266	0.0167 *
Mercury	1438-05-30 02:24 J	2246436.60	2246436.60	2246436.61	0.0287	0.0286
Venus	1438-08-21 14:38 J	2246519.98	2246520.11	2246520.25	0.0288	0.0222
Mercury	1438-08-26 15:21 J	2246525.02	2246525.14	2246525.25	0.0288	0.0156
Mercury	1438-11-23 04:04 J	2246613.53	2246613.67	2246613.80	0.0288	0.0027
Mercury	1439-02-19 16:33 J	2246702.06	2246702.19	2246702.31	0.0289	0.0103
Venus	1439-04-08 10:33 J	2246749.73	2246749.94	2246750.15	0.0290	0.0026
Mercury	1439-05-19 04:48 J	2246790.63	2246790.70	2246790.79	0.0290	0.0232
Venus	1439-11-24 07:40 J	2246979.77	2246979.82	2246979.88	0.0291	0.0280
Mercury	1452-06-23 03:07 J	2251574.48	2251574.63	2251574.79	0.0273	0.0131
Venus	1452-06-24 06:43 J	2251575.62	2251575.78	2251575.95	0.0273	0.0167
Mercury	1452-09-19 23:02 J	2251663.28	2251663.46	2251663.64	0.0272	0.0014
Mercury	1452-12-17 18:57 J	2251752.15	2251752.29	2251752.44	0.0272	0.0160
Venus	1453-02-08 12:00 J	2251804.79	2251805.00	2251805.21	0.0271	0.0040
Venus	1453-09-25 15:35 J	2252034.07	2252034.15	2252034.26	0.0270	0.0242
Earth	1460-06-30 15:07 J	2254503.90	2254504.13	2254504.37	0.0265	0.0083
Moon	1460-06-30 17:16 J	2254503.99	2254504.22	2254504.46	0.0265	0.0072 *
Mercury	1468-01-13 16:04 J	2257257.08	2257257.17	2257257.27	0.0287	0.0204
Venus	1468-03-02 16:19 J	2257306.04	2257306.18	2257306.34	0.0287	0.0199
Mercury	1468-04-11 04:48 J	2257345.57	2257345.70	2257345.83	0.0287	0.0075
Mercury	1468-07-08 17:16 J	2257434.09	2257434.22	2257434.36	0.0288	0.0056
Mercury	1468-10-05 05:45 J	2257522.64	2257522.74	2257522.85	0.0289	0.0183
Venus	1468-10-18 12:00 J	2257535.80	2257536.00	2257536.21	0.0289	0.0050
Moon	1475-01-01 18:00 J	2259802.02	2259802.25	2259802.49	0.0295	0.0070
Earth	1475-01-01 21:35 J	2259802.17	2259802.40	2259802.64	0.0295	0.0074 *
Mercury	1481-11-10 00:14 J	2262306.39	2262306.51	2262306.64	0.0273	0.0191
Venus	1482-01-04 05:45 J	2262361.56	2262361.74	2262361.91	0.0273	0.0151
Mercury	1482-02-06 20:09 J	2262395.16	2262395.34	2262395.51	0.0273	0.0047

Mercury	1482-05-06 16:04 J	2262484.00	2262484.17	2262484.34	0.0272	0.0098
Mercury	1482-08-03 12:00 J	2262572.94	2262573.00	2262573.09	0.0271	0.0245
Venus	1482-08-21 11:02 J	2262590.75	2262590.96	2262591.16	0.0271	0.0056
Venus	1483-04-07 14:38 J	2262820.06	2262820.11	2262820.18	0.0269	0.0257
Moon	1490-07-07 11:16 J	2265467.87	2265467.97	2265468.09	0.0266	0.0236
Earth	1490-07-07 14:38 J	2265467.99	2265468.11	2265468.26	0.0266	0.0222 *
Mars	1493-12-05 18:57 J	2266715.04	2266715.29	2266715.56	0.0275	0.0082
Mercury	1497-06-01 17:31 J	2267989.17	2267989.23	2267989.30	0.0287	0.0245
Mercury	1497-08-29 06:28 J	2268077.64	2268077.77	2268077.89	0.0288	0.0116
Venus	1497-09-12 20:38 J	2268092.19	2268092.36	2268092.53	0.0288	0.0168
Mercury	1497-11-25 18:57 J	2268166.16	2268166.29	2268166.43	0.0288	0.0014
Mercury	1498-02-22 07:26 J	2268254.70	2268254.81	2268254.93	0.0289	0.0142
Venus	1498-04-30 16:19 J	2268321.98	2268322.18	2268322.39	0.0290	0.0082
Mercury	1498-05-21 19:55 J	2268343.28	2268343.33	2268343.37	0.0290	0.0270
Earth	1503-12-26 23:45 J	2270388.39	2270388.49	2270388.61	0.0295	0.0263
Moon	1503-12-27 03:21 J	2270388.55	2270388.64	2270388.74	0.0295	0.0270 *
Mercury	1511-03-30 00:28 J	2273038.43	2273038.52	2273038.62	0.0274	0.0228
Mercury	1511-06-26 20:09 J	2273127.18	2273127.34	2273127.52	0.0273	0.0084
Venus	1511-07-17 11:02 J	2273147.77	2273147.96	2273148.15	0.0273	0.0120
Mercury	1511-09-23 16:19 J	2273216.00	2273216.18	2273216.35	0.0272	0.0062
Mercury	1511-12-21 12:28 J	2273304.90	2273305.02	2273305.13	0.0272	0.0208
Venus	1512-03-02 16:19 J	2273376.98	2273377.18	2273377.38	0.0271	0.0088
Earth	1519-07-02 15:07 J	2276054.89	2276055.13	2276055.38	0.0265	0.0028
Moon	1519-07-02 18:43 J	2276055.03	2276055.28	2276055.54	0.0265	0.0014 *
Mercury	1527-01-16 07:26 J	2278809.69	2278809.81	2278809.92	0.0286	0.0163
Venus	1527-03-25 22:33 J	2278878.26	2278878.44	2278878.63	0.0287	0.0144
Mercury	1527-04-14 19:55 J	2278898.20	2278898.33	2278898.47	0.0287	0.0034
Mercury	1527-07-12 08:24 J	2278986.72	2278986.85	2278986.98	0.0288	0.0094
Mercury	1527-10-08 20:52 J	2279075.28	2279075.37	2279075.45	0.0289	0.0221
Venus	1527-11-10 18:00 J	2279108.06	2279108.25	2279108.46	0.0289	0.0106

Moon	1534-01-02 16:33 J	2281352.99	2281353.19	2281353.41	0.0295	0.0129
Earth	1534-01-02 18:14 J	2281353.05	2281353.26	2281353.48	0.0295	0.0130 *
Mercury	1540-11-12 17:02 J	2283859.06	2283859.21	2283859.36	0.0273	0.0146
Venus	1541-01-26 09:21 J	2283933.70	2283933.89	2283934.09	0.0273	0.0104
Mercury	1541-02-09 12:57 J	2283947.86	2283948.04	2283948.22	0.0273	0.0001
Mercury	1541-05-09 08:52 J	2284036.73	2284036.87	2284037.03	0.0272	0.0145
Venus	1541-09-12 14:38 J	2284162.92	2284163.11	2284163.31	0.0271	0.0103
Mercury	1556-06-04 08:38 J	2289541.77	2289541.86	2289541.95	0.0287	0.0205
Mercury	1556-08-31 21:21 J	2289630.26	2289630.39	2289630.52	0.0288	0.0076
Venus	1556-10-05 02:24 J	2289664.40	2289664.60	2289664.79	0.0288	0.0114
Mercury	1556-11-28 09:50 J	2289718.78	2289718.91	2289719.05	0.0288	0.0052
Mercury	1557-02-24 22:19 J	2289807.33	2289807.43	2289807.54	0.0289	0.0180
Venus	1557-05-22 22:04 J	2289894.24	2289894.42	2289894.61	0.0290	0.0136
Earth	1562-12-27 20:09 J	2291939.18	2291939.34	2291939.52	0.0295	0.0209
Moon	1562-12-27 22:04 J	2291939.25	2291939.42	2291939.59	0.0295	0.0213 *
Mercury	1570-04-01 17:02 J	2294591.09	2294591.21	2294591.35	0.0274	0.0184
Mercury	1570-06-29 12:57 J	2294679.87	2294680.04	2294680.22	0.0273	0.0039
Venus	1570-08-08 14:24 J	2294719.90	2294720.10	2294720.31	0.0273	0.0074
Mercury	1570-09-26 09:07 J	2294768.71	2294768.88	2294769.04	0.0272	0.0107
Mercury	1570-12-24 05:16 J	2294857.66	2294857.72	2294857.79	0.0272	0.0254
Venus	1571-03-25 19:40 J	2294949.14	2294949.32	2294949.51	0.0271	0.0133
Moon	1578-07-03 13:11 J	2297605.80	2297606.05	2297606.31	0.0265	0.0040
Earth	1578-07-03 14:24 J	2297605.85	2297606.10	2297606.35	0.0265	0.0026 *
Mars	1582-05-01 01:55 J	2299003.32	2299003.58	2299003.85	0.0274	0.0051
Mercury	1585-11-01 09:50 G	2300273.85	2300273.91	2300273.98	0.0286	0.0249
Mercury	1586-01-28 22:33 G	2300362.32	2300362.44	2300362.56	0.0286	0.0121
Venus	1586-04-27 05:02 G	2300450.51	2300450.71	2300450.92	0.0287	0.0089
Mercury	1586-04-27 11:02 G	2300450.83	2300450.96	2300451.10	0.0287	0.0010 *
Mercury	1586-07-24 23:31 G	2300539.36	2300539.48	2300539.60	0.0288	0.0134
Mercury	1586-10-21 11:45 G	2300627.94	2300627.99	2300628.05	0.0289	0.0261

Venus	1586-12-13 00:43 G	2300680.36	2300680.53	2300680.71	0.0289	0.0160
Earth	1593-01-13 14:52 G	2302903.94	2302904.12	2302904.31	0.0295	0.0184
Moon	1593-01-13 17:31 G	2302904.05	2302904.23	2302904.41	0.0295	0.0188 *
Venus	1599-07-14 06:00 G	2305276.72	2305276.75	2305276.79	0.0275	0.0270
Mercury	1599-08-29 13:40 G	2305323.01	2305323.07	2305323.16	0.0274	0.0247
Mercury	1599-11-26 09:35 G	2305411.74	2305411.90	2305412.07	0.0273	0.0103
Mercury	1600-02-23 05:31 G	2305500.56	2305500.73	2305500.91	0.0273	0.0043
Venus	1600-02-28 12:43 G	2305505.82	2305506.03	2305506.24	0.0273	0.0059
Mercury	1600-05-22 01:40 G	2305589.45	2305589.57	2305589.70	0.0272	0.0190
Venus	1600-10-14 17:45 G	2305735.07	2305735.24	2305735.42	0.0271	0.0148
Earth	1607-07-08 08:09 G	2308192.73	2308192.84	2308192.96	0.0265	0.0234
Moon	1607-07-08 09:07 G	2308192.75	2308192.88	2308193.01	0.0265	0.0222 *
Mercury	1615-06-17 23:45 G	2311094.38	2311094.49	2311094.60	0.0287	0.0165
Mercury	1615-09-14 12:28 G	2311182.88	2311183.02	2311183.15	0.0287	0.0037
Venus	1615-11-07 08:24 G	2311236.64	2311236.85	2311237.06	0.0288	0.0060
Mercury	1615-12-12 00:57 G	2311271.41	2311271.54	2311271.67	0.0288	0.0091
Mercury	1616-03-09 13:11 G	2311359.97	2311360.05	2311360.14	0.0289	0.0219
Venus	1616-06-24 04:19 G	2311466.52	2311466.68	2311466.84	0.0290	0.0190
Moon	1622-01-07 13:40 G	2313489.87	2313490.07	2313490.28	0.0295	0.0154
Earth	1622-01-07 16:19 G	2313489.99	2313490.18	2313490.40	0.0295	0.0155 *
Venus	1629-01-23 11:16 G	2316062.87	2316062.97	2316063.07	0.0275	0.0240
Mercury	1629-04-14 09:35 G	2316143.75	2316143.90	2316144.05	0.0274	0.0141
Mercury	1629-07-12 05:31 G	2316232.55	2316232.73	2316232.91	0.0273	0.0005
Venus	1629-09-09 17:45 G	2316292.03	2316292.24	2316292.45	0.0273	0.0029
Mercury	1629-10-09 01:40 G	2316321.42	2316321.57	2316321.72	0.0273	0.0151
Venus	1630-04-26 22:48 G	2316521.30	2316521.45	2316521.62	0.0271	0.0178
Moon	1637-07-14 09:50 G	2319156.69	2319156.91	2319157.15	0.0266	0.0095
Earth	1637-07-14 13:40 G	2319156.84	2319157.07	2319157.31	0.0266	0.0080 *
Venus	1644-10-01 18:00 G	2321793.21	2321793.25	2321793.32	0.0285	0.0276
Mercury	1644-11-04 01:11 G	2321826.46	2321826.55	2321826.65	0.0286	0.0207

Mercury	1645-01-31 13:55 G	2321914.95	2321915.08	2321915.21	0.0286	0.0079
Mercury	1645-04-30 02:24 G	2322003.47	2322003.60	2322003.74	0.0287	0.0050
Venus	1645-05-19 12:28 G	2322022.81	2322023.02	2322023.23	0.0287	0.0033
Mercury	1645-07-27 14:52 G	2322092.02	2322092.12	2322092.23	0.0288	0.0176
Venus	1646-01-04 07:55 G	2322252.70	2322252.83	2322252.98	0.0289	0.0217
Earth	1652-01-15 12:57 G	2324454.91	2324455.04	2324455.18	0.0294	0.0242
Moon	1652-01-15 16:19 G	2324455.04	2324455.18	2324455.31	0.0294	0.0246 *
Venus	1658-08-05 09:50 G	2326848.79	2326848.91	2326849.04	0.0274	0.0223
Mercury	1658-09-01 06:28 G	2326875.66	2326875.77	2326875.89	0.0274	0.0202
Mercury	1658-11-29 02:24 G	2326964.43	2326964.60	2326964.77	0.0274	0.0058
Mercury	1659-02-25 22:19 G	2327053.27	2327053.43	2327053.61	0.0273	0.0089
Venus	1659-03-22 16:19 G	2327077.97	2327078.18	2327078.39	0.0273	0.0013
Mercury	1659-05-25 18:43 G	2327142.19	2327142.28	2327142.37	0.0272	0.0235
Venus	1659-11-06 21:21 G	2327307.25	2327307.39	2327307.54	0.0271	0.0194
Earth	1666-07-09 07:26 G	2329743.63	2329743.81	2329743.99	0.0265	0.0180
Moon	1666-07-09 11:02 G	2329743.77	2329743.96	2329744.15	0.0265	0.0166 *
Mars	1670-10-04 04:04 G	2331291.41	2331291.67	2331291.94	0.0274	0.0024
Mercury	1674-03-24 02:38 G	2332558.54	2332558.61	2332558.67	0.0286	0.0249
Venus	1674-04-13 21:21 G	2332579.29	2332579.39	2332579.50	0.0286	0.0247
Mercury	1674-06-20 15:21 G	2332647.01	2332647.14	2332647.26	0.0287	0.0121
Mercury	1674-09-17 03:50 G	2332735.53	2332735.66	2332735.80	0.0287	0.0007
Venus	1674-11-29 15:50 G	2332808.95	2332809.16	2332809.37	0.0288	0.0005
Mercury	1674-12-14 16:19 G	2332824.06	2332824.18	2332824.30	0.0288	0.0134
Mercury	1675-03-13 04:33 G	2332912.64	2332912.69	2332912.75	0.0289	0.0260
Venus	1675-07-17 11:45 G	2333038.88	2333038.99	2333039.10	0.0290	0.0247
Moon	1681-01-08 12:00 G	2335040.78	2335041.00	2335041.22	0.0295	0.0093
Earth	1681-01-08 14:52 G	2335040.89	2335041.12	2335041.35	0.0295	0.0096 *
Mercury	1688-01-19 06:28 G	2337607.70	2337607.77	2337607.86	0.0275	0.0242
Venus	1688-02-15 15:07 G	2337634.98	2337635.13	2337635.28	0.0274	0.0194
Mercury	1688-04-17 02:24 G	2337696.43	2337696.60	2337696.77	0.0274	0.0097

Mercury	1688-07-14 22:19 G	2337785.26	2337785.43	2337785.61	0.0273	0.0050
Venus	1688-10-01 21:35 G	2337864.19	2337864.40	2337864.61	0.0273	0.0017
Mercury	1688-10-11 18:28 G	2337874.15	2337874.27	2337874.40	0.0273	0.0197
Venus	1689-05-19 02:24 G	2338093.49	2338093.60	2338093.73	0.0271	0.0223
Moon	1696-07-15 13:40 G	2340707.88	2340708.07	2340708.27	0.0266	0.0150
Earth	1696-07-15 14:24 G	2340707.89	2340708.10	2340708.32	0.0266	0.0137 *
Venus	1703-10-26 02:52 G	2343365.50	2343365.62	2343365.77	0.0285	0.0218
Mercury	1703-11-08 17:16 G	2343379.11	2343379.22	2343379.33	0.0286	0.0159
Mercury	1704-02-05 05:45 G	2343467.61	2343467.74	2343467.88	0.0286	0.0033
Mercury	1704-05-03 18:14 G	2343556.14	2343556.26	2343556.39	0.0287	0.0095
Venus	1704-06-11 21:21 G	2343595.18	2343595.39	2343595.60	0.0287	0.0026
Mercury	1704-07-31 06:43 G	2343644.69	2343644.78	2343644.86	0.0288	0.0221
Venus	1705-01-27 16:48 G	2343825.15	2343825.20	2343825.27	0.0289	0.0277
Venus	1717-08-28 14:24 G	2348420.95	2348421.10	2348421.27	0.0274	0.0176
Mercury	1717-09-04 23:45 G	2348428.35	2348428.49	2348428.64	0.0274	0.0155
Mercury	1717-12-02 19:40 G	2348517.14	2348517.32	2348517.50	0.0274	0.0010
Mercury	1718-03-01 15:50 G	2348606.00	2348606.16	2348606.31	0.0273	0.0137
Venus	1718-04-14 20:52 G	2348650.16	2348650.37	2348650.58	0.0272	0.0035
Venus	1718-11-30 01:55 G	2348879.48	2348879.58	2348879.68	0.0271	0.0240
Earth	1725-07-11 08:09 G	2351294.63	2351294.84	2351295.07	0.0265	0.0123
Moon	1725-07-11 09:21 G	2351294.66	2351294.89	2351295.13	0.0265	0.0109 *
Mercury	1733-03-27 18:28 G	2354111.18	2354111.27	2354111.37	0.0286	0.0202
Venus	1733-05-07 06:00 G	2354151.60	2354151.75	2354151.92	0.0286	0.0190
Mercury	1733-06-24 07:11 G	2354199.67	2354199.80	2354199.93	0.0287	0.0074
Mercury	1733-09-20 19:40 G	2354288.19	2354288.32	2354288.46	0.0288	0.0053
Mercury	1733-12-18 07:55 G	2354376.73	2354376.83	2354376.94	0.0288	0.0181
Venus	1733-12-23 00:43 G	2354381.33	2354381.53	2354381.74	0.0288	0.0057
Earth	1740-01-11 16:04 G	2356591.94	2356592.17	2356592.42	0.0295	0.0031
Moon	1740-01-11 17:45 G	2356592.01	2356592.24	2356592.47	0.0295	0.0023 *
Mercury	1747-01-23 00:00 G	2359160.38	2359160.50	2359160.63	0.0275	0.0193

Venus	1747-03-10 20:09 G	2359207.16	2359207.34	2359207.52	0.0274	0.0145
Mercury	1747-04-21 19:55 G	2359249.15	2359249.33	2359249.50	0.0274	0.0048
Mercury	1747-07-19 15:50 G	2359338.00	2359338.16	2359338.33	0.0273	0.0099
Mercury	1747-10-16 12:14 G	2359426.94	2359427.01	2359427.09	0.0273	0.0247
Venus	1747-10-26 02:24 G	2359436.40	2359436.60	2359436.81	0.0272	0.0066
Venus	1748-06-11 07:26 G	2359665.81	2359665.81	2359665.83	0.0271	0.0270
Earth	1755-07-18 16:33 G	2362259.04	2362259.19	2362259.37	0.0266	0.0198
Moon	1755-07-18 19:55 G	2362259.18	2362259.33	2362259.48	0.0266	0.0211 *
Mars	1759-03-01 01:55 G	2363580.32	2363580.58	2363580.85	0.0274	0.0034
Mercury	1762-08-14 21:07 G	2364843.30	2364843.38	2364843.46	0.0285	0.0233
Mercury	1762-11-11 09:50 G	2364931.78	2364931.91	2364932.03	0.0286	0.0107
Venus	1762-11-17 13:40 G	2364937.90	2364938.07	2364938.25	0.0286	0.0156
Mercury	1763-02-07 22:19 G	2365020.29	2365020.43	2365020.56	0.0286	0.0020
Mercury	1763-05-07 10:33 G	2365108.83	2365108.94	2365109.06	0.0287	0.0147
Venus	1763-07-05 08:09 G	2365167.64	2365167.84	2365168.05	0.0288	0.0090
Mercury	1763-08-03 23:02 G	2365197.42	2365197.46	2365197.50	0.0288	0.0271
Mercury	1776-06-10 21:50 G	2369892.34	2369892.41	2369892.49	0.0275	0.0246
Mercury	1776-09-07 17:31 G	2369981.07	2369981.23	2369981.40	0.0274	0.0103
Venus	1776-09-19 20:52 G	2369993.18	2369993.37	2369993.56	0.0274	0.0124
Mercury	1776-12-05 13:40 G	2370069.89	2370070.07	2370070.25	0.0273	0.0044
Mercury	1777-03-04 09:50 G	2370158.78	2370158.91	2370159.04	0.0273	0.0191
Venus	1777-05-07 02:52 G	2370222.42	2370222.62	2370222.83	0.0272	0.0086
Moon	1784-07-12 08:24 G	2372845.60	2372845.85	2372846.10	0.0265	0.0046
Earth	1784-07-12 11:31 G	2372845.74	2372845.98	2372846.23	0.0265	0.0060 *
Mercury	1792-01-01 22:19 G	2375575.40	2375575.43	2375575.47	0.0285	0.0275
Mercury	1792-03-30 11:16 G	2375663.85	2375663.97	2375664.09	0.0286	0.0148
Venus	1792-05-29 17:31 G	2375724.04	2375724.23	2375724.42	0.0287	0.0126
Mercury	1792-06-26 23:45 G	2375752.36	2375752.49	2375752.63	0.0287	0.0021
Mercury	1792-09-23 12:14 G	2375840.89	2375841.01	2375841.14	0.0288	0.0106
Mercury	1792-12-21 00:28 G	2375929.45	2375929.52	2375929.60	0.0288	0.0232

Venus	1793-01-14 12:14 G	2375953.82	2375954.01	2375954.21	0.0289	0.0121
Earth	1799-01-12 21:07 G	2378143.15	2378143.38	2378143.62	0.0295	0.0044
Moon	1799-01-13 00:57 G	2378143.30	2378143.54	2378143.78	0.0295	0.0056 *
Mercury	1806-01-26 18:00 G	2380713.10	2380713.25	2380713.41	0.0274	0.0139
Venus	1806-04-03 02:52 G	2380779.42	2380779.62	2380779.82	0.0274	0.0094
Mercury	1806-04-25 14:09 G	2380801.91	2380802.09	2380802.26	0.0274	0.0010
Mercury	1806-07-23 10:04 G	2380890.78	2380890.92	2380891.07	0.0273	0.0154
Venus	1806-11-18 08:52 G	2381008.68	2381008.87	2381009.07	0.0272	0.0116
Earth	1814-07-20 21:35 G	2383810.37	2383810.40	2383810.43	0.0267	0.0264
Mercury	1821-08-18 14:09 G	2386395.98	2386396.09	2386396.20	0.0285	0.0176
Mercury	1821-11-15 02:38 G	2386484.48	2386484.61	2386484.75	0.0286	0.0050
Venus	1821-12-11 02:09 G	2386510.40	2386510.59	2386510.80	0.0286	0.0091
Mercury	1822-02-11 15:07 G	2386573.00	2386573.13	2386573.26	0.0287	0.0077
Mercury	1822-05-11 03:21 G	2386661.55	2386661.64	2386661.74	0.0287	0.0202
Venus	1822-07-28 21:07 G	2386740.21	2386740.38	2386740.56	0.0288	0.0157
Moon	1828-01-07 21:35 G	2388729.32	2388729.40	2388729.48	0.0295	0.0276
Earth	1828-01-08 00:43 G	2388729.49	2388729.53	2388729.59	0.0295	0.0287
Mars	1831-07-25 15:07 G	2390024.02	2390024.13	2390024.26	0.0287	0.0265
Mercury	1835-06-15 16:48 G	2391445.08	2391445.20	2391445.33	0.0275	0.0186
Mercury	1835-09-12 12:43 G	2391533.85	2391534.03	2391534.21	0.0274	0.0041
Venus	1835-10-14 05:16 G	2391565.52	2391565.72	2391565.93	0.0274	0.0069
Mercury	1835-12-10 08:38 G	2391622.70	2391622.86	2391623.03	0.0273	0.0105
Mercury	1836-03-08 05:02 G	2391711.65	2391711.71	2391711.78	0.0273	0.0252
Venus	1836-05-30 11:02 G	2391794.78	2391794.96	2391795.15	0.0272	0.0140
Moon	1843-07-15 14:24 G	2394396.86	2394397.10	2394397.35	0.0266	0.0022
Earth	1843-07-15 17:16 G	2394396.97	2394397.22	2394397.47	0.0266	0.0007 *
Mars	1847-07-26 18:43 G	2395869.03	2395869.28	2395869.54	0.0274	0.0086
Mercury	1851-01-05 15:35 G	2397128.07	2397128.15	2397128.24	0.0286	0.0216
Mercury	1851-04-04 04:19 G	2397216.55	2397216.68	2397216.81	0.0286	0.0089
Venus	1851-06-23 06:43 G	2397296.58	2397296.78	2397296.99	0.0287	0.0059

Mercury	1851-07-01 16:48 G	2397305.07	2397305.20	2397305.34	0.0287	0.0038
Mercury	1851-09-28 05:16 G	2397393.61	2397393.72	2397393.83	0.0288	0.0164
Venus	1852-02-08 01:40 G	2397526.42	2397526.57	2397526.74	0.0289	0.0190
Earth	1858-01-15 06:14 G	2399694.55	2399694.76	2399694.99	0.0294	0.0129
Moon	1858-01-15 06:28 G	2399694.55	2399694.77	2399694.99	0.0294	0.0141 *
Venus	1864-09-08 04:19 G	2402122.60	2402122.68	2402122.77	0.0275	0.0251
Mercury	1864-11-01 17:31 G	2402177.13	2402177.23	2402177.33	0.0275	0.0222
Mercury	1865-01-29 13:11 G	2402265.88	2402266.05	2402266.22	0.0274	0.0077
Venus	1865-04-25 11:31 G	2402351.77	2402351.98	2402352.19	0.0273	0.0038
Mercury	1865-04-28 09:21 G	2402354.71	2402354.89	2402355.06	0.0273	0.0069
Mercury	1865-07-26 05:31 G	2402443.62	2402443.73	2402443.84	0.0273	0.0216
Venus	1865-12-10 17:16 G	2402581.06	2402581.22	2402581.39	0.0272	0.0170
Earth	1872-07-09 23:02 G	2404984.34	2404984.46	2404984.60	0.0266	0.0227
Moon	1872-07-10 02:09 G	2404984.44	2404984.59	2404984.74	0.0266	0.0211 *
Venus	1880-05-17 23:31 G	2407853.41	2407853.48	2407853.58	0.0285	0.0260
Mercury	1880-05-24 18:57 G	2407860.22	2407860.29	2407860.37	0.0285	0.0240
Mercury	1880-08-21 07:40 G	2407948.70	2407948.82	2407948.95	0.0286	0.0113
Mercury	1880-11-17 20:24 G	2408037.21	2408037.35	2408037.48	0.0286	0.0015
Venus	1881-01-02 17:31 G	2408083.02	2408083.23	2408083.44	0.0287	0.0019
Mercury	1881-02-14 08:38 G	2408125.75	2408125.86	2408125.98	0.0287	0.0139
Mercury	1881-05-13 20:52 G	2408214.33	2408214.37	2408214.43	0.0288	0.0264
Venus	1881-08-20 12:28 G	2408312.90	2408313.02	2408313.15	0.0289	0.0229
Earth	1887-01-09 13:40 G	2410280.90	2410281.07	2410281.26	0.0295	0.0194
Moon	1887-01-09 13:55 G	2410280.91	2410281.08	2410281.27	0.0295	0.0183 *
Venus	1894-03-21 08:38 G	2412908.74	2412908.86	2412908.98	0.0275	0.0223
Mercury	1894-03-21 17:02 G	2412909.17	2412909.21	2412909.26	0.0275	0.0264
Mercury	1894-06-18 12:43 G	2412997.87	2412998.03	2412998.19	0.0274	0.0120
Mercury	1894-09-15 08:38 G	2413086.68	2413086.86	2413087.04	0.0274	0.0026
Venus	1894-11-05 15:21 G	2413137.93	2413138.14	2413138.35	0.0273	0.0011
Mercury	1894-12-13 04:33 G	2413175.56	2413175.69	2413175.84	0.0273	0.0172

Venus	1895-06-22 20:38 G	2413367.23	2413367.36	2413367.52	0.0272	0.0197
Earth	1902-07-18 01:11 G	2415948.32	2415948.55	2415948.79	0.0266	0.0081
Moon	1902-07-18 03:07 G	2415948.41	2415948.63	2415948.86	0.0266	0.0093 *
Mercury	1909-10-12 20:24 G	2418592.34	2418592.35	2418592.38	0.0285	0.0280
Venus	1909-11-29 03:50 G	2418639.54	2418639.66	2418639.79	0.0286	0.0230
Mercury	1910-01-09 09:21 G	2418680.78	2418680.89	2418681.01	0.0286	0.0153
Mercury	1910-04-07 21:50 G	2418769.28	2418769.41	2418769.55	0.0287	0.0028
Mercury	1910-07-05 10:19 G	2418857.81	2418857.93	2418858.06	0.0287	0.0101
Venus	1910-07-16 22:04 G	2418869.20	2418869.42	2418869.63	0.0288	0.0014
Mercury	1910-10-01 22:48 G	2418946.37	2418946.45	2418946.53	0.0288	0.0226
Venus	1911-03-03 17:16 G	2419099.14	2419099.22	2419099.31	0.0289	0.0263
Moon	1917-01-17 15:21 G	2421246.00	2421246.14	2421246.29	0.0294	0.0235
Earth	1917-01-17 18:43 G	2421246.14	2421246.28	2421246.45	0.0294	0.0220 *
Mars	1919-12-21 01:26 G	2422313.30	2422313.56	2422313.82	0.0287	0.0168
Venus	1923-10-02 15:07 G	2423694.99	2423695.13	2423695.29	0.0275	0.0192
Mercury	1923-11-06 13:26 G	2423729.92	2423730.06	2423730.21	0.0274	0.0154
Mercury	1924-02-03 09:21 G	2423818.71	2423818.89	2423819.07	0.0274	0.0010
Mercury	1924-05-02 05:16 G	2423907.57	2423907.72	2423907.88	0.0273	0.0137
Venus	1924-05-18 22:04 G	2423924.21	2423924.42	2423924.63	0.0273	0.0021
Venus	1925-01-03 03:35 G	2424153.54	2424153.65	2424153.77	0.0271	0.0227
Moon	1931-07-13 06:00 G	2426535.53	2426535.75	2426535.97	0.0266	0.0140
Earth	1931-07-13 07:40 G	2426535.62	2426535.82	2426536.03	0.0266	0.0153 *
Mars	1935-12-22 10:48 G	2428158.76	2428158.95	2428159.16	0.0275	0.0181
Mercury	1939-05-29 12:57 G	2429412.94	2429413.04	2429413.15	0.0285	0.0174
Venus	1939-06-11 15:21 G	2429425.99	2429426.14	2429426.31	0.0285	0.0189
Mercury	1939-08-26 01:40 G	2429501.44	2429501.57	2429501.70	0.0286	0.0047
Mercury	1939-11-22 14:09 G	2429589.96	2429590.09	2429590.22	0.0287	0.0079
Venus	1940-01-27 09:35 G	2429655.70	2429655.90	2429656.11	0.0287	0.0056
Mercury	1940-02-19 02:24 G	2429678.51	2429678.60	2429678.70	0.0288	0.0204
Earth	1946-01-12 05:31 G	2431832.51	2431832.73	2431832.96	0.0294	0.0093

Moon	1946-01-12 08:52 G	2431832.64	2431832.87	2431833.10	0.0294	0.0081 *
Mercury	1953-03-25 13:40 G	2434461.95	2434462.07	2434462.20	0.0275	0.0191
Venus	1953-04-13 20:38 G	2434481.20	2434481.36	2434481.54	0.0275	0.0160
Mercury	1953-06-22 09:21 G	2434550.72	2434550.89	2434551.07	0.0274	0.0047
Mercury	1953-09-19 05:16 G	2434639.56	2434639.72	2434639.89	0.0273	0.0099
Venus	1953-11-29 03:07 G	2434710.43	2434710.63	2434710.84	0.0273	0.0052
Mercury	1953-12-17 01:26 G	2434728.49	2434728.56	2434728.65	0.0273	0.0246
Venus	1954-07-16 08:24 G	2434939.79	2434939.85	2434939.92	0.0271	0.0256
Earth	1961-07-19 11:02 G	2437499.77	2437499.96	2437500.17	0.0266	0.0157
Moon	1961-07-19 14:38 G	2437499.93	2437500.11	2437500.32	0.0266	0.0168 *
Mercury	1968-10-15 14:38 G	2440145.02	2440145.11	2440145.20	0.0286	0.0213
Venus	1968-12-21 19:55 G	2440212.16	2440212.33	2440212.52	0.0286	0.0157
Mercury	1969-01-12 03:21 G	2440233.51	2440233.64	2440233.77	0.0286	0.0086
Mercury	1969-04-10 15:50 G	2440322.03	2440322.16	2440322.30	0.0287	0.0042
Mercury	1969-07-08 04:19 G	2440410.57	2440410.68	2440410.79	0.0288	0.0167
Venus	1969-08-08 14:38 G	2440441.91	2440442.11	2440442.31	0.0288	0.0089
Mercury	1982-08-12 14:24 G	2445194.00	2445194.10	2445194.20	0.0275	0.0226
Venus	1982-10-25 03:21 G	2445267.46	2445267.64	2445267.83	0.0274	0.0128
Mercury	1982-11-09 10:04 G	2445282.75	2445282.92	2445283.09	0.0274	0.0082
Mercury	1983-02-06 06:00 G	2445371.58	2445371.75	2445371.93	0.0273	0.0064
Mercury	1983-05-06 02:24 G	2445460.48	2445460.60	2445460.71	0.0273	0.0210
Venus	1983-06-11 09:35 G	2445496.71	2445496.90	2445497.11	0.0272	0.0083
Moon	1990-07-14 13:55 G	2448086.84	2448087.08	2448087.32	0.0266	0.0064
Earth	1990-07-14 17:31 G	2448086.99	2448087.23	2448087.47	0.0266	0.0077 *
Mercury	1998-03-04 18:14 G	2450877.19	2450877.26	2450877.35	0.0285	0.0234
Mercury	1998-06-01 07:11 G	2450965.67	2450965.80	2450965.92	0.0286	0.0106
Venus	1998-07-04 07:55 G	2450998.64	2450998.83	2450999.03	0.0286	0.0115
Mercury	1998-08-28 19:40 G	2451054.19	2451054.32	2451054.46	0.0287	0.0020
Mercury	1998-11-25 08:09 G	2451142.72	2451142.84	2451142.96	0.0287	0.0146
Venus	1999-02-19 02:38 G	2451228.43	2451228.61	2451228.80	0.0288	0.0132

Mercury 1999-02-21 20:24 G 2451231.31 2451231.35 2451231.40 0.0288 0.0271

3RD MILLENNIUM CE

This is a list of transits visible from Saturn in the 3rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	2005-01-13 22:48	G	2453384.21	2453384.45	2453384.70	0.0294	0.0012	
Moon	2005-01-14 01:40	G	2453384.32	2453384.57	2453384.81	0.0294	0.0022	*
Mars	2008-05-17 05:16	G	2454603.41	2454603.72	2454604.05	0.0287	0.0034	
Mercury	2011-12-30 15:21	G	2455926.09	2455926.14	2455926.20	0.0275	0.0257	
Mercury	2012-03-28 11:02	G	2456014.80	2456014.96	2456015.12	0.0274	0.0114	
Venus	2012-05-06 10:04	G	2456053.73	2456053.92	2456054.13	0.0274	0.0094	
Mercury	2012-06-25 06:43	G	2456103.61	2456103.78	2456103.96	0.0274	0.0032	
Mercury	2012-09-22 02:52	G	2456192.49	2456192.62	2456192.76	0.0273	0.0177	
Venus	2012-12-21 16:04	G	2456282.98	2456283.17	2456283.37	0.0272	0.0116	
Earth	2020-07-20 22:19	G	2459051.31	2459051.43	2459051.54	0.0266	0.0236	
Moon	2020-07-20 22:04	G	2459051.33	2459051.42	2459051.54	0.0266	0.0243	*
Mars	2024-05-17 14:09	G	2460448.00	2460448.09	2460448.20	0.0275	0.0254	
Mercury	2027-07-22 19:55	G	2461609.30	2461609.33	2461609.37	0.0285	0.0273	
Mercury	2027-10-19 08:38	G	2461697.75	2461697.86	2461697.98	0.0286	0.0146	
Venus	2028-01-14 12:28	G	2461784.81	2461785.02	2461785.22	0.0287	0.0083	
Mercury	2028-01-15 21:21	G	2461786.25	2461786.39	2461786.53	0.0287	0.0019	
Mercury	2028-04-13 09:50	G	2461874.79	2461874.91	2461875.04	0.0288	0.0107	
Mercury	2028-07-10 22:19	G	2461963.35	2461963.43	2461963.51	0.0288	0.0233	

Venus	2028-08-31 07:11 G	2462014.63	2462014.80	2462014.98	0.0289	0.0164
Mercury	2041-08-15 11:31 G	2466746.83	2466746.98	2466747.13	0.0274	0.0150
Mercury	2041-11-12 07:26 G	2466835.63	2466835.81	2466835.98	0.0274	0.0009
Venus	2041-11-16 16:19 G	2466839.97	2466840.18	2466840.39	0.0274	0.0063
Mercury	2042-02-09 03:21 G	2466924.49	2466924.64	2466924.79	0.0273	0.0140
Venus	2042-07-03 22:19 G	2467069.25	2467069.43	2467069.61	0.0272	0.0145
Moon	2049-07-16 02:52 G	2469638.38	2469638.62	2469638.86	0.0266	0.0013
Earth	2049-07-16 03:35 G	2469638.40	2469638.65	2469638.90	0.0266	0.0003 *
Venus	2056-12-09 06:28 G	2472341.74	2472341.77	2472341.81	0.0285	0.0280
Mercury	2057-03-07 12:28 G	2472429.91	2472430.02	2472430.13	0.0286	0.0166
Mercury	2057-06-04 01:11 G	2472518.41	2472518.55	2472518.69	0.0286	0.0039
Venus	2057-07-27 00:28 G	2472571.31	2472571.52	2472571.73	0.0287	0.0040
Mercury	2057-08-31 13:40 G	2472606.94	2472607.07	2472607.20	0.0287	0.0087
Mercury	2057-11-28 01:55 G	2472695.50	2472695.58	2472695.68	0.0288	0.0213
Venus	2058-03-13 19:26 G	2472801.18	2472801.31	2472801.47	0.0289	0.0209
Moon	2064-01-16 15:21 G	2474935.92	2474936.14	2474936.37	0.0294	0.0127
Earth	2064-01-16 17:02 G	2474935.98	2474936.21	2474936.43	0.0294	0.0115 *
Venus	2070-10-12 17:02 G	2477397.11	2477397.21	2477397.32	0.0275	0.0239
Mercury	2071-01-02 12:43 G	2477478.90	2477479.03	2477479.17	0.0275	0.0179
Mercury	2071-04-01 08:24 G	2477567.68	2477567.85	2477568.03	0.0274	0.0036
Venus	2071-05-30 00:00 G	2477626.29	2477626.50	2477626.71	0.0273	0.0027
Mercury	2071-06-29 04:19 G	2477656.52	2477656.68	2477656.85	0.0273	0.0110
Mercury	2071-09-26 00:43 G	2477745.47	2477745.53	2477745.59	0.0273	0.0256
Venus	2072-01-14 05:31 G	2477855.58	2477855.73	2477855.89	0.0272	0.0180
Earth	2078-07-11 03:21 G	2480225.56	2480225.64	2480225.75	0.0265	0.0245
Moon	2078-07-11 04:48 G	2480225.59	2480225.70	2480225.84	0.0265	0.0230 *
Mars	2082-08-26 16:33 G	2481733.04	2481733.19	2481733.37	0.0273	0.0218
Venus	2086-06-21 10:19 G	2483127.84	2483127.93	2483128.04	0.0285	0.0251
Mercury	2086-07-25 13:55 G	2483161.99	2483162.08	2483162.18	0.0286	0.0206
Mercury	2086-10-22 02:38 G	2483250.48	2483250.61	2483250.74	0.0286	0.0080

Mercury	2087-01-18 15:07 G	2483339.00	2483339.13	2483339.27	0.0287	0.0048
Venus	2087-02-06 04:19 G	2483357.47	2483357.68	2483357.90	0.0287	0.0011
Mercury	2087-04-17 03:35 G	2483427.55	2483427.65	2483427.76	0.0288	0.0173
Venus	2087-09-23 23:31 G	2483587.37	2483587.48	2483587.60	0.0289	0.0240
Earth	2093-01-09 17:45 G	2485522.10	2485522.24	2485522.41	0.0295	0.0224
Moon	2093-01-09 19:55 G	2485522.18	2485522.33	2485522.50	0.0295	0.0211 *
Mars	2096-10-11 23:02 G	2486893.16	2486893.46	2486893.78	0.0286	0.0077
Venus	2100-04-24 22:19 G	2488183.30	2488183.43	2488183.57	0.0275	0.0211
Mercury	2100-05-22 12:57 G	2488210.94	2488211.04	2488211.15	0.0275	0.0218
Mercury	2100-08-19 08:38 G	2488299.69	2488299.86	2488300.03	0.0274	0.0074
Mercury	2100-11-16 04:33 G	2488388.52	2488388.69	2488388.86	0.0273	0.0070
Venus	2100-12-10 05:16 G	2488412.50	2488412.72	2488412.93	0.0273	0.0004
Mercury	2101-02-13 00:28 G	2488477.42	2488477.52	2488477.64	0.0273	0.0217
Venus	2101-07-27 10:48 G	2488641.82	2488641.95	2488642.08	0.0271	0.0208
Earth	2108-07-18 13:26 G	2491189.82	2491190.06	2491190.30	0.0266	0.0077
Moon	2108-07-18 16:04 G	2491189.95	2491190.17	2491190.41	0.0266	0.0090 *
Mercury	2115-12-13 17:16 G	2493894.15	2493894.22	2493894.31	0.0285	0.0229
Venus	2116-01-02 21:21 G	2493914.25	2493914.39	2493914.54	0.0286	0.0210
Mercury	2116-03-11 06:14 G	2493982.63	2493982.76	2493982.89	0.0286	0.0102
Mercury	2116-06-07 18:43 G	2494071.15	2494071.28	2494071.42	0.0287	0.0025
Venus	2116-08-19 15:50 G	2494143.95	2494144.16	2494144.37	0.0287	0.0034
Mercury	2116-09-04 07:11 G	2494159.69	2494159.80	2494159.92	0.0288	0.0150
Mercury	2116-12-01 19:26 G	2494248.28	2494248.31	2494248.35	0.0288	0.0275
Venus	2117-04-06 11:16 G	2494373.93	2494373.97	2494374.02	0.0289	0.0282
Moon	2123-01-19 04:48 G	2496487.56	2496487.70	2496487.86	0.0294	0.0228
Earth	2123-01-19 08:38 G	2496487.70	2496487.86	2496488.03	0.0294	0.0213 *
Mercury	2129-10-09 14:38 G	2498943.03	2498943.11	2498943.19	0.0275	0.0244
Venus	2129-11-05 06:43 G	2498969.62	2498969.78	2498969.95	0.0275	0.0173
Mercury	2130-01-06 10:04 G	2499031.76	2499031.92	2499032.09	0.0274	0.0102
Mercury	2130-04-05 06:00 G	2499120.57	2499120.75	2499120.93	0.0274	0.0043

Venus	2130-06-22 13:11 G	2499198.84	2499199.05	2499199.26	0.0273	0.0038
Mercury	2130-07-03 01:55 G	2499209.46	2499209.58	2499209.71	0.0273	0.0188
Venus	2131-02-06 18:28 G	2499428.18	2499428.27	2499428.36	0.0271	0.0244
Moon	2137-07-13 10:33 G	2501776.73	2501776.94	2501777.15	0.0265	0.0154
Earth	2137-07-13 13:26 G	2501776.88	2501777.06	2501777.26	0.0265	0.0169 *
Mercury	2145-05-01 18:43 G	2504626.24	2504626.28	2504626.32	0.0285	0.0271
Venus	2145-07-15 00:43 G	2504700.38	2504700.53	2504700.70	0.0286	0.0182
Mercury	2145-07-29 07:26 G	2504714.69	2504714.81	2504714.93	0.0286	0.0144
Mercury	2145-10-25 20:09 G	2504803.20	2504803.34	2504803.48	0.0287	0.0018
Mercury	2146-01-22 08:38 G	2504891.74	2504891.86	2504891.99	0.0287	0.0108
Venus	2146-03-01 19:11 G	2504930.09	2504930.30	2504930.51	0.0288	0.0063
Mercury	2146-04-20 21:07 G	2504980.30	2504980.38	2504980.45	0.0288	0.0233
Earth	2152-01-13 08:38 G	2507073.64	2507073.86	2507074.07	0.0295	0.0127
Moon	2152-01-13 12:14 G	2507073.79	2507074.01	2507074.23	0.0295	0.0112 *
Venus	2159-05-18 10:48 G	2509755.78	2509755.95	2509756.14	0.0274	0.0147
Mercury	2159-05-26 09:35 G	2509763.76	2509763.90	2509764.06	0.0274	0.0145
Mercury	2159-08-23 05:31 G	2509852.55	2509852.73	2509852.91	0.0274	0.0002
Mercury	2159-11-20 01:26 G	2509941.41	2509941.56	2509941.72	0.0273	0.0145
Venus	2160-01-02 17:16 G	2509985.02	2509985.22	2509985.43	0.0273	0.0065
Venus	2160-08-18 22:33 G	2510214.42	2510214.44	2510214.47	0.0271	0.0269
Earth	2167-07-20 21:07 G	2512741.19	2512741.38	2512741.60	0.0266	0.0150
Moon	2167-07-21 00:28 G	2512741.32	2512741.52	2512741.73	0.0266	0.0161 *
Mars	2171-01-22 03:07 G	2514022.40	2514022.63	2514022.87	0.0274	0.0131
Mercury	2174-12-16 10:33 G	2515446.83	2515446.94	2515447.05	0.0286	0.0170
Venus	2175-01-25 10:48 G	2515486.76	2515486.95	2515487.13	0.0286	0.0141
Mercury	2175-03-14 23:16 G	2515535.34	2515535.47	2515535.61	0.0287	0.0044
Mercury	2175-06-11 12:00 G	2515623.87	2515624.00	2515624.13	0.0287	0.0084
Mercury	2175-09-08 00:14 G	2515712.42	2515712.51	2515712.61	0.0288	0.0209
Venus	2175-09-12 05:16 G	2515716.53	2515716.72	2515716.92	0.0288	0.0104
Mars	2185-03-10 04:19 G	2519183.48	2519183.68	2519183.90	0.0286	0.0214

Mercury	2188-10-12 11:16 G	2520495.84	2520495.97	2520496.11	0.0275	0.0171
Venus	2188-11-27 18:57 G	2520542.10	2520542.29	2520542.49	0.0274	0.0109
Mercury	2189-01-09 06:57 G	2520584.61	2520584.79	2520584.97	0.0274	0.0028
Mercury	2189-04-08 02:52 G	2520673.46	2520673.62	2520673.78	0.0273	0.0117
Mercury	2189-07-05 22:48 G	2520762.42	2520762.45	2520762.51	0.0273	0.0263
Venus	2189-07-15 01:11 G	2520771.35	2520771.55	2520771.75	0.0273	0.0101
Moon	2196-07-14 19:11 G	2523328.07	2523328.30	2523328.53	0.0265	0.0083
Earth	2196-07-14 21:50 G	2523328.19	2523328.41	2523328.66	0.0265	0.0097 *
Mercury	2204-05-05 11:45 G	2526178.90	2526178.99	2526179.08	0.0285	0.0213
Mercury	2204-08-02 00:28 G	2526267.39	2526267.52	2526267.65	0.0286	0.0087
Venus	2204-08-07 13:26 G	2526272.87	2526273.06	2526273.26	0.0286	0.0114
Mercury	2204-10-29 13:11 G	2526355.91	2526356.05	2526356.18	0.0287	0.0040
Mercury	2205-01-26 01:40 G	2526444.46	2526444.57	2526444.68	0.0288	0.0165
Venus	2205-03-25 07:55 G	2526502.65	2526502.83	2526503.02	0.0288	0.0132
Moon	2211-01-15 19:11 G	2528625.05	2528625.30	2528625.55	0.0295	0.0025
Earth	2211-01-15 19:11 G	2528625.06	2528625.30	2528625.54	0.0295	0.0040 *
Mercury	2218-03-02 10:04 G	2531227.83	2531227.92	2531228.03	0.0275	0.0219
Mercury	2218-05-30 05:45 G	2531316.58	2531316.74	2531316.92	0.0274	0.0076
Venus	2218-06-10 21:50 G	2531328.21	2531328.41	2531328.62	0.0274	0.0085
Mercury	2218-08-27 01:40 G	2531405.40	2531405.57	2531405.75	0.0273	0.0069
Mercury	2218-11-23 21:35 G	2531494.30	2531494.40	2531494.52	0.0273	0.0215
Venus	2219-01-26 04:04 G	2531557.49	2531557.67	2531557.86	0.0272	0.0125
Moon	2226-07-23 01:40 G	2534292.45	2534292.57	2534292.72	0.0266	0.0225
Earth	2226-07-23 03:21 G	2534292.51	2534292.64	2534292.79	0.0266	0.0217 *
Mercury	2233-09-22 14:24 G	2536911.03	2536911.10	2536911.17	0.0285	0.0243
Mercury	2233-12-20 03:21 G	2536999.51	2536999.64	2536999.76	0.0286	0.0116
Venus	2234-02-17 21:50 G	2537059.21	2537059.41	2537059.62	0.0287	0.0077
Mercury	2234-03-18 15:50 G	2537088.03	2537088.16	2537088.30	0.0287	0.0013
Mercury	2234-06-15 04:19 G	2537176.57	2537176.68	2537176.80	0.0288	0.0137
Mercury	2234-09-11 16:48 G	2537265.15	2537265.20	2537265.26	0.0288	0.0261

Venus	2234-10-05 16:33 G	2537289.03	2537289.19	2537289.37	0.0289	0.0171
Venus	2247-05-06 22:33 G	2541885.38	2541885.44	2541885.51	0.0276	0.0261
Mercury	2247-07-20 11:31 G	2541959.92	2541959.98	2541960.07	0.0275	0.0247
Mercury	2247-10-17 07:11 G	2542048.64	2542048.80	2542048.97	0.0274	0.0104
Venus	2247-12-22 05:45 G	2542114.54	2542114.74	2542114.95	0.0274	0.0048
Mercury	2248-01-14 03:07 G	2542137.45	2542137.63	2542137.80	0.0274	0.0041
Mercury	2248-04-11 23:02 G	2542226.33	2542226.46	2542226.59	0.0273	0.0186
Venus	2248-08-07 11:31 G	2542343.82	2542343.98	2542344.16	0.0272	0.0161
Earth	2255-07-18 04:19 G	2544879.43	2544879.68	2544879.93	0.0265	0.0028
Moon	2255-07-18 06:00 G	2544879.51	2544879.75	2544879.99	0.0265	0.0017 *
Mars	2259-06-18 19:55 G	2546311.07	2546311.33	2546311.59	0.0273	0.0079
Mercury	2263-05-09 04:19 G	2547731.57	2547731.68	2547731.79	0.0285	0.0161
Mercury	2263-08-05 17:02 G	2547820.07	2547820.21	2547820.34	0.0286	0.0035
Venus	2263-08-31 00:14 G	2547845.30	2547845.51	2547845.72	0.0286	0.0051
Mercury	2263-11-02 05:31 G	2547908.60	2547908.73	2547908.86	0.0287	0.0091
Mercury	2264-01-29 17:45 G	2547997.16	2547997.24	2547997.33	0.0288	0.0216
Venus	2264-04-16 18:57 G	2548075.14	2548075.29	2548075.44	0.0288	0.0196
Moon	2270-01-16 23:02 G	2550176.22	2550176.46	2550176.70	0.0295	0.0055
Earth	2270-01-17 02:38 G	2550176.37	2550176.61	2550176.85	0.0295	0.0039 *
Mars	2273-08-04 13:26 G	2551471.96	2551472.06	2551472.17	0.0286	0.0270
Venus	2276-11-15 23:31 G	2552671.39	2552671.48	2552671.59	0.0276	0.0240
Mercury	2277-03-05 05:31 G	2552780.59	2552780.73	2552780.87	0.0275	0.0156
Mercury	2277-06-02 01:11 G	2552869.37	2552869.55	2552869.73	0.0274	0.0013
Venus	2277-07-03 06:57 G	2552900.58	2552900.79	2552901.01	0.0274	0.0028
Mercury	2277-08-29 21:07 G	2552958.23	2552958.38	2552958.54	0.0273	0.0133
Venus	2278-02-17 13:11 G	2553129.89	2553130.05	2553130.21	0.0272	0.0181
Moon	2284-07-12 01:26 G	2555466.54	2555466.56	2555466.62	0.0265	0.0263
Venus	2292-07-25 13:26 G	2558401.97	2558402.06	2558402.16	0.0285	0.0256
Mercury	2292-09-25 06:28 G	2558463.67	2558463.77	2558463.87	0.0286	0.0194
Mercury	2292-12-22 19:11 G	2558552.17	2558552.30	2558552.44	0.0286	0.0068

Venus	2293-03-12 07:11 G	2558631.59	2558631.80	2558632.01	0.0287	0.0015
Mercury	2293-03-21 07:55 G	2558640.70	2558640.83	2558640.96	0.0287	0.0058
Mercury	2293-06-17 20:09 G	2558729.25	2558729.34	2558729.45	0.0288	0.0184
Venus	2293-10-28 02:24 G	2558861.47	2558861.60	2558861.72	0.0289	0.0232
Earth	2299-01-11 09:35 G	2560762.84	2560762.90	2560762.97	0.0295	0.0282
Moon	2299-01-11 12:43 G	2560762.95	2560763.03	2560763.14	0.0295	0.0268 *
Venus	2306-05-30 07:26 G	2563457.67	2563457.81	2563457.95	0.0275	0.0204
Mercury	2306-07-24 06:28 G	2563512.65	2563512.77	2563512.91	0.0275	0.0186
Mercury	2306-10-21 02:24 G	2563601.42	2563601.60	2563601.77	0.0274	0.0042
Venus	2307-01-14 14:24 G	2563686.89	2563687.10	2563687.32	0.0274	0.0011
Mercury	2307-01-17 22:04 G	2563690.26	2563690.42	2563690.59	0.0274	0.0103
Mercury	2307-04-16 18:14 G	2563779.19	2563779.26	2563779.34	0.0273	0.0248
Venus	2307-08-31 20:09 G	2563916.22	2563916.34	2563916.47	0.0272	0.0216
Earth	2314-07-20 08:24 G	2566430.60	2566430.85	2566431.10	0.0265	0.0035
Moon	2314-07-20 12:00 G	2566430.75	2566431.00	2566431.25	0.0265	0.0044 *
Venus	2322-02-05 15:07 G	2569188.02	2569188.13	2569188.26	0.0285	0.0233
Mercury	2322-02-13 07:26 G	2569195.74	2569195.81	2569195.88	0.0285	0.0240
Mercury	2322-05-12 20:09 G	2569284.22	2569284.34	2569284.47	0.0285	0.0114
Mercury	2322-08-09 08:52 G	2569372.73	2569372.87	2569373.00	0.0286	0.0013
Venus	2322-09-23 08:52 G	2569417.66	2569417.87	2569418.08	0.0287	0.0009
Mercury	2322-11-05 21:21 G	2569461.27	2569461.39	2569461.51	0.0287	0.0136
Mercury	2323-02-02 09:35 G	2569549.85	2569549.90	2569549.96	0.0288	0.0260
Venus	2323-05-11 03:35 G	2569647.56	2569647.65	2569647.75	0.0289	0.0256
Moon	2329-01-19 03:50 G	2571727.45	2571727.66	2571727.87	0.0295	0.0124
Earth	2329-01-19 05:45 G	2571727.52	2571727.74	2571727.97	0.0295	0.0109 *
Venus	2335-12-10 07:26 G	2574243.66	2574243.81	2574243.97	0.0275	0.0185
Mercury	2335-12-11 04:19 G	2574244.61	2574244.68	2574244.77	0.0275	0.0242
Mercury	2336-03-09 00:00 G	2574333.34	2574333.50	2574333.67	0.0275	0.0099
Mercury	2336-06-05 19:55 G	2574422.15	2574422.33	2574422.50	0.0274	0.0046
Venus	2336-07-26 14:38 G	2574472.90	2574473.11	2574473.32	0.0273	0.0028

Mercury	2336-09-02 15:50 G	2574511.04	2574511.16	2574511.29	0.0273	0.0191
Venus	2337-03-12 20:24 G	2574702.25	2574702.35	2574702.46	0.0272	0.0235
Moon	2343-07-15 01:40 G	2577017.43	2577017.57	2577017.75	0.0265	0.0205
Earth	2343-07-15 05:31 G	2577017.59	2577017.73	2577017.88	0.0265	0.0215 *
Mars	2347-11-13 08:52 G	2578599.61	2578599.87	2578600.14	0.0273	0.0031
Mercury	2351-07-03 09:21 G	2579927.86	2579927.89	2579927.92	0.0285	0.0276
Venus	2351-08-18 20:38 G	2579974.22	2579974.36	2579974.52	0.0285	0.0201
Mercury	2351-09-29 22:04 G	2580016.31	2580016.42	2580016.54	0.0286	0.0150
Mercury	2351-12-27 10:48 G	2580104.82	2580104.95	2580105.09	0.0286	0.0024
Mercury	2352-03-24 23:16 G	2580193.35	2580193.47	2580193.60	0.0287	0.0102
Venus	2352-04-04 14:38 G	2580203.90	2580204.11	2580204.32	0.0287	0.0042
Mercury	2352-06-21 11:45 G	2580281.91	2580281.99	2580282.07	0.0288	0.0226
Earth	2358-01-13 11:16 G	2582313.80	2582313.97	2582314.13	0.0295	0.0216
Moon	2358-01-13 13:11 G	2582313.87	2582314.05	2582314.24	0.0295	0.0201 *
Mercury	2365-04-29 05:16 G	2584976.71	2584976.72	2584976.74	0.0276	0.0274
Venus	2365-06-21 13:55 G	2585029.92	2585030.08	2585030.27	0.0275	0.0152
Mercury	2365-07-27 00:43 G	2585065.38	2585065.53	2585065.69	0.0275	0.0132
Mercury	2365-10-23 20:38 G	2585154.18	2585154.36	2585154.53	0.0274	0.0014
Mercury	2366-01-20 16:33 G	2585243.04	2585243.19	2585243.33	0.0274	0.0158
Venus	2366-02-05 21:21 G	2585259.18	2585259.39	2585259.59	0.0273	0.0062
Venus	2366-09-23 02:52 G	2585488.59	2585488.62	2585488.65	0.0272	0.0268
Earth	2373-07-21 10:33 G	2587981.71	2587981.94	2587982.18	0.0265	0.0095
Moon	2373-07-21 10:48 G	2587981.71	2587981.95	2587982.19	0.0265	0.0099 *
Mercury	2381-02-15 23:02 G	2590748.36	2590748.46	2590748.56	0.0285	0.0196
Venus	2381-02-27 23:02 G	2590760.29	2590760.46	2590760.63	0.0285	0.0176
Mercury	2381-05-15 11:45 G	2590836.86	2590836.99	2590837.13	0.0285	0.0070
Mercury	2381-08-12 00:28 G	2590925.38	2590925.52	2590925.65	0.0286	0.0055
Venus	2381-10-15 16:33 G	2590989.98	2590990.19	2590990.39	0.0287	0.0066
Mercury	2381-11-08 12:43 G	2591013.93	2591014.03	2591014.14	0.0287	0.0179
Earth	2388-01-21 05:45 G	2593278.55	2593278.74	2593278.94	0.0295	0.0171

Moon	2388-01-21 08:09 G	2593278.66	2593278.84	2593279.02	0.0295	0.0187 *
Mercury	2394-12-13 21:50 G	2595797.29	2595797.41	2595797.54	0.0275	0.0191
Venus	2395-01-01 13:11 G	2595815.87	2595816.05	2595816.24	0.0275	0.0134
Mercury	2395-03-12 17:31 G	2595886.06	2595886.23	2595886.41	0.0275	0.0048
Mercury	2395-06-09 13:26 G	2595974.90	2595975.06	2595975.23	0.0274	0.0097
Venus	2395-08-18 20:24 G	2596045.15	2596045.35	2596045.55	0.0273	0.0078
Mercury	2395-09-06 09:35 G	2596063.83	2596063.90	2596063.99	0.0273	0.0243
Moon	2402-07-16 05:16 G	2598568.53	2598568.72	2598568.92	0.0265	0.0150
Earth	2402-07-16 06:00 G	2598568.56	2598568.75	2598568.95	0.0265	0.0159 *
Mercury	2410-07-06 00:28 G	2601480.45	2601480.52	2601480.60	0.0285	0.0236
Venus	2410-09-10 02:52 G	2601546.44	2601546.62	2601546.81	0.0285	0.0146
Mercury	2410-10-02 13:26 G	2601568.93	2601569.06	2601569.18	0.0286	0.0110
Mercury	2410-12-30 01:55 G	2601657.45	2601657.58	2601657.72	0.0286	0.0016
Mercury	2411-03-28 14:24 G	2601745.98	2601746.10	2601746.22	0.0287	0.0140
Venus	2411-04-27 20:38 G	2601776.17	2601776.36	2601776.57	0.0287	0.0097
Mercury	2411-06-25 02:38 G	2601834.57	2601834.61	2601834.67	0.0288	0.0264
Moon	2417-01-14 06:57 G	2603864.57	2603864.79	2603865.01	0.0295	0.0141
Earth	2417-01-14 09:35 G	2603864.70	2603864.90	2603865.10	0.0295	0.0158 *
Mercury	2424-05-01 22:33 G	2606529.34	2606529.44	2606529.54	0.0276	0.0226
Venus	2424-07-13 19:26 G	2606602.12	2606602.31	2606602.51	0.0275	0.0101
Mercury	2424-07-29 18:14 G	2606618.09	2606618.26	2606618.43	0.0275	0.0082
Mercury	2424-10-26 14:09 G	2606706.91	2606707.09	2606707.26	0.0274	0.0063
Mercury	2425-01-23 10:04 G	2606795.81	2606795.92	2606796.04	0.0274	0.0208
Venus	2425-02-28 02:38 G	2606831.42	2606831.61	2606831.80	0.0273	0.0111
Moon	2432-07-22 07:40 G	2609532.62	2609532.82	2609533.04	0.0265	0.0153
Earth	2432-07-22 11:16 G	2609532.77	2609532.97	2609533.18	0.0265	0.0151 *
Mars	2436-04-07 18:28 G	2610888.00	2610888.27	2610888.54	0.0272	0.0005
Mercury	2439-11-23 01:40 G	2612212.55	2612212.57	2612212.59	0.0284	0.0279
Mercury	2440-02-19 14:24 G	2612300.99	2612301.10	2612301.22	0.0284	0.0154
Venus	2440-03-22 05:31 G	2612332.54	2612332.73	2612332.92	0.0285	0.0122

Mercury	2440-05-18 03:07 G	2612389.49	2612389.63	2612389.77	0.0285	0.0030
Mercury	2440-08-14 15:35 G	2612478.02	2612478.15	2612478.28	0.0286	0.0095
Venus	2440-11-06 23:02 G	2612562.27	2612562.46	2612562.66	0.0287	0.0121
Mercury	2440-11-11 03:50 G	2612566.58	2612566.66	2612566.75	0.0287	0.0218
Earth	2447-01-22 04:04 G	2614829.53	2614829.67	2614829.83	0.0295	0.0229
Moon	2447-01-22 07:40 G	2614829.68	2614829.82	2614829.95	0.0295	0.0245 *
Mercury	2453-12-16 15:07 G	2617349.98	2617350.13	2617350.27	0.0275	0.0145
Venus	2454-01-23 18:00 G	2617388.05	2617388.25	2617388.45	0.0275	0.0085
Mercury	2454-03-15 10:48 G	2617438.77	2617438.95	2617439.13	0.0275	0.0002
Mercury	2454-06-12 06:43 G	2617527.63	2617527.78	2617527.93	0.0274	0.0145
Venus	2454-09-10 00:57 G	2617617.36	2617617.54	2617617.73	0.0273	0.0127
Earth	2461-07-17 05:31 G	2620119.50	2620119.73	2620119.96	0.0265	0.0105
Moon	2461-07-17 08:38 G	2620119.64	2620119.86	2620120.10	0.0265	0.0097 *
Mercury	2469-07-08 15:50 G	2623033.06	2623033.16	2623033.26	0.0285	0.0195
Venus	2469-10-02 08:52 G	2623118.67	2623118.87	2623119.08	0.0285	0.0093
Mercury	2469-10-05 04:33 G	2623121.56	2623121.69	2623121.82	0.0286	0.0070
Mercury	2470-01-01 17:02 G	2623210.08	2623210.21	2623210.35	0.0286	0.0054
Mercury	2470-03-31 05:31 G	2623298.63	2623298.73	2623298.84	0.0287	0.0178
Venus	2470-05-20 02:38 G	2623348.44	2623348.61	2623348.80	0.0287	0.0151
Moon	2476-01-16 03:35 G	2625415.43	2625415.65	2625415.88	0.0295	0.0087
Earth	2476-01-16 06:43 G	2625415.56	2625415.78	2625416.01	0.0295	0.0103 *
Venus	2482-12-19 15:21 G	2627945.10	2627945.14	2627945.18	0.0277	0.0270
Mercury	2483-05-05 15:07 G	2628082.01	2628082.13	2628082.27	0.0276	0.0182
Mercury	2483-08-02 11:02 G	2628170.78	2628170.96	2628171.13	0.0275	0.0037
Venus	2483-08-05 23:31 G	2628174.28	2628174.48	2628174.69	0.0275	0.0054
Mercury	2483-10-30 06:57 G	2628259.63	2628259.79	2628259.95	0.0274	0.0108
Mercury	2484-01-27 02:52 G	2628348.57	2628348.62	2628348.70	0.0274	0.0255
Venus	2484-03-22 06:28 G	2628403.61	2628403.77	2628403.95	0.0273	0.0158
Moon	2491-07-24 09:07 G	2631083.73	2631083.88	2631084.03	0.0265	0.0207
Earth	2491-07-24 11:16 G	2631083.82	2631083.97	2631084.13	0.0265	0.0206 *

Mercury	2498-11-25 17:02 G	2633765.14	2633765.21	2633765.29	0.0284	0.0238
Mercury	2499-02-22 05:45 G	2633853.62	2633853.74	2633853.87	0.0284	0.0114
Venus	2499-04-14 12:00 G	2633904.79	2633905.00	2633905.20	0.0285	0.0068
Mercury	2499-05-21 18:28 G	2633942.13	2633942.27	2633942.40	0.0285	0.0013
Mercury	2499-08-18 06:43 G	2634030.66	2634030.78	2634030.90	0.0286	0.0134
Mercury	2499-11-14 18:57 G	2634119.24	2634119.29	2634119.35	0.0287	0.0257
Venus	2499-11-30 05:31 G	2634134.56	2634134.73	2634134.90	0.0287	0.0175
Earth	2506-01-24 01:11 G	2636380.50	2636380.55	2636380.62	0.0295	0.0284
Venus	2512-07-01 13:40 G	2638730.99	2638731.07	2638731.15	0.0277	0.0254
Mercury	2512-09-22 12:00 G	2638813.93	2638814.00	2638814.09	0.0276	0.0244
Mercury	2512-12-20 07:40 G	2638902.66	2638902.82	2638902.99	0.0275	0.0100
Venus	2513-02-15 22:04 G	2638960.21	2638960.42	2638960.63	0.0275	0.0038
Mercury	2513-03-19 03:35 G	2638991.47	2638991.65	2638991.82	0.0275	0.0045
Mercury	2513-06-15 23:31 G	2639080.36	2639080.48	2639080.62	0.0274	0.0191
Venus	2513-10-03 05:02 G	2639189.55	2639189.71	2639189.87	0.0273	0.0173
Earth	2520-07-19 04:33 G	2641670.45	2641670.69	2641670.94	0.0265	0.0052
Moon	2520-07-19 06:57 G	2641670.54	2641670.79	2641671.05	0.0265	0.0047 *
Mars	2524-09-01 21:07 G	2643176.12	2643176.38	2643176.65	0.0272	0.0032
Venus	2528-03-09 22:19 G	2644461.40	2644461.43	2644461.49	0.0284	0.0277
Mercury	2528-04-14 18:14 G	2644497.24	2644497.26	2644497.28	0.0284	0.0280
Mercury	2528-07-12 06:57 G	2644585.68	2644585.79	2644585.91	0.0285	0.0156
Mercury	2528-10-08 19:40 G	2644674.18	2644674.32	2644674.46	0.0285	0.0031
Venus	2528-10-25 14:52 G	2644690.91	2644691.12	2644691.33	0.0286	0.0040
Mercury	2529-01-05 08:09 G	2644762.71	2644762.84	2644762.97	0.0286	0.0093
Mercury	2529-04-03 20:24 G	2644851.27	2644851.35	2644851.44	0.0287	0.0216
Venus	2529-06-12 08:38 G	2644920.72	2644920.86	2644921.01	0.0288	0.0205
Earth	2535-01-18 03:07 G	2646966.40	2646966.63	2646966.87	0.0295	0.0049
Moon	2535-01-18 05:02 G	2646966.48	2646966.71	2646966.94	0.0295	0.0035 *
Venus	2542-01-11 18:57 G	2649517.17	2649517.29	2649517.42	0.0277	0.0224
Mercury	2542-05-09 07:40 G	2649634.68	2649634.82	2649634.98	0.0276	0.0139

Mercury	2542-08-06 03:35 G	2649723.48	2649723.65	2649723.83	0.0275	0.0007
Venus	2542-08-29 03:21 G	2649746.43	2649746.64	2649746.85	0.0275	0.0008
Mercury	2542-11-02 23:31 G	2649812.34	2649812.48	2649812.64	0.0274	0.0153
Venus	2543-04-15 10:04 G	2649975.79	2649975.92	2649976.07	0.0273	0.0204
Earth	2550-07-26 11:02 G	2652634.92	2652634.96	2652635.01	0.0266	0.0260
Moon	2550-07-26 13:11 G	2652635.00	2652635.05	2652635.11	0.0266	0.0258 *
Venus	2557-09-20 02:52 G	2655247.53	2655247.62	2655247.73	0.0283	0.0249
Mercury	2557-11-29 08:38 G	2655317.76	2655317.86	2655317.96	0.0283	0.0195
Mercury	2558-02-25 21:21 G	2655406.26	2655406.39	2655406.52	0.0284	0.0071
Venus	2558-05-07 19:11 G	2655477.09	2655477.30	2655477.51	0.0285	0.0013
Mercury	2558-05-25 09:50 G	2655494.78	2655494.91	2655495.04	0.0285	0.0053
Mercury	2558-08-21 22:04 G	2655583.32	2655583.42	2655583.53	0.0286	0.0176
Venus	2558-12-23 12:43 G	2655706.91	2655707.03	2655707.16	0.0287	0.0231
Venus	2571-07-24 17:16 G	2660303.10	2660303.22	2660303.37	0.0277	0.0208
Mercury	2571-09-26 04:33 G	2660366.58	2660366.69	2660366.82	0.0276	0.0200
Mercury	2571-12-24 00:28 G	2660455.35	2660455.52	2660455.69	0.0275	0.0056
Venus	2572-03-10 01:55 G	2660532.37	2660532.58	2660532.79	0.0275	0.0009
Mercury	2572-03-21 20:24 G	2660544.18	2660544.35	2660544.52	0.0275	0.0089
Mercury	2572-06-18 16:33 G	2660633.10	2660633.19	2660633.28	0.0274	0.0236
Venus	2572-10-25 08:38 G	2660761.74	2660761.86	2660761.99	0.0273	0.0219
Moon	2579-07-21 01:26 G	2663221.31	2663221.56	2663221.82	0.0265	0.0004
Earth	2579-07-21 04:19 G	2663221.43	2663221.68	2663221.93	0.0265	0.0003 *
Venus	2587-04-02 05:31 G	2666033.61	2666033.73	2666033.87	0.0284	0.0222
Mercury	2587-04-18 09:35 G	2666049.84	2666049.90	2666049.98	0.0284	0.0238
Mercury	2587-07-15 22:33 G	2666138.31	2666138.44	2666138.56	0.0285	0.0113
Mercury	2587-10-12 11:02 G	2666226.83	2666226.96	2666227.10	0.0285	0.0011
Venus	2587-11-17 22:04 G	2666263.21	2666263.42	2666263.63	0.0286	0.0016
Mercury	2588-01-08 23:31 G	2666315.36	2666315.48	2666315.60	0.0286	0.0134
Mercury	2588-04-06 11:45 G	2666403.94	2666403.99	2666404.05	0.0287	0.0256
Venus	2588-07-04 15:35 G	2666493.08	2666493.15	2666493.25	0.0288	0.0261

Earth	2594-01-19 00:57 G	2668517.30	2668517.54	2668517.78	0.0295	0.0009
Moon	2594-01-19 04:33 G	2668517.44	2668517.69	2668517.93	0.0295	0.0019 *
Venus	2601-02-03 23:02 G	2671089.30	2671089.46	2671089.62	0.0277	0.0178
Mercury	2601-02-13 04:48 G	2671098.62	2671098.70	2671098.79	0.0277	0.0239
Mercury	2601-05-13 00:28 G	2671187.36	2671187.52	2671187.69	0.0276	0.0095
Mercury	2601-08-09 20:24 G	2671276.18	2671276.35	2671276.53	0.0275	0.0050
Venus	2601-09-21 07:11 G	2671318.59	2671318.80	2671319.01	0.0275	0.0039
Mercury	2601-11-06 16:33 G	2671365.07	2671365.19	2671365.32	0.0274	0.0197
Venus	2602-05-08 14:09 G	2671548.01	2671548.09	2671548.17	0.0273	0.0249
Earth	2608-07-16 07:11 G	2673808.70	2673808.80	2673808.93	0.0265	0.0235
Moon	2608-07-16 09:50 G	2673808.81	2673808.91	2673809.04	0.0265	0.0232 *
Mars	2613-01-27 13:26 G	2675464.80	2675465.06	2675465.32	0.0272	0.0078
Mercury	2616-09-05 11:45 G	2676781.96	2676781.99	2676782.03	0.0283	0.0273
Venus	2616-10-13 11:02 G	2676819.82	2676819.96	2676820.13	0.0283	0.0194
Mercury	2616-12-03 00:28 G	2676870.41	2676870.52	2676870.64	0.0283	0.0149
Mercury	2617-03-01 13:11 G	2676958.91	2676959.05	2676959.18	0.0284	0.0026
Mercury	2617-05-29 01:40 G	2677047.44	2677047.57	2677047.69	0.0285	0.0097
Venus	2617-05-31 03:35 G	2677049.44	2677049.65	2677049.86	0.0285	0.0045
Mercury	2617-08-25 13:55 G	2677135.99	2677136.08	2677136.17	0.0286	0.0218
Venus	2630-08-16 22:19 G	2681875.26	2681875.43	2681875.61	0.0277	0.0159
Mercury	2630-09-29 21:35 G	2681919.26	2681919.40	2681919.55	0.0276	0.0154
Mercury	2630-12-27 17:31 G	2682008.05	2682008.23	2682008.41	0.0275	0.0009
Mercury	2631-03-26 13:26 G	2682096.91	2682097.06	2682097.22	0.0275	0.0137
Venus	2631-04-03 06:28 G	2682104.56	2682104.77	2682104.98	0.0275	0.0057
Venus	2631-11-18 12:57 G	2682334.01	2682334.04	2682334.09	0.0273	0.0267
Moon	2638-07-23 01:26 G	2684772.33	2684772.56	2684772.81	0.0265	0.0054
Earth	2638-07-23 04:48 G	2684772.45	2684772.70	2684772.94	0.0265	0.0059 *
Mercury	2646-04-22 01:40 G	2687602.47	2687602.57	2687602.68	0.0284	0.0192
Venus	2646-04-25 13:55 G	2687605.91	2687606.08	2687606.26	0.0284	0.0166
Mercury	2646-07-19 14:24 G	2687690.97	2687691.10	2687691.24	0.0285	0.0068

Mercury	2646-10-16 02:52 G	2687779.49	2687779.62	2687779.76	0.0285	0.0056
Venus	2646-12-11 06:28 G	2687835.57	2687835.77	2687835.98	0.0286	0.0074
Mercury	2647-01-12 15:21 G	2687868.03	2687868.14	2687868.24	0.0286	0.0178
Moon	2653-01-21 01:11 G	2690068.31	2690068.55	2690068.80	0.0295	0.0077
Earth	2653-01-21 01:40 G	2690068.34	2690068.57	2690068.81	0.0295	0.0072 *
Mercury	2660-02-16 21:50 G	2692651.29	2692651.41	2692651.54	0.0276	0.0193
Venus	2660-02-27 03:50 G	2692661.48	2692661.66	2692661.85	0.0276	0.0129
Mercury	2660-05-15 17:31 G	2692740.06	2692740.23	2692740.41	0.0276	0.0049
Mercury	2660-08-12 13:40 G	2692828.90	2692829.07	2692829.23	0.0275	0.0098
Venus	2660-10-13 12:00 G	2692890.80	2692891.00	2692891.20	0.0275	0.0087
Mercury	2660-11-09 09:50 G	2692917.83	2692917.91	2692917.99	0.0274	0.0244
Earth	2667-07-18 08:38 G	2695359.68	2695359.86	2695360.05	0.0266	0.0177
Moon	2667-07-18 11:45 G	2695359.81	2695359.99	2695360.19	0.0266	0.0176 *
Mercury	2675-09-09 04:19 G	2698334.60	2698334.68	2698334.76	0.0283	0.0223
Venus	2675-11-05 21:07 G	2698392.20	2698392.38	2698392.58	0.0283	0.0134
Mercury	2675-12-06 17:02 G	2698423.08	2698423.21	2698423.34	0.0284	0.0100
Mercury	2676-03-04 05:31 G	2698511.59	2698511.73	2698511.86	0.0284	0.0024
Mercury	2676-05-31 17:45 G	2698600.13	2698600.24	2698600.36	0.0285	0.0145
Venus	2676-06-22 13:40 G	2698621.88	2698622.07	2698622.27	0.0285	0.0106
Mercury	2676-08-28 06:00 G	2698688.71	2698688.75	2698688.80	0.0286	0.0266
Earth	2682-01-15 01:26 G	2700654.46	2700654.56	2700654.67	0.0295	0.0263
Moon	2682-01-15 01:55 G	2700654.48	2700654.58	2700654.70	0.0295	0.0257 *
Mercury	2689-07-05 19:40 G	2703383.25	2703383.32	2703383.40	0.0277	0.0247
Venus	2689-09-08 04:19 G	2703447.49	2703447.68	2703447.88	0.0276	0.0108
Mercury	2689-10-02 15:21 G	2703471.98	2703472.14	2703472.30	0.0276	0.0103
Mercury	2689-12-30 11:16 G	2703560.79	2703560.97	2703561.14	0.0275	0.0042
Mercury	2690-03-29 07:26 G	2703649.68	2703649.81	2703649.94	0.0275	0.0188
Venus	2690-04-25 12:14 G	2703676.82	2703677.01	2703677.21	0.0274	0.0107
Earth	2697-07-24 06:57 G	2706323.58	2706323.79	2706324.02	0.0266	0.0120
Moon	2697-07-24 08:24 G	2706323.64	2706323.85	2706324.08	0.0266	0.0112 *

Mars	2701-06-23 22:48 G	2707753.22	2707753.45	2707753.70	0.0272	0.0117
Mercury	2705-01-27 05:31 G	2709066.68	2709066.73	2709066.78	0.0283	0.0265
Mercury	2705-04-25 18:14 G	2709155.14	2709155.26	2709155.38	0.0284	0.0141
Venus	2705-05-19 00:00 G	2709178.31	2709178.50	2709178.71	0.0284	0.0106
Mercury	2705-07-23 06:43 G	2709243.65	2709243.78	2709243.92	0.0285	0.0020
Mercury	2705-10-19 19:11 G	2709332.18	2709332.30	2709332.43	0.0286	0.0105
Venus	2706-01-03 16:48 G	2709408.02	2709408.20	2709408.39	0.0286	0.0136
Mercury	2706-01-16 07:26 G	2709420.74	2709420.81	2709420.90	0.0286	0.0227
Moon	2712-01-24 01:55 G	2711619.37	2711619.58	2711619.79	0.0294	0.0144
Earth	2712-01-24 05:31 G	2711619.52	2711619.73	2711619.94	0.0294	0.0143 *
Mercury	2719-02-20 15:35 G	2714204.00	2714204.15	2714204.30	0.0276	0.0142
Venus	2719-03-22 10:04 G	2714233.72	2714233.92	2714234.13	0.0276	0.0078
Mercury	2719-05-20 11:31 G	2714292.80	2714292.98	2714293.15	0.0276	0.0005
Mercury	2719-08-17 07:26 G	2714381.67	2714381.81	2714381.96	0.0275	0.0150
Venus	2719-11-06 18:00 G	2714463.07	2714463.25	2714463.44	0.0274	0.0137
Moon	2726-07-20 10:48 G	2716910.72	2716910.95	2716911.19	0.0266	0.0118
Earth	2726-07-20 11:45 G	2716910.77	2716910.99	2716911.22	0.0266	0.0115 *
Mercury	2734-09-12 21:07 G	2719887.27	2719887.38	2719887.49	0.0283	0.0168
Venus	2734-11-29 08:52 G	2719964.67	2719964.87	2719965.08	0.0284	0.0070
Mercury	2734-12-10 09:50 G	2719975.77	2719975.91	2719976.04	0.0284	0.0046
Mercury	2735-03-08 22:19 G	2720064.30	2720064.43	2720064.56	0.0285	0.0077
Mercury	2735-06-05 10:33 G	2720152.84	2720152.94	2720153.04	0.0285	0.0198
Venus	2735-07-17 01:40 G	2720194.41	2720194.57	2720194.74	0.0286	0.0171
Earth	2741-01-17 09:07 G	2722205.70	2722205.88	2722206.08	0.0294	0.0183
Moon	2741-01-17 12:43 G	2722205.85	2722206.03	2722206.23	0.0294	0.0175 *
Venus	2748-02-15 03:21 G	2724790.61	2724790.64	2724790.69	0.0278	0.0272
Mercury	2748-07-09 14:09 G	2724935.97	2724936.09	2724936.22	0.0277	0.0190
Venus	2748-10-01 12:14 G	2725019.81	2725020.01	2725020.22	0.0276	0.0054
Mercury	2748-10-06 09:50 G	2725024.74	2725024.91	2725025.09	0.0276	0.0047
Mercury	2749-01-03 05:45 G	2725113.58	2725113.74	2725113.91	0.0275	0.0099

Mercury	2749-04-02 01:55 G	2725202.51	2725202.58	2725202.67	0.0274	0.0246
Venus	2749-05-18 19:55 G	2725249.16	2725249.33	2725249.50	0.0274	0.0160
Earth	2756-07-26 11:31 G	2727874.80	2727874.98	2727875.16	0.0266	0.0184
Moon	2756-07-26 15:07 G	2727874.95	2727875.13	2727875.32	0.0266	0.0174 *
Venus	2763-10-24 20:52 G	2730521.33	2730521.37	2730521.42	0.0283	0.0275
Mercury	2764-01-30 22:33 G	2730619.35	2730619.44	2730619.53	0.0284	0.0209
Mercury	2764-04-28 11:16 G	2730707.84	2730707.97	2730708.10	0.0284	0.0085
Venus	2764-06-10 12:28 G	2730750.81	2730751.02	2730751.23	0.0285	0.0040
Mercury	2764-07-25 23:45 G	2730796.36	2730796.49	2730796.63	0.0285	0.0038
Mercury	2764-10-22 12:14 G	2730884.90	2730885.01	2730885.12	0.0286	0.0160
Mercury	2765-01-19 00:28 G	2730973.50	2730973.52	2730973.54	0.0287	0.0281
Venus	2765-01-26 05:16 G	2730980.58	2730980.72	2730980.88	0.0287	0.0202
Moon	2771-01-25 11:16 G	2733170.83	2733170.97	2733171.13	0.0294	0.0225
Earth	2771-01-25 13:11 G	2733170.90	2733171.05	2733171.21	0.0294	0.0223 *
Venus	2777-08-27 09:07 G	2735576.79	2735576.88	2735576.99	0.0277	0.0242
Mercury	2777-11-26 14:38 G	2735668.01	2735668.11	2735668.21	0.0277	0.0228
Mercury	2778-02-23 10:19 G	2735756.76	2735756.93	2735757.10	0.0276	0.0084
Venus	2778-04-13 18:14 G	2735806.05	2735806.26	2735806.47	0.0276	0.0023
Mercury	2778-05-23 06:14 G	2735845.58	2735845.76	2735845.93	0.0275	0.0061
Mercury	2778-08-20 02:09 G	2735934.48	2735934.59	2735934.71	0.0275	0.0208
Venus	2778-11-29 01:55 G	2736035.43	2736035.58	2736035.73	0.0274	0.0190
Moon	2785-07-21 13:26 G	2738461.82	2738462.06	2738462.31	0.0266	0.0053
Earth	2785-07-21 17:02 G	2738461.97	2738462.21	2738462.46	0.0266	0.0049 *
Mars	2789-11-18 07:26 G	2740042.64	2740042.81	2740043.01	0.0273	0.0196
Venus	2793-05-06 06:43 G	2741307.67	2741307.78	2741307.90	0.0282	0.0238
Mercury	2793-06-19 01:40 G	2741351.50	2741351.57	2741351.66	0.0283	0.0233
Mercury	2793-09-15 14:38 G	2741439.98	2741440.11	2741440.23	0.0284	0.0110
Mercury	2793-12-13 03:07 G	2741528.49	2741528.63	2741528.77	0.0284	0.0013
Venus	2793-12-21 22:33 G	2741537.23	2741537.44	2741537.65	0.0284	0.0003
Mercury	2794-03-11 15:35 G	2741617.03	2741617.15	2741617.27	0.0285	0.0135

Mercury	2794-06-08 03:50 G	2741705.60	2741705.66	2741705.72	0.0286	0.0256
Venus	2794-08-08 15:35 G	2741767.04	2741767.15	2741767.27	0.0286	0.0240
Earth	2800-01-19 20:38 G	2743757.13	2743757.36	2743757.59	0.0294	0.0093
Moon	2800-01-19 22:33 G	2743757.20	2743757.44	2743757.68	0.0294	0.0087 *
Venus	2807-03-09 13:26 G	2746362.93	2746363.06	2746363.20	0.0277	0.0213
Mercury	2807-04-15 13:55 G	2746400.05	2746400.08	2746400.13	0.0277	0.0270
Mercury	2807-07-13 09:35 G	2746488.75	2746488.90	2746489.06	0.0276	0.0127
Mercury	2807-10-10 05:31 G	2746577.55	2746577.73	2746577.90	0.0276	0.0018
Venus	2807-10-24 22:04 G	2746592.21	2746592.42	2746592.63	0.0275	0.0005
Mercury	2808-01-07 01:26 G	2746666.42	2746666.56	2746666.70	0.0275	0.0163
Venus	2808-06-10 05:16 G	2746821.60	2746821.72	2746821.85	0.0274	0.0217
Earth	2815-07-28 18:00 G	2749426.19	2749426.25	2749426.33	0.0266	0.0253
Moon	2815-07-28 18:57 G	2749426.19	2749426.29	2749426.40	0.0266	0.0243 *
Mercury	2822-11-06 03:07 G	2752083.60	2752083.63	2752083.67	0.0283	0.0273
Venus	2822-11-16 10:19 G	2752093.79	2752093.93	2752094.08	0.0283	0.0209
Mercury	2823-02-02 16:04 G	2752172.05	2752172.17	2752172.29	0.0284	0.0149
Mercury	2823-05-02 04:33 G	2752260.56	2752260.69	2752260.83	0.0285	0.0028
Venus	2823-07-04 02:24 G	2752323.39	2752323.60	2752323.81	0.0285	0.0028
Mercury	2823-07-29 17:02 G	2752349.09	2752349.21	2752349.34	0.0285	0.0097
Mercury	2823-10-26 05:16 G	2752437.64	2752437.72	2752437.81	0.0286	0.0218
Venus	2824-02-18 19:26 G	2752553.26	2752553.31	2752553.39	0.0287	0.0271
Venus	2836-09-18 19:40 G	2757149.17	2757149.32	2757149.49	0.0277	0.0182
Mercury	2836-11-29 10:04 G	2757220.79	2757220.92	2757221.07	0.0276	0.0164
Mercury	2837-02-26 06:00 G	2757309.57	2757309.75	2757309.92	0.0276	0.0020
Venus	2837-05-06 04:19 G	2757378.48	2757378.68	2757378.90	0.0275	0.0036
Mercury	2837-05-26 01:55 G	2757398.42	2757398.58	2757398.74	0.0275	0.0126
Mercury	2837-08-22 22:19 G	2757487.41	2757487.43	2757487.44	0.0274	0.0273
Venus	2837-12-21 11:45 G	2757607.90	2757607.99	2757608.08	0.0274	0.0247
Moon	2844-07-22 22:33 G	2760013.20	2760013.44	2760013.68	0.0266	0.0017
Earth	2844-07-23 00:00 G	2760013.25	2760013.50	2760013.75	0.0266	0.0023 *

Mars	2848-02-27 11:31 G	2761327.98	2761327.98	2761328.00	0.0272	0.0271
Venus	2852-05-28 21:35 G	2762880.23	2762880.40	2762880.57	0.0283	0.0169
Mercury	2852-06-21 19:40 G	2762904.21	2762904.32	2762904.43	0.0283	0.0170
Mercury	2852-09-18 08:24 G	2762992.71	2762992.85	2762992.98	0.0284	0.0048
Mercury	2852-12-15 20:52 G	2763081.24	2763081.37	2763081.50	0.0285	0.0075
Venus	2853-01-13 13:40 G	2763109.87	2763110.07	2763110.28	0.0285	0.0069
Mercury	2853-03-14 09:07 G	2763169.79	2763169.88	2763169.98	0.0285	0.0196
Moon	2859-01-21 08:52 G	2765308.63	2765308.87	2765309.12	0.0294	0.0007
Earth	2859-01-21 11:31 G	2765308.74	2765308.98	2765309.22	0.0294	0.0003 *
Mars	2862-04-03 11:45 G	2766476.79	2766476.99	2766477.23	0.0289	0.0213
Venus	2866-04-01 01:26 G	2767935.39	2767935.56	2767935.74	0.0277	0.0149
Mercury	2866-04-18 10:19 G	2767952.82	2767952.93	2767953.05	0.0277	0.0201
Mercury	2866-07-16 06:00 G	2768041.58	2768041.75	2768041.92	0.0276	0.0057
Mercury	2866-10-13 01:55 G	2768130.41	2768130.58	2768130.75	0.0275	0.0087
Venus	2866-11-16 09:35 G	2768164.70	2768164.90	2768165.11	0.0275	0.0067
Mercury	2867-01-09 21:50 G	2768219.33	2768219.41	2768219.51	0.0275	0.0233
Earth	2873-07-17 21:21 G	2770600.27	2770600.39	2770600.53	0.0266	0.0225
Moon	2873-07-17 23:16 G	2770600.34	2770600.47	2770600.61	0.0266	0.0226 *
Mars	2878-04-14 06:14 G	2772331.69	2772331.76	2772331.86	0.0273	0.0258
Mercury	2881-11-08 21:07 G	2773636.29	2773636.38	2773636.48	0.0284	0.0209
Venus	2881-12-09 01:11 G	2773666.38	2773666.55	2773666.74	0.0284	0.0140
Mercury	2882-02-05 09:50 G	2773724.78	2773724.91	2773725.04	0.0284	0.0086
Mercury	2882-05-04 22:19 G	2773813.30	2773813.43	2773813.57	0.0285	0.0038
Venus	2882-07-26 18:00 G	2773896.05	2773896.25	2773896.45	0.0286	0.0100
Mercury	2882-08-01 10:48 G	2773901.84	2773901.95	2773902.06	0.0286	0.0159
Mercury	2882-10-28 23:02 G	2773990.44	2773990.46	2773990.49	0.0286	0.0280
Mercury	2895-09-05 10:48 G	2778684.87	2778684.95	2778685.05	0.0277	0.0237
Venus	2895-10-12 07:55 G	2778721.64	2778721.83	2778722.02	0.0276	0.0118
Mercury	2895-12-03 06:28 G	2778773.61	2778773.77	2778773.94	0.0276	0.0094
Mercury	2896-03-01 02:24 G	2778862.43	2778862.60	2778862.77	0.0275	0.0051

Venus	2896-05-28 16:04 G	2778950.97	2778951.17	2778951.37	0.0275	0.0097
Mercury	2896-05-28 22:19 G	2778951.32	2778951.43	2778951.56	0.0275	0.0197 *
Earth	2903-07-26 08:38 G	2781564.63	2781564.86	2781565.10	0.0267	0.0097
Moon	2903-07-26 11:31 G	2781564.75	2781564.98	2781565.21	0.0267	0.0088 *
Mercury	2911-03-30 00:43 G	2784368.46	2784368.53	2784368.62	0.0283	0.0230
Venus	2911-06-22 12:43 G	2784452.84	2784453.03	2784453.24	0.0284	0.0098
Mercury	2911-06-26 13:40 G	2784456.94	2784457.07	2784457.20	0.0284	0.0106
Mercury	2911-09-23 02:09 G	2784545.45	2784545.59	2784545.73	0.0285	0.0017
Mercury	2911-12-20 14:38 G	2784633.99	2784634.11	2784634.23	0.0285	0.0139
Venus	2912-02-07 05:31 G	2784682.55	2784682.73	2784682.92	0.0286	0.0142
Mercury	2912-03-18 02:52 G	2784722.57	2784722.62	2784722.68	0.0286	0.0260
Moon	2918-01-24 00:43 G	2786860.31	2786860.53	2786860.76	0.0294	0.0104
Earth	2918-01-24 04:19 G	2786860.45	2786860.68	2786860.90	0.0294	0.0104 *
Mercury	2925-01-23 12:00 G	2789416.96	2789417.00	2789417.05	0.0277	0.0267
Mercury	2925-04-22 07:26 G	2789505.66	2789505.81	2789505.97	0.0276	0.0125
Venus	2925-04-24 15:07 G	2789507.93	2789508.13	2789508.33	0.0276	0.0082
Mercury	2925-07-20 03:07 G	2789594.46	2789594.63	2789594.81	0.0276	0.0019
Mercury	2925-10-16 23:02 G	2789683.32	2789683.46	2789683.61	0.0275	0.0164
Venus	2925-12-09 22:48 G	2789737.27	2789737.45	2789737.64	0.0274	0.0132
Moon	2932-07-20 04:33 G	2792151.49	2792151.69	2792151.90	0.0266	0.0155
Earth	2932-07-20 07:40 G	2792151.62	2792151.82	2792152.03	0.0266	0.0149 *
Mars	2936-07-24 12:43 G	2793616.86	2793617.03	2793617.21	0.0271	0.0205
Mercury	2940-08-16 02:24 G	2795100.56	2795100.60	2795100.64	0.0283	0.0268
Mercury	2940-11-12 15:07 G	2795189.02	2795189.13	2795189.25	0.0284	0.0145
Venus	2941-01-01 17:02 G	2795239.00	2795239.21	2795239.41	0.0284	0.0068
Mercury	2941-02-09 03:50 G	2795277.52	2795277.66	2795277.80	0.0285	0.0022
Mercury	2941-05-08 16:19 G	2795366.05	2795366.18	2795366.31	0.0285	0.0101
Mercury	2941-08-05 04:33 G	2795454.61	2795454.69	2795454.78	0.0286	0.0222
Venus	2941-08-19 09:50 G	2795468.75	2795468.91	2795469.08	0.0286	0.0174
Earth	2947-01-18 06:57 G	2797446.64	2797446.79	2797446.95	0.0295	0.0225

Moon	2947-01-18 10:04 G	2797446.77	2797446.92	2797447.08	0.0295	0.0223 *
Mars	2950-08-30 06:28 G	2798766.48	2798766.77	2798767.08	0.0288	0.0100
Venus	2954-03-20 12:00 G	2800064.96	2800065.00	2800065.05	0.0278	0.0271
Mercury	2954-09-09 07:55 G	2800237.69	2800237.83	2800237.97	0.0276	0.0162
Venus	2954-11-04 21:07 G	2800294.17	2800294.38	2800294.59	0.0276	0.0053
Mercury	2954-12-07 03:35 G	2800326.47	2800326.65	2800326.82	0.0276	0.0019
Mercury	2955-03-05 23:16 G	2800415.32	2800415.47	2800415.64	0.0275	0.0126
Mercury	2955-06-02 19:40 G	2800504.30	2800504.32	2800504.34	0.0274	0.0271
Venus	2955-06-22 04:48 G	2800523.53	2800523.70	2800523.87	0.0274	0.0161
Earth	2962-07-27 18:28 G	2803116.09	2803116.27	2803116.47	0.0267	0.0173
Moon	2962-07-27 21:50 G	2803116.21	2803116.41	2803116.62	0.0267	0.0161 *
Venus	2969-11-27 12:43 G	2805795.95	2805796.03	2805796.12	0.0283	0.0260
Mercury	2970-04-01 18:57 G	2805921.18	2805921.29	2805921.40	0.0284	0.0164
Mercury	2970-06-29 07:40 G	2806009.68	2806009.82	2806009.95	0.0284	0.0041
Venus	2970-07-15 04:48 G	2806025.49	2806025.70	2806025.91	0.0285	0.0025
Mercury	2970-09-25 20:09 G	2806098.21	2806098.34	2806098.47	0.0285	0.0081
Mercury	2970-12-23 08:24 G	2806186.76	2806186.85	2806186.95	0.0286	0.0203
Venus	2971-03-01 21:50 G	2806255.28	2806255.41	2806255.55	0.0286	0.0217
Earth	2977-01-25 21:21 G	2808412.23	2808412.39	2808412.58	0.0294	0.0206
Moon	2977-01-25 22:04 G	2808412.25	2808412.42	2808412.59	0.0294	0.0204 *
Venus	2983-09-30 20:24 G	2810851.25	2810851.35	2810851.48	0.0277	0.0233
Mercury	2984-01-27 09:07 G	2810969.77	2810969.88	2810970.02	0.0277	0.0191
Mercury	2984-04-25 05:02 G	2811058.53	2811058.71	2811058.88	0.0276	0.0048
Venus	2984-05-17 05:16 G	2811080.51	2811080.72	2811080.93	0.0276	0.0015
Mercury	2984-07-23 00:43 G	2811147.37	2811147.53	2811147.70	0.0275	0.0097
Mercury	2984-10-19 20:52 G	2811236.29	2811236.37	2811236.45	0.0274	0.0242
Venus	2985-01-01 12:28 G	2811309.88	2811310.02	2811310.17	0.0274	0.0197
Moon	2991-07-22 15:35 G	2813702.92	2813703.15	2813703.39	0.0266	0.0080
Earth	2991-07-22 18:28 G	2813703.04	2813703.27	2813703.52	0.0266	0.0071 *
Venus	2999-06-09 16:04 G	2816582.06	2816582.17	2816582.30	0.0283	0.0232

Mercury	2999-08-19 20:09 G	2816653.25	2816653.34	2816653.44	0.0284	0.0205
Mercury	2999-11-16 09:07 G	2816741.75	2816741.88	2816742.01	0.0284	0.0081
Venus	3000-01-25 08:09 G	2816811.63	2816811.84	2816812.06	0.0285	0.0006
Mercury	3000-02-12 21:35 G	2816830.27	2816830.40	2816830.54	0.0285	0.0042
Mercury	3000-05-12 10:04 G	2816918.81	2816918.92	2816919.03	0.0286	0.0163
Mercury	3000-08-08 22:19 G	2817007.42	2817007.43	2817007.45	0.0286	0.0284
Venus	3000-09-12 01:26 G	2817041.46	2817041.56	2817041.67	0.0287	0.0247

4TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 4th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	3006-01-20 22:19 G		2818998.21	2818998.43	2818998.66	0.0295	0.0126	
Earth	3006-01-20 23:16 G		2818998.25	2818998.47	2818998.69	0.0295	0.0126	*
Venus	3013-04-13 01:55 G		2821637.45	2821637.58	2821637.73	0.0277	0.0203	
Mercury	3013-06-16 09:35 G		2821701.81	2821701.90	2821702.00	0.0277	0.0229	
Mercury	3013-09-13 05:02 G		2821790.55	2821790.71	2821790.88	0.0276	0.0087	
Venus	3013-11-28 10:48 G		2821866.73	2821866.95	2821867.16	0.0275	0.0015	
Mercury	3013-12-11 00:57 G		2821879.36	2821879.54	2821879.71	0.0275	0.0058	
Mercury	3014-03-09 20:52 G		2821968.25	2821968.37	2821968.49	0.0274	0.0202	
Venus	3014-07-15 17:45 G		2822096.13	2822096.24	2822096.37	0.0274	0.0226	
Moon	3021-07-30 03:07 G		2824667.52	2824667.63	2824667.76	0.0267	0.0234	
Earth	3021-07-30 04:33 G		2824667.61	2824667.69	2824667.79	0.0267	0.0248	*
Mars	3024-12-20 03:35 G		2825906.41	2825906.65	2825906.91	0.0272	0.0108	

Venus	3028-12-21 03:07 G	2827368.48	2827368.63	2827368.79	0.0283	0.0190
Mercury	3029-01-06 23:45 G	2827385.41	2827385.49	2827385.58	0.0283	0.0225
Mercury	3029-04-05 12:43 G	2827473.90	2827474.03	2827474.16	0.0284	0.0102
Mercury	3029-07-03 01:11 G	2827562.42	2827562.55	2827562.69	0.0285	0.0022
Venus	3029-08-07 19:40 G	2827598.11	2827598.32	2827598.53	0.0285	0.0047
Mercury	3029-09-29 13:40 G	2827650.96	2827651.07	2827651.19	0.0286	0.0143
Mercury	3029-12-27 01:55 G	2827739.54	2827739.58	2827739.64	0.0286	0.0265
Mars	3039-01-26 20:09 G	2831057.03	2831057.34	2831057.67	0.0288	0.0054
Venus	3042-10-24 10:48 G	2832423.79	2832423.95	2832424.13	0.0277	0.0164
Mercury	3042-11-03 11:16 G	2832433.91	2832433.97	2832434.04	0.0277	0.0254
Mercury	3043-01-31 06:43 G	2832522.62	2832522.78	2832522.94	0.0276	0.0113
Mercury	3043-04-30 02:24 G	2832611.43	2832611.60	2832611.78	0.0275	0.0031
Venus	3043-06-10 19:11 G	2832653.10	2832653.30	2832653.51	0.0275	0.0053
Mercury	3043-07-27 22:19 G	2832700.30	2832700.43	2832700.57	0.0275	0.0175
Venus	3044-01-26 02:09 G	2832882.54	2832882.59	2832882.65	0.0273	0.0262
Earth	3050-07-25 05:16 G	2835254.47	2835254.72	2835254.97	0.0266	0.0007
Moon	3050-07-25 06:14 G	2835254.52	2835254.76	2835255.00	0.0266	0.0004 *
Mercury	3058-05-27 01:11 G	2838117.51	2838117.55	2838117.60	0.0283	0.0265
Venus	3058-07-03 06:43 G	2838154.61	2838154.78	2838154.96	0.0283	0.0162
Mercury	3058-08-23 14:09 G	2838205.97	2838206.09	2838206.21	0.0284	0.0142
Mercury	3058-11-20 02:38 G	2838294.48	2838294.61	2838294.75	0.0285	0.0021
Mercury	3059-02-16 15:07 G	2838383.01	2838383.13	2838383.26	0.0285	0.0104
Venus	3059-02-17 23:02 G	2838384.26	2838384.46	2838384.67	0.0285	0.0076
Mercury	3059-05-16 03:35 G	2838471.57	2838471.65	2838471.73	0.0286	0.0224
Moon	3065-01-22 10:48 G	2840549.71	2840549.95	2840550.19	0.0295	0.0032
Earth	3065-01-22 14:24 G	2840549.86	2840550.10	2840550.34	0.0295	0.0030 *
Venus	3072-05-05 15:21 G	2843209.96	2843210.14	2843210.33	0.0277	0.0137
Mercury	3072-06-19 06:28 G	2843254.62	2843254.77	2843254.91	0.0276	0.0155
Mercury	3072-09-16 02:09 G	2843343.41	2843343.59	2843343.76	0.0275	0.0014
Mercury	3072-12-13 21:50 G	2843432.26	2843432.41	2843432.57	0.0275	0.0132

Venus	3072-12-20 23:31 G	2843439.28	2843439.48	2843439.69	0.0275	0.0079
Moon	3079-07-20 07:26 G	2845841.70	2845841.81	2845841.94	0.0266	0.0234
Earth	3079-07-20 07:55 G	2845841.72	2845841.83	2845841.96	0.0266	0.0231 *
Mercury	3088-01-10 17:16 G	2848938.11	2848938.22	2848938.33	0.0284	0.0166
Venus	3088-01-13 16:19 G	2848941.00	2848941.18	2848941.38	0.0284	0.0123
Mercury	3088-04-08 06:00 G	2849026.61	2849026.75	2849026.89	0.0285	0.0043
Mercury	3088-07-05 18:28 G	2849115.14	2849115.27	2849115.41	0.0285	0.0080
Venus	3088-08-30 09:07 G	2849170.69	2849170.88	2849171.08	0.0286	0.0117
Mercury	3088-10-02 06:57 G	2849203.70	2849203.79	2849203.89	0.0286	0.0201
Mercury	3101-11-07 08:09 G	2853986.71	2853986.84	2853986.98	0.0277	0.0180
Venus	3101-11-17 00:28 G	2853996.32	2853996.52	2853996.72	0.0276	0.0097
Mercury	3102-02-04 03:50 G	2854075.48	2854075.66	2854075.83	0.0276	0.0038
Mercury	3102-05-03 23:31 G	2854164.32	2854164.48	2854164.65	0.0275	0.0106
Venus	3102-07-04 08:24 G	2854225.66	2854225.85	2854226.04	0.0275	0.0118
Mercury	3102-07-31 19:40 G	2854253.25	2854253.32	2854253.39	0.0274	0.0251
Earth	3109-07-27 14:38 G	2856805.87	2856806.11	2856806.35	0.0266	0.0079
Moon	3109-07-27 18:14 G	2856806.02	2856806.26	2856806.50	0.0266	0.0069 *
Mars	3113-05-17 03:21 G	2858195.37	2858195.64	2858195.91	0.0271	0.0044
Mercury	3117-05-30 18:28 G	2859670.18	2859670.27	2859670.37	0.0283	0.0207
Venus	3117-07-26 19:26 G	2859727.12	2859727.31	2859727.52	0.0284	0.0096
Mercury	3117-08-27 07:11 G	2859758.67	2859758.80	2859758.94	0.0284	0.0085
Mercury	3117-11-23 19:55 G	2859847.19	2859847.33	2859847.46	0.0285	0.0038
Mercury	3118-02-20 08:09 G	2859935.74	2859935.84	2859935.96	0.0286	0.0160
Venus	3118-03-13 12:14 G	2859956.83	2859957.01	2859957.19	0.0286	0.0144
Mercury	3118-05-19 20:38 G	2860024.34	2860024.36	2860024.39	0.0286	0.0280
Moon	3124-01-26 00:14 G	2862101.28	2862101.51	2862101.74	0.0295	0.0058
Earth	3124-01-26 02:09 G	2862101.36	2862101.59	2862101.83	0.0295	0.0059 *
Mars	3127-06-23 21:21 G	2863346.11	2863346.39	2863346.68	0.0288	0.0138
Mercury	3131-03-27 07:11 G	2864718.71	2864718.80	2864718.90	0.0277	0.0227
Venus	3131-05-30 03:21 G	2864782.44	2864782.64	2864782.85	0.0276	0.0073

Mercury	3131-06-24 02:52 G	2864807.45	2864807.62	2864807.78	0.0276	0.0085
Mercury	3131-09-20 22:33 G	2864896.27	2864896.44	2864896.61	0.0275	0.0059
Mercury	3131-12-18 18:28 G	2864985.15	2864985.27	2864985.39	0.0275	0.0203
Venus	3132-01-14 11:16 G	2865011.80	2865011.97	2865012.16	0.0274	0.0142
Moon	3138-07-22 12:00 G	2867392.81	2867393.00	2867393.20	0.0266	0.0167
Earth	3138-07-22 15:35 G	2867392.96	2867393.15	2867393.35	0.0266	0.0161 *
Mercury	3146-10-17 21:21 G	2870402.31	2870402.39	2870402.47	0.0283	0.0234
Mercury	3147-01-14 10:04 G	2870490.80	2870490.92	2870491.05	0.0284	0.0112
Venus	3147-02-06 04:04 G	2870513.47	2870513.67	2870513.88	0.0284	0.0058
Mercury	3147-04-12 22:48 G	2870579.31	2870579.45	2870579.59	0.0285	0.0011
Mercury	3147-07-10 11:16 G	2870667.85	2870667.97	2870668.09	0.0286	0.0133
Venus	3147-09-23 21:07 G	2870743.22	2870743.38	2870743.55	0.0286	0.0183
Mercury	3147-10-06 23:31 G	2870756.43	2870756.48	2870756.55	0.0286	0.0255
Earth	3153-01-19 12:57 G	2872687.92	2872688.04	2872688.17	0.0294	0.0249
Moon	3153-01-19 14:52 G	2872688.00	2872688.12	2872688.27	0.0294	0.0246 *
Venus	3160-04-24 02:52 G	2875339.54	2875339.62	2875339.71	0.0278	0.0252
Mercury	3160-08-13 08:52 G	2875450.81	2875450.87	2875450.95	0.0277	0.0253
Mercury	3160-11-10 04:19 G	2875539.53	2875539.68	2875539.84	0.0276	0.0112
Venus	3160-12-09 12:00 G	2875568.79	2875569.00	2875569.21	0.0276	0.0034
Mercury	3161-02-07 00:00 G	2875628.33	2875628.50	2875628.68	0.0276	0.0032
Mercury	3161-05-06 19:55 G	2875717.20	2875717.33	2875717.47	0.0275	0.0176
Venus	3161-07-26 19:40 G	2875798.16	2875798.32	2875798.48	0.0274	0.0180
Earth	3168-07-28 22:19 G	2878357.23	2878357.43	2878357.64	0.0266	0.0149
Moon	3168-07-28 23:45 G	2878357.28	2878357.49	2878357.72	0.0266	0.0139 *
Venus	3176-01-01 15:07 G	2881070.07	2881070.13	2881070.21	0.0282	0.0265
Mercury	3176-03-05 22:19 G	2881134.41	2881134.43	2881134.46	0.0283	0.0277
Mercury	3176-06-02 11:16 G	2881222.86	2881222.97	2881223.09	0.0283	0.0154
Venus	3176-08-18 06:43 G	2881299.57	2881299.78	2881300.00	0.0284	0.0032
Mercury	3176-08-30 00:00 G	2881311.36	2881311.50	2881311.64	0.0284	0.0032
Mercury	3176-11-26 12:28 G	2881399.89	2881400.02	2881400.15	0.0285	0.0090

Mercury	3177-02-23 00:57 G	2881488.45	2881488.54	2881488.63	0.0286	0.0211
Venus	3177-04-04 23:16 G	2881529.34	2881529.47	2881529.63	0.0286	0.0209
Earth	3183-01-27 10:04 G	2883652.71	2883652.92	2883653.14	0.0295	0.0139
Moon	3183-01-27 12:14 G	2883652.81	2883653.01	2883653.23	0.0295	0.0135 *
Venus	3189-11-04 04:19 G	2886125.57	2886125.68	2886125.80	0.0278	0.0231
Mercury	3190-03-30 02:38 G	2886271.48	2886271.61	2886271.76	0.0277	0.0164
Venus	3190-06-21 13:40 G	2886354.85	2886355.07	2886355.28	0.0276	0.0013
Mercury	3190-06-26 22:19 G	2886360.26	2886360.43	2886360.61	0.0276	0.0021
Mercury	3190-09-23 18:14 G	2886449.10	2886449.26	2886449.42	0.0275	0.0124
Mercury	3190-12-21 14:09 G	2886538.07	2886538.09	2886538.13	0.0274	0.0269
Venus	3191-02-05 21:21 G	2886584.25	2886584.39	2886584.54	0.0274	0.0201
Moon	3197-07-23 19:26 G	2888944.10	2888944.31	2888944.54	0.0266	0.0104
Earth	3197-07-23 21:21 G	2888944.16	2888944.39	2888944.63	0.0266	0.0096 *
Mars	3201-10-11 02:09 G	2890484.32	2890484.59	2890484.86	0.0272	0.0023
Venus	3205-07-13 22:04 G	2891856.30	2891856.42	2891856.54	0.0283	0.0231
Mercury	3205-10-20 13:40 G	2891954.97	2891955.07	2891955.17	0.0284	0.0185
Mercury	3206-01-17 02:24 G	2892043.47	2892043.60	2892043.74	0.0284	0.0062
Venus	3206-02-28 13:55 G	2892085.87	2892086.08	2892086.29	0.0285	0.0005
Mercury	3206-04-15 15:07 G	2892131.99	2892132.13	2892132.26	0.0285	0.0060
Mercury	3206-07-13 03:21 G	2892220.54	2892220.64	2892220.75	0.0286	0.0181
Venus	3206-10-16 06:43 G	2892315.69	2892315.78	2892315.90	0.0287	0.0246
Moon	3212-01-21 16:19 G	2894238.99	2894239.18	2894239.38	0.0294	0.0177
Earth	3212-01-21 18:57 G	2894239.11	2894239.29	2894239.49	0.0294	0.0175 *
Mars	3215-11-18 08:24 G	2895635.70	2895635.85	2895636.04	0.0288	0.0244
Venus	3219-05-17 12:28 G	2896911.88	2896912.02	2896912.18	0.0278	0.0194
Mercury	3219-08-17 04:04 G	2897003.55	2897003.67	2897003.80	0.0277	0.0192
Mercury	3219-11-13 23:45 G	2897092.32	2897092.49	2897092.66	0.0276	0.0049
Venus	3220-01-01 21:35 G	2897141.19	2897141.40	2897141.61	0.0276	0.0025
Mercury	3220-02-10 19:26 G	2897181.15	2897181.31	2897181.48	0.0275	0.0095
Mercury	3220-05-09 15:21 G	2897270.06	2897270.14	2897270.23	0.0275	0.0240

Venus	3220-08-18 05:02 G	2897370.61	2897370.71	2897370.82	0.0274	0.0237
Moon	3227-07-31 00:57 G	2899908.38	2899908.54	2899908.71	0.0266	0.0199
Earth	3227-07-31 03:50 G	2899908.51	2899908.66	2899908.81	0.0266	0.0213 *
Venus	3235-01-24 00:43 G	2902642.39	2902642.53	2902642.67	0.0282	0.0206
Mercury	3235-03-09 14:52 G	2902687.04	2902687.12	2902687.20	0.0283	0.0228
Mercury	3235-06-06 03:35 G	2902775.52	2902775.65	2902775.78	0.0283	0.0106
Mercury	3235-09-02 16:04 G	2902864.04	2902864.17	2902864.31	0.0284	0.0018
Venus	3235-09-10 16:19 G	2902871.97	2902872.18	2902872.39	0.0284	0.0029
Mercury	3235-11-30 04:33 G	2902952.57	2902952.69	2902952.81	0.0285	0.0137
Mercury	3236-02-26 17:02 G	2903041.15	2903041.21	2903041.27	0.0286	0.0257
Venus	3236-04-27 09:07 G	2903101.82	2903101.88	2903101.95	0.0286	0.0269
Earth	3242-01-28 15:07 G	2905203.97	2905204.13	2905204.30	0.0295	0.0211
Moon	3242-01-28 18:43 G	2905204.10	2905204.28	2905204.45	0.0295	0.0203 *
Venus	3248-11-26 12:43 G	2907697.87	2907698.03	2907698.20	0.0277	0.0174
Mercury	3249-01-03 01:55 G	2907735.51	2907735.58	2907735.66	0.0277	0.0247
Mercury	3249-04-01 21:21 G	2907824.23	2907824.39	2907824.55	0.0276	0.0106
Mercury	3249-06-29 17:02 G	2907913.04	2907913.21	2907913.39	0.0276	0.0038
Venus	3249-07-13 21:50 G	2907927.20	2907927.41	2907927.62	0.0276	0.0044
Mercury	3249-09-26 12:57 G	2908001.91	2908002.04	2908002.18	0.0275	0.0183
Venus	3250-02-28 05:31 G	2908156.66	2908156.73	2908156.81	0.0274	0.0256
Earth	3256-07-25 00:43 G	2910495.28	2910495.53	2910495.77	0.0266	0.0035
Moon	3256-07-25 03:35 G	2910495.41	2910495.65	2910495.89	0.0266	0.0046 *
Mercury	3264-07-26 16:33 G	2913419.15	2913419.19	2913419.25	0.0283	0.0263
Venus	3264-08-05 06:14 G	2913428.59	2913428.76	2913428.92	0.0283	0.0174
Mercury	3264-10-23 05:31 G	2913507.61	2913507.73	2913507.85	0.0284	0.0140
Mercury	3265-01-19 18:14 G	2913596.12	2913596.26	2913596.40	0.0284	0.0018
Venus	3265-03-22 22:04 G	2913658.21	2913658.42	2913658.62	0.0285	0.0062
Mercury	3265-04-18 06:43 G	2913684.66	2913684.78	2913684.91	0.0285	0.0104
Mercury	3265-07-15 19:11 G	2913773.22	2913773.30	2913773.38	0.0286	0.0224
Moon	3271-01-22 18:28 G	2915790.06	2915790.27	2915790.49	0.0294	0.0116

Earth	3271-01-22 21:21 G	2915790.18	2915790.39	2915790.63	0.0294	0.0109 *
Venus	3278-06-08 20:24 G	2918484.17	2918484.35	2918484.53	0.0277	0.0139
Mercury	3278-08-19 22:19 G	2918556.28	2918556.43	2918556.58	0.0277	0.0137
Mercury	3278-11-16 18:00 G	2918645.08	2918645.25	2918645.43	0.0276	0.0007
Venus	3279-01-24 05:02 G	2918713.51	2918713.71	2918713.92	0.0276	0.0080
Mercury	3279-02-13 13:55 G	2918733.93	2918734.08	2918734.23	0.0275	0.0151
Moon	3286-08-01 03:35 G	2921459.61	2921459.65	2921459.72	0.0266	0.0259
Mars	3290-03-06 16:04 G	2922772.91	2922773.17	2922773.43	0.0271	0.0066
Venus	3294-02-15 08:24 G	2924214.68	2924214.85	2924215.04	0.0282	0.0151
Mercury	3294-03-12 06:28 G	2924239.67	2924239.77	2924239.88	0.0283	0.0184
Mercury	3294-06-08 19:11 G	2924328.17	2924328.30	2924328.44	0.0283	0.0063
Mercury	3294-09-05 07:55 G	2924416.69	2924416.83	2924416.96	0.0284	0.0059
Venus	3294-10-03 00:00 G	2924444.30	2924444.50	2924444.71	0.0284	0.0086
Mercury	3294-12-02 20:09 G	2924505.24	2924505.34	2924505.45	0.0285	0.0180
Moon	3301-01-30 15:07 G	2926755.02	2926755.13	2926755.25	0.0294	0.0261
Earth	3301-01-30 16:19 G	2926755.10	2926755.18	2926755.27	0.0294	0.0274 *
Mars	3304-04-12 17:02 G	2927923.08	2927923.21	2927923.36	0.0289	0.0259
Venus	3307-12-20 19:26 G	2929270.12	2929270.31	2929270.50	0.0277	0.0121
Mercury	3308-01-07 19:40 G	2929288.20	2929288.32	2929288.44	0.0277	0.0196
Mercury	3308-04-05 15:07 G	2929376.96	2929377.13	2929377.31	0.0276	0.0054
Mercury	3308-07-03 11:02 G	2929465.79	2929465.96	2929466.13	0.0276	0.0090
Venus	3308-08-06 04:19 G	2929499.48	2929499.68	2929499.88	0.0275	0.0096
Mercury	3308-09-30 07:11 G	2929554.71	2929554.80	2929554.89	0.0275	0.0235
Earth	3315-07-28 01:55 G	2932046.33	2932046.58	2932046.83	0.0266	0.0022
Moon	3315-07-28 04:48 G	2932046.45	2932046.70	2932046.96	0.0266	0.0009 *
Mercury	3323-07-31 08:09 G	2934971.76	2934971.84	2934971.93	0.0283	0.0221
Venus	3323-08-29 12:43 G	2935000.84	2935001.03	2935001.22	0.0283	0.0120
Mercury	3323-10-27 20:52 G	2935060.24	2935060.37	2935060.50	0.0284	0.0099
Mercury	3324-01-24 09:35 G	2935148.76	2935148.90	2935149.04	0.0284	0.0022
Venus	3324-04-15 04:33 G	2935230.50	2935230.69	2935230.89	0.0285	0.0117

Mercury	3324-04-21 22:04 G	2935237.30	2935237.42	2935237.54	0.0285	0.0143
Mercury	3324-07-19 10:19 G	2935325.88	2935325.93	2935325.98	0.0286	0.0263
Earth	3330-01-24 21:07 G	2937341.15	2937341.38	2937341.62	0.0294	0.0048
Moon	3330-01-24 22:48 G	2937341.22	2937341.45	2937341.68	0.0294	0.0059 *
Mercury	3337-05-26 20:09 G	2940020.26	2940020.34	2940020.45	0.0278	0.0231
Venus	3337-07-02 02:09 G	2940056.39	2940056.59	2940056.80	0.0277	0.0088
Mercury	3337-08-23 15:50 G	2940109.00	2940109.16	2940109.33	0.0277	0.0088
Mercury	3337-11-20 11:45 G	2940197.81	2940197.99	2940198.16	0.0276	0.0056
Venus	3338-02-16 11:02 G	2940285.78	2940285.96	2940286.15	0.0275	0.0130
Mercury	3338-02-17 07:26 G	2940286.70	2940286.81	2940286.94	0.0275	0.0202
Moon	3344-07-22 01:11 G	2942633.43	2942633.55	2942633.68	0.0265	0.0227
Earth	3344-07-22 04:04 G	2942633.53	2942633.67	2942633.82	0.0265	0.0216 *
Mercury	3352-12-17 09:21 G	2945703.85	2945703.89	2945703.94	0.0282	0.0263
Venus	3353-03-10 15:35 G	2945786.95	2945787.15	2945787.35	0.0282	0.0096
Mercury	3353-03-15 22:04 G	2945792.31	2945792.42	2945792.55	0.0282	0.0142
Mercury	3353-06-12 10:48 G	2945880.81	2945880.95	2945881.09	0.0283	0.0021
Mercury	3353-09-08 23:16 G	2945969.35	2945969.47	2945969.60	0.0284	0.0100
Venus	3353-10-26 07:11 G	2946016.62	2946016.80	2946016.99	0.0284	0.0140
Mercury	3353-12-06 11:31 G	2946057.90	2946057.98	2946058.07	0.0285	0.0220
Mercury	3367-01-10 12:43 G	2950840.89	2950841.03	2950841.18	0.0277	0.0150
Venus	3367-01-12 00:28 G	2950842.32	2950842.52	2950842.73	0.0277	0.0072
Mercury	3367-04-09 08:24 G	2950929.67	2950929.85	2950930.02	0.0276	0.0007
Mercury	3367-07-07 04:19 G	2951018.52	2951018.68	2951018.83	0.0276	0.0138
Venus	3367-08-29 09:07 G	2951071.71	2951071.88	2951072.07	0.0275	0.0146
Moon	3374-07-28 23:45 G	2953597.24	2953597.49	2953597.75	0.0266	0.0061
Earth	3374-07-29 01:55 G	2953597.34	2953597.58	2953597.82	0.0266	0.0076 *
Mars	3378-07-31 21:07 G	2955061.14	2955061.38	2955061.64	0.0271	0.0099
Mercury	3382-08-02 23:31 G	2956524.38	2956524.48	2956524.59	0.0283	0.0181
Venus	3382-09-20 18:43 G	2956573.08	2956573.28	2956573.49	0.0283	0.0068
Mercury	3382-10-30 12:14 G	2956612.88	2956613.01	2956613.15	0.0284	0.0060

Mercury	3383-01-27 00:43 G	2956701.40	2956701.53	2956701.67	0.0284	0.0061
Mercury	3383-04-25 13:11 G	2956789.95	2956790.05	2956790.16	0.0285	0.0181
Venus	3383-05-08 10:33 G	2956802.78	2956802.94	2956803.11	0.0285	0.0170
Earth	3389-01-25 18:28 G	2958892.03	2958892.27	2958892.51	0.0294	0.0008
Moon	3389-01-25 22:04 G	2958892.18	2958892.42	2958892.66	0.0294	0.0006 *
Venus	3395-12-07 20:24 G	2961399.29	2961399.35	2961399.43	0.0279	0.0262
Mercury	3396-05-29 12:57 G	2961572.92	2961573.04	2961573.18	0.0278	0.0187
Venus	3396-07-24 06:43 G	2961628.57	2961628.78	2961628.99	0.0277	0.0040
Mercury	3396-08-26 08:38 G	2961661.69	2961661.86	2961662.04	0.0277	0.0044
Mercury	3396-11-23 04:33 G	2961750.53	2961750.69	2961750.86	0.0276	0.0101
Mercury	3397-02-20 00:43 G	2961839.46	2961839.53	2961839.61	0.0276	0.0247
Venus	3397-03-10 15:21 G	2961857.99	2961858.14	2961858.31	0.0275	0.0177
Earth	3403-07-25 03:50 G	2964184.47	2964184.66	2964184.87	0.0266	0.0162
Moon	3403-07-25 05:16 G	2964184.55	2964184.72	2964184.91	0.0266	0.0174 *
Venus	3411-08-17 07:55 G	2967129.78	2967129.83	2967129.87	0.0281	0.0273
Mercury	3411-12-22 00:57 G	2967256.46	2967256.54	2967256.62	0.0282	0.0222
Mercury	3412-03-19 13:40 G	2967344.94	2967345.07	2967345.20	0.0282	0.0101
Venus	3412-04-02 22:04 G	2967359.21	2967359.42	2967359.63	0.0283	0.0043
Mercury	3412-06-16 02:09 G	2967433.46	2967433.59	2967433.73	0.0283	0.0020
Mercury	3412-09-12 14:38 G	2967521.99	2967522.11	2967522.23	0.0284	0.0139
Venus	3412-11-18 13:40 G	2967588.92	2967589.07	2967589.23	0.0284	0.0194
Mercury	3412-12-10 02:52 G	2967610.57	2967610.62	2967610.68	0.0285	0.0257
Venus	3425-06-19 18:57 G	2972185.20	2972185.29	2972185.39	0.0279	0.0245
Mercury	3425-10-17 09:50 G	2972304.84	2972304.91	2972305.00	0.0278	0.0248
Mercury	3426-01-14 05:31 G	2972393.57	2972393.73	2972393.89	0.0277	0.0106
Venus	3426-02-04 05:02 G	2972414.50	2972414.71	2972414.93	0.0277	0.0024
Mercury	3426-04-13 01:11 G	2972482.38	2972482.55	2972482.73	0.0276	0.0038
Mercury	3426-07-10 21:07 G	2972571.25	2972571.38	2972571.52	0.0276	0.0183
Venus	3426-09-21 13:40 G	2972643.93	2972644.07	2972644.23	0.0275	0.0193
Moon	3433-07-30 21:07 G	2975148.17	2975148.38	2975148.61	0.0266	0.0114

Earth	3433-07-31 00:57 G	2975148.32	2975148.54	2975148.75	0.0266	0.0128 *
Venus	3441-02-26 10:04 G	2977915.83	2977915.92	2977916.03	0.0281	0.0247
Mercury	3441-05-10 01:55 G	2977988.54	2977988.58	2977988.63	0.0282	0.0264
Mercury	3441-08-06 14:52 G	2978077.00	2978077.12	2978077.24	0.0283	0.0142
Venus	3441-10-14 00:43 G	2978145.32	2978145.53	2978145.74	0.0283	0.0016
Mercury	3441-11-03 03:21 G	2978165.51	2978165.64	2978165.78	0.0284	0.0024
Mercury	3442-01-30 15:50 G	2978254.04	2978254.16	2978254.29	0.0284	0.0099
Mercury	3442-04-29 04:19 G	2978342.59	2978342.68	2978342.77	0.0285	0.0218
Venus	3442-05-31 16:33 G	2978375.06	2978375.19	2978375.33	0.0285	0.0223
Moon	3448-01-28 15:50 G	2980442.91	2980443.16	2980443.41	0.0294	0.0048
Earth	3448-01-28 15:50 G	2980442.92	2980443.16	2980443.39	0.0294	0.0062 *
Venus	3454-12-31 00:28 G	2982971.39	2982971.52	2982971.66	0.0279	0.0215
Mercury	3455-06-03 05:31 G	2983125.59	2983125.73	2983125.88	0.0278	0.0145
Venus	3455-08-17 10:33 G	2983200.73	2983200.94	2983201.15	0.0277	0.0008
Mercury	3455-08-31 01:26 G	2983214.38	2983214.56	2983214.73	0.0277	0.0005
Mercury	3455-11-27 21:21 G	2983303.24	2983303.39	2983303.54	0.0276	0.0144
Venus	3456-04-02 19:11 G	2983430.19	2983430.30	2983430.43	0.0275	0.0223
Earth	3462-07-26 03:21 G	2985735.42	2985735.64	2985735.87	0.0266	0.0108
Moon	3462-07-26 06:57 G	2985735.57	2985735.79	2985736.02	0.0266	0.0121 *
Mars	3466-12-26 09:21 G	2987349.67	2987349.89	2987350.13	0.0271	0.0138
Venus	3470-09-08 14:38 G	2988701.99	2988702.11	2988702.25	0.0281	0.0220
Mercury	3470-12-24 16:33 G	2988809.08	2988809.19	2988809.30	0.0282	0.0180
Mercury	3471-03-23 05:16 G	2988897.58	2988897.72	2988897.85	0.0282	0.0060
Venus	3471-04-26 05:02 G	2988931.50	2988931.71	2988931.92	0.0283	0.0011
Mercury	3471-06-19 17:45 G	2988986.10	2988986.24	2988986.37	0.0283	0.0060
Mercury	3471-09-16 06:00 G	2989074.65	2989074.75	2989074.86	0.0284	0.0179
Venus	3471-12-11 20:38 G	2989161.26	2989161.36	2989161.47	0.0285	0.0248
Earth	3477-01-21 10:48 G	2991028.88	2991028.95	2991029.03	0.0294	0.0279
Moon	3477-01-21 10:48 G	2991028.95	2991028.95	2991028.98	0.0294	0.0293 *
Venus	3484-07-11 23:02 G	2993757.32	2993757.46	2993757.62	0.0279	0.0198

Mercury	3484-10-20 02:38 G	2993857.50	2993857.61	2993857.73	0.0278	0.0205
Mercury	3485-01-16 22:04 G	2993946.25	2993946.42	2993946.60	0.0277	0.0063
Venus	3485-02-26 09:21 G	2993986.68	2993986.89	2993987.10	0.0277	0.0024
Mercury	3485-04-15 18:00 G	2994035.08	2994035.25	2994035.42	0.0277	0.0082
Mercury	3485-07-13 13:55 G	2994123.99	2994124.08	2994124.19	0.0276	0.0228
Venus	3485-10-13 17:31 G	2994216.14	2994216.23	2994216.35	0.0275	0.0240
Earth	3492-07-31 23:45 G	2996699.32	2996699.49	2996699.68	0.0266	0.0182
Moon	3492-08-01 00:00 G	2996699.32	2996699.50	2996699.69	0.0266	0.0170 *
Venus	3500-03-21 16:19 G	2999488.04	2999488.18	2999488.35	0.0282	0.0196
Mercury	3500-05-13 17:31 G	2999541.15	2999541.23	2999541.31	0.0282	0.0223
Mercury	3500-08-10 06:14 G	2999629.63	2999629.76	2999629.89	0.0283	0.0102
Venus	3500-11-06 07:11 G	2999717.59	2999717.80	2999718.01	0.0283	0.0038
Mercury	3500-11-06 18:43 G	2999718.15	2999718.28	2999718.42	0.0284	0.0020
Mercury	3501-02-03 07:11 G	2999806.68	2999806.80	2999806.92	0.0284	0.0137
Mercury	3501-05-02 19:26 G	2999895.26	2999895.31	2999895.37	0.0285	0.0256
Venus	3501-06-23 23:02 G	2999947.41	2999947.46	2999947.52	0.0285	0.0276
Moon	3507-01-30 10:04 G	3001993.69	3001993.92	3001994.15	0.0294	0.0102
Earth	3507-01-30 13:26 G	3001993.84	3001994.06	3001994.28	0.0294	0.0119 *
Venus	3514-01-23 04:48 G	3004543.54	3004543.70	3004543.87	0.0279	0.0168
Mercury	3514-03-10 02:38 G	3004589.54	3004589.61	3004589.70	0.0278	0.0244
Mercury	3514-06-06 22:19 G	3004678.27	3004678.43	3004678.59	0.0278	0.0102
Mercury	3514-09-03 18:00 G	3004767.08	3004767.25	3004767.43	0.0277	0.0043
Venus	3514-09-09 14:52 G	3004772.91	3004773.12	3004773.33	0.0277	0.0054
Mercury	3514-12-01 14:09 G	3004855.96	3004856.09	3004856.22	0.0276	0.0188
Venus	3515-04-26 23:02 G	3005002.43	3005002.46	3005002.52	0.0275	0.0270
Earth	3521-07-28 03:07 G	3007286.38	3007286.63	3007286.87	0.0266	0.0053
Moon	3521-07-28 03:35 G	3007286.40	3007286.65	3007286.90	0.0266	0.0066 *
Mercury	3529-09-30 19:26 G	3010273.27	3010273.31	3010273.37	0.0281	0.0257
Venus	3529-10-01 22:19 G	3010274.27	3010274.43	3010274.61	0.0281	0.0166
Mercury	3529-12-28 08:24 G	3010361.73	3010361.85	3010361.97	0.0282	0.0137

Mercury	3530-03-26 20:52 G	3010450.24	3010450.37	3010450.51	0.0282	0.0019
Venus	3530-05-19 12:43 G	3010503.83	3010504.03	3010504.24	0.0283	0.0066
Mercury	3530-06-23 09:21 G	3010538.77	3010538.89	3010539.02	0.0283	0.0102
Mercury	3530-09-19 21:35 G	3010627.32	3010627.40	3010627.49	0.0284	0.0220
Earth	3536-01-24 11:02 G	3012579.81	3012579.96	3012580.13	0.0294	0.0216
Moon	3536-01-24 14:52 G	3012579.98	3012580.12	3012580.27	0.0294	0.0231 *
Venus	3543-08-05 04:04 G	3015329.50	3015329.67	3015329.85	0.0279	0.0149
Mercury	3543-10-24 19:26 G	3015410.17	3015410.31	3015410.45	0.0278	0.0160
Mercury	3544-01-21 15:07 G	3015498.96	3015499.13	3015499.31	0.0277	0.0017
Venus	3544-03-21 13:55 G	3015558.88	3015559.08	3015559.29	0.0277	0.0072
Mercury	3544-04-19 11:02 G	3015587.80	3015587.96	3015588.12	0.0277	0.0128
Mercury	3544-07-17 07:11 G	3015676.79	3015676.80	3015676.82	0.0276	0.0274
Earth	3551-08-04 00:00 G	3018250.40	3018250.50	3018250.62	0.0266	0.0237
Moon	3551-08-04 03:21 G	3018250.53	3018250.64	3018250.79	0.0266	0.0225 *
Mars	3555-05-22 12:43 G	3019637.83	3019638.03	3019638.26	0.0271	0.0165
Venus	3559-04-14 00:28 G	3021060.34	3021060.52	3021060.71	0.0282	0.0140
Mercury	3559-05-17 09:21 G	3021093.79	3021093.89	3021094.00	0.0282	0.0179
Mercury	3559-08-13 22:04 G	3021182.29	3021182.42	3021182.56	0.0283	0.0059
Mercury	3559-11-10 10:33 G	3021270.81	3021270.94	3021271.08	0.0284	0.0061
Venus	3559-11-29 15:07 G	3021289.94	3021290.13	3021290.34	0.0284	0.0094
Mercury	3560-02-06 23:02 G	3021359.35	3021359.46	3021359.56	0.0284	0.0180
Moon	3566-01-31 11:31 G	3023544.79	3023544.98	3023545.18	0.0294	0.0165
Earth	3566-01-31 13:26 G	3023544.88	3023545.06	3023545.25	0.0294	0.0180 *
Venus	3573-02-14 09:35 G	3026115.72	3026115.90	3026116.10	0.0278	0.0119
Mercury	3573-03-12 19:26 G	3026142.20	3026142.31	3026142.44	0.0278	0.0200
Mercury	3573-06-09 15:07 G	3026230.96	3026231.13	3026231.30	0.0278	0.0057
Mercury	3573-09-06 11:02 G	3026319.80	3026319.96	3026320.13	0.0277	0.0088
Venus	3573-10-01 19:26 G	3026345.12	3026345.31	3026345.51	0.0277	0.0102
Mercury	3573-12-04 07:11 G	3026408.71	3026408.80	3026408.89	0.0276	0.0234
Moon	3580-07-29 00:14 G	3028837.26	3028837.51	3028837.77	0.0266	0.0012

Earth	3580-07-29 03:50 G	3028837.41	3028837.66	3028837.91	0.0266	0.0005 *
Mercury	3588-10-03 11:45 G	3031825.90	3031825.99	3031826.09	0.0281	0.0210
Venus	3588-10-24 07:26 G	3031846.62	3031846.81	3031847.01	0.0281	0.0109
Mercury	3588-12-31 00:28 G	3031914.39	3031914.52	3031914.66	0.0282	0.0090
Mercury	3589-03-29 13:11 G	3032002.91	3032003.05	3032003.18	0.0282	0.0030
Venus	3589-06-10 21:50 G	3032076.23	3032076.41	3032076.61	0.0283	0.0125
Mercury	3589-06-26 01:26 G	3032091.45	3032091.56	3032091.68	0.0283	0.0147
Mercury	3589-09-22 13:40 G	3032180.03	3032180.07	3032180.12	0.0284	0.0265
Earth	3595-01-25 14:09 G	3034130.88	3034131.09	3034131.30	0.0294	0.0146
Moon	3595-01-25 15:21 G	3034130.94	3034131.14	3034131.36	0.0294	0.0163 *
Mercury	3602-07-30 17:31 G	3036874.17	3036874.23	3036874.30	0.0279	0.0253
Venus	3602-08-27 10:19 G	3036901.74	3036901.93	3036902.13	0.0278	0.0097
Mercury	3602-10-27 12:57 G	3036962.88	3036963.04	3036963.20	0.0278	0.0111
Mercury	3603-01-24 08:52 G	3037051.69	3037051.87	3037052.04	0.0277	0.0034
Venus	3603-04-13 19:55 G	3037131.14	3037131.33	3037131.52	0.0277	0.0123
Mercury	3603-04-23 04:33 G	3037140.56	3037140.69	3037140.83	0.0276	0.0179
Earth	3609-07-23 20:24 G	3039424.28	3039424.35	3039424.44	0.0266	0.0249
Moon	3609-07-24 00:00 G	3039424.50	3039424.50	3039424.53	0.0266	0.0265
Mercury	3618-02-20 12:57 G	3042557.98	3042558.04	3042558.10	0.0281	0.0251
Venus	3618-05-06 09:50 G	3042632.70	3042632.91	3042633.11	0.0282	0.0082
Mercury	3618-05-20 01:40 G	3042646.45	3042646.57	3042646.69	0.0282	0.0131
Mercury	3618-08-16 14:24 G	3042734.96	3042735.10	3042735.23	0.0283	0.0013
Mercury	3618-11-13 02:52 G	3042823.49	3042823.62	3042823.74	0.0284	0.0108
Venus	3618-12-22 00:28 G	3042862.35	3042862.52	3042862.71	0.0284	0.0153
Mercury	3619-02-09 15:07 G	3042912.05	3042912.13	3042912.21	0.0284	0.0226
Earth	3625-02-01 16:19 G	3045096.07	3045096.18	3045096.32	0.0294	0.0249
Moon	3625-02-01 18:57 G	3045096.16	3045096.29	3045096.44	0.0294	0.0234 *
Venus	3632-03-08 15:50 G	3047687.96	3047688.16	3047688.37	0.0278	0.0068
Mercury	3632-03-15 13:11 G	3047694.90	3047695.05	3047695.19	0.0278	0.0150
Mercury	3632-06-12 08:52 G	3047783.69	3047783.87	3047784.04	0.0277	0.0007

Mercury	3632-09-09 04:48 G	3047872.55	3047872.70	3047872.85	0.0277	0.0138
Venus	3632-10-24 01:40 G	3047917.39	3047917.57	3047917.74	0.0276	0.0152
Moon	3639-07-31 04:04 G	3050388.44	3050388.67	3050388.91	0.0267	0.0051
Earth	3639-07-31 06:14 G	3050388.52	3050388.76	3050389.01	0.0267	0.0065 *
Mars	3643-10-16 13:55 G	3051926.95	3051927.08	3051927.23	0.0271	0.0231
Venus	3647-04-01 04:48 G	3053189.67	3053189.70	3053189.74	0.0280	0.0275
Mercury	3647-07-10 15:50 G	3053290.15	3053290.16	3053290.18	0.0281	0.0278
Mercury	3647-10-07 04:33 G	3053378.58	3053378.69	3053378.81	0.0281	0.0158
Venus	3647-11-16 18:28 G	3053419.06	3053419.27	3053419.48	0.0282	0.0048
Mercury	3648-01-03 17:16 G	3053467.08	3053467.22	3053467.36	0.0282	0.0039
Mercury	3648-04-01 05:45 G	3053555.61	3053555.74	3053555.87	0.0283	0.0080
Mercury	3648-06-28 18:00 G	3053644.16	3053644.25	3053644.35	0.0283	0.0198
Venus	3648-07-03 09:21 G	3053648.73	3053648.89	3053649.04	0.0283	0.0187
Moon	3654-01-26 17:31 G	3055682.00	3055682.23	3055682.47	0.0294	0.0086
Earth	3654-01-26 20:52 G	3055682.14	3055682.37	3055682.61	0.0294	0.0069 *
Venus	3661-02-01 07:11 G	3058244.75	3058244.80	3058244.88	0.0280	0.0266
Mercury	3661-08-02 11:45 G	3058426.87	3058426.99	3058427.11	0.0278	0.0199
Venus	3661-09-18 18:00 G	3058474.05	3058474.25	3058474.46	0.0278	0.0043
Mercury	3661-10-30 07:11 G	3058515.63	3058515.80	3058515.97	0.0278	0.0057
Mercury	3662-01-27 02:52 G	3058604.46	3058604.62	3058604.80	0.0277	0.0088
Mercury	3662-04-25 23:02 G	3058693.37	3058693.46	3058693.56	0.0276	0.0233
Venus	3662-05-06 03:07 G	3058703.48	3058703.63	3058703.80	0.0276	0.0176
Earth	3668-07-24 23:45 G	3060975.33	3060975.49	3060975.68	0.0266	0.0187
Moon	3668-07-25 01:40 G	3060975.41	3060975.57	3060975.75	0.0266	0.0201 *
Venus	3676-10-11 06:57 G	3063975.71	3063975.79	3063975.89	0.0281	0.0250
Mercury	3677-02-23 05:45 G	3064110.65	3064110.74	3064110.84	0.0282	0.0199
Mercury	3677-05-22 18:28 G	3064199.14	3064199.27	3064199.41	0.0282	0.0079
Venus	3677-05-28 20:52 G	3064205.16	3064205.37	3064205.58	0.0282	0.0020
Mercury	3677-08-19 07:11 G	3064287.66	3064287.80	3064287.93	0.0283	0.0041
Mercury	3677-11-15 19:26 G	3064376.20	3064376.31	3064376.43	0.0284	0.0159

Venus	3678-01-13 12:00 G	3064434.86	3064435.00	3064435.14	0.0284	0.0216
Mercury	3678-02-12 07:40 G	3064464.79	3064464.82	3064464.85	0.0285	0.0276
Venus	3690-08-14 13:11 G	3069030.94	3069031.05	3069031.16	0.0279	0.0236
Mercury	3690-12-20 12:00 G	3069158.91	3069159.00	3069159.09	0.0278	0.0238
Mercury	3691-03-19 07:26 G	3069247.65	3069247.81	3069247.98	0.0278	0.0095
Venus	3691-04-01 00:00 G	3069260.29	3069260.50	3069260.71	0.0278	0.0013
Mercury	3691-06-16 03:07 G	3069336.46	3069336.63	3069336.81	0.0277	0.0050
Mercury	3691-09-12 23:02 G	3069425.35	3069425.46	3069425.60	0.0277	0.0195
Venus	3691-11-16 09:07 G	3069489.75	3069489.88	3069490.03	0.0276	0.0205
Earth	3698-08-01 10:48 G	3071939.73	3071939.95	3071940.17	0.0267	0.0130
Moon	3698-08-01 13:26 G	3071939.84	3071940.06	3071940.28	0.0267	0.0118 *
Mars	3702-01-25 15:35 G	3073212.04	3073212.15	3073212.30	0.0270	0.0237
Venus	3706-04-24 16:48 G	3074762.07	3074762.20	3074762.34	0.0280	0.0212
Mercury	3706-07-14 09:07 G	3074842.80	3074842.88	3074842.97	0.0281	0.0222
Mercury	3706-10-10 21:50 G	3074931.28	3074931.41	3074931.54	0.0282	0.0103
Venus	3706-12-10 06:43 G	3074991.57	3074991.78	3074991.99	0.0282	0.0017
Mercury	3707-01-07 10:19 G	3075019.80	3075019.93	3075020.07	0.0282	0.0019
Mercury	3707-04-05 22:48 G	3075108.33	3075108.45	3075108.57	0.0283	0.0135
Mercury	3707-07-03 11:02 G	3075196.90	3075196.96	3075197.02	0.0284	0.0252
Venus	3707-07-27 21:50 G	3075221.32	3075221.41	3075221.51	0.0284	0.0253
Moon	3713-01-29 04:19 G	3077233.44	3077233.68	3077233.91	0.0293	0.0004
Earth	3713-01-29 06:57 G	3077233.55	3077233.79	3077234.03	0.0293	0.0016 *
Venus	3720-02-25 17:31 G	3079817.09	3079817.23	3079817.37	0.0279	0.0206
Mercury	3720-08-06 06:43 G	3079979.63	3079979.78	3079979.93	0.0278	0.0139
Venus	3720-10-12 03:35 G	3080046.44	3080046.65	3080046.87	0.0278	0.0017
Mercury	3720-11-03 02:24 G	3080068.43	3080068.60	3080068.78	0.0277	0.0005
Mercury	3721-01-30 22:19 G	3080157.28	3080157.43	3080157.58	0.0277	0.0149
Venus	3721-05-29 12:14 G	3080275.91	3080276.01	3080276.14	0.0276	0.0233
Moon	3727-07-28 02:24 G	3082526.39	3082526.60	3082526.84	0.0266	0.0134
Earth	3727-07-28 05:31 G	3082526.51	3082526.73	3082526.96	0.0266	0.0120 *

Venus	3735-11-04 19:55 G	3085548.17	3085548.33	3085548.49	0.0281	0.0185
Mercury	3735-12-01 10:19 G	3085574.89	3085574.93	3085574.98	0.0281	0.0262
Mercury	3736-02-27 23:16 G	3085663.35	3085663.47	3085663.59	0.0282	0.0142
Mercury	3736-05-26 11:45 G	3085751.86	3085751.99	3085752.13	0.0283	0.0024
Venus	3736-06-21 09:50 G	3085777.71	3085777.91	3085778.12	0.0283	0.0046
Mercury	3736-08-23 00:14 G	3085840.38	3085840.51	3085840.64	0.0283	0.0097
Mercury	3736-11-19 12:43 G	3085928.94	3085929.03	3085929.12	0.0284	0.0214
Venus	3737-02-06 01:11 G	3086007.54	3086007.55	3086007.58	0.0285	0.0283
Venus	3749-09-06 23:16 G	3090603.31	3090603.47	3090603.64	0.0279	0.0176
Mercury	3749-12-24 07:11 G	3090711.67	3090711.80	3090711.93	0.0278	0.0177
Mercury	3750-03-23 02:38 G	3090800.44	3090800.61	3090800.79	0.0277	0.0035
Venus	3750-04-24 09:35 G	3090832.69	3090832.90	3090833.11	0.0277	0.0046
Mercury	3750-06-19 22:33 G	3090889.28	3090889.44	3090889.60	0.0277	0.0111
Mercury	3750-09-16 18:43 G	3090978.22	3090978.28	3090978.35	0.0276	0.0256
Venus	3750-12-09 18:28 G	3091062.21	3091062.27	3091062.34	0.0276	0.0262
Earth	3757-08-03 16:48 G	3093491.04	3093491.20	3093491.37	0.0267	0.0198
Moon	3757-08-03 20:09 G	3093491.17	3093491.34	3093491.53	0.0267	0.0188 *
Venus	3765-05-17 06:14 G	3096334.59	3096334.76	3096334.95	0.0281	0.0146
Mercury	3765-07-17 02:52 G	3096395.50	3096395.62	3096395.73	0.0281	0.0163
Mercury	3765-10-13 15:21 G	3096484.01	3096484.14	3096484.28	0.0282	0.0044
Venus	3766-01-01 20:38 G	3096564.16	3096564.36	3096564.57	0.0283	0.0086
Mercury	3766-01-10 03:50 G	3096572.53	3096572.66	3096572.80	0.0283	0.0076
Mercury	3766-04-08 16:19 G	3096661.08	3096661.18	3096661.28	0.0283	0.0193
Earth	3772-01-31 19:55 G	3098785.11	3098785.33	3098785.56	0.0293	0.0107
Moon	3772-01-31 21:21 G	3098785.17	3098785.39	3098785.62	0.0293	0.0095 *
Venus	3779-03-20 05:02 G	3101389.53	3101389.71	3101389.90	0.0279	0.0143
Mercury	3779-05-13 07:26 G	3101443.70	3101443.81	3101443.92	0.0278	0.0214
Mercury	3779-08-10 02:52 G	3101532.45	3101532.62	3101532.78	0.0278	0.0072
Venus	3779-11-04 14:52 G	3101618.92	3101619.12	3101619.33	0.0277	0.0078
Mercury	3779-11-06 22:33 G	3101621.27	3101621.44	3101621.61	0.0277	0.0072

Mercury	3780-02-03 18:28 G	3101710.16	3101710.27	3101710.38	0.0276	0.0216
Moon	3786-07-29 10:19 G	3104077.70	3104077.93	3104078.18	0.0266	0.0062
Earth	3786-07-29 13:40 G	3104077.82	3104078.07	3104078.31	0.0266	0.0049 *
Mars	3790-06-21 11:31 G	3105500.78	3105500.98	3105501.19	0.0270	0.0179
Venus	3794-11-27 09:35 G	3107120.71	3107120.90	3107121.10	0.0282	0.0118
Mercury	3794-12-04 04:04 G	3107127.58	3107127.67	3107127.77	0.0282	0.0202
Mercury	3795-03-02 16:48 G	3107216.07	3107216.20	3107216.34	0.0282	0.0083
Mercury	3795-05-30 05:31 G	3107304.59	3107304.73	3107304.86	0.0283	0.0037
Venus	3795-07-15 00:14 G	3107350.31	3107350.51	3107350.70	0.0283	0.0115
Mercury	3795-08-26 17:45 G	3107393.13	3107393.24	3107393.36	0.0284	0.0155
Mercury	3795-11-23 06:00 G	3107481.72	3107481.75	3107481.79	0.0284	0.0272
Moon	3801-01-25 21:21 G	3109371.24	3109371.39	3109371.55	0.0294	0.0229
Earth	3801-01-25 23:02 G	3109371.30	3109371.46	3109371.62	0.0294	0.0216 *
Mars	3804-07-17 09:21 G	3110639.83	3110639.89	3110639.99	0.0290	0.0281
Mercury	3808-09-30 07:40 G	3112175.75	3112175.82	3112175.90	0.0278	0.0251
Venus	3808-09-30 11:16 G	3112175.78	3112175.97	3112176.16	0.0278	0.0112 *
Mercury	3808-12-28 03:07 G	3112264.47	3112264.63	3112264.79	0.0278	0.0110
Mercury	3809-03-26 22:48 G	3112353.28	3112353.45	3112353.63	0.0277	0.0034
Venus	3809-05-17 21:07 G	3112405.18	3112405.38	3112405.57	0.0277	0.0108
Mercury	3809-06-23 18:43 G	3112442.15	3112442.28	3112442.42	0.0276	0.0178
Moon	3816-08-05 23:45 G	3115042.45	3115042.49	3115042.54	0.0267	0.0262
Mercury	3824-04-23 07:55 G	3117859.74	3117859.83	3117859.91	0.0281	0.0221
Venus	3824-06-09 20:52 G	3117907.17	3117907.37	3117907.57	0.0282	0.0077
Mercury	3824-07-20 20:38 G	3117948.23	3117948.36	3117948.49	0.0282	0.0101
Mercury	3824-10-17 09:21 G	3118036.75	3118036.89	3118037.02	0.0283	0.0020
Mercury	3825-01-13 21:35 G	3118125.28	3118125.40	3118125.52	0.0283	0.0136
Venus	3825-01-25 11:45 G	3118136.81	3118136.99	3118137.16	0.0283	0.0157
Mercury	3825-04-12 09:50 G	3118213.86	3118213.91	3118213.98	0.0284	0.0253
Earth	3831-02-03 11:45 G	3120336.83	3120336.99	3120337.17	0.0293	0.0204
Moon	3831-02-03 15:21 G	3120336.96	3120337.14	3120337.33	0.0293	0.0191 *

Venus	3838-04-12 18:14 G	3122962.06	3122962.26	3122962.47	0.0278	0.0077
Mercury	3838-05-17 03:50 G	3122996.52	3122996.66	3122996.82	0.0278	0.0142
Mercury	3838-08-13 23:31 G	3123085.31	3123085.48	3123085.66	0.0277	0.0002
Mercury	3838-11-10 19:11 G	3123174.16	3123174.30	3123174.46	0.0277	0.0145
Venus	3838-11-28 03:50 G	3123191.48	3123191.66	3123191.84	0.0277	0.0143
Earth	3845-07-31 22:48 G	3125629.21	3125629.45	3125629.71	0.0266	0.0026
Moon	3845-07-31 23:31 G	3125629.24	3125629.48	3125629.72	0.0266	0.0015 *
Venus	3853-05-05 10:48 G	3128463.92	3128463.95	3128463.98	0.0280	0.0277
Mercury	3853-09-10 09:21 G	3128591.84	3128591.89	3128591.94	0.0281	0.0260
Mercury	3853-12-07 22:04 G	3128680.30	3128680.42	3128680.54	0.0282	0.0140
Venus	3853-12-21 00:28 G	3128693.31	3128693.52	3128693.73	0.0282	0.0049
Mercury	3854-03-06 10:48 G	3128768.81	3128768.95	3128769.09	0.0283	0.0021
Mercury	3854-06-02 23:16 G	3128857.34	3128857.47	3128857.60	0.0283	0.0098
Venus	3854-08-07 15:21 G	3128922.99	3128923.14	3128923.30	0.0284	0.0186
Mercury	3854-08-30 11:31 G	3128945.90	3128945.98	3128946.07	0.0284	0.0216
Moon	3860-01-28 10:48 G	3130922.74	3130922.95	3130923.17	0.0294	0.0135
Earth	3860-01-28 14:24 G	3130922.89	3130923.10	3130923.33	0.0294	0.0120 *
Venus	3867-03-08 13:11 G	3133519.01	3133519.05	3133519.11	0.0280	0.0270
Mercury	3867-10-04 04:19 G	3133728.55	3133728.68	3133728.81	0.0278	0.0180
Venus	3867-10-24 00:14 G	3133748.30	3133748.51	3133748.72	0.0278	0.0047
Mercury	3867-12-31 23:45 G	3133817.32	3133817.49	3133817.66	0.0277	0.0038
Mercury	3868-03-29 19:26 G	3133906.15	3133906.31	3133906.48	0.0277	0.0105
Venus	3868-06-09 09:35 G	3133977.74	3133977.90	3133978.07	0.0276	0.0171
Mercury	3868-06-26 15:21 G	3133995.08	3133995.14	3133995.22	0.0276	0.0251
Earth	3874-07-27 02:52 G	3136216.47	3136216.62	3136216.79	0.0267	0.0206
Moon	3874-07-27 03:07 G	3136216.49	3136216.63	3136216.78	0.0267	0.0220 *
Mars	3878-11-17 02:09 G	3137790.34	3137790.59	3137790.85	0.0271	0.0084
Venus	3882-11-15 21:50 G	3139250.29	3139250.41	3139250.52	0.0281	0.0236
Mercury	3883-01-28 12:57 G	3139324.03	3139324.04	3139324.05	0.0281	0.0279
Mercury	3883-04-27 01:40 G	3139412.46	3139412.57	3139412.69	0.0282	0.0160

Venus	3883-07-03 11:45 G	3139479.78	3139479.99	3139480.20	0.0282	0.0008
Mercury	3883-07-24 14:24 G	3139500.97	3139501.10	3139501.24	0.0282	0.0041
Mercury	3883-10-21 03:07 G	3139589.50	3139589.63	3139589.76	0.0283	0.0079
Mercury	3884-01-17 15:21 G	3139678.05	3139678.14	3139678.24	0.0284	0.0197
Venus	3884-02-18 02:52 G	3139709.50	3139709.62	3139709.75	0.0284	0.0228
Moon	3890-02-05 06:00 G	3141888.71	3141888.75	3141888.80	0.0293	0.0287
Mars	3892-12-12 18:43 G	3142930.01	3142930.28	3142930.57	0.0289	0.0135
Venus	3896-09-17 22:04 G	3144305.31	3144305.42	3144305.54	0.0280	0.0230
Mercury	3897-02-20 05:31 G	3144460.63	3144460.73	3144460.85	0.0278	0.0209
Venus	3897-05-05 08:24 G	3144534.64	3144534.85	3144535.06	0.0278	0.0009
Mercury	3897-05-20 01:11 G	3144549.38	3144549.55	3144549.72	0.0278	0.0067
Mercury	3897-08-16 20:52 G	3144638.20	3144638.37	3144638.54	0.0277	0.0076
Mercury	3897-11-13 16:48 G	3144727.09	3144727.20	3144727.30	0.0276	0.0220
Venus	3897-12-20 17:31 G	3144764.09	3144764.23	3144764.37	0.0276	0.0209
Earth	3904-08-03 08:52 G	3147180.65	3147180.87	3147181.11	0.0266	0.0101
Moon	3904-08-03 12:43 G	3147180.80	3147181.03	3147181.26	0.0266	0.0089 *
Venus	3912-05-29 00:57 G	3150036.41	3150036.54	3150036.69	0.0281	0.0209
Mercury	3912-09-14 03:07 G	3150144.54	3150144.63	3150144.73	0.0282	0.0198
Mercury	3912-12-11 16:04 G	3150233.03	3150233.17	3150233.30	0.0282	0.0079
Venus	3913-01-13 15:07 G	3150265.92	3150266.13	3150266.34	0.0283	0.0022
Mercury	3913-03-10 04:33 G	3150321.55	3150321.69	3150321.83	0.0283	0.0041
Mercury	3913-06-06 17:02 G	3150410.10	3150410.21	3150410.32	0.0284	0.0159
Venus	3913-08-31 06:28 G	3150495.69	3150495.77	3150495.87	0.0284	0.0257
Mercury	3913-09-03 05:16 G	3150498.69	3150498.72	3150498.75	0.0284	0.0276
Moon	3919-01-31 05:16 G	3152474.49	3152474.72	3152474.96	0.0294	0.0038
Earth	3919-01-31 06:43 G	3152474.54	3152474.78	3152475.02	0.0294	0.0023 *
Venus	3926-04-01 03:07 G	3155091.50	3155091.63	3155091.79	0.0279	0.0202
Mercury	3926-07-11 05:45 G	3155192.67	3155192.74	3155192.82	0.0278	0.0247
Mercury	3926-10-08 01:11 G	3155281.39	3155281.55	3155281.71	0.0278	0.0107
Venus	3926-11-16 13:40 G	3155320.86	3155321.07	3155321.29	0.0277	0.0021

Mercury	3927-01-04 20:52 G	3155370.19	3155370.37	3155370.54	0.0277	0.0036
Mercury	3927-04-03 16:33 G	3155459.06	3155459.19	3155459.33	0.0276	0.0180
Venus	3927-07-03 22:33 G	3155550.35	3155550.44	3155550.56	0.0276	0.0237
Moon	3933-07-29 08:52 G	3157767.66	3157767.87	3157768.08	0.0267	0.0147
Earth	3933-07-29 12:28 G	3157767.81	3157768.02	3157768.24	0.0267	0.0133 *
Venus	3941-12-09 11:31 G	3160822.82	3160822.98	3160823.16	0.0281	0.0169
Mercury	3942-02-01 06:43 G	3160876.70	3160876.78	3160876.87	0.0282	0.0218
Mercury	3942-04-30 19:40 G	3160965.19	3160965.32	3160965.45	0.0282	0.0099
Venus	3942-07-27 02:09 G	3161052.39	3161052.59	3161052.80	0.0283	0.0064
Mercury	3942-07-28 08:09 G	3161053.71	3161053.84	3161053.98	0.0283	0.0022
Mercury	3942-10-24 20:38 G	3161142.24	3161142.36	3161142.48	0.0284	0.0139
Mercury	3943-01-21 09:07 G	3161230.82	3161230.88	3161230.94	0.0284	0.0256
Venus	3955-10-12 12:43 G	3165877.86	3165878.03	3165878.20	0.0279	0.0161
Mercury	3955-11-28 07:40 G	3165924.79	3165924.82	3165924.85	0.0279	0.0273
Mercury	3956-02-25 02:52 G	3166013.47	3166013.62	3166013.77	0.0278	0.0133
Mercury	3956-05-23 22:33 G	3166102.26	3166102.44	3166102.61	0.0277	0.0012
Venus	3956-05-28 22:33 G	3166107.24	3166107.44	3166107.65	0.0277	0.0060
Mercury	3956-08-20 18:14 G	3166191.11	3166191.26	3166191.41	0.0277	0.0153
Venus	3957-01-13 06:57 G	3166336.79	3166336.79	3166336.82	0.0276	0.0275
Earth	3963-08-05 19:26 G	3168732.14	3168732.31	3168732.51	0.0266	0.0176
Moon	3963-08-05 21:35 G	3168732.21	3168732.40	3168732.61	0.0266	0.0166 *
Mars	3967-04-14 03:35 G	3170079.38	3170079.65	3170079.92	0.0270	0.0017
Mercury	3971-06-21 08:09 G	3171608.79	3171608.84	3171608.89	0.0281	0.0257
Venus	3971-06-21 15:07 G	3171608.95	3171609.13	3171609.31	0.0281	0.0141
Mercury	3971-09-17 20:52 G	3171697.25	3171697.37	3171697.50	0.0282	0.0138
Mercury	3971-12-15 09:35 G	3171785.77	3171785.90	3171786.04	0.0283	0.0020
Venus	3972-02-06 05:31 G	3171838.53	3171838.73	3171838.93	0.0283	0.0091
Mercury	3972-03-12 22:04 G	3171874.30	3171874.42	3171874.55	0.0283	0.0101
Mercury	3972-06-09 10:33 G	3171962.86	3171962.94	3171963.03	0.0284	0.0218
Earth	3978-02-01 21:21 G	3174026.16	3174026.39	3174026.63	0.0294	0.0071

Moon	3978-02-02 00:14 G	3174026.28	3174026.51	3174026.74	0.0294	0.0058	*
Mars	3981-05-10 05:16 G	3175219.41	3175219.72	3175220.05	0.0290	0.0036	
Venus	3985-04-23 16:48 G	3176664.03	3176664.20	3176664.40	0.0279	0.0135	
Mercury	3985-07-14 02:38 G	3176745.48	3176745.61	3176745.74	0.0278	0.0175	
Mercury	3985-10-10 22:04 G	3176834.25	3176834.42	3176834.59	0.0277	0.0034	
Venus	3985-12-09 02:52 G	3176893.43	3176893.62	3176893.83	0.0277	0.0087	
Mercury	3986-01-07 17:45 G	3176923.08	3176923.24	3176923.40	0.0277	0.0109	
Mercury	3986-04-06 13:40 G	3177012.01	3177012.07	3177012.14	0.0276	0.0254	
Moon	3992-07-30 19:40 G	3179319.09	3179319.32	3179319.56	0.0267	0.0073	
Earth	3992-07-30 21:50 G	3179319.17	3179319.41	3179319.65	0.0267	0.0060	*
Mercury	4000-11-07 11:16 G	3182340.97	3182340.97	3182340.98	0.0281	0.0281	

5TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 5th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	4001-01-01 00:28 G		3182395.33	3182395.52	3182395.72	0.0282	0.0102	
Mercury	4001-02-04 00:14 G		3182429.40	3182429.51	3182429.62	0.0282	0.0160	
Mercury	4001-05-03 12:57 G		3182517.90	3182518.04	3182518.18	0.0283	0.0041	
Mercury	4001-07-31 01:26 G		3182606.43	3182606.56	3182606.70	0.0283	0.0078	
Venus	4001-08-18 15:35 G		3182624.96	3182625.15	3182625.34	0.0284	0.0132	
Mercury	4001-10-27 13:55 G		3182694.99	3182695.08	3182695.18	0.0284	0.0196	
Moon	4007-01-27 08:24 G		3184612.71	3184612.85	3184613.00	0.0293	0.0237	
Earth	4007-01-27 11:31 G		3184612.84	3184612.98	3184613.15	0.0293	0.0223	*

Venus	4014-11-04 02:38 G	3187450.42	3187450.61	3187450.82	0.0279	0.0094
Mercury	4014-12-01 04:33 G	3187477.57	3187477.69	3187477.81	0.0278	0.0199
Mercury	4015-02-28 00:00 G	3187566.33	3187566.50	3187566.67	0.0278	0.0058
Mercury	4015-05-27 19:40 G	3187655.15	3187655.32	3187655.48	0.0277	0.0084
Venus	4015-06-21 12:14 G	3187679.83	3187680.01	3187680.20	0.0277	0.0127
Mercury	4015-08-24 15:21 G	3187744.05	3187744.14	3187744.25	0.0276	0.0229
Moon	4022-08-07 02:52 G	3190283.52	3190283.62	3190283.73	0.0266	0.0241
Earth	4022-08-07 05:16 G	3190283.65	3190283.72	3190283.82	0.0266	0.0249 *
Mercury	4030-06-24 01:26 G	3193161.47	3193161.56	3193161.66	0.0281	0.0200
Venus	4030-07-14 03:50 G	3193181.46	3193181.66	3193181.87	0.0282	0.0076
Mercury	4030-09-20 14:24 G	3193249.96	3193250.10	3193250.23	0.0282	0.0081
Mercury	4030-12-18 02:52 G	3193338.49	3193338.62	3193338.76	0.0283	0.0039
Venus	4031-02-28 18:28 G	3193411.11	3193411.27	3193411.46	0.0283	0.0159
Mercury	4031-03-16 15:21 G	3193427.03	3193427.14	3193427.26	0.0284	0.0156
Mercury	4031-06-13 03:35 G	3193515.62	3193515.65	3193515.69	0.0284	0.0273
Earth	4037-02-03 10:04 G	3195577.72	3195577.92	3195578.13	0.0294	0.0160
Moon	4037-02-03 13:11 G	3195577.84	3195578.05	3195578.27	0.0294	0.0148 *
Mercury	4044-04-19 03:35 G	3198209.58	3198209.65	3198209.73	0.0278	0.0246
Venus	4044-05-16 05:45 G	3198236.54	3198236.74	3198236.95	0.0278	0.0069
Mercury	4044-07-16 22:48 G	3198298.30	3198298.45	3198298.62	0.0278	0.0106
Mercury	4044-10-13 18:28 G	3198387.10	3198387.27	3198387.45	0.0277	0.0037
Venus	4044-12-31 15:21 G	3198465.97	3198466.14	3198466.32	0.0276	0.0150
Mercury	4045-01-10 14:24 G	3198475.97	3198476.10	3198476.23	0.0276	0.0180
Earth	4051-08-02 06:00 G	3200870.50	3200870.75	3200871.00	0.0267	0.0010
Moon	4051-08-02 08:38 G	3200870.62	3200870.86	3200871.10	0.0267	0.0002 *
Mars	4055-09-08 10:19 G	3202368.68	3202368.93	3202369.20	0.0271	0.0064
Venus	4059-06-08 22:33 G	3203738.38	3203738.44	3203738.52	0.0280	0.0265
Mercury	4059-11-11 04:19 G	3203893.60	3203893.68	3203893.77	0.0282	0.0226
Venus	4060-01-24 12:28 G	3203967.81	3203968.02	3203968.23	0.0282	0.0037
Mercury	4060-02-07 17:16 G	3203982.09	3203982.22	3203982.35	0.0282	0.0106

Mercury	4060-05-06 06:00 G	3204070.61	3204070.75	3204070.89	0.0283	0.0014
Mercury	4060-08-02 18:28 G	3204159.15	3204159.27	3204159.39	0.0284	0.0131
Venus	4060-09-10 03:50 G	3204197.51	3204197.66	3204197.81	0.0284	0.0197
Mercury	4060-10-30 06:57 G	3204247.72	3204247.79	3204247.85	0.0284	0.0249
Moon	4066-01-28 19:55 G	3206164.14	3206164.33	3206164.54	0.0293	0.0152
Earth	4066-01-28 22:48 G	3206164.24	3206164.45	3206164.66	0.0293	0.0139 *
Mars	4069-10-05 09:50 G	3207509.62	3207509.91	3207510.22	0.0289	0.0099
Venus	4073-04-11 04:19 G	3208793.60	3208793.68	3208793.78	0.0280	0.0252
Mercury	4073-09-06 05:45 G	3208941.70	3208941.74	3208941.78	0.0279	0.0270
Venus	4073-11-26 15:07 G	3209022.92	3209023.13	3209023.34	0.0278	0.0029
Mercury	4073-12-04 00:57 G	3209030.39	3209030.54	3209030.69	0.0278	0.0130
Mercury	4074-03-02 20:24 G	3209119.18	3209119.35	3209119.52	0.0277	0.0011
Mercury	4074-05-30 16:04 G	3209208.03	3209208.17	3209208.32	0.0277	0.0155
Venus	4074-07-14 00:28 G	3209252.37	3209252.52	3209252.68	0.0276	0.0190
Moon	4080-07-27 05:45 G	3211457.64	3211457.74	3211457.87	0.0266	0.0237
Earth	4080-07-27 08:09 G	3211457.72	3211457.84	3211457.99	0.0266	0.0225 *
Venus	4088-12-19 01:40 G	3214524.46	3214524.57	3214524.68	0.0280	0.0240
Mercury	4089-03-30 05:31 G	3214625.69	3214625.73	3214625.78	0.0281	0.0266
Mercury	4089-06-26 18:28 G	3214714.15	3214714.27	3214714.39	0.0282	0.0147
Venus	4089-08-05 15:21 G	3214753.93	3214754.14	3214754.35	0.0282	0.0012
Mercury	4089-09-23 07:11 G	3214802.66	3214802.80	3214802.94	0.0282	0.0028
Mercury	4089-12-20 19:40 G	3214891.19	3214891.32	3214891.45	0.0283	0.0090
Mercury	4090-03-19 08:09 G	3214979.75	3214979.84	3214979.93	0.0284	0.0207
Venus	4090-03-23 06:14 G	3214983.63	3214983.76	3214983.89	0.0284	0.0222
Moon	4096-02-05 18:00 G	3217129.11	3217129.25	3217129.41	0.0294	0.0233
Earth	4096-02-05 19:40 G	3217129.18	3217129.32	3217129.45	0.0294	0.0241 *
Venus	4102-10-23 06:14 G	3219579.65	3219579.76	3219579.88	0.0280	0.0230
Mercury	4103-04-23 23:31 G	3219762.35	3219762.48	3219762.61	0.0278	0.0181
Venus	4103-06-09 17:02 G	3219809.00	3219809.21	3219809.43	0.0278	0.0009
Mercury	4103-07-21 18:43 G	3219851.11	3219851.28	3219851.46	0.0278	0.0040

Mercury	4103-10-18 14:24 G	3219939.94	3219940.10	3219940.27	0.0277	0.0104
Mercury	4104-01-15 10:33 G	3220028.86	3220028.94	3220029.02	0.0276	0.0248
Venus	4104-01-25 02:38 G	3220038.48	3220038.61	3220038.74	0.0276	0.0211
Earth	4110-08-04 12:28 G	3222421.78	3222422.02	3222422.26	0.0267	0.0077
Moon	4110-08-04 15:35 G	3222421.91	3222422.15	3222422.40	0.0267	0.0070 *
Venus	4118-07-02 08:24 G	3225310.71	3225310.85	3225311.00	0.0281	0.0206
Mercury	4118-11-14 20:52 G	3225446.27	3225446.37	3225446.48	0.0282	0.0176
Mercury	4119-02-11 09:50 G	3225534.77	3225534.91	3225535.04	0.0283	0.0057
Venus	4119-02-16 22:33 G	3225540.23	3225540.44	3225540.65	0.0283	0.0024
Mercury	4119-05-10 22:19 G	3225623.30	3225623.43	3225623.57	0.0283	0.0062
Mercury	4119-08-07 10:48 G	3225711.85	3225711.95	3225712.06	0.0284	0.0180
Venus	4119-10-04 13:40 G	3225770.00	3225770.07	3225770.17	0.0284	0.0259
Earth	4125-01-31 06:14 G	3227715.53	3227715.76	3227716.00	0.0293	0.0062
Moon	4125-01-31 07:40 G	3227715.59	3227715.82	3227716.05	0.0293	0.0072 *
Venus	4132-05-04 15:07 G	3230365.99	3230366.13	3230366.29	0.0280	0.0191
Mercury	4132-09-10 00:57 G	3230494.43	3230494.54	3230494.66	0.0279	0.0208
Mercury	4132-12-07 20:24 G	3230583.18	3230583.35	3230583.52	0.0278	0.0067
Venus	4132-12-20 01:55 G	3230595.37	3230595.58	3230595.79	0.0278	0.0032
Mercury	4133-03-06 16:04 G	3230672.00	3230672.17	3230672.34	0.0277	0.0076
Mercury	4133-06-03 12:00 G	3230760.89	3230761.00	3230761.11	0.0277	0.0220
Venus	4133-08-06 11:02 G	3230824.88	3230824.96	3230825.05	0.0276	0.0249
Moon	4139-07-30 11:45 G	3233008.81	3233008.99	3233009.19	0.0266	0.0170
Earth	4139-07-30 15:07 G	3233008.94	3233009.13	3233009.34	0.0266	0.0158 *
Mars	4144-02-03 06:28 G	3234657.53	3234657.77	3234658.02	0.0270	0.0118
Venus	4148-01-12 11:31 G	3236096.82	3236096.98	3236097.14	0.0280	0.0181
Mercury	4148-04-02 22:19 G	3236178.34	3236178.43	3236178.52	0.0281	0.0216
Mercury	4148-06-30 11:02 G	3236266.83	3236266.96	3236267.09	0.0282	0.0097
Venus	4148-08-29 01:26 G	3236326.35	3236326.56	3236326.77	0.0282	0.0048
Mercury	4148-09-26 23:45 G	3236355.35	3236355.49	3236355.63	0.0282	0.0021
Mercury	4148-12-24 12:14 G	3236443.89	3236444.01	3236444.13	0.0283	0.0138

Mercury	4149-03-23 00:28 G	3236532.46	3236532.52	3236532.58	0.0284	0.0254
Venus	4149-04-15 16:19 G	3236556.18	3236556.18	3236556.21	0.0284	0.0283
Mars	4158-03-01 11:45 G	3239797.72	3239797.99	3239798.28	0.0290	0.0145
Venus	4161-11-14 15:50 G	3241151.99	3241152.16	3241152.33	0.0280	0.0171
Mercury	4162-01-27 23:02 G	3241226.41	3241226.46	3241226.52	0.0279	0.0262
Mercury	4162-04-26 18:14 G	3241315.11	3241315.26	3241315.42	0.0278	0.0122
Venus	4162-07-02 02:24 G	3241381.39	3241381.60	3241381.81	0.0278	0.0052
Mercury	4162-07-24 13:55 G	3241403.90	3241404.08	3241404.25	0.0278	0.0021
Mercury	4162-10-21 09:35 G	3241492.76	3241492.90	3241493.04	0.0277	0.0164
Venus	4163-02-16 11:45 G	3241610.95	3241610.99	3241611.04	0.0276	0.0268
Moon	4169-08-05 16:19 G	3243972.96	3243973.18	3243973.41	0.0266	0.0135
Earth	4169-08-05 17:02 G	3243973.01	3243973.21	3243973.43	0.0266	0.0139 *
Venus	4177-07-24 16:48 G	3246883.03	3246883.20	3246883.39	0.0281	0.0149
Mercury	4177-08-21 00:14 G	3246910.45	3246910.51	3246910.57	0.0281	0.0250
Mercury	4177-11-17 12:57 G	3246998.92	3246999.04	3246999.17	0.0282	0.0131
Mercury	4178-02-14 01:40 G	3247087.43	3247087.57	3247087.71	0.0283	0.0014
Venus	4178-03-11 06:57 G	3247112.59	3247112.79	3247113.00	0.0283	0.0082
Mercury	4178-05-13 14:24 G	3247175.97	3247176.10	3247176.22	0.0283	0.0106
Mercury	4178-08-10 02:38 G	3247264.53	3247264.61	3247264.70	0.0284	0.0223
Earth	4184-02-02 09:50 G	3249266.67	3249266.91	3249267.15	0.0293	0.0006
Moon	4184-02-02 13:26 G	3249266.81	3249267.06	3249267.30	0.0293	0.0006 *
Venus	4191-05-28 00:14 G	3251938.32	3251938.51	3251938.69	0.0279	0.0134
Mercury	4191-09-13 19:40 G	3252047.18	3252047.32	3252047.47	0.0279	0.0151
Mercury	4191-12-11 15:07 G	3252135.96	3252136.13	3252136.31	0.0278	0.0010
Venus	4192-01-12 10:33 G	3252167.74	3252167.94	3252168.14	0.0278	0.0089
Mercury	4192-03-09 10:48 G	3252224.80	3252224.95	3252225.11	0.0277	0.0135
Earth	4198-07-31 19:40 G	3254560.10	3254560.32	3254560.57	0.0266	0.0096
Moon	4198-07-31 19:55 G	3254560.11	3254560.33	3254560.56	0.0266	0.0105 *
Venus	4207-02-04 19:55 G	3257669.14	3257669.33	3257669.52	0.0280	0.0125
Mercury	4207-04-07 14:24 G	3257730.99	3257731.10	3257731.21	0.0281	0.0171

Mercury	4207-07-05 03:07 G	3257819.49	3257819.63	3257819.76	0.0281	0.0053
Venus	4207-09-22 09:50 G	3257898.72	3257898.91	3257899.11	0.0282	0.0106
Mercury	4207-10-01 15:35 G	3257908.02	3257908.15	3257908.29	0.0282	0.0065
Mercury	4207-12-29 04:04 G	3257996.57	3257996.67	3257996.77	0.0283	0.0181
Venus	4220-12-07 23:31 G	3262724.29	3262724.48	3262724.67	0.0279	0.0115
Mercury	4221-01-31 17:02 G	3262779.10	3262779.21	3262779.33	0.0279	0.0209
Mercury	4221-04-30 12:28 G	3262867.85	3262868.02	3262868.19	0.0278	0.0068
Venus	4221-07-25 10:04 G	3262953.72	3262953.92	3262954.11	0.0278	0.0107
Mercury	4221-07-28 08:09 G	3262956.67	3262956.84	3262957.01	0.0277	0.0075
Mercury	4221-10-25 04:04 G	3263045.56	3263045.67	3263045.78	0.0277	0.0219
Moon	4228-08-07 16:04 G	3265524.01	3265524.17	3265524.35	0.0266	0.0195
Earth	4228-08-07 19:55 G	3265524.16	3265524.33	3265524.50	0.0266	0.0198 *
Mars	4232-06-29 19:11 G	3266946.10	3266946.30	3266946.53	0.0270	0.0163
Venus	4236-08-17 00:28 G	3268455.32	3268455.52	3268455.72	0.0281	0.0094
Mercury	4236-08-24 16:04 G	3268463.07	3268463.17	3268463.26	0.0281	0.0207
Mercury	4236-11-21 04:48 G	3268551.57	3268551.70	3268551.83	0.0282	0.0088
Mercury	4237-02-17 17:31 G	3268640.09	3268640.23	3268640.37	0.0283	0.0030
Venus	4237-04-03 14:38 G	3268684.92	3268685.11	3268685.29	0.0283	0.0137
Mercury	4237-05-17 06:00 G	3268728.63	3268728.75	3268728.87	0.0283	0.0147
Mercury	4237-08-13 18:14 G	3268817.22	3268817.26	3268817.31	0.0284	0.0264
Earth	4243-02-04 10:48 G	3270817.72	3270817.95	3270818.19	0.0294	0.0068
Moon	4243-02-04 11:31 G	3270817.74	3270817.98	3270818.23	0.0294	0.0061 *
Mars	4246-07-27 04:04 G	3272086.47	3272086.67	3272086.90	0.0290	0.0213
Venus	4250-06-20 06:57 G	3273510.59	3273510.79	3273510.99	0.0279	0.0081
Mercury	4250-06-20 18:00 G	3273511.17	3273511.25	3273511.34	0.0279	0.0242
Mercury	4250-09-17 13:26 G	3273599.90	3273600.06	3273600.22	0.0279	0.0101
Mercury	4250-12-15 08:52 G	3273688.70	3273688.87	3273689.05	0.0278	0.0043
Venus	4251-02-04 17:16 G	3273740.05	3273740.22	3273740.41	0.0278	0.0142
Mercury	4251-03-14 04:48 G	3273777.57	3273777.70	3273777.83	0.0277	0.0186
Earth	4257-08-02 22:19 G	3276111.19	3276111.43	3276111.68	0.0266	0.0037

Moon	4257-08-03 02:09 G	3276111.34	3276111.59	3276111.83	0.0266	0.0045 *
Mercury	4266-01-11 17:16 G	3279195.16	3279195.22	3279195.29	0.0280	0.0246
Venus	4266-02-27 03:21 G	3279241.44	3279241.64	3279241.85	0.0280	0.0071
Mercury	4266-04-10 06:14 G	3279283.63	3279283.76	3279283.88	0.0281	0.0128
Mercury	4266-07-07 18:43 G	3279372.15	3279372.28	3279372.42	0.0281	0.0015
Mercury	4266-10-04 07:26 G	3279460.68	3279460.81	3279460.93	0.0282	0.0106
Venus	4266-10-14 17:16 G	3279471.05	3279471.22	3279471.40	0.0282	0.0161
Mercury	4266-12-31 19:40 G	3279549.24	3279549.32	3279549.40	0.0283	0.0222
Earth	4272-01-29 04:48 G	3281403.62	3281403.70	3281403.80	0.0293	0.0270
Moon	4272-01-29 04:33 G	3281403.63	3281403.69	3281403.78	0.0293	0.0279 *
Venus	4279-12-31 05:45 G	3284296.53	3284296.74	3284296.94	0.0279	0.0064
Mercury	4280-02-04 10:19 G	3284331.80	3284331.93	3284332.07	0.0279	0.0161
Mercury	4280-05-03 06:00 G	3284420.57	3284420.75	3284420.92	0.0278	0.0020
Mercury	4280-07-31 01:40 G	3284509.41	3284509.57	3284509.73	0.0278	0.0124
Venus	4280-08-16 16:04 G	3284526.00	3284526.17	3284526.35	0.0277	0.0158
Mercury	4280-10-27 21:35 G	3284598.37	3284598.40	3284598.45	0.0277	0.0269
Moon	4287-08-09 19:26 G	3287075.25	3287075.31	3287075.39	0.0266	0.0254
Earth	4287-08-09 20:52 G	3287075.31	3287075.37	3287075.45	0.0266	0.0253 *
Venus	4295-01-22 17:31 G	3289798.19	3289798.23	3289798.30	0.0279	0.0268
Mercury	4295-08-28 07:26 G	3290015.70	3290015.81	3290015.93	0.0281	0.0167
Venus	4295-09-09 06:43 G	3290027.57	3290027.78	3290027.99	0.0281	0.0042
Mercury	4295-11-24 20:09 G	3290104.21	3290104.34	3290104.48	0.0282	0.0050
Mercury	4296-02-21 08:52 G	3290192.74	3290192.87	3290193.00	0.0283	0.0069
Venus	4296-04-25 20:52 G	3290257.21	3290257.37	3290257.53	0.0283	0.0190
Mercury	4296-05-19 21:07 G	3290281.28	3290281.38	3290281.49	0.0283	0.0186
Moon	4302-02-06 05:45 G	3292368.52	3292368.74	3292368.97	0.0294	0.0122
Earth	4302-02-06 09:07 G	3292368.67	3292368.88	3292369.10	0.0294	0.0125 *
Venus	4308-11-26 00:28 G	3294853.44	3294853.52	3294853.61	0.0281	0.0257
Mercury	4309-06-24 11:02 G	3295063.84	3295063.96	3295064.08	0.0279	0.0196
Venus	4309-07-13 12:14 G	3295082.80	3295083.01	3295083.23	0.0279	0.0031

Mercury	4309-09-21 06:28 G	3295152.60	3295152.77	3295152.94	0.0279	0.0055
Mercury	4309-12-19 02:09 G	3295241.43	3295241.59	3295241.76	0.0278	0.0089
Venus	4310-02-27 22:48 G	3295312.30	3295312.45	3295312.61	0.0277	0.0191
Mercury	4310-03-17 22:04 G	3295330.33	3295330.42	3295330.52	0.0277	0.0233
Earth	4316-08-04 23:16 G	3297662.23	3297662.47	3297662.72	0.0266	0.0020
Moon	4316-08-05 01:11 G	3297662.29	3297662.55	3297662.80	0.0266	0.0015 *
Mars	4320-11-24 10:04 G	3299234.76	3299234.92	3299235.10	0.0270	0.0206
Venus	4324-08-04 21:50 G	3300584.32	3300584.41	3300584.53	0.0279	0.0242
Mercury	4325-01-15 09:07 G	3300747.79	3300747.88	3300747.98	0.0280	0.0204
Venus	4325-03-22 10:33 G	3300813.73	3300813.94	3300814.16	0.0280	0.0018
Mercury	4325-04-13 21:50 G	3300836.28	3300836.41	3300836.54	0.0281	0.0087
Mercury	4325-07-11 10:19 G	3300924.80	3300924.93	3300925.07	0.0281	0.0032
Mercury	4325-10-07 22:48 G	3301013.34	3301013.45	3301013.57	0.0282	0.0146
Venus	4325-11-07 00:28 G	3301043.39	3301043.52	3301043.66	0.0282	0.0214
Mercury	4326-01-04 11:02 G	3301101.92	3301101.96	3301102.02	0.0283	0.0261
Earth	4331-01-31 04:04 G	3302954.52	3302954.67	3302954.85	0.0293	0.0211
Moon	4331-01-31 07:55 G	3302954.68	3302954.83	3302955.00	0.0293	0.0214 *
Mars	4334-12-20 02:24 G	3304373.39	3304373.60	3304373.82	0.0290	0.0212
Venus	4338-06-07 23:02 G	3305639.36	3305639.46	3305639.57	0.0281	0.0240
Mercury	4338-11-11 08:09 G	3305795.77	3305795.84	3305795.90	0.0280	0.0257
Venus	4339-01-23 10:48 G	3305868.74	3305868.95	3305869.16	0.0279	0.0014
Mercury	4339-02-08 03:21 G	3305884.48	3305884.64	3305884.80	0.0279	0.0117
Mercury	4339-05-07 22:48 G	3305973.28	3305973.45	3305973.63	0.0278	0.0027
Mercury	4339-08-04 18:43 G	3306062.15	3306062.28	3306062.42	0.0278	0.0170
Venus	4339-09-09 20:52 G	3306098.24	3306098.37	3306098.52	0.0277	0.0207
Moon	4345-07-30 13:26 G	3308248.96	3308249.06	3308249.16	0.0266	0.0242
Earth	4345-07-30 14:24 G	3308249.00	3308249.10	3308249.23	0.0266	0.0235 *
Venus	4354-02-15 00:00 G	3311370.37	3311370.50	3311370.64	0.0279	0.0216
Mercury	4354-06-04 10:04 G	3311479.86	3311479.92	3311479.99	0.0280	0.0245
Mercury	4354-08-31 23:02 G	3311568.33	3311568.46	3311568.58	0.0281	0.0127

Venus	4354-10-02 12:57 G	3311599.83	3311600.04	3311600.25	0.0281	0.0011
Mercury	4354-11-28 11:45 G	3311656.85	3311656.99	3311657.13	0.0282	0.0012
Mercury	4355-02-25 00:00 G	3311745.38	3311745.50	3311745.63	0.0282	0.0108
Venus	4355-05-20 03:07 G	3311829.52	3311829.63	3311829.74	0.0283	0.0242
Mercury	4355-05-24 12:28 G	3311833.94	3311834.02	3311834.10	0.0283	0.0222
Moon	4361-02-07 04:19 G	3313919.50	3313919.68	3313919.87	0.0293	0.0182
Earth	4361-02-07 06:28 G	3313919.59	3313919.77	3313919.97	0.0293	0.0179 *
Venus	4367-12-19 04:48 G	3316425.57	3316425.70	3316425.85	0.0281	0.0210
Mercury	4368-06-27 03:35 G	3316616.51	3316616.65	3316616.79	0.0279	0.0155
Venus	4368-08-04 16:33 G	3316654.98	3316655.19	3316655.41	0.0279	0.0018
Mercury	4368-09-23 23:02 G	3316705.29	3316705.46	3316705.64	0.0279	0.0015
Mercury	4368-12-21 18:57 G	3316794.14	3316794.29	3316794.45	0.0278	0.0132
Mercury	4369-03-20 15:07 G	3316883.12	3316883.13	3316883.14	0.0277	0.0277
Venus	4369-03-22 02:52 G	3316884.53	3316884.62	3316884.74	0.0277	0.0238
Moon	4375-08-06 20:09 G	3319213.10	3319213.34	3319213.59	0.0267	0.0075
Earth	4375-08-06 23:31 G	3319213.24	3319213.48	3319213.72	0.0267	0.0075 *
Venus	4383-08-28 05:02 G	3322156.56	3322156.71	3322156.87	0.0279	0.0189
Mercury	4384-01-19 00:43 G	3322300.42	3322300.53	3322300.65	0.0280	0.0163
Venus	4384-04-13 17:31 G	3322386.02	3322386.23	3322386.45	0.0281	0.0037
Mercury	4384-04-16 13:26 G	3322388.93	3322389.06	3322389.20	0.0281	0.0047
Mercury	4384-07-14 01:55 G	3322477.45	3322477.58	3322477.72	0.0281	0.0070
Mercury	4384-10-10 14:24 G	3322566.00	3322566.10	3322566.20	0.0282	0.0185
Venus	4384-11-29 07:26 G	3322615.75	3322615.81	3322615.88	0.0282	0.0267
Earth	4390-02-01 03:21 G	3324505.43	3324505.64	3324505.85	0.0293	0.0151
Moon	4390-02-01 04:33 G	3324505.48	3324505.69	3324505.91	0.0293	0.0149 *
Venus	4397-06-30 03:50 G	3327211.51	3327211.66	3327211.81	0.0281	0.0191
Mercury	4397-11-14 00:28 G	3327348.42	3327348.52	3327348.64	0.0280	0.0215
Mercury	4398-02-10 19:55 G	3327437.17	3327437.33	3327437.50	0.0279	0.0074
Venus	4398-02-14 15:21 G	3327440.93	3327441.14	3327441.35	0.0279	0.0035
Mercury	4398-05-10 15:35 G	3327525.99	3327526.15	3327526.32	0.0278	0.0070

Mercury	4398-08-07 11:31 G	3327614.88	3327614.98	3327615.10	0.0278	0.0214
Venus	4398-10-02 01:40 G	3327670.49	3327670.57	3327670.65	0.0277	0.0254
Earth	4404-07-31 13:26 G	3329799.89	3329800.06	3329800.26	0.0267	0.0182
Moon	4404-07-31 17:02 G	3329800.04	3329800.21	3329800.39	0.0267	0.0184 *
Mars	4409-04-19 12:43 G	3331522.91	3331523.03	3331523.18	0.0270	0.0231
Venus	4413-03-09 06:28 G	3332942.61	3332942.77	3332942.95	0.0280	0.0165
Mercury	4413-06-07 01:40 G	3333032.48	3333032.57	3333032.67	0.0280	0.0205
Mercury	4413-09-03 14:38 G	3333120.98	3333121.11	3333121.24	0.0281	0.0087
Venus	4413-10-24 19:26 G	3333172.11	3333172.31	3333172.52	0.0281	0.0063
Mercury	4413-12-01 03:07 G	3333209.49	3333209.63	3333209.77	0.0282	0.0030
Mercury	4414-02-27 15:35 G	3333298.03	3333298.15	3333298.27	0.0282	0.0145
Mercury	4414-05-27 03:50 G	3333386.61	3333386.66	3333386.71	0.0283	0.0260
Earth	4420-02-09 04:33 G	3335470.56	3335470.69	3335470.84	0.0293	0.0236
Moon	4420-02-09 07:26 G	3335470.69	3335470.81	3335470.94	0.0293	0.0244 *
Mars	4423-05-14 22:19 G	3336661.27	3336661.43	3336661.62	0.0290	0.0244
Venus	4427-01-10 09:21 G	3337997.72	3337997.89	3337998.06	0.0281	0.0162
Mercury	4427-04-03 00:43 G	3338080.47	3338080.53	3338080.61	0.0280	0.0254
Mercury	4427-06-30 20:09 G	3338169.18	3338169.34	3338169.50	0.0279	0.0113
Venus	4427-08-27 20:52 G	3338227.17	3338227.37	3338227.58	0.0279	0.0064
Mercury	4427-09-27 15:50 G	3338257.98	3338258.16	3338258.33	0.0279	0.0030
Mercury	4427-12-25 11:31 G	3338346.85	3338346.98	3338347.12	0.0278	0.0175
Moon	4434-08-07 20:24 G	3340764.14	3340764.35	3340764.56	0.0267	0.0133
Earth	4434-08-07 22:48 G	3340764.24	3340764.45	3340764.68	0.0267	0.0129 *
Venus	4442-09-19 12:28 G	3343728.84	3343729.02	3343729.21	0.0279	0.0136
Mercury	4442-10-25 03:50 G	3343764.60	3343764.66	3343764.74	0.0279	0.0237
Mercury	4443-01-21 16:48 G	3343853.07	3343853.20	3343853.32	0.0280	0.0120
Mercury	4443-04-20 05:16 G	3343941.58	3343941.72	3343941.86	0.0281	0.0007
Venus	4443-05-07 01:11 G	3343958.35	3343958.55	3343958.75	0.0281	0.0091
Mercury	4443-07-17 17:45 G	3344030.12	3344030.24	3344030.37	0.0281	0.0111
Mercury	4443-10-14 06:00 G	3344118.67	3344118.75	3344118.83	0.0282	0.0226

Moon	4449-02-02 00:14 G	3346056.28	3346056.51	3346056.75	0.0293	0.0081
Earth	4449-02-02 03:35 G	3346056.43	3346056.65	3346056.89	0.0293	0.0089 *
Venus	4456-07-22 08:38 G	3348783.68	3348783.86	3348784.05	0.0281	0.0142
Mercury	4456-11-16 17:16 G	3348901.09	3348901.22	3348901.36	0.0280	0.0172
Mercury	4457-02-13 12:57 G	3348989.86	3348990.04	3348990.21	0.0279	0.0030
Venus	4457-03-08 20:09 G	3349013.14	3349013.34	3349013.55	0.0279	0.0083
Mercury	4457-05-13 08:38 G	3349078.70	3349078.86	3349079.02	0.0278	0.0114
Mercury	4457-08-10 04:33 G	3349167.64	3349167.69	3349167.76	0.0278	0.0259
Earth	4463-08-02 13:26 G	3351350.85	3351351.06	3351351.29	0.0267	0.0127
Moon	4463-08-02 16:04 G	3351350.95	3351351.17	3351351.40	0.0267	0.0126 *
Mars	4467-07-29 07:55 G	3352807.74	3352807.83	3352807.94	0.0269	0.0248
Venus	4472-03-31 13:55 G	3354514.89	3354515.08	3354515.28	0.0280	0.0112
Mercury	4472-06-09 17:45 G	3354585.12	3354585.24	3354585.35	0.0280	0.0163
Mercury	4472-09-06 06:14 G	3354673.63	3354673.76	3354673.90	0.0281	0.0047
Venus	4472-11-16 03:07 G	3354744.43	3354744.63	3354744.82	0.0282	0.0117
Mercury	4472-12-03 18:57 G	3354762.15	3354762.29	3354762.42	0.0282	0.0071
Mercury	4473-03-02 07:11 G	3354850.70	3354850.80	3354850.90	0.0282	0.0186
Venus	4486-02-01 14:09 G	3359569.90	3359570.09	3359570.29	0.0280	0.0113
Mercury	4486-04-05 17:31 G	3359633.12	3359633.23	3359633.34	0.0280	0.0211
Mercury	4486-07-03 12:57 G	3359721.87	3359722.04	3359722.21	0.0279	0.0070
Venus	4486-09-19 01:40 G	3359799.38	3359799.57	3359799.76	0.0279	0.0112
Mercury	4486-09-30 08:38 G	3359810.69	3359810.86	3359811.03	0.0279	0.0074
Mercury	4486-12-28 04:33 G	3359899.59	3359899.69	3359899.80	0.0278	0.0219
Earth	4493-08-08 22:48 G	3362315.28	3362315.45	3362315.64	0.0267	0.0184
Moon	4493-08-09 00:43 G	3362315.38	3362315.53	3362315.71	0.0267	0.0194 *
Venus	4501-10-12 20:52 G	3365301.17	3365301.37	3365301.58	0.0279	0.0080
Mercury	4501-10-28 20:09 G	3365317.24	3365317.34	3365317.44	0.0279	0.0192
Mercury	4502-01-25 08:52 G	3365405.74	3365405.87	3365406.00	0.0280	0.0076
Mercury	4502-04-23 21:21 G	3365494.26	3365494.39	3365494.53	0.0281	0.0040
Venus	4502-05-30 09:50 G	3365530.73	3365530.91	3365531.09	0.0281	0.0147

Mercury	4502-07-21 09:50 G	3365582.80	3365582.91	3365583.02	0.0281	0.0155
Mercury	4502-10-17 22:04 G	3365671.38	3365671.42	3365671.46	0.0282	0.0269
Moon	4508-02-05 03:50 G	3367607.43	3367607.66	3367607.90	0.0293	0.0013
Earth	4508-02-05 06:28 G	3367607.53	3367607.77	3367608.01	0.0293	0.0022 *
Mars	4511-10-08 07:55 G	3368948.72	3368948.83	3368948.97	0.0290	0.0266
Venus	4515-08-15 14:52 G	3370355.92	3370356.12	3370356.32	0.0280	0.0091
Mercury	4515-08-24 15:21 G	3370365.09	3370365.14	3370365.20	0.0280	0.0265
Mercury	4515-11-21 10:33 G	3370453.79	3370453.94	3370454.10	0.0280	0.0125
Mercury	4516-02-18 06:14 G	3370542.59	3370542.76	3370542.93	0.0279	0.0018
Venus	4516-04-01 01:55 G	3370585.40	3370585.58	3370585.77	0.0279	0.0133
Mercury	4516-05-17 01:55 G	3370631.45	3370631.58	3370631.73	0.0278	0.0162
Moon	4522-08-04 12:14 G	3372901.76	3372902.01	3372902.26	0.0267	0.0065
Earth	4522-08-04 14:09 G	3372901.85	3372902.09	3372902.34	0.0267	0.0070 *
Venus	4530-09-07 10:48 G	3375857.95	3375857.95	3375857.96	0.0278	0.0278
Mercury	4531-03-17 21:07 G	3376049.31	3376049.38	3376049.46	0.0280	0.0234
Venus	4531-04-24 22:48 G	3376087.24	3376087.45	3376087.66	0.0280	0.0055
Mercury	4531-06-14 09:50 G	3376137.79	3376137.91	3376138.04	0.0280	0.0117
Mercury	4531-09-10 22:33 G	3376226.30	3376226.44	3376226.58	0.0281	0.0002
Mercury	4531-12-08 11:02 G	3376314.83	3376314.96	3376315.08	0.0282	0.0115
Venus	4531-12-10 11:45 G	3376316.83	3376316.99	3376317.16	0.0282	0.0174
Mercury	4532-03-05 23:16 G	3376403.39	3376403.47	3376403.55	0.0283	0.0229
Venus	4545-02-24 20:09 G	3381142.13	3381142.34	3381142.55	0.0280	0.0062
Mercury	4545-04-09 10:33 G	3381185.81	3381185.94	3381186.08	0.0280	0.0165
Mercury	4545-07-07 06:14 G	3381274.59	3381274.76	3381274.93	0.0279	0.0023
Mercury	4545-10-04 01:55 G	3381363.43	3381363.58	3381363.74	0.0278	0.0121
Venus	4545-10-12 07:26 G	3381371.64	3381371.81	3381371.98	0.0278	0.0162
Mercury	4545-12-31 22:04 G	3381452.37	3381452.42	3381452.47	0.0278	0.0266
Earth	4552-08-11 00:28 G	3383866.42	3383866.52	3383866.62	0.0267	0.0243
Moon	4552-08-11 03:50 G	3383866.59	3383866.66	3383866.75	0.0267	0.0253 *
Mars	4555-12-24 06:57 G	3385096.61	3385096.79	3385097.00	0.0269	0.0185

Venus	4560-03-19 18:57 G	3386644.19	3386644.29	3386644.39	0.0278	0.0244
Mercury	4560-08-04 00:00 G	3386781.45	3386781.50	3386781.55	0.0279	0.0260
Mercury	4560-10-31 12:43 G	3386869.91	3386870.03	3386870.15	0.0280	0.0143
Venus	4560-11-04 06:57 G	3386873.58	3386873.79	3386874.00	0.0280	0.0021
Mercury	4561-01-28 01:26 G	3386958.42	3386958.56	3386958.70	0.0280	0.0027
Mercury	4561-04-26 13:55 G	3387046.95	3387047.08	3387047.21	0.0281	0.0088
Venus	4561-06-21 19:55 G	3387103.20	3387103.33	3387103.48	0.0281	0.0207
Mercury	4561-07-24 02:09 G	3387135.50	3387135.59	3387135.69	0.0282	0.0202
Earth	4567-02-06 11:45 G	3389158.75	3389158.99	3389159.23	0.0292	0.0052
Moon	4567-02-06 13:11 G	3389158.83	3389159.05	3389159.28	0.0292	0.0064 *
Venus	4574-01-20 09:50 G	3391698.85	3391698.91	3391698.99	0.0282	0.0264
Mercury	4574-08-27 09:21 G	3391917.78	3391917.89	3391918.00	0.0280	0.0213
Venus	4574-09-06 22:19 G	3391928.22	3391928.43	3391928.64	0.0280	0.0037
Mercury	4574-11-24 04:33 G	3392006.53	3392006.69	3392006.86	0.0279	0.0073
Mercury	4575-02-21 00:14 G	3392095.34	3392095.51	3392095.68	0.0279	0.0070
Venus	4575-04-24 09:07 G	3392157.73	3392157.88	3392158.04	0.0278	0.0186
Mercury	4575-05-20 20:09 G	3392184.23	3392184.34	3392184.45	0.0278	0.0215
Moon	4581-08-05 13:11 G	3394452.80	3394453.05	3394453.30	0.0267	0.0004
Earth	4581-08-05 16:48 G	3394452.95	3394453.20	3394453.45	0.0267	0.0010 *
Venus	4589-09-29 20:24 G	3397430.23	3397430.35	3397430.49	0.0279	0.0221
Mercury	4590-03-20 13:40 G	3397601.97	3397602.07	3397602.18	0.0280	0.0185
Venus	4590-05-17 08:52 G	3397659.65	3397659.87	3397660.08	0.0280	0.0006
Mercury	4590-06-17 02:24 G	3397690.47	3397690.60	3397690.74	0.0281	0.0069
Mercury	4590-09-13 15:07 G	3397778.99	3397779.13	3397779.26	0.0281	0.0048
Mercury	4590-12-11 03:21 G	3397867.53	3397867.64	3397867.76	0.0282	0.0163
Venus	4591-01-01 22:04 G	3397889.31	3397889.42	3397889.54	0.0282	0.0234
Mercury	4591-03-09 15:35 G	3397956.13	3397956.15	3397956.18	0.0283	0.0277
Moon	4596-01-31 11:45 G	3399744.89	3399744.99	3399745.12	0.0293	0.0257
Earth	4596-01-31 13:55 G	3399744.98	3399745.08	3399745.18	0.0293	0.0266 *
Venus	4603-08-03 15:21 G	3402485.04	3402485.14	3402485.27	0.0281	0.0235

Mercury	4604-01-15 09:21 G	3402649.82	3402649.89	3402649.97	0.0280	0.0252
Venus	4604-03-20 04:04 G	3402714.46	3402714.67	3402714.88	0.0280	0.0008
Mercury	4604-04-13 04:33 G	3402738.54	3402738.69	3402738.86	0.0279	0.0113
Mercury	4604-07-11 00:14 G	3402827.34	3402827.51	3402827.69	0.0279	0.0031
Mercury	4604-10-07 20:09 G	3402916.21	3402916.34	3402916.48	0.0278	0.0175
Venus	4604-11-04 14:38 G	3402943.99	3402944.11	3402944.26	0.0278	0.0215
Earth	4610-08-01 19:11 G	3405040.20	3405040.30	3405040.42	0.0268	0.0240
Moon	4610-08-01 23:02 G	3405040.36	3405040.46	3405040.58	0.0268	0.0241 *
Venus	4619-04-13 05:45 G	3408216.59	3408216.74	3408216.91	0.0279	0.0185
Mercury	4619-08-08 17:02 G	3408334.12	3408334.21	3408334.30	0.0279	0.0208
Mercury	4619-11-05 05:45 G	3408422.61	3408422.74	3408422.87	0.0280	0.0091
Venus	4619-11-28 18:14 G	3408446.05	3408446.26	3408446.47	0.0280	0.0041
Mercury	4620-02-01 18:28 G	3408511.13	3408511.27	3408511.40	0.0281	0.0025
Mercury	4620-04-30 06:43 G	3408599.67	3408599.78	3408599.90	0.0281	0.0139
Venus	4620-07-15 07:40 G	3408675.77	3408675.82	3408675.89	0.0282	0.0270
Mercury	4620-07-27 18:57 G	3408688.24	3408688.29	3408688.35	0.0282	0.0253
Earth	4626-02-08 20:38 G	3410710.15	3410710.36	3410710.58	0.0292	0.0133
Moon	4626-02-09 00:14 G	3410710.30	3410710.51	3410710.72	0.0292	0.0145 *
Venus	4633-02-12 19:40 G	3413271.18	3413271.32	3413271.47	0.0281	0.0204
Mercury	4633-08-31 04:04 G	3413470.53	3413470.67	3413470.81	0.0280	0.0156
Venus	4633-09-30 07:40 G	3413500.61	3413500.82	3413501.03	0.0280	0.0022
Mercury	4633-11-27 23:31 G	3413559.30	3413559.48	3413559.65	0.0279	0.0015
Mercury	4634-02-24 19:11 G	3413648.15	3413648.30	3413648.45	0.0278	0.0129
Venus	4634-05-17 18:14 G	3413730.16	3413730.26	3413730.36	0.0278	0.0242
Mercury	4634-05-24 14:52 G	3413737.11	3413737.12	3413737.16	0.0278	0.0274
Moon	4640-08-07 20:52 G	3416004.14	3416004.37	3416004.61	0.0267	0.0064
Earth	4640-08-07 21:21 G	3416004.14	3416004.39	3416004.63	0.0267	0.0055 *
Mars	4644-05-19 19:11 G	3417385.08	3417385.30	3417385.54	0.0269	0.0142
Venus	4648-10-23 08:09 G	3419002.67	3419002.84	3419003.02	0.0279	0.0159
Mercury	4648-12-25 18:14 G	3419066.19	3419066.26	3419066.32	0.0280	0.0248

Mercury	4649-03-24 06:57 G	3419154.67	3419154.79	3419154.92	0.0280	0.0131
Venus	4649-06-09 20:38 G	3419232.16	3419232.36	3419232.57	0.0281	0.0067
Mercury	4649-06-20 19:40 G	3419243.18	3419243.32	3419243.46	0.0281	0.0015
Mercury	4649-09-17 08:09 G	3419331.71	3419331.84	3419331.97	0.0282	0.0101
Mercury	4649-12-14 20:24 G	3419420.27	3419420.35	3419420.44	0.0282	0.0215
Moon	4655-02-02 19:40 G	3421296.13	3421296.32	3421296.52	0.0292	0.0173
Earth	4655-02-02 23:16 G	3421296.29	3421296.47	3421296.66	0.0292	0.0184 *
Venus	4662-08-26 01:26 G	3424057.40	3424057.56	3424057.73	0.0281	0.0175
Mercury	4663-01-18 04:04 G	3424202.56	3424202.67	3424202.80	0.0280	0.0195
Venus	4663-04-12 13:26 G	3424286.85	3424287.06	3424287.27	0.0279	0.0051
Mercury	4663-04-16 23:31 G	3424291.32	3424291.48	3424291.65	0.0279	0.0054
Mercury	4663-07-14 19:11 G	3424380.14	3424380.30	3424380.47	0.0279	0.0090
Mercury	4663-10-11 15:07 G	3424469.04	3424469.13	3424469.23	0.0278	0.0234
Venus	4663-11-28 00:00 G	3424516.46	3424516.50	3424516.54	0.0278	0.0271
Earth	4669-08-03 00:28 G	3426591.34	3426591.52	3426591.71	0.0268	0.0175
Moon	4669-08-03 00:43 G	3426591.34	3426591.53	3426591.74	0.0268	0.0170 *
Venus	4678-05-05 18:00 G	3429789.07	3429789.25	3429789.45	0.0279	0.0122
Mercury	4678-05-14 21:21 G	3429798.36	3429798.39	3429798.43	0.0279	0.0269
Mercury	4678-08-11 10:19 G	3429886.82	3429886.93	3429887.05	0.0280	0.0152
Mercury	4678-11-07 23:02 G	3429975.33	3429975.46	3429975.60	0.0280	0.0037
Venus	4678-12-21 06:57 G	3430018.59	3430018.79	3430018.99	0.0281	0.0106
Mercury	4679-02-04 11:45 G	3430063.85	3430063.99	3430064.12	0.0281	0.0079
Mercury	4679-05-04 00:00 G	3430152.40	3430152.50	3430152.60	0.0282	0.0194
Earth	4685-02-10 08:38 G	3432261.71	3432261.86	3432262.02	0.0292	0.0220
Moon	4685-02-10 09:35 G	3432261.76	3432261.90	3432262.06	0.0292	0.0232 *
Venus	4692-03-07 07:26 G	3434843.63	3434843.81	3434844.00	0.0281	0.0141
Mercury	4692-06-06 04:19 G	3434934.60	3434934.68	3434934.78	0.0280	0.0232
Mercury	4692-09-02 23:45 G	3435023.33	3435023.49	3435023.65	0.0279	0.0091
Venus	4692-10-22 18:57 G	3435073.09	3435073.29	3435073.49	0.0279	0.0084
Mercury	4692-11-30 19:11 G	3435112.13	3435112.30	3435112.47	0.0279	0.0051

Mercury	4693-02-27 15:07 G	3435201.01	3435201.13	3435201.25	0.0278	0.0194
Earth	4699-08-10 04:19 G	3437555.46	3437555.68	3437555.90	0.0267	0.0124
Moon	4699-08-10 07:40 G	3437555.62	3437555.82	3437556.04	0.0267	0.0136 *
Venus	4707-11-16 20:52 G	3440575.18	3440575.37	3440575.58	0.0280	0.0095
Mercury	4707-12-30 11:45 G	3440618.89	3440618.99	3440619.09	0.0280	0.0191
Mercury	4708-03-28 00:28 G	3440707.39	3440707.52	3440707.66	0.0281	0.0075
Mercury	4708-06-24 12:57 G	3440795.91	3440796.04	3440796.18	0.0281	0.0043
Venus	4708-07-03 09:50 G	3440804.73	3440804.91	3440805.10	0.0281	0.0133
Mercury	4708-09-21 01:26 G	3440884.45	3440884.56	3440884.68	0.0282	0.0156
Mercury	4708-12-18 13:40 G	3440973.04	3440973.07	3440973.11	0.0283	0.0270
Moon	4714-02-05 11:31 G	3442847.76	3442847.98	3442848.21	0.0292	0.0083
Earth	4714-02-05 12:00 G	3442847.77	3442848.00	3442848.23	0.0292	0.0095 *
Venus	4721-09-18 13:11 G	3445629.86	3445630.05	3445630.25	0.0280	0.0111
Mercury	4721-10-25 04:48 G	3445666.66	3445666.70	3445666.74	0.0280	0.0269
Mercury	4722-01-21 23:45 G	3445755.35	3445755.49	3445755.65	0.0279	0.0131
Mercury	4722-04-20 19:26 G	3445844.14	3445844.31	3445844.48	0.0279	0.0012
Venus	4722-05-06 00:28 G	3445859.34	3445859.52	3445859.72	0.0279	0.0114
Mercury	4722-07-18 15:07 G	3445932.99	3445933.13	3445933.28	0.0278	0.0155
Moon	4728-08-05 03:35 G	3448142.42	3448142.65	3448142.89	0.0268	0.0098
Earth	4728-08-05 07:26 G	3448142.59	3448142.81	3448143.04	0.0268	0.0106 *
Mars	4732-10-15 06:43 G	3449674.52	3449674.78	3449675.05	0.0270	0.0052
Venus	4736-10-11 19:55 G	3451132.31	3451132.33	3451132.36	0.0278	0.0276
Mercury	4737-05-18 15:21 G	3451351.05	3451351.14	3451351.23	0.0280	0.0210
Venus	4737-05-29 07:55 G	3451361.62	3451361.83	3451362.04	0.0280	0.0054
Mercury	4737-08-15 04:19 G	3451439.54	3451439.68	3451439.81	0.0280	0.0094
Mercury	4737-11-11 16:48 G	3451528.06	3451528.20	3451528.34	0.0281	0.0023
Venus	4738-01-13 20:52 G	3451591.21	3451591.37	3451591.54	0.0281	0.0174
Mercury	4738-02-08 05:16 G	3451616.60	3451616.72	3451616.84	0.0282	0.0137
Mercury	4738-05-07 17:31 G	3451705.18	3451705.23	3451705.30	0.0282	0.0251
Venus	4751-03-31 20:38 G	3456416.16	3456416.36	3456416.57	0.0280	0.0074

Mercury	4751-06-11 00:43 G	3456487.40	3456487.53	3456487.67	0.0280	0.0162
Mercury	4751-09-07 20:09 G	3456576.17	3456576.34	3456576.51	0.0279	0.0021
Venus	4751-11-16 07:40 G	3456645.64	3456645.82	3456646.00	0.0279	0.0149
Mercury	4751-12-05 15:50 G	3456665.00	3456665.16	3456665.32	0.0278	0.0121
Mercury	4752-03-03 11:31 G	3456753.94	3456753.98	3456754.04	0.0278	0.0265
Earth	4758-08-12 13:11 G	3459106.89	3459107.05	3459107.23	0.0267	0.0197
Moon	4758-08-12 15:35 G	3459106.99	3459107.15	3459107.31	0.0267	0.0209 *
Venus	4766-04-23 22:33 G	3461918.36	3461918.44	3461918.54	0.0278	0.0251
Mercury	4766-10-05 16:33 G	3462083.13	3462083.19	3462083.26	0.0280	0.0249
Venus	4766-12-09 10:48 G	3462147.74	3462147.95	3462148.16	0.0280	0.0028
Mercury	4767-01-02 05:31 G	3462171.61	3462171.73	3462171.85	0.0280	0.0132
Mercury	4767-03-31 18:14 G	3462260.12	3462260.26	3462260.40	0.0281	0.0016
Mercury	4767-06-28 06:43 G	3462348.65	3462348.78	3462348.91	0.0282	0.0099
Venus	4767-07-27 00:00 G	3462377.36	3462377.50	3462377.65	0.0282	0.0202
Mercury	4767-09-24 19:11 G	3462437.21	3462437.30	3462437.38	0.0282	0.0214
Earth	4773-02-07 02:09 G	3464399.35	3464399.59	3464399.83	0.0292	0.0004
Moon	4773-02-07 05:45 G	3464399.50	3464399.74	3464399.98	0.0292	0.0012 *
Venus	4780-02-24 13:55 G	3466973.04	3466973.08	3466973.14	0.0282	0.0272
Venus	4780-10-11 02:24 G	3467202.39	3467202.60	3467202.81	0.0280	0.0045
Mercury	4780-10-28 00:57 G	3467219.43	3467219.54	3467219.66	0.0280	0.0201
Mercury	4781-01-24 20:24 G	3467308.18	3467308.35	3467308.52	0.0279	0.0060
Mercury	4781-04-23 15:50 G	3467397.00	3467397.16	3467397.33	0.0278	0.0082
Venus	4781-05-28 13:11 G	3467431.90	3467432.05	3467432.22	0.0278	0.0178
Mercury	4781-07-21 11:45 G	3467485.89	3467485.99	3467486.10	0.0278	0.0225
Moon	4787-08-07 14:24 G	3469693.86	3469694.10	3469694.34	0.0268	0.0024
Earth	4787-08-07 16:19 G	3469693.93	3469694.18	3469694.43	0.0268	0.0034 *
Venus	4795-11-04 09:21 G	3472704.76	3472704.89	3472705.03	0.0279	0.0210
Mercury	4796-02-22 20:09 G	3472815.31	3472815.34	3472815.38	0.0280	0.0268
Mercury	4796-05-21 09:07 G	3472903.77	3472903.88	3472904.00	0.0280	0.0151
Venus	4796-06-20 21:50 G	3472934.20	3472934.41	3472934.62	0.0280	0.0014

Mercury	4796-08-17 21:50 G	3472992.28	3472992.41	3472992.55	0.0281	0.0035
Mercury	4796-11-14 10:33 G	3473080.81	3473080.94	3473081.07	0.0281	0.0081
Venus	4797-02-05 11:16 G	3473163.87	3473163.97	3473164.08	0.0282	0.0243
Mercury	4797-02-10 23:02 G	3473169.36	3473169.46	3473169.55	0.0282	0.0195
Moon	4802-02-01 14:38 G	3474986.04	3474986.11	3474986.20	0.0292	0.0273
Earth	4802-02-01 18:00 G	3474986.23	3474986.25	3474986.31	0.0292	0.0287
Venus	4809-09-05 23:02 G	3477759.34	3477759.46	3477759.58	0.0281	0.0232
Mercury	4810-03-17 02:38 G	3477951.51	3477951.61	3477951.71	0.0280	0.0228
Venus	4810-04-23 11:02 G	3477988.75	3477988.96	3477989.17	0.0280	0.0007
Mercury	4810-06-13 21:50 G	3478040.25	3478040.41	3478040.57	0.0279	0.0089
Mercury	4810-09-10 17:16 G	3478129.05	3478129.22	3478129.39	0.0279	0.0053
Mercury	4810-12-08 12:57 G	3478217.92	3478218.04	3478218.17	0.0278	0.0196
Venus	4810-12-08 21:35 G	3478218.27	3478218.40	3478218.53	0.0278	0.0215
Mars	4821-03-11 06:43 G	3481963.51	3481963.78	3481964.05	0.0270	0.0013
Venus	4825-05-16 12:43 G	3483490.88	3483491.03	3483491.19	0.0279	0.0184
Mercury	4825-10-08 10:33 G	3483635.84	3483635.94	3483636.05	0.0280	0.0188
Venus	4826-01-01 01:11 G	3483720.34	3483720.55	3483720.76	0.0281	0.0041
Mercury	4826-01-04 23:16 G	3483724.34	3483724.47	3483724.61	0.0281	0.0073
Mercury	4826-04-03 12:00 G	3483812.87	3483813.00	3483813.14	0.0281	0.0044
Mercury	4826-07-01 00:28 G	3483901.41	3483901.52	3483901.64	0.0282	0.0159
Venus	4826-08-18 14:38 G	3483950.07	3483950.11	3483950.18	0.0282	0.0272
Mercury	4826-09-27 12:57 G	3483990.00	3483990.04	3483990.07	0.0283	0.0272
Earth	4832-02-09 18:00 G	3485951.02	3485951.25	3485951.48	0.0292	0.0091
Moon	4832-02-09 20:09 G	3485951.12	3485951.34	3485951.58	0.0292	0.0107 *
Mars	4835-03-27 17:31 G	3487093.03	3487093.23	3487093.47	0.0290	0.0210
Venus	4839-03-19 04:04 G	3488545.53	3488545.67	3488545.82	0.0281	0.0203
Mercury	4839-08-04 02:38 G	3488683.57	3488683.61	3488683.66	0.0280	0.0268
Mercury	4839-10-31 21:35 G	3488772.25	3488772.40	3488772.56	0.0279	0.0130
Venus	4839-11-03 16:04 G	3488774.96	3488775.17	3488775.38	0.0279	0.0023
Mercury	4840-01-28 17:02 G	3488861.04	3488861.21	3488861.39	0.0279	0.0013

Mercury	4840-04-26 12:43 G	3488949.89	3488950.03	3488950.18	0.0278	0.0154
Venus	4840-06-20 02:38 G	3489004.52	3489004.61	3489004.72	0.0278	0.0243
Earth	4846-08-09 01:55 G	3491245.33	3491245.58	3491245.83	0.0268	0.0039
Moon	4846-08-09 04:04 G	3491245.44	3491245.67	3491245.92	0.0268	0.0051 *
Venus	4854-11-26 23:02 G	3494277.28	3494277.46	3494277.64	0.0279	0.0143
Mercury	4855-02-25 14:09 G	3494368.00	3494368.09	3494368.18	0.0280	0.0208
Mercury	4855-05-25 02:52 G	3494456.49	3494456.62	3494456.76	0.0281	0.0092
Venus	4855-07-14 11:45 G	3494506.79	3494506.99	3494507.19	0.0281	0.0083
Mercury	4855-08-21 15:35 G	3494545.02	3494545.15	3494545.29	0.0281	0.0026
Mercury	4855-11-18 04:04 G	3494633.56	3494633.67	3494633.79	0.0282	0.0140
Mercury	4856-02-14 16:19 G	3494722.13	3494722.18	3494722.25	0.0282	0.0254
Moon	4861-02-03 07:26 G	3496537.64	3496537.81	3496538.00	0.0292	0.0182
Earth	4861-02-03 09:50 G	3496537.74	3496537.91	3496538.10	0.0292	0.0193 *
Venus	4868-09-28 13:40 G	3499331.91	3499332.07	3499332.25	0.0281	0.0162
Mercury	4869-03-19 23:31 G	3499504.34	3499504.48	3499504.63	0.0280	0.0154
Venus	4869-05-16 01:26 G	3499561.36	3499561.56	3499561.77	0.0279	0.0063
Mercury	4869-06-16 18:57 G	3499593.12	3499593.29	3499593.46	0.0279	0.0014
Mercury	4869-09-13 14:24 G	3499681.95	3499682.10	3499682.26	0.0278	0.0128
Mercury	4869-12-11 10:19 G	3499770.90	3499770.93	3499770.97	0.0278	0.0272
Moon	4875-08-04 00:14 G	3501832.34	3501832.51	3501832.70	0.0268	0.0191
Earth	4875-08-04 02:09 G	3501832.43	3501832.59	3501832.77	0.0268	0.0198 *
Venus	4884-06-08 02:09 G	3505063.41	3505063.59	3505063.79	0.0279	0.0118
Mercury	4884-07-14 15:35 G	3505100.08	3505100.15	3505100.21	0.0279	0.0246
Mercury	4884-10-11 04:19 G	3505188.56	3505188.68	3505188.81	0.0280	0.0130
Mercury	4885-01-07 17:02 G	3505277.08	3505277.21	3505277.35	0.0281	0.0016
Venus	4885-01-23 14:52 G	3505292.94	3505293.12	3505293.33	0.0281	0.0110
Mercury	4885-04-06 05:45 G	3505365.61	3505365.74	3505365.87	0.0281	0.0102
Mercury	4885-07-03 18:00 G	3505454.17	3505454.25	3505454.34	0.0282	0.0216
Moon	4891-02-11 06:43 G	3507502.60	3507502.78	3507502.97	0.0293	0.0197
Earth	4891-02-11 08:24 G	3507502.68	3507502.85	3507503.05	0.0293	0.0183 *

Venus	4898-04-10 18:14 G	3510118.07	3510118.26	3510118.44	0.0281	0.0135
Mercury	4898-08-06 23:16 G	3510236.35	3510236.47	3510236.59	0.0280	0.0197
Mercury	4898-11-03 18:28 G	3510325.10	3510325.27	3510325.44	0.0279	0.0057
Venus	4898-11-26 05:45 G	3510347.54	3510347.74	3510347.94	0.0279	0.0090
Mercury	4899-01-31 13:55 G	3510413.92	3510414.08	3510414.25	0.0278	0.0085
Mercury	4899-04-30 09:35 G	3510502.81	3510502.90	3510503.01	0.0278	0.0228
Earth	4905-08-11 11:31 G	3512796.76	3512796.98	3512797.21	0.0268	0.0111
Moon	4905-08-11 14:52 G	3512796.90	3512797.12	3512797.35	0.0268	0.0123 *
Mars	4909-08-06 18:43 G	3514253.03	3514253.28	3514253.53	0.0270	0.0103
Mercury	4913-12-02 18:43 G	3515832.24	3515832.28	3515832.32	0.0280	0.0268
Venus	4913-12-20 12:00 G	3515849.80	3515850.00	3515850.20	0.0280	0.0078
Mercury	4914-03-01 07:40 G	3515920.70	3515920.82	3515920.94	0.0280	0.0151
Mercury	4914-05-28 20:24 G	3516009.22	3516009.35	3516009.49	0.0281	0.0036
Venus	4914-08-07 00:57 G	3516079.37	3516079.54	3516079.73	0.0282	0.0151
Mercury	4914-08-25 09:07 G	3516097.75	3516097.88	3516098.01	0.0282	0.0081
Mercury	4914-11-21 21:35 G	3516186.30	3516186.40	3516186.50	0.0282	0.0195
Earth	4920-02-07 00:28 G	3518089.30	3518089.52	3518089.75	0.0292	0.0103
Moon	4920-02-07 01:55 G	3518089.36	3518089.58	3518089.80	0.0292	0.0090 *
Mars	4923-08-24 06:43 G	3519383.47	3519383.78	3519384.10	0.0290	0.0060
Venus	4927-10-23 04:04 G	3520904.48	3520904.67	3520904.88	0.0280	0.0094
Mercury	4927-12-26 01:26 G	3520968.46	3520968.56	3520968.66	0.0280	0.0220
Mercury	4928-03-23 20:38 G	3521057.19	3521057.36	3521057.52	0.0279	0.0081
Venus	4928-06-08 15:21 G	3521133.96	3521134.14	3521134.33	0.0279	0.0131
Mercury	4928-06-20 16:04 G	3521146.00	3521146.17	3521146.34	0.0279	0.0060
Mercury	4928-09-17 11:45 G	3521234.87	3521234.99	3521235.11	0.0278	0.0202
Moon	4934-08-06 09:21 G	3523383.67	3523383.89	3523384.11	0.0268	0.0117
Earth	4934-08-06 12:57 G	3523383.82	3523384.04	3523384.27	0.0268	0.0124 *
Venus	4942-11-15 03:21 G	3526406.61	3526406.64	3526406.69	0.0278	0.0273
Venus	4943-07-02 15:21 G	3526635.93	3526636.14	3526636.35	0.0280	0.0052
Mercury	4943-07-19 09:07 G	3526652.78	3526652.88	3526652.98	0.0280	0.0189

Mercury	4943-10-15 21:50 G	3526741.28	3526741.41	3526741.55	0.0280	0.0073
Mercury	4944-01-12 10:33 G	3526829.80	3526829.94	3526830.08	0.0281	0.0043
Venus	4944-02-17 04:04 G	3526865.52	3526865.67	3526865.85	0.0281	0.0177
Mercury	4944-04-09 23:02 G	3526918.35	3526918.46	3526918.58	0.0282	0.0157
Mercury	4944-07-07 11:16 G	3527006.94	3527006.97	3527007.01	0.0282	0.0270
Moon	4950-02-13 18:00 G	3529054.20	3529054.25	3529054.31	0.0293	0.0285
Earth	4950-02-13 21:35 G	3529054.31	3529054.40	3529054.49	0.0293	0.0269 *
Venus	4957-05-04 07:11 G	3531690.60	3531690.80	3531691.01	0.0280	0.0069
Mercury	4957-05-14 00:14 G	3531700.47	3531700.51	3531700.57	0.0280	0.0268
Mercury	4957-08-10 19:26 G	3531789.17	3531789.31	3531789.47	0.0280	0.0129
Mercury	4957-11-07 14:52 G	3531877.95	3531878.12	3531878.30	0.0279	0.0014
Venus	4957-12-19 18:28 G	3531920.10	3531920.27	3531920.45	0.0279	0.0156
Mercury	4958-02-04 10:33 G	3531966.80	3531966.94	3531967.09	0.0278	0.0155
Earth	4964-08-12 20:38 G	3534348.17	3534348.36	3534348.54	0.0268	0.0181
Moon	4964-08-12 20:38 G	3534348.19	3534348.36	3534348.55	0.0268	0.0193 *
Venus	4972-05-27 11:31 G	3537192.87	3537192.98	3537193.09	0.0279	0.0237
Mercury	4972-12-05 12:00 G	3537384.91	3537385.00	3537385.09	0.0280	0.0214
Venus	4973-01-11 23:45 G	3537422.28	3537422.49	3537422.70	0.0280	0.0014
Mercury	4973-03-04 00:57 G	3537473.41	3537473.54	3537473.67	0.0281	0.0097
Mercury	4973-05-31 13:40 G	3537561.93	3537562.07	3537562.21	0.0281	0.0019
Mercury	4973-08-28 02:09 G	3537650.47	3537650.59	3537650.71	0.0282	0.0134
Venus	4973-08-29 12:57 G	3537651.92	3537652.04	3537652.19	0.0282	0.0215
Mercury	4973-11-24 14:24 G	3537739.04	3537739.10	3537739.17	0.0283	0.0248
Earth	4979-02-08 11:45 G	3539640.75	3539640.99	3539641.23	0.0292	0.0020
Moon	4979-02-08 15:21 G	3539640.90	3539641.14	3539641.39	0.0292	0.0008 *
Venus	4986-03-30 04:48 G	3542247.62	3542247.70	3542247.80	0.0282	0.0255
Venus	4986-11-14 17:31 G	3542477.02	3542477.23	3542477.44	0.0280	0.0027
Mercury	4986-12-28 21:35 G	3542521.26	3542521.40	3542521.55	0.0280	0.0152
Mercury	4987-03-27 17:02 G	3542610.04	3542610.21	3542610.38	0.0279	0.0012
Mercury	4987-06-24 12:28 G	3542698.87	3542699.02	3542699.18	0.0278	0.0130

Venus	4987-07-02 04:19 G	3542706.54	3542706.68	3542706.84	0.0278	0.0196
Mercury	4987-09-21 08:24 G	3542787.83	3542787.85	3542787.88	0.0278	0.0273
Moon	4993-08-07 21:50 G	3544935.18	3544935.41	3544935.66	0.0268	0.0044
Earth	4993-08-07 22:33 G	3544935.20	3544935.44	3544935.69	0.0268	0.0053 *
Mars	4997-12-31 19:11 G	3546542.09	3546542.30	3546542.52	0.0270	0.0165

6TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 6th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	5001-12-08 14:52 G		3547978.99	3547979.12	3547979.26	0.0278	0.0212	
Mercury	5002-04-25 13:11 G		3548117.00	3548117.05	3548117.12	0.0279	0.0252	
Mercury	5002-07-23 02:09 G		3548205.47	3548205.59	3548205.72	0.0280	0.0136	
Venus	5002-07-26 03:07 G		3548208.41	3548208.63	3548208.84	0.0280	0.0012	
Mercury	5002-10-19 15:07 G		3548293.99	3548294.13	3548294.27	0.0280	0.0021	
Mercury	5003-01-16 03:35 G		3548382.52	3548382.65	3548382.78	0.0281	0.0095	
Venus	5003-03-12 16:04 G		3548438.07	3548438.17	3548438.29	0.0282	0.0240	
Mercury	5003-04-14 15:50 G		3548471.08	3548471.16	3548471.26	0.0282	0.0209	
Mars	5012-01-18 23:02 G		3551672.14	3551672.46	3551672.78	0.0290	0.0009	
Venus	5015-10-11 06:43 G		3553033.67	3553033.78	3553033.91	0.0282	0.0232	
Mercury	5016-05-17 20:09 G		3553253.23	3553253.34	3553253.46	0.0280	0.0202	
Venus	5016-05-27 19:11 G		3553263.09	3553263.30	3553263.52	0.0280	0.0007	
Mercury	5016-08-14 15:21 G		3553341.98	3553342.14	3553342.31	0.0279	0.0063	
Mercury	5016-11-11 11:02 G		3553430.79	3553430.96	3553431.12	0.0279	0.0079	

Venus	5017-01-12 06:14 G	3553492.64	3553492.76	3553492.90	0.0278	0.0218
Mercury	5017-02-08 06:43 G	3553519.68	3553519.78	3553519.89	0.0278	0.0221
Moon	5023-08-16 00:00 G	3555899.46	3555899.50	3555899.56	0.0267	0.0262
Earth	5023-08-16 03:21 G	3555899.56	3555899.64	3555899.75	0.0267	0.0248 *
Venus	5031-06-20 21:50 G	3558765.25	3558765.41	3558765.57	0.0279	0.0177
Mercury	5031-12-10 04:48 G	3558937.59	3558937.70	3558937.82	0.0280	0.0163
Venus	5032-02-05 10:04 G	3558994.71	3558994.92	3558995.13	0.0281	0.0047
Mercury	5032-03-07 17:45 G	3559026.10	3559026.24	3559026.37	0.0281	0.0048
Mercury	5032-06-04 06:14 G	3559114.63	3559114.76	3559114.90	0.0281	0.0068
Mercury	5032-08-31 18:43 G	3559203.18	3559203.28	3559203.39	0.0282	0.0182
Venus	5032-09-21 23:45 G	3559224.46	3559224.49	3559224.54	0.0282	0.0276
Earth	5038-02-10 20:09 G	3561192.10	3561192.34	3561192.58	0.0292	0.0057
Moon	5038-02-10 20:52 G	3561192.14	3561192.37	3561192.62	0.0292	0.0072 *
Venus	5045-04-22 16:19 G	3563820.03	3563820.18	3563820.34	0.0281	0.0192
Mercury	5045-10-04 22:04 G	3563985.33	3563985.42	3563985.52	0.0280	0.0228
Venus	5045-12-08 04:33 G	3564049.49	3564049.69	3564049.91	0.0280	0.0036
Mercury	5046-01-01 17:16 G	3564074.06	3564074.22	3564074.38	0.0280	0.0089
Mercury	5046-03-31 12:43 G	3564162.86	3564163.03	3564163.20	0.0279	0.0052
Mercury	5046-06-28 08:24 G	3564251.73	3564251.85	3564251.98	0.0278	0.0195
Venus	5046-07-25 15:21 G	3564279.07	3564279.14	3564279.23	0.0278	0.0256
Earth	5052-08-10 06:14 G	3566486.51	3566486.76	3566487.01	0.0267	0.0015
Moon	5052-08-10 09:50 G	3566486.66	3566486.91	3566487.15	0.0267	0.0028 *
Venus	5060-12-31 00:57 G	3569551.37	3569551.54	3569551.73	0.0278	0.0153
Mercury	5061-04-28 06:00 G	3569669.66	3569669.75	3569669.85	0.0279	0.0202
Mercury	5061-07-25 18:57 G	3569758.16	3569758.29	3569758.43	0.0280	0.0086
Venus	5061-08-17 13:26 G	3569780.85	3569781.06	3569781.26	0.0280	0.0071
Mercury	5061-10-22 07:40 G	3569846.68	3569846.82	3569846.96	0.0281	0.0029
Mercury	5062-01-18 20:09 G	3569935.22	3569935.34	3569935.46	0.0281	0.0143
Mercury	5062-04-17 08:24 G	3570023.80	3570023.85	3570023.91	0.0282	0.0256
Moon	5067-02-04 17:31 G	3571778.13	3571778.23	3571778.35	0.0292	0.0253

Earth	5067-02-04 17:31 G	3571778.14	3571778.23	3571778.33	0.0292	0.0268 *
Venus	5074-11-02 17:16 G	3574606.05	3574606.22	3574606.39	0.0281	0.0172
Mercury	5075-05-21 15:07 G	3574805.99	3574806.13	3574806.28	0.0280	0.0143
Venus	5075-06-20 05:16 G	3574835.52	3574835.72	3574835.93	0.0280	0.0056
Mercury	5075-08-18 10:33 G	3574894.77	3574894.94	3574895.11	0.0279	0.0005
Mercury	5075-11-15 06:14 G	3574983.61	3574983.76	3574983.91	0.0279	0.0140
Venus	5076-02-04 16:04 G	3575065.16	3575065.17	3575065.21	0.0278	0.0276
Moon	5081-08-04 20:52 G	3577073.24	3577073.37	3577073.52	0.0268	0.0220
Earth	5081-08-05 00:43 G	3577073.41	3577073.53	3577073.66	0.0268	0.0231 *
Mars	5086-05-28 14:52 G	3578830.97	3578831.12	3578831.27	0.0270	0.0223
Venus	5090-07-13 06:28 G	3580337.58	3580337.77	3580337.96	0.0279	0.0121
Mercury	5090-09-15 08:09 G	3580401.77	3580401.84	3580401.92	0.0280	0.0234
Mercury	5090-12-12 21:07 G	3580490.25	3580490.38	3580490.51	0.0280	0.0118
Venus	5091-02-27 18:57 G	3580567.10	3580567.29	3580567.49	0.0281	0.0104
Mercury	5091-03-11 09:50 G	3580578.77	3580578.91	3580579.05	0.0281	0.0002
Mercury	5091-06-07 22:19 G	3580667.31	3580667.43	3580667.56	0.0282	0.0113
Mercury	5091-09-04 10:48 G	3580755.87	3580755.95	3580756.03	0.0282	0.0226
Moon	5097-02-11 21:35 G	3582743.19	3582743.40	3582743.62	0.0292	0.0143
Earth	5097-02-12 00:57 G	3582743.33	3582743.54	3582743.77	0.0292	0.0127 *
Mars	5100-06-15 07:55 G	3583961.53	3583961.83	3583962.13	0.0290	0.0104
Venus	5104-05-16 02:09 G	3585392.41	3585392.59	3585392.78	0.0281	0.0134
Mercury	5104-10-08 16:48 G	3585538.07	3585538.20	3585538.34	0.0280	0.0171
Venus	5104-12-31 14:09 G	3585621.89	3585622.09	3585622.29	0.0280	0.0093
Mercury	5105-01-05 12:14 G	3585626.84	3585627.01	3585627.18	0.0280	0.0031
Mercury	5105-04-04 07:40 G	3585715.66	3585715.82	3585715.98	0.0279	0.0111
Mercury	5105-07-02 03:21 G	3585804.58	3585804.64	3585804.72	0.0278	0.0255
Earth	5111-08-13 11:31 G	3588037.75	3588037.98	3588038.22	0.0267	0.0079
Moon	5111-08-13 13:40 G	3588037.84	3588038.07	3588038.32	0.0267	0.0093 *
Venus	5120-01-24 10:04 G	3591123.72	3591123.92	3591124.12	0.0278	0.0097
Mercury	5120-02-03 09:35 G	3591133.87	3591133.90	3591133.93	0.0278	0.0271

Mercury	5120-05-01 22:33 G	3591222.32	3591222.44	3591222.56	0.0279	0.0156
Mercury	5120-07-29 11:16 G	3591310.83	3591310.97	3591311.11	0.0280	0.0041
Venus	5120-09-09 22:19 G	3591353.25	3591353.43	3591353.62	0.0280	0.0128
Mercury	5120-10-26 00:00 G	3591399.36	3591399.50	3591399.63	0.0280	0.0074
Mercury	5121-01-22 12:14 G	3591487.91	3591488.01	3591488.12	0.0281	0.0187
Earth	5126-02-06 21:35 G	3593329.23	3593329.40	3593329.58	0.0292	0.0200
Moon	5126-02-07 01:26 G	3593329.38	3593329.56	3593329.75	0.0292	0.0182 *
Venus	5133-11-26 01:40 G	3596178.38	3596178.57	3596178.76	0.0281	0.0115
Mercury	5134-02-25 14:09 G	3596270.00	3596270.09	3596270.20	0.0281	0.0229
Mercury	5134-05-25 09:35 G	3596358.74	3596358.90	3596359.06	0.0280	0.0089
Venus	5134-07-13 13:40 G	3596407.88	3596408.07	3596408.27	0.0279	0.0111
Mercury	5134-08-22 05:02 G	3596447.54	3596447.71	3596447.88	0.0279	0.0052
Mercury	5134-11-19 00:43 G	3596536.41	3596536.53	3596536.66	0.0279	0.0195
Moon	5140-08-07 02:38 G	3598624.42	3598624.61	3598624.81	0.0268	0.0159
Earth	5140-08-07 04:19 G	3598624.50	3598624.68	3598624.88	0.0268	0.0171 *
Mars	5144-09-06 10:19 G	3600115.85	3600115.93	3600116.03	0.0269	0.0252
Venus	5149-08-05 14:09 G	3601909.89	3601910.09	3601910.30	0.0279	0.0067
Mercury	5149-09-19 00:14 G	3601954.41	3601954.51	3601954.61	0.0280	0.0191
Mercury	5149-12-16 12:57 G	3602042.91	3602043.04	3602043.18	0.0280	0.0076
Mercury	5150-03-15 01:40 G	3602131.43	3602131.57	3602131.71	0.0281	0.0040
Venus	5150-03-23 02:52 G	3602139.44	3602139.62	3602139.79	0.0281	0.0159
Mercury	5150-06-11 14:09 G	3602219.98	3602220.09	3602220.21	0.0282	0.0154
Mercury	5150-09-08 02:38 G	3602308.57	3602308.61	3602308.65	0.0282	0.0266
Moon	5156-02-15 00:14 G	3604294.36	3604294.51	3604294.69	0.0292	0.0205
Earth	5156-02-15 02:24 G	3604294.43	3604294.60	3604294.80	0.0292	0.0189 *
Venus	5163-06-08 09:35 G	3606964.70	3606964.90	3606965.11	0.0281	0.0080
Mercury	5163-07-15 15:35 G	3607002.09	3607002.15	3607002.22	0.0281	0.0259
Mercury	5163-10-12 10:48 G	3607090.79	3607090.95	3607091.10	0.0280	0.0120
Mercury	5164-01-09 06:14 G	3607179.58	3607179.76	3607179.93	0.0280	0.0022
Venus	5164-01-23 21:35 G	3607194.23	3607194.40	3607194.58	0.0279	0.0146

Mercury	5164-04-07 01:55 G	3607268.44	3607268.58	3607268.72	0.0279	0.0163
Moon	5170-08-14 12:14 G	3609588.80	3609589.01	3609589.22	0.0267	0.0154
Earth	5170-08-14 14:52 G	3609588.91	3609589.12	3609589.34	0.0267	0.0139 *
Venus	5178-07-01 06:28 G	3612466.71	3612466.77	3612466.85	0.0277	0.0262
Mercury	5179-02-06 01:40 G	3612686.49	3612686.57	3612686.65	0.0278	0.0228
Venus	5179-02-15 17:45 G	3612696.03	3612696.24	3612696.45	0.0278	0.0043
Mercury	5179-05-05 14:38 G	3612774.98	3612775.11	3612775.23	0.0279	0.0113
Mercury	5179-08-02 03:07 G	3612863.50	3612863.63	3612863.77	0.0280	0.0009
Venus	5179-10-03 06:00 G	3612925.60	3612925.75	3612925.92	0.0280	0.0183
Mercury	5179-10-29 15:50 G	3612952.03	3612952.16	3612952.28	0.0280	0.0115
Mercury	5180-01-26 04:04 G	3613040.59	3613040.67	3613040.75	0.0281	0.0227
Earth	5185-02-07 23:16 G	3614880.26	3614880.47	3614880.68	0.0292	0.0136
Moon	5185-02-08 00:43 G	3614880.30	3614880.53	3614880.76	0.0292	0.0120 *
Mars	5188-11-07 15:21 G	3616248.85	3616249.14	3616249.44	0.0291	0.0120
Venus	5192-12-18 08:38 G	3617750.66	3617750.86	3617751.07	0.0281	0.0062
Mercury	5193-02-28 07:55 G	3617822.70	3617822.83	3617822.96	0.0281	0.0179
Mercury	5193-05-28 03:07 G	3617911.47	3617911.63	3617911.81	0.0280	0.0040
Venus	5193-08-04 20:24 G	3617980.19	3617980.35	3617980.53	0.0279	0.0165
Mercury	5193-08-24 22:48 G	3618000.29	3618000.45	3618000.61	0.0279	0.0103
Mercury	5193-11-21 18:43 G	3618089.20	3618089.28	3618089.36	0.0279	0.0246
Earth	5199-08-09 06:14 G	3620175.54	3620175.76	3620175.99	0.0268	0.0113
Moon	5199-08-09 08:24 G	3620175.64	3620175.85	3620176.09	0.0268	0.0101 *
Venus	5208-01-11 09:21 G	3623252.79	3623252.89	3623253.01	0.0278	0.0236
Mercury	5208-06-25 02:52 G	3623418.59	3623418.62	3623418.66	0.0279	0.0266
Venus	5208-08-27 20:52 G	3623482.16	3623482.37	3623482.59	0.0279	0.0016
Mercury	5208-09-21 15:50 G	3623507.05	3623507.16	3623507.28	0.0280	0.0151
Mercury	5208-12-19 04:33 G	3623595.56	3623595.69	3623595.83	0.0280	0.0037
Mercury	5209-03-17 17:16 G	3623684.09	3623684.22	3623684.35	0.0281	0.0079
Venus	5209-04-14 09:21 G	3623711.76	3623711.89	3623712.04	0.0281	0.0212
Mercury	5209-06-14 05:45 G	3623772.64	3623772.74	3623772.84	0.0282	0.0192

Earth	5215-02-16 02:09 G	3625845.46	3625845.59	3625845.72	0.0292	0.0246
Moon	5215-02-16 04:33 G	3625845.59	3625845.69	3625845.80	0.0292	0.0261 *
Venus	5221-11-13 02:24 G	3628307.53	3628307.60	3628307.69	0.0283	0.0259
Venus	5222-06-30 15:50 G	3628536.95	3628537.16	3628537.37	0.0281	0.0029
Mercury	5222-07-18 08:38 G	3628554.76	3628554.86	3628554.97	0.0281	0.0214
Mercury	5222-10-15 04:04 G	3628643.50	3628643.67	3628643.83	0.0280	0.0074
Mercury	5223-01-11 23:31 G	3628732.31	3628732.48	3628732.65	0.0280	0.0068
Venus	5223-02-15 03:35 G	3628766.51	3628766.65	3628766.81	0.0279	0.0197
Mercury	5223-04-10 19:11 G	3628821.19	3628821.30	3628821.42	0.0279	0.0211
Moon	5229-08-15 13:11 G	3631139.91	3631140.05	3631140.21	0.0268	0.0211
Earth	5229-08-15 16:19 G	3631140.02	3631140.18	3631140.36	0.0268	0.0196 *
Mars	5233-01-31 04:19 G	3632404.51	3632404.68	3632404.87	0.0268	0.0202
Venus	5237-07-23 13:55 G	3634038.95	3634039.08	3634039.22	0.0277	0.0210
Mercury	5238-02-08 17:31 G	3634239.13	3634239.23	3634239.34	0.0278	0.0186
Venus	5238-03-10 01:11 G	3634268.34	3634268.55	3634268.76	0.0279	0.0011
Mercury	5238-05-08 06:28 G	3634327.63	3634327.77	3634327.90	0.0279	0.0072
Mercury	5238-08-04 18:57 G	3634416.15	3634416.29	3634416.43	0.0280	0.0042
Venus	5238-10-25 13:11 G	3634497.95	3634498.05	3634498.18	0.0280	0.0237
Mercury	5238-11-01 07:26 G	3634504.70	3634504.81	3634504.93	0.0280	0.0154
Mercury	5239-01-28 19:40 G	3634593.28	3634593.32	3634593.36	0.0281	0.0266
Moon	5244-02-09 20:24 G	3636431.11	3636431.35	3636431.59	0.0292	0.0063
Earth	5244-02-09 23:16 G	3636431.24	3636431.47	3636431.71	0.0292	0.0076 *
Venus	5251-05-26 01:11 G	3639093.45	3639093.55	3639093.67	0.0283	0.0240
Mercury	5251-12-05 05:45 G	3639286.71	3639286.74	3639286.79	0.0281	0.0273
Venus	5252-01-10 14:24 G	3639322.89	3639323.10	3639323.31	0.0281	0.0012
Mercury	5252-03-03 00:57 G	3639375.39	3639375.54	3639375.69	0.0281	0.0134
Mercury	5252-05-30 20:24 G	3639464.18	3639464.35	3639464.52	0.0280	0.0006
Venus	5252-08-27 02:09 G	3639552.46	3639552.59	3639552.73	0.0279	0.0214
Mercury	5252-08-27 15:50 G	3639553.02	3639553.16	3639553.32	0.0279	0.0150
Earth	5258-08-10 06:28 G	3641726.53	3641726.77	3641727.02	0.0268	0.0058

Moon	5258-08-10 10:04 G	3641726.67	3641726.92	3641727.17	0.0268	0.0044 *
Venus	5267-02-02 15:21 G	3644825.00	3644825.14	3644825.31	0.0278	0.0186
Mercury	5267-06-28 18:28 G	3644971.19	3644971.27	3644971.36	0.0279	0.0227
Venus	5267-09-20 03:07 G	3645054.42	3645054.63	3645054.84	0.0279	0.0037
Mercury	5267-09-25 07:26 G	3645059.68	3645059.81	3645059.94	0.0280	0.0112
Mercury	5267-12-22 20:09 G	3645148.20	3645148.34	3645148.48	0.0280	0.0003
Mercury	5268-03-20 08:38 G	3645236.74	3645236.86	3645236.99	0.0281	0.0116
Venus	5268-05-06 15:35 G	3645284.09	3645284.15	3645284.23	0.0281	0.0263
Mercury	5268-06-16 20:52 G	3645325.30	3645325.37	3645325.46	0.0281	0.0229
Mars	5277-04-02 16:33 G	3648536.93	3648537.19	3648537.46	0.0290	0.0161
Venus	5280-12-05 07:26 G	3649879.68	3649879.81	3649879.96	0.0282	0.0210
Mercury	5281-07-21 01:26 G	3650107.43	3650107.56	3650107.70	0.0281	0.0171
Venus	5281-07-22 20:52 G	3650109.16	3650109.37	3650109.58	0.0281	0.0021
Mercury	5281-10-17 20:52 G	3650196.20	3650196.37	3650196.54	0.0280	0.0031
Mercury	5282-01-14 16:33 G	3650285.03	3650285.19	3650285.34	0.0280	0.0112
Venus	5282-03-09 08:38 G	3650338.77	3650338.86	3650338.97	0.0279	0.0245
Mercury	5282-04-13 12:14 G	3650373.95	3650374.01	3650374.08	0.0279	0.0256
Earth	5288-08-16 16:48 G	3652691.13	3652691.20	3652691.29	0.0268	0.0252
Moon	5288-08-16 17:31 G	3652691.21	3652691.23	3652691.27	0.0268	0.0265 *
Venus	5296-08-14 20:52 G	3655611.20	3655611.37	3655611.55	0.0277	0.0158
Mercury	5296-11-14 20:24 G	3655703.31	3655703.35	3655703.40	0.0278	0.0260
Mercury	5297-02-11 09:21 G	3655791.77	3655791.89	3655792.01	0.0278	0.0146
Venus	5297-04-01 08:09 G	3655840.63	3655840.84	3655841.05	0.0279	0.0063
Mercury	5297-05-10 22:04 G	3655880.28	3655880.42	3655880.56	0.0279	0.0032
Mercury	5297-08-07 10:33 G	3655968.81	3655968.94	3655969.08	0.0280	0.0082
Mercury	5297-11-03 23:02 G	3656057.36	3656057.46	3656057.56	0.0280	0.0193
Moon	5303-02-11 20:09 G	3657982.11	3657982.34	3657982.58	0.0292	0.0007
Earth	5303-02-11 23:02 G	3657982.22	3657982.46	3657982.70	0.0292	0.0016 *
Venus	5310-06-18 06:43 G	3660665.63	3660665.78	3660665.94	0.0282	0.0190
Mercury	5310-12-08 22:33 G	3660839.35	3660839.44	3660839.54	0.0281	0.0230

Venus	5311-02-02 19:40 G	3660895.11	3660895.32	3660895.53	0.0281	0.0039
Mercury	5311-03-07 17:45 G	3660928.08	3660928.24	3660928.40	0.0281	0.0091
Mercury	5311-06-04 13:11 G	3661016.88	3661017.05	3661017.22	0.0280	0.0051
Mercury	5311-09-01 09:07 G	3661105.75	3661105.88	3661106.00	0.0279	0.0193
Venus	5311-09-20 07:11 G	3661124.74	3661124.80	3661124.88	0.0279	0.0262
Moon	5317-08-12 05:45 G	3663277.48	3663277.74	3663278.00	0.0268	0.0011
Earth	5317-08-12 06:28 G	3663277.52	3663277.77	3663278.02	0.0268	0.0004 *
Mars	5321-06-27 06:14 G	3664692.56	3664692.76	3664692.97	0.0269	0.0178
Venus	5326-02-25 22:19 G	3666397.25	3666397.43	3666397.62	0.0278	0.0134
Mercury	5326-07-02 10:19 G	3666523.83	3666523.93	3666524.04	0.0279	0.0187
Mercury	5326-09-28 23:02 G	3666612.33	3666612.46	3666612.60	0.0279	0.0073
Venus	5326-10-13 09:50 G	3666626.71	3666626.91	3666627.11	0.0280	0.0088
Mercury	5326-12-26 11:45 G	3666700.85	3666700.99	3666701.13	0.0280	0.0042
Mercury	5327-03-25 00:14 G	3666789.39	3666789.51	3666789.62	0.0281	0.0154
Mercury	5327-06-21 12:28 G	3666877.98	3666878.02	3666878.06	0.0281	0.0266
Venus	5339-12-29 12:14 G	3671451.84	3671452.01	3671452.19	0.0282	0.0161
Mercury	5340-04-26 23:02 G	3671571.41	3671571.46	3671571.50	0.0281	0.0269
Mercury	5340-07-24 18:00 G	3671660.10	3671660.25	3671660.40	0.0281	0.0130
Venus	5340-08-15 01:26 G	3671681.35	3671681.56	3671681.76	0.0281	0.0068
Mercury	5340-10-21 13:26 G	3671748.89	3671749.06	3671749.23	0.0280	0.0011
Mercury	5341-01-18 09:07 G	3671837.74	3671837.88	3671838.03	0.0280	0.0154
Earth	5346-08-07 07:55 G	3673864.72	3673864.83	3673864.95	0.0269	0.0235
Moon	5346-08-07 08:24 G	3673864.72	3673864.85	3673864.99	0.0269	0.0221 *
Venus	5355-09-08 04:19 G	3677183.48	3677183.68	3677183.88	0.0277	0.0105
Mercury	5355-11-19 12:28 G	3677255.94	3677256.02	3677256.11	0.0278	0.0218
Mercury	5356-02-16 01:11 G	3677344.43	3677344.55	3677344.69	0.0278	0.0105
Venus	5356-04-24 15:21 G	3677412.96	3677413.14	3677413.34	0.0279	0.0117
Mercury	5356-05-14 13:55 G	3677432.94	3677433.08	3677433.22	0.0279	0.0010
Mercury	5356-08-11 02:24 G	3677521.48	3677521.60	3677521.73	0.0280	0.0121
Mercury	5356-11-07 14:38 G	3677610.04	3677610.11	3677610.19	0.0280	0.0233

Earth	5362-02-12 23:02 G	3679533.23	3679533.46	3679533.70	0.0291	0.0045
Moon	5362-02-13 00:14 G	3679533.29	3679533.51	3679533.75	0.0291	0.0055 *
Mars	5365-08-26 18:28 G	3680824.01	3680824.27	3680824.53	0.0291	0.0170
Venus	5369-07-10 12:00 G	3682237.82	3682238.00	3682238.19	0.0282	0.0140
Mercury	5369-12-11 15:21 G	3682392.02	3682392.14	3682392.27	0.0281	0.0187
Venus	5370-02-25 00:57 G	3682467.34	3682467.54	3682467.74	0.0281	0.0089
Mercury	5370-03-10 10:48 G	3682480.78	3682480.95	3682481.12	0.0281	0.0047
Mercury	5370-06-07 06:14 G	3682569.60	3682569.76	3682569.93	0.0280	0.0095
Mercury	5370-09-04 02:09 G	3682658.50	3682658.59	3682658.68	0.0279	0.0238
Moon	5376-08-13 02:38 G	3684828.37	3684828.61	3684828.85	0.0268	0.0066
Earth	5376-08-13 06:14 G	3684828.52	3684828.76	3684829.01	0.0268	0.0052 *
Venus	5385-03-20 05:16 G	3687969.52	3687969.72	3687969.93	0.0278	0.0082
Mercury	5385-04-07 13:11 G	3687988.01	3687988.05	3687988.10	0.0278	0.0260
Mercury	5385-07-05 02:09 G	3688076.47	3688076.59	3688076.71	0.0279	0.0146
Mercury	5385-10-01 14:52 G	3688164.98	3688165.12	3688165.26	0.0279	0.0032
Venus	5385-11-04 16:48 G	3688199.02	3688199.20	3688199.39	0.0280	0.0141
Mercury	5385-12-29 03:21 G	3688253.51	3688253.64	3688253.78	0.0280	0.0082
Mercury	5386-03-27 15:50 G	3688342.06	3688342.16	3688342.26	0.0281	0.0193
Moon	5391-02-06 23:45 G	3690119.37	3690119.49	3690119.61	0.0291	0.0254
Earth	5391-02-07 01:26 G	3690119.47	3690119.56	3690119.66	0.0291	0.0267 *
Venus	5399-01-20 17:31 G	3693024.03	3693024.23	3693024.42	0.0282	0.0111
Mercury	5399-04-30 15:21 G	3693124.05	3693124.14	3693124.25	0.0281	0.0227
Mercury	5399-07-28 10:33 G	3693212.78	3693212.94	3693213.11	0.0281	0.0088
Venus	5399-09-07 06:14 G	3693253.57	3693253.76	3693253.96	0.0280	0.0117
Mercury	5399-10-25 06:14 G	3693301.59	3693301.76	3693301.93	0.0280	0.0054
Mercury	5400-01-22 01:55 G	3693390.46	3693390.58	3693390.71	0.0279	0.0197
Earth	5405-08-09 07:26 G	3695415.63	3695415.81	3695416.00	0.0269	0.0180
Moon	5405-08-09 11:16 G	3695415.78	3695415.97	3695416.17	0.0269	0.0164 *
Mars	5409-11-22 01:26 G	3696981.32	3696981.56	3696981.81	0.0269	0.0119
Venus	5414-02-14 01:55 G	3698526.54	3698526.58	3698526.64	0.0276	0.0268

Venus	5414-10-01 12:28 G	3698755.81	3698756.02	3698756.23	0.0278	0.0051
Mercury	5414-11-23 04:48 G	3698808.59	3698808.70	3698808.81	0.0278	0.0174
Mercury	5415-02-19 17:31 G	3698897.09	3698897.23	3698897.37	0.0279	0.0060
Venus	5415-05-19 00:00 G	3698985.33	3698985.50	3698985.67	0.0279	0.0172
Mercury	5415-05-19 06:00 G	3698985.62	3698985.75	3698985.89	0.0279	0.0053 *
Mercury	5415-08-15 18:28 G	3699074.16	3699074.27	3699074.38	0.0280	0.0164
Mercury	5415-11-12 06:43 G	3699162.76	3699162.78	3699162.81	0.0280	0.0274
Earth	5421-02-15 01:26 G	3701084.34	3701084.56	3701084.79	0.0291	0.0111
Moon	5421-02-15 05:16 G	3701084.50	3701084.72	3701084.94	0.0291	0.0121 *
Venus	5428-08-02 18:14 G	3703810.06	3703810.26	3703810.46	0.0282	0.0088
Mercury	5428-09-17 13:26 G	3703856.05	3703856.06	3703856.08	0.0282	0.0280
Mercury	5428-12-15 08:38 G	3703944.71	3703944.86	3703945.00	0.0281	0.0141
Mercury	5429-03-14 03:50 G	3704033.49	3704033.66	3704033.83	0.0280	0.0004
Venus	5429-03-20 06:43 G	3704039.61	3704039.78	3704039.97	0.0280	0.0140
Mercury	5429-06-10 23:31 G	3704122.33	3704122.48	3704122.63	0.0280	0.0141
Moon	5435-08-16 06:00 G	3706379.54	3706379.75	3706379.97	0.0268	0.0121
Earth	5435-08-16 06:43 G	3706379.56	3706379.78	3706380.02	0.0268	0.0108 *
Venus	5443-08-27 02:52 G	3709312.53	3709312.62	3709312.73	0.0277	0.0246
Mercury	5444-04-11 05:31 G	3709540.64	3709540.73	3709540.82	0.0278	0.0216
Venus	5444-04-12 13:40 G	3709541.86	3709542.07	3709542.28	0.0278	0.0027
Mercury	5444-07-08 18:14 G	3709629.13	3709629.26	3709629.40	0.0279	0.0102
Mercury	5444-10-05 06:57 G	3709717.65	3709717.79	3709717.93	0.0280	0.0013
Venus	5444-11-28 00:57 G	3709771.40	3709771.54	3709771.70	0.0280	0.0197
Mercury	5445-01-01 19:26 G	3709806.19	3709806.31	3709806.44	0.0280	0.0124
Mercury	5445-03-31 07:40 G	3709894.75	3709894.82	3709894.90	0.0281	0.0235
Moon	5450-02-08 23:45 G	3711670.32	3711670.49	3711670.67	0.0291	0.0193
Earth	5450-02-09 03:21 G	3711670.47	3711670.64	3711670.82	0.0291	0.0202 *
Mars	5454-01-20 18:28 G	3713112.06	3713112.27	3713112.50	0.0290	0.0210
Venus	5458-02-12 23:31 G	3714596.27	3714596.48	3714596.68	0.0282	0.0060
Mercury	5458-05-04 08:24 G	3714676.73	3714676.85	3714676.98	0.0281	0.0182

Mercury	5458-08-01 03:50 G	3714765.49	3714765.66	3714765.83	0.0281	0.0042
Venus	5458-09-30 12:00 G	3714825.84	3714826.00	3714826.18	0.0280	0.0167
Mercury	5458-10-28 23:16 G	3714854.31	3714854.47	3714854.64	0.0280	0.0100
Mercury	5459-01-25 19:11 G	3714943.22	3714943.30	3714943.39	0.0279	0.0244
Earth	5464-08-10 08:09 G	3716966.62	3716966.84	3716967.06	0.0269	0.0123
Moon	5464-08-10 08:52 G	3716966.64	3716966.87	3716967.11	0.0269	0.0108 *
Venus	5473-03-08 10:48 G	3720098.83	3720098.95	3720099.09	0.0277	0.0213
Mercury	5473-08-29 08:24 G	3720272.78	3720272.85	3720272.92	0.0278	0.0241
Venus	5473-10-23 21:35 G	3720328.19	3720328.40	3720328.61	0.0278	0.0007
Mercury	5473-11-25 21:21 G	3720361.26	3720361.39	3720361.51	0.0278	0.0127
Mercury	5474-02-22 09:50 G	3720449.77	3720449.91	3720450.05	0.0279	0.0017
Mercury	5474-05-21 22:19 G	3720538.31	3720538.43	3720538.57	0.0279	0.0098
Venus	5474-06-10 09:07 G	3720557.77	3720557.88	3720558.01	0.0280	0.0229
Mercury	5474-08-18 10:48 G	3720626.86	3720626.95	3720627.04	0.0280	0.0209
Earth	5480-02-17 06:00 G	3722635.57	3722635.75	3722635.94	0.0291	0.0180
Moon	5480-02-17 06:28 G	3722635.59	3722635.77	3722635.97	0.0291	0.0185 *
Venus	5487-01-08 11:45 G	3725152.93	3725152.99	3725153.07	0.0283	0.0264
Venus	5487-08-26 01:26 G	3725382.35	3725382.56	3725382.77	0.0282	0.0034
Mercury	5487-09-21 06:57 G	3725408.70	3725408.79	3725408.89	0.0282	0.0231
Mercury	5487-12-19 02:09 G	3725497.43	3725497.59	3725497.76	0.0281	0.0092
Mercury	5488-03-16 21:35 G	3725586.23	3725586.40	3725586.57	0.0280	0.0050
Venus	5488-04-11 13:55 G	3725611.93	3725612.08	3725612.24	0.0280	0.0192
Mercury	5488-06-13 17:31 G	3725675.10	3725675.23	3725675.35	0.0280	0.0192
Earth	5494-08-17 08:38 G	3727930.67	3727930.86	3727931.06	0.0268	0.0167
Moon	5494-08-17 12:00 G	3727930.83	3727931.00	3727931.20	0.0268	0.0179 *
Mars	5498-04-17 06:28 G	3729269.52	3729269.77	3729270.03	0.0269	0.0089
Venus	5502-09-19 12:14 G	3730884.86	3730885.01	3730885.17	0.0277	0.0190
Mercury	5503-04-15 22:04 G	3731093.31	3731093.42	3731093.54	0.0278	0.0169
Venus	5503-05-06 23:16 G	3731114.26	3731114.47	3731114.68	0.0279	0.0031
Mercury	5503-07-13 11:02 G	3731181.82	3731181.96	3731182.09	0.0279	0.0056

Mercury	5503-10-09 23:31 G	3731270.34	3731270.48	3731270.62	0.0280	0.0058
Venus	5503-12-22 11:02 G	3731343.88	3731343.96	3731344.05	0.0280	0.0254
Mercury	5504-01-06 12:00 G	3731358.89	3731359.00	3731359.11	0.0280	0.0170
Mercury	5504-04-04 00:00 G	3731447.50	3731447.50	3731447.52	0.0281	0.0280
Earth	5509-02-11 08:52 G	3733221.65	3733221.87	3733222.08	0.0291	0.0129
Moon	5509-02-11 09:07 G	3733221.67	3733221.88	3733222.09	0.0291	0.0124 *
Venus	5516-07-21 16:48 G	3735939.10	3735939.20	3735939.33	0.0283	0.0236
Mercury	5517-02-08 07:11 G	3736140.76	3736140.80	3736140.84	0.0282	0.0270
Venus	5517-03-08 06:57 G	3736168.57	3736168.79	3736169.00	0.0281	0.0007
Mercury	5517-05-08 02:09 G	3736229.44	3736229.59	3736229.74	0.0281	0.0132
Mercury	5517-08-04 21:35 G	3736318.23	3736318.40	3736318.57	0.0280	0.0008
Venus	5517-10-23 19:11 G	3736398.18	3736398.30	3736398.43	0.0280	0.0220
Mercury	5517-11-01 17:02 G	3736407.07	3736407.21	3736407.37	0.0280	0.0151
Moon	5523-08-13 06:43 G	3738517.53	3738517.78	3738518.03	0.0269	0.0052
Earth	5523-08-13 10:04 G	3738517.68	3738517.92	3738518.17	0.0269	0.0064 *
Venus	5532-03-31 21:07 G	3741671.21	3741671.38	3741671.57	0.0277	0.0154
Mercury	5532-09-02 01:11 G	3741825.45	3741825.55	3741825.66	0.0278	0.0191
Venus	5532-11-16 08:09 G	3741900.64	3741900.84	3741901.05	0.0278	0.0066
Mercury	5532-11-29 14:09 G	3741913.95	3741914.09	3741914.22	0.0279	0.0078
Mercury	5533-02-26 02:38 G	3742002.48	3742002.61	3742002.75	0.0279	0.0036
Mercury	5533-05-25 15:07 G	3742091.02	3742091.13	3742091.25	0.0280	0.0147
Mercury	5533-08-22 03:35 G	3742179.60	3742179.65	3742179.70	0.0280	0.0257
Moon	5539-02-19 10:04 G	3744186.81	3744186.92	3744187.04	0.0291	0.0256
Earth	5539-02-19 13:55 G	3744186.97	3744187.08	3744187.19	0.0291	0.0256 *
Mars	5542-06-17 05:45 G	3745400.66	3745400.74	3745400.83	0.0290	0.0279
Venus	5546-01-31 21:07 G	3746725.24	3746725.38	3746725.53	0.0283	0.0206
Venus	5546-09-18 10:33 G	3746954.73	3746954.94	3746955.15	0.0281	0.0024
Mercury	5546-09-25 01:26 G	3746961.43	3746961.56	3746961.69	0.0281	0.0176
Mercury	5546-12-22 20:38 G	3747050.19	3747050.36	3747050.53	0.0281	0.0037
Mercury	5547-03-21 16:04 G	3747139.02	3747139.17	3747139.34	0.0280	0.0105

Venus	5547-05-05 22:33 G	3747184.35	3747184.44	3747184.54	0.0280	0.0248
Mercury	5547-06-18 12:00 G	3747227.92	3747228.00	3747228.08	0.0279	0.0248
Earth	5553-08-19 12:28 G	3749481.91	3749482.02	3749482.16	0.0268	0.0230
Moon	5553-08-19 14:52 G	3749482.01	3749482.12	3749482.25	0.0268	0.0236 *
Venus	5561-10-11 22:48 G	3752457.27	3752457.45	3752457.65	0.0277	0.0131
Mercury	5562-01-20 02:09 G	3752557.52	3752557.59	3752557.67	0.0278	0.0232
Mercury	5562-04-18 15:07 G	3752646.00	3752646.13	3752646.26	0.0279	0.0118
Venus	5562-05-29 10:04 G	3752686.72	3752686.92	3752687.12	0.0279	0.0091
Mercury	5562-07-16 03:50 G	3752734.52	3752734.66	3752734.80	0.0279	0.0006
Mercury	5562-10-12 16:19 G	3752823.06	3752823.18	3752823.31	0.0280	0.0108
Mercury	5563-01-09 04:48 G	3752911.61	3752911.70	3752911.78	0.0281	0.0218
Earth	5568-02-13 16:48 G	3754772.96	3754773.20	3754773.44	0.0291	0.0052
Moon	5568-02-13 20:24 G	3754773.12	3754773.35	3754773.59	0.0291	0.0050 *
Venus	5575-08-14 02:38 G	3757511.44	3757511.61	3757511.77	0.0282	0.0177
Mercury	5576-02-12 01:40 G	3757693.46	3757693.57	3757693.67	0.0281	0.0216
Venus	5576-03-30 16:04 G	3757740.96	3757741.17	3757741.38	0.0281	0.0053
Mercury	5576-05-10 20:38 G	3757782.20	3757782.36	3757782.53	0.0281	0.0077
Mercury	5576-08-07 16:04 G	3757871.01	3757871.17	3757871.34	0.0280	0.0064
Mercury	5576-11-04 12:00 G	3757959.88	3757960.00	3757960.11	0.0279	0.0207
Venus	5576-11-15 04:04 G	3757970.64	3757970.67	3757970.70	0.0279	0.0276
Moon	5582-08-14 11:45 G	3760068.75	3760068.99	3760069.24	0.0269	0.0011
Earth	5582-08-14 14:09 G	3760068.84	3760069.09	3760069.34	0.0269	0.0003 *
Mars	5586-09-12 12:28 G	3761558.75	3761559.02	3761559.29	0.0270	0.0009
Venus	5591-04-24 08:38 G	3763243.66	3763243.86	3763244.07	0.0278	0.0093
Mercury	5591-06-09 05:31 G	3763289.68	3763289.73	3763289.79	0.0278	0.0253
Mercury	5591-09-05 18:28 G	3763378.15	3763378.27	3763378.40	0.0278	0.0139
Mercury	5591-12-03 07:26 G	3763466.67	3763466.81	3763466.95	0.0279	0.0026
Venus	5591-12-09 19:55 G	3763473.15	3763473.33	3763473.52	0.0279	0.0129
Mercury	5592-02-29 19:55 G	3763555.20	3763555.33	3763555.46	0.0280	0.0087
Mercury	5592-05-28 08:09 G	3763643.75	3763643.84	3763643.94	0.0280	0.0198

Venus	5605-02-23 08:24 G	3768297.67	3768297.85	3768298.04	0.0282	0.0143
Mercury	5605-07-01 01:40 G	3768425.50	3768425.57	3768425.65	0.0282	0.0253
Mercury	5605-09-27 20:38 G	3768514.21	3768514.36	3768514.52	0.0281	0.0115
Venus	5605-10-10 21:21 G	3768527.19	3768527.39	3768527.59	0.0281	0.0085
Mercury	5605-12-25 16:04 G	3768603.00	3768603.17	3768603.34	0.0280	0.0025
Mercury	5606-03-24 11:31 G	3768691.85	3768691.98	3768692.13	0.0280	0.0167
Earth	5611-08-09 07:26 G	3770655.72	3770655.81	3770655.91	0.0269	0.0249
Moon	5611-08-09 10:04 G	3770655.81	3770655.92	3770656.06	0.0269	0.0235 *
Venus	5620-11-03 11:02 G	3774029.75	3774029.96	3774030.16	0.0278	0.0068
Mercury	5621-01-22 19:40 G	3774110.21	3774110.32	3774110.43	0.0278	0.0178
Mercury	5621-04-21 08:38 G	3774198.72	3774198.86	3774198.99	0.0279	0.0064
Venus	5621-06-20 22:19 G	3774259.26	3774259.43	3774259.61	0.0279	0.0155
Mercury	5621-07-18 21:07 G	3774287.25	3774287.38	3774287.52	0.0280	0.0049
Mercury	5621-10-15 09:35 G	3774375.79	3774375.90	3774376.01	0.0280	0.0160
Mercury	5622-01-11 21:50 G	3774464.38	3774464.41	3774464.45	0.0281	0.0271
Earth	5627-02-15 04:04 G	3776324.43	3776324.67	3776324.91	0.0291	0.0032
Moon	5627-02-15 05:45 G	3776324.50	3776324.74	3776324.99	0.0291	0.0032 *
Venus	5634-09-05 13:40 G	3779083.88	3779084.07	3779084.27	0.0282	0.0114
Mercury	5635-02-14 20:52 G	3779246.23	3779246.37	3779246.51	0.0281	0.0155
Venus	5635-04-23 02:52 G	3779313.42	3779313.62	3779313.81	0.0280	0.0114
Mercury	5635-05-14 16:04 G	3779335.00	3779335.17	3779335.34	0.0280	0.0016
Mercury	5635-08-11 11:31 G	3779423.83	3779423.98	3779424.14	0.0280	0.0126
Mercury	5635-11-08 07:26 G	3779512.77	3779512.81	3779512.86	0.0279	0.0268
Earth	5641-08-15 20:24 G	3781620.10	3781620.35	3781620.59	0.0269	0.0066
Moon	5641-08-15 22:04 G	3781620.19	3781620.42	3781620.65	0.0269	0.0075 *
Venus	5649-09-29 10:33 G	3784586.85	3784586.94	3784587.04	0.0277	0.0246
Venus	5650-05-16 21:07 G	3784816.17	3784816.38	3784816.60	0.0278	0.0030
Mercury	5650-06-11 23:16 G	3784842.37	3784842.47	3784842.57	0.0278	0.0197
Mercury	5650-09-08 12:00 G	3784930.87	3784931.00	3784931.14	0.0279	0.0084
Mercury	5650-12-06 00:43 G	3785019.39	3785019.53	3785019.67	0.0279	0.0031

Venus	5651-01-01 08:52 G	3785045.72	3785045.87	3785046.02	0.0280	0.0194
Mercury	5651-03-04 13:11 G	3785107.94	3785108.05	3785108.17	0.0280	0.0142
Mercury	5651-06-01 01:40 G	3785196.51	3785196.57	3785196.63	0.0281	0.0252
Moon	5656-02-09 17:45 G	3786911.12	3786911.24	3786911.38	0.0290	0.0240
Earth	5656-02-09 19:40 G	3786911.21	3786911.32	3786911.46	0.0290	0.0245 *
Venus	5664-03-17 21:21 G	3789870.19	3789870.39	3789870.59	0.0282	0.0077
Mercury	5664-07-03 21:35 G	3789978.28	3789978.40	3789978.53	0.0281	0.0187
Mercury	5664-09-30 16:48 G	3790067.03	3790067.20	3790067.37	0.0281	0.0049
Venus	5664-11-02 09:50 G	3790099.73	3790099.91	3790100.09	0.0280	0.0149
Mercury	5664-12-28 12:14 G	3790155.85	3790156.01	3790156.17	0.0280	0.0092
Mercury	5665-03-27 07:40 G	3790244.74	3790244.82	3790244.93	0.0279	0.0235
Moon	5670-08-10 13:55 G	3792206.89	3792207.08	3792207.29	0.0269	0.0166
Earth	5670-08-10 15:35 G	3792206.97	3792207.15	3792207.34	0.0269	0.0179 *
Mars	5675-02-06 05:45 G	3793847.48	3793847.74	3793848.02	0.0269	0.0046
Venus	5679-04-11 12:57 G	3795372.93	3795373.04	3795373.18	0.0277	0.0222
Mercury	5679-10-30 00:28 G	3795574.45	3795574.52	3795574.59	0.0278	0.0235
Venus	5679-11-26 23:45 G	3795602.28	3795602.49	3795602.71	0.0278	0.0007
Mercury	5680-01-26 13:26 G	3795662.93	3795663.06	3795663.18	0.0279	0.0122
Mercury	5680-04-24 02:09 G	3795751.45	3795751.59	3795751.73	0.0279	0.0009
Venus	5680-07-13 11:31 G	3795831.85	3795831.98	3795832.11	0.0280	0.0220
Mercury	5680-07-21 14:38 G	3795839.98	3795840.11	3795840.24	0.0280	0.0104
Mercury	5680-10-18 03:07 G	3795928.54	3795928.63	3795928.72	0.0281	0.0215
Moon	5686-02-16 15:21 G	3797875.91	3797876.14	3797876.37	0.0291	0.0117
Earth	5686-02-16 17:31 G	3797876.02	3797876.23	3797876.46	0.0291	0.0120 *
Venus	5693-02-10 12:57 G	3800427.00	3800427.04	3800427.07	0.0283	0.0278
Venus	5693-09-28 02:38 G	3800656.40	3800656.61	3800656.82	0.0282	0.0048
Mercury	5693-11-20 21:50 G	3800710.31	3800710.41	3800710.51	0.0281	0.0227
Mercury	5694-02-17 16:48 G	3800799.04	3800799.20	3800799.36	0.0281	0.0089
Venus	5694-05-15 15:07 G	3800885.97	3800886.13	3800886.30	0.0280	0.0178
Mercury	5694-05-17 12:14 G	3800887.84	3800888.01	3800888.18	0.0280	0.0051

Mercury	5694-08-14 07:40 G	3800976.70	3800976.82	3800976.95	0.0279	0.0194
Earth	5700-08-18 03:50 G	3803171.45	3803171.66	3803171.88	0.0269	0.0134
Moon	5700-08-18 07:26 G	3803171.61	3803171.81	3803172.03	0.0269	0.0145 *
Venus	5708-10-22 23:16 G	3806159.32	3806159.47	3806159.63	0.0277	0.0182
Mercury	5709-03-19 03:50 G	3806306.61	3806306.66	3806306.72	0.0278	0.0255
Venus	5709-06-09 10:19 G	3806388.72	3806388.93	3806389.14	0.0279	0.0038
Mercury	5709-06-15 17:02 G	3806395.09	3806395.21	3806395.33	0.0279	0.0140
Mercury	5709-09-12 05:45 G	3806483.60	3806483.74	3806483.88	0.0279	0.0027
Mercury	5709-12-09 18:28 G	3806572.14	3806572.27	3806572.40	0.0280	0.0086
Venus	5710-01-24 22:19 G	3806618.36	3806618.43	3806618.51	0.0280	0.0261
Mercury	5710-03-08 06:43 G	3806660.69	3806660.78	3806660.89	0.0280	0.0198
Earth	5715-02-12 10:48 G	3808462.75	3808462.95	3808463.16	0.0290	0.0155
Moon	5715-02-12 12:43 G	3808462.83	3808463.03	3808463.23	0.0290	0.0151 *
Venus	5722-08-24 21:35 G	3811213.30	3811213.40	3811213.53	0.0283	0.0239
Mercury	5723-04-10 23:16 G	3811442.40	3811442.47	3811442.54	0.0281	0.0254
Venus	5723-04-11 11:16 G	3811442.76	3811442.97	3811443.19	0.0281	0.0011
Mercury	5723-07-08 18:14 G	3811531.11	3811531.26	3811531.41	0.0281	0.0117
Mercury	5723-10-05 13:26 G	3811619.89	3811620.06	3811620.23	0.0280	0.0022
Venus	5723-11-26 23:16 G	3811672.35	3811672.47	3811672.62	0.0280	0.0216
Mercury	5724-01-02 08:52 G	3811708.74	3811708.87	3811709.02	0.0280	0.0163
Moon	5729-08-12 21:50 G	3813758.18	3813758.41	3813758.64	0.0269	0.0094
Earth	5729-08-13 01:40 G	3813758.34	3813758.57	3813758.80	0.0269	0.0106 *
Venus	5738-05-05 02:24 G	3816945.43	3816945.60	3816945.78	0.0277	0.0157
Mercury	5738-11-02 18:14 G	3817127.16	3817127.26	3817127.37	0.0278	0.0178
Venus	5738-12-20 13:26 G	3817174.86	3817175.06	3817175.27	0.0279	0.0063
Mercury	5739-01-30 07:11 G	3817215.66	3817215.80	3817215.94	0.0279	0.0064
Mercury	5739-04-28 19:55 G	3817304.19	3817304.33	3817304.47	0.0280	0.0049
Mercury	5739-07-26 08:24 G	3817392.74	3817392.85	3817392.96	0.0280	0.0160
Mercury	5739-10-22 20:38 G	3817481.33	3817481.36	3817481.40	0.0281	0.0271
Moon	5745-02-19 04:48 G	3819427.53	3819427.70	3819427.87	0.0291	0.0208

Earth	5745-02-19 08:09 G	3819427.68	3819427.84	3819428.01	0.0291	0.0210 *
Venus	5752-03-06 02:38 G	3821999.48	3821999.61	3821999.76	0.0283	0.0211
Venus	5752-10-21 16:19 G	3822228.97	3822229.18	3822229.39	0.0281	0.0019
Mercury	5752-11-24 18:14 G	3822263.12	3822263.26	3822263.40	0.0281	0.0158
Mercury	5753-02-21 13:11 G	3822351.88	3822352.05	3822352.23	0.0280	0.0021
Mercury	5753-05-21 08:38 G	3822440.71	3822440.86	3822441.02	0.0280	0.0122
Venus	5753-06-08 04:19 G	3822458.59	3822458.68	3822458.79	0.0280	0.0244
Mercury	5753-08-18 04:33 G	3822529.64	3822529.69	3822529.75	0.0279	0.0263
Earth	5759-08-20 12:57 G	3824722.89	3824723.04	3824723.21	0.0269	0.0206
Moon	5759-08-20 13:40 G	3824722.92	3824723.07	3824723.23	0.0269	0.0212 *
Mars	5763-07-04 18:14 G	3826137.02	3826137.26	3826137.49	0.0270	0.0137
Venus	5767-11-15 12:00 G	3827731.82	3827732.00	3827732.20	0.0278	0.0118
Mercury	5768-03-21 21:35 G	3827859.31	3827859.40	3827859.51	0.0279	0.0198
Mercury	5768-06-18 10:33 G	3827947.81	3827947.94	3827948.08	0.0279	0.0084
Venus	5768-07-01 23:31 G	3827961.29	3827961.48	3827961.68	0.0279	0.0104
Mercury	5768-09-14 23:31 G	3828036.34	3828036.48	3828036.62	0.0280	0.0030
Mercury	5768-12-12 12:00 G	3828124.88	3828125.00	3828125.12	0.0280	0.0141
Mercury	5769-03-11 00:14 G	3828213.46	3828213.51	3828213.58	0.0281	0.0252
Earth	5774-02-14 01:55 G	3830014.35	3830014.58	3830014.82	0.0290	0.0065
Moon	5774-02-14 05:31 G	3830014.50	3830014.73	3830014.98	0.0290	0.0061 *
Mars	5777-07-11 00:57 G	3831257.36	3831257.54	3831257.75	0.0290	0.0227
Venus	5781-09-16 12:57 G	3832785.88	3832786.04	3832786.22	0.0282	0.0169
Mercury	5782-04-13 20:09 G	3832995.22	3832995.34	3832995.47	0.0281	0.0182
Venus	5782-05-04 02:09 G	3833015.39	3833015.59	3833015.80	0.0281	0.0061
Mercury	5782-07-11 15:21 G	3833083.97	3833084.14	3833084.31	0.0281	0.0044
Mercury	5782-10-08 10:33 G	3833172.78	3833172.94	3833173.11	0.0280	0.0096
Mercury	5783-01-05 06:14 G	3833261.68	3833261.76	3833261.85	0.0279	0.0238
Moon	5788-08-14 12:14 G	3835309.78	3835310.01	3835310.26	0.0269	0.0022
Earth	5788-08-14 12:43 G	3835309.79	3835310.03	3835310.28	0.0269	0.0031 *
Venus	5797-05-27 15:35 G	3838517.95	3838518.15	3838518.35	0.0278	0.0092

Mercury	5797-08-08 23:02 G	3838591.39	3838591.46	3838591.54	0.0278	0.0234
Mercury	5797-11-05 12:00 G	3838679.88	3838680.00	3838680.13	0.0279	0.0121
Venus	5798-01-12 02:52 G	3838747.44	3838747.62	3838747.81	0.0279	0.0129
Mercury	5798-02-02 00:57 G	3838768.40	3838768.54	3838768.68	0.0279	0.0008
Mercury	5798-05-01 13:26 G	3838856.93	3838857.06	3838857.19	0.0280	0.0105
Mercury	5798-07-29 01:55 G	3838945.50	3838945.58	3838945.67	0.0281	0.0216
Venus	5811-03-30 17:16 G	3843572.04	3843572.22	3843572.40	0.0282	0.0141
Mercury	5811-09-01 19:40 G	3843727.23	3843727.32	3843727.42	0.0281	0.0226
Venus	5811-11-15 06:28 G	3843801.57	3843801.77	3843801.97	0.0281	0.0087
Mercury	5811-11-29 14:38 G	3843815.95	3843816.11	3843816.28	0.0281	0.0088
Mercury	5812-02-26 10:04 G	3843904.75	3843904.92	3843905.09	0.0280	0.0052
Mercury	5812-05-25 05:31 G	3843993.61	3843993.73	3843993.86	0.0279	0.0193
Moon	5817-08-10 11:16 G	3845896.91	3845896.97	3845897.07	0.0270	0.0256
Earth	5817-08-10 11:16 G	3845896.95	3845896.97	3845897.00	0.0270	0.0268 *
Venus	5826-04-23 14:24 G	3849075.06	3849075.10	3849075.15	0.0277	0.0270
Venus	5826-12-09 00:57 G	3849304.34	3849304.54	3849304.75	0.0278	0.0053
Mercury	5826-12-28 02:24 G	3849323.55	3849323.60	3849323.66	0.0278	0.0255
Mercury	5827-03-26 15:21 G	3849412.02	3849412.14	3849412.27	0.0279	0.0141
Mercury	5827-06-23 04:19 G	3849500.54	3849500.68	3849500.82	0.0280	0.0028
Venus	5827-07-26 12:28 G	3849533.86	3849534.02	3849534.20	0.0280	0.0170
Mercury	5827-09-19 17:02 G	3849589.07	3849589.21	3849589.34	0.0280	0.0085
Mercury	5827-12-17 05:16 G	3849677.63	3849677.72	3849677.83	0.0281	0.0197
Earth	5833-02-16 16:19 G	3851565.94	3851566.18	3851566.42	0.0290	0.0023
Moon	5833-02-16 16:33 G	3851565.94	3851566.19	3851566.44	0.0290	0.0023 *
Venus	5840-10-10 03:50 G	3854358.47	3854358.66	3854358.86	0.0282	0.0099
Mercury	5841-01-18 22:04 G	3854459.35	3854459.42	3854459.50	0.0281	0.0248
Mercury	5841-04-17 17:02 G	3854548.05	3854548.21	3854548.36	0.0281	0.0111
Venus	5841-05-27 16:33 G	3854588.01	3854588.19	3854588.38	0.0281	0.0129
Mercury	5841-07-15 12:14 G	3854636.84	3854637.01	3854637.18	0.0280	0.0028
Mercury	5841-10-12 07:40 G	3854725.69	3854725.82	3854725.96	0.0280	0.0169

Earth	5847-08-18 00:00 G	3856861.25	3856861.50	3856861.74	0.0269	0.0043
Moon	5847-08-18 03:21 G	3856861.40	3856861.64	3856861.89	0.0269	0.0051 *
Mars	5851-11-29 20:52 G	3858426.20	3858426.37	3858426.56	0.0269	0.0204
Venus	5855-11-03 17:31 G	3859861.15	3859861.23	3859861.34	0.0276	0.0246
Venus	5856-06-20 04:19 G	3860090.47	3860090.68	3860090.89	0.0278	0.0028
Mercury	5856-08-12 16:48 G	3860144.09	3860144.20	3860144.31	0.0278	0.0178
Mercury	5856-11-09 05:45 G	3860232.60	3860232.74	3860232.88	0.0279	0.0065
Venus	5857-02-04 15:35 G	3860320.01	3860320.15	3860320.31	0.0279	0.0195
Mercury	5857-02-05 18:28 G	3860321.13	3860321.27	3860321.41	0.0279	0.0048
Mercury	5857-05-05 06:57 G	3860409.68	3860409.79	3860409.90	0.0280	0.0159
Mercury	5857-08-01 19:26 G	3860498.27	3860498.31	3860498.34	0.0281	0.0269
Earth	5862-02-10 17:45 G	3862152.20	3862152.24	3862152.28	0.0290	0.0286
Moon	5862-02-10 18:14 G	3862152.23	3862152.26	3862152.30	0.0290	0.0286 *
Mars	5865-12-06 03:35 G	3863546.38	3863546.65	3863546.93	0.0291	0.0141
Venus	5870-04-22 07:11 G	3865144.60	3865144.80	3865145.01	0.0282	0.0073
Mercury	5870-09-04 16:04 G	3865280.04	3865280.17	3865280.31	0.0281	0.0157
Mercury	5870-12-02 11:16 G	3865368.80	3865368.97	3865369.14	0.0280	0.0018
Venus	5870-12-07 20:09 G	3865374.16	3865374.34	3865374.51	0.0280	0.0154
Mercury	5871-03-01 06:43 G	3865457.63	3865457.78	3865457.94	0.0280	0.0122
Mercury	5871-05-29 02:24 G	3865546.55	3865546.60	3865546.66	0.0279	0.0264
Moon	5876-08-11 17:45 G	3867448.07	3867448.24	3867448.43	0.0270	0.0187
Earth	5876-08-11 21:07 G	3867448.22	3867448.38	3867448.56	0.0270	0.0196 *
Venus	5885-05-16 01:40 G	3870647.44	3870647.57	3870647.72	0.0277	0.0210
Mercury	5885-12-30 19:40 G	3870876.23	3870876.32	3870876.42	0.0279	0.0202
Venus	5885-12-31 12:43 G	3870876.82	3870877.03	3870877.24	0.0279	0.0010
Mercury	5886-03-29 08:38 G	3870964.73	3870964.86	3870965.00	0.0279	0.0088
Mercury	5886-06-25 21:35 G	3871053.26	3871053.40	3871053.54	0.0280	0.0025
Venus	5886-08-18 00:28 G	3871106.42	3871106.52	3871106.65	0.0280	0.0233
Mercury	5886-09-22 10:04 G	3871141.80	3871141.92	3871142.04	0.0280	0.0137
Mercury	5886-12-19 22:33 G	3871230.38	3871230.44	3871230.50	0.0281	0.0247

Moon	5892-02-19 00:43 G	3873117.30	3873117.53	3873117.76	0.0290	0.0101
Earth	5892-02-19 04:04 G	3873117.46	3873117.67	3873117.91	0.0290	0.0107 *
Venus	5899-03-18 04:04 G	3875701.60	3875701.67	3875701.75	0.0283	0.0262
Venus	5899-11-02 17:45 G	3875931.03	3875931.24	3875931.46	0.0282	0.0032
Mercury	5900-01-22 18:28 G	3876012.14	3876012.27	3876012.40	0.0281	0.0179
Mercury	5900-04-21 13:26 G	3876100.89	3876101.06	3876101.23	0.0281	0.0042
Venus	5900-06-20 06:14 G	3876160.61	3876160.76	3876160.92	0.0280	0.0195
Mercury	5900-07-19 08:52 G	3876189.71	3876189.87	3876190.03	0.0280	0.0099
Mercury	5900-10-16 04:19 G	3876278.60	3876278.68	3876278.78	0.0279	0.0241
Earth	5906-08-20 10:04 G	3878412.71	3878412.92	3878413.16	0.0269	0.0116
Moon	5906-08-20 12:43 G	3878412.80	3878413.03	3878413.26	0.0269	0.0121 *
Mars	5910-03-11 00:00 G	3879711.42	3879711.50	3879711.60	0.0269	0.0254
Venus	5914-11-27 05:45 G	3881433.58	3881433.74	3881433.90	0.0277	0.0184
Mercury	5915-05-20 21:21 G	3881608.32	3881608.39	3881608.46	0.0278	0.0238
Venus	5915-07-14 16:19 G	3881662.97	3881663.18	3881663.39	0.0278	0.0035
Mercury	5915-08-17 10:19 G	3881696.80	3881696.93	3881697.06	0.0278	0.0125
Mercury	5915-11-13 23:02 G	3881785.32	3881785.46	3881785.60	0.0279	0.0012
Mercury	5916-02-10 11:31 G	3881873.86	3881873.98	3881874.12	0.0280	0.0101
Venus	5916-02-29 03:50 G	3881892.59	3881892.66	3881892.75	0.0280	0.0258
Mercury	5916-05-09 00:14 G	3881962.42	3881962.51	3881962.60	0.0280	0.0211
Earth	5921-02-13 04:48 G	3883703.54	3883703.70	3883703.88	0.0290	0.0205
Moon	5921-02-13 08:09 G	3883703.69	3883703.84	3883704.02	0.0290	0.0208 *
Venus	5928-09-28 06:00 G	3886487.64	3886487.75	3886487.87	0.0283	0.0239
Venus	5929-05-15 19:55 G	3886717.12	3886717.33	3886717.54	0.0282	0.0009
Mercury	5929-06-11 17:02 G	3886744.12	3886744.21	3886744.31	0.0281	0.0229
Mercury	5929-09-08 12:00 G	3886832.84	3886833.00	3886833.17	0.0281	0.0092
Mercury	5929-12-06 07:26 G	3886921.64	3886921.81	3886921.98	0.0280	0.0048
Venus	5929-12-31 08:24 G	3886946.72	3886946.85	3886946.98	0.0280	0.0217
Mercury	5930-03-05 02:52 G	3887010.50	3887010.62	3887010.75	0.0280	0.0189
Moon	5935-08-15 03:21 G	3888999.43	3888999.64	3888999.86	0.0269	0.0118

Earth	5935-08-15 06:00 G	3888999.53	3888999.75	3888999.97	0.0269	0.0127 *
Venus	5944-06-08 12:28 G	3892219.84	3892220.02	3892220.20	0.0277	0.0150
Mercury	5944-10-06 23:45 G	3892340.45	3892340.49	3892340.53	0.0278	0.0265
Mercury	5945-01-03 12:43 G	3892428.91	3892429.03	3892429.15	0.0279	0.0151
Venus	5945-01-23 23:16 G	3892449.27	3892449.47	3892449.68	0.0279	0.0070
Mercury	5945-04-02 01:40 G	3892517.43	3892517.57	3892517.71	0.0279	0.0038
Mercury	5945-06-29 14:24 G	3892605.96	3892606.10	3892606.23	0.0280	0.0074
Mercury	5945-09-26 02:52 G	3892694.52	3892694.62	3892694.72	0.0281	0.0185
Moon	5951-02-21 11:02 G	3894668.78	3894668.96	3894669.15	0.0291	0.0176
Earth	5951-02-21 12:57 G	3894668.86	3894669.04	3894669.24	0.0291	0.0182 *
Mars	5954-05-04 04:19 G	3895836.36	3895836.68	3895836.99	0.0290	0.0020
Venus	5958-04-10 16:19 G	3897274.04	3897274.18	3897274.34	0.0283	0.0198
Mercury	5958-10-29 19:26 G	3897476.24	3897476.31	3897476.38	0.0282	0.0252
Venus	5958-11-26 06:14 G	3897503.55	3897503.76	3897503.97	0.0281	0.0033
Mercury	5959-01-26 14:24 G	3897564.94	3897565.10	3897565.25	0.0281	0.0115
Mercury	5959-04-25 09:35 G	3897653.73	3897653.90	3897654.07	0.0280	0.0025
Venus	5959-07-13 18:28 G	3897733.19	3897733.27	3897733.35	0.0280	0.0257
Mercury	5959-07-23 04:48 G	3897742.57	3897742.70	3897742.85	0.0280	0.0165
Moon	5965-08-21 17:16 G	3899964.05	3899964.22	3899964.42	0.0269	0.0187
Earth	5965-08-21 19:11 G	3899964.14	3899964.30	3899964.49	0.0269	0.0186 *
Venus	5973-12-19 16:19 G	3903005.99	3903006.18	3903006.37	0.0277	0.0125
Mercury	5974-05-23 14:09 G	3903160.99	3903161.09	3903161.20	0.0278	0.0188
Venus	5974-08-06 03:07 G	3903235.43	3903235.63	3903235.83	0.0278	0.0095
Mercury	5974-08-20 03:07 G	3903249.50	3903249.63	3903249.77	0.0278	0.0075
Mercury	5974-11-16 15:50 G	3903338.02	3903338.16	3903338.30	0.0279	0.0037
Mercury	5975-02-13 04:19 G	3903426.57	3903426.68	3903426.80	0.0280	0.0148
Mercury	5975-05-12 16:48 G	3903515.15	3903515.20	3903515.25	0.0280	0.0258
Earth	5980-02-15 12:57 G	3905254.82	3905255.04	3905255.25	0.0290	0.0130
Moon	5980-02-15 14:24 G	3905254.89	3905255.10	3905255.34	0.0290	0.0133 *
Venus	5987-10-21 17:31 G	3908060.06	3908060.23	3908060.39	0.0283	0.0176

Venus	5988-06-07 06:57 G	3908289.59	3908289.79	3908290.00	0.0281	0.0054
Mercury	5988-06-14 12:14 G	3908296.88	3908297.01	3908297.15	0.0281	0.0169
Mercury	5988-09-11 07:26 G	3908385.64	3908385.81	3908385.98	0.0281	0.0030
Mercury	5988-12-09 02:52 G	3908474.46	3908474.62	3908474.78	0.0280	0.0110
Venus	5989-01-22 19:11 G	3908519.29	3908519.30	3908519.33	0.0280	0.0278
Mercury	5989-03-07 22:33 G	3908563.37	3908563.44	3908563.52	0.0279	0.0252
Earth	5994-08-16 12:43 G	3910550.79	3910551.03	3910551.28	0.0269	0.0061
Moon	5994-08-16 14:24 G	3910550.86	3910551.10	3910551.34	0.0269	0.0053 *
Mars	5998-08-04 21:50 G	3912000.24	3912000.41	3912000.62	0.0269	0.0194

7TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 7th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	6003-07-01 21:50 G		3913792.21	3913792.41	3913792.61	0.0278	0.0093	
Mercury	6003-10-10 16:19 G		3913893.10	3913893.18	3913893.27	0.0278	0.0218	
Mercury	6004-01-07 05:16 G		3913981.59	3913981.72	3913981.86	0.0279	0.0105	
Venus	6004-02-16 08:52 G		3914021.68	3914021.87	3914022.06	0.0279	0.0128	
Mercury	6004-04-04 18:14 G		3914070.12	3914070.26	3914070.40	0.0279	0.0009	
Mercury	6004-07-02 06:43 G		3914158.66	3914158.78	3914158.91	0.0280	0.0120	
Mercury	6004-09-28 19:11 G		3914247.23	3914247.30	3914247.38	0.0281	0.0230	
Earth	6010-02-22 19:11 G		3916220.18	3916220.30	3916220.42	0.0291	0.0252	
Moon	6010-02-22 21:21 G		3916220.27	3916220.39	3916220.52	0.0291	0.0244 *	
Venus	6017-05-03 02:52 G		3918846.44	3918846.62	3918846.81	0.0283	0.0138	

Mercury	6017-11-01 14:09 G	3919028.97	3919029.09	3919029.21	0.0282	0.0195
Venus	6017-12-18 16:19 G	3919075.98	3919076.18	3919076.38	0.0281	0.0092
Mercury	6018-01-29 09:07 G	3919117.72	3919117.88	3919118.05	0.0281	0.0058
Mercury	6018-04-28 04:33 G	3919206.53	3919206.69	3919206.86	0.0280	0.0083
Mercury	6018-07-26 00:14 G	3919295.41	3919295.51	3919295.61	0.0280	0.0224
Moon	6024-08-22 22:33 G	3921515.37	3921515.44	3921515.53	0.0269	0.0252
Earth	6024-08-23 01:55 G	3921515.51	3921515.58	3921515.68	0.0269	0.0251 *
Venus	6033-01-11 01:40 G	3924578.37	3924578.57	3924578.78	0.0277	0.0068
Mercury	6033-02-26 18:00 G	3924625.19	3924625.25	3924625.31	0.0277	0.0253
Mercury	6033-05-26 06:57 G	3924713.67	3924713.79	3924713.91	0.0278	0.0141
Mercury	6033-08-22 19:40 G	3924802.18	3924802.32	3924802.46	0.0278	0.0030
Venus	6033-08-28 12:28 G	3924807.85	3924808.02	3924808.21	0.0278	0.0153
Mercury	6033-11-19 08:24 G	3924890.72	3924890.85	3924890.98	0.0279	0.0083
Mercury	6034-02-15 20:52 G	3924979.27	3924979.37	3924979.47	0.0280	0.0193
Moon	6039-02-16 15:21 G	3926805.90	3926806.14	3926806.39	0.0290	0.0068
Earth	6039-02-16 17:45 G	3926806.01	3926806.24	3926806.48	0.0290	0.0061 *
Mars	6042-09-27 02:09 G	3928124.27	3928124.59	3928124.91	0.0291	0.0019
Venus	6046-11-13 02:52 G	3929632.43	3929632.62	3929632.81	0.0283	0.0118
Mercury	6047-03-21 12:00 G	3929760.93	3929761.00	3929761.08	0.0282	0.0250
Mercury	6047-06-18 06:57 G	3929849.63	3929849.79	3929849.94	0.0281	0.0113
Venus	6047-06-30 16:19 G	3929861.99	3929862.18	3929862.38	0.0281	0.0111
Mercury	6047-09-15 02:09 G	3929938.42	3929938.59	3929938.76	0.0281	0.0026
Mercury	6047-12-12 21:35 G	3930027.26	3930027.40	3930027.54	0.0280	0.0167
Earth	6053-08-17 18:00 G	3932102.00	3932102.25	3932102.50	0.0269	0.0003
Moon	6053-08-17 21:50 G	3932102.16	3932102.41	3932102.66	0.0269	0.0010 *
Venus	6061-12-06 19:40 G	3935135.25	3935135.32	3935135.41	0.0276	0.0255
Venus	6062-07-24 06:00 G	3935364.54	3935364.75	3935364.96	0.0278	0.0039
Mercury	6062-10-13 08:38 G	3935445.75	3935445.86	3935445.97	0.0278	0.0174
Mercury	6063-01-09 21:35 G	3935534.26	3935534.40	3935534.54	0.0279	0.0061
Venus	6063-03-10 17:02 G	3935594.05	3935594.21	3935594.37	0.0279	0.0183

Mercury	6063-04-08 10:19 G	3935622.79	3935622.93	3935623.07	0.0279	0.0051
Mercury	6063-07-05 22:48 G	3935711.34	3935711.45	3935711.56	0.0280	0.0161
Mercury	6063-10-02 11:02 G	3935799.93	3935799.96	3935800.00	0.0281	0.0271
Venus	6076-05-25 11:31 G	3940418.77	3940418.98	3940419.18	0.0283	0.0082
Mercury	6076-08-07 13:11 G	3940493.05	3940493.05	3940493.08	0.0282	0.0281
Mercury	6076-11-04 08:09 G	3940581.70	3940581.84	3940581.99	0.0282	0.0144
Venus	6077-01-10 00:43 G	3940648.35	3940648.53	3940648.71	0.0281	0.0147
Mercury	6077-02-01 03:21 G	3940670.47	3940670.64	3940670.82	0.0281	0.0009
Mercury	6077-04-30 22:48 G	3940759.31	3940759.45	3940759.61	0.0280	0.0137
Mercury	6077-07-28 18:28 G	3940848.27	3940848.27	3940848.30	0.0280	0.0279
Moon	6082-08-12 15:50 G	3942689.03	3942689.16	3942689.32	0.0270	0.0219
Earth	6082-08-12 19:40 G	3942689.20	3942689.32	3942689.47	0.0270	0.0228 *
Mars	6086-12-29 21:21 G	3944289.16	3944289.39	3944289.63	0.0269	0.0134
Venus	6091-06-19 00:14 G	3945921.40	3945921.51	3945921.63	0.0275	0.0228
Venus	6092-02-03 10:04 G	3946150.71	3946150.92	3946151.14	0.0277	0.0014
Mercury	6092-03-01 10:19 G	3946177.84	3946177.93	3946178.02	0.0277	0.0209
Mercury	6092-05-28 23:16 G	3946266.34	3946266.47	3946266.60	0.0278	0.0097
Mercury	6092-08-25 12:00 G	3946354.86	3946355.00	3946355.14	0.0278	0.0015
Venus	6092-09-19 21:07 G	3946380.24	3946380.38	3946380.52	0.0278	0.0207
Mercury	6092-11-22 00:28 G	3946443.40	3946443.52	3946443.65	0.0279	0.0125
Mercury	6093-02-18 12:43 G	3946531.97	3946532.03	3946532.11	0.0280	0.0235
Moon	6098-02-17 17:45 G	3948357.00	3948357.24	3948357.47	0.0290	0.0007
Earth	6098-02-17 20:52 G	3948357.13	3948357.37	3948357.62	0.0290	0.0005 *
Venus	6105-12-06 10:48 G	3951204.74	3951204.95	3951205.15	0.0283	0.0063
Mercury	6106-03-25 05:45 G	3951313.62	3951313.74	3951313.86	0.0282	0.0201
Mercury	6106-06-22 00:43 G	3951402.37	3951402.53	3951402.70	0.0281	0.0063
Venus	6106-07-24 00:00 G	3951434.33	3951434.50	3951434.67	0.0281	0.0165
Mercury	6106-09-18 20:09 G	3951491.17	3951491.34	3951491.50	0.0281	0.0077
Mercury	6106-12-16 15:35 G	3951580.05	3951580.15	3951580.26	0.0280	0.0218
Earth	6112-08-19 20:38 G	3953653.12	3953653.36	3953653.61	0.0269	0.0061

Moon	6112-08-19 20:52 G	3953653.12	3953653.37	3953653.63	0.0269	0.0063 *
Venus	6120-12-30 02:52 G	3956707.49	3956707.62	3956707.77	0.0276	0.0203
Mercury	6121-07-20 11:31 G	3956909.92	3956909.98	3956910.05	0.0278	0.0246
Venus	6121-08-16 13:11 G	3956936.84	3956937.05	3956937.26	0.0278	0.0014
Mercury	6121-10-17 00:28 G	3956998.40	3956998.52	3956998.65	0.0278	0.0134
Mercury	6122-01-13 13:26 G	3957086.92	3957087.06	3957087.20	0.0279	0.0021
Venus	6122-04-03 00:14 G	3957166.41	3957166.51	3957166.63	0.0279	0.0236
Mercury	6122-04-12 02:09 G	3957175.45	3957175.59	3957175.72	0.0279	0.0090
Mercury	6122-07-09 14:24 G	3957264.01	3957264.10	3957264.20	0.0280	0.0200
Mars	6131-02-21 15:35 G	3960412.85	3960413.15	3960413.46	0.0290	0.0079
Venus	6134-11-01 03:35 G	3961761.57	3961761.65	3961761.73	0.0284	0.0262
Venus	6135-06-18 18:00 G	3961991.04	3961991.25	3961991.47	0.0282	0.0031
Mercury	6135-08-12 06:43 G	3962045.69	3962045.78	3962045.87	0.0282	0.0234
Mercury	6135-11-09 01:40 G	3962134.41	3962134.57	3962134.73	0.0282	0.0097
Venus	6136-02-03 07:26 G	3962220.66	3962220.81	3962220.96	0.0281	0.0198
Mercury	6136-02-05 20:52 G	3962223.20	3962223.37	3962223.54	0.0281	0.0043
Mercury	6136-05-04 16:19 G	3962312.06	3962312.18	3962312.32	0.0280	0.0185
Earth	6141-08-14 22:04 G	3964240.24	3964240.42	3964240.62	0.0270	0.0169
Moon	6141-08-14 22:04 G	3964240.24	3964240.42	3964240.62	0.0270	0.0164 *
Venus	6150-07-12 07:40 G	3967493.67	3967493.82	3967493.99	0.0276	0.0177
Venus	6151-02-26 17:45 G	3967723.03	3967723.24	3967723.45	0.0277	0.0040
Mercury	6151-03-06 02:24 G	3967730.49	3967730.60	3967730.72	0.0277	0.0167
Mercury	6151-06-02 15:21 G	3967819.00	3967819.14	3967819.28	0.0278	0.0056
Mercury	6151-08-30 03:50 G	3967907.53	3967907.66	3967907.80	0.0278	0.0056
Venus	6151-10-14 04:33 G	3967952.63	3967952.69	3967952.78	0.0279	0.0260
Mercury	6151-11-26 16:19 G	3967996.07	3967996.18	3967996.30	0.0279	0.0165
Mercury	6152-02-23 04:33 G	3968084.67	3968084.69	3968084.72	0.0279	0.0274
Earth	6157-02-19 21:35 G	3969908.16	3969908.40	3969908.63	0.0290	0.0065
Moon	6157-02-19 22:19 G	3969908.20	3969908.43	3969908.66	0.0290	0.0053 *
Venus	6164-05-13 02:38 G	3972547.51	3972547.61	3972547.72	0.0284	0.0243

Venus	6164-12-28 17:02 G	3972777.00	3972777.21	3972777.43	0.0283	0.0012
Mercury	6165-03-27 22:48 G	3972866.31	3972866.45	3972866.59	0.0282	0.0156
Mercury	6165-06-24 18:00 G	3972955.08	3972955.25	3972955.42	0.0281	0.0017
Venus	6165-08-15 06:00 G	3973006.63	3973006.75	3973006.90	0.0281	0.0217
Mercury	6165-09-21 13:26 G	3973043.91	3973044.06	3973044.21	0.0281	0.0123
Mercury	6165-12-19 09:07 G	3973132.83	3973132.88	3973132.94	0.0280	0.0265
Moon	6171-08-21 18:00 G	3975204.02	3975204.25	3975204.48	0.0269	0.0113
Earth	6171-08-21 21:35 G	3975204.19	3975204.40	3975204.64	0.0269	0.0117 *
Mars	6175-05-26 02:38 G	3976577.37	3976577.61	3976577.87	0.0269	0.0105
Venus	6180-01-22 09:35 G	3978279.72	3978279.90	3978280.08	0.0276	0.0152
Mercury	6180-07-23 03:21 G	3978462.55	3978462.64	3978462.74	0.0278	0.0207
Venus	6180-09-07 19:55 G	3978509.12	3978509.33	3978509.53	0.0278	0.0065
Mercury	6180-10-19 16:19 G	3978551.05	3978551.18	3978551.32	0.0278	0.0094
Mercury	6181-01-16 05:02 G	3978639.57	3978639.71	3978639.85	0.0279	0.0019
Mercury	6181-04-14 17:31 G	3978728.11	3978728.23	3978728.36	0.0279	0.0128
Mercury	6181-07-12 06:00 G	3978816.68	3978816.75	3978816.83	0.0280	0.0237
Moon	6186-02-14 01:26 G	3980494.43	3980494.56	3980494.69	0.0290	0.0245
Earth	6186-02-14 02:52 G	3980494.48	3980494.62	3980494.77	0.0290	0.0234 *
Venus	6193-11-23 09:21 G	3983333.75	3983333.89	3983334.03	0.0284	0.0212
Venus	6194-07-10 23:45 G	3983563.28	3983563.49	3983563.70	0.0282	0.0020
Mercury	6194-08-14 23:16 G	3983598.36	3983598.47	3983598.60	0.0282	0.0192
Mercury	6194-11-11 18:28 G	3983687.11	3983687.27	3983687.44	0.0282	0.0054
Mercury	6195-02-08 13:55 G	3983775.92	3983776.08	3983776.24	0.0281	0.0086
Venus	6195-02-25 12:43 G	3983792.95	3983793.03	3983793.14	0.0281	0.0248
Mercury	6195-05-08 09:35 G	3983864.80	3983864.90	3983865.00	0.0280	0.0228
Earth	6200-08-16 22:33 G	3985791.22	3985791.44	3985791.67	0.0270	0.0113
Moon	6200-08-17 02:09 G	3985791.38	3985791.59	3985791.82	0.0270	0.0112 *
Venus	6209-08-04 15:07 G	3989065.94	3989066.13	3989066.32	0.0276	0.0125
Mercury	6209-12-11 05:31 G	3989194.66	3989194.73	3989194.80	0.0277	0.0238
Mercury	6210-03-09 18:28 G	3989283.14	3989283.27	3989283.40	0.0277	0.0126

Venus	6210-03-22 00:57 G	3989295.35	3989295.54	3989295.75	0.0277	0.0092
Mercury	6210-06-06 07:11 G	3989371.66	3989371.80	3989371.94	0.0278	0.0015
Mercury	6210-09-02 19:40 G	3989460.19	3989460.32	3989460.46	0.0278	0.0095
Mercury	6210-11-30 08:09 G	3989548.75	3989548.84	3989548.93	0.0279	0.0204
Earth	6216-02-22 21:35 G	3991459.19	3991459.40	3991459.62	0.0290	0.0125
Moon	6216-02-23 01:26 G	3991459.34	3991459.56	3991459.79	0.0290	0.0110 *
Mars	6219-07-17 19:11 G	3992700.00	3992700.30	3992700.61	0.0291	0.0089
Venus	6223-06-06 08:24 G	3994119.70	3994119.85	3994120.01	0.0284	0.0193
Mercury	6224-01-02 20:52 G	3994330.29	3994330.37	3994330.44	0.0282	0.0250
Venus	6224-01-21 22:33 G	3994349.24	3994349.44	3994349.65	0.0282	0.0040
Mercury	6224-03-31 15:35 G	3994419.00	3994419.15	3994419.31	0.0282	0.0113
Mercury	6224-06-28 10:48 G	3994507.79	3994507.95	3994508.13	0.0281	0.0028
Venus	6224-09-07 11:45 G	3994578.93	3994578.99	3994579.06	0.0281	0.0265
Mercury	6224-09-25 06:14 G	3994596.63	3994596.76	3994596.91	0.0281	0.0168
Moon	6230-08-23 20:09 G	3996755.16	3996755.34	3996755.54	0.0269	0.0166
Earth	6230-08-23 21:50 G	3996755.22	3996755.41	3996755.60	0.0269	0.0172 *
Venus	6239-02-14 16:04 G	3999851.98	3999852.17	3999852.37	0.0277	0.0102
Mercury	6239-07-27 19:11 G	4000015.19	4000015.30	4000015.42	0.0278	0.0167
Venus	6239-10-02 02:24 G	4000081.41	4000081.60	4000081.79	0.0278	0.0116
Mercury	6239-10-24 08:09 G	4000103.70	4000103.84	4000103.98	0.0278	0.0055
Mercury	6240-01-20 20:38 G	4000192.23	4000192.36	4000192.50	0.0279	0.0056
Mercury	6240-04-18 09:07 G	4000280.77	4000280.88	4000281.00	0.0279	0.0165
Mercury	6240-07-15 21:21 G	4000369.37	4000369.39	4000369.43	0.0280	0.0274
Moon	6245-02-15 22:04 G	4002045.25	4002045.42	4002045.60	0.0290	0.0193
Earth	6245-02-16 01:40 G	4002045.38	4002045.57	4002045.76	0.0290	0.0177 *
Venus	6252-12-16 14:24 G	4004905.92	4004906.10	4004906.27	0.0284	0.0163
Venus	6253-08-03 04:33 G	4005135.49	4005135.69	4005135.90	0.0282	0.0069
Mercury	6253-08-18 16:04 G	4005151.03	4005151.17	4005151.31	0.0282	0.0151
Mercury	6253-11-15 11:16 G	4005239.80	4005239.97	4005240.14	0.0281	0.0015
Mercury	6254-02-12 06:43 G	4005328.62	4005328.78	4005328.93	0.0281	0.0128

Mercury	6254-05-12 02:24 G	4005417.56	4005417.60	4005417.65	0.0280	0.0271
Earth	6259-08-18 22:04 G	4007342.18	4007342.42	4007342.67	0.0270	0.0059
Moon	6259-08-19 00:00 G	4007342.25	4007342.50	4007342.75	0.0270	0.0060 *
Mars	6263-10-20 21:35 G	4008866.13	4008866.40	4008866.67	0.0269	0.0048
Venus	6268-08-26 22:19 G	4010638.22	4010638.43	4010638.63	0.0276	0.0073
Mercury	6268-12-13 21:21 G	4010747.30	4010747.39	4010747.49	0.0277	0.0197
Mercury	6269-03-12 10:19 G	4010835.80	4010835.93	4010836.07	0.0277	0.0086
Venus	6269-04-13 08:09 G	4010867.67	4010867.84	4010868.03	0.0277	0.0144
Mercury	6269-06-08 23:02 G	4010924.32	4010924.46	4010924.60	0.0278	0.0025
Mercury	6269-09-05 11:31 G	4011012.86	4011012.98	4011013.10	0.0278	0.0134
Mercury	6269-12-02 23:45 G	4011101.43	4011101.49	4011101.56	0.0279	0.0242
Earth	6275-02-23 22:19 G	4013010.25	4013010.43	4013010.62	0.0290	0.0185
Moon	6275-02-23 22:48 G	4013010.25	4013010.45	4013010.65	0.0290	0.0168 *
Venus	6282-06-28 14:09 G	4015691.91	4015692.09	4015692.28	0.0284	0.0142
Mercury	6283-01-05 13:40 G	4015882.96	4015883.07	4015883.18	0.0282	0.0207
Venus	6283-02-13 04:19 G	4015921.48	4015921.68	4015921.88	0.0282	0.0090
Mercury	6283-04-04 08:38 G	4015971.69	4015971.86	4015972.02	0.0282	0.0069
Mercury	6283-07-02 03:50 G	4016060.50	4016060.66	4016060.83	0.0281	0.0071
Mercury	6283-09-28 23:31 G	4016149.37	4016149.48	4016149.59	0.0281	0.0212
Earth	6289-08-24 21:21 G	4018306.26	4018306.39	4018306.53	0.0269	0.0226
Moon	6289-08-25 00:28 G	4018306.38	4018306.52	4018306.67	0.0269	0.0216 *
Venus	6297-07-22 13:26 G	4021195.02	4021195.06	4021195.13	0.0275	0.0265
Venus	6298-03-08 23:02 G	4021424.25	4021424.46	4021424.67	0.0277	0.0051
Mercury	6298-05-02 22:04 G	4021479.35	4021479.42	4021479.49	0.0277	0.0239
Mercury	6298-07-30 11:02 G	4021567.84	4021567.96	4021568.09	0.0278	0.0127
Venus	6298-10-24 09:21 G	4021653.72	4021653.89	4021654.06	0.0278	0.0168
Mercury	6298-10-27 00:00 G	4021656.35	4021656.50	4021656.64	0.0278	0.0018
Mercury	6299-01-23 12:28 G	4021744.89	4021745.02	4021745.15	0.0279	0.0094
Mercury	6299-04-22 00:57 G	4021833.45	4021833.54	4021833.63	0.0279	0.0203
Earth	6304-02-19 01:26 G	4023596.34	4023596.56	4023596.79	0.0290	0.0117

Moon	6304-02-19 01:40 G	4023596.36	4023596.57	4023596.78	0.0290	0.0132 *
Mars	6307-12-11 16:48 G	4024987.92	4024988.20	4024988.50	0.0290	0.0123
Venus	6312-01-09 19:11 G	4026478.11	4026478.30	4026478.50	0.0283	0.0114
Mercury	6312-05-25 13:26 G	4026614.99	4026615.06	4026615.15	0.0283	0.0248
Mercury	6312-08-22 08:38 G	4026703.70	4026703.86	4026704.01	0.0282	0.0110
Venus	6312-08-26 09:21 G	4026707.71	4026707.89	4026708.09	0.0282	0.0118
Mercury	6312-11-19 03:50 G	4026792.49	4026792.66	4026792.83	0.0281	0.0029
Mercury	6313-02-15 23:16 G	4026881.34	4026881.47	4026881.61	0.0281	0.0170
Moon	6318-08-20 18:57 G	4028893.03	4028893.29	4028893.54	0.0270	0.0011
Earth	6318-08-20 21:35 G	4028893.15	4028893.40	4028893.65	0.0270	0.0005 *
Venus	6327-02-02 20:38 G	4031981.25	4031981.36	4031981.47	0.0275	0.0233
Venus	6327-09-20 06:00 G	4032210.54	4032210.75	4032210.97	0.0276	0.0020
Mercury	6327-09-21 00:28 G	4032211.49	4032211.52	4032211.57	0.0276	0.0267
Mercury	6327-12-18 13:40 G	4032299.95	4032300.07	4032300.19	0.0277	0.0154
Mercury	6328-03-16 02:38 G	4032388.47	4032388.61	4032388.75	0.0277	0.0044
Venus	6328-05-06 16:04 G	4032440.03	4032440.17	4032440.33	0.0278	0.0198
Mercury	6328-06-12 15:07 G	4032476.99	4032477.13	4032477.27	0.0278	0.0066
Mercury	6328-09-09 03:35 G	4032565.54	4032565.65	4032565.76	0.0278	0.0175
Moon	6334-02-25 20:38 G	4034561.21	4034561.36	4034561.50	0.0290	0.0231
Earth	6334-02-26 00:00 G	4034561.39	4034561.50	4034561.63	0.0290	0.0248 *
Venus	6341-07-21 20:24 G	4037264.15	4037264.35	4037264.55	0.0283	0.0090
Mercury	6342-01-09 06:28 G	4037435.64	4037435.77	4037435.91	0.0282	0.0163
Venus	6342-03-08 10:19 G	4037493.75	4037493.93	4037494.11	0.0282	0.0140
Mercury	6342-04-08 01:40 G	4037524.40	4037524.57	4037524.74	0.0282	0.0025
Mercury	6342-07-05 21:07 G	4037613.22	4037613.38	4037613.53	0.0281	0.0116
Mercury	6342-10-02 16:48 G	4037702.13	4037702.20	4037702.27	0.0281	0.0257
Earth	6347-08-15 08:24 G	4039479.81	4039479.85	4039479.93	0.0271	0.0262
Moon	6347-08-15 11:16 G	4039479.92	4039479.97	4039480.03	0.0271	0.0262 *
Moon	6348-08-27 00:28 G	4039857.52	4039857.52	4039857.52	0.0269	0.0269
Mars	6352-03-15 22:19 G	4041154.16	4041154.43	4041154.70	0.0269	0.0025

Venus	6356-08-14 20:52 G	4042767.25	4042767.37	4042767.51	0.0275	0.0213
Venus	6357-04-01 06:28 G	4042996.56	4042996.77	4042996.98	0.0277	0.0003
Mercury	6357-05-06 14:09 G	4043032.00	4043032.09	4043032.20	0.0277	0.0197
Mercury	6357-08-03 03:07 G	4043120.50	4043120.63	4043120.77	0.0278	0.0086
Mercury	6357-10-30 15:50 G	4043209.02	4043209.16	4043209.30	0.0278	0.0025
Venus	6357-11-16 17:02 G	4043226.08	4043226.21	4043226.33	0.0278	0.0221
Mercury	6358-01-27 04:19 G	4043297.56	4043297.68	4043297.81	0.0279	0.0135
Mercury	6358-04-25 16:48 G	4043386.13	4043386.20	4043386.27	0.0279	0.0243
Earth	6363-02-20 02:52 G	4045147.38	4045147.62	4045147.86	0.0289	0.0054
Moon	6363-02-20 06:14 G	4045147.53	4045147.76	4045148.00	0.0289	0.0070 *
Venus	6371-02-01 01:26 G	4048050.36	4048050.56	4048050.77	0.0283	0.0062
Mercury	6371-05-29 06:28 G	4048167.66	4048167.77	4048167.89	0.0282	0.0204
Mercury	6371-08-26 01:26 G	4048256.40	4048256.56	4048256.73	0.0282	0.0066
Venus	6371-09-18 15:21 G	4048279.98	4048280.14	4048280.31	0.0282	0.0168
Mercury	6371-11-22 20:52 G	4048345.21	4048345.37	4048345.54	0.0281	0.0074
Mercury	6372-02-19 16:19 G	4048434.08	4048434.18	4048434.30	0.0281	0.0216
Moon	6377-08-21 18:28 G	4050444.03	4050444.27	4050444.51	0.0271	0.0045
Earth	6377-08-21 21:35 G	4050444.16	4050444.40	4050444.65	0.0271	0.0051 *
Venus	6386-02-25 04:48 G	4053553.55	4053553.70	4053553.87	0.0275	0.0179
Mercury	6386-09-23 17:02 G	4053764.13	4053764.21	4053764.30	0.0277	0.0222
Venus	6386-10-12 14:24 G	4053782.89	4053783.10	4053783.32	0.0277	0.0036
Mercury	6386-12-21 06:00 G	4053852.62	4053852.75	4053852.88	0.0277	0.0110
Mercury	6387-03-19 18:43 G	4053941.14	4053941.28	4053941.43	0.0278	0.0009
Venus	6387-05-30 00:43 G	4054012.46	4054012.53	4054012.63	0.0278	0.0253
Mercury	6387-06-16 07:26 G	4054029.68	4054029.81	4054029.94	0.0278	0.0109
Mercury	6387-09-12 19:40 G	4054118.24	4054118.32	4054118.41	0.0279	0.0217
Mars	6396-05-05 14:52 G	4057275.87	4057276.12	4057276.38	0.0290	0.0168
Venus	6399-12-27 12:43 G	4058606.97	4058607.03	4058607.11	0.0285	0.0268
Venus	6400-08-13 03:35 G	4058836.44	4058836.65	4058836.86	0.0283	0.0035
Mercury	6400-10-15 05:02 G	4058899.65	4058899.71	4058899.79	0.0283	0.0252

Mercury	6401-01-12 00:00 G	4058988.35	4058988.50	4058988.66	0.0282	0.0115
Venus	6401-03-30 17:16 G	4059066.07	4059066.22	4059066.38	0.0282	0.0193
Mercury	6401-04-10 19:11 G	4059077.13	4059077.30	4059077.47	0.0282	0.0024
Mercury	6401-07-08 14:38 G	4059165.97	4059166.11	4059166.25	0.0281	0.0164
Earth	6406-08-16 09:50 G	4061030.75	4061030.91	4061031.07	0.0271	0.0204
Moon	6406-08-16 12:57 G	4061030.89	4061031.04	4061031.21	0.0271	0.0207 *
Venus	6415-09-07 05:45 G	4064339.57	4064339.74	4064339.92	0.0276	0.0158
Mercury	6416-02-10 17:45 G	4064496.20	4064496.24	4064496.28	0.0277	0.0263
Venus	6416-04-23 15:21 G	4064568.94	4064569.14	4064569.35	0.0277	0.0059
Mercury	6416-05-09 06:43 G	4064584.67	4064584.78	4064584.90	0.0277	0.0152
Mercury	6416-08-05 19:40 G	4064673.18	4064673.32	4064673.46	0.0278	0.0041
Mercury	6416-11-02 08:24 G	4064761.71	4064761.85	4064761.98	0.0278	0.0070
Venus	6416-12-09 01:55 G	4064798.57	4064798.58	4064798.61	0.0279	0.0277
Mercury	6417-01-29 20:52 G	4064850.26	4064850.37	4064850.47	0.0279	0.0178
Earth	6422-02-21 07:11 G	4066698.56	4066698.80	4066699.05	0.0289	0.0015
Moon	6422-02-21 09:07 G	4066698.63	4066698.88	4066699.13	0.0289	0.0005 *
Venus	6429-07-08 17:45 G	4069393.14	4069393.24	4069393.36	0.0284	0.0240
Venus	6430-02-23 08:38 G	4069622.65	4069622.86	4069623.07	0.0283	0.0009
Mercury	6430-06-01 00:00 G	4069720.36	4069720.50	4069720.64	0.0282	0.0156
Mercury	6430-08-28 18:57 G	4069809.12	4069809.29	4069809.46	0.0282	0.0019
Venus	6430-10-10 22:19 G	4069852.31	4069852.43	4069852.56	0.0281	0.0221
Mercury	6430-11-25 14:24 G	4069897.95	4069898.10	4069898.26	0.0281	0.0122
Mercury	6431-02-22 10:04 G	4069986.87	4069986.92	4069986.98	0.0281	0.0264
Earth	6436-08-22 22:48 G	4071995.23	4071995.45	4071995.69	0.0271	0.0110
Moon	6436-08-23 00:00 G	4071995.28	4071995.50	4071995.72	0.0271	0.0100 *
Mars	6440-08-09 23:45 G	4073443.22	4073443.49	4073443.76	0.0270	0.0047
Venus	6445-03-19 14:09 G	4075125.91	4075126.09	4075126.29	0.0276	0.0123
Mercury	6445-09-26 09:50 G	4075316.80	4075316.91	4075317.02	0.0277	0.0174
Venus	6445-11-04 00:00 G	4075355.30	4075355.50	4075355.70	0.0277	0.0093
Mercury	6445-12-23 22:48 G	4075405.31	4075405.45	4075405.59	0.0277	0.0063

Mercury	6446-03-22 11:31 G	4075493.84	4075493.98	4075494.12	0.0278	0.0047
Mercury	6446-06-19 00:00 G	4075582.38	4075582.50	4075582.61	0.0278	0.0155
Mercury	6446-09-15 12:14 G	4075670.97	4075671.01	4075671.06	0.0279	0.0262
Moon	6451-02-15 17:31 G	4077285.18	4077285.23	4077285.29	0.0288	0.0278
Earth	6451-02-15 19:26 G	4077285.22	4077285.31	4077285.42	0.0288	0.0262 *
Venus	6459-01-18 22:04 G	4080179.28	4080179.42	4080179.56	0.0284	0.0209
Venus	6459-09-05 12:28 G	4080408.81	4080409.02	4080409.23	0.0283	0.0023
Mercury	6459-10-18 23:16 G	4080452.36	4080452.47	4080452.59	0.0283	0.0199
Mercury	6460-01-15 18:14 G	4080541.10	4080541.26	4080541.43	0.0282	0.0062
Mercury	6460-04-13 13:26 G	4080629.90	4080630.06	4080630.23	0.0281	0.0078
Venus	6460-04-22 01:55 G	4080638.49	4080638.58	4080638.68	0.0281	0.0249
Mercury	6460-07-11 09:07 G	4080718.77	4080718.88	4080718.99	0.0281	0.0218
Moon	6465-08-17 11:31 G	4082581.77	4082581.98	4082582.20	0.0271	0.0151
Earth	6465-08-17 12:57 G	4082581.84	4082582.04	4082582.26	0.0271	0.0143 *
Venus	6474-09-29 15:35 G	4085911.96	4085912.15	4085912.35	0.0276	0.0101
Mercury	6475-02-13 10:48 G	4086048.86	4086048.95	4086049.04	0.0277	0.0215
Mercury	6475-05-12 23:45 G	4086137.36	4086137.49	4086137.62	0.0277	0.0104
Venus	6475-05-17 01:26 G	4086141.37	4086141.56	4086141.76	0.0277	0.0116
Mercury	6475-08-09 12:28 G	4086225.88	4086226.02	4086226.16	0.0278	0.0007
Mercury	6475-11-06 00:57 G	4086314.42	4086314.54	4086314.67	0.0279	0.0116
Mercury	6476-02-02 13:26 G	4086402.98	4086403.06	4086403.14	0.0279	0.0224
Moon	6481-02-22 12:00 G	4088249.76	4088250.00	4088250.24	0.0289	0.0073
Earth	6481-02-22 14:24 G	4088249.87	4088250.10	4088250.33	0.0289	0.0088 *
Mars	6484-09-29 00:57 G	4089564.35	4089564.54	4089564.74	0.0290	0.0226
Venus	6488-07-31 02:52 G	4090965.47	4090965.62	4090965.79	0.0284	0.0182
Mercury	6489-03-06 23:16 G	4091184.39	4091184.47	4091184.56	0.0282	0.0239
Venus	6489-03-17 17:45 G	4091195.03	4091195.24	4091195.45	0.0282	0.0051
Mercury	6489-06-03 18:14 G	4091273.10	4091273.26	4091273.41	0.0282	0.0103
Mercury	6489-08-31 13:11 G	4091361.89	4091362.05	4091362.22	0.0281	0.0036
Venus	6489-11-02 07:11 G	4091424.76	4091424.80	4091424.83	0.0281	0.0276

Mercury	6489-11-28 08:38 G	4091450.74	4091450.86	4091451.00	0.0281	0.0176
Earth	6495-08-25 02:09 G	4093546.40	4093546.59	4093546.79	0.0271	0.0170
Moon	6495-08-25 06:00 G	4093546.55	4093546.75	4093546.96	0.0271	0.0158 *
Venus	6503-08-26 15:50 G	4096469.16	4096469.16	4096469.17	0.0275	0.0275
Venus	6504-04-12 00:57 G	4096698.34	4096698.54	4096698.75	0.0276	0.0063
Mercury	6504-07-03 13:55 G	4096781.01	4096781.08	4096781.16	0.0277	0.0236
Mercury	6504-09-30 03:07 G	4096869.50	4096869.63	4096869.76	0.0277	0.0124
Venus	6504-11-27 11:02 G	4096927.79	4096927.96	4096928.14	0.0278	0.0154
Mercury	6504-12-27 15:50 G	4096958.02	4096958.16	4096958.30	0.0278	0.0014
Mercury	6505-03-26 04:33 G	4097046.56	4097046.69	4097046.82	0.0278	0.0096
Mercury	6505-06-22 16:48 G	4097135.11	4097135.20	4097135.30	0.0279	0.0205
Earth	6510-02-18 05:31 G	4098836.54	4098836.73	4098836.91	0.0288	0.0183
Moon	6510-02-18 07:40 G	4098836.66	4098836.82	4098836.99	0.0288	0.0200 *
Venus	6518-02-11 08:52 G	4101751.69	4101751.87	4101752.05	0.0284	0.0148
Mercury	6518-07-25 23:16 G	4101916.45	4101916.47	4101916.51	0.0283	0.0277
Venus	6518-09-28 23:02 G	4101981.26	4101981.46	4101981.66	0.0282	0.0083
Mercury	6518-10-22 18:14 G	4102005.11	4102005.26	4102005.40	0.0282	0.0141
Mercury	6519-01-19 13:11 G	4102093.88	4102094.05	4102094.22	0.0282	0.0005
Mercury	6519-04-18 08:38 G	4102182.71	4102182.86	4102183.01	0.0281	0.0136
Mercury	6519-07-16 04:04 G	4102271.66	4102271.67	4102271.70	0.0281	0.0278
Moon	6524-08-19 14:24 G	4104132.87	4104133.10	4104133.34	0.0271	0.0091
Earth	6524-08-19 18:14 G	4104133.02	4104133.26	4104133.50	0.0271	0.0078 *
Mars	6529-01-04 10:33 G	4105731.68	4105731.94	4105732.20	0.0269	0.0089
Venus	6533-03-07 17:16 G	4107255.15	4107255.22	4107255.31	0.0275	0.0253
Venus	6533-10-23 02:38 G	4107484.41	4107484.61	4107484.83	0.0276	0.0041
Mercury	6533-11-20 14:52 G	4107513.11	4107513.12	4107513.13	0.0277	0.0275
Mercury	6534-02-17 04:04 G	4107601.55	4107601.67	4107601.78	0.0277	0.0163
Mercury	6534-05-16 16:48 G	4107690.06	4107690.20	4107690.34	0.0278	0.0053
Venus	6534-06-09 12:57 G	4107713.88	4107714.04	4107714.20	0.0278	0.0177
Mercury	6534-08-13 05:31 G	4107778.60	4107778.73	4107778.87	0.0278	0.0058

Mercury	6534-11-09 18:00 G	4107867.14	4107867.25	4107867.37	0.0279	0.0166
Mercury	6535-02-06 06:28 G	4107955.74	4107955.77	4107955.79	0.0279	0.0273
Moon	6540-02-25 20:24 G	4109801.16	4109801.35	4109801.56	0.0289	0.0152
Earth	6540-02-25 23:45 G	4109801.30	4109801.49	4109801.70	0.0289	0.0167 *
Venus	6547-08-24 13:55 G	4112537.89	4112538.08	4112538.27	0.0283	0.0119
Mercury	6548-03-10 18:14 G	4112737.13	4112737.26	4112737.39	0.0282	0.0182
Venus	6548-04-10 04:19 G	4112767.48	4112767.68	4112767.87	0.0282	0.0111
Mercury	6548-06-07 13:11 G	4112825.88	4112826.05	4112826.22	0.0282	0.0045
Mercury	6548-09-04 08:24 G	4112914.69	4112914.85	4112915.01	0.0281	0.0095
Mercury	6548-12-02 03:50 G	4113003.58	4113003.66	4113003.76	0.0281	0.0236
Earth	6554-08-27 07:26 G	4115097.70	4115097.81	4115097.95	0.0271	0.0235
Moon	6554-08-27 08:09 G	4115097.70	4115097.84	4115098.00	0.0271	0.0220 *
Venus	6562-09-18 03:07 G	4118041.50	4118041.63	4118041.76	0.0276	0.0215
Venus	6563-05-05 12:43 G	4118270.82	4118271.03	4118271.24	0.0277	0.0002
Mercury	6563-07-07 07:26 G	4118333.71	4118333.81	4118333.92	0.0277	0.0183
Mercury	6563-10-03 20:24 G	4118422.21	4118422.35	4118422.49	0.0278	0.0071
Venus	6563-12-20 23:02 G	4118500.33	4118500.46	4118500.60	0.0278	0.0216
Mercury	6563-12-31 09:07 G	4118510.74	4118510.88	4118511.02	0.0278	0.0039
Mercury	6564-03-28 21:35 G	4118599.29	4118599.40	4118599.52	0.0279	0.0148
Mercury	6564-06-25 10:04 G	4118687.87	4118687.92	4118687.98	0.0279	0.0255
Earth	6569-02-19 17:16 G	4120388.00	4120388.22	4120388.45	0.0288	0.0101
Moon	6569-02-19 20:52 G	4120388.15	4120388.37	4120388.59	0.0288	0.0118 *
Venus	6577-03-05 21:21 G	4123324.19	4123324.39	4123324.60	0.0283	0.0083
Mercury	6577-07-28 19:11 G	4123469.19	4123469.30	4123469.40	0.0282	0.0214
Venus	6577-10-21 11:16 G	4123553.79	4123553.97	4123554.15	0.0282	0.0147
Mercury	6577-10-25 13:55 G	4123557.92	4123558.08	4123558.24	0.0282	0.0078
Mercury	6578-01-22 09:07 G	4123646.71	4123646.88	4123647.04	0.0281	0.0061
Mercury	6578-04-21 04:19 G	4123735.57	4123735.68	4123735.81	0.0281	0.0201
Moon	6583-08-22 01:26 G	4125684.32	4125684.56	4125684.80	0.0271	0.0023
Earth	6583-08-22 01:40 G	4125684.32	4125684.57	4125684.82	0.0271	0.0011 *

Venus	6592-03-30 05:16 G	4128827.58	4128827.72	4128827.88	0.0275	0.0192
Venus	6592-11-14 14:52 G	4129056.91	4129057.12	4129057.34	0.0277	0.0024
Mercury	6592-11-23 08:24 G	4129065.77	4129065.85	4129065.94	0.0277	0.0221
Mercury	6593-02-19 21:35 G	4129154.27	4129154.40	4129154.53	0.0277	0.0109
Mercury	6593-05-19 10:33 G	4129242.79	4129242.94	4129243.08	0.0278	0.0009
Venus	6593-07-02 01:11 G	4129286.46	4129286.55	4129286.67	0.0278	0.0241
Mercury	6593-08-15 23:02 G	4129331.33	4129331.46	4129331.59	0.0278	0.0111
Mercury	6593-11-12 11:31 G	4129419.90	4129419.98	4129420.07	0.0279	0.0219
Earth	6599-02-27 12:28 G	4131352.91	4131353.02	4131353.14	0.0289	0.0251
Moon	6599-02-27 12:43 G	4131352.91	4131353.03	4131353.17	0.0289	0.0238 *
Venus	6606-09-17 02:24 G	4134110.39	4134110.60	4134110.80	0.0283	0.0055
Mercury	6606-12-16 18:57 G	4134201.22	4134201.29	4134201.36	0.0282	0.0254
Mercury	6607-03-15 13:40 G	4134289.92	4134290.07	4134290.23	0.0282	0.0119
Venus	6607-05-04 16:19 G	4134340.02	4134340.18	4134340.35	0.0282	0.0175
Mercury	6607-06-12 08:52 G	4134378.70	4134378.87	4134379.04	0.0281	0.0019
Mercury	6607-09-09 04:04 G	4134467.54	4134467.67	4134467.82	0.0281	0.0159
Earth	6612-08-16 23:45 G	4136271.39	4136271.49	4136271.60	0.0272	0.0246
Moon	6612-08-17 00:14 G	4136271.43	4136271.51	4136271.61	0.0272	0.0254 *
Mars	6617-06-01 20:09 G	4138021.14	4138021.34	4138021.55	0.0270	0.0177
Venus	6621-10-11 15:07 G	4139613.96	4139614.13	4139614.31	0.0276	0.0153
Mercury	6622-04-13 12:00 G	4139797.94	4139798.00	4139798.08	0.0277	0.0240
Venus	6622-05-29 01:11 G	4139843.34	4139843.55	4139843.75	0.0277	0.0062
Mercury	6622-07-11 01:11 G	4139886.42	4139886.55	4139886.68	0.0278	0.0128
Mercury	6622-10-07 14:09 G	4139974.94	4139975.09	4139975.23	0.0278	0.0019
Mercury	6623-01-04 02:38 G	4140063.48	4140063.61	4140063.75	0.0279	0.0093
Mercury	6623-04-02 15:07 G	4140152.04	4140152.13	4140152.23	0.0279	0.0201
Moon	6628-02-23 06:14 G	4141939.51	4141939.76	4141940.01	0.0288	0.0031
Earth	6628-02-23 06:57 G	4141939.55	4141939.79	4141940.03	0.0288	0.0016 *
Venus	6635-08-12 20:38 G	4144667.26	4144667.36	4144667.46	0.0284	0.0247
Venus	6636-03-29 11:16 G	4144896.76	4144896.97	4144897.18	0.0283	0.0015

Mercury	6636-05-04 20:24 G	4144933.35	4144933.35	4144933.37	0.0283	0.0282
Mercury	6636-08-01 15:07 G	4145021.99	4145022.13	4145022.28	0.0282	0.0147
Mercury	6636-10-29 10:19 G	4145110.76	4145110.93	4145111.09	0.0282	0.0013
Venus	6636-11-14 00:43 G	4145126.40	4145126.53	4145126.67	0.0282	0.0213
Mercury	6637-01-26 05:31 G	4145199.58	4145199.73	4145199.88	0.0281	0.0129
Mercury	6637-04-25 00:57 G	4145288.50	4145288.54	4145288.59	0.0281	0.0270
Earth	6642-08-24 11:16 G	4147235.73	4147235.97	4147236.22	0.0271	0.0061
Moon	6642-08-24 14:38 G	4147235.87	4147236.11	4147236.36	0.0271	0.0048 *
Venus	6651-04-23 18:00 G	4150400.07	4150400.25	4150400.44	0.0276	0.0129
Mercury	6651-11-28 02:24 G	4150618.49	4150618.60	4150618.72	0.0277	0.0165
Venus	6651-12-09 03:50 G	4150629.46	4150629.66	4150629.87	0.0277	0.0087
Mercury	6652-02-24 15:21 G	4150707.00	4150707.14	4150707.28	0.0278	0.0054
Mercury	6652-05-23 04:04 G	4150795.53	4150795.67	4150795.81	0.0278	0.0056
Mercury	6652-08-19 16:33 G	4150884.08	4150884.19	4150884.31	0.0279	0.0165
Mercury	6652-11-16 05:02 G	4150972.68	4150972.71	4150972.74	0.0279	0.0272
Venus	6665-02-22 00:57 G	4155453.42	4155453.54	4155453.68	0.0284	0.0220
Venus	6665-10-09 15:50 G	4155682.95	4155683.16	4155683.37	0.0283	0.0013
Mercury	6665-12-19 14:52 G	4155754.00	4155754.12	4155754.25	0.0282	0.0189
Mercury	6666-03-18 09:50 G	4155842.75	4155842.91	4155843.08	0.0282	0.0053
Venus	6666-05-27 05:16 G	4155912.62	4155912.72	4155912.84	0.0281	0.0240
Mercury	6666-06-15 05:02 G	4155931.55	4155931.71	4155931.88	0.0281	0.0086
Mercury	6666-09-12 00:28 G	4156020.43	4156020.52	4156020.63	0.0281	0.0227
Moon	6671-08-19 05:45 G	4157822.56	4157822.74	4157822.92	0.0272	0.0187
Earth	6671-08-19 08:38 G	4157822.68	4157822.86	4157823.06	0.0272	0.0176 *
Venus	6680-11-03 03:35 G	4161186.45	4161186.65	4161186.85	0.0277	0.0090
Mercury	6681-04-16 05:45 G	4161350.64	4161350.74	4161350.85	0.0277	0.0184
Venus	6681-06-20 13:40 G	4161415.89	4161416.07	4161416.27	0.0278	0.0127
Mercury	6681-07-13 18:43 G	4161439.15	4161439.28	4161439.42	0.0278	0.0074
Mercury	6681-10-10 07:40 G	4161527.68	4161527.82	4161527.96	0.0278	0.0038
Mercury	6682-01-06 20:09 G	4161616.23	4161616.34	4161616.46	0.0279	0.0147

Mercury	6682-04-05 08:38 G	4161704.81	4161704.86	4161704.92	0.0279	0.0254
Moon	6687-02-24 18:00 G	4163491.01	4163491.25	4163491.49	0.0288	0.0057
Earth	6687-02-24 21:35 G	4163491.17	4163491.40	4163491.64	0.0288	0.0071 *
Venus	6694-09-04 11:31 G	4166239.82	4166239.98	4166240.15	0.0284	0.0177
Venus	6695-04-22 01:55 G	4166469.38	4166469.58	4166469.79	0.0282	0.0054
Mercury	6695-05-08 17:02 G	4166486.11	4166486.21	4166486.32	0.0282	0.0213
Mercury	6695-08-05 11:45 G	4166574.83	4166574.99	4166575.16	0.0282	0.0078
Mercury	6695-11-02 06:57 G	4166663.63	4166663.79	4166663.96	0.0281	0.0061
Venus	6695-12-07 14:52 G	4166699.12	4166699.12	4166699.15	0.0281	0.0280
Mercury	6696-01-30 02:24 G	4166752.48	4166752.60	4166752.72	0.0281	0.0200
Earth	6701-08-26 21:50 G	4168787.20	4168787.41	4168787.64	0.0271	0.0134
Moon	6701-08-27 00:28 G	4168787.30	4168787.52	4168787.76	0.0271	0.0121 *
Mars	6705-10-27 21:07 G	4170310.27	4170310.38	4170310.51	0.0270	0.0240
Venus	6710-05-17 06:57 G	4171972.59	4171972.79	4171973.00	0.0276	0.0066
Mercury	6710-09-04 07:11 G	4172082.72	4172082.80	4172082.89	0.0277	0.0221
Mercury	6710-12-01 20:09 G	4172171.21	4172171.34	4172171.48	0.0277	0.0109
Venus	6711-01-01 17:02 G	4172202.04	4172202.21	4172202.39	0.0278	0.0152
Mercury	6711-02-28 09:07 G	4172259.74	4172259.88	4172260.02	0.0278	0.0001
Mercury	6711-05-27 21:50 G	4172348.28	4172348.41	4172348.54	0.0278	0.0111
Mercury	6711-08-24 10:19 G	4172436.84	4172436.93	4172437.01	0.0279	0.0218
Earth	6716-02-20 01:26 G	4174077.41	4174077.56	4174077.71	0.0288	0.0226
Moon	6716-02-20 04:48 G	4174077.58	4174077.70	4174077.84	0.0288	0.0241 *
Mars	6719-10-25 18:14 G	4175421.24	4175421.26	4175421.32	0.0290	0.0287
Venus	6724-03-17 15:21 G	4177025.97	4177026.14	4177026.32	0.0284	0.0151
Mercury	6724-09-25 16:33 G	4177218.13	4177218.19	4177218.26	0.0283	0.0256
Venus	6724-11-02 05:45 G	4177255.54	4177255.74	4177255.95	0.0282	0.0080
Mercury	6724-12-23 11:16 G	4177306.82	4177306.97	4177307.12	0.0282	0.0121
Mercury	6725-03-22 06:28 G	4177395.60	4177395.77	4177395.93	0.0281	0.0018
Mercury	6725-06-19 01:40 G	4177484.43	4177484.57	4177484.71	0.0281	0.0155
Moon	6730-08-21 15:50 G	4179373.95	4179374.16	4179374.39	0.0271	0.0116

Earth	6730-08-21 18:43 G	4179374.06	4179374.28	4179374.52	0.0271	0.0105 *
Venus	6739-04-12 06:14 G	4182529.67	4182529.76	4182529.87	0.0276	0.0241
Venus	6739-11-27 16:04 G	4182758.96	4182759.17	4182759.38	0.0277	0.0027
Mercury	6740-01-22 10:19 G	4182814.87	4182814.93	4182815.00	0.0277	0.0242
Mercury	6740-04-19 23:31 G	4182903.35	4182903.48	4182903.61	0.0278	0.0130
Venus	6740-07-14 02:09 G	4182988.45	4182988.59	4182988.76	0.0278	0.0192
Mercury	6740-07-17 12:28 G	4182991.88	4182992.02	4182992.16	0.0278	0.0020
Mercury	6740-10-14 01:11 G	4183080.42	4183080.55	4183080.68	0.0279	0.0091
Mercury	6741-01-10 13:40 G	4183168.98	4183169.07	4183169.17	0.0279	0.0199
Moon	6746-02-27 09:07 G	4185042.69	4185042.88	4185043.09	0.0289	0.0143
Earth	6746-02-27 11:02 G	4185042.76	4185042.96	4185043.17	0.0289	0.0155 *
Venus	6753-09-28 02:38 G	4187812.41	4187812.61	4187812.80	0.0283	0.0108
Mercury	6754-02-12 18:57 G	4187950.27	4187950.29	4187950.33	0.0283	0.0278
Mercury	6754-05-12 13:40 G	4188038.93	4188039.07	4188039.22	0.0282	0.0144
Venus	6754-05-15 16:33 G	4188042.00	4188042.19	4188042.38	0.0282	0.0123
Mercury	6754-08-09 08:38 G	4188127.69	4188127.86	4188128.03	0.0282	0.0007
Mercury	6754-11-06 03:50 G	4188216.51	4188216.66	4188216.81	0.0281	0.0132
Mercury	6755-02-02 23:16 G	4188305.44	4188305.47	4188305.52	0.0280	0.0272
Moon	6760-08-28 07:40 G	4190338.65	4190338.82	4190339.01	0.0270	0.0192
Earth	6760-08-28 09:21 G	4190338.73	4190338.89	4190339.05	0.0270	0.0207 *
Mars	6764-02-05 20:09 G	4191595.19	4191595.34	4191595.51	0.0269	0.0220
Venus	6768-10-22 09:50 G	4193315.79	4193315.91	4193316.05	0.0275	0.0216
Venus	6769-06-08 19:26 G	4193545.10	4193545.31	4193545.53	0.0276	0.0005
Mercury	6769-09-07 00:57 G	4193635.43	4193635.54	4193635.65	0.0277	0.0166
Mercury	6769-12-04 13:55 G	4193723.94	4193724.08	4193724.22	0.0278	0.0055
Venus	6770-01-24 05:45 G	4193774.61	4193774.74	4193774.88	0.0278	0.0215
Mercury	6770-03-03 02:38 G	4193812.47	4193812.61	4193812.75	0.0278	0.0055
Mercury	6770-05-30 15:07 G	4193901.02	4193901.13	4193901.25	0.0279	0.0164
Mercury	6770-08-27 03:35 G	4193989.62	4193989.65	4193989.69	0.0279	0.0271
Earth	6775-02-21 14:23 G	4195628.90	4195629.10	4195629.32	0.0288	0.0143

Moon	6775-02-21 16:19 G	4195628.98	4195629.18	4195629.40	0.0288	0.0157 *
Venus	6783-04-10 05:45 G	4198598.54	4198598.74	4198598.94	0.0283	0.0083
Mercury	6783-09-29 12:43 G	4198770.91	4198771.03	4198771.16	0.0282	0.0190
Venus	6783-11-25 19:55 G	4198828.15	4198828.33	4198828.51	0.0282	0.0147
Mercury	6783-12-27 07:40 G	4198859.66	4198859.82	4198859.99	0.0282	0.0053
Mercury	6784-03-25 02:52 G	4198948.46	4198948.62	4198948.78	0.0281	0.0085
Mercury	6784-06-21 22:19 G	4199037.33	4199037.43	4199037.54	0.0281	0.0225
Earth	6789-08-23 04:48 G	4200925.45	4200925.70	4200925.95	0.0271	0.0033
Moon	6789-08-23 06:00 G	4200925.52	4200925.75	4200925.99	0.0271	0.0047 *
Venus	6798-05-04 18:00 G	4204102.09	4204102.25	4204102.41	0.0276	0.0180
Venus	6798-12-20 03:50 G	4204331.45	4204331.66	4204331.87	0.0277	0.0035
Mercury	6799-01-25 03:50 G	4204367.56	4204367.66	4204367.77	0.0278	0.0189
Mercury	6799-04-23 16:48 G	4204456.07	4204456.20	4204456.34	0.0278	0.0078
Mercury	6799-07-21 05:45 G	4204544.60	4204544.74	4204544.88	0.0279	0.0033
Venus	6799-08-06 14:23 G	4204561.02	4204561.10	4204561.19	0.0279	0.0253
Mercury	6799-10-17 18:28 G	4204633.15	4204633.27	4204633.39	0.0279	0.0142
Mercury	6800-01-14 06:57 G	4204721.73	4204721.79	4204721.85	0.0280	0.0250
Earth	6805-02-28 23:02 G	4206594.33	4206594.46	4206594.61	0.0289	0.0236
Moon	6805-03-01 01:11 G	4206594.41	4206594.55	4206594.70	0.0289	0.0225 *
Mars	6808-03-22 04:04 G	4207711.42	4207711.67	4207711.96	0.0290	0.0151
Venus	6812-03-05 01:40 G	4209155.52	4209155.57	4209155.63	0.0284	0.0273
Venus	6812-10-20 16:33 G	4209384.99	4209385.19	4209385.41	0.0283	0.0041
Mercury	6813-02-15 15:07 G	4209503.03	4209503.13	4209503.25	0.0282	0.0212
Mercury	6813-05-15 10:04 G	4209591.76	4209591.92	4209592.08	0.0282	0.0076
Venus	6813-06-07 06:14 G	4209614.61	4209614.76	4209614.93	0.0282	0.0189
Mercury	6813-08-12 05:02 G	4209680.55	4209680.71	4209680.88	0.0281	0.0062
Mercury	6813-11-09 00:28 G	4209769.41	4209769.52	4209769.64	0.0281	0.0201
Earth	6818-08-18 06:00 G	4211512.70	4211512.75	4211512.82	0.0272	0.0264
Moon	6819-08-30 16:04 G	4211890.13	4211890.17	4211890.24	0.0270	0.0264
Venus	6827-11-14 21:50 G	4214888.24	4214888.41	4214888.59	0.0275	0.0155

Mercury	6828-06-13 05:16 G	4215099.64	4215099.72	4215099.81	0.0277	0.0224
Venus	6828-07-01 07:26 G	4215117.61	4215117.81	4215118.02	0.0277	0.0060
Mercury	6828-09-09 18:28 G	4215188.14	4215188.27	4215188.40	0.0277	0.0113
Mercury	6828-12-07 07:26 G	4215276.66	4215276.81	4215276.95	0.0278	0.0008
Venus	6829-02-15 17:45 G	4215347.24	4215347.24	4215347.27	0.0278	0.0277
Mercury	6829-03-05 19:55 G	4215365.20	4215365.33	4215365.46	0.0278	0.0107
Mercury	6829-06-02 08:38 G	4215453.77	4215453.86	4215453.94	0.0279	0.0214
Moon	6834-02-22 23:31 G	4217180.24	4217180.48	4217180.72	0.0288	0.0077
Earth	6834-02-23 01:55 G	4217180.34	4217180.58	4217180.82	0.0288	0.0063 *
Venus	6841-09-15 03:36 G	4219941.56	4219941.65	4219941.76	0.0284	0.0250
Venus	6842-05-02 18:57 G	4220171.08	4220171.29	4220171.50	0.0283	0.0017
Mercury	6842-07-05 13:55 G	4220235.03	4220235.08	4220235.15	0.0283	0.0260
Mercury	6842-10-02 08:38 G	4220323.72	4220323.86	4220324.02	0.0282	0.0125
Venus	6842-12-18 08:38 G	4220400.73	4220400.86	4220401.00	0.0282	0.0212
Mercury	6842-12-30 03:50 G	4220412.49	4220412.66	4220412.83	0.0282	0.0012
Mercury	6843-03-28 23:02 G	4220501.32	4220501.46	4220501.61	0.0281	0.0151
Earth	6848-08-24 13:55 G	4222476.84	4222477.08	4222477.33	0.0271	0.0037
Moon	6848-08-24 18:00 G	4222477.00	4222477.25	4222477.50	0.0271	0.0022 *
Mars	6852-07-01 23:45 G	4223884.27	4223884.49	4223884.72	0.0270	0.0149
Venus	6857-05-27 04:19 G	4225674.50	4225674.68	4225674.88	0.0276	0.0123
Mercury	6857-10-31 07:40 G	4225831.77	4225831.82	4225831.89	0.0277	0.0251
Venus	6858-01-11 14:23 G	4225903.90	4225904.10	4225904.30	0.0278	0.0094
Mercury	6858-01-27 20:52 G	4225920.25	4225920.37	4225920.50	0.0278	0.0139
Mercury	6858-04-26 09:50 G	4226008.77	4226008.91	4226009.06	0.0278	0.0029
Mercury	6858-07-23 22:48 G	4226097.31	4226097.45	4226097.58	0.0279	0.0082
Mercury	6858-10-20 11:16 G	4226185.87	4226185.97	4226186.07	0.0279	0.0190
Venus	6871-03-28 14:52 G	4230727.98	4230728.12	4230728.27	0.0284	0.0208
Venus	6871-11-13 05:45 G	4230957.53	4230957.74	4230957.95	0.0283	0.0025
Mercury	6871-11-22 16:33 G	4230967.18	4230967.19	4230967.21	0.0283	0.0282
Mercury	6872-02-19 11:16 G	4231055.83	4231055.97	4231056.11	0.0282	0.0148

Mercury	6872-05-18 06:00 G	4231144.59	4231144.75	4231144.92	0.0282	0.0014
Venus	6872-06-29 19:11 G	4231187.22	4231187.30	4231187.40	0.0281	0.0252
Mercury	6872-08-15 01:26 G	4231233.40	4231233.56	4231233.71	0.0281	0.0128
Mercury	6872-11-11 20:52 G	4231322.32	4231322.37	4231322.42	0.0281	0.0268
Moon	6877-08-19 12:14 G	4233063.86	4233064.01	4233064.18	0.0271	0.0206
Earth	6877-08-19 16:04 G	4233064.00	4233064.17	4233064.35	0.0271	0.0192 *
Venus	6886-12-07 08:52 G	4236460.67	4236460.87	4236461.07	0.0275	0.0096
Mercury	6887-06-16 22:33 G	4236652.33	4236652.44	4236652.56	0.0277	0.0174
Venus	6887-07-24 18:28 G	4236690.08	4236690.27	4236690.46	0.0277	0.0119
Mercury	6887-09-13 11:31 G	4236740.85	4236740.98	4236741.12	0.0277	0.0064
Mercury	6887-12-11 00:28 G	4236829.38	4236829.52	4236829.66	0.0278	0.0047
Mercury	6888-03-08 12:57 G	4236917.93	4236918.04	4236918.16	0.0278	0.0155
Mercury	6888-06-05 01:11 G	4237006.52	4237006.55	4237006.61	0.0279	0.0262
Moon	6893-02-24 07:26 G	4238731.57	4238731.81	4238732.05	0.0289	0.0002
Earth	6893-02-24 10:48 G	4238731.71	4238731.95	4238732.20	0.0289	0.0014 *
Mars	6896-08-15 16:04 G	4239999.88	4240000.17	4240000.48	0.0290	0.0089
Venus	6900-10-08 15:50 G	4241514.01	4241514.16	4241514.33	0.0284	0.0186
Venus	6901-05-26 06:43 G	4241743.57	4241743.78	4241743.99	0.0283	0.0046
Mercury	6901-07-09 09:21 G	4241787.78	4241787.89	4241788.01	0.0283	0.0199
Mercury	6901-10-06 04:19 G	4241876.51	4241876.68	4241876.84	0.0282	0.0064
Mercury	6902-01-02 23:16 G	4241965.31	4241965.47	4241965.64	0.0281	0.0074
Venus	6902-01-10 20:09 G	4241973.30	4241973.34	4241973.40	0.0281	0.0273
Mercury	6902-04-01 18:43 G	4242054.17	4242054.28	4242054.39	0.0281	0.0214
Earth	6907-08-27 21:50 G	4244028.19	4244028.41	4244028.64	0.0271	0.0104
Moon	6907-08-27 22:04 G	4244028.19	4244028.42	4244028.67	0.0271	0.0089 *
Venus	6916-06-19 14:09 G	4247246.89	4247247.09	4247247.30	0.0276	0.0065
Mercury	6916-11-04 00:43 G	4247384.44	4247384.53	4247384.63	0.0277	0.0203
Mercury	6917-01-31 13:55 G	4247472.94	4247473.08	4247473.21	0.0278	0.0092
Venus	6917-02-04 00:14 G	4247476.33	4247476.51	4247476.69	0.0278	0.0152
Mercury	6917-04-30 02:38 G	4247561.47	4247561.61	4247561.75	0.0278	0.0019

Mercury	6917-07-27 15:21 G	4247650.02	4247650.14	4247650.27	0.0279	0.0127
Mercury	6917-10-24 03:50 G	4247738.59	4247738.66	4247738.74	0.0279	0.0235
Earth	6922-02-19 23:45 G	4249318.41	4249318.49	4249318.61	0.0288	0.0264
Moon	6922-02-20 03:07 G	4249318.58	4249318.63	4249318.71	0.0288	0.0277 *
Venus	6930-04-21 02:09 G	4252300.41	4252300.59	4252300.77	0.0284	0.0147
Mercury	6930-11-26 11:31 G	4252519.88	4252519.98	4252520.08	0.0283	0.0224
Venus	6930-12-06 16:48 G	4252530.00	4252530.20	4252530.40	0.0283	0.0085
Mercury	6931-02-23 06:14 G	4252608.60	4252608.76	4252608.92	0.0282	0.0089
Mercury	6931-05-23 01:26 G	4252697.39	4252697.56	4252697.72	0.0282	0.0049
Mercury	6931-08-19 20:38 G	4252786.24	4252786.36	4252786.49	0.0281	0.0188
Moon	6936-08-21 23:31 G	4254615.28	4254615.48	4254615.69	0.0271	0.0137
Earth	6936-08-22 00:00 G	4254615.29	4254615.50	4254615.73	0.0271	0.0124 *
Mars	6940-11-27 04:04 G	4256173.41	4256173.67	4256173.94	0.0269	0.0079
Venus	6945-05-15 09:50 G	4257803.83	4257803.91	4257804.00	0.0274	0.0251
Venus	6945-12-30 18:43 G	4258033.07	4258033.28	4258033.49	0.0276	0.0040
Mercury	6946-03-24 02:23 G	4258116.53	4258116.60	4258116.67	0.0276	0.0237
Mercury	6946-06-20 15:21 G	4258205.02	4258205.14	4258205.27	0.0277	0.0127
Venus	6946-08-17 04:04 G	4258262.52	4258262.67	4258262.85	0.0277	0.0176
Mercury	6946-09-17 04:19 G	4258293.54	4258293.68	4258293.82	0.0277	0.0017
Mercury	6946-12-14 17:02 G	4258382.08	4258382.21	4258382.34	0.0278	0.0092
Mercury	6947-03-13 05:31 G	4258470.64	4258470.73	4258470.83	0.0278	0.0199
Earth	6952-02-27 16:48 G	4260282.97	4260283.20	4260283.43	0.0289	0.0083
Moon	6952-02-27 17:31 G	4260283.01	4260283.23	4260283.46	0.0289	0.0074 *
Venus	6959-11-01 02:38 G	4263086.42	4263086.61	4263086.80	0.0284	0.0125
Mercury	6960-04-14 09:36 G	4263251.87	4263251.90	4263251.93	0.0283	0.0277
Venus	6960-06-17 17:02 G	4263316.02	4263316.21	4263316.41	0.0283	0.0106
Mercury	6960-07-12 04:04 G	4263340.53	4263340.67	4263340.82	0.0283	0.0144
Mercury	6960-10-08 23:16 G	4263429.30	4263429.47	4263429.63	0.0282	0.0010
Mercury	6961-01-05 18:14 G	4263518.12	4263518.26	4263518.42	0.0281	0.0133
Mercury	6961-04-04 13:55 G	4263607.05	4263607.08	4263607.12	0.0281	0.0272

Moon	6966-08-29 00:28 G	4265579.32	4265579.52	4265579.73	0.0270	0.0153
Earth	6966-08-29 03:50 G	4265579.48	4265579.66	4265579.87	0.0270	0.0169 *
Venus	6974-11-25 13:40 G	4268589.95	4268590.07	4268590.20	0.0275	0.0223
Venus	6975-07-12 22:48 G	4268819.24	4268819.45	4268819.66	0.0277	0.0011
Mercury	6975-08-11 04:04 G	4268848.64	4268848.67	4268848.70	0.0277	0.0270
Mercury	6975-11-07 17:02 G	4268937.10	4268937.21	4268937.33	0.0277	0.0160
Mercury	6976-02-04 06:14 G	4269025.62	4269025.76	4269025.90	0.0278	0.0049
Venus	6976-02-27 08:38 G	4269048.73	4269048.86	4269049.01	0.0278	0.0206
Mercury	6976-05-02 18:57 G	4269114.15	4269114.29	4269114.43	0.0278	0.0061
Mercury	6976-07-30 07:26 G	4269202.71	4269202.81	4269202.93	0.0279	0.0169
Mercury	6976-10-26 19:55 G	4269291.32	4269291.33	4269291.35	0.0279	0.0276
Moon	6981-02-21 02:23 G	4270869.44	4270869.60	4270869.78	0.0288	0.0208
Earth	6981-02-21 03:50 G	4270869.49	4270869.66	4270869.84	0.0288	0.0198 *
Mars	6985-01-10 21:07 G	4272289.07	4272289.38	4272289.70	0.0290	0.0006
Venus	6989-05-13 11:31 G	4273872.78	4273872.98	4273873.18	0.0284	0.0089
Mercury	6989-11-29 05:45 G	4274072.61	4274072.74	4274072.88	0.0283	0.0172
Venus	6989-12-29 01:55 G	4274102.41	4274102.58	4274102.77	0.0283	0.0143
Mercury	6990-02-26 00:43 G	4274161.36	4274161.53	4274161.70	0.0282	0.0036
Mercury	6990-05-25 19:55 G	4274250.17	4274250.33	4274250.49	0.0282	0.0102
Mercury	6990-08-22 15:21 G	4274339.06	4274339.14	4274339.23	0.0281	0.0243
Earth	6995-08-24 05:31 G	4276166.50	4276166.73	4276166.98	0.0271	0.0060
Moon	6995-08-24 08:52 G	4276166.64	4276166.87	4276167.11	0.0271	0.0073 *

8TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 8th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	7004-06-07 18:43	G	4279376.14	4279376.28	4279376.43	0.0274	0.0197	
Venus	7005-01-23 03:36	G	4279605.44	4279605.65	4279605.86	0.0276	0.0015	
Mercury	7005-03-27 18:57	G	4279669.19	4279669.29	4279669.40	0.0276	0.0192	
Mercury	7005-06-24 07:55	G	4279757.70	4279757.83	4279757.97	0.0277	0.0082	
Venus	7005-09-09 13:11	G	4279834.95	4279835.05	4279835.18	0.0277	0.0231	
Mercury	7005-09-20 20:52	G	4279846.23	4279846.37	4279846.51	0.0277	0.0027	
Mercury	7005-12-18 09:21	G	4279934.77	4279934.89	4279935.02	0.0278	0.0135	
Mercury	7006-03-16 21:50	G	4280023.35	4280023.41	4280023.48	0.0278	0.0241	
Earth	7011-03-01 20:38	G	4281834.16	4281834.36	4281834.58	0.0289	0.0148	
Moon	7011-03-02 00:28	G	4281834.32	4281834.52	4281834.74	0.0289	0.0143	*
Venus	7018-11-24 11:16	G	4284658.77	4284658.97	4284659.18	0.0284	0.0069	
Mercury	7019-04-19 03:36	G	4284804.55	4284804.65	4284804.75	0.0283	0.0227	
Venus	7019-07-12 01:40	G	4284888.40	4284888.57	4284888.74	0.0283	0.0162	
Mercury	7019-07-16 22:19	G	4284893.27	4284893.43	4284893.59	0.0282	0.0092	
Mercury	7019-10-13 17:16	G	4284982.05	4284982.22	4284982.39	0.0282	0.0045	
Mercury	7020-01-10 12:28	G	4285070.90	4285071.02	4285071.16	0.0281	0.0185	
Moon	7025-08-31 06:00	G	4287130.61	4287130.75	4287130.90	0.0270	0.0216	
Earth	7025-08-31 08:09	G	4287130.71	4287130.84	4287130.97	0.0270	0.0229	*
Mars	7029-04-23 15:21	G	4288461.87	4288462.14	4288462.42	0.0269	0.0038	
Venus	7033-12-18 21:21	G	4290162.23	4290162.39	4290162.56	0.0275	0.0171	
Venus	7034-08-05 06:28	G	4290391.56	4290391.77	4290391.98	0.0277	0.0042	
Mercury	7034-08-14 20:09	G	4290401.27	4290401.34	4290401.43	0.0277	0.0228	
Mercury	7034-11-11 09:21	G	4290489.76	4290489.89	4290490.02	0.0277	0.0117	
Mercury	7035-02-07 22:19	G	4290578.29	4290578.43	4290578.57	0.0278	0.0008	
Venus	7035-03-22 16:19	G	4290621.11	4290621.18	4290621.26	0.0278	0.0258	
Mercury	7035-05-07 11:02	G	4290666.83	4290666.96	4290667.09	0.0278	0.0101	
Mercury	7035-08-03 23:31	G	4290755.39	4290755.48	4290755.57	0.0279	0.0208	

Moon	7040-02-24 01:40 G	4292420.36	4292420.57	4292420.78	0.0288	0.0145
Earth	7040-02-24 05:16 G	4292420.51	4292420.72	4292420.93	0.0288	0.0138 *
Venus	7047-10-20 03:36 G	4295215.59	4295215.65	4295215.72	0.0285	0.0269
Venus	7048-06-05 19:11 G	4295445.09	4295445.30	4295445.51	0.0284	0.0035
Mercury	7048-09-05 04:33 G	4295536.64	4295536.69	4295536.77	0.0283	0.0260
Mercury	7048-12-02 23:16 G	4295625.33	4295625.47	4295625.63	0.0283	0.0125
Venus	7049-01-21 09:36 G	4295674.76	4295674.90	4295675.06	0.0282	0.0196
Mercury	7049-03-01 18:28 G	4295714.10	4295714.27	4295714.44	0.0282	0.0013
Mercury	7049-05-29 13:40 G	4295802.93	4295803.07	4295803.22	0.0282	0.0152
Earth	7054-08-26 09:21 G	4297717.64	4297717.89	4297718.14	0.0271	0.0004
Moon	7054-08-26 12:00 G	4297717.75	4297718.00	4297718.26	0.0271	0.0012 *
Venus	7063-07-01 02:23 G	4300948.43	4300948.60	4300948.79	0.0275	0.0145
Mercury	7064-01-01 22:04 G	4301133.38	4301133.42	4301133.48	0.0276	0.0260
Venus	7064-02-15 11:31 G	4301177.78	4301177.98	4301178.19	0.0276	0.0068
Mercury	7064-03-30 11:16 G	4301221.85	4301221.97	4301222.10	0.0276	0.0149
Mercury	7064-06-27 00:14 G	4301310.37	4301310.51	4301310.65	0.0277	0.0040
Mercury	7064-09-23 12:57 G	4301398.90	4301399.04	4301399.18	0.0277	0.0068
Mercury	7064-12-21 01:26 G	4301487.46	4301487.56	4301487.67	0.0278	0.0175
Earth	7070-03-02 22:48 G	4303385.29	4303385.45	4303385.62	0.0288	0.0210
Moon	7070-03-02 23:31 G	4303385.31	4303385.48	4303385.66	0.0288	0.0207 *
Mars	7073-06-06 08:23 G	4304576.53	4304576.85	4304577.16	0.0290	0.0019
Venus	7077-05-01 03:07 G	4306001.54	4306001.63	4306001.74	0.0285	0.0249
Venus	7077-12-16 18:43 G	4306231.07	4306231.28	4306231.49	0.0284	0.0015
Mercury	7078-04-21 20:52 G	4306357.25	4306357.37	4306357.50	0.0283	0.0181
Mercury	7078-07-19 15:50 G	4306445.99	4306446.16	4306446.32	0.0282	0.0045
Venus	7078-08-03 08:52 G	4306460.74	4306460.87	4306461.01	0.0282	0.0214
Mercury	7078-10-16 10:48 G	4306534.79	4306534.95	4306535.11	0.0282	0.0093
Mercury	7079-01-13 06:14 G	4306623.67	4306623.76	4306623.86	0.0281	0.0233
Moon	7083-08-20 16:48 G	4308304.18	4308304.20	4308304.23	0.0272	0.0270
Earth	7083-08-20 19:26 G	4308304.23	4308304.31	4308304.40	0.0272	0.0255 *

Venus	7093-01-10 04:19 G	4311734.49	4311734.68	4311734.87	0.0275	0.0121
Mercury	7093-08-17 12:14 G	4311953.91	4311954.01	4311954.12	0.0277	0.0188
Venus	7093-08-27 13:26 G	4311963.87	4311964.06	4311964.27	0.0277	0.0094
Mercury	7093-11-14 01:26 G	4312042.42	4312042.56	4312042.69	0.0277	0.0078
Mercury	7094-02-10 14:09 G	4312130.95	4312131.09	4312131.23	0.0278	0.0032
Mercury	7094-05-10 02:52 G	4312219.50	4312219.62	4312219.74	0.0278	0.0139
Mercury	7094-08-06 15:07 G	4312308.07	4312308.13	4312308.20	0.0279	0.0246
Moon	7099-02-25 04:48 G	4313971.48	4313971.70	4313971.93	0.0288	0.0084
Earth	7099-02-25 05:31 G	4313971.50	4313971.73	4313971.97	0.0288	0.0079 *
Venus	7106-11-12 09:50 G	4316787.79	4316787.91	4316788.06	0.0285	0.0218
Venus	7107-06-30 01:26 G	4317017.35	4317017.56	4317017.77	0.0284	0.0016
Mercury	7107-09-09 21:36 G	4317089.30	4317089.40	4317089.51	0.0283	0.0216
Mercury	7107-12-07 16:33 G	4317178.02	4317178.19	4317178.35	0.0283	0.0081
Venus	7108-02-14 15:50 G	4317247.06	4317247.16	4317247.27	0.0282	0.0246
Mercury	7108-03-05 11:31 G	4317266.82	4317266.98	4317267.15	0.0282	0.0057
Mercury	7108-06-02 06:57 G	4317355.67	4317355.79	4317355.91	0.0282	0.0197
Moon	7113-08-28 08:52 G	4319268.62	4319268.87	4319269.13	0.0272	0.0045
Earth	7113-08-28 10:33 G	4319268.71	4319268.94	4319269.19	0.0272	0.0060 *
Mars	7117-09-18 13:40 G	4320750.80	4320751.07	4320751.35	0.0269	0.0025
Venus	7122-07-24 10:04 G	4322520.72	4322520.92	4322521.12	0.0275	0.0092
Mercury	7123-01-05 14:23 G	4322686.02	4322686.10	4322686.19	0.0276	0.0218
Venus	7123-03-10 18:57 G	4322750.11	4322750.29	4322750.49	0.0276	0.0121
Mercury	7123-04-04 03:36 G	4322774.52	4322774.65	4322774.78	0.0276	0.0108
Mercury	7123-07-01 16:19 G	4322863.04	4322863.18	4322863.32	0.0277	0.0001
Mercury	7123-09-28 05:02 G	4322951.58	4322951.71	4322951.84	0.0277	0.0108
Mercury	7123-12-25 17:31 G	4323040.14	4323040.23	4323040.31	0.0278	0.0214
Moon	7129-03-04 20:09 G	4324936.26	4324936.34	4324936.42	0.0288	0.0271
Earth	7129-03-04 23:31 G	4324936.39	4324936.48	4324936.56	0.0288	0.0269 *
Venus	7136-05-24 09:36 G	4327573.75	4327573.90	4327574.06	0.0285	0.0197
Venus	7137-01-09 00:57 G	4327803.33	4327803.54	4327803.75	0.0284	0.0037

Mercury	7137-01-26 19:11 G	4327821.26	4327821.30	4327821.35	0.0284	0.0272
Mercury	7137-04-25 13:55 G	4327909.94	4327910.08	4327910.23	0.0283	0.0137
Mercury	7137-07-23 08:52 G	4327998.70	4327998.87	4327999.04	0.0283	0.0001
Venus	7137-08-26 14:52 G	4328033.06	4328033.12	4328033.20	0.0282	0.0265
Mercury	7137-10-20 04:04 G	4328087.52	4328087.67	4328087.82	0.0282	0.0138
Mercury	7138-01-16 23:31 G	4328176.47	4328176.48	4328176.51	0.0281	0.0279
Earth	7142-08-22 20:09 G	4329855.18	4329855.34	4329855.51	0.0272	0.0199
Moon	7142-08-22 22:19 G	4329855.29	4329855.43	4329855.58	0.0272	0.0215 *
Venus	7152-02-03 11:02 G	4333306.76	4333306.96	4333307.17	0.0275	0.0070
Mercury	7152-05-24 15:07 G	4333418.08	4333418.13	4333418.18	0.0276	0.0258
Mercury	7152-08-21 04:04 G	4333506.56	4333506.67	4333506.80	0.0276	0.0149
Venus	7152-09-19 20:23 G	4333536.17	4333536.35	4333536.53	0.0277	0.0144
Mercury	7152-11-17 17:16 G	4333595.08	4333595.22	4333595.36	0.0277	0.0039
Mercury	7153-02-14 06:00 G	4333683.61	4333683.75	4333683.88	0.0278	0.0070
Mercury	7153-05-13 18:28 G	4333772.16	4333772.27	4333772.38	0.0278	0.0176
Earth	7158-02-27 04:48 G	4335522.46	4335522.70	4335522.94	0.0288	0.0022
Moon	7158-02-27 07:55 G	4335522.59	4335522.83	4335523.07	0.0288	0.0024 *
Mars	7161-10-31 08:52 G	4336864.57	4336864.87	4336865.18	0.0290	0.0058
Venus	7165-12-04 15:21 G	4338359.98	4338360.14	4338360.32	0.0285	0.0168
Venus	7166-07-22 06:57 G	4338589.58	4338589.79	4338589.99	0.0283	0.0066
Mercury	7166-09-12 14:23 G	4338641.97	4338642.10	4338642.23	0.0283	0.0176
Mercury	7166-12-10 09:07 G	4338730.71	4338730.88	4338731.05	0.0283	0.0039
Mercury	7167-03-09 04:19 G	4338819.52	4338819.68	4338819.84	0.0282	0.0099
Mercury	7167-06-05 23:45 G	4338908.41	4338908.49	4338908.58	0.0282	0.0239
Moon	7172-08-29 07:11 G	4340819.57	4340819.80	4340820.03	0.0272	0.0099
Earth	7172-08-29 10:48 G	4340819.73	4340819.95	4340820.18	0.0272	0.0114 *
Venus	7180-12-29 09:07 G	4343863.81	4343863.88	4343863.98	0.0274	0.0250
Venus	7181-08-15 17:31 G	4344093.02	4344093.23	4344093.44	0.0275	0.0041
Mercury	7182-01-08 06:28 G	4344238.67	4344238.77	4344238.89	0.0276	0.0177
Venus	7182-04-02 02:38 G	4344322.44	4344322.61	4344322.77	0.0276	0.0172

Mercury	7182-04-06 19:40 G	4344327.18	4344327.32	4344327.46	0.0276	0.0067
Mercury	7182-07-04 08:23 G	4344415.71	4344415.85	4344415.99	0.0277	0.0041
Mercury	7182-09-30 20:52 G	4344504.26	4344504.37	4344504.49	0.0277	0.0147
Mercury	7182-12-28 09:21 G	4344592.84	4344592.89	4344592.95	0.0278	0.0252
Venus	7195-06-16 15:36 G	4349145.97	4349146.15	4349146.34	0.0285	0.0146
Mercury	7196-01-30 12:00 G	4349373.91	4349374.00	4349374.10	0.0284	0.0230
Venus	7196-02-01 06:43 G	4349375.58	4349375.78	4349375.98	0.0283	0.0087
Mercury	7196-04-28 06:43 G	4349462.62	4349462.78	4349462.94	0.0283	0.0095
Mercury	7196-07-26 01:40 G	4349551.41	4349551.57	4349551.74	0.0282	0.0043
Mercury	7196-10-22 21:07 G	4349640.25	4349640.38	4349640.51	0.0282	0.0182
Earth	7201-08-23 19:40 G	4351406.12	4351406.32	4351406.54	0.0272	0.0145
Moon	7201-08-23 23:16 G	4351406.27	4351406.47	4351406.68	0.0272	0.0160 *
Mars	7206-02-11 12:28 G	4353038.75	4353039.02	4353039.30	0.0269	0.0047
Venus	7210-07-11 09:21 G	4354649.79	4354649.89	4354650.02	0.0274	0.0230
Venus	7211-02-25 18:00 G	4354879.04	4354879.25	4354879.46	0.0275	0.0019
Mercury	7211-05-28 07:11 G	4354970.72	4354970.80	4354970.89	0.0276	0.0218
Mercury	7211-08-24 20:09 G	4355059.21	4355059.34	4355059.48	0.0276	0.0109
Venus	7211-10-13 03:21 G	4355108.49	4355108.64	4355108.79	0.0277	0.0195
Mercury	7211-11-21 09:07 G	4355147.74	4355147.88	4355148.02	0.0277	0.0002
Mercury	7212-02-17 21:50 G	4355236.28	4355236.41	4355236.54	0.0278	0.0108
Mercury	7212-05-16 10:04 G	4355324.84	4355324.92	4355325.02	0.0278	0.0214
Earth	7217-02-28 04:33 G	4357073.46	4357073.69	4357073.94	0.0288	0.0037
Moon	7217-02-28 07:11 G	4357073.55	4357073.80	4357074.05	0.0288	0.0037 *
Venus	7224-12-26 20:52 G	4359932.18	4359932.37	4359932.56	0.0284	0.0117
Mercury	7225-06-18 12:00 G	4360105.96	4360106.00	4360106.06	0.0284	0.0270
Venus	7225-08-13 12:00 G	4360161.81	4360162.00	4360162.20	0.0283	0.0115
Mercury	7225-09-15 06:43 G	4360194.64	4360194.78	4360194.93	0.0283	0.0135
Mercury	7225-12-13 01:40 G	4360283.40	4360283.57	4360283.74	0.0283	0.0004
Mercury	7226-03-11 21:07 G	4360372.23	4360372.38	4360372.52	0.0282	0.0141
Mercury	7226-06-08 16:48 G	4360461.19	4360461.20	4360461.20	0.0282	0.0281

Earth	7231-08-31 10:19 G	4362370.74	4362370.93	4362371.13	0.0272	0.0168
Moon	7231-08-31 10:48 G	4362370.76	4362370.95	4362371.15	0.0272	0.0157 *
Venus	7240-01-21 16:33 G	4365436.05	4365436.19	4365436.34	0.0274	0.0198
Venus	7240-09-07 01:11 G	4365665.33	4365665.55	4365665.76	0.0275	0.0013
Mercury	7240-10-14 09:36 G	4365702.84	4365702.90	4365702.97	0.0275	0.0245
Mercury	7241-01-10 22:48 G	4365791.33	4365791.45	4365791.58	0.0276	0.0135
Mercury	7241-04-09 11:45 G	4365879.85	4365879.99	4365880.13	0.0276	0.0026
Venus	7241-04-24 10:04 G	4365894.81	4365894.92	4365895.05	0.0276	0.0225
Mercury	7241-07-07 00:28 G	4365968.38	4365968.52	4365968.65	0.0277	0.0081
Mercury	7241-10-03 12:57 G	4366056.94	4366057.04	4366057.14	0.0277	0.0187
Moon	7246-02-22 12:00 G	4367659.87	4367660.00	4367660.12	0.0286	0.0242
Earth	7246-02-22 13:40 G	4367659.96	4367660.07	4367660.22	0.0286	0.0240 *
Mars	7250-03-25 21:50 G	4369152.12	4369152.41	4369152.72	0.0290	0.0088
Venus	7254-07-08 21:50 G	4370718.22	4370718.41	4370718.62	0.0285	0.0094
Mercury	7255-02-02 04:48 G	4370926.58	4370926.70	4370926.83	0.0283	0.0187
Venus	7255-02-23 12:57 G	4370947.86	4370948.04	4370948.22	0.0283	0.0138
Mercury	7255-05-01 23:45 G	4371015.32	4371015.49	4371015.65	0.0283	0.0051
Mercury	7255-07-29 18:43 G	4371104.12	4371104.28	4371104.45	0.0282	0.0087
Mercury	7255-10-26 14:23 G	4371193.00	4371193.10	4371193.20	0.0282	0.0226
Moon	7260-08-24 18:28 G	4372957.04	4372957.27	4372957.52	0.0272	0.0103
Earth	7260-08-24 19:40 G	4372957.09	4372957.32	4372957.56	0.0272	0.0090 *
Venus	7269-08-02 16:48 G	4376222.04	4376222.20	4376222.36	0.0274	0.0178
Venus	7270-03-20 01:26 G	4376451.35	4376451.56	4376451.77	0.0276	0.0033
Mercury	7270-05-30 23:16 G	4376523.37	4376523.47	4376523.59	0.0276	0.0177
Mercury	7270-08-27 12:14 G	4376611.88	4376612.01	4376612.15	0.0277	0.0069
Venus	7270-11-04 10:33 G	4376680.86	4376680.94	4376681.04	0.0277	0.0247
Mercury	7270-11-24 01:11 G	4376700.41	4376700.55	4376700.69	0.0277	0.0040
Mercury	7271-02-20 13:40 G	4376788.95	4376789.07	4376789.19	0.0278	0.0147
Mercury	7271-05-20 02:09 G	4376877.53	4376877.59	4376877.65	0.0278	0.0252
Moon	7276-03-01 03:50 G	4378624.44	4378624.66	4378624.90	0.0288	0.0104

Earth	7276-03-01 06:14 G	4378624.53	4378624.76	4378624.99	0.0288	0.0098 *
Venus	7284-01-19 02:52 G	4381504.41	4381504.62	4381504.82	0.0284	0.0066
Mercury	7284-06-21 04:48 G	4381658.61	4381658.70	4381658.80	0.0283	0.0228
Venus	7284-09-04 17:45 G	4381734.07	4381734.24	4381734.41	0.0283	0.0166
Mercury	7284-09-17 23:31 G	4381747.33	4381747.48	4381747.64	0.0283	0.0093
Mercury	7284-12-15 18:43 G	4381836.11	4381836.28	4381836.44	0.0282	0.0045
Mercury	7285-03-14 13:55 G	4381924.96	4381925.08	4381925.21	0.0282	0.0184
Earth	7290-09-01 09:36 G	4383921.77	4383921.90	4383922.06	0.0272	0.0222
Moon	7290-09-01 13:40 G	4383921.93	4383922.07	4383922.23	0.0272	0.0213 *
Mars	7294-07-08 09:50 G	4385327.66	4385327.91	4385328.16	0.0270	0.0113
Venus	7299-02-13 00:28 G	4387008.35	4387008.52	4387008.71	0.0274	0.0145
Venus	7299-09-30 09:21 G	4387237.68	4387237.89	4387238.09	0.0275	0.0066
Mercury	7299-10-18 02:09 G	4387255.50	4387255.59	4387255.69	0.0276	0.0201
Mercury	7300-01-14 15:07 G	4387344.00	4387344.13	4387344.27	0.0276	0.0092
Mercury	7300-04-13 04:04 G	4387432.53	4387432.67	4387432.81	0.0276	0.0016
Mercury	7300-07-10 16:33 G	4387521.07	4387521.19	4387521.32	0.0277	0.0123
Mercury	7300-10-07 05:02 G	4387609.64	4387609.71	4387609.79	0.0277	0.0228
Earth	7305-02-24 17:45 G	4389211.05	4389211.24	4389211.43	0.0286	0.0174
Moon	7305-02-24 20:23 G	4389211.16	4389211.35	4389211.54	0.0286	0.0171 *
Venus	7312-12-14 13:11 G	4392061.00	4392061.05	4392061.12	0.0285	0.0274
Venus	7313-08-01 05:02 G	4392290.50	4392290.71	4392290.92	0.0284	0.0040
Mercury	7313-11-09 03:36 G	4392390.62	4392390.65	4392390.69	0.0284	0.0275
Mercury	7314-02-05 22:04 G	4392479.28	4392479.42	4392479.57	0.0283	0.0141
Venus	7314-03-18 19:40 G	4392520.17	4392520.32	4392520.48	0.0283	0.0191
Mercury	7314-05-05 17:02 G	4392568.04	4392568.21	4392568.38	0.0283	0.0005
Mercury	7314-08-02 12:14 G	4392656.86	4392657.01	4392657.16	0.0282	0.0133
Mercury	7314-10-30 07:40 G	4392745.79	4392745.82	4392745.86	0.0282	0.0273
Moon	7319-08-27 16:48 G	4394507.96	4394508.20	4394508.45	0.0272	0.0044
Earth	7319-08-27 20:38 G	4394508.11	4394508.36	4394508.61	0.0272	0.0034 *
Venus	7328-08-26 00:57 G	4397794.36	4397794.54	4397794.73	0.0275	0.0125

Mercury	7329-03-07 02:38 G	4397987.55	4397987.61	4397987.68	0.0276	0.0243
Venus	7329-04-12 09:36 G	4398023.70	4398023.90	4398024.11	0.0276	0.0087
Mercury	7329-06-03 15:50 G	4398076.04	4398076.16	4398076.29	0.0276	0.0133
Mercury	7329-08-31 04:48 G	4398164.56	4398164.70	4398164.84	0.0277	0.0025
Mercury	7329-11-27 17:31 G	4398253.09	4398253.23	4398253.36	0.0277	0.0083
Mercury	7330-02-24 06:00 G	4398341.65	4398341.75	4398341.85	0.0278	0.0189
Moon	7335-03-04 06:00 G	4400175.57	4400175.75	4400175.95	0.0288	0.0173
Earth	7335-03-04 09:21 G	4400175.70	4400175.89	4400176.10	0.0288	0.0163 *
Mars	7338-08-19 22:04 G	4401440.14	4401440.42	4401440.70	0.0290	0.0128
Venus	7342-06-26 18:00 G	4402847.15	4402847.25	4402847.36	0.0285	0.0246
Venus	7343-02-11 09:50 G	4403076.70	4403076.91	4403077.12	0.0284	0.0012
Mercury	7343-06-25 22:04 G	4403211.29	4403211.42	4403211.54	0.0283	0.0183
Mercury	7343-09-22 16:48 G	4403300.03	4403300.20	4403300.37	0.0283	0.0047
Venus	7343-09-29 00:28 G	4403306.39	4403306.52	4403306.66	0.0283	0.0218
Mercury	7343-12-20 12:00 G	4403388.84	4403389.00	4403389.16	0.0282	0.0091
Mercury	7344-03-18 07:26 G	4403477.71	4403477.81	4403477.91	0.0282	0.0230
Earth	7348-08-21 16:33 G	4405095.17	4405095.19	4405095.23	0.0274	0.0270
Venus	7358-03-08 09:07 G	4408580.69	4408580.88	4408581.09	0.0275	0.0091
Mercury	7358-07-25 05:45 G	4408719.70	4408719.74	4408719.77	0.0275	0.0265
Mercury	7358-10-21 18:57 G	4408808.17	4408808.29	4408808.41	0.0276	0.0156
Venus	7358-10-23 18:00 G	4408810.07	4408810.25	4408810.45	0.0276	0.0122
Mercury	7359-01-18 07:55 G	4408896.69	4408896.83	4408896.97	0.0276	0.0047
Mercury	7359-04-16 20:38 G	4408985.22	4408985.36	4408985.50	0.0277	0.0060
Mercury	7359-07-14 09:07 G	4409073.77	4409073.88	4409074.00	0.0277	0.0166
Mercury	7359-10-10 21:36 G	4409162.37	4409162.40	4409162.43	0.0278	0.0271
Earth	7364-02-26 23:45 G	4410762.27	4410762.49	4410762.72	0.0286	0.0104
Moon	7364-02-27 02:52 G	4410762.40	4410762.62	4410762.86	0.0286	0.0097 *
Venus	7372-01-06 22:04 G	4413633.29	4413633.42	4413633.57	0.0285	0.0216
Venus	7372-08-23 13:40 G	4413862.86	4413863.07	4413863.28	0.0284	0.0017
Mercury	7372-11-11 21:21 G	4413943.30	4413943.39	4413943.49	0.0284	0.0225

Mercury	7373-02-08 16:04 G	4414032.01	4414032.17	4414032.33	0.0283	0.0091
Venus	7373-04-10 04:04 G	4414092.58	4414092.67	4414092.78	0.0283	0.0247
Mercury	7373-05-08 11:02 G	4414120.79	4414120.96	4414121.13	0.0283	0.0046
Mercury	7373-08-05 06:14 G	4414209.64	4414209.76	4414209.89	0.0282	0.0185
Moon	7378-08-28 22:04 G	4416059.18	4416059.42	4416059.66	0.0272	0.0017
Earth	7378-08-28 22:48 G	4416059.20	4416059.45	4416059.70	0.0272	0.0025 *
Mars	7382-12-02 12:28 G	4417615.80	4417616.02	4417616.27	0.0270	0.0143
Venus	7387-09-18 10:19 G	4419366.72	4419366.93	4419367.13	0.0275	0.0069
Mercury	7388-03-09 19:26 G	4419540.22	4419540.31	4419540.42	0.0276	0.0197
Venus	7388-05-04 19:11 G	4419596.12	4419596.30	4419596.48	0.0276	0.0143
Mercury	7388-06-06 08:38 G	4419628.72	4419628.86	4419629.00	0.0276	0.0088
Mercury	7388-09-02 21:21 G	4419717.25	4419717.39	4419717.54	0.0277	0.0022
Mercury	7388-11-30 10:04 G	4419805.80	4419805.92	4419806.05	0.0277	0.0127
Mercury	7389-02-26 22:33 G	4419894.37	4419894.44	4419894.51	0.0278	0.0233
Earth	7394-03-05 15:36 G	4421727.02	4421727.15	4421727.30	0.0288	0.0233
Moon	7394-03-05 16:19 G	4421727.07	4421727.18	4421727.31	0.0288	0.0246 *
Venus	7401-07-20 02:38 G	4424419.46	4424419.61	4424419.77	0.0285	0.0189
Venus	7402-03-06 18:14 G	4424649.05	4424649.26	4424649.47	0.0284	0.0044
Mercury	7402-04-01 21:07 G	4424675.33	4424675.38	4424675.44	0.0283	0.0267
Mercury	7402-06-29 15:50 G	4424764.01	4424764.16	4424764.31	0.0283	0.0133
Mercury	7402-09-26 10:48 G	4424852.78	4424852.95	4424853.11	0.0283	0.0007
Venus	7402-10-22 08:38 G	4424878.82	4424878.86	4424878.92	0.0282	0.0273
Mercury	7402-12-24 06:00 G	4424941.60	4424941.75	4424941.89	0.0282	0.0141
Mercury	7403-03-23 01:26 G	4425030.56	4425030.56	4425030.57	0.0282	0.0281
Earth	7407-08-24 18:57 G	4426646.14	4426646.29	4426646.45	0.0274	0.0212
Moon	7407-08-24 19:55 G	4426646.20	4426646.33	4426646.50	0.0274	0.0224 *
Venus	7416-08-14 10:48 G	4429923.85	4429923.95	4429924.05	0.0274	0.0242
Venus	7417-03-31 19:11 G	4430153.09	4430153.30	4430153.51	0.0275	0.0033
Mercury	7417-07-28 22:33 G	4430272.36	4430272.44	4430272.54	0.0276	0.0218
Mercury	7417-10-25 11:45 G	4430360.86	4430360.99	4430361.13	0.0276	0.0108

Venus	7417-11-16 04:19 G	4430382.52	4430382.68	4430382.84	0.0276	0.0180
Mercury	7418-01-22 00:43 G	4430449.39	4430449.53	4430449.67	0.0277	0.0004
Mercury	7418-04-20 13:26 G	4430537.93	4430538.06	4430538.19	0.0277	0.0107
Mercury	7418-07-18 01:55 G	4430626.49	4430626.58	4430626.67	0.0278	0.0213
Moon	7423-03-01 07:11 G	4432313.55	4432313.80	4432314.06	0.0286	0.0021
Earth	7423-03-01 08:09 G	4432313.60	4432313.84	4432314.08	0.0286	0.0030 *
Mars	7427-01-14 21:36 G	4433729.21	4433729.40	4433729.62	0.0289	0.0216
Venus	7431-01-30 08:38 G	4435205.68	4435205.86	4435206.04	0.0285	0.0155
Venus	7431-09-16 23:45 G	4435435.29	4435435.49	4435435.69	0.0284	0.0077
Mercury	7431-11-16 15:50 G	4435496.03	4435496.16	4435496.30	0.0283	0.0171
Mercury	7432-02-13 10:48 G	4435584.78	4435584.95	4435585.11	0.0283	0.0036
Mercury	7432-05-12 05:45 G	4435673.58	4435673.74	4435673.90	0.0282	0.0102
Mercury	7432-08-09 00:57 G	4435762.46	4435762.54	4435762.64	0.0282	0.0241
Earth	7437-08-31 03:07 G	4437610.40	4437610.63	4437610.87	0.0272	0.0087
Moon	7437-08-31 06:00 G	4437610.53	4437610.75	4437610.99	0.0272	0.0083 *
Venus	7446-02-24 11:45 G	4440709.87	4440709.99	4440710.12	0.0274	0.0221
Venus	7446-10-11 20:23 G	4440939.14	4440939.35	4440939.56	0.0275	0.0012
Mercury	7446-12-15 23:31 G	4441004.43	4441004.48	4441004.53	0.0276	0.0258
Mercury	7447-03-14 12:43 G	4441092.91	4441093.03	4441093.15	0.0276	0.0148
Venus	7447-05-29 05:31 G	4441168.59	4441168.73	4441168.88	0.0276	0.0202
Mercury	7447-06-11 01:40 G	4441181.43	4441181.57	4441181.71	0.0277	0.0040
Mercury	7447-09-07 14:23 G	4441269.96	4441270.10	4441270.24	0.0277	0.0068
Mercury	7447-12-05 02:52 G	4441358.52	4441358.62	4441358.73	0.0278	0.0174
Venus	7460-08-11 13:11 G	4445991.87	4445992.05	4445992.24	0.0285	0.0128
Venus	7461-03-29 04:33 G	4446221.50	4446221.69	4446221.89	0.0283	0.0105
Mercury	7461-04-04 15:50 G	4446228.05	4446228.16	4446228.27	0.0283	0.0211
Mercury	7461-07-02 10:33 G	4446316.78	4446316.94	4446317.10	0.0283	0.0077
Mercury	7461-09-29 05:31 G	4446405.56	4446405.73	4446405.89	0.0282	0.0059
Mercury	7461-12-27 00:43 G	4446494.41	4446494.53	4446494.65	0.0282	0.0198
Moon	7466-08-25 20:09 G	4448197.15	4448197.34	4448197.56	0.0273	0.0161

Earth	7466-08-25 23:31 G	4448197.28	4448197.48	4448197.69	0.0273	0.0150 *
Mars	7471-04-29 16:33 G	4449905.05	4449905.19	4449905.36	0.0271	0.0223
Venus	7475-09-06 21:07 G	4451496.23	4451496.38	4451496.54	0.0275	0.0184
Venus	7476-04-23 06:00 G	4451725.54	4451725.75	4451725.96	0.0276	0.0027
Mercury	7476-07-31 16:04 G	4451825.06	4451825.17	4451825.28	0.0276	0.0167
Mercury	7476-10-28 05:02 G	4451913.57	4451913.71	4451913.85	0.0277	0.0059
Venus	7476-12-08 15:21 G	4451955.04	4451955.14	4451955.25	0.0277	0.0240
Mercury	7477-01-24 18:00 G	4452002.11	4452002.25	4452002.39	0.0277	0.0050
Mercury	7477-04-23 06:28 G	4452090.66	4452090.77	4452090.89	0.0277	0.0156
Mercury	7477-07-20 18:57 G	4452179.25	4452179.29	4452179.34	0.0278	0.0261
Moon	7482-03-02 15:36 G	4453864.91	4453865.15	4453865.39	0.0286	0.0059
Earth	7482-03-02 19:11 G	4453865.06	4453865.30	4453865.54	0.0286	0.0048 *
Venus	7490-02-21 20:38 G	4456778.17	4456778.36	4456778.57	0.0284	0.0091
Mercury	7490-08-22 16:33 G	4456960.12	4456960.19	4456960.28	0.0283	0.0244
Venus	7490-10-09 11:31 G	4457007.80	4457007.98	4457008.17	0.0283	0.0140
Mercury	7490-11-19 11:02 G	4457048.81	4457048.96	4457049.12	0.0283	0.0111
Mercury	7491-02-16 06:00 G	4457137.59	4457137.75	4457137.92	0.0283	0.0026
Mercury	7491-05-16 01:11 G	4457226.41	4457226.55	4457226.69	0.0282	0.0163
Earth	7496-09-01 09:36 G	4459161.71	4459161.90	4459162.12	0.0272	0.0154
Moon	7496-09-01 12:57 G	4459161.83	4459162.04	4459162.25	0.0272	0.0148 *
Venus	7505-03-19 23:02 G	4462282.30	4462282.46	4462282.64	0.0275	0.0162
Venus	7505-11-04 07:55 G	4462511.62	4462511.83	4462512.04	0.0276	0.0049
Mercury	7505-12-19 17:02 G	4462557.12	4462557.21	4462557.31	0.0276	0.0206
Mercury	7506-03-18 06:14 G	4462645.62	4462645.76	4462645.89	0.0276	0.0097
Mercury	7506-06-14 18:57 G	4462734.15	4462734.29	4462734.44	0.0277	0.0014
Venus	7506-06-21 17:16 G	4462741.16	4462741.22	4462741.29	0.0277	0.0263
Mercury	7506-09-11 07:40 G	4462822.70	4462822.82	4462822.95	0.0277	0.0119
Mercury	7506-12-08 20:23 G	4462911.27	4462911.35	4462911.43	0.0278	0.0224
Earth	7511-02-26 00:28 G	4464451.39	4464451.52	4464451.66	0.0286	0.0237
Moon	7511-02-26 03:50 G	4464451.53	4464451.66	4464451.81	0.0286	0.0231 *

Venus	7519-09-05 01:11 G	4467564.35	4467564.55	4467564.76	0.0284	0.0064
Mercury	7520-04-08 11:02 G	4467780.82	4467780.96	4467781.10	0.0283	0.0152
Venus	7520-04-21 16:19 G	4467794.01	4467794.18	4467794.35	0.0283	0.0167
Mercury	7520-07-06 05:45 G	4467869.57	4467869.74	4467869.91	0.0283	0.0017
Mercury	7520-10-03 00:57 G	4467958.38	4467958.54	4467958.69	0.0282	0.0120
Mercury	7520-12-30 20:09 G	4468047.29	4468047.34	4468047.41	0.0282	0.0260
Moon	7525-08-28 03:07 G	4469748.41	4469748.63	4469748.86	0.0273	0.0093
Earth	7525-08-28 06:00 G	4469748.52	4469748.75	4469749.00	0.0273	0.0085 *
Mars	7529-08-08 02:52 G	4471189.55	4471189.62	4471189.73	0.0271	0.0256
Venus	7534-09-30 08:23 G	4473068.67	4473068.85	4473069.05	0.0275	0.0124
Mercury	7535-05-08 20:23 G	4473289.27	4473289.35	4473289.43	0.0276	0.0225
Venus	7535-05-17 17:31 G	4473298.03	4473298.23	4473298.43	0.0276	0.0088
Mercury	7535-08-05 09:36 G	4473377.77	4473377.90	4473378.03	0.0277	0.0116
Mercury	7535-11-01 22:33 G	4473466.30	4473466.44	4473466.58	0.0277	0.0007
Mercury	7536-01-29 11:16 G	4473554.84	4473554.97	4473555.10	0.0277	0.0100
Mercury	7536-04-26 23:45 G	4473643.40	4473643.49	4473643.59	0.0278	0.0206
Moon	7541-03-05 05:31 G	4475416.53	4475416.73	4475416.94	0.0286	0.0139
Earth	7541-03-05 07:26 G	4475416.60	4475416.81	4475417.03	0.0286	0.0129 *
Jupiter	7541-03-18 00:43 G	4475429.14	4475429.53	4475429.96	0.0286	0.0118
Venus	7548-07-30 18:43 G	4478121.20	4478121.28	4478121.38	0.0285	0.0257
Venus	7549-03-17 10:33 G	4478350.73	4478350.94	4478351.15	0.0284	0.0024
Mercury	7549-08-26 12:28 G	4478512.90	4478513.02	4478513.15	0.0283	0.0180
Venus	7549-11-02 00:57 G	4478580.41	4478580.54	4478580.69	0.0283	0.0206
Mercury	7549-11-23 07:11 G	4478601.64	4478601.80	4478601.97	0.0283	0.0046
Mercury	7550-02-20 02:23 G	4478690.44	4478690.60	4478690.76	0.0282	0.0092
Mercury	7550-05-19 21:36 G	4478779.30	4478779.40	4478779.50	0.0282	0.0230
Moon	7555-09-04 17:45 G	4480713.09	4480713.24	4480713.39	0.0272	0.0221
Earth	7555-09-04 18:57 G	4480713.16	4480713.29	4480713.44	0.0272	0.0223 *
Venus	7564-04-11 11:02 G	4483854.77	4483854.96	4483855.16	0.0275	0.0101
Mercury	7564-09-24 21:21 G	4484021.36	4484021.39	4484021.44	0.0276	0.0262

Venus	7564-11-26 20:09 G	4484084.14	4484084.34	4484084.53	0.0276	0.0111
Mercury	7564-12-22 10:48 G	4484109.83	4484109.95	4484110.07	0.0276	0.0152
Mercury	7565-03-20 23:45 G	4484198.35	4484198.49	4484198.63	0.0277	0.0044
Mercury	7565-06-17 12:28 G	4484286.89	4484287.02	4484287.16	0.0277	0.0064
Mercury	7565-09-14 01:11 G	4484375.44	4484375.55	4484375.66	0.0278	0.0170
Mercury	7565-12-11 13:26 G	4484464.05	4484464.06	4484464.09	0.0278	0.0275
Earth	7570-02-27 13:11 G	4486002.85	4486003.05	4486003.26	0.0286	0.0156
Moon	7570-02-27 14:52 G	4486002.91	4486003.12	4486003.34	0.0286	0.0147 *
Venus	7578-02-09 23:02 G	4488907.34	4488907.46	4488907.58	0.0285	0.0230
Venus	7578-09-27 14:38 G	4489136.90	4489137.11	4489137.32	0.0284	0.0003
Mercury	7579-01-13 12:14 G	4489244.91	4489245.01	4489245.12	0.0283	0.0222
Mercury	7579-04-12 06:57 G	4489333.63	4489333.79	4489333.95	0.0283	0.0088
Venus	7579-05-15 05:16 G	4489366.61	4489366.72	4489366.85	0.0283	0.0232
Mercury	7579-07-10 01:40 G	4489422.41	4489422.57	4489422.74	0.0282	0.0048
Mercury	7579-10-06 20:52 G	4489511.25	4489511.37	4489511.50	0.0282	0.0186
Earth	7584-08-29 14:38 G	4491299.87	4491300.11	4491300.36	0.0273	0.0016
Moon	7584-08-29 16:19 G	4491299.94	4491300.18	4491300.42	0.0273	0.0020 *
Venus	7593-03-07 11:31 G	4494411.97	4494411.98	4494412.03	0.0275	0.0272
Venus	7593-10-22 20:23 G	4494641.15	4494641.35	4494641.56	0.0276	0.0063
Mercury	7594-05-11 14:09 G	4494841.98	4494842.09	4494842.20	0.0277	0.0172
Venus	7594-06-09 05:45 G	4494870.56	4494870.74	4494870.92	0.0277	0.0151
Mercury	7594-08-08 03:07 G	4494930.49	4494930.63	4494930.77	0.0277	0.0063
Mercury	7594-11-04 16:04 G	4495019.03	4495019.17	4495019.31	0.0277	0.0046
Mercury	7595-02-01 04:48 G	4495107.58	4495107.70	4495107.82	0.0278	0.0152
Mercury	7595-04-30 17:16 G	4495196.17	4495196.22	4495196.27	0.0278	0.0258
Earth	7600-03-06 20:52 G	4496968.22	4496968.37	4496968.54	0.0287	0.0212
Moon	7600-03-06 23:02 G	4496968.33	4496968.46	4496968.62	0.0287	0.0225 *
Venus	7607-08-23 09:36 G	4499693.75	4499693.90	4499694.06	0.0285	0.0188
Venus	7608-04-09 01:11 G	4499923.34	4499923.55	4499923.76	0.0284	0.0045
Mercury	7608-06-01 14:23 G	4499977.03	4499977.10	4499977.19	0.0283	0.0245

Mercury	7608-08-29 08:52 G	4500065.72	4500065.87	4500066.03	0.0283	0.0113
Venus	7608-11-24 15:07 G	4500153.09	4500153.13	4500153.20	0.0282	0.0273
Mercury	7608-11-26 03:50 G	4500154.49	4500154.66	4500154.83	0.0282	0.0023
Mercury	7609-02-22 22:48 G	4500243.32	4500243.45	4500243.59	0.0282	0.0160
Moon	7613-08-24 10:33 G	4501886.86	4501886.94	4501887.03	0.0274	0.0258
Earth	7613-08-24 12:14 G	4501886.93	4501887.01	4501887.12	0.0274	0.0252 *
Mars	7618-01-02 04:48 G	4503478.51	4503478.70	4503478.91	0.0270	0.0190
Venus	7622-09-17 15:07 G	4505198.05	4505198.13	4505198.23	0.0274	0.0247
Venus	7623-05-04 23:31 G	4505427.28	4505427.48	4505427.70	0.0275	0.0039
Mercury	7623-09-28 15:21 G	4505574.05	4505574.14	4505574.24	0.0276	0.0208
Venus	7623-12-20 08:38 G	4505656.70	4505656.86	4505657.03	0.0276	0.0174
Mercury	7623-12-26 04:33 G	4505662.56	4505662.69	4505662.82	0.0276	0.0098
Mercury	7624-03-23 17:31 G	4505751.09	4505751.23	4505751.37	0.0277	0.0010
Mercury	7624-06-20 06:14 G	4505839.63	4505839.76	4505839.89	0.0277	0.0117
Mercury	7624-09-16 18:43 G	4505928.20	4505928.28	4505928.37	0.0278	0.0222
Moon	7629-02-28 23:31 G	4507554.24	4507554.48	4507554.72	0.0286	0.0063
Earth	7629-03-01 02:23 G	4507554.36	4507554.60	4507554.83	0.0286	0.0075 *
Venus	7637-03-04 13:26 G	4510479.89	4510480.06	4510480.23	0.0285	0.0162
Venus	7637-10-20 04:48 G	4510709.50	4510709.70	4510709.91	0.0284	0.0071
Mercury	7638-01-16 08:23 G	4510797.71	4510797.85	4510797.99	0.0283	0.0156
Mercury	7638-04-15 03:07 G	4510886.46	4510886.63	4510886.80	0.0283	0.0022
Mercury	7638-07-12 22:04 G	4510975.27	4510975.42	4510975.58	0.0282	0.0116
Mercury	7638-10-09 17:31 G	4511064.16	4511064.23	4511064.31	0.0282	0.0254
Earth	7643-09-01 00:43 G	4512851.29	4512851.53	4512851.78	0.0273	0.0056
Moon	7643-09-01 04:33 G	4512851.45	4512851.69	4512851.94	0.0273	0.0055 *
Venus	7652-03-29 23:45 G	4515984.35	4515984.49	4515984.62	0.0275	0.0211
Venus	7652-11-14 08:23 G	4516213.64	4516213.85	4516214.06	0.0276	0.0003
Mercury	7653-02-14 18:28 G	4516306.19	4516306.27	4516306.35	0.0276	0.0228
Mercury	7653-05-14 07:40 G	4516394.69	4516394.82	4516394.95	0.0277	0.0119
Venus	7653-07-01 17:45 G	4516443.11	4516443.24	4516443.38	0.0277	0.0213

Mercury	7653-08-10 20:52 G	4516483.22	4516483.37	4516483.51	0.0277	0.0012
Mercury	7653-11-07 09:36 G	4516571.77	4516571.90	4516572.03	0.0278	0.0098
Mercury	7654-02-03 22:19 G	4516660.33	4516660.43	4516660.52	0.0278	0.0204
Mars	7662-02-08 14:23 G	4519587.00	4519587.10	4519587.22	0.0289	0.0269
Venus	7666-09-15 00:43 G	4521266.34	4521266.53	4521266.73	0.0284	0.0119
Venus	7667-05-02 15:50 G	4521495.97	4521496.16	4521496.36	0.0283	0.0113
Mercury	7667-06-05 10:48 G	4521529.83	4521529.95	4521530.08	0.0283	0.0178
Mercury	7667-09-02 05:31 G	4521618.57	4521618.73	4521618.90	0.0283	0.0044
Mercury	7667-11-30 00:28 G	4521707.36	4521707.52	4521707.68	0.0282	0.0092
Mercury	7668-02-26 19:40 G	4521796.23	4521796.32	4521796.42	0.0282	0.0230
Moon	7672-08-25 20:38 G	4523438.18	4523438.36	4523438.55	0.0273	0.0183
Earth	7672-08-26 00:00 G	4523438.33	4523438.50	4523438.70	0.0273	0.0178 *
Venus	7681-10-10 03:36 G	4526770.50	4526770.65	4526770.81	0.0274	0.0187
Venus	7682-05-27 12:14 G	4526999.80	4527000.01	4527000.22	0.0275	0.0024
Mercury	7682-07-04 19:55 G	4527038.29	4527038.33	4527038.38	0.0276	0.0263
Mercury	7682-10-01 09:21 G	4527126.77	4527126.89	4527127.01	0.0276	0.0153
Mercury	7682-12-28 22:19 G	4527215.29	4527215.43	4527215.57	0.0276	0.0045
Venus	7683-01-11 21:36 G	4527229.30	4527229.40	4527229.51	0.0277	0.0237
Mercury	7683-03-27 11:16 G	4527303.83	4527303.97	4527304.11	0.0277	0.0063
Mercury	7683-06-23 23:45 G	4527392.38	4527392.49	4527392.61	0.0277	0.0169
Mercury	7683-09-20 12:14 G	4527480.99	4527481.01	4527481.04	0.0278	0.0274
Moon	7688-03-02 12:14 G	4529105.78	4529106.01	4529106.25	0.0287	0.0022
Earth	7688-03-02 15:36 G	4529105.90	4529106.15	4529106.39	0.0287	0.0008 *
Venus	7696-03-27 03:50 G	4532052.46	4532052.66	4532052.86	0.0284	0.0093
Mercury	7696-10-22 10:04 G	4532261.82	4532261.92	4532262.02	0.0283	0.0223
Venus	7696-11-11 18:43 G	4532282.11	4532282.28	4532282.47	0.0283	0.0139
Mercury	7697-01-19 04:33 G	4532350.54	4532350.69	4532350.85	0.0283	0.0090
Mercury	7697-04-17 23:31 G	4532439.31	4532439.48	4532439.65	0.0282	0.0046
Mercury	7697-07-15 18:43 G	4532528.15	4532528.28	4532528.41	0.0282	0.0183
Earth	7702-09-03 11:02 G	4534402.75	4534402.96	4534403.19	0.0273	0.0127

Moon	7702-09-03 11:31 G	4534402.76	4534402.98	4534403.21	0.0273	0.0127 *
Mars	7706-05-30 12:14 G	4535767.77	4535768.01	4535768.28	0.0271	0.0112
Venus	7711-04-23 11:16 G	4537556.80	4537556.97	4537557.15	0.0275	0.0151
Venus	7711-12-08 20:09 G	4537786.14	4537786.34	4537786.55	0.0276	0.0060
Mercury	7712-02-19 12:14 G	4537858.90	4537859.01	4537859.12	0.0277	0.0176
Mercury	7712-05-18 01:11 G	4537947.41	4537947.55	4537947.69	0.0277	0.0067
Venus	7712-07-25 05:45 G	4538015.72	4538015.74	4538015.77	0.0277	0.0274
Mercury	7712-08-14 14:09 G	4538035.95	4538036.09	4538036.23	0.0277	0.0042
Mercury	7712-11-11 02:52 G	4538124.50	4538124.62	4538124.74	0.0278	0.0148
Mercury	7713-02-07 15:21 G	4538213.09	4538213.14	4538213.20	0.0278	0.0254
Earth	7717-02-26 10:33 G	4539692.83	4539692.94	4539693.06	0.0286	0.0250
Moon	7717-02-26 13:40 G	4539692.94	4539693.07	4539693.21	0.0286	0.0239 *
Venus	7725-02-20 23:31 G	4542609.47	4542609.48	4542609.50	0.0285	0.0284
Venus	7725-10-08 15:21 G	4542838.93	4542839.14	4542839.35	0.0284	0.0051
Mercury	7726-03-12 12:43 G	4542993.95	4542994.03	4542994.12	0.0283	0.0244
Venus	7726-05-26 06:14 G	4543068.60	4543068.76	4543068.92	0.0283	0.0180
Mercury	7726-06-09 07:11 G	4543082.65	4543082.80	4543082.96	0.0283	0.0111
Mercury	7726-09-06 01:55 G	4543171.42	4543171.58	4543171.75	0.0282	0.0025
Mercury	7726-12-03 21:07 G	4543260.24	4543260.38	4543260.52	0.0282	0.0161
Moon	7731-08-29 11:16 G	4544989.75	4544989.97	4544990.19	0.0273	0.0107
Earth	7731-08-29 12:14 G	4544989.78	4544990.01	4544990.24	0.0273	0.0102 *
Venus	7740-11-02 15:36 G	4548342.96	4548343.15	4548343.34	0.0274	0.0126
Venus	7741-06-20 00:14 G	4548572.31	4548572.51	4548572.72	0.0276	0.0085
Mercury	7741-07-08 13:40 G	4548590.98	4548591.07	4548591.17	0.0276	0.0210
Mercury	7741-10-05 02:52 G	4548679.49	4548679.62	4548679.76	0.0276	0.0101
Mercury	7742-01-01 15:50 G	4548768.02	4548768.16	4548768.30	0.0277	0.0008
Mercury	7742-03-31 04:33 G	4548856.57	4548856.69	4548856.82	0.0277	0.0114
Mercury	7742-06-27 17:16 G	4548945.13	4548945.22	4548945.30	0.0278	0.0219
Earth	7747-03-06 02:38 G	4550657.39	4550657.61	4550657.85	0.0287	0.0086
Moon	7747-03-06 03:50 G	4550657.44	4550657.66	4550657.88	0.0287	0.0100 *

Mars	7750-07-06 11:31 G	4551875.76	4551875.98	4551876.22	0.0289	0.0195
Venus	7754-09-03 01:26 G	4553395.49	4553395.56	4553395.66	0.0285	0.0261
Venus	7755-04-20 17:45 G	4553625.03	4553625.24	4553625.45	0.0284	0.0027
Mercury	7755-10-27 06:00 G	4553814.62	4553814.75	4553814.89	0.0283	0.0159
Venus	7755-12-06 08:38 G	4553854.71	4553854.86	4553855.00	0.0283	0.0203
Mercury	7756-01-24 00:43 G	4553903.36	4553903.53	4553903.70	0.0283	0.0025
Mercury	7756-04-21 19:40 G	4553992.17	4553992.32	4553992.48	0.0282	0.0111
Mercury	7756-07-19 14:52 G	4554081.05	4554081.12	4554081.21	0.0282	0.0250
Moon	7761-09-04 18:00 G	4555954.09	4555954.25	4555954.43	0.0272	0.0200
Earth	7761-09-04 21:21 G	4555954.22	4555954.39	4555954.56	0.0272	0.0197 *
Venus	7770-05-15 22:19 G	4559129.23	4559129.43	4559129.63	0.0275	0.0093
Mercury	7770-11-25 16:19 G	4559323.10	4559323.18	4559323.25	0.0276	0.0236
Venus	7770-12-31 07:11 G	4559358.61	4559358.80	4559359.00	0.0276	0.0120
Mercury	7771-02-22 05:31 G	4559411.60	4559411.73	4559411.86	0.0277	0.0126
Mercury	7771-05-21 18:28 G	4559500.13	4559500.27	4559500.42	0.0277	0.0018
Mercury	7771-08-18 07:26 G	4559588.67	4559588.81	4559588.94	0.0278	0.0090
Mercury	7771-11-14 19:55 G	4559677.24	4559677.33	4559677.43	0.0278	0.0196
Moon	7776-02-28 19:26 G	4561244.11	4561244.31	4561244.53	0.0286	0.0164
Earth	7776-02-28 20:09 G	4561244.16	4561244.34	4561244.55	0.0286	0.0176 *
Venus	7784-03-15 12:57 G	4564181.92	4564182.04	4564182.18	0.0285	0.0219
Venus	7784-10-31 04:48 G	4564411.49	4564411.70	4564411.91	0.0284	0.0015
Mercury	7785-03-15 08:38 G	4564546.73	4564546.86	4564546.99	0.0283	0.0181
Mercury	7785-06-12 03:07 G	4564635.47	4564635.63	4564635.80	0.0283	0.0048
Venus	7785-06-17 19:26 G	4564641.21	4564641.31	4564641.42	0.0283	0.0244
Mercury	7785-09-08 22:04 G	4564724.26	4564724.42	4564724.58	0.0282	0.0089
Mercury	7785-12-06 17:16 G	4564813.13	4564813.22	4564813.32	0.0282	0.0226
Earth	7790-08-30 22:48 G	4566541.20	4566541.45	4566541.70	0.0273	0.0030
Moon	7790-08-31 01:40 G	4566541.33	4566541.57	4566541.81	0.0273	0.0034 *
Mars	7794-10-24 21:21 G	4568057.11	4568057.39	4568057.67	0.0270	0.0034
Venus	7799-11-26 02:52 G	4569915.42	4569915.62	4569915.83	0.0275	0.0068

Mercury	7800-04-14 17:45 G	4570055.22	4570055.24	4570055.28	0.0275	0.0268
Mercury	7800-07-12 07:11 G	4570143.68	4570143.80	4570143.92	0.0276	0.0159
Venus	7800-07-13 11:45 G	4570144.81	4570144.99	4570145.17	0.0276	0.0144
Mercury	7800-10-08 20:23 G	4570232.21	4570232.35	4570232.49	0.0276	0.0051
Mercury	7801-01-05 09:07 G	4570320.74	4570320.88	4570321.02	0.0277	0.0057
Mercury	7801-04-03 21:50 G	4570409.30	4570409.41	4570409.53	0.0277	0.0162
Mercury	7801-07-01 10:19 G	4570497.90	4570497.93	4570497.97	0.0278	0.0267
Earth	7806-03-08 12:00 G	4572208.81	4572209.00	4572209.21	0.0287	0.0160
Moon	7806-03-08 15:36 G	4572208.97	4572209.15	4572209.35	0.0287	0.0176 *
Venus	7813-09-26 14:23 G	4574967.95	4574968.10	4574968.25	0.0285	0.0197
Venus	7814-05-14 06:00 G	4575197.54	4575197.75	4575197.96	0.0284	0.0037
Mercury	7814-08-03 06:57 G	4575278.70	4575278.79	4575278.89	0.0284	0.0231
Mercury	7814-10-31 01:26 G	4575367.41	4575367.56	4575367.72	0.0283	0.0099
Venus	7814-12-29 20:38 G	4575427.30	4575427.36	4575427.44	0.0283	0.0266
Mercury	7815-01-27 20:23 G	4575456.18	4575456.35	4575456.51	0.0283	0.0037
Mercury	7815-04-26 15:21 G	4575545.01	4575545.14	4575545.28	0.0282	0.0174
Moon	7820-09-07 03:36 G	4577505.62	4577505.65	4577505.69	0.0272	0.0268
Earth	7820-09-07 06:00 G	4577505.71	4577505.75	4577505.82	0.0272	0.0265
Venus	7828-10-21 23:45 G	4580472.41	4580472.49	4580472.59	0.0274	0.0246
Venus	7829-06-08 08:23 G	4580701.64	4580701.85	4580702.06	0.0275	0.0037
Mercury	7829-11-29 09:21 G	4580875.78	4580875.89	4580876.00	0.0276	0.0188
Venus	7830-01-23 17:16 G	4580931.06	4580931.22	4580931.39	0.0277	0.0176
Mercury	7830-02-25 22:33 G	4580964.30	4580964.44	4580964.58	0.0277	0.0079
Mercury	7830-05-25 11:31 G	4581052.84	4581052.98	4581053.12	0.0277	0.0030
Mercury	7830-08-22 00:14 G	4581141.39	4581141.51	4581141.63	0.0278	0.0136
Mercury	7830-11-18 12:43 G	4581229.96	4581230.03	4581230.10	0.0278	0.0241
Moon	7835-03-02 23:45 G	4582795.27	4582795.49	4582795.73	0.0286	0.0094
Earth	7835-03-03 03:21 G	4582795.42	4582795.64	4582795.87	0.0286	0.0106 *
Mars	7838-12-02 06:14 G	4584165.46	4584165.76	4584166.06	0.0289	0.0088
Venus	7843-04-09 00:57 G	4585754.37	4585754.54	4585754.72	0.0285	0.0157

Venus	7843-11-24 16:33 G	4585983.99	4585984.19	4585984.40	0.0284	0.0076
Mercury	7843-12-21 09:21 G	4586010.82	4586010.89	4586010.96	0.0284	0.0255
Mercury	7844-03-19 03:50 G	4586099.51	4586099.66	4586099.81	0.0283	0.0123
Mercury	7844-06-15 22:33 G	4586188.27	4586188.44	4586188.61	0.0283	0.0012
Mercury	7844-09-12 17:31 G	4586277.09	4586277.23	4586277.38	0.0282	0.0149
Earth	7849-09-02 07:26 G	4588092.57	4588092.81	4588093.06	0.0273	0.0040
Moon	7849-09-02 10:48 G	4588092.70	4588092.95	4588093.20	0.0273	0.0037 *
Venus	7858-05-04 05:02 G	4591258.59	4591258.71	4591258.85	0.0274	0.0219
Venus	7858-12-19 13:11 G	4591487.84	4591488.05	4591488.27	0.0275	0.0012
Mercury	7859-04-18 11:02 G	4591607.88	4591607.96	4591608.05	0.0275	0.0220
Mercury	7859-07-16 00:14 G	4591696.38	4591696.51	4591696.65	0.0276	0.0111
Venus	7859-08-05 22:04 G	4591717.28	4591717.42	4591717.56	0.0276	0.0201
Mercury	7859-10-12 13:11 G	4591784.91	4591785.05	4591785.20	0.0276	0.0010
Mercury	7860-01-09 02:09 G	4591873.46	4591873.59	4591873.72	0.0277	0.0103
Mercury	7860-04-06 14:38 G	4591962.02	4591962.11	4591962.20	0.0277	0.0208
Earth	7865-03-09 19:26 G	4593760.17	4593760.31	4593760.46	0.0287	0.0230
Moon	7865-03-09 20:52 G	4593760.25	4593760.37	4593760.51	0.0287	0.0244 *
Venus	7872-10-19 01:40 G	4596540.39	4596540.57	4596540.76	0.0285	0.0135
Venus	7873-06-05 17:02 G	4596770.02	4596770.21	4596770.41	0.0284	0.0098
Mercury	7873-08-06 01:55 G	4596831.45	4596831.58	4596831.71	0.0283	0.0175
Mercury	7873-11-02 20:23 G	4596920.19	4596920.35	4596920.52	0.0283	0.0042
Mercury	7874-01-30 15:21 G	4597008.98	4597009.14	4597009.30	0.0283	0.0094
Mercury	7874-04-29 10:33 G	4597097.85	4597097.94	4597098.04	0.0282	0.0232
Moon	7878-08-27 16:33 G	4598679.04	4598679.19	4598679.33	0.0274	0.0217
Earth	7878-08-27 19:11 G	4598679.15	4598679.30	4598679.46	0.0274	0.0213 *
Mars	7883-03-21 15:21 G	4600345.87	4600346.14	4600346.42	0.0270	0.0019
Venus	7887-11-14 08:52 G	4602044.73	4602044.87	4602045.03	0.0274	0.0192
Venus	7888-06-30 17:16 G	4602274.01	4602274.22	4602274.43	0.0276	0.0018
Mercury	7888-09-04 12:43 G	4602339.98	4602340.03	4602340.09	0.0276	0.0252
Mercury	7888-12-02 01:55 G	4602428.46	4602428.58	4602428.71	0.0276	0.0143

Venus	7889-02-15 02:23 G	4602503.49	4602503.60	4602503.72	0.0277	0.0231
Mercury	7889-02-28 15:07 G	4602516.99	4602517.13	4602517.27	0.0277	0.0035
Mercury	7889-05-28 03:50 G	4602605.53	4602605.66	4602605.80	0.0277	0.0073
Mercury	7889-08-24 16:33 G	4602694.09	4602694.19	4602694.30	0.0278	0.0178
Moon	7894-03-04 06:43 G	4604346.54	4604346.78	4604347.01	0.0286	0.0028
Earth	7894-03-04 08:09 G	4604346.60	4604346.84	4604347.08	0.0286	0.0040 *
Venus	7902-05-02 11:02 G	4607326.76	4607326.96	4607327.16	0.0285	0.0099
Venus	7902-12-18 02:23 G	4607556.42	4607556.60	4607556.79	0.0284	0.0134
Mercury	7902-12-25 03:36 G	4607563.54	4607563.65	4607563.77	0.0284	0.0203
Mercury	7903-03-23 22:19 G	4607652.27	4607652.43	4607652.59	0.0283	0.0070
Mercury	7903-06-20 17:02 G	4607741.05	4607741.21	4607741.38	0.0283	0.0066
Mercury	7903-09-17 12:14 G	4607829.90	4607830.01	4607830.13	0.0282	0.0204
Moon	7908-09-04 12:43 G	4609643.79	4609644.03	4609644.27	0.0273	0.0107
Earth	7908-09-04 14:09 G	4609643.86	4609644.09	4609644.32	0.0273	0.0105 *
Venus	7917-05-27 14:23 G	4612830.94	4612831.10	4612831.28	0.0274	0.0165
Venus	7918-01-11 22:33 G	4613060.23	4613060.44	4613060.65	0.0275	0.0044
Mercury	7918-04-22 03:50 G	4613160.56	4613160.66	4613160.78	0.0275	0.0175
Mercury	7918-07-19 17:02 G	4613249.07	4613249.21	4613249.35	0.0276	0.0066
Venus	7918-08-29 07:11 G	4613289.73	4613289.80	4613289.89	0.0276	0.0256
Mercury	7918-10-16 06:00 G	4613337.61	4613337.75	4613337.89	0.0276	0.0041
Mercury	7919-01-12 18:43 G	4613426.16	4613426.28	4613426.40	0.0277	0.0146
Mercury	7919-04-11 06:57 G	4613514.74	4613514.79	4613514.86	0.0277	0.0250
Mars	7927-04-28 04:33 G	4616453.39	4616453.69	4616454.00	0.0289	0.0049
Venus	7931-11-12 11:02 G	4618112.76	4618112.96	4618113.17	0.0285	0.0078
Mercury	7932-05-13 01:40 G	4618295.50	4618295.57	4618295.64	0.0284	0.0256
Venus	7932-06-29 02:23 G	4618342.43	4618342.60	4618342.78	0.0284	0.0155
Mercury	7932-08-09 19:55 G	4618384.19	4618384.33	4618384.48	0.0283	0.0125
Mercury	7932-11-06 14:52 G	4618472.95	4618473.12	4618473.28	0.0283	0.0012
Mercury	7933-02-03 09:50 G	4618561.77	4618561.91	4618562.05	0.0282	0.0147
Earth	7937-08-30 00:00 G	4620230.30	4620230.50	4620230.71	0.0273	0.0150

Moon	7937-08-30 01:55 G	4620230.39	4620230.58	4620230.79	0.0273	0.0150 *
Venus	7946-12-07 17:02 G	4623617.02	4623617.21	4623617.39	0.0274	0.0140
Venus	7947-07-25 01:11 G	4623846.35	4623846.55	4623846.76	0.0276	0.0070
Mercury	7947-09-09 05:16 G	4623892.63	4623892.72	4623892.81	0.0276	0.0210
Mercury	7947-12-06 18:28 G	4623981.13	4623981.27	4623981.40	0.0276	0.0101
Mercury	7948-03-04 07:26 G	4624069.67	4624069.81	4624069.95	0.0277	0.0007
Mercury	7948-05-31 20:09 G	4624158.21	4624158.34	4624158.47	0.0277	0.0113
Mercury	7948-08-28 08:38 G	4624246.78	4624246.86	4624246.95	0.0278	0.0218
Earth	7953-03-06 10:33 G	4625897.69	4625897.94	4625898.18	0.0286	0.0021
Moon	7953-03-06 13:11 G	4625897.82	4625898.05	4625898.29	0.0286	0.0038 *
Venus	7960-10-07 03:07 G	4628669.59	4628669.63	4628669.68	0.0286	0.0278
Venus	7961-05-24 19:26 G	4628899.10	4628899.31	4628899.52	0.0285	0.0044
Mercury	7961-12-27 21:21 G	4629116.26	4629116.39	4629116.53	0.0284	0.0155
Venus	7962-01-09 10:48 G	4629128.80	4629128.95	4629129.11	0.0283	0.0188
Mercury	7962-03-26 16:04 G	4629205.00	4629205.17	4629205.34	0.0283	0.0021
Mercury	7962-06-23 11:02 G	4629293.81	4629293.96	4629294.12	0.0283	0.0116
Mercury	7962-09-20 06:14 G	4629382.70	4629382.76	4629382.84	0.0282	0.0254
Moon	7967-09-06 14:09 G	4631194.92	4631195.09	4631195.30	0.0273	0.0175
Earth	7967-09-06 18:00 G	4631195.07	4631195.25	4631195.46	0.0273	0.0167 *
Mars	7971-08-16 18:28 G	4632635.02	4632635.27	4632635.55	0.0270	0.0090
Venus	7976-06-18 22:48 G	4634403.26	4634403.45	4634403.64	0.0274	0.0112
Mercury	7977-01-26 07:11 G	4634624.74	4634624.80	4634624.88	0.0275	0.0240
Venus	7977-02-03 06:57 G	4634632.59	4634632.79	4634632.99	0.0275	0.0097
Mercury	7977-04-24 20:23 G	4634713.23	4634713.35	4634713.48	0.0275	0.0132
Mercury	7977-07-22 09:36 G	4634801.76	4634801.90	4634802.04	0.0276	0.0024
Mercury	7977-10-18 22:19 G	4634890.30	4634890.43	4634890.57	0.0276	0.0082
Mercury	7978-01-15 10:48 G	4634978.85	4634978.95	4634979.06	0.0277	0.0187
Moon	7982-02-28 13:40 G	4636483.94	4636484.07	4636484.21	0.0285	0.0238
Earth	7982-02-28 17:02 G	4636484.11	4636484.21	4636484.33	0.0285	0.0255 *
Venus	7990-04-19 03:07 G	4639455.54	4639455.63	4639455.72	0.0286	0.0257

Venus	7990-12-04 19:11 G	4639685.09	4639685.30	4639685.51	0.0285	0.0024
Mercury	7991-05-16 18:57 G	4639848.19	4639848.29	4639848.41	0.0284	0.0210
Venus	7991-07-22 10:19 G	4639914.79	4639914.93	4639915.07	0.0284	0.0208
Mercury	7991-08-13 13:40 G	4639936.91	4639937.07	4639937.23	0.0283	0.0077
Mercury	7991-11-10 08:23 G	4640025.69	4640025.85	4640026.02	0.0283	0.0059
Mercury	7992-02-07 03:36 G	4640114.53	4640114.65	4640114.77	0.0282	0.0196
Earth	7996-08-31 02:52 G	4641781.39	4641781.62	4641781.86	0.0274	0.0091
Moon	7996-08-31 06:28 G	4641781.54	4641781.77	4641782.01	0.0274	0.0086 *

9TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 9th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	8005-12-30 00:28 G		4645189.32	4645189.52	4645189.72	0.0275	0.0089	
Venus	8006-08-16 08:38 G		4645418.67	4645418.86	4645419.05	0.0276	0.0122	
Mercury	8006-09-11 21:21 G		4645445.28	4645445.39	4645445.51	0.0276	0.0169	
Mercury	8006-12-09 10:33 G		4645533.80	4645533.94	4645534.08	0.0276	0.0061	
Mercury	8007-03-07 23:31 G		4645622.34	4645622.48	4645622.62	0.0277	0.0046	
Mercury	8007-06-04 12:00 G		4645710.89	4645711.00	4645711.12	0.0277	0.0152	
Mercury	8007-09-01 00:43 G		4645799.48	4645799.53	4645799.58	0.0278	0.0255	
Earth	8012-03-07 11:16 G		4647448.73	4647448.97	4647449.20	0.0286	0.0080	
Moon	8012-03-07 14:09 G		4647448.86	4647449.09	4647449.32	0.0286	0.0096 *	
Mars	8015-09-21 15:36 G		4648741.84	4648742.15	4648742.46	0.0289	0.0005	
Venus	8019-10-30 10:04 G		4650241.79	4650241.92	4650242.05	0.0286	0.0226	

Venus	8020-06-16 02:09 G	4650471.38	4650471.59	4650471.80	0.0285	0.0009
Mercury	8020-10-02 19:55 G	4650580.26	4650580.33	4650580.42	0.0284	0.0244
Mercury	8020-12-30 14:23 G	4650668.95	4650669.10	4650669.26	0.0284	0.0112
Venus	8021-01-31 17:16 G	4650701.12	4650701.22	4650701.34	0.0283	0.0240
Mercury	8021-03-29 09:21 G	4650757.72	4650757.89	4650758.06	0.0283	0.0024
Mercury	8021-06-26 04:19 G	4650846.55	4650846.68	4650846.82	0.0283	0.0161
Earth	8026-09-07 20:09 G	4652746.21	4652746.34	4652746.49	0.0273	0.0225
Moon	8026-09-07 19:55 G	4652746.23	4652746.33	4652746.47	0.0273	0.0236 *
Venus	8034-11-24 22:33 G	4655746.41	4655746.44	4655746.50	0.0273	0.0266
Venus	8035-07-12 06:14 G	4655975.56	4655975.76	4655975.97	0.0274	0.0060
Mercury	8036-01-29 23:31 G	4656177.39	4656177.48	4656177.59	0.0275	0.0198
Venus	8036-02-26 14:23 G	4656204.93	4656205.10	4656205.28	0.0275	0.0149
Mercury	8036-04-27 12:43 G	4656265.90	4656266.03	4656266.17	0.0275	0.0091
Mercury	8036-07-25 01:40 G	4656354.43	4656354.57	4656354.71	0.0276	0.0016
Mercury	8036-10-21 14:23 G	4656442.97	4656443.10	4656443.23	0.0276	0.0121
Mercury	8037-01-18 02:52 G	4656531.54	4656531.62	4656531.70	0.0277	0.0225
Moon	8041-03-01 16:33 G	4658035.01	4658035.19	4658035.38	0.0285	0.0178
Earth	8041-03-01 18:43 G	4658035.11	4658035.28	4658035.46	0.0285	0.0194 *
Venus	8049-05-11 10:04 G	4661027.78	4661027.92	4661028.07	0.0286	0.0204
Venus	8049-12-27 02:09 G	4661257.38	4661257.59	4661257.80	0.0285	0.0030
Mercury	8050-05-19 12:14 G	4661400.88	4661401.01	4661401.15	0.0284	0.0166
Venus	8050-08-13 17:16 G	4661487.14	4661487.22	4661487.30	0.0283	0.0260
Mercury	8050-08-16 06:57 G	4661489.62	4661489.79	4661489.95	0.0283	0.0032
Mercury	8050-11-13 01:55 G	4661578.42	4661578.58	4661578.73	0.0283	0.0104
Mercury	8051-02-09 21:07 G	4661667.30	4661667.38	4661667.47	0.0282	0.0242
Moon	8055-09-02 04:04 G	4663332.41	4663332.67	4663332.93	0.0274	0.0027
Earth	8055-09-02 04:19 G	4663332.44	4663332.68	4663332.93	0.0274	0.0034 *
Mars	8060-01-09 19:40 G	4664923.08	4664923.32	4664923.58	0.0270	0.0116
Venus	8064-06-05 23:16 G	4666532.39	4666532.47	4666532.57	0.0274	0.0246
Venus	8065-01-21 06:57 G	4666761.59	4666761.79	4666762.01	0.0275	0.0040

Mercury	8065-06-18 00:14 G	4666909.44	4666909.51	4666909.58	0.0275	0.0238
Venus	8065-09-07 15:21 G	4666990.98	4666991.14	4666991.31	0.0276	0.0172
Mercury	8065-09-14 13:26 G	4666997.94	4666998.06	4666998.19	0.0276	0.0130
Mercury	8065-12-12 02:23 G	4667086.46	4667086.60	4667086.75	0.0276	0.0025
Mercury	8066-03-10 15:21 G	4667175.00	4667175.14	4667175.28	0.0277	0.0083
Mercury	8066-06-07 03:50 G	4667263.56	4667263.66	4667263.77	0.0277	0.0188
Moon	8071-03-09 08:52 G	4668999.67	4668999.87	4669000.10	0.0286	0.0153
Earth	8071-03-09 11:16 G	4668999.76	4668999.97	4669000.18	0.0286	0.0137 *
Venus	8078-11-21 16:04 G	4671814.01	4671814.17	4671814.34	0.0285	0.0175
Venus	8079-07-09 08:09 G	4672043.63	4672043.84	4672044.05	0.0284	0.0059
Mercury	8079-10-06 12:43 G	4672132.92	4672133.03	4672133.15	0.0284	0.0203
Mercury	8080-01-03 07:11 G	4672221.64	4672221.80	4672221.96	0.0283	0.0070
Mercury	8080-04-01 02:09 G	4672310.42	4672310.59	4672310.75	0.0283	0.0065
Mercury	8080-06-28 21:21 G	4672399.27	4672399.39	4672399.51	0.0283	0.0203
Moon	8084-08-27 00:43 G	4673919.48	4673919.53	4673919.59	0.0275	0.0266
Earth	8084-08-27 00:43 G	4673919.49	4673919.53	4673919.60	0.0275	0.0267 *
Venus	8093-12-17 06:00 G	4677318.63	4677318.75	4677318.89	0.0273	0.0215
Venus	8094-08-03 13:40 G	4677547.86	4677548.07	4677548.28	0.0274	0.0009
Mercury	8094-11-05 02:23 G	4677641.58	4677641.60	4677641.65	0.0275	0.0266
Mercury	8095-02-01 15:50 G	4677730.05	4677730.16	4677730.28	0.0275	0.0157
Venus	8095-03-20 22:04 G	4677777.27	4677777.42	4677777.56	0.0275	0.0201
Mercury	8095-05-01 05:02 G	4677818.57	4677818.71	4677818.85	0.0275	0.0050
Mercury	8095-07-28 17:45 G	4677907.10	4677907.24	4677907.38	0.0276	0.0056
Mercury	8095-10-25 06:28 G	4677995.66	4677995.77	4677995.89	0.0276	0.0160
Mercury	8096-01-21 18:57 G	4678084.25	4678084.29	4678084.33	0.0277	0.0263
Earth	8100-03-03 20:09 G	4679586.14	4679586.34	4679586.56	0.0285	0.0134
Moon	8100-03-03 22:33 G	4679586.23	4679586.44	4679586.66	0.0285	0.0119 *
Mars	8104-02-15 04:33 G	4681029.39	4681029.69	4681030.00	0.0289	0.0033
Venus	8108-06-03 16:33 G	4682600.01	4682600.19	4682600.37	0.0286	0.0152
Venus	8109-01-19 08:23 G	4682829.65	4682829.85	4682830.05	0.0284	0.0081

Mercury	8109-02-23 10:48 G	4682864.88	4682864.95	4682865.02	0.0284	0.0255
Mercury	8109-05-23 05:02 G	4682953.57	4682953.71	4682953.86	0.0284	0.0124
Mercury	8109-08-19 23:45 G	4683042.33	4683042.49	4683042.66	0.0283	0.0012
Mercury	8109-11-16 18:43 G	4683131.14	4683131.28	4683131.43	0.0283	0.0148
Moon	8114-09-04 00:57 G	4684883.29	4684883.54	4684883.79	0.0274	0.0031
Earth	8114-09-04 04:33 G	4684883.44	4684883.69	4684883.94	0.0274	0.0021 *
Venus	8123-06-30 06:00 G	4688104.61	4688104.75	4688104.90	0.0274	0.0196
Venus	8124-02-14 13:55 G	4688333.86	4688334.08	4688334.29	0.0275	0.0013
Mercury	8124-06-21 16:19 G	4688462.08	4688462.18	4688462.28	0.0275	0.0199
Mercury	8124-09-18 05:31 G	4688550.59	4688550.73	4688550.87	0.0276	0.0091
Venus	8124-09-30 22:19 G	4688563.31	4688563.43	4688563.56	0.0276	0.0222
Mercury	8124-12-15 18:28 G	4688639.13	4688639.27	4688639.41	0.0276	0.0016
Mercury	8125-03-14 07:11 G	4688727.67	4688727.80	4688727.93	0.0277	0.0121
Mercury	8125-06-10 19:40 G	4688816.24	4688816.32	4688816.40	0.0277	0.0224
Moon	8130-03-11 07:40 G	4690550.66	4690550.82	4690550.98	0.0286	0.0206
Earth	8130-03-11 10:48 G	4690550.79	4690550.95	4690551.14	0.0286	0.0195 *
Venus	8137-12-14 21:50 G	4693386.22	4693386.41	4693386.60	0.0285	0.0124
Venus	8138-08-01 13:40 G	4693615.88	4693616.07	4693616.27	0.0284	0.0110
Mercury	8138-10-10 05:16 G	4693685.59	4693685.72	4693685.86	0.0284	0.0163
Mercury	8139-01-07 00:00 G	4693774.33	4693774.50	4693774.66	0.0283	0.0030
Mercury	8139-04-05 18:57 G	4693863.13	4693863.29	4693863.44	0.0283	0.0107
Mercury	8139-07-03 14:09 G	4693952.01	4693952.09	4693952.18	0.0283	0.0245
Earth	8143-08-30 00:14 G	4695470.36	4695470.51	4695470.67	0.0275	0.0213
Moon	8143-08-30 03:36 G	4695470.51	4695470.65	4695470.82	0.0275	0.0209 *
Mars	8148-06-05 17:31 G	4697212.03	4697212.23	4697212.44	0.0270	0.0183
Venus	8153-01-09 13:11 G	4698890.89	4698891.05	4698891.22	0.0273	0.0164
Venus	8153-08-26 20:52 G	4699120.17	4699120.37	4699120.59	0.0274	0.0044
Mercury	8153-11-08 18:43 G	4699194.21	4699194.28	4699194.37	0.0275	0.0225
Mercury	8154-02-05 08:09 G	4699282.71	4699282.84	4699282.97	0.0275	0.0117
Venus	8154-04-13 05:16 G	4699349.64	4699349.72	4699349.81	0.0275	0.0252

Mercury	8154-05-04 21:07 G	4699371.24	4699371.38	4699371.52	0.0275	0.0010
Mercury	8154-08-01 09:50 G	4699459.78	4699459.91	4699460.05	0.0276	0.0095
Mercury	8154-10-28 22:33 G	4699548.34	4699548.44	4699548.53	0.0276	0.0199
Earth	8159-03-05 22:19 G	4701137.20	4701137.43	4701137.67	0.0284	0.0072
Moon	8159-03-06 01:40 G	4701137.33	4701137.57	4701137.81	0.0284	0.0058 *
Venus	8167-06-26 23:02 G	4704172.26	4704172.46	4704172.66	0.0285	0.0100
Venus	8168-02-11 14:38 G	4704401.93	4704402.11	4704402.30	0.0284	0.0133
Mercury	8168-02-27 03:36 G	4704417.55	4704417.65	4704417.76	0.0284	0.0213
Mercury	8168-05-25 22:04 G	4704506.26	4704506.42	4704506.58	0.0284	0.0081
Mercury	8168-08-22 16:48 G	4704595.04	4704595.20	4704595.37	0.0283	0.0054
Mercury	8168-11-19 12:00 G	4704683.88	4704684.00	4704684.12	0.0283	0.0191
Moon	8173-09-05 02:38 G	4706434.38	4706434.61	4706434.84	0.0274	0.0086
Earth	8173-09-05 04:19 G	4706434.44	4706434.68	4706434.92	0.0274	0.0075 *
Venus	8182-07-22 13:11 G	4709676.87	4709677.05	4709677.23	0.0274	0.0145
Venus	8183-03-08 21:07 G	4709906.17	4709906.38	4709906.59	0.0275	0.0063
Mercury	8183-03-28 19:11 G	4709926.27	4709926.30	4709926.34	0.0275	0.0267
Mercury	8183-06-25 08:38 G	4710014.74	4710014.86	4710014.98	0.0275	0.0158
Mercury	8183-09-21 21:36 G	4710103.26	4710103.40	4710103.54	0.0276	0.0051
Venus	8183-10-24 05:45 G	4710135.72	4710135.74	4710135.77	0.0276	0.0273
Mercury	8183-12-19 10:33 G	4710191.80	4710191.94	4710192.08	0.0276	0.0055
Mercury	8184-03-16 23:02 G	4710280.35	4710280.46	4710280.58	0.0277	0.0160
Mercury	8184-06-13 11:45 G	4710368.95	4710368.99	4710369.03	0.0277	0.0262
Earth	8189-03-12 12:00 G	4712101.91	4712102.00	4712102.13	0.0286	0.0254
Moon	8189-03-12 12:43 G	4712101.95	4712102.03	4712102.13	0.0286	0.0263 *
Mars	8192-07-10 01:55 G	4713317.29	4713317.58	4713317.89	0.0289	0.0067
Venus	8197-01-06 03:36 G	4714958.45	4714958.65	4714958.86	0.0285	0.0073
Mercury	8197-07-16 03:36 G	4715149.58	4715149.65	4715149.72	0.0284	0.0254
Venus	8197-08-23 19:26 G	4715188.14	4715188.31	4715188.49	0.0284	0.0160
Mercury	8197-10-12 21:50 G	4715238.27	4715238.41	4715238.56	0.0284	0.0122
Mercury	8198-01-09 16:33 G	4715327.03	4715327.19	4715327.36	0.0283	0.0013

Mercury	8198-04-08 11:31 G	4715415.84	4715415.98	4715416.13	0.0283	0.0149
Earth	8202-08-31 23:31 G	4717021.28	4717021.48	4717021.68	0.0275	0.0160
Moon	8202-09-01 01:11 G	4717021.35	4717021.55	4717021.78	0.0275	0.0152 *
Venus	8212-02-02 20:52 G	4720463.18	4720463.37	4720463.56	0.0274	0.0112
Venus	8212-09-19 04:48 G	4720692.50	4720692.70	4720692.90	0.0275	0.0096
Mercury	8212-11-12 11:16 G	4720746.87	4720746.97	4720747.08	0.0275	0.0182
Mercury	8213-02-09 00:28 G	4720835.38	4720835.52	4720835.66	0.0275	0.0075
Mercury	8213-05-08 13:26 G	4720923.92	4720924.06	4720924.20	0.0276	0.0031
Mercury	8213-08-05 02:09 G	4721012.47	4721012.59	4721012.71	0.0276	0.0135
Mercury	8213-11-01 14:38 G	4721101.04	4721101.11	4721101.18	0.0276	0.0238
Moon	8218-03-08 01:11 G	4722688.30	4722688.55	4722688.80	0.0284	0.0002
Earth	8218-03-08 01:26 G	4722688.32	4722688.56	4722688.81	0.0284	0.0011 *
Venus	8225-12-02 13:40 G	4725515.04	4725515.07	4725515.12	0.0286	0.0280
Venus	8226-07-20 06:14 G	4725744.55	4725744.76	4725744.97	0.0285	0.0046
Mercury	8227-03-02 20:38 G	4725970.23	4725970.36	4725970.50	0.0284	0.0169
Venus	8227-03-06 21:36 G	4725974.25	4725974.40	4725974.57	0.0284	0.0186
Mercury	8227-05-30 15:21 G	4726058.97	4726059.14	4726059.30	0.0284	0.0036
Mercury	8227-08-27 10:04 G	4726147.77	4726147.92	4726148.08	0.0283	0.0100
Mercury	8227-11-24 05:16 G	4726236.63	4726236.72	4726236.82	0.0283	0.0238
Earth	8232-09-07 05:02 G	4727985.50	4727985.71	4727985.93	0.0274	0.0131
Moon	8232-09-07 07:40 G	4727985.62	4727985.82	4727986.03	0.0274	0.0145 *
Mars	8236-10-30 16:33 G	4729500.02	4729500.19	4729500.38	0.0270	0.0206
Venus	8241-08-14 20:52 G	4731249.17	4731249.37	4731249.57	0.0274	0.0093
Venus	8242-04-01 04:48 G	4731478.51	4731478.70	4731478.90	0.0275	0.0116
Mercury	8242-04-01 11:45 G	4731478.91	4731478.99	4731479.07	0.0275	0.0224
Mercury	8242-06-29 00:57 G	4731567.41	4731567.54	4731567.67	0.0275	0.0117
Mercury	8242-09-25 13:55 G	4731655.94	4731656.08	4731656.23	0.0276	0.0011
Mercury	8242-12-23 02:52 G	4731744.48	4731744.62	4731744.75	0.0276	0.0095
Mercury	8243-03-21 15:21 G	4731833.04	4731833.14	4731833.24	0.0277	0.0199
Moon	8247-03-02 07:11 G	4733274.76	4733274.80	4733274.87	0.0284	0.0275

Venus	8255-06-14 18:14 G	4736301.16	4736301.26	4736301.36	0.0286	0.0253
Venus	8256-01-30 10:33 G	4736530.73	4736530.94	4736531.15	0.0285	0.0019
Mercury	8256-07-19 20:38 G	4736702.25	4736702.36	4736702.47	0.0284	0.0210
Venus	8256-09-16 01:55 G	4736760.45	4736760.58	4736760.73	0.0284	0.0213
Mercury	8256-10-16 14:52 G	4736790.96	4736791.12	4736791.28	0.0284	0.0078
Mercury	8257-01-13 09:50 G	4736879.74	4736879.91	4736880.07	0.0283	0.0057
Mercury	8257-04-12 04:48 G	4736968.58	4736968.70	4736968.83	0.0283	0.0194
Moon	8261-09-01 20:23 G	4738572.12	4738572.35	4738572.59	0.0275	0.0093
Earth	8261-09-01 23:31 G	4738572.25	4738572.48	4738572.71	0.0275	0.0106 *
Venus	8270-07-10 21:21 G	4741806.35	4741806.39	4741806.46	0.0273	0.0264
Venus	8271-02-25 05:02 G	4742035.51	4742035.71	4742035.92	0.0274	0.0059
Mercury	8271-08-19 14:38 G	4742211.05	4742211.11	4742211.18	0.0275	0.0246
Venus	8271-10-12 13:26 G	4742264.88	4742265.06	4742265.24	0.0275	0.0150
Mercury	8271-11-16 04:04 G	4742299.54	4742299.67	4742299.79	0.0275	0.0138
Mercury	8272-02-12 17:02 G	4742388.07	4742388.21	4742388.35	0.0275	0.0032
Mercury	8272-05-11 06:00 G	4742476.61	4742476.75	4742476.88	0.0276	0.0074
Mercury	8272-08-07 18:28 G	4742565.17	4742565.27	4742565.38	0.0276	0.0178
Moon	8277-03-09 03:21 G	4744239.41	4744239.64	4744239.88	0.0284	0.0068
Earth	8277-03-09 06:57 G	4744239.55	4744239.79	4744240.03	0.0284	0.0057 *
Mars	8280-12-04 12:57 G	4745605.77	4745606.04	4745606.32	0.0288	0.0130
Venus	8284-12-24 22:19 G	4747087.30	4747087.43	4747087.56	0.0286	0.0223
Venus	8285-08-11 14:23 G	4747316.89	4747317.10	4747317.31	0.0285	0.0011
Mercury	8285-12-06 19:55 G	4747434.26	4747434.33	4747434.41	0.0284	0.0252
Mercury	8286-03-05 14:23 G	4747522.95	4747523.10	4747523.25	0.0284	0.0121
Venus	8286-03-29 05:45 G	4747546.63	4747546.74	4747546.85	0.0284	0.0241
Mercury	8286-06-02 08:52 G	4747611.71	4747611.87	4747612.04	0.0283	0.0014
Mercury	8286-08-30 03:50 G	4747700.52	4747700.66	4747700.81	0.0283	0.0149
Earth	8291-09-09 06:43 G	4749536.61	4749536.78	4749536.97	0.0274	0.0188
Moon	8291-09-09 10:04 G	4749536.76	4749536.92	4749537.10	0.0274	0.0203 *
Venus	8300-01-20 21:50 G	4752592.33	4752592.41	4752592.51	0.0273	0.0245

Venus	8300-09-07 05:31 G	4752821.53	4752821.73	4752821.95	0.0274	0.0040
Mercury	8301-04-05 04:19 G	4753031.58	4753031.68	4753031.80	0.0275	0.0180
Venus	8301-04-24 13:55 G	4753050.91	4753051.08	4753051.24	0.0275	0.0170
Mercury	8301-07-02 17:31 G	4753120.10	4753120.23	4753120.37	0.0275	0.0073
Mercury	8301-09-29 06:28 G	4753208.63	4753208.77	4753208.92	0.0276	0.0034
Mercury	8301-12-26 19:11 G	4753297.18	4753297.30	4753297.43	0.0276	0.0138
Mercury	8302-03-25 07:55 G	4753385.76	4753385.83	4753385.89	0.0277	0.0241
Earth	8306-03-04 12:14 G	4754825.86	4754826.01	4754826.17	0.0284	0.0221
Moon	8306-03-04 15:50 G	4754826.01	4754826.16	4754826.33	0.0284	0.0207 *
Venus	8314-07-08 02:09 G	4757873.45	4757873.59	4757873.75	0.0286	0.0198
Venus	8315-02-22 18:43 G	4758103.07	4758103.28	4758103.49	0.0285	0.0037
Mercury	8315-07-24 13:55 G	4758254.95	4758255.08	4758255.22	0.0284	0.0164
Venus	8315-10-10 09:50 G	4758332.85	4758332.91	4758332.99	0.0283	0.0267
Mercury	8315-10-21 08:38 G	4758343.69	4758343.86	4758344.02	0.0283	0.0031
Mercury	8316-01-18 03:21 G	4758432.49	4758432.64	4758432.80	0.0283	0.0105
Mercury	8316-04-15 22:33 G	4758521.36	4758521.44	4758521.53	0.0283	0.0243
Moon	8320-09-03 22:19 G	4760123.19	4760123.43	4760123.67	0.0275	0.0035
Earth	8320-09-04 01:11 G	4760123.31	4760123.55	4760123.80	0.0275	0.0050 *
Venus	8329-08-03 06:28 G	4763378.64	4763378.77	4763378.91	0.0274	0.0209
Venus	8330-03-20 14:23 G	4763607.88	4763608.10	4763608.31	0.0274	0.0004
Mercury	8330-08-23 07:40 G	4763763.72	4763763.82	4763763.92	0.0275	0.0200
Venus	8330-11-04 22:48 G	4763837.31	4763837.45	4763837.59	0.0275	0.0206
Mercury	8330-11-19 20:52 G	4763852.23	4763852.37	4763852.50	0.0275	0.0093
Mercury	8331-02-16 09:50 G	4763940.77	4763940.91	4763941.05	0.0276	0.0013
Mercury	8331-05-15 22:33 G	4764029.31	4764029.44	4764029.57	0.0276	0.0118
Mercury	8331-08-12 11:02 G	4764117.89	4764117.96	4764118.05	0.0277	0.0222
Moon	8336-03-11 12:14 G	4765790.81	4765791.01	4765791.22	0.0284	0.0136
Earth	8336-03-11 14:09 G	4765790.87	4765791.09	4765791.31	0.0284	0.0127 *
Venus	8344-01-18 08:09 G	4768659.67	4768659.84	4768660.02	0.0285	0.0164
Venus	8344-09-04 00:14 G	4768889.30	4768889.51	4768889.71	0.0284	0.0070

Mercury	8344-12-10 14:09 G	4768986.98	4768987.09	4768987.21	0.0284	0.0201
Mercury	8345-03-09 08:38 G	4769075.70	4769075.86	4769076.02	0.0284	0.0069
Mercury	8345-06-06 03:21 G	4769164.48	4769164.64	4769164.80	0.0283	0.0066
Mercury	8345-09-02 22:19 G	4769253.32	4769253.43	4769253.55	0.0283	0.0202
Moon	8350-09-11 09:07 G	4771087.81	4771087.88	4771087.95	0.0274	0.0262
Earth	8350-09-11 10:33 G	4771087.85	4771087.94	4771088.05	0.0274	0.0248 *
Venus	8359-02-13 07:11 G	4774164.66	4774164.80	4774164.97	0.0274	0.0190
Venus	8359-09-30 15:21 G	4774393.93	4774394.14	4774394.36	0.0274	0.0019
Mercury	8360-01-10 08:09 G	4774495.77	4774495.84	4774495.91	0.0275	0.0241
Mercury	8360-04-07 21:36 G	4774584.27	4774584.40	4774584.53	0.0275	0.0133
Venus	8360-05-16 23:45 G	4774623.38	4774623.49	4774623.61	0.0275	0.0228
Mercury	8360-07-05 10:33 G	4774672.80	4774672.94	4774673.09	0.0276	0.0027
Mercury	8360-10-01 23:31 G	4774761.34	4774761.48	4774761.62	0.0276	0.0080
Mercury	8360-12-29 12:00 G	4774849.90	4774850.00	4774850.11	0.0276	0.0184
Earth	8365-03-05 20:23 G	4776377.14	4776377.35	4776377.56	0.0284	0.0150
Moon	8365-03-05 21:36 G	4776377.19	4776377.40	4776377.63	0.0284	0.0139 *
Mars	8369-04-30 22:04 G	4777894.20	4777894.42	4777894.67	0.0288	0.0187
Venus	8373-07-30 12:14 G	4779445.83	4779446.01	4779446.20	0.0285	0.0138
Venus	8374-03-17 04:19 G	4779675.48	4779675.68	4779675.88	0.0284	0.0096
Mercury	8374-04-29 13:55 G	4779719.00	4779719.08	4779719.16	0.0284	0.0242
Mercury	8374-07-27 08:09 G	4779807.69	4779807.84	4779807.99	0.0284	0.0111
Mercury	8374-10-24 02:52 G	4779896.45	4779896.62	4779896.79	0.0283	0.0022
Mercury	8375-01-20 21:50 G	4779985.27	4779985.41	4779985.55	0.0283	0.0158
Earth	8379-09-06 04:33 G	4781674.45	4781674.69	4781674.94	0.0275	0.0011
Moon	8379-09-06 06:28 G	4781674.53	4781674.77	4781675.01	0.0275	0.0025 *
Mars	8383-07-05 14:38 G	4783072.95	4783073.11	4783073.29	0.0272	0.0216
Venus	8388-08-25 16:33 G	4784951.01	4784951.19	4784951.36	0.0274	0.0153
Venus	8389-04-12 00:28 G	4785180.31	4785180.52	4785180.73	0.0275	0.0055
Mercury	8389-05-29 11:31 G	4785227.93	4785227.98	4785228.02	0.0275	0.0260
Mercury	8389-08-26 00:43 G	4785316.41	4785316.53	4785316.66	0.0275	0.0152

Mercury	8389-11-22 13:55 G	4785404.94	4785405.08	4785405.22	0.0276	0.0045
Venus	8389-11-27 08:52 G	4785409.83	4785409.87	4785409.94	0.0276	0.0265
Mercury	8390-02-19 02:52 G	4785493.48	4785493.62	4785493.76	0.0276	0.0061
Mercury	8390-05-18 15:36 G	4785582.04	4785582.15	4785582.26	0.0277	0.0165
Mercury	8390-08-15 04:04 G	4785670.64	4785670.67	4785670.71	0.0277	0.0268
Earth	8395-03-13 23:31 G	4787342.32	4787342.48	4787342.66	0.0284	0.0200
Moon	8395-03-14 01:55 G	4787342.43	4787342.58	4787342.75	0.0284	0.0209 *
Venus	8403-02-09 19:40 G	4790232.13	4790232.32	4790232.52	0.0285	0.0101
Mercury	8403-09-16 14:52 G	4790451.08	4790451.12	4790451.16	0.0284	0.0274
Venus	8403-09-27 11:16 G	4790461.79	4790461.97	4790462.16	0.0284	0.0131
Mercury	8403-12-14 09:07 G	4790539.74	4790539.88	4790540.02	0.0284	0.0144
Mercury	8404-03-12 03:36 G	4790628.48	4790628.65	4790628.81	0.0283	0.0012
Mercury	8404-06-08 22:19 G	4790717.28	4790717.43	4790717.58	0.0283	0.0124
Mercury	8404-09-05 17:31 G	4790806.17	4790806.23	4790806.30	0.0283	0.0261
Moon	8408-08-30 17:45 G	4792261.10	4792261.24	4792261.40	0.0276	0.0223
Earth	8408-08-30 19:40 G	4792261.20	4792261.32	4792261.45	0.0276	0.0237 *
Venus	8418-03-07 18:00 G	4795737.07	4795737.25	4795737.44	0.0274	0.0132
Venus	8418-10-23 02:09 G	4795966.39	4795966.59	4795966.80	0.0275	0.0077
Mercury	8419-01-13 01:26 G	4796048.47	4796048.56	4796048.67	0.0275	0.0192
Mercury	8419-04-11 14:52 G	4796136.98	4796137.12	4796137.26	0.0275	0.0083
Mercury	8419-07-09 03:50 G	4796225.52	4796225.66	4796225.81	0.0276	0.0023
Mercury	8419-10-05 16:33 G	4796314.07	4796314.19	4796314.32	0.0276	0.0128
Mercury	8420-01-02 05:16 G	4796402.64	4796402.72	4796402.80	0.0277	0.0231
Moon	8424-03-07 02:52 G	4797928.38	4797928.62	4797928.86	0.0284	0.0069
Earth	8424-03-07 06:00 G	4797928.52	4797928.75	4797928.99	0.0284	0.0077 *
Venus	8432-08-21 23:45 G	4801018.29	4801018.49	4801018.70	0.0285	0.0075
Venus	8433-04-08 15:50 G	4801247.98	4801248.16	4801248.33	0.0284	0.0157
Mercury	8433-05-02 08:38 G	4801271.74	4801271.86	4801271.99	0.0284	0.0187
Mercury	8433-07-30 03:07 G	4801360.47	4801360.63	4801360.79	0.0283	0.0055
Mercury	8433-10-26 21:50 G	4801449.25	4801449.41	4801449.57	0.0283	0.0080

Mercury	8434-01-23 17:02 G	4801538.10	4801538.21	4801538.32	0.0283	0.0216
Earth	8438-09-07 10:33 G	4803225.70	4803225.94	4803226.18	0.0275	0.0073
Moon	8438-09-07 13:55 G	4803225.85	4803226.08	4803226.32	0.0275	0.0089 *
Venus	8447-09-18 03:07 G	4806523.43	4806523.63	4806523.83	0.0275	0.0094
Venus	8448-05-04 11:16 G	4806752.78	4806752.97	4806753.17	0.0275	0.0115
Mercury	8448-06-01 04:48 G	4806780.61	4806780.70	4806780.80	0.0275	0.0211
Mercury	8448-08-28 18:14 G	4806869.12	4806869.26	4806869.39	0.0276	0.0103
Mercury	8448-11-25 07:11 G	4806957.66	4806957.80	4806957.95	0.0276	0.0007
Mercury	8449-02-21 20:09 G	4807046.21	4807046.34	4807046.47	0.0277	0.0109
Mercury	8449-05-21 08:38 G	4807134.78	4807134.86	4807134.96	0.0277	0.0213
Earth	8454-03-15 11:02 G	4808893.91	4808893.96	4808894.02	0.0285	0.0277
Moon	8454-03-15 14:23 G	4808894.07	4808894.10	4808894.14	0.0285	0.0281
Venus	8461-07-17 16:48 G	4811575.14	4811575.20	4811575.28	0.0286	0.0269
Venus	8462-03-04 09:07 G	4811804.67	4811804.88	4811805.09	0.0285	0.0035
Mercury	8462-09-19 10:19 G	4812003.83	4812003.93	4812004.04	0.0284	0.0214
Venus	8462-10-20 00:28 G	4812034.37	4812034.52	4812034.67	0.0284	0.0195
Mercury	8462-12-17 04:33 G	4812092.54	4812092.69	4812092.85	0.0284	0.0083
Mercury	8463-03-15 23:16 G	4812181.31	4812181.47	4812181.64	0.0283	0.0051
Mercury	8463-06-12 18:14 G	4812270.14	4812270.26	4812270.39	0.0283	0.0186
Moon	8467-09-02 00:43 G	4813812.33	4813812.53	4813812.74	0.0275	0.0154
Earth	8467-09-02 04:19 G	4813812.49	4813812.68	4813812.88	0.0275	0.0168 *
Mars	8471-11-29 09:21 G	4815361.67	4815361.89	4815362.12	0.0271	0.0162
Venus	8477-03-30 05:31 G	4817309.52	4817309.73	4817309.93	0.0274	0.0072
Mercury	8477-10-19 05:45 G	4817512.69	4817512.74	4817512.81	0.0275	0.0248
Venus	8477-11-14 13:40 G	4817538.89	4817539.07	4817539.26	0.0275	0.0137
Mercury	8478-01-15 19:11 G	4817601.18	4817601.30	4817601.43	0.0275	0.0140
Mercury	8478-04-14 08:23 G	4817689.71	4817689.85	4817690.00	0.0276	0.0033
Mercury	8478-07-11 21:21 G	4817778.25	4817778.39	4817778.53	0.0276	0.0073
Mercury	8478-10-08 10:04 G	4817866.81	4817866.92	4817867.03	0.0277	0.0177
Moon	8483-03-09 14:52 G	4819479.89	4819480.12	4819480.36	0.0284	0.0009

Earth	8483-03-09 17:45 G	4819480.00	4819480.24	4819480.49	0.0284	0.0004 *
Venus	8491-01-27 20:23 G	4822361.24	4822361.35	4822361.46	0.0286	0.0243
Venus	8491-09-14 12:43 G	4822590.81	4822591.03	4822591.24	0.0285	0.0011
Mercury	8492-02-06 09:50 G	4822735.85	4822735.91	4822735.98	0.0284	0.0257
Venus	8492-05-01 04:19 G	4822820.55	4822820.68	4822820.81	0.0284	0.0221
Mercury	8492-05-05 04:04 G	4822824.53	4822824.67	4822824.82	0.0284	0.0127
Mercury	8492-08-01 22:33 G	4822913.28	4822913.44	4822913.61	0.0283	0.0011
Mercury	8492-10-29 17:31 G	4823002.09	4823002.23	4823002.38	0.0283	0.0142
Mercury	8493-01-26 12:43 G	4823091.01	4823091.03	4823091.06	0.0282	0.0279
Earth	8497-09-08 18:14 G	4824777.06	4824777.26	4824777.48	0.0275	0.0140
Moon	8497-09-08 18:57 G	4824777.08	4824777.29	4824777.51	0.0275	0.0153 *
Venus	8506-02-24 06:14 G	4827866.67	4827866.76	4827866.86	0.0274	0.0242
Venus	8506-10-11 14:38 G	4828095.89	4828096.11	4828096.32	0.0275	0.0035
Mercury	8507-03-09 09:07 G	4828244.85	4828244.88	4828244.91	0.0275	0.0268
Venus	8507-05-28 23:02 G	4828325.30	4828325.46	4828325.63	0.0276	0.0175
Mercury	8507-06-05 22:33 G	4828333.32	4828333.44	4828333.56	0.0276	0.0159
Mercury	8507-09-02 11:45 G	4828421.85	4828421.99	4828422.13	0.0276	0.0052
Mercury	8507-11-30 00:43 G	4828510.39	4828510.53	4828510.67	0.0277	0.0055
Mercury	8508-02-26 13:40 G	4828598.95	4828599.07	4828599.18	0.0277	0.0159
Mercury	8508-05-25 02:09 G	4828687.55	4828687.59	4828687.63	0.0277	0.0262
Earth	8512-03-04 16:04 G	4830067.05	4830067.17	4830067.30	0.0283	0.0243
Moon	8512-03-04 19:26 G	4830067.17	4830067.31	4830067.45	0.0283	0.0231 *
Venus	8520-08-10 07:11 G	4833147.66	4833147.80	4833147.96	0.0285	0.0201
Venus	8521-03-27 23:16 G	4833377.26	4833377.47	4833377.68	0.0284	0.0032
Mercury	8521-06-26 12:14 G	4833467.99	4833468.01	4833468.04	0.0284	0.0279
Mercury	8521-09-23 06:14 G	4833556.62	4833556.76	4833556.90	0.0284	0.0150
Venus	8521-11-12 14:09 G	4833607.03	4833607.09	4833607.18	0.0283	0.0262
Mercury	8521-12-21 00:43 G	4833645.36	4833645.53	4833645.70	0.0283	0.0018
Mercury	8522-03-19 19:26 G	4833734.16	4833734.31	4833734.47	0.0283	0.0117
Mercury	8522-06-16 14:38 G	4833823.04	4833823.11	4833823.19	0.0282	0.0253

Moon	8526-09-04 13:55 G	4835363.85	4835364.08	4835364.31	0.0275	0.0083
Earth	8526-09-04 14:52 G	4835363.89	4835364.12	4835364.35	0.0275	0.0097 *
Venus	8535-09-06 09:21 G	4838652.77	4838652.89	4838653.03	0.0273	0.0219
Venus	8536-04-22 17:31 G	4838882.02	4838882.23	4838882.44	0.0274	0.0012
Mercury	8536-10-22 23:45 G	4839065.39	4839065.49	4839065.59	0.0275	0.0195
Venus	8536-12-08 01:55 G	4839111.43	4839111.58	4839111.73	0.0275	0.0197
Mercury	8537-01-19 12:57 G	4839153.91	4839154.04	4839154.18	0.0275	0.0088
Mercury	8537-04-18 02:09 G	4839242.44	4839242.59	4839242.73	0.0276	0.0019
Mercury	8537-07-15 14:52 G	4839331.00	4839331.12	4839331.25	0.0276	0.0124
Mercury	8537-10-12 03:36 G	4839419.57	4839419.65	4839419.73	0.0277	0.0227
Earth	8542-03-12 06:14 G	4841031.53	4841031.76	4841032.00	0.0285	0.0080
Moon	8542-03-12 07:11 G	4841031.58	4841031.80	4841032.03	0.0285	0.0084 *
Venus	8550-02-20 10:33 G	4843933.78	4843933.94	4843934.11	0.0285	0.0176
Venus	8550-10-08 02:38 G	4844163.41	4844163.61	4844163.82	0.0284	0.0057
Mercury	8551-02-10 05:45 G	4844288.62	4844288.74	4844288.86	0.0284	0.0194
Mercury	8551-05-10 00:00 G	4844377.34	4844377.50	4844377.67	0.0283	0.0063
Mercury	8551-08-06 18:43 G	4844466.12	4844466.28	4844466.45	0.0283	0.0072
Mercury	8551-11-03 13:40 G	4844554.96	4844555.07	4844555.19	0.0283	0.0208
Moon	8556-09-11 00:43 G	4846328.39	4846328.53	4846328.68	0.0274	0.0222
Earth	8556-09-11 03:50 G	4846328.51	4846328.66	4846328.83	0.0274	0.0209 *
Mars	8560-04-25 15:50 G	4847650.89	4847651.16	4847651.43	0.0272	0.0084
Venus	8565-03-18 17:31 G	4849439.08	4849439.23	4849439.40	0.0274	0.0183
Venus	8565-11-03 02:09 G	4849668.37	4849668.59	4849668.80	0.0275	0.0026
Mercury	8566-03-12 02:52 G	4849797.53	4849797.62	4849797.71	0.0276	0.0216
Mercury	8566-06-08 16:04 G	4849886.04	4849886.17	4849886.31	0.0276	0.0108
Venus	8566-06-20 10:33 G	4849897.84	4849897.94	4849898.06	0.0276	0.0236
Mercury	8566-09-05 05:16 G	4849974.58	4849974.72	4849974.87	0.0276	0.0004
Mercury	8566-12-02 18:14 G	4850063.13	4850063.26	4850063.39	0.0277	0.0105
Mercury	8567-03-01 06:57 G	4850151.70	4850151.79	4850151.88	0.0277	0.0209
Moon	8571-03-07 03:50 G	4851618.45	4851618.66	4851618.87	0.0284	0.0156

Earth	8571-03-07 04:19 G	4851618.49	4851618.68	4851618.88	0.0284	0.0165 *
Venus	8579-09-02 22:04 G	4854720.24	4854720.42	4854720.61	0.0285	0.0133
Venus	8580-04-19 14:09 G	4854949.89	4854950.09	4854950.28	0.0284	0.0099
Mercury	8580-06-29 08:23 G	4855020.74	4855020.85	4855020.95	0.0284	0.0215
Mercury	8580-09-26 02:38 G	4855109.45	4855109.61	4855109.77	0.0283	0.0085
Mercury	8580-12-23 21:07 G	4855198.22	4855198.38	4855198.55	0.0283	0.0049
Mercury	8581-03-22 16:04 G	4855287.05	4855287.17	4855287.30	0.0283	0.0184
Earth	8585-09-06 02:23 G	4856915.36	4856915.60	4856915.85	0.0275	0.0023
Moon	8585-09-06 05:45 G	4856915.49	4856915.74	4856915.98	0.0275	0.0008 *
Venus	8594-09-28 21:50 G	4860225.24	4860225.41	4860225.59	0.0274	0.0158
Venus	8595-05-16 05:45 G	4860454.54	4860454.74	4860454.96	0.0275	0.0050
Mercury	8595-07-30 04:04 G	4860529.62	4860529.67	4860529.74	0.0275	0.0250
Mercury	8595-10-26 17:31 G	4860618.11	4860618.23	4860618.36	0.0275	0.0142
Venus	8595-12-31 14:23 G	4860684.04	4860684.10	4860684.18	0.0276	0.0259
Mercury	8596-01-23 06:57 G	4860706.64	4860706.79	4860706.93	0.0276	0.0036
Mercury	8596-04-20 19:40 G	4860795.19	4860795.32	4860795.46	0.0276	0.0071
Mercury	8596-07-18 08:38 G	4860883.75	4860883.86	4860883.97	0.0276	0.0175
Earth	8601-03-14 18:43 G	4862583.08	4862583.28	4862583.49	0.0285	0.0159
Moon	8601-03-14 22:04 G	4862583.23	4862583.42	4862583.63	0.0285	0.0163 *
Venus	8609-03-16 00:57 G	4865506.35	4865506.54	4865506.74	0.0285	0.0108
Venus	8609-10-31 16:48 G	4865736.02	4865736.20	4865736.40	0.0284	0.0125
Mercury	8609-11-17 07:40 G	4865752.76	4865752.82	4865752.88	0.0284	0.0260
Mercury	8610-02-14 01:40 G	4865841.43	4865841.57	4865841.72	0.0284	0.0130
Mercury	8610-05-13 20:09 G	4865930.18	4865930.34	4865930.51	0.0283	0.0008
Mercury	8610-08-10 15:07 G	4866018.98	4866019.13	4866019.28	0.0283	0.0137
Mercury	8610-11-07 10:19 G	4866107.89	4866107.93	4866107.97	0.0282	0.0274
Moon	8614-09-01 13:40 G	4867501.97	4867502.07	4867502.17	0.0276	0.0252
Earth	8614-09-01 17:16 G	4867502.17	4867502.22	4867502.27	0.0276	0.0268 *
Venus	8624-04-11 05:02 G	4871011.52	4871011.71	4871011.90	0.0275	0.0125
Venus	8624-11-26 13:26 G	4871240.86	4871241.06	4871241.26	0.0275	0.0084

Mercury	8624-12-17 06:57 G	4871261.78	4871261.79	4871261.80	0.0276	0.0274
Mercury	8625-03-15 20:23 G	4871350.24	4871350.35	4871350.47	0.0276	0.0165
Mercury	8625-06-12 09:36 G	4871438.76	4871438.90	4871439.05	0.0276	0.0058
Mercury	8625-09-08 22:48 G	4871527.31	4871527.45	4871527.59	0.0277	0.0049
Mercury	8625-12-06 11:31 G	4871615.87	4871615.98	4871616.10	0.0277	0.0154
Mercury	8626-03-05 00:14 G	4871704.46	4871704.51	4871704.56	0.0277	0.0257
Moon	8630-03-09 12:00 G	4873169.77	4873170.00	4873170.23	0.0284	0.0081
Earth	8630-03-09 15:36 G	4873169.92	4873170.15	4873170.38	0.0284	0.0089 *
Venus	8638-09-26 13:11 G	4876292.84	4876293.05	4876293.25	0.0285	0.0065
Mercury	8639-04-06 10:19 G	4876484.91	4876484.93	4876484.97	0.0284	0.0279
Venus	8639-05-14 04:33 G	4876522.53	4876522.69	4876522.87	0.0284	0.0167
Mercury	8639-07-04 04:33 G	4876573.55	4876573.69	4876573.83	0.0284	0.0150
Mercury	8639-09-30 23:02 G	4876662.29	4876662.46	4876662.62	0.0283	0.0018
Mercury	8639-12-28 17:45 G	4876751.09	4876751.24	4876751.39	0.0283	0.0116
Mercury	8640-03-26 12:43 G	4876839.96	4876840.03	4876840.11	0.0282	0.0252
Earth	8644-09-08 14:38 G	4878466.87	4878467.11	4878467.36	0.0275	0.0052
Moon	8644-09-08 17:45 G	4878466.99	4878467.24	4878467.48	0.0275	0.0068 *
Mars	8648-09-21 01:40 G	4879940.28	4879940.57	4879940.85	0.0271	0.0006
Venus	8653-10-22 09:50 G	4881797.71	4881797.91	4881798.11	0.0274	0.0099
Venus	8654-06-08 18:00 G	4882027.05	4882027.25	4882027.44	0.0275	0.0109
Mercury	8654-08-02 22:04 G	4882082.32	4882082.42	4882082.52	0.0275	0.0197
Mercury	8654-10-30 11:16 G	4882170.84	4882170.97	4882171.11	0.0275	0.0091
Mercury	8655-01-27 00:28 G	4882259.38	4882259.52	4882259.66	0.0276	0.0016
Mercury	8655-04-25 13:11 G	4882347.93	4882348.05	4882348.19	0.0276	0.0122
Mercury	8655-07-23 02:09 G	4882436.51	4882436.59	4882436.67	0.0277	0.0224
Earth	8660-03-16 06:28 G	4884134.64	4884134.77	4884134.91	0.0285	0.0236
Moon	8660-03-16 08:09 G	4884134.72	4884134.84	4884134.99	0.0285	0.0238 *
Venus	8667-08-21 22:48 G	4886849.40	4886849.45	4886849.51	0.0286	0.0274
Venus	8668-04-07 15:21 G	4887078.93	4887079.14	4887079.35	0.0285	0.0041
Mercury	8668-11-20 03:21 G	4887305.53	4887305.64	4887305.76	0.0284	0.0197

Venus	8668-11-23 06:57 G	4887308.63	4887308.79	4887308.94	0.0284	0.0190
Mercury	8669-02-16 21:50 G	4887394.25	4887394.41	4887394.57	0.0284	0.0067
Mercury	8669-05-16 16:19 G	4887483.02	4887483.18	4887483.34	0.0283	0.0067
Mercury	8669-08-13 11:16 G	4887571.86	4887571.97	4887572.09	0.0283	0.0203
Moon	8673-09-03 01:40 G	4889053.39	4889053.57	4889053.75	0.0275	0.0181
Earth	8673-09-03 04:04 G	4889053.50	4889053.67	4889053.85	0.0275	0.0196 *
Jupiter	8674-02-04 23:31 G	4889208.03	4889208.48	4889208.96	0.0275	0.0082
Venus	8682-09-17 08:23 G	4892354.83	4892354.85	4892354.87	0.0274	0.0272
Venus	8683-05-04 16:19 G	4892583.98	4892584.18	4892584.39	0.0275	0.0066
Venus	8683-12-20 00:28 G	4892813.35	4892813.52	4892813.71	0.0276	0.0144
Mercury	8683-12-21 00:28 G	4892814.44	4892814.52	4892814.61	0.0276	0.0223
Mercury	8684-03-18 13:55 G	4892902.95	4892903.08	4892903.21	0.0276	0.0115
Mercury	8684-06-15 03:07 G	4892991.49	4892991.63	4892991.78	0.0276	0.0009
Mercury	8684-09-11 16:04 G	4893080.04	4893080.17	4893080.31	0.0277	0.0098
Mercury	8684-12-09 04:48 G	4893168.61	4893168.70	4893168.80	0.0277	0.0201
Moon	8689-03-10 23:45 G	4894721.26	4894721.49	4894721.73	0.0284	0.0011
Earth	8689-03-11 01:26 G	4894721.32	4894721.56	4894721.81	0.0284	0.0017 *
Mars	8692-10-22 02:52 G	4896042.39	4896042.62	4896042.88	0.0288	0.0169
Venus	8697-03-03 10:48 G	4897635.83	4897635.95	4897636.07	0.0286	0.0233
Venus	8697-10-19 02:52 G	4897865.41	4897865.62	4897865.83	0.0285	0.0003
Mercury	8698-04-09 06:14 G	4898037.66	4898037.76	4898037.86	0.0284	0.0218
Venus	8698-06-05 18:28 G	4898095.15	4898095.27	4898095.39	0.0284	0.0231
Mercury	8698-07-07 00:28 G	4898126.36	4898126.52	4898126.68	0.0284	0.0088
Mercury	8698-10-03 18:57 G	4898215.13	4898215.29	4898215.46	0.0283	0.0046
Mercury	8698-12-31 13:55 G	4898303.95	4898304.08	4898304.21	0.0283	0.0181
Moon	8703-09-12 00:14 G	4900018.30	4900018.51	4900018.74	0.0275	0.0140
Earth	8703-09-12 02:09 G	4900018.37	4900018.59	4900018.81	0.0275	0.0126 *
Venus	8712-03-30 13:40 G	4903140.98	4903141.07	4903141.16	0.0273	0.0246
Venus	8712-11-14 21:21 G	4903370.18	4903370.39	4903370.60	0.0274	0.0040
Mercury	8713-05-10 02:09 G	4903546.55	4903546.59	4903546.65	0.0275	0.0255

Venus	8713-07-02 05:16 G	4903599.56	4903599.72	4903599.89	0.0275	0.0168
Mercury	8713-08-06 15:36 G	4903635.03	4903635.15	4903635.28	0.0275	0.0147
Mercury	8713-11-03 05:02 G	4903723.56	4903723.71	4903723.85	0.0275	0.0041
Mercury	8714-01-30 17:45 G	4903812.11	4903812.24	4903812.39	0.0276	0.0066
Mercury	8714-04-29 06:28 G	4903900.67	4903900.77	4903900.89	0.0276	0.0170
Mercury	8714-07-26 19:11 G	4903989.28	4903989.30	4903989.33	0.0277	0.0271
Moon	8718-03-06 10:19 G	4905307.89	4905307.93	4905307.99	0.0283	0.0277
Venus	8726-09-14 12:00 G	4908421.87	4908422.00	4908422.16	0.0286	0.0210
Venus	8727-05-02 04:33 G	4908651.48	4908651.69	4908651.90	0.0285	0.0025
Mercury	8727-08-28 05:02 G	4908769.65	4908769.71	4908769.76	0.0284	0.0265
Mercury	8727-11-24 23:02 G	4908858.32	4908858.46	4908858.61	0.0284	0.0136
Venus	8727-12-17 19:55 G	4908881.25	4908881.33	4908881.43	0.0284	0.0254
Mercury	8728-02-21 17:31 G	4908947.06	4908947.23	4908947.40	0.0283	0.0004
Mercury	8728-05-20 12:14 G	4909035.86	4909036.01	4909036.16	0.0283	0.0130
Mercury	8728-08-17 07:11 G	4909124.76	4909124.80	4909124.87	0.0283	0.0267
Earth	8732-09-05 14:09 G	4910604.88	4910605.09	4910605.32	0.0275	0.0124
Moon	8732-09-05 16:04 G	4910604.95	4910605.17	4910605.39	0.0275	0.0110 *
Mars	8737-02-16 01:26 G	4912229.29	4912229.56	4912229.83	0.0271	0.0060
Venus	8741-10-10 18:28 G	4913927.15	4913927.27	4913927.41	0.0274	0.0217
Venus	8742-05-28 02:38 G	4914156.40	4914156.61	4914156.82	0.0275	0.0010
Mercury	8742-12-24 17:45 G	4914367.13	4914367.24	4914367.35	0.0276	0.0175
Venus	8743-01-12 10:48 G	4914385.82	4914385.95	4914386.11	0.0276	0.0200
Mercury	8743-03-23 07:11 G	4914455.66	4914455.80	4914455.94	0.0276	0.0068
Mercury	8743-06-19 20:09 G	4914544.20	4914544.34	4914544.48	0.0276	0.0038
Mercury	8743-09-16 09:07 G	4914632.76	4914632.88	4914633.00	0.0277	0.0143
Mercury	8743-12-13 21:36 G	4914721.34	4914721.40	4914721.47	0.0277	0.0246
Earth	8748-03-13 09:07 G	4916272.64	4916272.88	4916273.12	0.0285	0.0054
Moon	8748-03-13 12:00 G	4916272.77	4916273.00	4916273.24	0.0285	0.0056 *
Venus	8756-03-26 23:16 G	4919208.30	4919208.47	4919208.64	0.0285	0.0170
Venus	8756-11-11 15:21 G	4919437.94	4919438.14	4919438.35	0.0285	0.0064

Mercury	8757-04-13 01:26 G	4919590.43	4919590.56	4919590.70	0.0284	0.0160
Mercury	8757-07-10 19:55 G	4919679.16	4919679.33	4919679.49	0.0283	0.0028
Mercury	8757-10-07 14:38 G	4919767.95	4919768.11	4919768.27	0.0283	0.0106
Mercury	8758-01-04 09:36 G	4919856.82	4919856.90	4919856.99	0.0283	0.0242
Moon	8762-09-13 08:09 G	4921569.69	4921569.84	4921570.01	0.0275	0.0209
Earth	8762-09-13 12:00 G	4921569.83	4921570.00	4921570.17	0.0275	0.0196 *
Venus	8771-04-23 00:28 G	4924713.37	4924713.52	4924713.68	0.0273	0.0189
Venus	8771-12-08 08:09 G	4924942.63	4924942.84	4924943.05	0.0274	0.0017
Mercury	8772-05-12 19:40 G	4925099.23	4925099.32	4925099.42	0.0275	0.0205
Venus	8772-07-24 16:19 G	4925172.06	4925172.18	4925172.30	0.0275	0.0225
Mercury	8772-08-09 09:07 G	4925187.74	4925187.88	4925188.02	0.0275	0.0098
Mercury	8772-11-05 22:19 G	4925276.28	4925276.43	4925276.57	0.0275	0.0011
Mercury	8773-02-02 11:02 G	4925364.83	4925364.96	4925365.09	0.0276	0.0112
Mercury	8773-05-01 23:45 G	4925453.40	4925453.49	4925453.58	0.0276	0.0215
Moon	8777-03-07 14:09 G	4926858.93	4926859.09	4926859.26	0.0283	0.0212
Earth	8777-03-07 17:16 G	4926859.07	4926859.22	4926859.39	0.0283	0.0214 *
Mars	8781-03-18 12:28 G	4928330.75	4928331.02	4928331.31	0.0288	0.0112
Venus	8785-10-07 00:00 G	4929994.33	4929994.50	4929994.69	0.0286	0.0148
Venus	8786-05-24 16:19 G	4930223.98	4930224.18	4930224.38	0.0285	0.0086
Mercury	8786-08-30 23:45 G	4930322.39	4930322.49	4930322.60	0.0284	0.0210
Mercury	8786-11-27 18:00 G	4930411.10	4930411.25	4930411.41	0.0284	0.0080
Mercury	8787-02-24 12:43 G	4930499.86	4930500.03	4930500.19	0.0283	0.0054
Mercury	8787-05-24 07:26 G	4930588.69	4930588.81	4930588.94	0.0283	0.0189
Earth	8791-09-07 22:19 G	4932156.19	4932156.43	4932156.68	0.0275	0.0056
Moon	8791-09-08 01:55 G	4932156.34	4932156.58	4932156.83	0.0275	0.0041 *
Venus	8800-11-02 04:19 G	4935499.51	4935499.68	4935499.85	0.0274	0.0162
Venus	8801-06-19 12:14 G	4935728.80	4935729.01	4935729.22	0.0275	0.0045
Mercury	8801-09-29 21:21 G	4935831.32	4935831.39	4935831.46	0.0275	0.0237
Mercury	8801-12-27 10:48 G	4935919.82	4935919.95	4935920.08	0.0276	0.0130
Venus	8802-02-03 20:23 G	4935958.28	4935958.35	4935958.44	0.0276	0.0254

Mercury	8802-03-26 00:00 G	4936008.36	4936008.50	4936008.64	0.0276	0.0023
Mercury	8802-06-22 12:57 G	4936096.90	4936097.04	4936097.18	0.0276	0.0082
Mercury	8802-09-19 01:40 G	4936185.47	4936185.57	4936185.68	0.0277	0.0186
Earth	8807-03-15 14:23 G	4937823.88	4937824.10	4937824.33	0.0285	0.0120
Moon	8807-03-15 17:16 G	4937824.01	4937824.22	4937824.46	0.0285	0.0118 *
Venus	8815-04-19 10:04 G	4940780.73	4940780.92	4940781.12	0.0285	0.0110
Venus	8815-12-05 02:09 G	4941010.40	4941010.59	4941010.79	0.0284	0.0123
Mercury	8816-01-18 01:55 G	4941054.49	4941054.58	4941054.67	0.0284	0.0236
Mercury	8816-04-15 20:09 G	4941143.19	4941143.34	4941143.49	0.0284	0.0106
Mercury	8816-07-13 14:38 G	4941231.95	4941232.11	4941232.28	0.0283	0.0027
Mercury	8816-10-10 09:21 G	4941320.76	4941320.89	4941321.04	0.0283	0.0162
Moon	8820-09-01 18:28 G	4942743.22	4942743.27	4942743.33	0.0276	0.0268
Earth	8821-09-14 19:40 G	4943121.26	4943121.32	4943121.40	0.0275	0.0264
Mars	8825-07-13 10:48 G	4944518.72	4944518.95	4944519.19	0.0271	0.0143
Venus	8830-05-15 10:19 G	4946285.75	4946285.93	4946286.12	0.0273	0.0134
Venus	8830-12-30 18:00 G	4946515.04	4946515.25	4946515.45	0.0274	0.0072
Mercury	8831-02-16 23:16 G	4946563.45	4946563.47	4946563.51	0.0274	0.0267
Mercury	8831-05-16 12:57 G	4946651.92	4946652.04	4946652.16	0.0275	0.0159
Mercury	8831-08-13 02:09 G	4946740.45	4946740.59	4946740.73	0.0275	0.0053
Mercury	8831-11-09 15:07 G	4946828.99	4946829.13	4946829.27	0.0275	0.0052
Mercury	8832-02-06 03:50 G	4946917.55	4946917.66	4946917.78	0.0276	0.0156
Mercury	8832-05-04 16:33 G	4947006.14	4947006.19	4947006.24	0.0276	0.0257
Moon	8836-03-08 20:23 G	4948410.16	4948410.35	4948410.56	0.0283	0.0147
Earth	8836-03-08 23:02 G	4948410.26	4948410.46	4948410.68	0.0283	0.0147 *
Venus	8844-10-29 10:33 G	4951566.74	4951566.94	4951567.15	0.0285	0.0088
Venus	8845-06-16 02:23 G	4951796.43	4951796.60	4951796.79	0.0285	0.0145
Mercury	8845-09-02 18:14 G	4951875.12	4951875.26	4951875.40	0.0284	0.0158
Mercury	8845-11-30 12:28 G	4951963.86	4951964.02	4951964.19	0.0284	0.0027
Mercury	8846-02-27 07:11 G	4952052.65	4952052.80	4952052.96	0.0283	0.0107
Mercury	8846-05-27 02:23 G	4952141.52	4952141.60	4952141.68	0.0283	0.0243

Earth	8850-09-09 04:33 G	4953707.44	4953707.69	4953707.94	0.0275	0.0009
Moon	8850-09-09 05:16 G	4953707.46	4953707.72	4953707.97	0.0275	0.0022 *
Venus	8859-11-25 12:43 G	4957071.84	4957072.03	4957072.23	0.0274	0.0110
Venus	8860-07-11 20:38 G	4957301.17	4957301.36	4957301.56	0.0275	0.0098
Mercury	8860-10-02 13:55 G	4957383.99	4957384.08	4957384.19	0.0275	0.0195
Mercury	8860-12-30 03:21 G	4957472.51	4957472.64	4957472.78	0.0276	0.0087
Mercury	8861-03-28 16:33 G	4957561.05	4957561.19	4957561.33	0.0276	0.0019
Mercury	8861-06-25 05:31 G	4957649.60	4957649.73	4957649.85	0.0276	0.0124
Mercury	8861-09-21 18:00 G	4957738.18	4957738.25	4957738.33	0.0277	0.0226
Moon	8866-03-16 16:33 G	4959375.00	4959375.19	4959375.39	0.0285	0.0175
Earth	8866-03-16 18:14 G	4959375.07	4959375.26	4959375.44	0.0285	0.0182 *
Mars	8869-08-12 11:45 G	4960619.69	4960619.99	4960620.30	0.0288	0.0038
Venus	8874-05-11 19:11 G	4962353.09	4962353.30	4962353.51	0.0285	0.0054
Venus	8874-12-27 11:02 G	4962582.80	4962582.96	4962583.13	0.0284	0.0179
Mercury	8875-01-20 19:40 G	4962607.20	4962607.32	4962607.45	0.0284	0.0188
Mercury	8875-04-19 14:09 G	4962695.93	4962696.09	4962696.25	0.0284	0.0057
Mercury	8875-07-17 08:38 G	4962784.70	4962784.86	4962785.03	0.0283	0.0077
Mercury	8875-10-14 03:50 G	4962873.55	4962873.66	4962873.77	0.0283	0.0212
Moon	8879-09-04 01:55 G	4964294.43	4964294.58	4964294.75	0.0276	0.0206
Earth	8879-09-04 03:07 G	4964294.48	4964294.63	4964294.78	0.0276	0.0220 *
Venus	8889-06-06 19:11 G	4967858.10	4967858.30	4967858.51	0.0273	0.0081
Venus	8890-01-22 02:38 G	4968087.43	4968087.61	4968087.81	0.0274	0.0126
Mercury	8890-02-19 16:19 G	4968116.10	4968116.18	4968116.27	0.0274	0.0222
Mercury	8890-05-19 05:31 G	4968204.60	4968204.73	4968204.87	0.0275	0.0116
Mercury	8890-08-15 18:43 G	4968293.14	4968293.28	4968293.43	0.0275	0.0011
Mercury	8890-11-12 07:40 G	4968381.69	4968381.82	4968381.96	0.0275	0.0094
Mercury	8891-02-08 20:23 G	4968470.25	4968470.35	4968470.45	0.0276	0.0197
Earth	8895-03-11 03:07 G	4969961.40	4969961.63	4969961.86	0.0283	0.0083
Moon	8895-03-11 04:19 G	4969961.46	4969961.68	4969961.91	0.0283	0.0086 *
Venus	8903-04-07 02:38 G	4972909.54	4972909.61	4972909.69	0.0286	0.0266

Venus	8903-11-22 19:26 G	4973139.10	4973139.31	4973139.52	0.0285	0.0033
Mercury	8904-06-09 17:45 G	4973339.16	4973339.24	4973339.33	0.0285	0.0240
Venus	8904-07-09 11:02 G	4973368.82	4973368.96	4973369.12	0.0284	0.0200
Mercury	8904-09-06 12:00 G	4973427.85	4973428.00	4973428.15	0.0284	0.0110
Mercury	8904-12-04 06:28 G	4973516.60	4973516.77	4973516.94	0.0284	0.0022
Mercury	8905-03-03 01:11 G	4973605.42	4973605.55	4973605.69	0.0283	0.0157
Moon	8909-09-11 05:16 G	4975258.48	4975258.72	4975258.96	0.0275	0.0082
Earth	8909-09-11 08:38 G	4975258.62	4975258.86	4975259.10	0.0275	0.0070 *
Mars	8913-12-07 17:02 G	4976807.01	4976807.21	4976807.43	0.0271	0.0180
Venus	8918-05-03 13:26 G	4978415.01	4978415.06	4978415.12	0.0273	0.0262
Venus	8918-12-18 20:38 G	4978644.16	4978644.36	4978644.57	0.0274	0.0058
Mercury	8919-07-10 17:02 G	4978848.17	4978848.21	4978848.26	0.0275	0.0260
Venus	8919-08-05 04:19 G	4978873.51	4978873.68	4978873.87	0.0275	0.0150
Mercury	8919-10-07 06:28 G	4978936.65	4978936.77	4978936.89	0.0275	0.0153
Mercury	8920-01-03 19:40 G	4979025.18	4979025.32	4979025.47	0.0275	0.0047
Mercury	8920-04-01 08:52 G	4979113.73	4979113.87	4979114.01	0.0276	0.0059
Mercury	8920-06-28 21:36 G	4979202.29	4979202.40	4979202.51	0.0276	0.0162
Mercury	8920-09-25 10:04 G	4979290.89	4979290.92	4979290.96	0.0277	0.0264
Moon	8925-03-18 15:50 G	4980926.03	4980926.16	4980926.31	0.0285	0.0231
Earth	8925-03-18 19:11 G	4980926.19	4980926.30	4980926.44	0.0285	0.0241 *
Venus	8932-10-17 09:50 G	4983695.80	4983695.91	4983696.04	0.0286	0.0235
Venus	8933-06-04 02:38 G	4983925.40	4983925.61	4983925.82	0.0285	0.0003
Mercury	8933-10-27 18:57 G	4984071.25	4984071.29	4984071.34	0.0285	0.0273
Venus	8934-01-19 18:28 G	4984155.16	4984155.27	4984155.40	0.0284	0.0231
Mercury	8934-01-24 12:57 G	4984159.90	4984160.04	4984160.19	0.0284	0.0144
Mercury	8934-04-23 07:26 G	4984248.65	4984248.81	4984248.98	0.0284	0.0012
Mercury	8934-07-21 02:09 G	4984337.44	4984337.59	4984337.74	0.0283	0.0123
Mercury	8934-10-17 21:07 G	4984426.32	4984426.38	4984426.46	0.0283	0.0259
Earth	8938-09-06 05:31 G	4985845.53	4985845.73	4985845.93	0.0276	0.0161
Moon	8938-09-06 08:52 G	4985845.67	4985845.87	4985846.08	0.0276	0.0145 *

Venus	8947-11-13 19:55 G	4989201.23	4989201.33	4989201.45	0.0273	0.0233
Venus	8948-06-30 03:21 G	4989430.43	4989430.64	4989430.85	0.0273	0.0029
Venus	8949-02-14 11:02 G	4989659.80	4989659.96	4989660.12	0.0274	0.0178
Mercury	8949-02-23 08:52 G	4989668.76	4989668.87	4989668.98	0.0274	0.0180
Mercury	8949-05-22 22:04 G	4989757.28	4989757.42	4989757.56	0.0275	0.0074
Mercury	8949-08-19 11:16 G	4989845.83	4989845.97	4989846.11	0.0275	0.0031
Mercury	8949-11-16 00:00 G	4989934.38	4989934.50	4989934.63	0.0275	0.0135
Mercury	8950-02-12 12:43 G	4990022.96	4990023.03	4990023.10	0.0276	0.0236
Earth	8954-03-13 06:00 G	4991512.50	4991512.75	4991512.99	0.0283	0.0022
Moon	8954-03-13 09:21 G	4991512.65	4991512.89	4991513.14	0.0283	0.0026 *
Mars	8958-01-06 05:31 G	4992907.43	4992907.73	4992908.04	0.0288	0.0006
Venus	8962-04-29 10:19 G	4994481.80	4994481.93	4994482.08	0.0286	0.0212
Venus	8962-12-15 02:52 G	4994711.41	4994711.62	4994711.83	0.0285	0.0021
Mercury	8963-06-13 11:02 G	4994891.84	4994891.96	4994892.08	0.0285	0.0196
Venus	8963-08-01 18:43 G	4994941.18	4994941.28	4994941.37	0.0284	0.0252
Mercury	8963-09-10 05:16 G	4994980.56	4994980.72	4994980.88	0.0284	0.0065
Mercury	8963-12-07 23:45 G	4995069.33	4995069.49	4995069.66	0.0284	0.0068
Mercury	8964-03-05 18:43 G	4995158.17	4995158.28	4995158.40	0.0283	0.0203
Moon	8968-09-12 08:09 G	4996809.63	4996809.84	4996810.05	0.0275	0.0138
Earth	8968-09-12 10:19 G	4996809.72	4996809.93	4996810.16	0.0275	0.0128 *
Venus	8977-05-25 20:52 G	4999987.24	4999987.37	4999987.50	0.0273	0.0213
Venus	8978-01-10 04:04 G	5000216.46	5000216.67	5000216.88	0.0274	0.0008
Mercury	8978-07-13 09:21 G	5000400.81	5000400.89	5000400.98	0.0275	0.0220
Venus	8978-08-27 11:31 G	5000445.85	5000445.98	5000446.14	0.0275	0.0200
Mercury	8978-10-09 22:48 G	5000489.32	5000489.45	5000489.58	0.0275	0.0113
Mercury	8979-01-06 12:00 G	5000577.85	5000578.00	5000578.14	0.0275	0.0007
Mercury	8979-04-05 00:57 G	5000666.40	5000666.54	5000666.67	0.0276	0.0097
Mercury	8979-07-02 13:40 G	5000754.97	5000755.07	5000755.16	0.0276	0.0199
Venus	8991-11-09 16:19 G	5005268.02	5005268.18	5005268.34	0.0286	0.0183
Venus	8992-06-26 08:52 G	5005497.66	5005497.87	5005498.08	0.0285	0.0051

Mercury	8992-10-30 11:31 G	5005623.89	5005623.98	5005624.08	0.0285	0.0233
Mercury	8993-01-27 05:45 G	5005712.59	5005712.74	5005712.89	0.0284	0.0103
Venus	8993-02-11 00:28 G	5005727.51	5005727.52	5005727.56	0.0284	0.0281
Mercury	8993-04-26 00:14 G	5005801.35	5005801.51	5005801.68	0.0284	0.0030
Mercury	8993-07-23 19:11 G	5005890.16	5005890.30	5005890.43	0.0283	0.0165
Earth	8997-09-07 06:00 G	5007396.53	5007396.75	5007396.99	0.0276	0.0106
Moon	8997-09-07 08:23 G	5007396.61	5007396.85	5007397.09	0.0276	0.0092 *

10TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 10th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	9002-05-04 17:16 G		5009096.12	5009096.22	5009096.33	0.0271	0.0252	
Venus	9006-12-07 03:21 G		5010773.50	5010773.64	5010773.81	0.0273	0.0182	
Venus	9007-07-24 10:48 G		5011002.74	5011002.95	5011003.16	0.0274	0.0023	
Mercury	9007-12-01 12:00 G		5011132.93	5011133.00	5011133.06	0.0274	0.0245	
Mercury	9008-02-28 01:11 G		5011221.43	5011221.55	5011221.68	0.0274	0.0139	
Venus	9008-03-09 18:14 G		5011232.16	5011232.26	5011232.39	0.0274	0.0230	
Mercury	9008-05-26 14:23 G		5011309.96	5011310.10	5011310.25	0.0275	0.0034	
Mercury	9008-08-23 03:21 G		5011398.51	5011398.64	5011398.78	0.0275	0.0071	
Mercury	9008-11-19 16:04 G		5011487.07	5011487.17	5011487.28	0.0275	0.0173	
Mercury	9009-02-16 04:33 G		5011575.69	5011575.69	5011575.71	0.0276	0.0274	
Earth	9013-03-15 07:40 G		5013063.58	5013063.82	5013064.07	0.0283	0.0037	
Moon	9013-03-15 08:23 G		5013063.60	5013063.85	5013064.10	0.0283	0.0030 *	

Venus	9021-05-22 17:02 G	5016054.05	5016054.21	5016054.39	0.0286	0.0160
Venus	9022-01-07 09:36 G	5016283.69	5016283.90	5016284.10	0.0285	0.0073
Mercury	9022-03-20 10:04 G	5016355.90	5016355.92	5016355.94	0.0285	0.0282
Mercury	9022-06-17 03:50 G	5016444.53	5016444.66	5016444.80	0.0284	0.0154
Mercury	9022-09-13 22:19 G	5016533.26	5016533.43	5016533.59	0.0284	0.0023
Mercury	9022-12-11 17:02 G	5016622.05	5016622.21	5016622.36	0.0284	0.0111
Mercury	9023-03-10 12:00 G	5016710.92	5016711.00	5016711.08	0.0283	0.0247
Earth	9027-09-15 11:02 G	5018360.78	5018360.96	5018361.15	0.0275	0.0182
Moon	9027-09-15 13:26 G	5018360.90	5018361.06	5018361.24	0.0275	0.0190 *
Venus	9036-06-18 03:21 G	5021559.48	5021559.64	5021559.82	0.0273	0.0163
Venus	9037-02-02 10:48 G	5021788.74	5021788.95	5021789.16	0.0274	0.0042
Mercury	9037-07-17 01:26 G	5021953.46	5021953.56	5021953.68	0.0275	0.0181
Venus	9037-09-19 18:43 G	5022018.20	5022018.28	5022018.37	0.0275	0.0249
Mercury	9037-10-13 14:52 G	5022041.98	5022042.12	5022042.26	0.0275	0.0074
Mercury	9038-01-10 04:04 G	5022130.52	5022130.67	5022130.81	0.0275	0.0032
Mercury	9038-04-08 16:48 G	5022219.08	5022219.20	5022219.33	0.0276	0.0134
Mercury	9038-07-06 05:16 G	5022307.66	5022307.72	5022307.80	0.0276	0.0236
Earth	9042-03-09 15:07 G	5023650.00	5023650.13	5023650.28	0.0283	0.0231
Moon	9042-03-09 14:52 G	5023650.01	5023650.12	5023650.26	0.0283	0.0238 *
Mars	9046-06-02 05:02 G	5025195.40	5025195.71	5025196.01	0.0288	0.0032
Venus	9050-12-02 22:33 G	5026840.25	5026840.44	5026840.62	0.0286	0.0132
Venus	9051-07-20 14:52 G	5027069.92	5027070.12	5027070.32	0.0285	0.0101
Mercury	9051-11-04 04:04 G	5027176.56	5027176.67	5027176.79	0.0284	0.0193
Mercury	9052-01-31 22:19 G	5027265.27	5027265.43	5027265.59	0.0284	0.0063
Mercury	9052-04-29 17:02 G	5027354.05	5027354.21	5027354.37	0.0284	0.0071
Mercury	9052-07-27 11:45 G	5027442.89	5027442.99	5027443.11	0.0283	0.0207
Moon	9056-09-09 02:38 G	5028947.37	5028947.61	5028947.87	0.0277	0.0045
Earth	9056-09-09 05:31 G	5028947.49	5028947.73	5028947.98	0.0277	0.0052 *
Mars	9060-08-11 02:09 G	5030379.51	5030379.59	5030379.69	0.0272	0.0258
Venus	9065-12-29 10:48 G	5032345.77	5032345.95	5032346.14	0.0273	0.0131

Venus	9066-08-15 18:14 G	5032575.05	5032575.26	5032575.46	0.0274	0.0074
Mercury	9066-12-04 04:04 G	5032685.58	5032685.67	5032685.77	0.0274	0.0205
Mercury	9067-03-02 17:31 G	5032774.10	5032774.23	5032774.37	0.0274	0.0099
Mercury	9067-05-30 06:43 G	5032862.64	5032862.78	5032862.92	0.0275	0.0006
Mercury	9067-08-26 19:40 G	5032951.19	5032951.32	5032951.45	0.0275	0.0110
Mercury	9067-11-23 08:09 G	5033039.76	5033039.84	5033039.93	0.0275	0.0211
Moon	9072-03-16 06:28 G	5034614.54	5034614.77	5034615.01	0.0283	0.0085
Earth	9072-03-16 10:04 G	5034614.69	5034614.92	5034615.15	0.0283	0.0097 *
Venus	9080-06-13 23:45 G	5037626.30	5037626.49	5037626.69	0.0286	0.0108
Venus	9081-01-29 15:50 G	5037855.98	5037856.16	5037856.35	0.0285	0.0125
Mercury	9081-03-23 02:38 G	5037908.53	5037908.61	5037908.70	0.0285	0.0241
Mercury	9081-06-19 20:38 G	5037997.21	5037997.36	5037997.52	0.0284	0.0113
Mercury	9081-09-16 15:07 G	5038085.97	5038086.13	5038086.30	0.0284	0.0020
Mercury	9081-12-14 09:50 G	5038174.77	5038174.91	5038175.06	0.0284	0.0154
Earth	9086-09-16 11:02 G	5039911.84	5039911.96	5039912.09	0.0276	0.0236
Moon	9086-09-16 14:23 G	5039911.98	5039912.10	5039912.23	0.0276	0.0238 *
Mars	9090-09-27 13:55 G	5041384.08	5041384.08	5041384.10	0.0271	0.0271
Venus	9095-07-11 10:33 G	5043131.75	5043131.94	5043132.13	0.0273	0.0113
Venus	9096-02-25 17:45 G	5043361.05	5043361.24	5043361.45	0.0274	0.0094
Mercury	9096-04-22 04:19 G	5043417.63	5043417.68	5043417.75	0.0274	0.0247
Mercury	9096-07-19 17:45 G	5043506.12	5043506.24	5043506.37	0.0275	0.0141
Mercury	9096-10-16 07:11 G	5043594.65	5043594.80	5043594.94	0.0275	0.0035
Mercury	9097-01-12 20:09 G	5043683.20	5043683.34	5043683.48	0.0275	0.0069
Mercury	9097-04-11 08:52 G	5043771.76	5043771.87	5043771.98	0.0276	0.0172
Mercury	9097-07-08 21:21 G	5043860.38	5043860.39	5043860.41	0.0276	0.0273
Earth	9101-03-11 16:19 G	5045201.00	5045201.18	5045201.38	0.0283	0.0173
Moon	9101-03-11 20:09 G	5045201.16	5045201.34	5045201.53	0.0283	0.0183 *
Venus	9109-12-26 04:19 G	5048412.48	5048412.68	5048412.89	0.0286	0.0081
Mercury	9110-08-11 02:38 G	5048640.59	5048640.61	5048640.64	0.0285	0.0281
Venus	9110-08-12 20:38 G	5048642.18	5048642.36	5048642.54	0.0285	0.0151

Mercury	9110-11-07 20:38 G	5048729.22	5048729.36	5048729.50	0.0284	0.0153
Mercury	9111-02-04 14:52 G	5048817.96	5048818.12	5048818.29	0.0284	0.0024
Mercury	9111-05-04 09:36 G	5048906.75	5048906.90	5048907.06	0.0284	0.0112
Mercury	9111-08-01 04:33 G	5048995.62	5048995.69	5048995.78	0.0283	0.0248
Moon	9115-09-12 01:40 G	5050498.33	5050498.57	5050498.82	0.0277	0.0007
Earth	9115-09-12 04:48 G	5050498.45	5050498.70	5050498.95	0.0277	0.0001 *
Venus	9125-01-21 18:00 G	5053918.05	5053918.25	5053918.46	0.0273	0.0080
Venus	9125-09-08 01:26 G	5054147.38	5054147.56	5054147.75	0.0274	0.0126
Mercury	9125-09-10 06:57 G	5054149.78	5054149.79	5054149.82	0.0274	0.0271
Mercury	9125-12-07 20:38 G	5054238.24	5054238.36	5054238.48	0.0274	0.0164
Mercury	9126-03-06 09:50 G	5054326.77	5054326.91	5054327.06	0.0275	0.0059
Mercury	9126-06-02 23:02 G	5054415.31	5054415.46	5054415.60	0.0275	0.0046
Mercury	9126-08-30 11:45 G	5054503.87	5054503.99	5054504.11	0.0275	0.0148
Mercury	9126-11-27 00:14 G	5054592.46	5054592.51	5054592.57	0.0276	0.0250
Moon	9131-03-19 10:48 G	5056165.75	5056165.95	5056166.16	0.0283	0.0144
Earth	9131-03-19 12:57 G	5056165.84	5056166.04	5056166.24	0.0283	0.0158 *
Mars	9134-10-27 07:11 G	5057483.51	5057483.80	5057484.09	0.0287	0.0080
Venus	9139-07-08 06:57 G	5059198.58	5059198.79	5059199.00	0.0286	0.0054
Venus	9140-02-22 22:48 G	5059428.29	5059428.45	5059428.62	0.0285	0.0178
Mercury	9140-03-26 19:26 G	5059461.20	5059461.31	5059461.43	0.0285	0.0199
Mercury	9140-06-23 13:40 G	5059549.92	5059550.07	5059550.24	0.0284	0.0069
Mercury	9140-09-20 08:23 G	5059638.69	5059638.85	5059639.01	0.0284	0.0064
Mercury	9140-12-18 03:07 G	5059727.52	5059727.63	5059727.75	0.0284	0.0199
Earth	9144-09-05 11:16 G	5061084.89	5061084.97	5061085.06	0.0277	0.0260
Moon	9144-09-05 14:23 G	5061085.00	5061085.10	5061085.21	0.0277	0.0250 *
Mars	9149-01-04 21:50 G	5062667.29	5062667.41	5062667.56	0.0272	0.0239
Venus	9153-12-17 10:33 G	5064474.90	5064474.94	5064475.00	0.0273	0.0265
Venus	9154-08-03 17:45 G	5064704.04	5064704.24	5064704.45	0.0273	0.0062
Venus	9155-03-21 01:26 G	5064933.38	5064933.56	5064933.74	0.0274	0.0144
Mercury	9155-04-26 20:52 G	5064970.28	5064970.37	5064970.47	0.0274	0.0206

Mercury	9155-07-24 10:19 G	5065058.79	5065058.93	5065059.06	0.0275	0.0100
Mercury	9155-10-20 23:16 G	5065147.33	5065147.47	5065147.62	0.0275	0.0010
Mercury	9156-01-17 12:14 G	5065235.88	5065236.01	5065236.14	0.0275	0.0109
Mercury	9156-04-15 00:57 G	5065324.45	5065324.54	5065324.63	0.0276	0.0210
Earth	9160-03-12 19:11 G	5066752.08	5066752.30	5066752.53	0.0282	0.0112
Moon	9160-03-12 20:52 G	5066752.14	5066752.37	5066752.59	0.0282	0.0124 *
Venus	9168-06-01 18:00 G	5069755.18	5069755.25	5069755.34	0.0286	0.0262
Venus	9169-01-17 10:48 G	5069984.74	5069984.95	5069985.17	0.0285	0.0029
Mercury	9169-08-13 19:11 G	5070193.23	5070193.30	5070193.40	0.0285	0.0241
Venus	9169-09-04 02:52 G	5070214.48	5070214.62	5070214.78	0.0284	0.0204
Mercury	9169-11-10 13:26 G	5070281.91	5070282.06	5070282.21	0.0284	0.0111
Mercury	9170-02-07 07:55 G	5070370.66	5070370.83	5070370.99	0.0284	0.0020
Mercury	9170-05-07 02:38 G	5070459.47	5070459.61	5070459.75	0.0283	0.0154
Earth	9174-09-13 04:04 G	5072049.43	5072049.67	5072049.92	0.0277	0.0053
Moon	9174-09-13 05:16 G	5072049.49	5072049.72	5072049.95	0.0277	0.0054 *
Venus	9183-06-29 18:43 G	5075261.17	5075261.28	5075261.39	0.0273	0.0230
Venus	9184-02-14 01:55 G	5075490.37	5075490.58	5075490.79	0.0274	0.0027
Mercury	9184-09-12 23:45 G	5075702.41	5075702.49	5075702.57	0.0274	0.0228
Venus	9184-09-30 09:36 G	5075719.75	5075719.90	5075720.07	0.0274	0.0179
Mercury	9184-12-10 13:11 G	5075790.92	5075791.05	5075791.18	0.0275	0.0122
Mercury	9185-03-09 02:23 G	5075879.46	5075879.60	5075879.75	0.0275	0.0017
Mercury	9185-06-05 15:21 G	5075968.00	5075968.14	5075968.28	0.0275	0.0087
Mercury	9185-09-02 04:04 G	5076056.57	5076056.67	5076056.77	0.0276	0.0189
Earth	9190-03-20 17:16 G	5077717.08	5077717.22	5077717.38	0.0283	0.0221
Moon	9190-03-20 19:55 G	5077717.18	5077717.33	5077717.50	0.0283	0.0206 *
Venus	9197-12-12 22:19 G	5080541.32	5080541.43	5080541.56	0.0286	0.0232
Venus	9198-07-30 14:52 G	5080770.91	5080771.12	5080771.33	0.0285	0.0002
Mercury	9198-12-31 18:57 G	5080925.27	5080925.29	5080925.32	0.0285	0.0281
Venus	9199-03-17 06:43 G	5081000.66	5081000.78	5081000.90	0.0285	0.0232
Mercury	9199-03-30 12:57 G	5081013.91	5081014.04	5081014.18	0.0284	0.0153

Mercury	9199-06-27 07:11 G	5081102.64	5081102.80	5081102.97	0.0284	0.0023
Mercury	9199-09-24 01:40 G	5081191.42	5081191.57	5081191.73	0.0284	0.0111
Mercury	9199-12-21 20:52 G	5081280.29	5081280.37	5081280.45	0.0283	0.0245
Moon	9203-09-07 11:45 G	5082635.81	5082635.99	5082636.17	0.0277	0.0197
Earth	9203-09-07 12:43 G	5082635.87	5082636.03	5082636.21	0.0277	0.0203 *
Venus	9213-01-08 18:28 G	5086047.15	5086047.27	5086047.41	0.0273	0.0213
Venus	9213-08-26 01:55 G	5086276.37	5086276.58	5086276.79	0.0274	0.0009
Mercury	9214-01-31 00:00 G	5086434.48	5086434.50	5086434.52	0.0274	0.0271
Venus	9214-04-12 09:21 G	5086505.75	5086505.89	5086506.05	0.0274	0.0198
Mercury	9214-04-29 13:26 G	5086522.95	5086523.06	5086523.18	0.0275	0.0164
Mercury	9214-07-27 02:38 G	5086611.47	5086611.61	5086611.76	0.0275	0.0059
Mercury	9214-10-23 15:50 G	5086700.02	5086700.16	5086700.30	0.0275	0.0046
Mercury	9215-01-20 04:33 G	5086788.58	5086788.69	5086788.82	0.0276	0.0150
Mercury	9215-04-18 17:16 G	5086877.17	5086877.22	5086877.28	0.0276	0.0250
Moon	9219-03-14 20:38 G	5088303.12	5088303.36	5088303.61	0.0282	0.0063
Earth	9219-03-14 23:45 G	5088303.25	5088303.49	5088303.73	0.0282	0.0048 *
Mars	9223-03-22 07:40 G	5089771.55	5089771.82	5089772.11	0.0287	0.0122
Venus	9227-06-25 02:09 G	5091327.45	5091327.59	5091327.74	0.0286	0.0206
Venus	9228-02-09 18:43 G	5091557.07	5091557.28	5091557.49	0.0285	0.0027
Mercury	9228-08-16 12:43 G	5091745.91	5091746.03	5091746.15	0.0284	0.0195
Venus	9228-09-26 10:33 G	5091786.87	5091786.94	5091787.04	0.0284	0.0258
Mercury	9228-11-13 06:43 G	5091834.63	5091834.78	5091834.95	0.0284	0.0066
Mercury	9229-02-10 01:26 G	5091923.40	5091923.56	5091923.72	0.0284	0.0067
Mercury	9229-05-09 20:09 G	5092012.23	5092012.34	5092012.46	0.0283	0.0202
Earth	9233-09-14 05:02 G	5093600.49	5093600.71	5093600.94	0.0277	0.0108
Moon	9233-09-14 08:38 G	5093600.64	5093600.86	5093601.09	0.0277	0.0108 *
Mars	9237-05-31 17:45 G	5094956.03	5094956.24	5094956.47	0.0273	0.0173
Venus	9242-07-22 02:52 G	5096833.46	5096833.62	5096833.78	0.0273	0.0178
Venus	9243-03-08 10:19 G	5097062.72	5097062.93	5097063.14	0.0274	0.0027
Mercury	9243-09-16 16:33 G	5097255.08	5097255.19	5097255.30	0.0275	0.0184

Venus	9243-10-23 18:14 G	5097292.16	5097292.26	5097292.38	0.0275	0.0233
Mercury	9243-12-14 06:00 G	5097343.61	5097343.75	5097343.89	0.0275	0.0078
Mercury	9244-03-11 18:57 G	5097432.15	5097432.29	5097432.44	0.0275	0.0027
Mercury	9244-06-08 07:55 G	5097520.71	5097520.83	5097520.96	0.0276	0.0129
Mercury	9244-09-04 20:38 G	5097609.29	5097609.36	5097609.44	0.0276	0.0231
Moon	9249-03-22 02:38 G	5099268.56	5099268.61	5099268.69	0.0283	0.0271
Venus	9257-01-04 07:55 G	5102113.67	5102113.83	5102114.00	0.0286	0.0174
Venus	9257-08-22 00:14 G	5102343.31	5102343.51	5102343.72	0.0285	0.0059
Mercury	9258-01-03 12:57 G	5102477.95	5102478.04	5102478.13	0.0285	0.0232
Mercury	9258-04-02 06:57 G	5102566.64	5102566.79	5102566.94	0.0284	0.0104
Mercury	9258-06-30 01:11 G	5102655.39	5102655.55	5102655.72	0.0284	0.0028
Mercury	9258-09-26 19:55 G	5102744.20	5102744.33	5102744.47	0.0284	0.0161
Moon	9262-09-08 12:14 G	5104186.81	5104187.01	5104187.23	0.0277	0.0142
Earth	9262-09-08 16:04 G	5104186.97	5104187.17	5104187.39	0.0277	0.0145 *
Venus	9272-02-01 03:21 G	5107619.48	5107619.64	5107619.83	0.0273	0.0160
Venus	9272-09-17 11:02 G	5107848.76	5107848.96	5107849.17	0.0274	0.0047
Mercury	9273-02-02 17:02 G	5107987.13	5107987.21	5107987.29	0.0274	0.0225
Mercury	9273-05-02 06:28 G	5108075.64	5108075.77	5108075.90	0.0275	0.0118
Venus	9273-05-04 18:43 G	5108078.22	5108078.28	5108078.38	0.0275	0.0253
Mercury	9273-07-29 19:40 G	5108164.18	5108164.32	5108164.47	0.0275	0.0014
Mercury	9273-10-26 08:38 G	5108252.73	5108252.86	5108253.00	0.0275	0.0091
Mercury	9274-01-22 21:21 G	5108341.30	5108341.39	5108341.50	0.0276	0.0193
Moon	9278-03-16 03:36 G	5109854.42	5109854.65	5109854.89	0.0282	0.0007
Earth	9278-03-16 06:43 G	5109854.53	5109854.78	5109855.02	0.0282	0.0019 *
Venus	9286-07-17 11:16 G	5112899.80	5112899.97	5112900.16	0.0286	0.0149
Venus	9287-03-04 03:50 G	5113129.46	5113129.66	5113129.87	0.0285	0.0085
Mercury	9287-05-23 12:28 G	5113209.99	5113210.02	5113210.07	0.0285	0.0274
Mercury	9287-08-20 06:28 G	5113298.63	5113298.77	5113298.91	0.0284	0.0147
Mercury	9287-11-17 00:43 G	5113387.37	5113387.53	5113387.70	0.0284	0.0016
Mercury	9288-02-13 19:26 G	5113476.16	5113476.31	5113476.46	0.0284	0.0117

Mercury	9288-05-12 14:09 G	5113565.03	5113565.09	5113565.18	0.0283	0.0253
Earth	9292-09-15 07:55 G	5115151.64	5115151.83	5115152.04	0.0277	0.0166
Moon	9292-09-15 09:07 G	5115151.68	5115151.88	5115152.09	0.0277	0.0162 *
Venus	9301-08-14 12:00 G	5118405.81	5118406.00	5118406.19	0.0274	0.0123
Venus	9302-03-31 19:40 G	5118635.12	5118635.32	5118635.53	0.0274	0.0083
Mercury	9302-06-23 19:55 G	5118719.27	5118719.33	5118719.40	0.0275	0.0246
Mercury	9302-09-20 09:36 G	5118807.78	5118807.90	5118808.03	0.0275	0.0138
Mercury	9302-12-17 22:48 G	5118896.31	5118896.45	5118896.60	0.0275	0.0034
Mercury	9303-03-16 12:00 G	5118984.86	5118985.00	5118985.14	0.0276	0.0071
Mercury	9303-06-13 00:43 G	5119073.42	5119073.53	5119073.64	0.0276	0.0174
Mercury	9303-09-09 13:26 G	5119162.05	5119162.06	5119162.07	0.0276	0.0274
Earth	9307-03-12 04:19 G	5120441.54	5120441.68	5120441.84	0.0281	0.0219
Moon	9307-03-12 07:26 G	5120441.69	5120441.81	5120441.97	0.0281	0.0231 *
Mars	9311-08-17 15:36 G	5122060.95	5122061.15	5122061.35	0.0287	0.0215
Venus	9316-01-28 19:11 G	5123686.11	5123686.30	5123686.50	0.0285	0.0112
Venus	9316-09-14 11:16 G	5123915.78	5123915.97	5123916.16	0.0285	0.0120
Mercury	9317-01-07 07:26 G	5124030.69	5124030.81	5124030.94	0.0284	0.0178
Mercury	9317-04-06 01:40 G	5124119.40	5124119.57	5124119.73	0.0284	0.0049
Mercury	9317-07-03 20:09 G	5124208.18	5124208.34	5124208.50	0.0284	0.0083
Mercury	9317-09-30 14:52 G	5124297.02	5124297.12	5124297.23	0.0283	0.0217
Moon	9321-09-10 21:07 G	5125738.16	5125738.38	5125738.62	0.0277	0.0082
Earth	9321-09-10 22:04 G	5125738.18	5125738.42	5125738.66	0.0277	0.0081 *
Mars	9325-10-26 04:19 G	5127244.44	5127244.68	5127244.94	0.0272	0.0132
Venus	9331-02-24 13:26 G	5129191.87	5129192.06	5129192.26	0.0273	0.0103
Venus	9331-10-11 21:07 G	5129421.19	5129421.38	5129421.58	0.0274	0.0103
Mercury	9332-02-07 10:19 G	5129539.82	5129539.93	5129540.04	0.0275	0.0177
Mercury	9332-05-05 23:45 G	5129628.35	5129628.49	5129628.63	0.0275	0.0072
Mercury	9332-08-02 12:43 G	5129716.89	5129717.03	5129717.18	0.0275	0.0034
Mercury	9332-10-30 01:40 G	5129805.45	5129805.57	5129805.70	0.0276	0.0136
Mercury	9333-01-26 14:23 G	5129894.03	5129894.10	5129894.17	0.0276	0.0238

Earth	9337-03-18 15:07 G	5131405.91	5131406.13	5131406.37	0.0283	0.0090
Moon	9337-03-18 15:50 G	5131405.94	5131406.16	5131406.40	0.0283	0.0076 *
Venus	9345-08-09 22:33 G	5134472.24	5134472.44	5134472.64	0.0285	0.0087
Venus	9346-03-27 14:52 G	5134701.94	5134702.12	5134702.30	0.0285	0.0145
Mercury	9346-05-27 06:57 G	5134762.69	5134762.79	5134762.89	0.0284	0.0221
Mercury	9346-08-24 00:57 G	5134851.39	5134851.54	5134851.70	0.0284	0.0093
Mercury	9346-11-20 19:26 G	5134940.15	5134940.31	5134940.48	0.0284	0.0039
Mercury	9347-02-17 14:09 G	5135028.96	5135029.09	5135029.23	0.0283	0.0172
Moon	9351-09-18 09:50 G	5136702.77	5136702.91	5136703.07	0.0276	0.0219
Earth	9351-09-18 13:26 G	5136702.92	5136703.06	5136703.20	0.0276	0.0226 *
Venus	9360-01-20 14:38 G	5139749.08	5139749.11	5139749.15	0.0274	0.0270
Venus	9360-09-05 22:19 G	5139978.22	5139978.43	5139978.63	0.0274	0.0066
Venus	9361-04-23 06:14 G	5140207.58	5140207.76	5140207.94	0.0275	0.0140
Mercury	9361-06-26 13:26 G	5140271.96	5140272.06	5140272.16	0.0275	0.0197
Mercury	9361-09-23 02:52 G	5140360.49	5140360.62	5140360.76	0.0275	0.0091
Mercury	9361-12-20 16:04 G	5140449.03	5140449.17	5140449.32	0.0276	0.0016
Mercury	9362-03-19 05:02 G	5140537.59	5140537.71	5140537.84	0.0276	0.0118
Mercury	9362-06-15 17:45 G	5140626.16	5140626.24	5140626.33	0.0276	0.0220
Moon	9366-03-13 13:55 G	5141992.88	5141993.08	5141993.30	0.0282	0.0161
Earth	9366-03-13 14:23 G	5141992.90	5141993.10	5141993.31	0.0282	0.0148 *
Venus	9374-07-05 15:21 G	5145029.11	5145029.14	5145029.18	0.0286	0.0280
Venus	9375-02-20 07:55 G	5145258.62	5145258.83	5145259.03	0.0285	0.0048
Venus	9375-10-07 23:45 G	5145488.33	5145488.49	5145488.65	0.0284	0.0183
Mercury	9375-10-14 08:38 G	5145494.79	5145494.86	5145494.94	0.0284	0.0248
Mercury	9376-01-11 02:38 G	5145583.46	5145583.61	5145583.76	0.0284	0.0121
Mercury	9376-04-08 20:52 G	5145672.20	5145672.37	5145672.53	0.0284	0.0010
Mercury	9376-07-06 15:21 G	5145761.00	5145761.14	5145761.29	0.0283	0.0143
Mercury	9376-10-03 10:19 G	5145849.91	5145849.93	5145849.97	0.0283	0.0277
Earth	9380-09-12 06:00 G	5147289.50	5147289.75	5147290.00	0.0277	0.0015
Moon	9380-09-12 09:21 G	5147289.65	5147289.89	5147290.14	0.0277	0.0019 *

Venus	9389-08-01 17:02 G	5150535.13	5150535.21	5150535.30	0.0273	0.0248
Venus	9390-03-19 00:28 G	5150764.31	5150764.52	5150764.73	0.0274	0.0045
Venus	9390-11-03 08:23 G	5150993.68	5150993.85	5150994.02	0.0274	0.0161
Mercury	9390-11-13 14:09 G	5151004.02	5151004.09	5151004.17	0.0274	0.0235
Mercury	9391-02-10 03:50 G	5151092.53	5151092.66	5151092.79	0.0275	0.0128
Mercury	9391-05-09 17:16 G	5151181.07	5151181.22	5151181.36	0.0275	0.0023
Mercury	9391-08-06 06:14 G	5151269.62	5151269.76	5151269.90	0.0275	0.0082
Mercury	9391-11-02 18:57 G	5151358.19	5151358.29	5151358.40	0.0276	0.0184
Earth	9396-03-20 01:40 G	5152957.37	5152957.57	5152957.77	0.0283	0.0162
Moon	9396-03-20 05:02 G	5152957.52	5152957.71	5152957.93	0.0283	0.0147 *
Mars	9400-01-11 08:52 G	5154349.84	5154349.87	5154349.93	0.0287	0.0284
Venus	9404-01-16 18:28 G	5155815.18	5155815.27	5155815.36	0.0286	0.0255
Venus	9404-09-02 11:02 G	5156044.75	5156044.96	5156045.17	0.0285	0.0023
Venus	9405-04-20 03:07 G	5156274.49	5156274.63	5156274.78	0.0284	0.0208
Mercury	9405-05-31 01:55 G	5156315.46	5156315.58	5156315.72	0.0284	0.0165
Mercury	9405-08-27 20:09 G	5156404.18	5156404.34	5156404.51	0.0284	0.0035
Mercury	9405-11-24 14:52 G	5156492.96	5156493.12	5156493.27	0.0284	0.0098
Mercury	9406-02-21 09:36 G	5156581.81	5156581.90	5156582.00	0.0283	0.0232
Moon	9409-09-07 16:04 G	5157876.10	5157876.17	5157876.25	0.0278	0.0263
Earth	9409-09-07 19:40 G	5157876.24	5157876.32	5157876.41	0.0278	0.0260 *
Mars	9414-03-23 07:26 G	5159533.54	5159533.81	5159534.09	0.0273	0.0057
Venus	9419-02-13 00:57 G	5161321.42	5161321.54	5161321.69	0.0274	0.0214
Venus	9419-09-30 09:07 G	5161550.67	5161550.88	5161551.09	0.0275	0.0008
Mercury	9420-04-02 17:16 G	5161736.18	5161736.22	5161736.28	0.0275	0.0255
Venus	9420-05-16 17:16 G	5161780.07	5161780.22	5161780.36	0.0275	0.0199
Mercury	9420-06-30 06:57 G	5161824.67	5161824.79	5161824.92	0.0275	0.0148
Mercury	9420-09-26 20:23 G	5161913.21	5161913.35	5161913.49	0.0276	0.0042
Mercury	9420-12-24 09:36 G	5162001.76	5162001.90	5162002.04	0.0276	0.0063
Mercury	9421-03-22 22:19 G	5162090.32	5162090.43	5162090.55	0.0276	0.0166
Mercury	9421-06-19 11:16 G	5162178.93	5162178.97	5162179.00	0.0277	0.0267

Moon	9425-03-15 21:21 G	5163544.17	5163544.39	5163544.63	0.0282	0.0091
Earth	9425-03-16 01:26 G	5163544.32	5163544.56	5163544.79	0.0282	0.0074 *
Venus	9433-07-29 05:16 G	5166601.59	5166601.72	5166601.87	0.0286	0.0215
Venus	9434-03-15 21:50 G	5166831.20	5166831.41	5166831.62	0.0285	0.0018
Mercury	9434-10-18 04:19 G	5167047.56	5167047.68	5167047.80	0.0284	0.0187
Venus	9434-10-31 13:26 G	5167060.96	5167061.06	5167061.16	0.0284	0.0248
Mercury	9435-01-14 22:19 G	5167136.27	5167136.43	5167136.59	0.0284	0.0059
Mercury	9435-04-13 16:48 G	5167225.04	5167225.20	5167225.36	0.0284	0.0072
Mercury	9435-07-11 11:31 G	5167313.87	5167313.98	5167314.10	0.0283	0.0206
Earth	9439-09-15 16:04 G	5168840.93	5168841.17	5168841.42	0.0277	0.0056
Moon	9439-09-15 18:43 G	5168841.03	5168841.28	5168841.53	0.0277	0.0049 *
Venus	9448-08-25 04:33 G	5172107.54	5172107.69	5172107.85	0.0273	0.0190
Venus	9449-04-11 12:14 G	5172336.80	5172337.01	5172337.22	0.0274	0.0014
Mercury	9449-11-17 08:09 G	5172556.74	5172556.84	5172556.95	0.0275	0.0183
Venus	9449-11-26 20:09 G	5172566.22	5172566.34	5172566.47	0.0275	0.0221
Mercury	9450-02-13 21:36 G	5172645.26	5172645.40	5172645.54	0.0275	0.0077
Mercury	9450-05-13 10:48 G	5172733.81	5172733.95	5172734.10	0.0275	0.0029
Mercury	9450-08-09 23:45 G	5172822.37	5172822.49	5172822.62	0.0276	0.0131
Mercury	9450-11-06 12:28 G	5172910.95	5172911.02	5172911.10	0.0276	0.0233
Earth	9455-03-23 13:40 G	5174508.95	5174509.07	5174509.21	0.0283	0.0238
Moon	9455-03-23 15:07 G	5174508.99	5174509.13	5174509.30	0.0283	0.0222 *
Venus	9463-02-08 08:09 G	5177387.69	5177387.84	5177388.00	0.0286	0.0189
Venus	9463-09-26 00:43 G	5177617.32	5177617.53	5177617.74	0.0285	0.0043
Mercury	9464-03-06 03:36 G	5177779.56	5177779.65	5177779.75	0.0284	0.0232
Venus	9464-05-12 16:33 G	5177847.14	5177847.19	5177847.25	0.0284	0.0272
Mercury	9464-06-02 21:36 G	5177868.25	5177868.40	5177868.56	0.0284	0.0104
Mercury	9464-08-30 16:04 G	5177957.00	5177957.17	5177957.33	0.0284	0.0028
Mercury	9464-11-27 10:33 G	5178045.81	5178045.94	5178046.08	0.0283	0.0160
Moon	9468-09-09 03:07 G	5179427.47	5179427.63	5179427.81	0.0277	0.0194
Earth	9468-09-09 05:16 G	5179427.55	5179427.72	5179427.91	0.0277	0.0191 *

Venus	9478-03-07 12:14 G	5182893.85	5182894.01	5182894.20	0.0274	0.0156
Venus	9478-10-22 20:23 G	5183123.15	5183123.35	5183123.56	0.0275	0.0051
Mercury	9479-04-06 11:02 G	5183288.87	5183288.96	5183289.06	0.0275	0.0205
Venus	9479-06-09 04:48 G	5183352.63	5183352.70	5183352.77	0.0275	0.0258
Mercury	9479-07-04 00:43 G	5183377.39	5183377.53	5183377.67	0.0276	0.0097
Mercury	9479-09-30 13:55 G	5183465.94	5183466.08	5183466.23	0.0276	0.0009
Mercury	9479-12-28 02:52 G	5183554.50	5183554.62	5183554.76	0.0276	0.0113
Mercury	9480-03-25 15:50 G	5183643.07	5183643.16	5183643.25	0.0276	0.0214
Moon	9484-03-17 11:16 G	5185095.74	5185095.97	5185096.21	0.0282	0.0017
Earth	9484-03-17 12:43 G	5185095.79	5185096.03	5185096.28	0.0282	0.0005 *
Venus	9492-08-20 19:55 G	5188174.16	5188174.33	5188174.52	0.0285	0.0148
Venus	9493-04-07 12:14 G	5188403.81	5188404.01	5188404.21	0.0285	0.0085
Mercury	9493-07-24 06:28 G	5188511.70	5188511.77	5188511.84	0.0284	0.0252
Mercury	9493-10-21 00:14 G	5188600.37	5188600.51	5188600.66	0.0284	0.0125
Mercury	9494-01-17 18:28 G	5188689.11	5188689.27	5188689.44	0.0284	0.0006
Mercury	9494-04-16 12:57 G	5188777.90	5188778.04	5188778.19	0.0283	0.0138
Mercury	9494-07-14 07:55 G	5188866.79	5188866.83	5188866.88	0.0283	0.0272
Moon	9498-09-17 01:55 G	5190392.35	5190392.58	5190392.81	0.0277	0.0119
Earth	9498-09-17 03:50 G	5190392.45	5190392.66	5190392.89	0.0277	0.0129 *
Mars	9502-08-18 14:23 G	5191822.81	5191823.10	5191823.38	0.0273	0.0018
Venus	9507-09-18 16:33 G	5193680.01	5193680.19	5193680.38	0.0273	0.0132
Venus	9508-05-05 00:28 G	5193909.31	5193909.52	5193909.72	0.0274	0.0074
Mercury	9508-08-24 12:28 G	5194020.95	5194021.02	5194021.10	0.0274	0.0238
Mercury	9508-11-21 02:09 G	5194109.46	5194109.59	5194109.72	0.0275	0.0131
Mercury	9509-02-17 15:36 G	5194198.00	5194198.15	5194198.29	0.0275	0.0026
Mercury	9509-05-17 04:33 G	5194286.55	5194286.69	5194286.83	0.0275	0.0079
Mercury	9509-08-13 17:31 G	5194375.12	5194375.23	5194375.34	0.0276	0.0181
Earth	9513-03-12 22:19 G	5195682.35	5195682.43	5195682.53	0.0281	0.0259
Moon	9513-03-12 23:16 G	5195682.43	5195682.47	5195682.54	0.0281	0.0273 *
Venus	9522-03-03 22:33 G	5198960.26	5198960.44	5198960.64	0.0285	0.0123

Venus	9522-10-19 14:52 G	5199189.93	5199190.12	5199190.32	0.0285	0.0109
Mercury	9523-03-10 23:31 G	5199332.35	5199332.48	5199332.61	0.0284	0.0170
Mercury	9523-06-07 17:31 G	5199421.07	5199421.23	5199421.40	0.0284	0.0041
Mercury	9523-09-04 12:00 G	5199509.85	5199510.00	5199510.16	0.0284	0.0091
Mercury	9523-12-02 06:57 G	5199598.69	5199598.79	5199598.89	0.0283	0.0225
Earth	9527-09-12 16:19 G	5200978.96	5200979.18	5200979.41	0.0277	0.0119
Moon	9527-09-12 18:14 G	5200979.05	5200979.26	5200979.47	0.0277	0.0123 *
Venus	9537-03-30 23:45 G	5204466.29	5204466.49	5204466.69	0.0274	0.0098
Venus	9537-11-15 07:40 G	5204695.64	5204695.82	5204696.02	0.0275	0.0110
Mercury	9538-01-11 15:07 G	5204753.09	5204753.13	5204753.18	0.0275	0.0262
Mercury	9538-04-10 04:48 G	5204841.58	5204841.70	5204841.83	0.0275	0.0154
Mercury	9538-07-07 18:14 G	5204930.12	5204930.26	5204930.41	0.0276	0.0048
Mercury	9538-10-04 07:26 G	5205018.67	5205018.81	5205018.96	0.0276	0.0058
Mercury	9538-12-31 20:23 G	5205107.24	5205107.35	5205107.47	0.0276	0.0160
Mercury	9539-03-30 09:07 G	5205195.84	5205195.88	5205195.93	0.0277	0.0262
Earth	9543-03-20 23:45 G	5206647.26	5206647.49	5206647.73	0.0283	0.0075
Moon	9543-03-21 02:52 G	5206647.39	5206647.62	5206647.85	0.0283	0.0059 *
Mars	9546-09-13 12:00 G	5207919.84	5207920.00	5207920.17	0.0286	0.0240
Venus	9551-09-14 10:48 G	5209746.75	5209746.95	5209747.16	0.0285	0.0080
Venus	9552-05-01 02:52 G	5209976.45	5209976.62	5209976.80	0.0284	0.0151
Mercury	9552-07-28 02:23 G	5210064.48	5210064.60	5210064.72	0.0284	0.0189
Mercury	9552-10-24 20:23 G	5210153.19	5210153.35	5210153.51	0.0284	0.0061
Mercury	9553-01-21 14:38 G	5210241.96	5210242.11	5210242.28	0.0284	0.0071
Mercury	9553-04-20 09:21 G	5210330.78	5210330.89	5210331.01	0.0283	0.0204
Moon	9557-09-19 12:14 G	5211943.85	5211944.01	5211944.20	0.0276	0.0193
Earth	9557-09-19 15:50 G	5211944.00	5211944.16	5211944.34	0.0276	0.0202 *
Venus	9566-10-11 04:48 G	5215252.50	5215252.70	5215252.91	0.0274	0.0072
Venus	9567-05-28 12:43 G	5215481.84	5215482.03	5215482.21	0.0274	0.0134
Mercury	9567-08-28 06:28 G	5215573.67	5215573.77	5215573.88	0.0274	0.0186
Mercury	9567-11-24 20:09 G	5215662.20	5215662.34	5215662.48	0.0275	0.0080

Mercury	9568-02-21 09:21 G	5215750.74	5215750.89	5215751.03	0.0275	0.0025
Mercury	9568-05-19 22:19 G	5215839.30	5215839.43	5215839.56	0.0275	0.0128
Mercury	9568-08-16 11:02 G	5215927.89	5215927.96	5215928.04	0.0276	0.0229
Moon	9572-03-14 06:57 G	5217233.62	5217233.79	5217233.97	0.0282	0.0200
Earth	9572-03-14 09:50 G	5217233.73	5217233.91	5217234.10	0.0282	0.0185 *
Venus	9581-03-26 12:57 G	5220532.83	5220533.04	5220533.25	0.0285	0.0056
Venus	9581-11-11 05:02 G	5220762.55	5220762.71	5220762.88	0.0285	0.0175
Mercury	9581-12-15 01:26 G	5220796.47	5220796.56	5220796.65	0.0284	0.0235
Mercury	9582-03-13 19:11 G	5220885.16	5220885.30	5220885.46	0.0284	0.0108
Mercury	9582-06-10 13:40 G	5220973.90	5220974.07	5220974.23	0.0284	0.0023
Mercury	9582-09-07 08:09 G	5221062.70	5221062.84	5221062.98	0.0283	0.0155
Earth	9586-09-14 03:50 G	5222530.42	5222530.66	5222530.90	0.0277	0.0046
Moon	9586-09-14 07:26 G	5222530.57	5222530.81	5222531.06	0.0277	0.0050 *
Mars	9591-01-12 17:02 G	5224111.94	5224112.21	5224112.48	0.0273	0.0088
Venus	9595-09-06 03:21 G	5225809.55	5225809.64	5225809.73	0.0274	0.0245
Venus	9596-04-22 11:02 G	5226038.75	5226038.96	5226039.17	0.0274	0.0041
Venus	9596-12-07 19:11 G	5226268.13	5226268.30	5226268.47	0.0275	0.0167
Mercury	9597-01-14 08:52 G	5226305.78	5226305.87	5226305.97	0.0275	0.0212
Mercury	9597-04-12 22:33 G	5226394.30	5226394.44	5226394.57	0.0276	0.0105
Mercury	9597-07-10 11:45 G	5226482.85	5226482.99	5226483.14	0.0276	0.0006
Mercury	9597-10-07 00:57 G	5226571.41	5226571.54	5226571.67	0.0276	0.0105
Mercury	9598-01-03 13:40 G	5226659.98	5226660.07	5226660.17	0.0277	0.0207
Earth	9602-03-22 09:36 G	5228198.70	5228198.90	5228199.11	0.0283	0.0146
Moon	9602-03-22 12:43 G	5228198.81	5228199.03	5228199.25	0.0283	0.0131 *
Venus	9610-02-19 08:09 G	5231089.75	5231089.84	5231089.96	0.0286	0.0248
Venus	9610-10-07 00:57 G	5231319.33	5231319.54	5231319.75	0.0285	0.0015
Mercury	9611-05-04 04:19 G	5231528.62	5231528.68	5231528.75	0.0284	0.0255
Venus	9611-05-24 17:02 G	5231549.07	5231549.21	5231549.35	0.0284	0.0216
Mercury	9611-07-31 22:19 G	5231617.28	5231617.43	5231617.57	0.0284	0.0128
Mercury	9611-10-28 16:19 G	5231706.02	5231706.18	5231706.35	0.0284	0.0006

Mercury	9612-01-25 10:48 G	5231794.81	5231794.95	5231795.10	0.0283	0.0134
Mercury	9612-04-23 05:45 G	5231883.69	5231883.74	5231883.80	0.0283	0.0268
Moon	9615-09-08 23:02 G	5233117.44	5233117.46	5233117.52	0.0278	0.0274
Earth	9615-09-09 02:52 G	5233117.59	5233117.62	5233117.68	0.0278	0.0272
Moon	9616-09-21 02:52 G	5233495.57	5233495.62	5233495.68	0.0276	0.0267
Earth	9616-09-21 03:36 G	5233495.65	5233495.65	5233495.67	0.0276	0.0276 *
Venus	9625-03-18 08:52 G	5236595.75	5236595.87	5236596.00	0.0273	0.0218
Venus	9625-11-02 16:33 G	5236824.98	5236825.19	5236825.40	0.0274	0.0014
Mercury	9626-06-03 10:48 G	5237037.88	5237037.95	5237038.02	0.0274	0.0242
Venus	9626-06-20 00:00 G	5237054.36	5237054.50	5237054.67	0.0274	0.0193
Mercury	9626-08-31 00:14 G	5237126.39	5237126.51	5237126.64	0.0275	0.0136
Mercury	9626-11-27 13:40 G	5237214.93	5237215.07	5237215.22	0.0275	0.0030
Mercury	9627-02-24 02:52 G	5237303.48	5237303.62	5237303.76	0.0275	0.0074
Mercury	9627-05-23 15:36 G	5237392.05	5237392.15	5237392.27	0.0275	0.0176
Moon	9631-03-16 17:02 G	5238785.00	5238785.21	5238785.42	0.0282	0.0127
Earth	9631-03-16 19:55 G	5238785.12	5238785.33	5238785.56	0.0282	0.0112 *
Mars	9635-02-07 06:00 G	5240208.51	5240208.75	5240208.99	0.0286	0.0171
Venus	9639-09-01 10:19 G	5241875.80	5241875.93	5241876.06	0.0286	0.0223
Venus	9640-04-18 02:52 G	5242105.41	5242105.62	5242105.83	0.0285	0.0010
Venus	9640-12-03 18:28 G	5242335.17	5242335.27	5242335.39	0.0284	0.0239
Mercury	9640-12-17 21:07 G	5242349.25	5242349.38	5242349.50	0.0284	0.0176
Mercury	9641-03-16 15:07 G	5242437.97	5242438.13	5242438.29	0.0284	0.0047
Mercury	9641-06-13 09:21 G	5242526.73	5242526.89	5242527.05	0.0284	0.0084
Mercury	9641-09-10 04:04 G	5242615.57	5242615.67	5242615.78	0.0283	0.0217
Earth	9645-09-15 14:23 G	5244081.85	5244082.10	5244082.34	0.0277	0.0026
Moon	9645-09-15 15:07 G	5244081.87	5244082.13	5244082.39	0.0277	0.0018 *
Venus	9654-09-28 13:55 G	5247381.93	5247382.08	5247382.24	0.0274	0.0190
Venus	9655-05-15 21:50 G	5247611.19	5247611.41	5247611.62	0.0275	0.0017
Mercury	9655-10-21 12:28 G	5247770.01	5247770.02	5247770.05	0.0275	0.0271
Venus	9655-12-31 05:31 G	5247840.62	5247840.73	5247840.86	0.0275	0.0223

Mercury	9656-01-18 02:23 G	5247858.48	5247858.60	5247858.72	0.0275	0.0163
Mercury	9656-04-15 15:50 G	5247947.02	5247947.16	5247947.30	0.0276	0.0057
Mercury	9656-07-13 05:02 G	5248035.57	5248035.71	5248035.86	0.0276	0.0048
Mercury	9656-10-09 18:00 G	5248124.13	5248124.25	5248124.37	0.0276	0.0151
Mercury	9657-01-06 06:43 G	5248212.73	5248212.78	5248212.84	0.0277	0.0252
Moon	9661-03-23 17:02 G	5249750.05	5249750.21	5249750.40	0.0283	0.0202
Earth	9661-03-23 17:45 G	5249750.10	5249750.24	5249750.41	0.0283	0.0216 *
Venus	9669-03-13 21:07 G	5252662.23	5252662.38	5252662.55	0.0286	0.0185
Venus	9669-10-29 13:40 G	5252891.87	5252892.07	5252892.28	0.0285	0.0049
Mercury	9670-05-06 23:31 G	5253081.37	5253081.48	5253081.60	0.0284	0.0198
Venus	9670-06-16 05:45 G	5253121.70	5253121.74	5253121.78	0.0284	0.0278
Mercury	9670-08-03 17:31 G	5253170.07	5253170.23	5253170.39	0.0284	0.0070
Mercury	9670-10-31 12:00 G	5253258.84	5253259.00	5253259.16	0.0284	0.0061
Mercury	9671-01-28 06:43 G	5253347.66	5253347.78	5253347.90	0.0283	0.0194
Moon	9674-09-10 12:57 G	5254668.89	5254669.04	5254669.21	0.0278	0.0205
Earth	9674-09-10 13:40 G	5254668.90	5254669.07	5254669.24	0.0278	0.0199 *
Mars	9679-06-09 06:43 G	5256401.58	5256401.78	5256402.01	0.0272	0.0179
Venus	9684-04-09 20:09 G	5258168.17	5258168.34	5258168.51	0.0273	0.0161
Venus	9684-11-25 03:36 G	5258397.44	5258397.65	5258397.86	0.0274	0.0044
Mercury	9685-06-06 04:19 G	5258590.58	5258590.68	5258590.79	0.0274	0.0193
Venus	9685-07-12 11:31 G	5258626.89	5258626.98	5258627.07	0.0274	0.0249
Mercury	9685-09-02 18:00 G	5258679.11	5258679.25	5258679.39	0.0275	0.0086
Mercury	9685-11-30 07:11 G	5258767.66	5258767.80	5258767.95	0.0275	0.0018
Mercury	9686-02-26 20:09 G	5258856.21	5258856.34	5258856.47	0.0275	0.0121
Mercury	9686-05-26 08:52 G	5258944.79	5258944.87	5258944.96	0.0275	0.0222
Earth	9690-03-18 04:33 G	5260336.45	5260336.69	5260336.93	0.0282	0.0041
Moon	9690-03-18 05:02 G	5260336.48	5260336.71	5260336.95	0.0282	0.0057 *
Venus	9698-09-23 22:33 G	5263448.27	5263448.44	5263448.62	0.0286	0.0161
Venus	9699-05-11 15:07 G	5263677.93	5263678.13	5263678.34	0.0285	0.0071
Mercury	9699-09-23 22:19 G	5263813.35	5263813.43	5263813.51	0.0285	0.0246

Mercury	9699-12-21 16:04 G	5263902.02	5263902.17	5263902.32	0.0284	0.0119
Mercury	9700-03-20 10:19 G	5263990.76	5263990.93	5263991.09	0.0284	0.0011
Mercury	9700-06-17 04:48 G	5264079.56	5264079.70	5264079.84	0.0284	0.0143
Mercury	9700-09-13 23:45 G	5264168.46	5264168.49	5264168.52	0.0283	0.0277
Moon	9704-09-17 19:40 G	5265633.09	5265633.32	5265633.57	0.0277	0.0084
Earth	9704-09-17 23:16 G	5265633.25	5265633.47	5265633.71	0.0277	0.0096 *
Venus	9713-10-21 23:45 G	5268954.31	5268954.49	5268954.68	0.0274	0.0135
Venus	9714-06-08 07:26 G	5269183.61	5269183.81	5269184.02	0.0275	0.0070
Mercury	9714-10-25 05:45 G	5269322.67	5269322.74	5269322.83	0.0275	0.0225
Mercury	9715-01-21 19:26 G	5269411.18	5269411.31	5269411.45	0.0275	0.0118
Mercury	9715-04-20 08:52 G	5269499.73	5269499.87	5269500.02	0.0276	0.0013
Mercury	9715-07-17 22:04 G	5269588.28	5269588.42	5269588.55	0.0276	0.0091
Mercury	9715-10-14 10:48 G	5269676.86	5269676.95	5269677.06	0.0276	0.0193
Moon	9720-03-25 20:23 G	5271301.28	5271301.35	5271301.44	0.0283	0.0267
Earth	9720-03-26 00:00 G	5271301.49	5271301.50	5271301.54	0.0283	0.0281
Mars	9723-07-05 18:00 G	5272497.96	5272498.25	5272498.55	0.0287	0.0078
Venus	9728-04-06 08:52 G	5274234.68	5274234.87	5274235.07	0.0285	0.0124
Venus	9728-11-22 01:11 G	5274464.36	5274464.55	5274464.75	0.0285	0.0109
Mercury	9729-02-11 00:28 G	5274545.48	5274545.52	5274545.57	0.0285	0.0270
Mercury	9729-05-10 18:14 G	5274634.13	5274634.26	5274634.41	0.0284	0.0144
Mercury	9729-08-07 12:28 G	5274722.86	5274723.02	5274723.18	0.0284	0.0015
Mercury	9729-11-04 06:57 G	5274811.64	5274811.79	5274811.94	0.0284	0.0117
Mercury	9730-02-01 01:55 G	5274900.50	5274900.58	5274900.65	0.0283	0.0251
Earth	9733-09-12 22:19 G	5276220.21	5276220.43	5276220.65	0.0278	0.0130
Moon	9733-09-13 01:40 G	5276220.37	5276220.57	5276220.79	0.0278	0.0139 *
Venus	9743-05-04 06:14 G	5279740.57	5279740.76	5279740.96	0.0273	0.0106
Venus	9743-12-19 13:40 G	5279969.88	5279970.07	5279970.27	0.0274	0.0099
Mercury	9744-03-13 08:09 G	5280054.79	5280054.84	5280054.90	0.0274	0.0252
Mercury	9744-06-09 21:50 G	5280143.28	5280143.41	5280143.53	0.0274	0.0145
Mercury	9744-09-06 11:02 G	5280231.82	5280231.96	5280232.11	0.0275	0.0042

Mercury	9744-12-04 00:14 G	5280320.37	5280320.51	5280320.65	0.0275	0.0063
Mercury	9745-03-02 13:11 G	5280408.94	5280409.05	5280409.16	0.0275	0.0165
Mercury	9745-05-30 01:55 G	5280497.55	5280497.58	5280497.62	0.0275	0.0265
Earth	9749-03-20 11:02 G	5281887.72	5281887.96	5281888.20	0.0282	0.0026
Moon	9749-03-20 14:52 G	5281887.87	5281888.12	5281888.36	0.0282	0.0010 *
Venus	9757-10-17 09:36 G	5285020.71	5285020.90	5285021.10	0.0286	0.0101
Venus	9758-06-04 01:55 G	5285250.40	5285250.58	5285250.77	0.0285	0.0131
Mercury	9758-09-27 16:48 G	5285366.08	5285366.20	5285366.32	0.0285	0.0194
Mercury	9758-12-25 10:33 G	5285454.79	5285454.94	5285455.10	0.0284	0.0067
Mercury	9759-03-24 05:02 G	5285543.55	5285543.71	5285543.87	0.0284	0.0065
Mercury	9759-06-20 23:31 G	5285632.37	5285632.48	5285632.61	0.0284	0.0198
Moon	9763-09-20 04:04 G	5287184.47	5287184.67	5287184.87	0.0277	0.0148
Earth	9763-09-20 06:28 G	5287184.57	5287184.77	5287184.97	0.0277	0.0161 *
Mars	9767-11-03 20:23 G	5288690.20	5288690.35	5288690.51	0.0272	0.0227
Venus	9772-11-13 08:52 G	5290526.67	5290526.87	5290527.08	0.0274	0.0082
Venus	9773-06-30 16:33 G	5290756.00	5290756.19	5290756.38	0.0274	0.0124
Mercury	9773-10-27 23:02 G	5290875.35	5290875.46	5290875.57	0.0275	0.0180
Mercury	9774-01-24 12:28 G	5290963.88	5290964.02	5290964.16	0.0275	0.0074
Mercury	9774-04-23 01:40 G	5291052.43	5291052.57	5291052.71	0.0275	0.0030
Mercury	9774-07-20 14:38 G	5291140.99	5291141.11	5291141.24	0.0276	0.0133
Mercury	9774-10-17 03:21 G	5291229.57	5291229.64	5291229.72	0.0276	0.0234
Moon	9778-03-14 20:38 G	5292474.25	5292474.36	5292474.49	0.0281	0.0243
Earth	9778-03-15 00:28 G	5292474.39	5292474.52	5292474.67	0.0281	0.0226 *
Venus	9787-04-29 18:28 G	5295807.07	5295807.27	5295807.48	0.0285	0.0067
Venus	9787-12-15 11:02 G	5296036.79	5296036.96	5296037.13	0.0285	0.0165
Mercury	9788-02-14 18:28 G	5296098.17	5296098.27	5296098.37	0.0285	0.0222
Mercury	9788-05-13 12:14 G	5296186.86	5296187.01	5296187.17	0.0284	0.0096
Mercury	9788-08-10 06:43 G	5296275.61	5296275.78	5296275.94	0.0284	0.0035
Mercury	9788-11-07 01:11 G	5296364.42	5296364.55	5296364.69	0.0284	0.0168
Earth	9792-09-14 04:19 G	5297771.44	5297771.68	5297771.92	0.0278	0.0065

Moon	9792-09-14 06:28 G	5297771.53	5297771.77	5297772.02	0.0278	0.0075 *
Venus	9801-10-10 08:38 G	5301083.79	5301083.86	5301083.94	0.0273	0.0254
Venus	9802-05-27 15:36 G	5301312.95	5301313.15	5301313.36	0.0273	0.0053
Venus	9803-01-11 23:02 G	5301542.29	5301542.46	5301542.64	0.0274	0.0152
Mercury	9803-03-18 01:11 G	5301607.46	5301607.55	5301607.65	0.0274	0.0207
Mercury	9803-06-14 14:38 G	5301695.98	5301696.11	5301696.25	0.0274	0.0102
Mercury	9803-09-11 04:04 G	5301784.52	5301784.67	5301784.81	0.0275	0.0006
Mercury	9803-12-08 17:02 G	5301873.08	5301873.21	5301873.34	0.0275	0.0105
Mercury	9804-03-06 05:45 G	5301961.65	5301961.74	5301961.84	0.0275	0.0207
Earth	9808-03-22 15:36 G	5303438.92	5303439.15	5303439.38	0.0282	0.0089
Moon	9808-03-22 16:48 G	5303438.96	5303439.20	5303439.44	0.0282	0.0074 *
Mars	9811-11-29 20:23 G	5304786.05	5304786.35	5304786.65	0.0286	0.0032
Venus	9816-03-25 02:23 G	5306363.56	5306363.60	5306363.67	0.0286	0.0276
Venus	9816-11-09 19:26 G	5306593.10	5306593.31	5306593.51	0.0286	0.0044
Venus	9817-06-27 11:16 G	5306822.82	5306822.97	5306823.14	0.0285	0.0188
Mercury	9817-07-04 17:02 G	5306830.16	5306830.21	5306830.26	0.0285	0.0271
Mercury	9817-10-01 10:33 G	5306918.81	5306918.94	5306919.09	0.0285	0.0146
Mercury	9817-12-29 04:48 G	5307007.53	5307007.70	5307007.86	0.0284	0.0017
Mercury	9818-03-27 23:16 G	5307096.32	5307096.47	5307096.62	0.0284	0.0115
Mercury	9818-06-24 18:00 G	5307185.17	5307185.25	5307185.33	0.0284	0.0249
Earth	9822-09-22 11:02 G	5308735.83	5308735.96	5308736.12	0.0277	0.0224
Moon	9822-09-22 13:26 G	5308735.92	5308736.06	5308736.23	0.0277	0.0210 *
Venus	9831-04-22 09:50 G	5311869.81	5311869.91	5311870.02	0.0273	0.0233
Venus	9831-12-07 17:02 G	5312099.00	5312099.21	5312099.43	0.0274	0.0031
Venus	9832-07-24 00:28 G	5312328.37	5312328.52	5312328.69	0.0274	0.0176
Mercury	9832-08-04 01:55 G	5312339.52	5312339.58	5312339.65	0.0274	0.0245
Mercury	9832-10-31 15:36 G	5312428.02	5312428.15	5312428.28	0.0275	0.0139
Mercury	9833-01-28 05:02 G	5312516.56	5312516.71	5312516.85	0.0275	0.0034
Mercury	9833-04-26 18:14 G	5312605.12	5312605.26	5312605.40	0.0275	0.0070
Mercury	9833-07-24 06:57 G	5312693.68	5312693.79	5312693.91	0.0276	0.0172

Mercury	9833-10-20 19:40 G	5312782.30	5312782.32	5312782.34	0.0276	0.0272
Moon	9837-03-17 02:38 G	5314025.43	5314025.61	5314025.79	0.0281	0.0180
Earth	9837-03-17 03:07 G	5314025.44	5314025.63	5314025.83	0.0281	0.0166 *
Venus	9845-10-05 09:36 G	5317149.81	5317149.90	5317150.02	0.0286	0.0245
Venus	9846-05-23 02:52 G	5317379.40	5317379.62	5317379.83	0.0285	0.0013
Venus	9847-01-07 18:57 G	5317609.16	5317609.29	5317609.43	0.0285	0.0219
Mercury	9847-02-18 11:45 G	5317650.87	5317650.99	5317651.12	0.0285	0.0178
Mercury	9847-05-18 05:45 G	5317739.58	5317739.74	5317739.91	0.0284	0.0050
Mercury	9847-08-15 00:14 G	5317828.35	5317828.51	5317828.67	0.0284	0.0081
Mercury	9847-11-11 18:57 G	5317917.18	5317917.29	5317917.40	0.0284	0.0215
Moon	9851-09-17 05:31 G	5319322.47	5319322.73	5319322.98	0.0278	0.0018
Earth	9851-09-17 07:40 G	5319322.57	5319322.82	5319323.06	0.0278	0.0006 *
Venus	9860-11-01 17:02 G	5322656.08	5322656.21	5322656.36	0.0273	0.0202
Venus	9861-06-19 00:14 G	5322885.30	5322885.51	5322885.73	0.0273	0.0003
Mercury	9861-12-22 04:19 G	5323071.66	5323071.68	5323071.70	0.0274	0.0270
Venus	9862-02-03 07:26 G	5323114.68	5323114.81	5323114.96	0.0274	0.0205
Mercury	9862-03-20 18:00 G	5323160.14	5323160.25	5323160.37	0.0274	0.0164
Mercury	9862-06-17 07:26 G	5323248.67	5323248.81	5323248.95	0.0274	0.0059
Mercury	9862-09-13 20:38 G	5323337.22	5323337.36	5323337.50	0.0275	0.0044
Mercury	9862-12-11 09:36 G	5323425.78	5323425.90	5323426.02	0.0275	0.0146
Mercury	9863-03-09 22:19 G	5323514.37	5323514.43	5323514.49	0.0275	0.0246
Moon	9867-03-24 15:50 G	5324989.94	5324990.16	5324990.37	0.0281	0.0139
Earth	9867-03-24 19:11 G	5324990.10	5324990.30	5324990.51	0.0281	0.0150 *
Venus	9875-04-17 10:48 G	5327935.82	5327935.95	5327936.08	0.0286	0.0221
Venus	9875-12-03 03:21 G	5328165.43	5328165.64	5328165.85	0.0286	0.0011
Mercury	9876-07-07 10:04 G	5328382.83	5328382.92	5328383.02	0.0285	0.0228
Venus	9876-07-19 19:26 G	5328395.20	5328395.31	5328395.42	0.0285	0.0241
Mercury	9876-10-04 04:04 G	5328471.52	5328471.67	5328471.82	0.0285	0.0101
Mercury	9876-12-31 22:19 G	5328560.26	5328560.43	5328560.59	0.0284	0.0030
Mercury	9877-03-30 16:48 G	5328649.06	5328649.20	5328649.34	0.0284	0.0161

Earth	9880-09-10 11:45 G	5329908.94	5329908.99	5329909.07	0.0279	0.0267
Moon	9880-09-10 13:55 G	5329909.07	5329909.08	5329909.12	0.0279	0.0277 *
Moon	9881-09-23 17:31 G	5330287.17	5330287.23	5330287.30	0.0277	0.0266
Venus	9890-05-14 17:16 G	5333442.08	5333442.22	5333442.39	0.0273	0.0183
Venus	9890-12-30 00:43 G	5333671.32	5333671.53	5333671.74	0.0274	0.0021
Mercury	9891-08-07 18:14 G	5333892.17	5333892.26	5333892.37	0.0274	0.0205
Venus	9891-08-16 08:09 G	5333900.72	5333900.84	5333900.96	0.0274	0.0226
Mercury	9891-11-04 07:55 G	5333980.70	5333980.83	5333980.97	0.0275	0.0099
Mercury	9892-01-31 21:21 G	5334069.24	5334069.39	5334069.53	0.0275	0.0008
Mercury	9892-04-29 10:19 G	5334157.80	5334157.93	5334158.06	0.0275	0.0108
Mercury	9892-07-26 23:02 G	5334246.37	5334246.46	5334246.56	0.0276	0.0210
Earth	9896-03-18 04:33 G	5335576.47	5335576.69	5335576.92	0.0281	0.0108
Moon	9896-03-18 07:55 G	5335576.61	5335576.83	5335577.05	0.0281	0.0120 *
Mars	9900-04-25 03:36 G	5337074.34	5337074.65	5337074.95	0.0286	0.0016
Venus	9904-10-28 16:48 G	5338722.05	5338722.20	5338722.36	0.0286	0.0192
Venus	9905-06-15 09:36 G	5338951.70	5338951.90	5338952.11	0.0285	0.0041
Mercury	9905-11-25 11:02 G	5339114.90	5339114.96	5339115.02	0.0285	0.0262
Venus	9906-01-31 01:40 G	5339181.52	5339181.57	5339181.65	0.0285	0.0271
Mercury	9906-02-22 04:48 G	5339203.56	5339203.70	5339203.84	0.0285	0.0136
Mercury	9906-05-21 22:48 G	5339292.29	5339292.45	5339292.62	0.0284	0.0010
Mercury	9906-08-18 17:16 G	5339381.08	5339381.22	5339381.37	0.0284	0.0125
Mercury	9906-11-15 12:14 G	5339469.95	5339470.01	5339470.08	0.0284	0.0259
Moon	9910-09-19 05:45 G	5340873.50	5340873.74	5340873.98	0.0278	0.0038
Earth	9910-09-19 09:07 G	5340873.64	5340873.88	5340874.13	0.0278	0.0052 *
Mars	9914-07-09 04:33 G	5342262.51	5342262.69	5342262.88	0.0273	0.0208
Venus	9919-11-26 00:43 G	5344228.36	5344228.53	5344228.72	0.0273	0.0151
Venus	9920-07-12 07:55 G	5344457.62	5344457.83	5344458.04	0.0273	0.0052
Mercury	9920-12-25 20:52 G	5344624.30	5344624.37	5344624.45	0.0274	0.0229
Venus	9921-02-26 15:07 G	5344687.07	5344687.13	5344687.22	0.0274	0.0256
Mercury	9921-03-24 10:33 G	5344712.81	5344712.94	5344713.07	0.0274	0.0123

Mercury	9921-06-20 23:45 G	5344801.35	5344801.49	5344801.64	0.0274	0.0021
Mercury	9921-09-17 12:57 G	5344889.90	5344890.04	5344890.18	0.0275	0.0084
Mercury	9921-12-15 01:40 G	5344978.47	5344978.57	5344978.68	0.0275	0.0185
Moon	9926-03-26 19:11 G	5346541.14	5346541.30	5346541.47	0.0281	0.0201
Earth	9926-03-26 21:21 G	5346541.24	5346541.39	5346541.56	0.0281	0.0209 *
Venus	9934-05-10 18:14 G	5349508.09	5349508.26	5349508.43	0.0286	0.0169
Venus	9934-12-26 10:33 G	5349737.74	5349737.94	5349738.15	0.0285	0.0064
Mercury	9935-07-12 03:07 G	5349935.51	5349935.63	5349935.76	0.0285	0.0185
Mercury	9935-10-08 21:07 G	5350024.22	5350024.38	5350024.54	0.0285	0.0058
Mercury	9936-01-05 15:21 G	5350112.98	5350113.14	5350113.30	0.0284	0.0073
Mercury	9936-04-03 09:50 G	5350201.81	5350201.91	5350202.04	0.0284	0.0206
Earth	9939-09-13 13:11 G	5351459.89	5351460.05	5351460.21	0.0279	0.0211
Moon	9939-09-13 16:33 G	5351460.05	5351460.19	5351460.34	0.0279	0.0222 *
Venus	9949-06-07 00:57 G	5355014.35	5355014.54	5355014.72	0.0273	0.0132
Venus	9950-01-22 07:55 G	5355243.63	5355243.83	5355244.04	0.0274	0.0072
Mercury	9950-05-14 21:07 G	5355356.36	5355356.38	5355356.40	0.0274	0.0270
Mercury	9950-08-11 10:48 G	5355444.83	5355444.95	5355445.07	0.0274	0.0164
Mercury	9950-11-08 00:14 G	5355533.37	5355533.51	5355533.66	0.0275	0.0059
Mercury	9951-02-04 13:26 G	5355621.92	5355622.06	5355622.21	0.0275	0.0045
Mercury	9951-05-04 02:23 G	5355710.48	5355710.60	5355710.72	0.0275	0.0146
Mercury	9951-07-31 15:07 G	5355799.07	5355799.13	5355799.20	0.0276	0.0246
Earth	9955-03-21 06:00 G	5357127.51	5357127.75	5357127.99	0.0281	0.0051
Moon	9955-03-21 08:09 G	5357127.60	5357127.84	5357128.09	0.0281	0.0062 *
Venus	9963-11-20 23:02 G	5360294.28	5360294.46	5360294.65	0.0286	0.0141
Venus	9964-07-07 15:50 G	5360523.96	5360524.16	5360524.36	0.0285	0.0091
Mercury	9964-11-28 03:21 G	5360667.55	5360667.64	5360667.74	0.0285	0.0224
Mercury	9965-02-24 21:21 G	5360756.24	5360756.39	5360756.54	0.0284	0.0097
Mercury	9965-05-24 15:36 G	5360844.98	5360845.15	5360845.31	0.0284	0.0033
Mercury	9965-08-21 10:04 G	5360933.79	5360933.92	5360934.06	0.0284	0.0165
Earth	9969-09-20 08:38 G	5362424.64	5362424.86	5362425.10	0.0278	0.0104

Moon	9969-09-20 08:52 G	5362424.65	5362424.87	5362425.10	0.0278	0.0091	*
Venus	9978-12-18 08:23 G	5365800.65	5365800.85	5365801.05	0.0273	0.0100	
Venus	9979-08-04 15:21 G	5366029.95	5366030.14	5366030.34	0.0274	0.0104	
Mercury	9979-12-29 13:26 G	5366176.96	5366177.06	5366177.17	0.0274	0.0188	
Mercury	9980-03-27 02:52 G	5366265.49	5366265.62	5366265.76	0.0274	0.0083	
Mercury	9980-06-23 16:19 G	5366354.03	5366354.18	5366354.32	0.0274	0.0021	
Mercury	9980-09-20 05:16 G	5366442.59	5366442.72	5366442.85	0.0275	0.0122	
Mercury	9980-12-17 18:00 G	5366531.17	5366531.25	5366531.34	0.0275	0.0223	
Earth	9985-03-27 23:45 G	5368092.41	5368092.49	5368092.56	0.0281	0.0266	
Moon	9985-03-28 01:26 G	5368092.49	5368092.56	5368092.65	0.0281	0.0263	*
Mars	9988-09-18 03:50 G	5369362.37	5369362.66	5369362.96	0.0286	0.0058	
Venus	9993-06-02 00:57 G	5371080.35	5371080.54	5371080.73	0.0286	0.0116	
Venus	9994-01-17 17:16 G	5371310.03	5371310.22	5371310.41	0.0285	0.0116	
Mercury	9994-04-17 02:09 G	5371399.55	5371399.59	5371399.65	0.0285	0.0270	
Mercury	9994-07-14 19:55 G	5371488.19	5371488.33	5371488.47	0.0285	0.0144	
Mercury	9994-10-11 13:55 G	5371576.92	5371577.08	5371577.25	0.0285	0.0017	
Mercury	9995-01-08 08:23 G	5371665.70	5371665.85	5371666.00	0.0284	0.0115	
Mercury	9995-04-07 03:07 G	5371754.56	5371754.63	5371754.71	0.0284	0.0249	
Moon	9998-09-14 12:43 G	5373010.84	5373011.03	5373011.24	0.0279	0.0171	
Earth	9998-09-14 13:26 G	5373010.86	5373011.06	5373011.27	0.0279	0.0157	*

11TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 11th millennium CE.

PLANET	MAX- TRANSIT	C	START	MAX	END	SUNRAD	DEPTH	S
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TIME

Mars	10002-12-02 00:28 G	5374550.31	5374550.52	5374550.72	0.0273	0.0189
Venus	10008-06-29 07:55 G	5376586.63	5376586.83	5376587.03	0.0273	0.0082
Venus	10009-02-13 14:52 G	5376815.94	5376816.12	5376816.32	0.0274	0.0122
Mercury	10009-05-17 13:40 G	5376908.99	5376909.07	5376909.14	0.0274	0.0230
Mercury	10009-08-14 03:07 G	5376997.50	5376997.63	5376997.76	0.0274	0.0125
Mercury	10009-11-10 16:33 G	5377086.04	5377086.19	5377086.34	0.0275	0.0020
Mercury	10010-02-07 05:31 G	5377174.60	5377174.73	5377174.87	0.0275	0.0083
Mercury	10010-05-06 18:28 G	5377263.17	5377263.27	5377263.38	0.0275	0.0183
Moon	10014-03-22 05:16 G	5378678.47	5378678.72	5378678.97	0.0281	0.0001
Earth	10014-03-22 07:26 G	5378678.56	5378678.81	5378679.05	0.0281	0.0006 *
Venus	10022-12-13 05:16 G	5381866.52	5381866.72	5381866.92	0.0286	0.0090
Venus	10023-07-30 21:36 G	5382096.22	5382096.40	5382096.59	0.0285	0.0142
Mercury	10023-12-01 19:55 G	5382220.21	5382220.33	5382220.45	0.0285	0.0185
Mercury	10024-02-28 13:55 G	5382308.92	5382309.08	5382309.24	0.0284	0.0057
Mercury	10024-05-27 08:09 G	5382397.68	5382397.84	5382398.00	0.0284	0.0073
Mercury	10024-08-24 02:52 G	5382486.51	5382486.62	5382486.73	0.0284	0.0206
Earth	10028-09-21 07:55 G	5383975.62	5383975.83	5383976.03	0.0278	0.0155
Moon	10028-09-21 11:16 G	5383975.77	5383975.97	5383976.20	0.0278	0.0140 *
Venus	10037-05-25 08:38 G	5387143.78	5387143.86	5387143.95	0.0273	0.0250
Venus	10038-01-09 15:36 G	5387372.94	5387373.15	5387373.36	0.0273	0.0049
Venus	10038-08-26 22:48 G	5387602.28	5387602.45	5387602.63	0.0274	0.0155
Mercury	10038-10-04 16:19 G	5387641.13	5387641.18	5387641.23	0.0274	0.0253
Mercury	10039-01-01 06:00 G	5387729.62	5387729.75	5387729.87	0.0274	0.0147
Mercury	10039-03-30 19:26 G	5387818.16	5387818.31	5387818.45	0.0274	0.0043
Mercury	10039-06-27 08:23 G	5387906.71	5387906.85	5387907.00	0.0275	0.0061
Mercury	10039-09-23 21:36 G	5387995.28	5387995.40	5387995.51	0.0275	0.0161
Mercury	10039-12-21 10:04 G	5388083.88	5388083.92	5388083.97	0.0275	0.0261
Earth	10043-03-17 02:09 G	5389265.46	5389265.59	5389265.73	0.0279	0.0231
Moon	10043-03-17 03:50 G	5389265.56	5389265.66	5389265.78	0.0279	0.0243 *

Jupiter	10043-08-08 03:07 G	5389409.34	5389409.63	5389409.96	0.0280	0.0200
Venus	10052-06-24 07:55 G	5392652.62	5392652.83	5392653.04	0.0286	0.0063
Venus	10053-02-09 00:00 G	5392882.34	5392882.50	5392882.68	0.0285	0.0168
Mercury	10053-04-19 18:57 G	5392952.20	5392952.29	5392952.39	0.0285	0.0229
Mercury	10053-07-17 12:43 G	5393040.89	5393041.03	5393041.19	0.0285	0.0103
Mercury	10053-10-14 06:57 G	5393129.63	5393129.79	5393129.96	0.0284	0.0027
Mercury	10054-01-11 01:26 G	5393218.43	5393218.56	5393218.70	0.0284	0.0158
Moon	10057-09-15 09:36 G	5394561.68	5394561.90	5394562.13	0.0279	0.0121
Earth	10057-09-15 13:26 G	5394561.84	5394562.06	5394562.30	0.0279	0.0104 *
Venus	10066-12-05 07:55 G	5397929.73	5397929.83	5397929.95	0.0273	0.0234
Venus	10067-07-22 15:07 G	5398158.92	5398159.13	5398159.34	0.0273	0.0032
Venus	10068-03-07 22:19 G	5398388.27	5398388.43	5398388.60	0.0274	0.0173
Mercury	10068-05-20 06:00 G	5398461.65	5398461.75	5398461.86	0.0274	0.0190
Mercury	10068-08-16 19:26 G	5398550.18	5398550.31	5398550.46	0.0274	0.0085
Mercury	10068-11-13 08:52 G	5398638.72	5398638.87	5398639.01	0.0275	0.0019
Mercury	10069-02-09 21:50 G	5398727.28	5398727.41	5398727.54	0.0275	0.0121
Mercury	10069-05-09 10:33 G	5398815.86	5398815.94	5398816.03	0.0275	0.0221
Moon	10073-03-23 06:14 G	5400229.53	5400229.76	5400230.00	0.0281	0.0058
Earth	10073-03-23 09:50 G	5400229.67	5400229.91	5400230.14	0.0281	0.0064 *
Mars	10077-02-11 01:26 G	5401650.28	5401650.56	5401650.86	0.0286	0.0091
Venus	10081-05-19 18:28 G	5403209.21	5403209.27	5403209.34	0.0286	0.0270
Venus	10082-01-04 11:31 G	5403438.77	5403438.98	5403439.19	0.0286	0.0038
Venus	10082-08-22 03:50 G	5403668.51	5403668.66	5403668.82	0.0285	0.0193
Mercury	10082-09-06 18:57 G	5403684.24	5403684.29	5403684.34	0.0285	0.0270
Mercury	10082-12-04 12:28 G	5403772.89	5403773.02	5403773.16	0.0285	0.0145
Mercury	10083-03-03 06:28 G	5403861.61	5403861.77	5403861.94	0.0284	0.0018
Mercury	10083-05-31 00:57 G	5403950.39	5403950.54	5403950.69	0.0284	0.0115
Mercury	10083-08-27 19:40 G	5404039.25	5404039.32	5404039.40	0.0284	0.0248
Earth	10087-09-23 06:57 G	5405526.64	5405526.79	5405526.97	0.0278	0.0208
Moon	10087-09-23 08:23 G	5405526.68	5405526.85	5405527.05	0.0278	0.0192 *

Mars	10091-04-27 18:14 G	5406839.01	5406839.26	5406839.52	0.0274	0.0125
Venus	10096-06-16 16:04 G	5408716.03	5408716.17	5408716.32	0.0273	0.0199
Venus	10097-01-31 23:16 G	5408945.26	5408945.47	5408945.68	0.0274	0.0004
Venus	10097-09-18 06:28 G	5409174.64	5409174.77	5409174.91	0.0274	0.0207
Mercury	10097-10-07 08:38 G	5409193.78	5409193.86	5409193.96	0.0274	0.0213
Mercury	10098-01-03 22:33 G	5409282.30	5409282.44	5409282.57	0.0274	0.0107
Mercury	10098-04-02 11:45 G	5409370.85	5409370.99	5409371.14	0.0275	0.0006
Mercury	10098-06-30 00:57 G	5409459.40	5409459.54	5409459.67	0.0275	0.0100
Mercury	10098-09-26 13:40 G	5409547.98	5409548.07	5409548.17	0.0275	0.0200
Earth	10102-03-19 06:00 G	5410816.56	5410816.75	5410816.95	0.0280	0.0171
Moon	10102-03-19 09:36 G	5410816.72	5410816.90	5410817.10	0.0280	0.0181 *
Venus	10110-11-30 23:02 G	5413995.35	5413995.46	5413995.58	0.0286	0.0240
Venus	10111-07-18 15:36 G	5414224.94	5414225.15	5414225.36	0.0285	0.0009
Venus	10112-03-04 07:26 G	5414454.69	5414454.81	5414454.96	0.0285	0.0222
Mercury	10112-04-23 12:00 G	5414504.89	5414505.00	5414505.13	0.0285	0.0186
Mercury	10112-07-21 06:00 G	5414593.59	5414593.75	5414593.91	0.0285	0.0059
Mercury	10112-10-18 00:14 G	5414682.35	5414682.51	5414682.67	0.0284	0.0072
Mercury	10113-01-14 18:43 G	5414771.17	5414771.28	5414771.40	0.0284	0.0204
Moon	10116-09-17 13:55 G	5416112.85	5416113.08	5416113.32	0.0279	0.0065
Earth	10116-09-17 14:38 G	5416112.87	5416113.11	5416113.35	0.0279	0.0049 *
Venus	10125-12-28 15:50 G	5419502.00	5419502.16	5419502.32	0.0273	0.0182
Venus	10126-08-14 22:48 G	5419731.24	5419731.45	5419731.67	0.0273	0.0022
Mercury	10127-02-25 08:52 G	5419925.82	5419925.87	5419925.93	0.0274	0.0254
Venus	10127-04-01 06:14 G	5419960.65	5419960.76	5419960.89	0.0274	0.0224
Mercury	10127-05-24 22:33 G	5420014.32	5420014.44	5420014.57	0.0274	0.0149
Mercury	10127-08-21 12:00 G	5420102.86	5420103.00	5420103.15	0.0274	0.0045
Mercury	10127-11-18 01:26 G	5420191.41	5420191.56	5420191.70	0.0275	0.0060
Mercury	10128-02-14 14:09 G	5420279.98	5420280.09	5420280.21	0.0275	0.0161
Mercury	10128-05-13 02:52 G	5420368.59	5420368.62	5420368.67	0.0275	0.0261
Earth	10132-03-25 13:40 G	5421780.86	5421781.07	5421781.30	0.0281	0.0125

Moon	10132-03-25 13:55 G	5421780.88	5421781.08	5421781.30	0.0281	0.0123 *
Venus	10140-06-12 02:09 G	5424781.46	5424781.59	5424781.73	0.0286	0.0216
Venus	10141-01-27 18:57 G	5425011.08	5425011.29	5425011.50	0.0285	0.0016
Mercury	10141-09-10 11:45 G	5425236.90	5425236.99	5425237.09	0.0285	0.0228
Venus	10141-09-14 11:02 G	5425240.87	5425240.96	5425241.08	0.0285	0.0246
Mercury	10141-12-08 05:31 G	5425325.58	5425325.73	5425325.88	0.0284	0.0102
Mercury	10142-03-06 23:45 G	5425414.32	5425414.49	5425414.65	0.0284	0.0027
Mercury	10142-06-03 18:14 G	5425503.12	5425503.26	5425503.40	0.0284	0.0159
Moon	10146-09-25 03:50 G	5427077.56	5427077.66	5427077.79	0.0278	0.0245
Earth	10146-09-25 07:26 G	5427077.73	5427077.81	5427077.90	0.0278	0.0259 *
Venus	10155-07-10 23:45 G	5430288.32	5430288.49	5430288.68	0.0274	0.0148
Venus	10156-02-25 07:11 G	5430517.60	5430517.80	5430518.01	0.0274	0.0056
Mercury	10156-10-11 01:40 G	5430746.45	5430746.57	5430746.68	0.0274	0.0169
Venus	10156-10-11 14:38 G	5430747.06	5430747.11	5430747.19	0.0274	0.0260
Mercury	10157-01-07 15:07 G	5430834.99	5430835.13	5430835.28	0.0275	0.0064
Mercury	10157-04-06 04:33 G	5430923.54	5430923.69	5430923.83	0.0275	0.0040
Mercury	10157-07-03 17:31 G	5431012.11	5431012.23	5431012.35	0.0275	0.0141
Mercury	10157-09-30 06:14 G	5431100.70	5431100.76	5431100.83	0.0275	0.0241
Moon	10161-03-20 11:16 G	5432367.74	5432367.97	5432368.20	0.0280	0.0113
Earth	10161-03-20 11:45 G	5432367.76	5432367.99	5432368.21	0.0280	0.0108 *
Mars	10165-07-08 23:16 G	5433939.23	5433939.47	5433939.72	0.0285	0.0164
Venus	10169-12-23 08:09 G	5435567.68	5435567.84	5435568.00	0.0286	0.0184
Venus	10170-08-10 00:28 G	5435797.31	5435797.52	5435797.73	0.0285	0.0048
Mercury	10171-01-28 12:00 G	5435968.95	5435969.00	5435969.07	0.0285	0.0264
Venus	10171-03-27 16:19 G	5436027.14	5436027.18	5436027.24	0.0285	0.0277
Mercury	10171-04-27 05:45 G	5436057.60	5436057.74	5436057.88	0.0285	0.0139
Mercury	10171-07-24 23:45 G	5436146.33	5436146.49	5436146.65	0.0284	0.0011
Mercury	10171-10-21 18:00 G	5436235.10	5436235.25	5436235.40	0.0284	0.0119
Mercury	10172-01-18 12:43 G	5436323.96	5436324.03	5436324.11	0.0284	0.0252
Earth	10175-09-19 17:16 G	5437663.98	5437664.22	5437664.47	0.0279	0.0009

Moon	10175-09-19 20:52 G	5437664.12	5437664.37	5437664.61	0.0279	0.0006 *
Mars	10179-09-21 20:38 G	5439127.10	5439127.36	5439127.64	0.0274	0.0098
Venus	10185-01-20 00:14 G	5441074.33	5441074.51	5441074.70	0.0273	0.0130
Venus	10185-09-06 07:40 G	5441303.61	5441303.82	5441304.02	0.0274	0.0074
Mercury	10186-02-28 01:55 G	5441478.49	5441478.58	5441478.67	0.0274	0.0210
Mercury	10186-05-27 15:36 G	5441567.01	5441567.15	5441567.28	0.0274	0.0105
Mercury	10186-08-24 04:48 G	5441655.56	5441655.70	5441655.85	0.0275	0.0009
Mercury	10186-11-20 18:00 G	5441744.12	5441744.25	5441744.39	0.0275	0.0102
Mercury	10187-02-17 06:57 G	5441832.69	5441832.79	5441832.89	0.0275	0.0202
Earth	10191-03-27 19:26 G	5443332.14	5443332.31	5443332.50	0.0281	0.0188
Moon	10191-03-27 23:16 G	5443332.30	5443332.47	5443332.65	0.0281	0.0189 *
Venus	10199-07-05 11:02 G	5446353.79	5446353.96	5446354.14	0.0286	0.0160
Venus	10200-02-20 03:36 G	5446583.45	5446583.65	5446583.86	0.0285	0.0072
Mercury	10200-09-14 05:16 G	5446789.60	5446789.72	5446789.85	0.0285	0.0182
Mercury	10200-12-11 23:16 G	5446878.31	5446878.47	5446878.63	0.0284	0.0055
Mercury	10201-03-10 17:31 G	5446967.07	5446967.23	5446967.39	0.0284	0.0075
Mercury	10201-06-07 12:00 G	5447055.89	5447056.00	5447056.12	0.0284	0.0207
Moon	10204-09-14 01:40 G	5448250.47	5448250.57	5448250.68	0.0279	0.0253
Earth	10204-09-14 05:02 G	5448250.59	5448250.71	5448250.85	0.0279	0.0238 *
Venus	10214-08-03 08:09 G	5451860.65	5451860.84	5451861.05	0.0274	0.0095
Venus	10215-03-20 15:50 G	5452089.97	5452090.16	5452090.36	0.0274	0.0110
Mercury	10215-07-19 04:48 G	5452210.62	5452210.70	5452210.78	0.0275	0.0231
Mercury	10215-10-15 18:28 G	5452299.14	5452299.27	5452299.40	0.0275	0.0126
Mercury	10216-01-12 07:55 G	5452387.69	5452387.83	5452387.98	0.0275	0.0022
Mercury	10216-04-09 21:07 G	5452476.25	5452476.38	5452476.52	0.0275	0.0082
Mercury	10216-07-07 10:04 G	5452564.82	5452564.92	5452565.03	0.0275	0.0183
Moon	10220-03-22 14:52 G	5453918.88	5453919.12	5453919.36	0.0280	0.0044
Earth	10220-03-22 18:43 G	5453919.04	5453919.28	5453919.52	0.0280	0.0043 *
Venus	10229-01-15 18:57 G	5457140.10	5457140.29	5457140.48	0.0285	0.0124
Venus	10229-09-02 11:02 G	5457369.77	5457369.96	5457370.16	0.0285	0.0107

Mercury	10230-02-01 06:14 G	5457521.66	5457521.76	5457521.87	0.0285	0.0214
Mercury	10230-05-01 00:14 G	5457610.35	5457610.51	5457610.66	0.0284	0.0088
Mercury	10230-07-28 18:14 G	5457699.10	5457699.26	5457699.42	0.0284	0.0041
Mercury	10230-10-25 12:43 G	5457787.90	5457788.03	5457788.16	0.0284	0.0172
Earth	10234-09-21 22:19 G	5459215.19	5459215.43	5459215.67	0.0279	0.0069
Moon	10234-09-22 00:28 G	5459215.27	5459215.52	5459215.77	0.0279	0.0057 *
Venus	10244-02-13 09:36 G	5462646.70	5462646.90	5462647.11	0.0273	0.0075
Venus	10244-09-29 17:02 G	5462876.03	5462876.21	5462876.40	0.0274	0.0129
Mercury	10244-12-05 05:16 G	5462942.70	5462942.72	5462942.74	0.0274	0.0271
Mercury	10245-03-03 19:11 G	5463031.18	5463031.30	5463031.41	0.0274	0.0165
Mercury	10245-05-31 08:38 G	5463119.72	5463119.86	5463120.00	0.0274	0.0060
Mercury	10245-08-27 21:50 G	5463208.27	5463208.41	5463208.56	0.0275	0.0045
Mercury	10245-11-24 11:02 G	5463296.84	5463296.96	5463297.08	0.0275	0.0145
Mercury	10246-02-20 23:45 G	5463385.43	5463385.49	5463385.56	0.0275	0.0245
Earth	10250-03-30 03:07 G	5464883.55	5464883.63	5464883.75	0.0281	0.0255
Moon	10250-03-30 04:48 G	5464883.61	5464883.70	5464883.80	0.0281	0.0259 *
Mars	10253-12-03 08:38 G	5466227.68	5466227.86	5466228.06	0.0285	0.0218
Venus	10258-07-28 21:21 G	5467926.20	5467926.39	5467926.59	0.0285	0.0100
Venus	10259-03-15 13:40 G	5468155.89	5468156.07	5468156.27	0.0285	0.0131
Mercury	10259-06-21 05:45 G	5468253.68	5468253.74	5468253.81	0.0285	0.0257
Mercury	10259-09-17 23:31 G	5468342.33	5468342.48	5468342.62	0.0284	0.0132
Mercury	10259-12-15 17:31 G	5468431.06	5468431.23	5468431.39	0.0284	0.0008
Mercury	10260-03-13 11:45 G	5468519.84	5468519.99	5468520.14	0.0284	0.0126
Mercury	10260-06-10 06:28 G	5468608.71	5468608.77	5468608.84	0.0284	0.0259
Moon	10263-09-16 07:26 G	5469801.64	5469801.81	5469801.99	0.0279	0.0192
Earth	10263-09-16 09:36 G	5469801.72	5469801.90	5469802.10	0.0279	0.0178 *
Mars	10268-02-16 17:45 G	5471415.95	5471416.24	5471416.52	0.0274	0.0032
Venus	10273-01-08 10:19 G	5473203.84	5473203.93	5473204.03	0.0274	0.0243
Venus	10273-08-25 18:00 G	5473433.04	5473433.25	5473433.46	0.0274	0.0040
Venus	10274-04-12 01:40 G	5473662.40	5473662.57	5473662.74	0.0275	0.0165

Mercury	10274-07-21 22:04 G	5473763.31	5473763.42	5473763.53	0.0275	0.0185
Mercury	10274-10-18 11:45 G	5473851.85	5473851.99	5473852.13	0.0275	0.0079
Mercury	10275-01-15 01:11 G	5473940.40	5473940.55	5473940.69	0.0275	0.0025
Mercury	10275-04-13 14:09 G	5474028.97	5474029.09	5474029.22	0.0275	0.0127
Mercury	10275-07-11 03:07 G	5474117.55	5474117.63	5474117.71	0.0276	0.0227
Moon	10279-03-25 01:55 G	5475470.35	5475470.58	5475470.82	0.0280	0.0026
Earth	10279-03-25 03:21 G	5475470.40	5475470.64	5475470.88	0.0280	0.0025 *
Venus	10288-02-08 06:43 G	5478712.58	5478712.78	5478712.99	0.0285	0.0063
Venus	10288-09-24 22:48 G	5478942.29	5478942.45	5478942.63	0.0285	0.0168
Mercury	10288-11-07 07:40 G	5478985.81	5478985.82	5478985.84	0.0285	0.0283
Mercury	10289-02-04 00:57 G	5479074.42	5479074.54	5479074.68	0.0284	0.0160
Mercury	10289-05-03 18:57 G	5479163.13	5479163.29	5479163.45	0.0284	0.0032
Mercury	10289-07-31 13:11 G	5479251.90	5479252.05	5479252.21	0.0284	0.0097
Mercury	10289-10-28 07:40 G	5479340.73	5479340.82	5479340.92	0.0284	0.0229
Moon	10293-09-23 03:36 G	5480766.42	5480766.65	5480766.88	0.0278	0.0124
Earth	10293-09-23 05:31 G	5480766.52	5480766.73	5480766.95	0.0278	0.0134 *
Venus	10302-07-22 12:14 G	5483989.90	5483990.01	5483990.15	0.0273	0.0222
Venus	10303-03-08 19:55 G	5484219.12	5484219.33	5484219.54	0.0274	0.0019
Venus	10303-10-24 03:36 G	5484448.50	5484448.65	5484448.81	0.0274	0.0185
Mercury	10303-12-09 22:48 G	5484495.37	5484495.45	5484495.54	0.0274	0.0223
Mercury	10304-03-07 12:28 G	5484583.89	5484584.02	5484584.16	0.0274	0.0117
Mercury	10304-06-04 01:55 G	5484672.44	5484672.58	5484672.73	0.0275	0.0015
Mercury	10304-08-31 15:07 G	5484761.00	5484761.13	5484761.27	0.0275	0.0090
Mercury	10304-11-28 04:04 G	5484849.57	5484849.67	5484849.78	0.0275	0.0191
Earth	10308-03-19 12:28 G	5486056.89	5486057.02	5486057.17	0.0280	0.0229
Moon	10308-03-19 14:09 G	5486056.95	5486057.09	5486057.23	0.0280	0.0232 *
Venus	10317-01-03 17:02 G	5489269.15	5489269.21	5489269.29	0.0286	0.0268
Venus	10317-08-21 09:36 G	5489498.70	5489498.90	5489499.11	0.0285	0.0038
Venus	10318-04-08 01:55 G	5489728.43	5489728.58	5489728.74	0.0285	0.0193
Mercury	10318-06-25 00:28 G	5489806.41	5489806.52	5489806.64	0.0284	0.0203

Mercury	10318-09-21 18:14 G	5489895.11	5489895.26	5489895.42	0.0284	0.0077
Mercury	10318-12-19 12:28 G	5489983.86	5489984.02	5489984.18	0.0284	0.0052
Mercury	10319-03-18 06:57 G	5490072.66	5490072.79	5490072.92	0.0284	0.0183
Earth	10322-09-18 17:02 G	5491352.99	5491353.21	5491353.44	0.0279	0.0113
Moon	10322-09-18 18:57 G	5491353.08	5491353.29	5491353.51	0.0279	0.0126 *
Venus	10332-02-01 20:23 G	5494776.20	5494776.35	5494776.51	0.0274	0.0188
Venus	10332-09-18 04:04 G	5495005.46	5495005.67	5495005.89	0.0274	0.0017
Mercury	10333-04-28 01:40 G	5495227.51	5495227.57	5495227.64	0.0275	0.0244
Venus	10333-05-05 12:00 G	5495234.88	5495235.00	5495235.13	0.0275	0.0221
Mercury	10333-07-25 15:36 G	5495316.02	5495316.15	5495316.28	0.0275	0.0138
Mercury	10333-10-22 05:02 G	5495404.57	5495404.71	5495404.86	0.0275	0.0034
Mercury	10334-01-18 18:28 G	5495493.13	5495493.27	5495493.41	0.0276	0.0071
Mercury	10334-04-17 07:26 G	5495581.70	5495581.81	5495581.92	0.0276	0.0172
Mercury	10334-07-14 20:09 G	5495670.33	5495670.34	5495670.37	0.0276	0.0272
Earth	10338-03-27 13:11 G	5497021.82	5497022.05	5497022.28	0.0280	0.0095
Moon	10338-03-27 15:50 G	5497021.94	5497022.16	5497022.38	0.0280	0.0099 *
Venus	10346-07-17 03:50 G	5500055.54	5500055.66	5500055.79	0.0285	0.0228
Venus	10347-03-03 20:09 G	5500285.13	5500285.34	5500285.56	0.0285	0.0007
Venus	10347-10-19 12:00 G	5500514.89	5500515.00	5500515.13	0.0284	0.0232
Mercury	10347-11-12 02:52 G	5500538.53	5500538.62	5500538.72	0.0284	0.0226
Mercury	10348-02-08 20:23 G	5500627.21	5500627.35	5500627.51	0.0284	0.0101
Mercury	10348-05-07 14:38 G	5500715.94	5500716.11	5500716.27	0.0284	0.0028
Mercury	10348-08-04 08:52 G	5500804.73	5500804.87	5500805.01	0.0284	0.0158
Moon	10352-09-25 11:31 G	5502317.80	5502317.98	5502318.16	0.0278	0.0192
Earth	10352-09-25 14:52 G	5502317.96	5502318.12	5502318.30	0.0278	0.0202 *
Mars	10356-07-13 16:48 G	5503704.92	5503705.20	5503705.49	0.0274	0.0032
Venus	10361-08-13 23:45 G	5505562.32	5505562.49	5505562.66	0.0273	0.0165
Venus	10362-03-31 07:11 G	5505791.59	5505791.80	5505792.01	0.0274	0.0039
Venus	10362-11-15 15:07 G	5506021.04	5506021.13	5506021.23	0.0274	0.0243
Mercury	10362-12-12 16:48 G	5506048.08	5506048.20	5506048.31	0.0274	0.0173

Mercury	10363-03-11 06:14 G	5506136.62	5506136.76	5506136.91	0.0275	0.0068
Mercury	10363-06-07 19:40 G	5506225.18	5506225.32	5506225.46	0.0275	0.0036
Mercury	10363-09-04 08:38 G	5506313.74	5506313.86	5506313.99	0.0275	0.0138
Mercury	10363-12-01 21:36 G	5506402.33	5506402.40	5506402.47	0.0275	0.0238
Moon	10367-03-21 21:07 G	5507608.17	5507608.38	5507608.58	0.0280	0.0158
Earth	10367-03-21 23:16 G	5507608.28	5507608.47	5507608.69	0.0280	0.0158 *
Venus	10376-01-27 06:28 G	5510841.63	5510841.77	5510841.92	0.0286	0.0204
Venus	10376-09-12 22:48 G	5511071.24	5511071.45	5511071.67	0.0285	0.0028
Mercury	10377-03-31 02:23 G	5511270.55	5511270.60	5511270.65	0.0285	0.0269
Venus	10377-04-30 15:07 G	5511301.04	5511301.13	5511301.22	0.0285	0.0256
Mercury	10377-06-27 19:55 G	5511359.19	5511359.33	5511359.47	0.0284	0.0145
Mercury	10377-09-24 13:40 G	5511447.91	5511448.07	5511448.24	0.0284	0.0018
Mercury	10377-12-22 07:55 G	5511536.68	5511536.83	5511536.98	0.0284	0.0112
Mercury	10378-03-21 02:38 G	5511625.53	5511625.61	5511625.69	0.0284	0.0244
Earth	10381-09-20 02:38 G	5512904.37	5512904.61	5512904.86	0.0279	0.0044
Moon	10381-09-20 06:28 G	5512904.53	5512904.77	5512905.01	0.0279	0.0058 *
Venus	10391-02-24 07:11 G	5516348.61	5516348.80	5516348.98	0.0274	0.0132
Venus	10391-10-11 15:07 G	5516577.92	5516578.13	5516578.33	0.0275	0.0074
Mercury	10392-04-30 19:26 G	5516780.21	5516780.31	5516780.41	0.0275	0.0195
Mercury	10392-07-28 09:07 G	5516868.74	5516868.88	5516869.02	0.0275	0.0089
Mercury	10392-10-24 22:33 G	5516957.30	5516957.44	5516957.59	0.0276	0.0016
Mercury	10393-01-21 11:45 G	5517045.86	5517045.99	5517046.12	0.0276	0.0118
Mercury	10393-04-20 00:43 G	5517134.45	5517134.53	5517134.62	0.0276	0.0219
Earth	10397-03-28 23:45 G	5518573.29	5518573.49	5518573.68	0.0281	0.0166
Moon	10397-03-29 02:52 G	5518573.43	5518573.62	5518573.82	0.0281	0.0169 *
Venus	10405-08-08 18:28 G	5521628.10	5521628.27	5521628.45	0.0285	0.0162
Venus	10406-03-26 10:33 G	5521857.74	5521857.94	5521858.15	0.0285	0.0069
Mercury	10406-11-14 22:33 G	5522091.31	5522091.44	5522091.58	0.0284	0.0165
Mercury	10407-02-11 16:19 G	5522180.02	5522180.18	5522180.35	0.0284	0.0040
Mercury	10407-05-11 10:33 G	5522268.78	5522268.94	5522269.10	0.0284	0.0090

Mercury	10407-08-08 05:02 G	5522357.61	5522357.71	5522357.82	0.0284	0.0221
Earth	10410-09-14 23:02 G	5523491.43	5523491.46	5523491.51	0.0280	0.0275
Moon	10411-09-28 02:09 G	5523869.53	5523869.59	5523869.66	0.0278	0.0266
Earth	10411-09-28 02:23 G	5523869.58	5523869.60	5523869.66	0.0278	0.0274 *
Venus	10420-09-05 11:31 G	5527134.79	5527134.98	5527135.18	0.0273	0.0107
Venus	10421-04-22 19:11 G	5527364.10	5527364.30	5527364.50	0.0274	0.0097
Mercury	10421-09-17 20:38 G	5527512.29	5527512.36	5527512.45	0.0274	0.0229
Mercury	10421-12-15 10:33 G	5527600.81	5527600.94	5527601.08	0.0274	0.0122
Mercury	10422-03-14 00:14 G	5527689.36	5527689.51	5527689.65	0.0275	0.0019
Mercury	10422-06-10 13:26 G	5527777.92	5527778.06	5527778.20	0.0275	0.0085
Mercury	10422-09-07 02:23 G	5527866.50	5527866.60	5527866.71	0.0275	0.0186
Moon	10426-03-23 07:26 G	5529159.58	5529159.81	5529160.04	0.0280	0.0085
Earth	10426-03-23 10:48 G	5529159.72	5529159.95	5529160.19	0.0280	0.0085 *
Venus	10435-02-18 20:38 G	5532414.18	5532414.36	5532414.55	0.0285	0.0138
Venus	10435-10-06 12:57 G	5532643.84	5532644.04	5532644.24	0.0285	0.0093
Mercury	10436-04-02 21:50 G	5532823.31	5532823.41	5532823.52	0.0284	0.0209
Mercury	10436-06-30 15:36 G	5532911.99	5532912.15	5532912.30	0.0284	0.0084
Mercury	10436-09-27 09:36 G	5533000.74	5533000.90	5533001.06	0.0284	0.0044
Mercury	10436-12-25 03:50 G	5533089.54	5533089.66	5533089.80	0.0284	0.0175
Earth	10440-09-21 13:40 G	5534455.82	5534456.07	5534456.31	0.0279	0.0027
Moon	10440-09-21 13:40 G	5534455.82	5534456.07	5534456.33	0.0279	0.0016 *
Mars	10444-12-07 19:26 G	5535994.05	5535994.31	5535994.58	0.0274	0.0104
Venus	10450-03-18 18:14 G	5537921.06	5537921.26	5537921.47	0.0274	0.0075
Venus	10450-11-03 02:23 G	5538150.42	5538150.60	5538150.79	0.0275	0.0131
Mercury	10451-02-04 23:16 G	5538244.42	5538244.47	5538244.53	0.0275	0.0252
Mercury	10451-05-04 13:11 G	5538332.93	5538333.05	5538333.18	0.0275	0.0146
Mercury	10451-08-01 02:52 G	5538421.48	5538421.62	5538421.77	0.0275	0.0040
Mercury	10451-10-28 16:19 G	5538510.04	5538510.18	5538510.32	0.0276	0.0064
Mercury	10452-01-25 05:16 G	5538598.61	5538598.72	5538598.84	0.0276	0.0166
Mercury	10452-04-22 18:14 G	5538687.22	5538687.26	5538687.30	0.0276	0.0265

Earth	10456-03-30 10:19 G	5540124.81	5540124.93	5540125.07	0.0281	0.0238
Moon	10456-03-30 10:19 G	5540124.81	5540124.93	5540125.06	0.0281	0.0242 *
Venus	10464-08-31 08:52 G	5543200.68	5543200.87	5543201.08	0.0285	0.0097
Venus	10465-04-18 01:11 G	5543430.37	5543430.55	5543430.74	0.0285	0.0134
Mercury	10465-08-21 00:57 G	5543555.45	5543555.54	5543555.63	0.0284	0.0228
Mercury	10465-11-17 18:28 G	5543644.12	5543644.27	5543644.42	0.0284	0.0104
Mercury	10466-02-14 12:28 G	5543732.85	5543733.02	5543733.18	0.0284	0.0024
Mercury	10466-05-14 06:43 G	5543821.64	5543821.78	5543821.92	0.0284	0.0154
Earth	10469-09-16 11:45 G	5545042.82	5545042.99	5545043.16	0.0279	0.0200
Moon	10469-09-16 11:45 G	5545042.84	5545042.99	5545043.15	0.0279	0.0213 *
Venus	10479-02-11 16:04 G	5548478.09	5548478.17	5548478.26	0.0273	0.0251
Venus	10479-09-28 23:31 G	5548707.28	5548707.48	5548707.70	0.0274	0.0049
Venus	10480-05-15 07:11 G	5548936.63	5548936.80	5548936.98	0.0274	0.0156
Mercury	10480-09-20 14:52 G	5549065.01	5549065.12	5549065.24	0.0274	0.0176
Mercury	10480-12-18 04:33 G	5549153.55	5549153.69	5549153.83	0.0275	0.0071
Mercury	10481-03-16 18:00 G	5549242.10	5549242.25	5549242.39	0.0275	0.0032
Mercury	10481-06-13 07:11 G	5549330.67	5549330.80	5549330.92	0.0275	0.0134
Mercury	10481-09-09 19:55 G	5549419.26	5549419.33	5549419.41	0.0275	0.0234
Earth	10485-03-24 21:50 G	5550711.17	5550711.41	5550711.66	0.0280	0.0013
Moon	10485-03-24 22:33 G	5550711.20	5550711.44	5550711.68	0.0280	0.0009 *
Mars	10488-12-29 17:16 G	5552087.04	5552087.22	5552087.42	0.0285	0.0220
Venus	10494-03-13 11:16 G	5553986.77	5553986.97	5553987.17	0.0285	0.0071
Venus	10494-10-29 03:21 G	5554216.47	5554216.64	5554216.82	0.0285	0.0159
Mercury	10495-01-08 00:00 G	5554287.47	5554287.50	5554287.55	0.0285	0.0273
Mercury	10495-04-06 17:31 G	5554376.10	5554376.23	5554376.37	0.0284	0.0149
Mercury	10495-07-04 11:31 G	5554464.81	5554464.98	5554465.14	0.0284	0.0024
Mercury	10495-10-01 05:31 G	5554553.58	5554553.73	5554553.89	0.0284	0.0107
Mercury	10495-12-29 00:14 G	5554642.42	5554642.51	5554642.60	0.0284	0.0238
Moon	10499-09-23 21:36 G	5556007.17	5556007.40	5556007.64	0.0278	0.0093
Earth	10499-09-24 01:26 G	5556007.33	5556007.56	5556007.79	0.0278	0.0099 *

Venus	10508-08-24 21:50 G	5559264.29	5559264.41	5559264.54	0.0274	0.0221
Venus	10509-04-11 05:31 G	5559493.52	5559493.73	5559493.95	0.0274	0.0018
Venus	10509-11-26 13:40 G	5559722.92	5559723.07	5559723.23	0.0275	0.0188
Mercury	10510-02-08 17:02 G	5559797.12	5559797.21	5559797.32	0.0275	0.0203
Mercury	10510-05-08 06:57 G	5559885.65	5559885.79	5559885.93	0.0275	0.0097
Mercury	10510-08-04 20:23 G	5559974.21	5559974.35	5559974.50	0.0276	0.0009
Mercury	10510-11-01 09:36 G	5560062.77	5560062.90	5560063.04	0.0276	0.0111
Mercury	10511-01-28 22:33 G	5560151.36	5560151.44	5560151.54	0.0276	0.0212
Moon	10514-03-20 18:00 G	5561298.14	5561298.25	5561298.39	0.0280	0.0243
Earth	10514-03-20 18:57 G	5561298.18	5561298.29	5561298.42	0.0280	0.0244 *
Venus	10523-02-07 06:57 G	5564543.71	5564543.79	5564543.87	0.0285	0.0261
Venus	10523-09-24 23:16 G	5564773.26	5564773.47	5564773.68	0.0285	0.0031
Venus	10524-05-11 15:21 G	5565003.00	5565003.14	5565003.30	0.0285	0.0199
Mercury	10524-08-24 20:38 G	5565108.23	5565108.36	5565108.49	0.0284	0.0169
Mercury	10524-11-21 14:23 G	5565196.94	5565197.10	5565197.26	0.0284	0.0043
Mercury	10525-02-18 08:23 G	5565285.70	5565285.85	5565286.01	0.0284	0.0086
Mercury	10525-05-18 02:52 G	5565374.52	5565374.62	5565374.73	0.0284	0.0217
Earth	10528-09-18 23:45 G	5566594.28	5566594.49	5566594.72	0.0279	0.0126
Moon	10528-09-19 03:21 G	5566594.43	5566594.64	5566594.86	0.0279	0.0136 *
Mars	10533-05-05 11:31 G	5568283.78	5568283.98	5568284.17	0.0274	0.0198
Venus	10538-03-07 04:04 G	5570050.52	5570050.67	5570050.82	0.0273	0.0193
Venus	10538-10-22 11:45 G	5570279.78	5570279.99	5570280.20	0.0274	0.0010
Venus	10539-06-08 19:26 G	5570509.18	5570509.31	5570509.44	0.0274	0.0214
Mercury	10539-06-28 19:11 G	5570529.22	5570529.30	5570529.38	0.0274	0.0231
Mercury	10539-09-25 08:52 G	5570617.74	5570617.87	5570618.00	0.0274	0.0126
Mercury	10539-12-22 22:33 G	5570706.29	5570706.44	5570706.58	0.0275	0.0022
Mercury	10540-03-20 11:45 G	5570794.85	5570794.99	5570795.13	0.0275	0.0081
Mercury	10540-06-17 00:43 G	5570883.43	5570883.53	5570883.64	0.0275	0.0182
Earth	10544-03-27 08:38 G	5572262.62	5572262.86	5572263.10	0.0280	0.0060
Moon	10544-03-27 12:28 G	5572262.78	5572263.02	5572263.26	0.0280	0.0067 *

Venus	10552-08-19 08:38 G	5575329.75	5575329.86	5575329.99	0.0286	0.0237
Venus	10553-04-06 01:11 G	5575559.34	5575559.55	5575559.76	0.0285	0.0007
Venus	10553-11-21 17:02 G	5575789.09	5575789.21	5575789.35	0.0285	0.0223
Mercury	10554-01-11 19:26 G	5575840.21	5575840.31	5575840.42	0.0285	0.0215
Mercury	10554-04-10 13:11 G	5575928.90	5575929.05	5575929.20	0.0284	0.0090
Mercury	10554-07-08 07:11 G	5576017.64	5576017.80	5576017.96	0.0284	0.0038
Mercury	10554-10-05 01:26 G	5576106.43	5576106.56	5576106.69	0.0284	0.0168
Moon	10558-09-26 10:33 G	5577558.75	5577558.94	5577559.13	0.0278	0.0167
Earth	10558-09-26 12:14 G	5577558.83	5577559.01	5577559.22	0.0278	0.0172 *
Venus	10567-09-17 08:52 G	5580836.71	5580836.87	5580837.04	0.0274	0.0165
Venus	10568-05-03 16:33 G	5581065.99	5581066.19	5581066.41	0.0274	0.0040
Mercury	10568-11-14 20:52 G	5581261.33	5581261.37	5581261.42	0.0275	0.0261
Venus	10568-12-19 00:43 G	5581295.43	5581295.53	5581295.62	0.0275	0.0244
Mercury	10569-02-11 10:48 G	5581349.83	5581349.95	5581350.08	0.0275	0.0154
Mercury	10569-05-11 00:28 G	5581438.38	5581438.52	5581438.67	0.0275	0.0049
Mercury	10569-08-07 13:55 G	5581526.94	5581527.08	5581527.22	0.0276	0.0055
Mercury	10569-11-04 02:52 G	5581615.51	5581615.62	5581615.75	0.0276	0.0157
Mercury	10570-01-31 16:04 G	5581704.12	5581704.17	5581704.22	0.0276	0.0257
Moon	10573-03-22 00:00 G	5582849.31	5582849.50	5582849.69	0.0280	0.0171
Earth	10573-03-22 03:36 G	5582849.47	5582849.65	5582849.85	0.0280	0.0175 *
Mars	10577-05-27 14:09 G	5584376.82	5584377.09	5584377.37	0.0285	0.0114
Venus	10582-03-01 19:55 G	5586116.19	5586116.33	5586116.49	0.0285	0.0198
Venus	10582-10-17 12:28 G	5586345.81	5586346.02	5586346.23	0.0285	0.0033
Mercury	10583-05-31 22:19 G	5586572.35	5586572.43	5586572.52	0.0284	0.0236
Venus	10583-06-04 04:33 G	5586575.62	5586575.69	5586575.78	0.0284	0.0262
Mercury	10583-08-28 15:50 G	5586661.02	5586661.16	5586661.31	0.0284	0.0111
Mercury	10583-11-25 09:50 G	5586749.75	5586749.91	5586750.07	0.0284	0.0016
Mercury	10584-02-22 04:04 G	5586838.53	5586838.67	5586838.81	0.0284	0.0146
Mercury	10584-05-20 22:48 G	5586927.42	5586927.45	5586927.48	0.0284	0.0278
Earth	10587-09-21 11:31 G	5588145.74	5588145.98	5588146.22	0.0279	0.0052

Moon	10587-09-21 13:55 G	5588145.83	5588146.08	5588146.33	0.0279	0.0062 *
Venus	10597-03-29 15:36 G	5591622.97	5591623.15	5591623.34	0.0273	0.0136
Venus	10597-11-13 23:16 G	5591852.26	5591852.47	5591852.68	0.0274	0.0068
Venus	10598-07-01 06:43 G	5592081.76	5592081.78	5592081.82	0.0274	0.0271
Mercury	10598-07-01 12:57 G	5592081.93	5592082.04	5592082.15	0.0274	0.0182
Mercury	10598-09-28 02:38 G	5592170.47	5592170.61	5592170.76	0.0274	0.0077
Mercury	10598-12-25 16:04 G	5592259.03	5592259.17	5592259.32	0.0275	0.0027
Mercury	10599-03-24 05:16 G	5592347.59	5592347.72	5592347.85	0.0275	0.0128
Mercury	10599-06-20 18:14 G	5592436.18	5592436.26	5592436.34	0.0275	0.0228
Earth	10603-03-30 17:31 G	5593814.02	5593814.23	5593814.45	0.0280	0.0130
Moon	10603-03-30 18:43 G	5593814.07	5593814.28	5593814.51	0.0280	0.0138 *
Venus	10611-09-12 21:50 G	5596902.24	5596902.41	5596902.57	0.0286	0.0174
Venus	10612-04-29 14:09 G	5597131.88	5597132.09	5597132.30	0.0285	0.0057
Mercury	10612-10-18 21:07 G	5597304.37	5597304.38	5597304.41	0.0285	0.0282
Venus	10612-12-15 06:14 G	5597361.76	5597361.76	5597361.76	0.0285	0.0285
Mercury	10613-01-15 14:38 G	5597392.98	5597393.11	5597393.25	0.0285	0.0158
Mercury	10613-04-14 08:23 G	5597481.69	5597481.85	5597482.01	0.0284	0.0033
Mercury	10613-07-12 02:38 G	5597570.45	5597570.61	5597570.76	0.0284	0.0096
Mercury	10613-10-08 21:07 G	5597659.28	5597659.38	5597659.48	0.0284	0.0227
Earth	10617-09-28 22:19 G	5599110.31	5599110.43	5599110.56	0.0278	0.0241
Moon	10617-09-29 00:28 G	5599110.41	5599110.52	5599110.65	0.0278	0.0239 *
Mars	10621-09-30 07:26 G	5600572.72	5600572.81	5600572.91	0.0274	0.0258
Venus	10626-10-10 19:26 G	5602409.12	5602409.31	5602409.51	0.0274	0.0110
Venus	10627-05-28 03:07 G	5602638.43	5602638.63	5602638.83	0.0274	0.0095
Mercury	10627-11-19 14:23 G	5602814.01	5602814.10	5602814.20	0.0275	0.0214
Mercury	10628-02-16 04:19 G	5602902.54	5602902.68	5602902.81	0.0275	0.0108
Mercury	10628-05-14 17:45 G	5602991.10	5602991.24	5602991.39	0.0275	0.0005
Mercury	10628-08-11 06:57 G	5603079.66	5603079.79	5603079.93	0.0276	0.0100
Mercury	10628-11-07 20:09 G	5603168.24	5603168.34	5603168.44	0.0276	0.0200
Moon	10632-03-24 09:21 G	5604400.68	5604400.89	5604401.12	0.0280	0.0105

Earth	10632-03-24 10:48 G	5604400.73	5604400.95	5604401.18	0.0280	0.0109 *
Venus	10641-03-25 07:55 G	5607688.65	5607688.83	5607689.02	0.0285	0.0137
Venus	10641-11-10 00:28 G	5607918.32	5607918.52	5607918.72	0.0285	0.0093
Mercury	10642-06-04 17:02 G	5608125.09	5608125.21	5608125.34	0.0284	0.0183
Mercury	10642-09-01 10:48 G	5608213.79	5608213.95	5608214.11	0.0284	0.0057
Mercury	10642-11-29 04:48 G	5608302.54	5608302.70	5608302.86	0.0284	0.0072
Mercury	10643-02-25 23:16 G	5608391.36	5608391.47	5608391.59	0.0284	0.0202
Moon	10646-09-23 18:57 G	5609697.03	5609697.29	5609697.54	0.0279	0.0011
Earth	10646-09-23 20:38 G	5609697.12	5609697.36	5609697.61	0.0279	0.0018 *
Venus	10656-04-22 02:38 G	5613195.40	5613195.61	5613195.81	0.0273	0.0080
Venus	10656-12-07 09:50 G	5613424.73	5613424.91	5613425.11	0.0274	0.0124
Mercury	10657-04-07 16:33 G	5613546.13	5613546.19	5613546.27	0.0274	0.0240
Mercury	10657-07-05 06:28 G	5613634.65	5613634.77	5613634.90	0.0274	0.0134
Mercury	10657-10-01 20:09 G	5613723.19	5613723.34	5613723.49	0.0274	0.0030
Mercury	10657-12-29 09:21 G	5613811.75	5613811.89	5613812.04	0.0275	0.0073
Mercury	10658-03-27 22:19 G	5613900.33	5613900.43	5613900.55	0.0275	0.0174
Mercury	10658-06-24 11:16 G	5613988.96	5613988.97	5613988.99	0.0275	0.0272
Moon	10662-03-31 21:36 G	5615365.25	5615365.40	5615365.58	0.0280	0.0208
Earth	10662-04-01 00:43 G	5615365.37	5615365.53	5615365.71	0.0280	0.0196 *
Mars	10665-10-22 01:11 G	5616665.26	5616665.55	5616665.84	0.0285	0.0055
Venus	10670-10-05 09:07 G	5618474.69	5618474.88	5618475.08	0.0286	0.0114
Venus	10671-05-23 01:40 G	5618704.37	5618704.57	5618704.76	0.0285	0.0117
Mercury	10671-10-22 15:50 G	5618857.07	5618857.16	5618857.25	0.0285	0.0230
Mercury	10672-01-19 09:21 G	5618945.74	5618945.89	5618946.04	0.0285	0.0106
Mercury	10672-04-17 03:07 G	5619034.47	5619034.63	5619034.80	0.0284	0.0023
Mercury	10672-07-14 21:21 G	5619123.26	5619123.39	5619123.54	0.0284	0.0151
Mercury	10672-10-11 16:04 G	5619212.16	5619212.17	5619212.18	0.0284	0.0283
Earth	10675-09-18 01:40 G	5620283.46	5620283.57	5620283.71	0.0280	0.0240
Moon	10675-09-18 03:50 G	5620283.56	5620283.66	5620283.77	0.0280	0.0251 *
Mars	10680-01-07 03:50 G	5621855.60	5621855.66	5621855.75	0.0274	0.0264

Venus	10685-03-17 21:21 G	5623752.34	5623752.39	5623752.47	0.0273	0.0259
Venus	10685-11-02 05:02 G	5623981.51	5623981.71	5623981.92	0.0274	0.0056
Venus	10686-06-19 12:43 G	5624210.85	5624211.03	5624211.21	0.0274	0.0148
Mercury	10686-11-22 07:40 G	5624366.70	5624366.82	5624366.94	0.0275	0.0169
Mercury	10687-02-18 21:21 G	5624455.25	5624455.39	5624455.53	0.0275	0.0064
Mercury	10687-05-18 10:48 G	5624543.80	5624543.95	5624544.09	0.0275	0.0040
Mercury	10687-08-15 00:00 G	5624632.38	5624632.50	5624632.62	0.0275	0.0142
Mercury	10687-11-11 12:43 G	5624720.97	5624721.03	5624721.11	0.0276	0.0242
Earth	10691-03-26 15:50 G	5625951.92	5625952.16	5625952.40	0.0280	0.0046
Moon	10691-03-26 18:28 G	5625952.03	5625952.27	5625952.50	0.0280	0.0039 *
Venus	10700-04-17 18:14 G	5629261.06	5629261.26	5629261.47	0.0285	0.0079
Venus	10700-12-03 10:33 G	5629490.77	5629490.94	5629491.13	0.0285	0.0151
Mercury	10701-03-11 17:45 G	5629589.18	5629589.24	5629589.31	0.0285	0.0257
Mercury	10701-06-08 11:16 G	5629677.83	5629677.97	5629678.11	0.0284	0.0133
Mercury	10701-09-05 05:02 G	5629766.55	5629766.71	5629766.87	0.0284	0.0007
Mercury	10701-12-02 23:16 G	5629855.32	5629855.47	5629855.62	0.0284	0.0123
Mercury	10702-03-01 18:00 G	5629944.17	5629944.25	5629944.32	0.0284	0.0254
Moon	10705-09-25 23:45 G	5631248.26	5631248.49	5631248.73	0.0279	0.0076
Earth	10705-09-26 03:36 G	5631248.42	5631248.65	5631248.89	0.0279	0.0083 *
Venus	10714-09-29 04:48 G	5634538.60	5634538.70	5634538.83	0.0273	0.0227
Venus	10715-05-16 12:14 G	5634767.80	5634768.01	5634768.23	0.0273	0.0026
Venus	10715-12-31 19:40 G	5634997.16	5634997.32	5634997.48	0.0274	0.0178
Mercury	10716-04-11 10:04 G	5635098.82	5635098.92	5635099.03	0.0274	0.0194
Mercury	10716-07-08 23:45 G	5635187.35	5635187.49	5635187.63	0.0274	0.0089
Mercury	10716-10-05 13:11 G	5635275.91	5635276.05	5635276.20	0.0274	0.0016
Mercury	10717-01-02 02:23 G	5635364.47	5635364.60	5635364.73	0.0275	0.0116
Mercury	10717-03-31 15:21 G	5635453.06	5635453.14	5635453.23	0.0275	0.0216
Moon	10721-04-03 03:36 G	5636916.61	5636916.65	5636916.72	0.0280	0.0272
Earth	10721-04-03 06:43 G	5636916.69	5636916.78	5636916.87	0.0280	0.0259 *
Venus	10729-03-13 02:52 G	5639817.62	5639817.62	5639817.62	0.0286	0.0286

Venus	10729-10-28 19:11 G	5640047.10	5640047.30	5640047.51	0.0286	0.0057
Venus	10730-06-15 11:31 G	5640276.82	5640276.98	5640277.15	0.0285	0.0174
Mercury	10730-10-26 09:36 G	5640409.79	5640409.90	5640410.03	0.0285	0.0182
Mercury	10731-01-23 03:21 G	5640498.49	5640498.64	5640498.80	0.0285	0.0057
Mercury	10731-04-21 21:21 G	5640587.24	5640587.39	5640587.55	0.0284	0.0072
Mercury	10731-07-19 15:50 G	5640676.05	5640676.16	5640676.28	0.0284	0.0202
Earth	10734-09-20 07:26 G	5641834.63	5641834.81	5641835.01	0.0280	0.0176
Moon	10734-09-20 11:02 G	5641834.79	5641834.96	5641835.16	0.0280	0.0185 *
Venus	10744-04-10 06:14 G	5645324.63	5645324.76	5645324.91	0.0273	0.0206
Venus	10744-11-25 13:55 G	5645553.87	5645554.08	5645554.29	0.0274	0.0004
Venus	10745-07-12 21:07 G	5645783.25	5645783.38	5645783.54	0.0274	0.0201
Mercury	10745-08-29 10:48 G	5645830.87	5645830.95	5645831.03	0.0274	0.0232
Mercury	10745-11-26 00:28 G	5645919.39	5645919.52	5645919.66	0.0275	0.0126
Mercury	10746-02-22 14:09 G	5646007.94	5646008.09	5646008.24	0.0275	0.0022
Mercury	10746-05-22 03:21 G	5646096.51	5646096.64	5646096.78	0.0275	0.0081
Mercury	10746-08-18 16:33 G	5646185.08	5646185.19	5646185.30	0.0275	0.0181
Earth	10750-03-28 19:11 G	5647503.06	5647503.30	5647503.55	0.0280	0.0015
Moon	10750-03-28 22:33 G	5647503.19	5647503.44	5647503.69	0.0280	0.0023 *
Mars	10754-03-18 18:28 G	5648953.97	5648954.27	5648954.57	0.0285	0.0009
Venus	10758-09-23 10:04 G	5650603.83	5650603.92	5650604.02	0.0286	0.0255
Venus	10759-05-11 02:52 G	5650833.41	5650833.62	5650833.83	0.0285	0.0025
Venus	10759-12-26 19:11 G	5651063.16	5651063.30	5651063.45	0.0285	0.0205
Mercury	10760-03-14 11:02 G	5651141.86	5651141.96	5651142.07	0.0285	0.0213
Mercury	10760-06-11 04:33 G	5651230.54	5651230.69	5651230.85	0.0284	0.0089
Mercury	10760-09-07 22:33 G	5651319.28	5651319.44	5651319.61	0.0284	0.0041
Mercury	10760-12-05 16:48 G	5651408.08	5651408.20	5651408.34	0.0284	0.0170
Earth	10764-09-27 07:26 G	5652799.61	5652799.81	5652800.03	0.0279	0.0145
Moon	10764-09-27 07:26 G	5652799.61	5652799.81	5652800.02	0.0279	0.0142 *
Mars	10768-06-03 12:28 G	5654144.81	5654145.02	5654145.26	0.0275	0.0174
Venus	10773-10-21 13:55 G	5656110.93	5656111.08	5656111.26	0.0273	0.0174

Venus	10774-06-07 21:21 G	5656340.18	5656340.39	5656340.60	0.0273	0.0028
Mercury	10775-01-16 13:11 G	5656563.00	5656563.05	5656563.10	0.0274	0.0256
Venus	10775-01-23 04:19 G	5656569.58	5656569.68	5656569.81	0.0274	0.0231
Mercury	10775-04-15 03:07 G	5656651.51	5656651.63	5656651.75	0.0274	0.0150
Mercury	10775-07-12 16:48 G	5656740.05	5656740.20	5656740.34	0.0274	0.0047
Mercury	10775-10-09 06:00 G	5656828.61	5656828.75	5656828.90	0.0274	0.0056
Mercury	10776-01-05 19:11 G	5656917.18	5656917.30	5656917.42	0.0275	0.0157
Mercury	10776-04-03 07:55 G	5657005.79	5657005.83	5657005.89	0.0275	0.0256
Moon	10779-03-23 08:38 G	5658089.72	5658089.86	5658090.02	0.0278	0.0216
Earth	10779-03-23 11:45 G	5658089.85	5658089.99	5658090.15	0.0278	0.0221 *
Venus	10788-04-04 11:31 G	5661389.86	5661389.98	5661390.10	0.0286	0.0231
Venus	10788-11-20 04:04 G	5661619.46	5661619.67	5661619.88	0.0285	0.0004
Venus	10789-07-07 20:09 G	5661849.22	5661849.34	5661849.47	0.0285	0.0228
Mercury	10789-08-01 09:50 G	5661873.85	5661873.91	5661873.98	0.0285	0.0260
Mercury	10789-10-29 03:07 G	5661962.50	5661962.63	5661962.78	0.0285	0.0137
Mercury	10790-01-25 21:07 G	5662051.22	5662051.38	5662051.54	0.0285	0.0011
Mercury	10790-04-24 15:07 G	5662139.98	5662140.13	5662140.28	0.0284	0.0119
Mercury	10790-07-22 09:36 G	5662228.83	5662228.90	5662228.98	0.0284	0.0250
Moon	10793-09-21 10:33 G	5663385.71	5663385.94	5663386.17	0.0280	0.0119
Earth	10793-09-21 11:16 G	5663385.75	5663385.97	5663386.20	0.0280	0.0116 *
Venus	10803-05-03 14:09 G	5666896.93	5666897.09	5666897.28	0.0273	0.0156
Venus	10803-12-18 21:36 G	5667126.20	5667126.40	5667126.61	0.0274	0.0048
Venus	10804-08-04 05:02 G	5667355.63	5667355.71	5667355.80	0.0274	0.0251
Mercury	10804-09-01 03:21 G	5667383.54	5667383.64	5667383.75	0.0274	0.0191
Mercury	10804-11-28 17:02 G	5667472.07	5667472.21	5667472.36	0.0275	0.0086
Mercury	10805-02-25 06:43 G	5667560.63	5667560.78	5667560.92	0.0275	0.0019
Mercury	10805-05-24 19:55 G	5667649.20	5667649.33	5667649.46	0.0275	0.0119
Mercury	10805-08-21 08:38 G	5667737.78	5667737.86	5667737.95	0.0275	0.0220
Moon	10809-03-29 20:09 G	5669054.11	5669054.34	5669054.59	0.0280	0.0084
Earth	10809-03-29 21:36 G	5669054.16	5669054.40	5669054.63	0.0280	0.0072 *

Venus	10817-10-15 17:45 G	5672176.09	5672176.24	5672176.39	0.0286	0.0202
Venus	10818-06-02 10:19 G	5672405.72	5672405.93	5672406.15	0.0285	0.0029
Venus	10819-01-18 02:52 G	5672635.53	5672635.62	5672635.70	0.0285	0.0257
Mercury	10819-03-18 04:04 G	5672694.55	5672694.67	5672694.80	0.0285	0.0171
Mercury	10819-06-14 21:50 G	5672783.25	5672783.41	5672783.57	0.0284	0.0045
Mercury	10819-09-11 15:50 G	5672872.01	5672872.16	5672872.32	0.0284	0.0083
Mercury	10819-12-09 10:19 G	5672960.82	5672960.93	5672961.04	0.0284	0.0213
Earth	10823-09-29 09:21 G	5674350.73	5674350.89	5674351.07	0.0279	0.0200
Moon	10823-09-29 13:11 G	5674350.89	5674351.05	5674351.23	0.0279	0.0202 *
Venus	10832-11-12 22:04 G	5677683.24	5677683.42	5677683.62	0.0273	0.0123
Venus	10833-06-30 05:16 G	5677912.52	5677912.72	5677912.93	0.0274	0.0080
Mercury	10834-01-19 06:00 G	5678115.66	5678115.75	5678115.84	0.0274	0.0214
Mercury	10834-04-17 19:55 G	5678204.19	5678204.33	5678204.46	0.0274	0.0109
Mercury	10834-07-15 09:21 G	5678292.74	5678292.89	5678293.04	0.0274	0.0007
Mercury	10834-10-11 22:33 G	5678381.30	5678381.44	5678381.58	0.0274	0.0096
Mercury	10835-01-08 11:31 G	5678469.88	5678469.98	5678470.08	0.0275	0.0196
Earth	10838-03-24 15:07 G	5679640.94	5679641.13	5679641.33	0.0278	0.0162
Moon	10838-03-24 16:33 G	5679641.00	5679641.19	5679641.39	0.0278	0.0152 *
Mars	10842-08-11 21:21 G	5681242.10	5681242.39	5681242.68	0.0284	0.0054
Venus	10847-04-27 19:11 G	5682962.13	5682962.30	5682962.46	0.0286	0.0178
Venus	10847-12-13 11:31 G	5683191.77	5683191.98	5683192.19	0.0285	0.0052
Venus	10848-07-30 03:36 G	5683421.62	5683421.65	5683421.69	0.0285	0.0280
Mercury	10848-08-04 02:52 G	5683426.52	5683426.62	5683426.72	0.0285	0.0218
Mercury	10848-10-31 20:23 G	5683515.20	5683515.35	5683515.50	0.0285	0.0094
Mercury	10849-01-28 14:09 G	5683603.93	5683604.09	5683604.25	0.0284	0.0033
Mercury	10849-04-27 08:23 G	5683692.72	5683692.85	5683692.99	0.0284	0.0162
Moon	10852-09-22 09:07 G	5684936.64	5684936.88	5684937.13	0.0280	0.0059
Earth	10852-09-22 12:57 G	5684936.80	5684937.04	5684937.28	0.0280	0.0060 *
Mars	10856-10-27 10:04 G	5686432.69	5686432.92	5686433.17	0.0275	0.0150
Venus	10862-05-25 22:04 G	5688469.22	5688469.42	5688469.61	0.0273	0.0105

Venus	10863-01-10 05:16 G	5688698.52	5688698.72	5688698.92	0.0274	0.0098
Mercury	10863-06-08 06:00 G	5688847.70	5688847.75	5688847.80	0.0274	0.0256
Mercury	10863-09-04 19:55 G	5688936.21	5688936.33	5688936.46	0.0274	0.0150
Mercury	10863-12-02 09:36 G	5689024.76	5689024.90	5689025.05	0.0274	0.0046
Mercury	10864-02-28 23:02 G	5689113.32	5689113.46	5689113.60	0.0275	0.0056
Mercury	10864-05-27 12:00 G	5689201.89	5689202.00	5689202.12	0.0275	0.0157
Mercury	10864-08-24 00:57 G	5689290.49	5689290.54	5689290.59	0.0275	0.0256
Moon	10868-03-30 19:11 G	5690605.10	5690605.30	5690605.51	0.0280	0.0143
Earth	10868-03-30 23:02 G	5690605.25	5690605.46	5690605.68	0.0280	0.0128 *
Venus	10876-11-07 00:00 G	5693748.33	5693748.50	5693748.68	0.0286	0.0151
Venus	10877-06-24 16:33 G	5693978.00	5693978.19	5693978.40	0.0285	0.0080
Mercury	10877-12-22 03:21 G	5694158.57	5694158.64	5694158.71	0.0285	0.0255
Mercury	10878-03-20 20:38 G	5694247.22	5694247.36	5694247.51	0.0285	0.0132
Mercury	10878-06-17 14:23 G	5694335.94	5694336.10	5694336.27	0.0284	0.0010
Mercury	10878-09-14 08:38 G	5694424.71	5694424.86	5694425.01	0.0284	0.0123
Mercury	10878-12-12 03:07 G	5694513.56	5694513.63	5694513.71	0.0284	0.0255
Earth	10882-09-30 09:36 G	5695901.81	5695901.90	5695902.01	0.0279	0.0253
Moon	10882-09-30 11:02 G	5695901.88	5695901.96	5695902.07	0.0279	0.0259 *
Venus	10891-04-20 22:04 G	5699026.42	5699026.42	5699026.45	0.0273	0.0273
Venus	10891-12-06 05:31 G	5699255.53	5699255.73	5699255.94	0.0273	0.0072
Venus	10892-07-22 12:43 G	5699484.85	5699485.03	5699485.22	0.0274	0.0130
Mercury	10893-01-21 22:33 G	5699668.33	5699668.44	5699668.56	0.0274	0.0174
Mercury	10893-04-20 12:14 G	5699756.87	5699757.01	5699757.16	0.0274	0.0070
Mercury	10893-07-18 01:40 G	5699845.43	5699845.57	5699845.72	0.0274	0.0033
Mercury	10893-10-14 14:52 G	5699933.99	5699934.12	5699934.25	0.0274	0.0134
Mercury	10894-01-11 03:50 G	5700022.59	5700022.66	5700022.73	0.0275	0.0233
Earth	10897-03-25 17:31 G	5701192.01	5701192.23	5701192.46	0.0278	0.0105
Moon	10897-03-25 21:21 G	5701192.16	5701192.39	5701192.62	0.0278	0.0091 *
Venus	10906-05-21 02:09 G	5704534.41	5704534.59	5704534.79	0.0286	0.0126
Venus	10907-01-05 18:43 G	5704764.08	5704764.28	5704764.48	0.0285	0.0105

Mercury	10907-08-08 19:40 G	5704979.20	5704979.32	5704979.45	0.0285	0.0177
Mercury	10907-11-05 13:11 G	5705067.89	5705068.05	5705068.21	0.0285	0.0053
Mercury	10908-02-02 07:11 G	5705156.65	5705156.80	5705156.96	0.0284	0.0076
Mercury	10908-05-01 01:40 G	5705245.46	5705245.57	5705245.68	0.0284	0.0205
Moon	10911-09-25 12:57 G	5706487.80	5706488.04	5706488.28	0.0280	0.0003
Earth	10911-09-25 13:40 G	5706487.83	5706488.07	5706488.32	0.0280	0.0008 *
Venus	10920-10-31 21:36 G	5709812.34	5709812.40	5709812.48	0.0273	0.0256
Venus	10921-06-18 05:02 G	5710041.50	5710041.71	5710041.92	0.0273	0.0055
Venus	10922-02-02 12:14 G	5710270.84	5710271.01	5710271.19	0.0274	0.0148
Mercury	10922-06-11 22:33 G	5710400.35	5710400.44	5710400.53	0.0274	0.0216
Mercury	10922-09-08 12:14 G	5710488.88	5710489.01	5710489.15	0.0274	0.0112
Mercury	10922-12-06 01:55 G	5710577.43	5710577.58	5710577.73	0.0274	0.0008
Mercury	10923-03-04 15:07 G	5710666.00	5710666.13	5710666.27	0.0275	0.0094
Mercury	10923-06-01 04:04 G	5710754.58	5710754.67	5710754.78	0.0275	0.0194
Earth	10927-04-03 00:14 G	5712156.34	5712156.51	5712156.71	0.0280	0.0184
Moon	10927-04-03 00:14 G	5712156.36	5712156.51	5712156.68	0.0280	0.0200 *
Mars	10931-01-05 19:55 G	5713530.05	5713530.33	5713530.61	0.0284	0.0088
Venus	10935-12-01 06:00 G	5715320.56	5715320.75	5715320.96	0.0285	0.0101
Venus	10936-07-17 22:33 G	5715550.26	5715550.44	5715550.64	0.0285	0.0130
Mercury	10936-12-25 19:40 G	5715711.22	5715711.32	5715711.42	0.0285	0.0217
Mercury	10937-03-24 13:11 G	5715799.90	5715800.05	5715800.20	0.0285	0.0093
Mercury	10937-06-21 07:11 G	5715888.63	5715888.80	5715888.96	0.0284	0.0035
Mercury	10937-09-18 01:11 G	5715977.42	5715977.55	5715977.69	0.0284	0.0163
Earth	10940-09-19 02:09 G	5717074.49	5717074.59	5717074.71	0.0281	0.0248
Moon	10940-09-19 03:21 G	5717074.53	5717074.64	5717074.76	0.0281	0.0248 *
Mars	10945-03-24 04:19 G	5718721.41	5718721.68	5718721.96	0.0275	0.0083
Venus	10950-05-14 05:45 G	5720598.62	5720598.74	5720598.86	0.0273	0.0222
Venus	10950-12-29 12:57 G	5720827.83	5720828.04	5720828.25	0.0274	0.0021
Venus	10951-08-15 20:09 G	5721057.18	5721057.34	5721057.50	0.0274	0.0181
Mercury	10951-10-30 01:11 G	5721132.48	5721132.55	5721132.62	0.0274	0.0239

Mercury	10952-01-26 15:07 G	5721221.00	5721221.13	5721221.26	0.0274	0.0134
Mercury	10952-04-24 04:48 G	5721309.55	5721309.70	5721309.84	0.0274	0.0031
Mercury	10952-07-21 18:00 G	5721398.11	5721398.25	5721398.39	0.0274	0.0072
Mercury	10952-10-18 07:11 G	5721486.69	5721486.80	5721486.91	0.0275	0.0172
Mercury	10953-01-14 19:55 G	5721575.31	5721575.33	5721575.36	0.0275	0.0270
Moon	10956-03-27 20:38 G	5722743.11	5722743.36	5722743.61	0.0278	0.0033
Earth	10956-03-27 20:38 G	5722743.12	5722743.36	5722743.60	0.0278	0.0047 *
Venus	10965-06-12 09:07 G	5726106.68	5726106.88	5726107.09	0.0285	0.0073
Venus	10966-01-28 01:26 G	5726336.39	5726336.56	5726336.74	0.0285	0.0156
Mercury	10966-05-14 18:57 G	5726443.23	5726443.29	5726443.36	0.0285	0.0260
Mercury	10966-08-11 12:28 G	5726531.88	5726532.02	5726532.16	0.0285	0.0137
Mercury	10966-11-08 06:14 G	5726620.59	5726620.76	5726620.92	0.0285	0.0014
Mercury	10967-02-05 00:14 G	5726709.36	5726709.51	5726709.66	0.0284	0.0117
Mercury	10967-05-04 18:43 G	5726798.20	5726798.28	5726798.36	0.0284	0.0248
Earth	10970-09-26 13:55 G	5728038.84	5728039.08	5728039.32	0.0280	0.0047
Moon	10970-09-26 17:02 G	5728038.97	5728039.21	5728039.45	0.0280	0.0055 *
Venus	10979-11-24 04:48 G	5731384.57	5731384.70	5731384.85	0.0273	0.0206
Venus	10980-07-10 12:14 G	5731613.80	5731614.01	5731614.22	0.0273	0.0005
Venus	10981-02-24 19:26 G	5731843.17	5731843.31	5731843.46	0.0274	0.0198
Mercury	10981-06-14 14:52 G	5731953.01	5731953.12	5731953.24	0.0274	0.0177
Mercury	10981-09-11 04:48 G	5732041.55	5732041.70	5732041.84	0.0274	0.0072
Mercury	10981-12-08 18:14 G	5732130.11	5732130.26	5732130.40	0.0274	0.0031
Mercury	10982-03-07 07:26 G	5732218.68	5732218.81	5732218.94	0.0275	0.0131
Mercury	10982-06-03 20:09 G	5732307.27	5732307.34	5732307.43	0.0275	0.0231
Earth	10986-04-04 02:23 G	5733707.48	5733707.60	5733707.73	0.0280	0.0239
Moon	10986-04-04 06:14 G	5733707.66	5733707.76	5733707.85	0.0280	0.0255 *
Venus	10994-05-07 19:55 G	5736663.29	5736663.33	5736663.37	0.0286	0.0278
Venus	10994-12-23 12:28 G	5736892.82	5736893.02	5736893.23	0.0285	0.0049
Venus	10995-08-10 05:02 G	5737122.55	5737122.71	5737122.87	0.0285	0.0181
Mercury	10995-12-29 12:00 G	5737263.89	5737264.00	5737264.13	0.0285	0.0179

Mercury	10996-03-27 05:45 G	5737352.58	5737352.74	5737352.90	0.0284	0.0054
Mercury	10996-06-23 23:45 G	5737441.33	5737441.49	5737441.65	0.0284	0.0074
Mercury	10996-09-20 18:00 G	5737530.14	5737530.25	5737530.37	0.0284	0.0204
Moon	10999-09-20 22:19 G	5738625.26	5738625.43	5738625.62	0.0281	0.0194
Earth	10999-09-21 01:40 G	5738625.40	5738625.57	5738625.75	0.0281	0.0197 *

12TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 12th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	11009-06-06 12:43 G		5742170.87	5742171.03	5742171.20	0.0274	0.0172	
Venus	11010-01-21 20:09 G		5742400.13	5742400.34	5742400.55	0.0274	0.0030	
Venus	11010-09-08 03:21 G		5742629.54	5742629.64	5742629.76	0.0274	0.0232	
Mercury	11010-11-02 17:45 G		5742685.14	5742685.24	5742685.34	0.0274	0.0199	
Mercury	11011-01-30 07:26 G		5742773.68	5742773.81	5742773.96	0.0274	0.0095	
Mercury	11011-04-28 21:07 G		5742862.23	5742862.38	5742862.53	0.0274	0.0009	
Mercury	11011-07-26 10:19 G		5742950.80	5742950.93	5742951.07	0.0275	0.0111	
Mercury	11011-10-22 23:31 G		5743039.39	5743039.48	5743039.57	0.0275	0.0210	
Moon	11015-03-30 20:38 G		5744294.12	5744294.36	5744294.61	0.0278	0.0026	
Earth	11015-03-31 00:14 G		5744294.26	5744294.51	5744294.75	0.0278	0.0011 *	
Mars	11019-06-02 09:21 G		5745818.64	5745818.89	5745819.15	0.0283	0.0147	
Venus	11023-11-19 00:28 G		5747449.42	5747449.52	5747449.62	0.0285	0.0248	
Venus	11024-07-05 16:48 G		5747678.99	5747679.20	5747679.41	0.0285	0.0019	
Venus	11025-02-20 08:52 G		5747908.73	5747908.87	5747909.01	0.0285	0.0209	

Mercury	11025-05-18 12:00 G	5747995.90	5747996.00	5747996.10	0.0285	0.0218
Mercury	11025-08-15 05:31 G	5748084.57	5748084.73	5748084.88	0.0285	0.0095
Mercury	11025-11-11 23:16 G	5748173.31	5748173.47	5748173.63	0.0284	0.0032
Mercury	11026-02-08 17:31 G	5748262.09	5748262.23	5748262.36	0.0284	0.0161
Earth	11029-09-28 14:38 G	5749589.89	5749590.11	5749590.35	0.0280	0.0100
Moon	11029-09-28 17:31 G	5749590.00	5749590.23	5749590.46	0.0280	0.0108 *
Mars	11033-08-18 00:57 G	5751009.26	5751009.54	5751009.82	0.0275	0.0063
Venus	11038-12-17 12:14 G	5752956.85	5752957.01	5752957.19	0.0273	0.0156
Venus	11039-08-03 19:40 G	5753186.12	5753186.32	5753186.53	0.0274	0.0047
Venus	11040-03-20 03:07 G	5753415.55	5753415.63	5753415.72	0.0274	0.0249
Mercury	11040-03-21 17:45 G	5753417.17	5753417.24	5753417.31	0.0274	0.0241
Mercury	11040-06-18 07:40 G	5753505.69	5753505.82	5753505.95	0.0274	0.0136
Mercury	11040-09-14 21:21 G	5753594.24	5753594.39	5753594.53	0.0274	0.0032
Mercury	11040-12-12 10:33 G	5753682.80	5753682.94	5753683.09	0.0274	0.0071
Mercury	11041-03-10 23:45 G	5753771.38	5753771.49	5753771.61	0.0275	0.0170
Mercury	11041-06-07 12:28 G	5753860.00	5753860.02	5753860.06	0.0275	0.0269
Earth	11044-03-24 08:09 G	5754880.73	5754880.84	5754880.98	0.0278	0.0239
Moon	11044-03-24 11:45 G	5754880.85	5754880.99	5754881.13	0.0278	0.0225 *
Venus	11053-05-31 02:52 G	5758235.50	5758235.62	5758235.75	0.0286	0.0226
Venus	11054-01-15 19:40 G	5758465.10	5758465.32	5758465.53	0.0285	0.0007
Venus	11054-09-02 11:45 G	5758694.88	5758694.99	5758695.12	0.0285	0.0233
Mercury	11054-10-05 11:31 G	5758727.92	5758727.98	5758728.05	0.0285	0.0260
Mercury	11055-01-02 05:02 G	5758816.57	5758816.71	5758816.85	0.0285	0.0138
Mercury	11055-03-31 22:33 G	5758905.28	5758905.44	5758905.61	0.0284	0.0014
Mercury	11055-06-28 16:33 G	5758994.05	5758994.19	5758994.35	0.0284	0.0117
Mercury	11055-09-25 11:16 G	5759082.89	5759082.97	5759083.05	0.0284	0.0246
Moon	11058-09-22 22:48 G	5760176.25	5760176.45	5760176.66	0.0281	0.0140
Earth	11058-09-23 01:26 G	5760176.36	5760176.56	5760176.78	0.0281	0.0146 *
Venus	11068-06-28 20:23 G	5763743.16	5763743.35	5763743.54	0.0274	0.0121
Venus	11069-02-13 03:50 G	5763972.46	5763972.66	5763972.86	0.0274	0.0082

Mercury	11069-08-08 20:23 G	5764149.32	5764149.35	5764149.40	0.0274	0.0263
Mercury	11069-11-05 10:33 G	5764237.82	5764237.94	5764238.06	0.0274	0.0157
Mercury	11070-02-02 00:14 G	5764326.36	5764326.51	5764326.65	0.0275	0.0053
Mercury	11070-05-01 13:40 G	5764414.93	5764415.07	5764415.21	0.0275	0.0050
Mercury	11070-07-29 02:52 G	5764503.50	5764503.62	5764503.74	0.0275	0.0150
Mercury	11070-10-25 15:50 G	5764592.10	5764592.16	5764592.22	0.0275	0.0249
Moon	11074-04-01 02:23 G	5765845.38	5765845.60	5765845.83	0.0278	0.0085
Earth	11074-04-01 04:33 G	5765845.46	5765845.69	5765845.93	0.0278	0.0070 *
Venus	11082-12-11 09:07 G	5769021.73	5769021.88	5769022.04	0.0285	0.0193
Venus	11083-07-29 01:26 G	5769251.35	5769251.56	5769251.77	0.0285	0.0036
Venus	11084-03-14 17:02 G	5769481.15	5769481.21	5769481.30	0.0285	0.0264
Mercury	11084-05-21 05:16 G	5769548.60	5769548.72	5769548.85	0.0285	0.0174
Mercury	11084-08-17 22:48 G	5769637.30	5769637.45	5769637.61	0.0284	0.0050
Mercury	11084-11-14 16:48 G	5769726.04	5769726.20	5769726.36	0.0284	0.0078
Mercury	11085-02-11 11:02 G	5769814.85	5769814.96	5769815.08	0.0284	0.0207
Moon	11088-09-29 15:36 G	5771140.95	5771141.15	5771141.36	0.0280	0.0167
Earth	11088-09-29 17:16 G	5771141.02	5771141.22	5771141.43	0.0280	0.0156 *
Venus	11098-01-08 20:38 G	5774529.16	5774529.36	5774529.56	0.0273	0.0103
Venus	11098-08-26 03:50 G	5774758.47	5774758.66	5774758.86	0.0274	0.0100
Mercury	11099-03-25 10:33 G	5774969.84	5774969.94	5774970.04	0.0274	0.0199
Mercury	11099-06-22 00:28 G	5775058.38	5775058.52	5775058.66	0.0274	0.0094
Mercury	11099-09-18 13:55 G	5775146.94	5775147.08	5775147.23	0.0274	0.0011
Mercury	11099-12-16 03:21 G	5775235.51	5775235.64	5775235.77	0.0275	0.0111
Mercury	11100-03-14 16:19 G	5775324.09	5775324.18	5775324.27	0.0275	0.0210
Earth	11103-03-27 13:11 G	5776431.87	5776432.05	5776432.24	0.0278	0.0179
Moon	11103-03-27 15:36 G	5776431.95	5776432.15	5776432.35	0.0278	0.0164 *
Mars	11107-10-27 10:33 G	5778106.73	5778106.94	5778107.17	0.0284	0.0187
Venus	11112-06-23 11:16 G	5779807.81	5779807.97	5779808.15	0.0285	0.0171
Venus	11113-02-08 03:50 G	5780037.45	5780037.66	5780037.87	0.0285	0.0059
Mercury	11113-10-09 04:48 G	5780280.60	5780280.70	5780280.80	0.0285	0.0217

Mercury	11114-01-05 22:19 G	5780369.27	5780369.43	5780369.58	0.0284	0.0094
Mercury	11114-04-04 16:04 G	5780458.01	5780458.17	5780458.33	0.0284	0.0033
Mercury	11114-07-02 10:19 G	5780546.79	5780546.93	5780547.06	0.0284	0.0161
Earth	11117-09-25 03:07 G	5781727.40	5781727.63	5781727.87	0.0281	0.0091
Moon	11117-09-25 05:02 G	5781727.49	5781727.71	5781727.95	0.0281	0.0081 *
Mars	11122-01-12 16:19 G	5783297.89	5783298.18	5783298.47	0.0276	0.0004
Venus	11126-12-05 21:07 G	5785086.35	5785086.38	5785086.41	0.0274	0.0270
Venus	11127-07-23 04:33 G	5785315.49	5785315.69	5785315.90	0.0274	0.0069
Venus	11128-03-08 12:14 G	5785544.83	5785545.01	5785545.20	0.0274	0.0134
Mercury	11128-08-12 13:26 G	5785701.97	5785702.06	5785702.15	0.0275	0.0220
Mercury	11128-11-09 03:21 G	5785790.51	5785790.64	5785790.78	0.0275	0.0115
Mercury	11129-02-05 17:02 G	5785879.06	5785879.21	5785879.36	0.0275	0.0011
Mercury	11129-05-05 06:28 G	5785967.63	5785967.77	5785967.91	0.0275	0.0091
Mercury	11129-08-01 19:26 G	5786056.21	5786056.31	5786056.42	0.0275	0.0192
Earth	11133-04-03 10:48 G	5787396.74	5787396.95	5787397.17	0.0279	0.0132
Moon	11133-04-03 12:43 G	5787396.84	5787397.03	5787397.24	0.0279	0.0148 *
Venus	11142-01-03 19:11 G	5790594.12	5790594.30	5790594.49	0.0285	0.0136
Venus	11142-08-21 11:16 G	5790823.77	5790823.97	5790824.17	0.0285	0.0093
Mercury	11143-02-26 06:00 G	5791012.67	5791012.75	5791012.82	0.0285	0.0248
Mercury	11143-05-25 23:16 G	5791101.32	5791101.47	5791101.61	0.0284	0.0126
Mercury	11143-08-22 16:48 G	5791190.04	5791190.20	5791190.37	0.0284	0.0005
Mercury	11143-11-19 10:48 G	5791278.81	5791278.95	5791279.10	0.0284	0.0127
Mercury	11144-02-16 05:16 G	5791367.65	5791367.72	5791367.79	0.0284	0.0257
Moon	11147-10-02 17:45 G	5792692.10	5792692.24	5792692.38	0.0280	0.0228
Earth	11147-10-02 21:21 G	5792692.24	5792692.39	5792692.55	0.0280	0.0214 *
Venus	11156-06-16 22:04 G	5795872.35	5795872.42	5795872.51	0.0273	0.0252
Venus	11157-02-01 05:45 G	5796101.53	5796101.74	5796101.95	0.0274	0.0050
Venus	11157-09-18 13:11 G	5796330.88	5796331.05	5796331.23	0.0274	0.0153
Mercury	11157-12-30 13:40 G	5796434.03	5796434.07	5796434.12	0.0274	0.0260
Mercury	11158-03-29 03:50 G	5796522.54	5796522.66	5796522.78	0.0274	0.0154

Mercury	11158-06-25 17:31 G	5796611.09	5796611.23	5796611.38	0.0274	0.0050
Mercury	11158-09-22 06:57 G	5796699.65	5796699.79	5796699.94	0.0274	0.0053
Mercury	11158-12-19 20:09 G	5796788.22	5796788.34	5796788.46	0.0275	0.0154
Mercury	11159-03-18 09:07 G	5796876.83	5796876.88	5796876.94	0.0275	0.0252
Moon	11162-03-28 17:45 G	5797983.01	5797983.24	5797983.48	0.0278	0.0100
Earth	11162-03-28 20:09 G	5797983.12	5797983.34	5797983.57	0.0278	0.0116 *
Venus	11171-07-16 21:07 G	5801380.19	5801380.38	5801380.58	0.0285	0.0113
Venus	11172-03-02 13:26 G	5801609.87	5801610.06	5801610.26	0.0285	0.0116
Mercury	11172-10-11 22:33 G	5801833.31	5801833.44	5801833.57	0.0285	0.0170
Mercury	11173-01-08 16:04 G	5801922.01	5801922.17	5801922.33	0.0284	0.0046
Mercury	11173-04-07 10:04 G	5802010.76	5802010.92	5802011.07	0.0284	0.0082
Mercury	11173-07-05 04:19 G	5802099.57	5802099.68	5802099.79	0.0284	0.0211
Earth	11176-09-26 07:11 G	5803278.56	5803278.80	5803279.05	0.0280	0.0034
Moon	11176-09-26 11:02 G	5803278.71	5803278.96	5803279.21	0.0280	0.0019 *
Venus	11185-12-28 05:45 G	5806658.62	5806658.74	5806658.87	0.0274	0.0218
Venus	11186-08-14 13:40 G	5806887.85	5806888.07	5806888.28	0.0274	0.0016
Venus	11187-03-31 21:07 G	5807117.24	5807117.38	5807117.55	0.0275	0.0189
Mercury	11187-08-16 06:28 G	5807254.66	5807254.77	5807254.89	0.0275	0.0176
Mercury	11187-11-12 20:23 G	5807343.21	5807343.35	5807343.50	0.0275	0.0071
Mercury	11188-02-09 10:04 G	5807431.77	5807431.92	5807432.07	0.0275	0.0033
Mercury	11188-05-07 23:16 G	5807520.35	5807520.47	5807520.60	0.0275	0.0134
Mercury	11188-08-04 12:28 G	5807608.94	5807609.02	5807609.09	0.0275	0.0234
Earth	11192-04-04 18:28 G	5808948.10	5808948.27	5808948.44	0.0279	0.0196
Moon	11192-04-04 21:50 G	5808948.26	5808948.41	5808948.58	0.0279	0.0212 *
Mars	11196-03-23 00:14 G	5810396.49	5810396.51	5810396.56	0.0283	0.0281
Venus	11201-01-26 06:43 G	5812166.57	5812166.78	5812166.98	0.0285	0.0076
Venus	11201-09-12 22:33 G	5812396.26	5812396.44	5812396.62	0.0285	0.0153
Mercury	11202-03-01 00:14 G	5812565.40	5812565.51	5812565.63	0.0284	0.0197
Mercury	11202-05-28 17:45 G	5812654.08	5812654.24	5812654.40	0.0284	0.0073
Mercury	11202-08-25 11:31 G	5812742.82	5812742.98	5812743.14	0.0284	0.0053

Mercury	11202-11-22 05:45 G	5812831.61	5812831.74	5812831.86	0.0284	0.0181
Moon	11205-09-20 18:14 G	5813865.19	5813865.26	5813865.36	0.0281	0.0261
Earth	11205-09-20 21:50 G	5813865.35	5813865.41	5813865.47	0.0281	0.0272 *
Earth	11206-10-04 03:50 G	5814243.63	5814243.66	5814243.71	0.0280	0.0276
Mars	11210-06-08 06:14 G	5815586.47	5815586.76	5815587.04	0.0276	0.0045
Venus	11215-07-10 07:55 G	5817444.69	5817444.83	5817444.98	0.0274	0.0198
Venus	11216-02-24 15:36 G	5817673.94	5817674.15	5817674.37	0.0274	0.0006
Venus	11216-10-10 23:16 G	5817903.34	5817903.47	5817903.61	0.0274	0.0208
Mercury	11217-01-02 07:11 G	5817986.71	5817986.80	5817986.90	0.0274	0.0213
Mercury	11217-03-31 21:07 G	5818075.25	5818075.38	5818075.52	0.0274	0.0108
Mercury	11217-06-28 10:48 G	5818163.81	5818163.95	5818164.10	0.0274	0.0008
Mercury	11217-09-25 00:14 G	5818252.37	5818252.51	5818252.65	0.0275	0.0098
Mercury	11217-12-22 13:11 G	5818340.96	5818341.05	5818341.16	0.0275	0.0198
Moon	11221-03-30 01:40 G	5819534.33	5819534.57	5819534.81	0.0278	0.0034
Earth	11221-03-30 05:02 G	5819534.47	5819534.71	5819534.95	0.0278	0.0049 *
Venus	11229-12-21 16:19 G	5822723.16	5822723.18	5822723.23	0.0285	0.0281
Venus	11230-08-08 08:52 G	5822952.66	5822952.87	5822953.08	0.0285	0.0052
Venus	11231-03-26 00:57 G	5823182.37	5823182.54	5823182.70	0.0285	0.0176
Mercury	11231-07-18 23:31 G	5823297.41	5823297.48	5823297.57	0.0285	0.0241
Mercury	11231-10-15 17:02 G	5823386.06	5823386.21	5823386.36	0.0284	0.0118
Mercury	11232-01-12 10:48 G	5823474.78	5823474.95	5823475.11	0.0284	0.0010
Mercury	11232-04-10 04:48 G	5823563.55	5823563.70	5823563.84	0.0284	0.0135
Mercury	11232-07-07 23:16 G	5823652.41	5823652.47	5823652.52	0.0284	0.0265
Moon	11235-09-28 13:11 G	5824829.80	5824830.05	5824830.30	0.0280	0.0044
Earth	11235-09-28 13:40 G	5824829.83	5824830.07	5824830.32	0.0280	0.0030 *
Venus	11245-01-19 15:21 G	5828230.98	5828231.14	5828231.32	0.0274	0.0165
Venus	11245-09-05 23:31 G	5828460.27	5828460.48	5828460.69	0.0275	0.0040
Venus	11246-04-23 07:11 G	5828689.71	5828689.80	5828689.91	0.0275	0.0243
Mercury	11246-05-22 10:04 G	5828718.84	5828718.92	5828719.00	0.0275	0.0235
Mercury	11246-08-19 00:00 G	5828807.37	5828807.50	5828807.63	0.0275	0.0129

Mercury	11246-11-15 13:55 G	5828895.93	5828896.08	5828896.22	0.0275	0.0026
Mercury	11247-02-12 03:21 G	5828984.50	5828984.64	5828984.78	0.0275	0.0078
Mercury	11247-05-11 16:33 G	5829073.08	5829073.19	5829073.30	0.0276	0.0179
Earth	11250-03-25 05:16 G	5830121.68	5830121.72	5830121.79	0.0278	0.0270
Moon	11250-03-25 08:38 G	5830121.77	5830121.86	5830121.97	0.0278	0.0253 *
Earth	11251-04-07 03:21 G	5830499.57	5830499.64	5830499.73	0.0279	0.0263
Moon	11251-04-07 02:52 G	5830499.60	5830499.62	5830499.67	0.0279	0.0277 *
Venus	11259-07-04 03:21 G	5833509.53	5833509.64	5833509.75	0.0285	0.0241
Venus	11260-02-18 19:26 G	5833739.10	5833739.31	5833739.52	0.0285	0.0014
Venus	11260-10-05 11:02 G	5833968.83	5833968.96	5833969.11	0.0284	0.0215
Mercury	11260-12-05 02:09 G	5834029.53	5834029.59	5834029.65	0.0284	0.0263
Mercury	11261-03-03 19:11 G	5834118.17	5834118.30	5834118.44	0.0284	0.0142
Mercury	11261-05-31 12:57 G	5834206.87	5834207.04	5834207.20	0.0284	0.0018
Mercury	11261-08-28 06:43 G	5834295.63	5834295.78	5834295.93	0.0284	0.0110
Mercury	11261-11-25 00:57 G	5834384.46	5834384.54	5834384.63	0.0284	0.0239
Earth	11264-09-22 06:43 G	5835416.62	5835416.78	5835416.96	0.0281	0.0205
Moon	11264-09-22 07:26 G	5835416.64	5835416.81	5835416.98	0.0281	0.0193 *
Venus	11274-08-01 18:43 G	5839017.11	5839017.28	5839017.47	0.0274	0.0142
Venus	11275-03-19 02:38 G	5839246.40	5839246.61	5839246.82	0.0274	0.0062
Mercury	11275-10-09 11:02 G	5839450.94	5839450.96	5839450.98	0.0274	0.0270
Venus	11275-11-03 10:19 G	5839475.89	5839475.93	5839475.99	0.0274	0.0265
Mercury	11276-01-06 00:57 G	5839539.43	5839539.54	5839539.67	0.0274	0.0165
Mercury	11276-04-03 14:52 G	5839627.98	5839628.12	5839628.27	0.0274	0.0060
Mercury	11276-07-01 04:33 G	5839716.54	5839716.69	5839716.83	0.0275	0.0044
Mercury	11276-09-27 17:45 G	5839805.12	5839805.24	5839805.36	0.0275	0.0144
Mercury	11276-12-25 06:43 G	5839893.72	5839893.78	5839893.85	0.0275	0.0243
Earth	11280-03-31 14:52 G	5841085.87	5841086.12	5841086.36	0.0278	0.0019
Moon	11280-03-31 15:36 G	5841085.92	5841086.15	5841086.39	0.0278	0.0033 *
Venus	11289-01-13 05:16 G	5844295.60	5844295.72	5844295.87	0.0285	0.0218
Venus	11289-08-30 21:36 G	5844525.19	5844525.40	5844525.61	0.0285	0.0011

Venus	11290-04-17 13:40 G	5844754.96	5844755.07	5844755.18	0.0285	0.0238
Mercury	11290-07-21 18:43 G	5844850.16	5844850.28	5844850.40	0.0284	0.0185
Mercury	11290-10-18 12:00 G	5844938.85	5844939.00	5844939.16	0.0284	0.0062
Mercury	11291-01-15 05:45 G	5845027.59	5845027.74	5845027.90	0.0284	0.0064
Mercury	11291-04-14 00:00 G	5845116.38	5845116.50	5845116.62	0.0284	0.0192
Moon	11294-09-29 18:57 G	5846381.07	5846381.29	5846381.52	0.0280	0.0112
Earth	11294-09-29 22:33 G	5846381.22	5846381.44	5846381.68	0.0280	0.0096 *
Mars	11298-11-02 04:48 G	5847875.44	5847875.70	5847875.97	0.0276	0.0111
Venus	11304-02-13 01:55 G	5849803.39	5849803.58	5849803.78	0.0275	0.0109
Venus	11304-09-29 09:50 G	5850032.72	5850032.91	5850033.11	0.0275	0.0095
Mercury	11305-05-26 03:36 G	5850271.55	5850271.65	5850271.76	0.0275	0.0188
Mercury	11305-08-22 17:45 G	5850360.09	5850360.24	5850360.38	0.0275	0.0082
Mercury	11305-11-19 07:11 G	5850448.66	5850448.80	5850448.95	0.0275	0.0024
Mercury	11306-02-15 20:38 G	5850537.23	5850537.36	5850537.49	0.0276	0.0124
Mercury	11306-05-15 09:50 G	5850625.83	5850625.91	5850625.99	0.0276	0.0224
Moon	11309-03-27 14:23 G	5851672.92	5851673.10	5851673.30	0.0278	0.0187
Earth	11309-03-27 15:07 G	5851672.97	5851673.13	5851673.30	0.0278	0.0202 *
Venus	11318-07-27 17:31 G	5855082.06	5855082.23	5855082.39	0.0285	0.0177
Venus	11319-03-14 09:21 G	5855311.68	5855311.89	5855312.10	0.0285	0.0051
Venus	11319-10-30 00:57 G	5855541.51	5855541.54	5855541.59	0.0284	0.0278
Mercury	11319-12-09 21:36 G	5855582.29	5855582.40	5855582.51	0.0284	0.0206
Mercury	11320-03-07 14:52 G	5855670.96	5855671.12	5855671.27	0.0284	0.0083
Mercury	11320-06-04 08:23 G	5855759.69	5855759.85	5855760.02	0.0284	0.0043
Mercury	11320-09-01 02:38 G	5855848.48	5855848.61	5855848.74	0.0284	0.0170
Earth	11323-09-25 18:00 G	5856968.03	5856968.25	5856968.47	0.0281	0.0133
Moon	11323-09-25 21:21 G	5856968.17	5856968.39	5856968.61	0.0281	0.0120 *
Venus	11333-08-25 06:14 G	5860589.57	5860589.76	5860589.97	0.0274	0.0085
Venus	11334-04-11 14:09 G	5860818.90	5860819.09	5860819.28	0.0274	0.0119
Mercury	11334-10-13 05:02 G	5861003.63	5861003.71	5861003.80	0.0274	0.0220
Mercury	11335-01-09 19:11 G	5861092.16	5861092.30	5861092.43	0.0274	0.0115

Mercury	11335-04-08 08:52 G	5861180.72	5861180.87	5861181.01	0.0275	0.0012
Mercury	11335-07-05 22:04 G	5861269.29	5861269.42	5861269.56	0.0275	0.0092
Mercury	11335-10-02 11:31 G	5861357.87	5861357.98	5861358.08	0.0275	0.0191
Earth	11339-04-04 01:40 G	5862637.34	5862637.57	5862637.80	0.0279	0.0090
Moon	11339-04-04 05:16 G	5862637.50	5862637.72	5862637.95	0.0279	0.0103 *
Mars	11342-11-22 21:50 G	5863966.29	5863966.41	5863966.55	0.0283	0.0252
Venus	11348-02-06 19:26 G	5865868.13	5865868.31	5865868.49	0.0285	0.0153
Venus	11348-09-23 11:31 G	5866097.77	5866097.98	5866098.18	0.0285	0.0075
Mercury	11349-04-27 20:38 G	5866314.29	5866314.36	5866314.44	0.0284	0.0250
Mercury	11349-07-25 13:55 G	5866402.94	5866403.08	5866403.23	0.0284	0.0128
Mercury	11349-10-22 07:40 G	5866491.65	5866491.82	5866491.98	0.0284	0.0009
Mercury	11350-01-19 01:26 G	5866580.42	5866580.56	5866580.71	0.0284	0.0124
Mercury	11350-04-17 19:55 G	5866669.26	5866669.33	5866669.40	0.0284	0.0253
Moon	11353-10-02 07:26 G	5867932.63	5867932.81	5867933.00	0.0280	0.0180
Earth	11353-10-02 09:07 G	5867932.69	5867932.88	5867933.08	0.0280	0.0166 *
Venus	11362-07-21 04:48 G	5871146.64	5871146.70	5871146.78	0.0275	0.0257
Venus	11363-03-07 12:57 G	5871375.83	5871376.04	5871376.25	0.0275	0.0053
Venus	11363-10-22 20:52 G	5871605.21	5871605.37	5871605.56	0.0275	0.0152
Mercury	11364-03-01 07:26 G	5871735.75	5871735.81	5871735.88	0.0275	0.0245
Mercury	11364-05-28 21:21 G	5871824.27	5871824.39	5871824.53	0.0275	0.0140
Mercury	11364-08-25 11:16 G	5871912.83	5871912.97	5871913.12	0.0275	0.0035
Mercury	11364-11-22 00:57 G	5872001.40	5872001.54	5872001.68	0.0276	0.0069
Mercury	11365-02-18 14:09 G	5872089.98	5872090.09	5872090.21	0.0276	0.0170
Mercury	11365-05-18 03:07 G	5872178.61	5872178.63	5872178.66	0.0276	0.0269
Moon	11368-03-28 21:21 G	5873224.18	5873224.39	5873224.62	0.0279	0.0119
Earth	11368-03-29 00:57 G	5873224.33	5873224.54	5873224.76	0.0279	0.0133 *
Venus	11377-08-19 07:40 G	5876654.63	5876654.82	5876655.02	0.0285	0.0113
Venus	11378-04-05 23:45 G	5876884.30	5876884.49	5876884.68	0.0284	0.0116
Mercury	11378-09-15 00:00 G	5877046.45	5877046.50	5877046.55	0.0284	0.0267
Mercury	11378-12-12 17:02 G	5877135.08	5877135.21	5877135.35	0.0284	0.0147

Mercury	11379-03-11 10:33 G	5877223.78	5877223.94	5877224.10	0.0284	0.0024
Mercury	11379-06-08 04:19 G	5877312.54	5877312.68	5877312.84	0.0284	0.0104
Mercury	11379-09-04 22:33 G	5877401.36	5877401.44	5877401.54	0.0284	0.0233
Earth	11382-09-27 06:28 G	5878519.53	5878519.77	5878520.01	0.0281	0.0058
Moon	11382-09-27 08:38 G	5878519.62	5878519.86	5878520.12	0.0281	0.0046 *
Mars	11387-03-30 17:31 G	5880165.05	5880165.23	5880165.44	0.0276	0.0202
Venus	11392-01-31 10:33 G	5881932.83	5881932.94	5881933.06	0.0274	0.0229
Venus	11392-09-16 18:14 G	5882162.05	5882162.26	5882162.48	0.0274	0.0027
Venus	11393-05-04 02:09 G	5882391.43	5882391.59	5882391.75	0.0274	0.0176
Mercury	11393-10-15 23:16 G	5882556.35	5882556.47	5882556.58	0.0274	0.0170
Mercury	11394-01-12 12:57 G	5882644.90	5882645.04	5882645.19	0.0275	0.0065
Mercury	11394-04-11 02:38 G	5882733.46	5882733.61	5882733.76	0.0275	0.0038
Mercury	11394-07-08 15:50 G	5882822.04	5882822.16	5882822.29	0.0275	0.0140
Mercury	11394-10-05 05:02 G	5882910.64	5882910.71	5882910.78	0.0275	0.0238
Earth	11398-04-05 12:28 G	5884188.83	5884189.02	5884189.23	0.0279	0.0161
Moon	11398-04-05 14:09 G	5884188.90	5884189.09	5884189.29	0.0279	0.0172 *
Venus	11407-03-02 09:50 G	5887440.72	5887440.91	5887441.12	0.0285	0.0088
Venus	11407-10-18 01:40 G	5887670.40	5887670.57	5887670.76	0.0285	0.0141
Mercury	11408-05-01 16:19 G	5887867.07	5887867.18	5887867.30	0.0284	0.0191
Mercury	11408-07-29 09:50 G	5887955.75	5887955.91	5887956.06	0.0284	0.0069
Mercury	11408-10-26 03:21 G	5888044.48	5888044.64	5888044.80	0.0284	0.0058
Mercury	11409-01-22 21:21 G	5888133.28	5888133.39	5888133.52	0.0284	0.0186
Earth	11412-10-04 20:52 G	5889484.24	5889484.37	5889484.50	0.0280	0.0237
Moon	11412-10-04 22:48 G	5889484.36	5889484.45	5889484.56	0.0280	0.0253 *
Venus	11421-08-13 16:04 G	5892719.03	5892719.17	5892719.32	0.0275	0.0200
Venus	11422-03-31 00:14 G	5892948.29	5892948.51	5892948.72	0.0275	0.0006
Venus	11422-11-15 08:09 G	5893177.71	5893177.84	5893177.99	0.0275	0.0208
Mercury	11423-03-06 01:11 G	5893288.45	5893288.55	5893288.66	0.0275	0.0197
Mercury	11423-06-02 15:21 G	5893377.00	5893377.14	5893377.28	0.0275	0.0091
Mercury	11423-08-30 05:02 G	5893465.56	5893465.71	5893465.86	0.0276	0.0013

Mercury	11423-11-26 18:28 G	5893554.14	5893554.27	5893554.40	0.0276	0.0115
Mercury	11424-02-23 07:26 G	5893642.73	5893642.81	5893642.91	0.0276	0.0216
Moon	11427-04-01 08:38 G	5894775.63	5894775.86	5894776.09	0.0279	0.0050
Earth	11427-04-01 10:33 G	5894775.70	5894775.94	5894776.18	0.0279	0.0064 *
Mars	11431-04-20 22:48 G	5896256.21	5896256.45	5896256.71	0.0283	0.0141
Venus	11436-01-26 05:45 G	5897997.70	5897997.74	5897997.80	0.0285	0.0275
Venus	11436-09-11 21:50 G	5898227.21	5898227.41	5898227.62	0.0285	0.0048
Venus	11437-04-29 13:40 G	5898456.92	5898457.07	5898457.24	0.0284	0.0181
Mercury	11437-09-18 19:26 G	5898599.21	5898599.31	5898599.42	0.0284	0.0210
Mercury	11437-12-16 12:43 G	5898687.88	5898688.03	5898688.18	0.0284	0.0088
Mercury	11438-03-15 06:28 G	5898776.61	5898776.77	5898776.93	0.0284	0.0038
Mercury	11438-06-12 00:14 G	5898865.38	5898865.51	5898865.65	0.0284	0.0165
Moon	11441-09-29 16:48 G	5900070.95	5900071.20	5900071.45	0.0280	0.0031
Earth	11441-09-29 18:57 G	5900071.05	5900071.29	5900071.54	0.0280	0.0016 *
Venus	11451-02-23 22:33 G	5903505.29	5903505.44	5903505.62	0.0274	0.0172
Venus	11451-10-11 06:28 G	5903734.56	5903734.77	5903734.99	0.0274	0.0032
Venus	11452-05-27 14:09 G	5903963.99	5903964.09	5903964.21	0.0274	0.0235
Mercury	11452-07-23 03:21 G	5904020.56	5904020.64	5904020.72	0.0274	0.0224
Mercury	11452-10-19 17:16 G	5904109.09	5904109.22	5904109.36	0.0274	0.0119
Mercury	11453-01-16 07:11 G	5904197.65	5904197.80	5904197.94	0.0275	0.0017
Mercury	11453-04-14 20:23 G	5904286.22	5904286.35	5904286.50	0.0275	0.0088
Mercury	11453-07-12 09:50 G	5904374.80	5904374.91	5904375.01	0.0275	0.0187
Moon	11457-04-07 20:38 G	5905740.25	5905740.36	5905740.50	0.0279	0.0241
Earth	11457-04-07 23:31 G	5905740.34	5905740.48	5905740.61	0.0279	0.0231 *
Venus	11465-08-07 08:09 G	5908783.74	5908783.84	5908783.94	0.0285	0.0251
Venus	11466-03-25 00:00 G	5909013.29	5909013.50	5909013.71	0.0285	0.0023
Venus	11466-11-09 15:50 G	5909243.02	5909243.16	5909243.31	0.0285	0.0204
Mercury	11467-02-05 18:43 G	5909331.21	5909331.28	5909331.35	0.0284	0.0254
Mercury	11467-05-05 11:45 G	5909419.85	5909419.99	5909420.13	0.0284	0.0133
Mercury	11467-08-02 05:16 G	5909508.56	5909508.72	5909508.88	0.0284	0.0010

Mercury	11467-10-29 23:02 G	5909597.32	5909597.46	5909597.62	0.0284	0.0118
Mercury	11468-01-26 17:16 G	5909686.15	5909686.22	5909686.31	0.0284	0.0247
Earth	11470-09-24 01:40 G	5910657.45	5910657.57	5910657.71	0.0281	0.0236
Moon	11470-09-24 04:19 G	5910657.54	5910657.68	5910657.84	0.0281	0.0221 *
Mars	11475-08-25 17:45 G	5912454.19	5912454.24	5912454.31	0.0276	0.0269
Venus	11480-09-05 03:07 G	5914291.46	5914291.63	5914291.82	0.0274	0.0145
Venus	11481-04-22 11:16 G	5914520.76	5914520.97	5914521.17	0.0275	0.0060
Venus	11481-12-07 19:11 G	5914750.25	5914750.30	5914750.37	0.0275	0.0264
Mercury	11481-12-10 04:48 G	5914752.65	5914752.70	5914752.76	0.0275	0.0255
Mercury	11482-03-08 19:11 G	5914841.17	5914841.30	5914841.42	0.0275	0.0148
Mercury	11482-06-05 08:52 G	5914929.73	5914929.87	5914930.02	0.0275	0.0044
Mercury	11482-09-01 22:33 G	5915018.30	5915018.44	5915018.58	0.0275	0.0060
Mercury	11482-11-29 11:45 G	5915106.88	5915106.99	5915107.11	0.0276	0.0161
Mercury	11483-02-26 00:57 G	5915195.50	5915195.54	5915195.59	0.0276	0.0260
Earth	11486-04-02 19:11 G	5916327.05	5916327.30	5916327.54	0.0279	0.0005
Moon	11486-04-02 21:21 G	5916327.15	5916327.39	5916327.63	0.0279	0.0018 *
Venus	11495-02-17 19:26 G	5919570.18	5919570.31	5919570.46	0.0285	0.0212
Venus	11495-10-05 11:31 G	5919799.77	5919799.98	5919800.20	0.0285	0.0017
Venus	11496-05-22 03:21 G	5920029.55	5920029.64	5920029.76	0.0284	0.0244
Mercury	11496-06-24 21:36 G	5920063.37	5920063.40	5920063.45	0.0284	0.0273
Mercury	11496-09-21 14:38 G	5920151.98	5920152.11	5920152.25	0.0284	0.0153
Mercury	11496-12-19 08:09 G	5920240.68	5920240.84	5920241.00	0.0284	0.0030
Mercury	11497-03-18 02:09 G	5920329.43	5920329.59	5920329.74	0.0284	0.0097
Mercury	11497-06-14 20:09 G	5920418.25	5920418.34	5920418.45	0.0284	0.0225
Moon	11500-10-02 03:21 G	5921622.41	5921622.64	5921622.86	0.0280	0.0106
Earth	11500-10-02 06:57 G	5921622.56	5921622.79	5921623.03	0.0280	0.0089 *
Venus	11510-03-19 10:33 G	5925077.74	5925077.94	5925078.13	0.0274	0.0114
Venus	11510-11-03 18:14 G	5925307.06	5925307.26	5925307.46	0.0274	0.0089
Mercury	11511-07-27 21:21 G	5925573.28	5925573.39	5925573.50	0.0274	0.0174
Mercury	11511-10-24 11:16 G	5925661.82	5925661.97	5925662.11	0.0274	0.0070

Mercury	11512-01-21 00:43 G	5925750.39	5925750.53	5925750.68	0.0275	0.0034
Mercury	11512-04-18 14:09 G	5925838.97	5925839.09	5925839.22	0.0275	0.0134
Mercury	11512-07-16 03:21 G	5925927.57	5925927.64	5925927.71	0.0275	0.0233
Moon	11515-03-29 08:23 G	5926913.69	5926913.85	5926914.01	0.0278	0.0212
Earth	11515-03-29 11:02 G	5926913.83	5926913.96	5926914.10	0.0278	0.0228 *
Mars	11519-09-15 17:02 G	5928544.93	5928545.21	5928545.50	0.0283	0.0073
Venus	11524-08-30 21:07 G	5930356.23	5930356.38	5930356.55	0.0285	0.0188
Venus	11525-04-17 13:26 G	5930585.85	5930586.06	5930586.27	0.0285	0.0040
Venus	11525-12-03 05:02 G	5930815.65	5930815.71	5930815.79	0.0285	0.0267
Mercury	11526-02-09 13:40 G	5930883.96	5930884.07	5930884.19	0.0284	0.0199
Mercury	11526-05-09 07:11 G	5930972.64	5930972.80	5930972.95	0.0284	0.0076
Mercury	11526-08-06 00:43 G	5931061.37	5931061.53	5931061.69	0.0284	0.0049
Mercury	11526-11-02 18:43 G	5931150.16	5931150.28	5931150.41	0.0284	0.0177
Earth	11529-09-26 12:28 G	5932208.83	5932209.02	5932209.22	0.0281	0.0164
Moon	11529-09-26 15:50 G	5932208.95	5932209.16	5932209.38	0.0281	0.0148 *
Mars	11533-12-02 03:36 G	5933736.59	5933736.65	5933736.73	0.0276	0.0267
Venus	11539-09-29 14:09 G	5935863.89	5935864.09	5935864.29	0.0274	0.0089
Venus	11540-05-15 21:50 G	5936093.23	5936093.41	5936093.61	0.0275	0.0116
Mercury	11540-12-13 22:33 G	5936305.35	5936305.44	5936305.54	0.0275	0.0207
Mercury	11541-03-12 12:43 G	5936393.89	5936394.03	5936394.17	0.0275	0.0101
Mercury	11541-06-09 02:23 G	5936482.45	5936482.60	5936482.75	0.0275	0.0005
Mercury	11541-09-05 15:50 G	5936571.03	5936571.16	5936571.30	0.0275	0.0105
Mercury	11541-12-03 05:02 G	5936659.62	5936659.71	5936659.81	0.0276	0.0205
Earth	11545-04-05 02:38 G	5937878.38	5937878.61	5937878.85	0.0279	0.0070
Moon	11545-04-05 06:00 G	5937878.52	5937878.75	5937879.00	0.0279	0.0084 *
Venus	11554-03-13 07:40 G	5941142.64	5941142.82	5941143.00	0.0285	0.0151
Venus	11554-10-28 23:45 G	5941372.29	5941372.49	5941372.70	0.0285	0.0077
Mercury	11555-06-29 16:19 G	5941616.09	5941616.18	5941616.28	0.0284	0.0221
Mercury	11555-09-26 09:36 G	5941704.75	5941704.90	5941705.05	0.0284	0.0099
Mercury	11555-12-24 03:21 G	5941793.47	5941793.64	5941793.80	0.0284	0.0026

Mercury	11556-03-21 21:07 G	5941882.25	5941882.38	5941882.52	0.0284	0.0153
Mercury	11556-06-18 15:36 G	5941971.14	5941971.15	5941971.17	0.0284	0.0282
Earth	11559-10-04 17:02 G	5943174.01	5943174.21	5943174.41	0.0280	0.0160
Moon	11559-10-04 17:16 G	5943174.04	5943174.22	5943174.41	0.0280	0.0176 *
Venus	11568-08-24 13:55 G	5946421.02	5946421.08	5946421.16	0.0274	0.0259
Venus	11569-04-10 21:36 G	5946650.20	5946650.40	5946650.61	0.0274	0.0057
Venus	11569-11-26 05:31 G	5946879.55	5946879.73	5946879.91	0.0274	0.0145
Mercury	11570-05-03 00:57 G	5947037.47	5947037.54	5947037.62	0.0274	0.0232
Mercury	11570-07-30 15:07 G	5947126.00	5947126.13	5947126.26	0.0274	0.0126
Mercury	11570-10-27 04:48 G	5947214.56	5947214.70	5947214.85	0.0274	0.0023
Mercury	11571-01-23 18:28 G	5947303.13	5947303.27	5947303.41	0.0275	0.0080
Mercury	11571-04-22 07:26 G	5947391.71	5947391.81	5947391.93	0.0275	0.0180
Moon	11574-03-30 15:50 G	5948464.96	5948465.16	5948465.36	0.0277	0.0148
Earth	11574-03-30 18:57 G	5948465.10	5948465.29	5948465.49	0.0277	0.0161 *
Venus	11583-09-23 09:21 G	5951928.71	5951928.89	5951929.08	0.0285	0.0127
Venus	11584-05-10 01:26 G	5952158.37	5952158.56	5952158.76	0.0285	0.0101
Mercury	11584-11-15 15:21 G	5952348.09	5952348.14	5952348.20	0.0285	0.0266
Mercury	11585-02-12 08:23 G	5952436.72	5952436.85	5952436.99	0.0284	0.0146
Mercury	11585-05-12 01:55 G	5952525.42	5952525.58	5952525.75	0.0284	0.0023
Mercury	11585-08-08 19:55 G	5952614.17	5952614.33	5952614.48	0.0284	0.0105
Mercury	11585-11-05 13:55 G	5952702.99	5952703.08	5952703.18	0.0284	0.0233
Moon	11588-09-27 21:07 G	5953760.13	5953760.38	5953760.62	0.0281	0.0080
Earth	11588-09-27 21:50 G	5953760.18	5953760.41	5953760.64	0.0281	0.0095 *
Venus	11598-03-06 16:33 G	5957207.08	5957207.19	5957207.29	0.0274	0.0236
Venus	11598-10-22 00:14 G	5957436.30	5957436.51	5957436.73	0.0274	0.0035
Venus	11599-06-08 07:55 G	5957665.67	5957665.83	5957666.01	0.0274	0.0170
Mercury	11599-09-20 01:40 G	5957769.55	5957769.57	5957769.61	0.0275	0.0268
Mercury	11599-12-17 16:04 G	5957858.05	5957858.17	5957858.29	0.0275	0.0161
Mercury	11600-03-15 06:00 G	5957946.61	5957946.75	5957946.90	0.0275	0.0056
Mercury	11600-06-11 19:40 G	5958035.17	5958035.32	5958035.46	0.0275	0.0047

Mercury	11600-09-08 08:52 G	5958123.75	5958123.87	5958124.00	0.0275	0.0148
Mercury	11600-12-05 22:04 G	5958212.36	5958212.42	5958212.48	0.0275	0.0247
Moon	11604-04-06 07:40 G	5959429.60	5959429.82	5959430.04	0.0279	0.0141
Earth	11604-04-06 08:23 G	5959429.64	5959429.85	5959430.07	0.0279	0.0132 *
Mars	11608-02-09 21:21 G	5960834.09	5960834.39	5960834.68	0.0283	0.0007
Venus	11613-04-04 18:28 G	5962715.07	5962715.27	5962715.47	0.0285	0.0093
Venus	11613-11-20 10:33 G	5962944.76	5962944.94	5962945.13	0.0285	0.0135
Mercury	11614-07-02 10:33 G	5963168.82	5963168.94	5963169.07	0.0284	0.0172
Mercury	11614-09-29 04:04 G	5963257.51	5963257.67	5963257.82	0.0284	0.0049
Mercury	11614-12-26 21:36 G	5963346.25	5963346.40	5963346.56	0.0284	0.0077
Mercury	11615-03-25 15:50 G	5963435.05	5963435.16	5963435.27	0.0284	0.0205
Earth	11618-10-06 00:28 G	5964725.38	5964725.52	5964725.67	0.0280	0.0226
Moon	11618-10-06 04:04 G	5964725.56	5964725.67	5964725.80	0.0280	0.0241 *
Mars	11622-04-28 21:21 G	5966026.16	5966026.39	5966026.63	0.0276	0.0162
Venus	11627-09-17 00:43 G	5967993.39	5967993.53	5967993.67	0.0274	0.0203
Venus	11628-05-03 08:09 G	5968222.63	5968222.84	5968223.05	0.0274	0.0003
Venus	11628-12-18 15:50 G	5968452.02	5968452.16	5968452.30	0.0274	0.0200
Mercury	11629-05-05 18:43 G	5968590.17	5968590.28	5968590.39	0.0274	0.0185
Mercury	11629-08-02 08:38 G	5968678.72	5968678.86	5968679.00	0.0274	0.0080
Mercury	11629-10-29 22:19 G	5968767.28	5968767.43	5968767.58	0.0274	0.0023
Mercury	11630-01-26 11:45 G	5968855.86	5968855.99	5968856.12	0.0275	0.0124
Mercury	11630-04-25 00:43 G	5968944.45	5968944.53	5968944.62	0.0275	0.0223
Earth	11633-04-01 01:55 G	5970016.35	5970016.58	5970016.81	0.0277	0.0097
Moon	11633-04-01 02:52 G	5970016.40	5970016.62	5970016.85	0.0277	0.0086 *
Venus	11642-10-15 19:55 G	5973501.13	5973501.33	5973501.54	0.0285	0.0069
Venus	11643-06-02 12:00 G	5973730.83	5973731.00	5973731.18	0.0285	0.0159
Mercury	11643-11-19 09:21 G	5973900.80	5973900.89	5973901.00	0.0285	0.0218
Mercury	11644-02-16 02:38 G	5973989.46	5973989.61	5973989.77	0.0284	0.0096
Mercury	11644-05-14 20:23 G	5974078.19	5974078.35	5974078.51	0.0284	0.0029
Mercury	11644-08-11 14:09 G	5974166.96	5974167.09	5974167.23	0.0284	0.0156

Moon	11647-09-30 00:57 G	5975311.29	5975311.54	5975311.79	0.0281	0.0016
Earth	11647-09-30 04:33 G	5975311.45	5975311.69	5975311.93	0.0281	0.0031 *
Venus	11657-03-29 01:55 G	5978779.43	5978779.58	5978779.74	0.0274	0.0183
Venus	11657-11-13 09:50 G	5979008.70	5979008.91	5979009.12	0.0274	0.0020
Venus	11658-06-30 17:16 G	5979238.11	5979238.22	5979238.35	0.0274	0.0223
Mercury	11658-09-22 19:11 G	5979322.22	5979322.30	5979322.39	0.0275	0.0223
Mercury	11658-12-20 09:07 G	5979410.75	5979410.88	5979411.02	0.0275	0.0118
Mercury	11659-03-18 23:02 G	5979499.31	5979499.46	5979499.61	0.0275	0.0014
Mercury	11659-06-15 12:28 G	5979587.88	5979588.02	5979588.16	0.0275	0.0089
Mercury	11659-09-12 01:55 G	5979676.47	5979676.58	5979676.68	0.0275	0.0189
Moon	11663-04-08 08:38 G	5980980.70	5980980.86	5980981.04	0.0279	0.0197
Earth	11663-04-08 12:28 G	5980980.85	5980981.02	5980981.21	0.0279	0.0192 *
Venus	11671-09-10 11:16 G	5984057.90	5984057.97	5984058.05	0.0285	0.0264
Venus	11672-04-27 03:50 G	5984287.45	5984287.66	5984287.87	0.0285	0.0037
Venus	11672-12-12 19:55 G	5984517.17	5984517.33	5984517.49	0.0285	0.0191
Mercury	11673-04-07 11:02 G	5984632.89	5984632.96	5984633.04	0.0284	0.0247
Mercury	11673-07-05 04:19 G	5984721.54	5984721.68	5984721.82	0.0284	0.0126
Mercury	11673-10-01 21:50 G	5984810.25	5984810.41	5984810.57	0.0284	0.0005
Mercury	11673-12-29 15:36 G	5984899.01	5984899.15	5984899.30	0.0284	0.0125
Mercury	11674-03-28 09:50 G	5984987.84	5984987.91	5984987.99	0.0284	0.0254
Earth	11676-09-23 22:19 G	5985898.34	5985898.43	5985898.53	0.0282	0.0260
Moon	11676-09-24 01:40 G	5985898.46	5985898.57	5985898.70	0.0282	0.0245 *
Venus	11686-10-09 10:04 G	5989565.75	5989565.92	5989566.10	0.0274	0.0150
Venus	11687-05-26 17:31 G	5989795.03	5989795.23	5989795.45	0.0274	0.0053
Venus	11688-01-11 01:11 G	5990024.47	5990024.55	5990024.63	0.0274	0.0253
Mercury	11688-02-09 21:36 G	5990054.35	5990054.40	5990054.47	0.0274	0.0246
Mercury	11688-05-08 12:00 G	5990142.87	5990143.00	5990143.12	0.0274	0.0141
Mercury	11688-08-05 01:40 G	5990231.42	5990231.57	5990231.72	0.0274	0.0037
Mercury	11688-11-01 15:21 G	5990319.99	5990320.14	5990320.28	0.0274	0.0066
Mercury	11689-01-29 04:33 G	5990408.57	5990408.69	5990408.81	0.0274	0.0165

Mercury	11689-04-27 17:31 G	5990497.20	5990497.23	5990497.27	0.0275	0.0263
Jupiter	11692-02-16 10:33 G	5991521.73	5991521.94	5991522.19	0.0277	0.0236
Earth	11692-04-02 06:57 G	5991567.55	5991567.79	5991568.04	0.0277	0.0036
Moon	11692-04-02 10:33 G	5991567.70	5991567.94	5991568.19	0.0277	0.0026 *
Mars	11696-07-05 06:57 G	5993122.51	5993122.79	5993123.08	0.0283	0.0060
Venus	11701-03-23 12:57 G	5994843.94	5994844.04	5994844.16	0.0285	0.0240
Venus	11701-11-08 05:16 G	5995073.50	5995073.72	5995073.93	0.0285	0.0014
Venus	11702-06-25 21:07 G	5995303.25	5995303.38	5995303.52	0.0285	0.0214
Mercury	11702-11-23 03:07 G	5995453.51	5995453.63	5995453.76	0.0285	0.0172
Mercury	11703-02-19 20:23 G	5995542.19	5995542.35	5995542.51	0.0284	0.0050
Mercury	11703-05-19 14:09 G	5995630.93	5995631.09	5995631.25	0.0284	0.0076
Mercury	11703-08-16 08:09 G	5995719.73	5995719.84	5995719.96	0.0284	0.0204
Moon	11706-10-02 07:26 G	5996862.58	5996862.81	5996863.05	0.0281	0.0044
Earth	11706-10-02 09:07 G	5996862.63	5996862.88	5996863.12	0.0281	0.0030 *
Mars	11710-09-23 02:09 G	5998314.34	5998314.59	5998314.86	0.0276	0.0127
Venus	11716-04-21 10:33 G	6000351.76	6000351.94	6000352.13	0.0274	0.0131
Venus	11716-12-06 18:14 G	6000581.06	6000581.26	6000581.47	0.0274	0.0072
Venus	11717-07-24 01:40 G	6000810.57	6000810.57	6000810.60	0.0274	0.0274
Mercury	11717-09-26 12:00 G	6000874.90	6000875.00	6000875.12	0.0274	0.0181
Mercury	11717-12-24 02:09 G	6000963.45	6000963.59	6000963.73	0.0275	0.0075
Mercury	11718-03-22 15:50 G	6001052.01	6001052.16	6001052.31	0.0275	0.0027
Mercury	11718-06-19 05:02 G	6001140.59	6001140.71	6001140.85	0.0275	0.0129
Mercury	11718-09-15 18:28 G	6001229.19	6001229.27	6001229.35	0.0275	0.0227
Moon	11721-03-28 15:21 G	6002154.06	6002154.14	6002154.22	0.0277	0.0262
Earth	11721-03-28 18:43 G	6002154.26	6002154.28	6002154.32	0.0277	0.0275
Moon	11722-04-10 14:38 G	6002532.03	6002532.11	6002532.22	0.0279	0.0253
Earth	11722-04-10 15:36 G	6002532.05	6002532.15	6002532.27	0.0279	0.0250 *
Venus	11730-10-03 19:11 G	6005630.16	6005630.30	6005630.44	0.0285	0.0211
Venus	11731-05-21 11:31 G	6005859.77	6005859.98	6005860.19	0.0285	0.0016
Venus	11732-01-06 03:21 G	6006089.55	6006089.64	6006089.76	0.0285	0.0244

Mercury	11732-04-11 04:04 G	6006185.56	6006185.67	6006185.78	0.0284	0.0205
Mercury	11732-07-08 21:21 G	6006274.24	6006274.39	6006274.54	0.0284	0.0084
Mercury	11732-10-05 14:52 G	6006362.96	6006363.12	6006363.28	0.0284	0.0041
Mercury	11733-01-02 08:52 G	6006451.74	6006451.87	6006452.01	0.0284	0.0168
Earth	11735-09-27 00:28 G	6007449.36	6007449.52	6007449.69	0.0282	0.0204
Moon	11735-09-27 02:09 G	6007449.41	6007449.59	6007449.79	0.0282	0.0188 *
Venus	11745-11-01 18:57 G	6011138.09	6011138.29	6011138.49	0.0274	0.0097
Venus	11746-06-19 02:23 G	6011367.40	6011367.60	6011367.80	0.0274	0.0105
Mercury	11747-02-13 14:38 G	6011607.02	6011607.11	6011607.22	0.0274	0.0203
Mercury	11747-05-13 04:48 G	6011695.56	6011695.70	6011695.84	0.0274	0.0098
Mercury	11747-08-09 18:28 G	6011784.13	6011784.27	6011784.42	0.0274	0.0009
Mercury	11747-11-06 07:55 G	6011872.70	6011872.83	6011872.97	0.0274	0.0106
Mercury	11748-02-02 21:07 G	6011961.29	6011961.38	6011961.48	0.0274	0.0205
Earth	11751-04-05 11:02 G	6013118.71	6013118.96	6013119.20	0.0277	0.0023
Moon	11751-04-05 12:14 G	6013118.76	6013119.01	6013119.26	0.0277	0.0030 *
Venus	11760-04-14 20:52 G	6016416.22	6016416.37	6016416.53	0.0285	0.0187
Venus	11760-11-30 12:57 G	6016645.84	6016646.04	6016646.25	0.0285	0.0041
Venus	11761-07-18 04:48 G	6016875.64	6016875.70	6016875.78	0.0285	0.0267
Mercury	11761-08-29 03:07 G	6016917.56	6016917.63	6016917.71	0.0285	0.0250
Mercury	11761-11-25 20:09 G	6017006.20	6017006.34	6017006.48	0.0285	0.0130
Mercury	11762-02-22 13:40 G	6017094.91	6017095.07	6017095.23	0.0284	0.0007
Mercury	11762-05-22 07:26 G	6017183.66	6017183.81	6017183.96	0.0284	0.0120
Mercury	11762-08-19 01:40 G	6017272.49	6017272.57	6017272.65	0.0284	0.0248
Earth	11765-10-03 11:45 G	6018413.75	6018413.99	6018414.22	0.0281	0.0086
Moon	11765-10-03 14:09 G	6018413.88	6018414.09	6018414.32	0.0281	0.0101 *
Venus	11775-05-14 18:28 G	6021924.07	6021924.27	6021924.48	0.0274	0.0080
Venus	11775-12-30 02:09 G	6022153.40	6022153.59	6022153.78	0.0274	0.0123
Mercury	11776-07-02 14:38 G	6022339.05	6022339.11	6022339.18	0.0274	0.0245
Mercury	11776-09-29 04:48 G	6022427.58	6022427.70	6022427.83	0.0274	0.0140
Mercury	11776-12-26 18:43 G	6022516.13	6022516.28	6022516.43	0.0274	0.0036

Mercury	11777-03-25 08:23 G	6022604.70	6022604.85	6022604.99	0.0275	0.0067
Mercury	11777-06-21 21:36 G	6022693.29	6022693.40	6022693.52	0.0275	0.0166
Mercury	11777-09-18 10:48 G	6022781.91	6022781.95	6022781.98	0.0275	0.0264
Moon	11780-03-29 19:55 G	6023705.18	6023705.33	6023705.49	0.0277	0.0208
Earth	11780-03-29 21:07 G	6023705.24	6023705.38	6023705.54	0.0277	0.0218 *
Mars	11784-11-29 11:16 G	6025410.70	6025410.97	6025411.25	0.0283	0.0102
Venus	11789-10-26 01:40 G	6027202.40	6027202.57	6027202.75	0.0285	0.0161
Venus	11790-06-12 18:14 G	6027432.05	6027432.26	6027432.46	0.0285	0.0067
Mercury	11791-04-14 20:38 G	6027738.24	6027738.36	6027738.49	0.0284	0.0167
Mercury	11791-07-12 14:09 G	6027826.93	6027827.09	6027827.24	0.0284	0.0044
Mercury	11791-10-09 07:40 G	6027915.67	6027915.82	6027915.98	0.0284	0.0082
Mercury	11792-01-06 01:55 G	6028004.47	6028004.58	6028004.69	0.0284	0.0209
Moon	11794-09-27 21:50 G	6029000.20	6029000.41	6029000.64	0.0282	0.0135
Earth	11794-09-28 00:57 G	6029000.34	6029000.54	6029000.75	0.0282	0.0151 *
Mars	11799-02-17 01:40 G	6030603.28	6030603.57	6030603.86	0.0277	0.0049
Venus	11804-04-09 18:43 G	6032481.20	6032481.28	6032481.38	0.0274	0.0247
Venus	11804-11-25 02:38 G	6032710.40	6032710.61	6032710.82	0.0274	0.0046
Venus	11805-07-12 10:04 G	6032939.75	6032939.92	6032940.10	0.0274	0.0156
Mercury	11805-11-20 17:31 G	6033071.20	6033071.23	6033071.26	0.0274	0.0267
Mercury	11806-02-17 07:26 G	6033159.70	6033159.81	6033159.94	0.0274	0.0162
Mercury	11806-05-16 21:36 G	6033248.25	6033248.40	6033248.54	0.0274	0.0058
Mercury	11806-08-13 11:02 G	6033336.82	6033336.96	6033337.11	0.0274	0.0045
Mercury	11806-11-10 00:28 G	6033425.40	6033425.52	6033425.64	0.0274	0.0144
Mercury	11807-02-06 13:26 G	6033514.00	6033514.06	6033514.13	0.0275	0.0243
Moon	11810-04-07 11:16 G	6034669.73	6034669.97	6034670.21	0.0277	0.0084
Earth	11810-04-07 14:09 G	6034669.86	6034670.09	6034670.33	0.0277	0.0080 *
Venus	11819-05-09 04:19 G	6037988.50	6037988.68	6037988.87	0.0285	0.0135
Venus	11819-12-24 20:09 G	6038218.15	6038218.34	6038218.55	0.0285	0.0093
Mercury	11820-09-01 19:55 G	6038470.23	6038470.33	6038470.44	0.0285	0.0210
Mercury	11820-11-29 12:57 G	6038558.89	6038559.04	6038559.20	0.0285	0.0090

Mercury	11821-02-26 06:43 G	6038647.62	6038647.78	6038647.94	0.0284	0.0036
Mercury	11821-05-26 00:28 G	6038736.39	6038736.52	6038736.66	0.0284	0.0162
Earth	11824-10-05 12:14 G	6039964.81	6039965.01	6039965.24	0.0281	0.0140
Moon	11824-10-05 15:21 G	6039964.95	6039965.14	6039965.37	0.0281	0.0154 *
Venus	11833-10-20 18:14 G	6043267.16	6043267.26	6043267.38	0.0274	0.0231
Venus	11834-06-07 02:09 G	6043496.38	6043496.59	6043496.80	0.0274	0.0029
Venus	11835-01-22 09:21 G	6043725.74	6043725.89	6043726.07	0.0274	0.0173
Mercury	11835-07-07 07:26 G	6043891.71	6043891.81	6043891.91	0.0274	0.0205
Mercury	11835-10-03 21:21 G	6043980.26	6043980.39	6043980.53	0.0274	0.0100
Mercury	11835-12-31 11:16 G	6044068.82	6044068.97	6044069.11	0.0274	0.0007
Mercury	11836-03-29 00:43 G	6044157.39	6044157.53	6044157.66	0.0275	0.0104
Mercury	11836-06-25 13:55 G	6044245.98	6044246.08	6044246.18	0.0275	0.0203
Earth	11839-04-01 23:16 G	6045256.28	6045256.47	6045256.68	0.0277	0.0163
Moon	11839-04-02 02:23 G	6045256.41	6045256.60	6045256.81	0.0277	0.0154 *
Venus	11848-11-18 07:40 G	6048774.63	6048774.82	6048775.02	0.0285	0.0111
Venus	11849-07-06 00:00 G	6049004.32	6049004.50	6049004.70	0.0285	0.0118
Mercury	11850-01-19 19:55 G	6049202.26	6049202.33	6049202.41	0.0285	0.0249
Mercury	11850-04-18 12:57 G	6049290.90	6049291.04	6049291.19	0.0284	0.0129
Mercury	11850-07-16 06:28 G	6049379.61	6049379.77	6049379.93	0.0284	0.0007
Mercury	11850-10-13 00:28 G	6049468.37	6049468.52	6049468.66	0.0284	0.0121
Mercury	11851-01-09 18:28 G	6049557.20	6049557.27	6049557.35	0.0284	0.0249
Moon	11853-09-29 21:21 G	6050551.17	6050551.39	6050551.62	0.0282	0.0088
Earth	11853-09-30 00:14 G	6050551.28	6050551.51	6050551.74	0.0282	0.0101 *
Venus	11863-05-03 02:09 G	6054053.46	6054053.59	6054053.75	0.0274	0.0197
Venus	11863-12-18 10:04 G	6054282.71	6054282.92	6054283.13	0.0274	0.0005
Venus	11864-08-03 17:31 G	6054512.10	6054512.23	6054512.37	0.0274	0.0206
Mercury	11864-11-23 10:04 G	6054623.84	6054623.92	6054624.00	0.0274	0.0227
Mercury	11865-02-20 00:00 G	6054712.37	6054712.50	6054712.64	0.0274	0.0123
Mercury	11865-05-19 13:55 G	6054800.94	6054801.08	6054801.23	0.0274	0.0020
Mercury	11865-08-16 03:36 G	6054889.51	6054889.65	6054889.79	0.0274	0.0083

Mercury	11865-11-12 16:48 G	6054978.09	6054978.20	6054978.31	0.0275	0.0182
Moon	11869-04-08 13:55 G	6056220.88	6056221.08	6056221.29	0.0277	0.0138
Earth	11869-04-08 16:48 G	6056220.99	6056221.20	6056221.42	0.0277	0.0136 *
Mars	11873-04-25 22:33 G	6057699.20	6057699.44	6057699.69	0.0282	0.0154
Venus	11878-05-31 11:16 G	6059560.77	6059560.97	6059561.18	0.0285	0.0084
Venus	11879-01-16 03:07 G	6059790.46	6059790.63	6059790.82	0.0285	0.0144
Mercury	11879-09-05 12:43 G	6060022.90	6060023.03	6060023.15	0.0285	0.0171
Mercury	11879-12-03 05:45 G	6060111.59	6060111.74	6060111.90	0.0284	0.0049
Mercury	11880-02-29 23:31 G	6060200.32	6060200.48	6060200.64	0.0284	0.0076
Mercury	11880-05-28 17:31 G	6060289.12	6060289.23	6060289.34	0.0284	0.0203
Moon	11883-10-07 11:02 G	6061515.79	6061515.96	6061516.15	0.0281	0.0200
Earth	11883-10-07 12:43 G	6061515.86	6061516.03	6061516.22	0.0281	0.0193 *
Mars	11887-07-13 19:55 G	6062891.04	6062891.33	6062891.62	0.0277	0.0033
Venus	11892-11-12 01:40 G	6064839.41	6064839.57	6064839.73	0.0274	0.0181
Venus	11893-06-29 09:21 G	6065068.67	6065068.89	6065069.10	0.0274	0.0021
Venus	11894-02-13 16:48 G	6065298.08	6065298.20	6065298.32	0.0274	0.0222
Mercury	11894-04-12 09:36 G	6065355.89	6065355.90	6065355.93	0.0274	0.0271
Mercury	11894-07-10 00:00 G	6065444.38	6065444.50	6065444.62	0.0274	0.0165
Mercury	11894-10-06 13:55 G	6065532.93	6065533.08	6065533.23	0.0274	0.0061
Mercury	11895-01-03 03:36 G	6065621.50	6065621.65	6065621.80	0.0274	0.0041
Mercury	11895-04-01 17:02 G	6065710.08	6065710.21	6065710.33	0.0275	0.0142
Mercury	11895-06-29 06:00 G	6065798.69	6065798.75	6065798.82	0.0275	0.0240
Earth	11898-04-03 01:40 G	6066807.35	6066807.57	6066807.80	0.0277	0.0108
Moon	11898-04-03 04:33 G	6066807.46	6066807.69	6066807.92	0.0277	0.0102 *
Venus	11907-12-12 14:09 G	6070346.89	6070347.09	6070347.30	0.0285	0.0060
Venus	11908-07-29 06:14 G	6070576.60	6070576.76	6070576.94	0.0285	0.0168
Mercury	11909-01-23 12:14 G	6070754.91	6070755.01	6070755.12	0.0285	0.0212
Mercury	11909-04-22 05:31 G	6070843.58	6070843.73	6070843.88	0.0284	0.0091
Mercury	11909-07-19 23:02 G	6070932.30	6070932.46	6070932.62	0.0284	0.0033
Mercury	11909-10-16 16:48 G	6071021.07	6071021.20	6071021.34	0.0284	0.0161

Earth	11912-10-01 23:02 G	6072102.22	6072102.46	6072102.71	0.0282	0.0052
Moon	11912-10-02 01:11 G	6072102.32	6072102.55	6072102.79	0.0282	0.0042 *
Venus	11922-05-26 09:21 G	6075625.72	6075625.89	6075626.07	0.0274	0.0147
Venus	11923-01-10 17:02 G	6075855.01	6075855.21	6075855.42	0.0274	0.0056
Venus	11923-08-28 00:28 G	6076084.46	6076084.52	6076084.61	0.0274	0.0257
Mercury	11923-11-28 02:38 G	6076176.50	6076176.61	6076176.72	0.0274	0.0187
Mercury	11924-02-24 16:48 G	6076265.06	6076265.20	6076265.34	0.0274	0.0083
Mercury	11924-05-23 06:28 G	6076353.62	6076353.77	6076353.92	0.0275	0.0020
Mercury	11924-08-19 19:55 G	6076442.20	6076442.33	6076442.46	0.0275	0.0121
Mercury	11924-11-16 09:07 G	6076530.80	6076530.88	6076530.97	0.0275	0.0220
Earth	11928-04-10 19:55 G	6077772.16	6077772.33	6077772.51	0.0277	0.0192
Moon	11928-04-10 21:36 G	6077772.23	6077772.40	6077772.58	0.0277	0.0190 *
Venus	11936-11-06 02:38 G	6080903.53	6080903.61	6080903.70	0.0285	0.0257
Venus	11937-06-23 18:43 G	6081133.07	6081133.28	6081133.49	0.0285	0.0031
Venus	11938-02-08 10:19 G	6081362.78	6081362.93	6081363.09	0.0285	0.0196
Mercury	11938-06-12 12:14 G	6081486.95	6081487.01	6081487.09	0.0285	0.0251
Mercury	11938-09-09 05:16 G	6081575.58	6081575.72	6081575.87	0.0284	0.0131
Mercury	11938-12-06 22:48 G	6081664.29	6081664.45	6081664.61	0.0284	0.0009
Mercury	11939-03-05 16:33 G	6081753.04	6081753.19	6081753.33	0.0284	0.0118
Mercury	11939-06-02 10:33 G	6081841.86	6081841.94	6081842.02	0.0284	0.0245
Moon	11942-10-09 09:36 G	6083066.80	6083066.90	6083067.02	0.0281	0.0248
Earth	11942-10-09 13:11 G	6083066.95	6083067.05	6083067.19	0.0281	0.0245 *
Venus	11951-12-06 09:07 G	6086411.69	6086411.88	6086412.06	0.0274	0.0131
Venus	11952-07-22 16:48 G	6086640.99	6086641.20	6086641.40	0.0274	0.0071
Venus	11953-03-09 00:14 G	6086870.50	6086870.51	6086870.54	0.0274	0.0272
Mercury	11953-04-16 02:23 G	6086908.52	6086908.60	6086908.68	0.0274	0.0230
Mercury	11953-07-13 16:33 G	6086997.06	6086997.19	6086997.33	0.0274	0.0125
Mercury	11953-10-10 06:28 G	6087085.62	6087085.77	6087085.92	0.0274	0.0022
Mercury	11954-01-06 19:55 G	6087174.19	6087174.33	6087174.48	0.0274	0.0081
Mercury	11954-04-05 09:21 G	6087262.78	6087262.89	6087263.00	0.0275	0.0180

Moon	11957-04-05 02:38 G	6088358.36	6088358.61	6088358.86	0.0277	0.0053
Earth	11957-04-05 04:48 G	6088358.47	6088358.70	6088358.95	0.0277	0.0052 *
Mars	11961-09-19 20:23 G	6089987.14	6089987.35	6089987.58	0.0282	0.0186
Venus	11966-05-19 04:48 G	6091689.59	6091689.70	6091689.82	0.0285	0.0235
Venus	11967-01-03 20:52 G	6091919.16	6091919.37	6091919.59	0.0285	0.0010
Venus	11967-08-21 12:43 G	6092148.91	6092149.03	6092149.18	0.0285	0.0219
Mercury	11968-01-27 04:48 G	6092307.58	6092307.70	6092307.83	0.0284	0.0174
Mercury	11968-04-24 22:04 G	6092396.27	6092396.42	6092396.58	0.0284	0.0052
Mercury	11968-07-22 15:50 G	6092485.00	6092485.16	6092485.32	0.0284	0.0073
Mercury	11968-10-19 09:50 G	6092573.80	6092573.91	6092574.03	0.0284	0.0200
Earth	11971-10-03 22:48 G	6093653.20	6093653.45	6093653.70	0.0282	0.0001
Moon	11971-10-04 02:09 G	6093653.34	6093653.59	6093653.84	0.0282	0.0007 *
Mars	11975-12-08 08:23 G	6095179.56	6095179.85	6095180.15	0.0277	0.0023
Venus	11981-06-17 16:33 G	6097198.00	6097198.19	6097198.39	0.0274	0.0098
Venus	11982-02-02 00:28 G	6097427.32	6097427.52	6097427.72	0.0274	0.0105
Mercury	11982-09-03 05:02 G	6097640.66	6097640.71	6097640.77	0.0275	0.0253
Mercury	11982-11-30 19:11 G	6097729.18	6097729.30	6097729.43	0.0275	0.0147
Mercury	11983-02-27 09:07 G	6097817.74	6097817.88	6097818.03	0.0275	0.0044
Mercury	11983-05-26 22:48 G	6097906.31	6097906.45	6097906.60	0.0275	0.0059
Mercury	11983-08-23 12:14 G	6097994.89	6097995.01	6097995.13	0.0275	0.0159
Mercury	11983-11-20 01:26 G	6098083.51	6098083.56	6098083.61	0.0275	0.0257
Earth	11986-03-31 04:33 G	6098945.63	6098945.69	6098945.75	0.0276	0.0268
Moon	11986-03-31 06:14 G	6098945.71	6098945.76	6098945.84	0.0276	0.0266 *
Earth	11987-04-12 23:31 G	6099323.39	6099323.48	6099323.61	0.0277	0.0249
Moon	11987-04-13 03:21 G	6099323.54	6099323.64	6099323.77	0.0277	0.0243 *
Venus	11995-11-29 11:02 G	6102475.82	6102475.96	6102476.12	0.0284	0.0203
Venus	11996-07-16 02:52 G	6102705.41	6102705.62	6102705.84	0.0285	0.0024
Venus	11997-03-02 18:43 G	6102935.18	6102935.28	6102935.38	0.0284	0.0249
Mercury	11997-06-15 05:31 G	6103039.63	6103039.73	6103039.84	0.0284	0.0208
Mercury	11997-09-11 22:33 G	6103128.29	6103128.44	6103128.60	0.0284	0.0088

Mercury	11997-12-09 16:04 G	6103217.01	6103217.17	6103217.33	0.0284	0.0036
Mercury	11998-03-08 09:50 G	6103305.78	6103305.91	6103306.05	0.0284	0.0162
Moon	12000-09-27 03:50 G	6104239.55	6104239.66	6104239.80	0.0282	0.0241
Earth	12000-09-27 07:11 G	6104239.70	6104239.80	6104239.93	0.0282	0.0249 *

13TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 13th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	12010-12-28 16:48 G		6107984.00	6107984.20	6107984.40	0.0274	0.0080	
Venus	12011-08-15 00:28 G		6108213.33	6108213.52	6108213.71	0.0274	0.0122	
Mercury	12012-04-18 19:11 G		6108461.20	6108461.30	6108461.41	0.0274	0.0189	
Mercury	12012-07-16 09:21 G		6108549.75	6108549.89	6108550.03	0.0274	0.0084	
Mercury	12012-10-12 23:02 G		6108638.32	6108638.46	6108638.61	0.0274	0.0019	
Mercury	12013-01-09 12:28 G		6108726.89	6108727.02	6108727.16	0.0275	0.0120	
Mercury	12013-04-08 01:55 G		6108815.49	6108815.58	6108815.66	0.0275	0.0218	
Moon	12016-04-06 06:00 G		6109909.50	6109909.75	6109909.99	0.0277	0.0005	
Earth	12016-04-06 09:21 G		6109909.64	6109909.89	6109910.13	0.0277	0.0008 *	
Venus	12025-06-10 12:43 G		6113261.87	6113262.03	6113262.20	0.0285	0.0182	
Venus	12026-01-26 04:48 G		6113491.49	6113491.70	6113491.91	0.0285	0.0045	
Venus	12026-09-12 20:38 G		6113721.30	6113721.36	6113721.43	0.0284	0.0271	
Mercury	12026-11-02 04:48 G		6113771.64	6113771.70	6113771.78	0.0284	0.0252	
Mercury	12027-01-29 21:50 G		6113860.27	6113860.41	6113860.55	0.0284	0.0132	
Mercury	12027-04-28 15:21 G		6113948.97	6113949.14	6113949.30	0.0284	0.0012	

Mercury	12027-07-26 08:52 G	6114037.73	6114037.87	6114038.02	0.0284	0.0116
Mercury	12027-10-23 02:52 G	6114126.55	6114126.62	6114126.71	0.0284	0.0244
Moon	12030-10-04 23:16 G	6115204.22	6115204.47	6115204.72	0.0282	0.0054
Earth	12030-10-04 23:45 G	6115204.25	6115204.49	6115204.74	0.0282	0.0052 *
Venus	12039-11-23 16:19 G	6118541.10	6118541.18	6118541.27	0.0275	0.0249
Venus	12040-07-10 00:28 G	6118770.31	6118770.52	6118770.73	0.0275	0.0047
Venus	12041-02-24 08:23 G	6118999.68	6118999.85	6119000.03	0.0275	0.0157
Mercury	12041-09-05 22:04 G	6119193.32	6119193.42	6119193.51	0.0275	0.0211
Mercury	12041-12-03 12:14 G	6119281.87	6119282.01	6119282.14	0.0275	0.0106
Mercury	12042-03-02 01:55 G	6119370.44	6119370.58	6119370.73	0.0275	0.0007
Mercury	12042-05-29 15:36 G	6119459.01	6119459.15	6119459.29	0.0275	0.0099
Mercury	12042-08-26 04:48 G	6119547.61	6119547.70	6119547.80	0.0275	0.0199
Earth	12045-04-01 09:21 G	6120496.74	6120496.89	6120497.06	0.0277	0.0210
Moon	12045-04-01 12:43 G	6120496.88	6120497.03	6120497.21	0.0277	0.0207 *
Mars	12050-02-14 00:57 G	6122276.46	6122276.54	6122276.66	0.0281	0.0264
Venus	12054-12-21 20:38 G	6124048.18	6124048.36	6124048.54	0.0284	0.0147
Venus	12055-08-08 12:14 G	6124277.81	6124278.01	6124278.22	0.0284	0.0079
Mercury	12056-03-21 06:14 G	6124503.74	6124503.76	6124503.78	0.0284	0.0281
Mercury	12056-06-17 23:02 G	6124592.33	6124592.46	6124592.59	0.0284	0.0163
Mercury	12056-09-14 16:19 G	6124681.02	6124681.18	6124681.34	0.0284	0.0042
Mercury	12056-12-12 09:50 G	6124769.75	6124769.91	6124770.06	0.0284	0.0083
Mercury	12057-03-11 03:36 G	6124858.55	6124858.65	6124858.77	0.0284	0.0210
Earth	12059-09-29 10:48 G	6125790.78	6125790.95	6125791.14	0.0282	0.0191
Moon	12059-09-29 11:31 G	6125790.80	6125790.98	6125791.16	0.0282	0.0185 *
Mars	12064-05-02 12:57 G	6127467.76	6127468.04	6127468.34	0.0277	0.0059
Venus	12069-06-04 17:16 G	6129327.11	6129327.22	6129327.34	0.0274	0.0230
Venus	12070-01-20 01:26 G	6129556.35	6129556.56	6129556.77	0.0274	0.0028
Venus	12070-09-06 09:07 G	6129785.72	6129785.88	6129786.05	0.0274	0.0174
Mercury	12071-01-23 21:50 G	6129925.36	6129925.41	6129925.48	0.0274	0.0253
Mercury	12071-04-22 12:14 G	6130013.89	6130014.01	6130014.14	0.0274	0.0146

Mercury	12071-07-20 02:23 G	6130102.45	6130102.60	6130102.74	0.0274	0.0043
Mercury	12071-10-16 16:04 G	6130191.02	6130191.17	6130191.31	0.0275	0.0060
Mercury	12072-01-13 05:16 G	6130279.61	6130279.72	6130279.84	0.0275	0.0160
Mercury	12072-04-10 18:28 G	6130368.23	6130368.27	6130368.32	0.0275	0.0258
Earth	12075-04-08 14:52 G	6131460.88	6131461.12	6131461.36	0.0277	0.0066
Moon	12075-04-08 15:07 G	6131460.91	6131461.13	6131461.37	0.0277	0.0061 *
Venus	12084-07-02 22:04 G	6134834.24	6134834.42	6134834.62	0.0285	0.0126
Venus	12085-02-17 13:55 G	6135063.89	6135064.08	6135064.29	0.0285	0.0102
Mercury	12085-11-04 22:19 G	6135324.33	6135324.43	6135324.54	0.0284	0.0207
Mercury	12086-02-01 15:36 G	6135413.00	6135413.15	6135413.30	0.0284	0.0086
Mercury	12086-05-01 08:52 G	6135501.71	6135501.87	6135502.03	0.0284	0.0038
Mercury	12086-07-29 02:52 G	6135590.49	6135590.62	6135590.75	0.0284	0.0163
Moon	12089-10-05 23:45 G	6136755.27	6136755.49	6136755.72	0.0281	0.0108
Earth	12089-10-06 03:21 G	6136755.42	6136755.64	6136755.87	0.0281	0.0108 *
Venus	12098-12-16 00:28 G	6140113.38	6140113.52	6140113.67	0.0275	0.0198
Venus	12099-08-02 08:52 G	6140342.66	6140342.87	6140343.08	0.0275	0.0006
Venus	12100-03-19 17:02 G	6140572.07	6140572.21	6140572.35	0.0275	0.0208
Mercury	12100-09-09 15:07 G	6140746.01	6140746.13	6140746.25	0.0275	0.0169
Mercury	12100-12-07 05:02 G	6140834.57	6140834.71	6140834.86	0.0275	0.0064
Mercury	12101-03-05 18:57 G	6140923.14	6140923.29	6140923.43	0.0275	0.0040
Mercury	12101-06-02 08:23 G	6141011.72	6141011.85	6141011.97	0.0275	0.0140
Mercury	12101-08-29 21:36 G	6141100.33	6141100.40	6141100.47	0.0275	0.0239
Earth	12104-04-03 15:36 G	6142047.95	6142048.15	6142048.36	0.0277	0.0149
Moon	12104-04-03 16:04 G	6142047.96	6142048.17	6142048.39	0.0277	0.0148 *
Venus	12114-01-14 07:26 G	6145620.61	6145620.81	6145621.02	0.0284	0.0089
Venus	12114-08-31 23:02 G	6145850.28	6145850.46	6145850.65	0.0284	0.0137
Mercury	12115-03-26 00:14 G	6146056.43	6146056.51	6146056.60	0.0284	0.0233
Mercury	12115-06-22 17:16 G	6146145.07	6146145.22	6146145.36	0.0284	0.0114
Mercury	12115-09-19 10:33 G	6146233.78	6146233.94	6146234.10	0.0284	0.0009
Mercury	12115-12-17 04:04 G	6146322.53	6146322.67	6146322.82	0.0284	0.0134

Mercury	12116-03-14 22:19 G	6146411.37	6146411.43	6146411.49	0.0284	0.0261
Earth	12118-10-01 16:48 G	6147341.99	6147342.20	6147342.43	0.0282	0.0129
Moon	12118-10-01 20:23 G	6147342.14	6147342.35	6147342.58	0.0282	0.0123 *
Venus	12128-06-28 02:52 G	6150899.47	6150899.62	6150899.79	0.0274	0.0177
Venus	12129-02-12 11:02 G	6151128.75	6151128.96	6151129.17	0.0274	0.0026
Venus	12129-09-29 18:43 G	6151358.18	6151358.28	6151358.41	0.0274	0.0228
Mercury	12130-01-27 15:21 G	6151478.05	6151478.14	6151478.25	0.0274	0.0207
Mercury	12130-04-26 05:45 G	6151566.60	6151566.74	6151566.88	0.0274	0.0101
Mercury	12130-07-23 19:40 G	6151655.17	6151655.32	6151655.47	0.0275	0.0006
Mercury	12130-10-20 09:07 G	6151743.75	6151743.88	6151744.02	0.0275	0.0104
Mercury	12131-01-16 22:33 G	6151832.34	6151832.44	6151832.54	0.0275	0.0203
Earth	12134-04-10 22:48 G	6153012.23	6153012.45	6153012.67	0.0277	0.0130
Moon	12134-04-11 01:55 G	6153012.37	6153012.58	6153012.81	0.0277	0.0123 *
Venus	12143-07-27 09:07 G	6156406.68	6156406.88	6156407.09	0.0284	0.0066
Venus	12144-03-13 00:43 G	6156636.36	6156636.53	6156636.71	0.0284	0.0160
Mercury	12144-08-11 23:31 G	6156788.46	6156788.48	6156788.52	0.0284	0.0277
Mercury	12144-11-08 16:19 G	6156877.06	6156877.18	6156877.32	0.0284	0.0159
Mercury	12145-02-05 09:36 G	6156965.75	6156965.90	6156966.06	0.0284	0.0037
Mercury	12145-05-05 03:07 G	6157054.48	6157054.63	6157054.79	0.0284	0.0088
Mercury	12145-08-01 21:07 G	6157143.28	6157143.38	6157143.49	0.0284	0.0215
Moon	12148-10-08 07:26 G	6158306.62	6158306.81	6158307.00	0.0281	0.0168
Earth	12148-10-08 09:07 G	6158306.69	6158306.88	6158307.08	0.0281	0.0169 *
Mars	12152-09-27 06:14 G	6159756.50	6159756.76	6159757.03	0.0278	0.0116
Venus	12158-01-08 09:50 G	6161685.73	6161685.91	6161686.09	0.0275	0.0145
Venus	12158-08-25 18:14 G	6161915.05	6161915.26	6161915.47	0.0275	0.0059
Venus	12159-04-12 02:09 G	6162144.54	6162144.59	6162144.67	0.0275	0.0263
Mercury	12159-06-16 18:00 G	6162210.17	6162210.25	6162210.34	0.0275	0.0230
Mercury	12159-09-13 08:23 G	6162298.72	6162298.85	6162298.98	0.0275	0.0124
Mercury	12159-12-10 22:19 G	6162387.28	6162387.43	6162387.58	0.0275	0.0020
Mercury	12160-03-08 12:00 G	6162475.86	6162476.00	6162476.14	0.0275	0.0083

Mercury	12160-06-05 01:26 G	6162564.45	6162564.56	6162564.67	0.0276	0.0183
Moon	12163-04-05 19:55 G	6163599.09	6163599.33	6163599.56	0.0277	0.0089
Earth	12163-04-05 23:16 G	6163599.24	6163599.47	6163599.70	0.0277	0.0086 *
Venus	12172-06-21 04:19 G	6166963.59	6166963.68	6166963.78	0.0284	0.0253
Venus	12173-02-05 19:40 G	6167193.11	6167193.32	6167193.54	0.0284	0.0029
Venus	12173-09-23 11:02 G	6167422.82	6167422.96	6167423.12	0.0284	0.0197
Mercury	12174-03-28 18:57 G	6167609.17	6167609.29	6167609.41	0.0284	0.0181
Mercury	12174-06-25 12:00 G	6167697.84	6167698.00	6167698.16	0.0284	0.0060
Mercury	12174-09-22 05:31 G	6167786.57	6167786.73	6167786.89	0.0284	0.0063
Mercury	12174-12-19 23:16 G	6167875.35	6167875.47	6167875.59	0.0284	0.0189
Earth	12177-10-03 01:40 G	6168893.33	6168893.57	6168893.81	0.0282	0.0062
Moon	12177-10-03 03:36 G	6168893.40	6168893.65	6168893.90	0.0282	0.0059 *
Venus	12187-07-21 13:11 G	6172471.87	6172472.05	6172472.25	0.0274	0.0123
Venus	12188-03-06 21:21 G	6172701.19	6172701.39	6172701.60	0.0274	0.0081
Mercury	12188-11-02 18:43 G	6172942.26	6172942.28	6172942.33	0.0274	0.0266
Mercury	12189-01-30 09:07 G	6173030.77	6173030.88	6173031.01	0.0274	0.0160
Mercury	12189-04-28 23:16 G	6173119.33	6173119.47	6173119.62	0.0275	0.0055
Mercury	12189-07-26 13:11 G	6173207.90	6173208.05	6173208.19	0.0275	0.0048
Mercury	12189-10-23 02:38 G	6173296.49	6173296.61	6173296.73	0.0275	0.0149
Mercury	12190-01-19 15:50 G	6173385.10	6173385.16	6173385.22	0.0275	0.0247
Earth	12193-04-12 07:26 G	6174563.65	6174563.81	6174564.00	0.0277	0.0196
Moon	12193-04-12 09:50 G	6174563.73	6174563.91	6174564.10	0.0277	0.0187 *
Mars	12196-10-16 04:33 G	6175846.60	6175846.69	6175846.80	0.0281	0.0263
Venus	12202-01-02 06:00 G	6177749.63	6177749.75	6177749.88	0.0284	0.0230
Venus	12202-08-19 21:36 G	6177979.19	6177979.40	6177979.61	0.0284	0.0005
Venus	12203-04-06 12:57 G	6178208.92	6178209.04	6178209.18	0.0284	0.0220
Mercury	12203-08-16 18:14 G	6178341.17	6178341.26	6178341.36	0.0284	0.0224
Mercury	12203-11-13 11:16 G	6178429.82	6178429.97	6178430.12	0.0284	0.0105
Mercury	12204-02-10 04:33 G	6178518.53	6178518.69	6178518.85	0.0284	0.0017
Mercury	12204-05-08 22:04 G	6178607.29	6178607.42	6178607.57	0.0284	0.0143

Mercury	12204-08-05 16:19 G	6178696.14	6178696.18	6178696.23	0.0284	0.0270
Earth	12207-10-11 17:02 G	6179858.09	6179858.21	6179858.36	0.0281	0.0233
Moon	12207-10-11 19:40 G	6179858.19	6179858.32	6179858.47	0.0281	0.0229 *
Venus	12217-01-31 20:09 G	6183258.14	6183258.34	6183258.54	0.0275	0.0091
Venus	12217-09-18 04:33 G	6183487.50	6183487.69	6183487.88	0.0275	0.0114
Mercury	12218-06-20 11:45 G	6183762.88	6183762.99	6183763.10	0.0275	0.0183
Mercury	12218-09-17 01:55 G	6183851.44	6183851.58	6183851.72	0.0275	0.0078
Mercury	12218-12-14 15:50 G	6183940.01	6183940.16	6183940.31	0.0276	0.0026
Mercury	12219-03-13 05:16 G	6184028.60	6184028.72	6184028.86	0.0276	0.0128
Mercury	12219-06-09 18:43 G	6184117.20	6184117.28	6184117.36	0.0276	0.0227
Moon	12222-04-08 06:00 G	6185150.51	6185150.75	6185150.98	0.0277	0.0026
Earth	12222-04-08 08:09 G	6185150.60	6185150.84	6185151.09	0.0277	0.0020 *
Venus	12231-07-15 17:31 G	6188536.08	6188536.23	6188536.39	0.0284	0.0191
Venus	12232-03-01 09:07 G	6188765.67	6188765.88	6188766.09	0.0284	0.0034
Venus	12232-10-17 00:14 G	6188995.44	6188995.51	6188995.61	0.0284	0.0259
Mercury	12233-01-02 21:07 G	6189073.31	6189073.38	6189073.46	0.0284	0.0244
Mercury	12233-04-01 13:55 G	6189161.94	6189162.08	6189162.23	0.0284	0.0126
Mercury	12233-06-29 07:11 G	6189250.64	6189250.80	6189250.96	0.0284	0.0007
Mercury	12233-09-26 00:43 G	6189339.39	6189339.53	6189339.68	0.0284	0.0121
Mercury	12233-12-23 18:43 G	6189428.21	6189428.28	6189428.37	0.0284	0.0248
Moon	12236-10-05 09:21 G	6190444.64	6190444.89	6190445.14	0.0282	0.0006
Earth	12236-10-05 12:14 G	6190444.76	6190445.01	6190445.26	0.0282	0.0007 *
Mars	12241-02-22 12:00 G	6192045.80	6192046.00	6192046.22	0.0277	0.0197
Venus	12245-12-27 16:33 G	6193815.15	6193815.19	6193815.23	0.0275	0.0268
Venus	12246-08-14 00:43 G	6194044.33	6194044.53	6194044.74	0.0274	0.0066
Venus	12247-03-31 08:52 G	6194273.69	6194273.87	6194274.06	0.0274	0.0138
Mercury	12247-11-07 12:57 G	6194494.95	6194495.04	6194495.14	0.0275	0.0216
Mercury	12248-02-04 03:07 G	6194583.50	6194583.63	6194583.77	0.0275	0.0111
Mercury	12248-05-02 17:16 G	6194672.07	6194672.22	6194672.37	0.0275	0.0007
Mercury	12248-07-30 06:43 G	6194760.65	6194760.78	6194760.92	0.0275	0.0096

Mercury	12248-10-26 20:09 G	6194849.24	6194849.34	6194849.45	0.0275	0.0195
Earth	12251-04-02 21:50 G	6195737.31	6195737.41	6195737.51	0.0277	0.0251
Moon	12251-04-03 00:00 G	6195737.40	6195737.50	6195737.60	0.0277	0.0253 *
Moon	12252-04-14 15:36 G	6196115.05	6196115.15	6196115.26	0.0278	0.0250
Earth	12252-04-14 17:45 G	6196115.17	6196115.24	6196115.32	0.0278	0.0263 *
Venus	12261-01-24 19:26 G	6199322.15	6199322.31	6199322.49	0.0284	0.0168
Venus	12261-09-11 11:02 G	6199551.75	6199551.96	6199552.17	0.0284	0.0058
Venus	12262-04-29 02:23 G	6199781.59	6199781.60	6199781.63	0.0284	0.0282
Mercury	12262-08-19 13:26 G	6199893.93	6199894.06	6199894.18	0.0284	0.0169
Mercury	12262-11-16 06:28 G	6199982.61	6199982.77	6199982.93	0.0284	0.0049
Mercury	12263-02-13 00:00 G	6200071.34	6200071.50	6200071.65	0.0284	0.0075
Mercury	12263-05-12 17:45 G	6200160.13	6200160.24	6200160.36	0.0284	0.0201
Earth	12265-09-29 19:11 G	6201031.18	6201031.30	6201031.43	0.0282	0.0241
Moon	12265-09-29 22:19 G	6201031.32	6201031.43	6201031.56	0.0282	0.0242 *
Venus	12275-07-09 22:19 G	6204601.34	6204601.43	6204601.54	0.0275	0.0239
Venus	12276-02-24 06:57 G	6204830.58	6204830.79	6204831.00	0.0275	0.0035
Venus	12276-10-10 15:21 G	6205059.98	6205060.14	6205060.31	0.0275	0.0169
Mercury	12277-03-26 15:07 G	6205227.06	6205227.13	6205227.21	0.0275	0.0242
Mercury	12277-06-23 05:31 G	6205315.60	6205315.73	6205315.86	0.0275	0.0135
Mercury	12277-09-19 19:40 G	6205404.17	6205404.32	6205404.47	0.0276	0.0031
Mercury	12277-12-17 09:21 G	6205492.75	6205492.89	6205493.03	0.0276	0.0072
Mercury	12278-03-15 22:48 G	6205581.34	6205581.45	6205581.57	0.0276	0.0173
Mercury	12278-06-12 12:00 G	6205669.98	6205670.00	6205670.03	0.0276	0.0272
Earth	12281-04-09 17:31 G	6206701.99	6206702.23	6206702.47	0.0278	0.0047
Moon	12281-04-09 19:40 G	6206702.09	6206702.32	6206702.56	0.0278	0.0039 *
Mars	12285-03-14 03:50 G	6208136.43	6208136.66	6208136.91	0.0281	0.0157
Venus	12290-08-07 07:40 G	6210108.63	6210108.82	6210109.01	0.0284	0.0128
Venus	12291-03-24 23:02 G	6210338.26	6210338.46	6210338.66	0.0284	0.0098
Mercury	12292-01-06 16:33 G	6210626.07	6210626.19	6210626.31	0.0284	0.0188
Mercury	12292-04-04 09:36 G	6210714.74	6210714.90	6210715.05	0.0284	0.0068

Mercury	12292-07-02 02:52 G	6210803.46	6210803.62	6210803.78	0.0284	0.0055
Mercury	12292-09-28 20:38 G	6210892.24	6210892.36	6210892.49	0.0284	0.0180
Moon	12295-10-07 21:07 G	6211996.15	6211996.38	6211996.61	0.0282	0.0075
Earth	12295-10-08 00:14 G	6211996.27	6211996.51	6211996.75	0.0282	0.0080 *
Venus	12305-01-20 04:33 G	6215387.55	6215387.69	6215387.82	0.0275	0.0211
Venus	12305-09-06 12:43 G	6215616.82	6215617.03	6215617.24	0.0275	0.0008
Venus	12306-04-23 20:52 G	6215846.22	6215846.37	6215846.52	0.0275	0.0195
Mercury	12306-08-14 16:48 G	6215959.19	6215959.20	6215959.22	0.0275	0.0272
Mercury	12306-11-11 07:11 G	6216047.68	6216047.80	6216047.92	0.0275	0.0165
Mercury	12307-02-07 21:21 G	6216136.25	6216136.39	6216136.54	0.0275	0.0060
Mercury	12307-05-07 11:16 G	6216224.82	6216224.97	6216225.11	0.0275	0.0043
Mercury	12307-08-04 00:43 G	6216313.41	6216313.53	6216313.66	0.0275	0.0143
Mercury	12307-10-31 13:55 G	6216402.02	6216402.08	6216402.15	0.0275	0.0242
Moon	12310-04-05 06:00 G	6217288.57	6217288.75	6217288.94	0.0277	0.0189
Earth	12310-04-05 08:38 G	6217288.68	6217288.86	6217289.05	0.0277	0.0182 *
Venus	12320-02-18 09:36 G	6220894.71	6220894.90	6220895.10	0.0284	0.0104
Venus	12320-10-05 00:57 G	6221124.36	6221124.54	6221124.74	0.0284	0.0122
Mercury	12321-05-26 15:50 G	6221358.07	6221358.16	6221358.25	0.0284	0.0231
Mercury	12321-08-23 08:38 G	6221446.72	6221446.86	6221447.01	0.0284	0.0112
Mercury	12321-11-20 01:55 G	6221535.42	6221535.58	6221535.74	0.0284	0.0010
Mercury	12322-02-16 19:40 G	6221624.17	6221624.32	6221624.46	0.0284	0.0134
Mercury	12322-05-16 13:40 G	6221713.01	6221713.07	6221713.13	0.0284	0.0261
Earth	12324-10-02 06:28 G	6222582.59	6222582.77	6222582.98	0.0282	0.0170
Moon	12324-10-02 09:21 G	6222582.71	6222582.89	6222583.10	0.0282	0.0171 *
Mars	12329-07-20 11:45 G	6224334.90	6224334.99	6224335.08	0.0277	0.0264
Venus	12334-08-02 09:36 G	6226173.75	6226173.90	6226174.07	0.0275	0.0184
Venus	12335-03-19 18:14 G	6226403.05	6226403.26	6226403.48	0.0275	0.0022
Venus	12335-11-04 02:38 G	6226632.50	6226632.61	6226632.74	0.0275	0.0225
Mercury	12336-03-30 09:21 G	6226779.78	6226779.89	6226779.99	0.0275	0.0193
Mercury	12336-06-26 23:31 G	6226868.34	6226868.48	6226868.62	0.0276	0.0087

Mercury	12336-09-23 13:26 G	6226956.91	6226957.06	6226957.21	0.0276	0.0017
Mercury	12336-12-21 03:07 G	6227045.50	6227045.63	6227045.76	0.0276	0.0119
Mercury	12337-03-19 16:19 G	6227134.10	6227134.18	6227134.27	0.0276	0.0219
Earth	12340-04-12 02:52 G	6228253.41	6228253.62	6228253.85	0.0278	0.0115
Moon	12340-04-12 06:28 G	6228253.54	6228253.77	6228254.00	0.0278	0.0103 *
Venus	12349-08-30 21:36 G	6231681.20	6231681.40	6231681.61	0.0284	0.0065
Venus	12350-04-17 12:57 G	6231910.88	6231911.04	6231911.22	0.0284	0.0161
Mercury	12350-10-13 19:11 G	6232090.22	6232090.30	6232090.37	0.0284	0.0249
Mercury	12351-01-10 12:00 G	6232178.86	6232179.00	6232179.14	0.0284	0.0131
Mercury	12351-04-09 05:02 G	6232267.55	6232267.71	6232267.87	0.0284	0.0011
Mercury	12351-07-06 22:33 G	6232356.30	6232356.44	6232356.59	0.0284	0.0114
Mercury	12351-10-03 16:33 G	6232445.11	6232445.19	6232445.28	0.0284	0.0241
Earth	12354-10-10 12:43 G	6233547.83	6233548.03	6233548.24	0.0282	0.0154
Moon	12354-10-10 13:40 G	6233547.88	6233548.07	6233548.28	0.0282	0.0148 *
Venus	12364-02-12 16:33 G	6236960.03	6236960.19	6236960.38	0.0275	0.0154
Venus	12364-09-29 00:57 G	6237189.33	6237189.54	6237189.75	0.0275	0.0050
Venus	12365-05-16 08:52 G	6237418.80	6237418.87	6237418.96	0.0275	0.0253
Mercury	12365-08-17 11:02 G	6237511.88	6237511.96	6237512.06	0.0275	0.0221
Mercury	12365-11-14 01:26 G	6237600.43	6237600.56	6237600.70	0.0275	0.0115
Mercury	12366-02-10 15:36 G	6237689.00	6237689.15	6237689.30	0.0275	0.0012
Mercury	12366-05-10 05:16 G	6237777.58	6237777.72	6237777.86	0.0275	0.0091
Mercury	12366-08-06 18:28 G	6237866.17	6237866.27	6237866.38	0.0275	0.0191
Moon	12369-04-06 16:04 G	6238839.96	6238840.17	6238840.39	0.0277	0.0121
Earth	12369-04-06 19:11 G	6238840.08	6238840.30	6238840.53	0.0277	0.0113 *
Mars	12373-08-09 00:43 G	6240425.26	6240425.53	6240425.81	0.0281	0.0087
Venus	12378-07-26 08:23 G	6242237.78	6242237.85	6242237.94	0.0284	0.0263
Venus	12379-03-12 23:45 G	6242467.28	6242467.49	6242467.70	0.0284	0.0040
Venus	12379-10-28 15:07 G	6242696.98	6242697.13	6242697.30	0.0284	0.0185
Mercury	12380-05-29 11:16 G	6242910.85	6242910.97	6242911.09	0.0284	0.0174
Mercury	12380-08-26 04:19 G	6242999.52	6242999.68	6242999.83	0.0284	0.0054

Mercury	12380-11-22 21:36 G	6243088.25	6243088.40	6243088.56	0.0284	0.0069
Mercury	12381-02-19 15:21 G	6243177.03	6243177.14	6243177.26	0.0284	0.0194
Moon	12383-10-04 17:45 G	6244134.00	6244134.24	6244134.48	0.0282	0.0100
Earth	12383-10-04 18:43 G	6244134.06	6244134.28	6244134.52	0.0282	0.0097 *
Venus	12393-08-24 21:07 G	6247746.19	6247746.38	6247746.57	0.0275	0.0127
Venus	12394-04-11 05:45 G	6247975.53	6247975.74	6247975.94	0.0275	0.0078
Mercury	12395-01-04 12:43 G	6248243.97	6248244.03	6248244.09	0.0275	0.0251
Mercury	12395-04-03 03:07 G	6248332.51	6248332.63	6248332.76	0.0275	0.0144
Mercury	12395-06-30 17:16 G	6248421.07	6248421.22	6248421.37	0.0276	0.0039
Mercury	12395-09-27 07:11 G	6248509.65	6248509.80	6248509.94	0.0276	0.0064
Mercury	12395-12-24 20:38 G	6248598.24	6248598.36	6248598.48	0.0276	0.0164
Mercury	12396-03-22 09:50 G	6248686.87	6248686.91	6248686.95	0.0276	0.0263
Moon	12399-04-14 11:31 G	6249804.78	6249804.98	6249805.19	0.0278	0.0168
Earth	12399-04-14 12:00 G	6249804.82	6249805.00	6249805.19	0.0278	0.0181 *
Venus	12408-02-05 19:40 G	6253024.21	6253024.32	6253024.46	0.0284	0.0226
Venus	12408-09-22 11:16 G	6253253.76	6253253.97	6253254.18	0.0284	0.0004
Venus	12409-05-10 02:38 G	6253483.49	6253483.61	6253483.75	0.0284	0.0224
Mercury	12409-10-16 14:09 G	6253642.98	6253643.09	6253643.21	0.0284	0.0194
Mercury	12410-01-13 07:11 G	6253731.65	6253731.80	6253731.96	0.0284	0.0075
Mercury	12410-04-12 00:28 G	6253820.37	6253820.52	6253820.68	0.0284	0.0049
Mercury	12410-07-09 18:14 G	6253909.14	6253909.26	6253909.39	0.0284	0.0173
Earth	12413-10-12 00:57 G	6255099.39	6255099.54	6255099.68	0.0281	0.0226
Moon	12413-10-12 04:04 G	6255099.53	6255099.67	6255099.84	0.0281	0.0219 *
Venus	12423-03-07 04:48 G	6258532.51	6258532.70	6258532.91	0.0275	0.0096
Venus	12423-10-22 13:11 G	6258761.85	6258762.05	6258762.24	0.0275	0.0108
Mercury	12424-08-20 05:31 G	6259064.61	6259064.73	6259064.85	0.0275	0.0170
Mercury	12424-11-16 19:40 G	6259153.17	6259153.32	6259153.46	0.0275	0.0065
Mercury	12425-02-13 09:21 G	6259241.75	6259241.89	6259242.04	0.0275	0.0039
Mercury	12425-05-12 23:02 G	6259330.33	6259330.46	6259330.59	0.0275	0.0139
Mercury	12425-08-09 12:28 G	6259418.95	6259419.02	6259419.09	0.0275	0.0237

Earth	12428-04-08 05:16 G	6260391.48	6260391.72	6260391.97	0.0277	0.0044
Moon	12428-04-08 05:31 G	6260391.50	6260391.73	6260391.96	0.0277	0.0052 *
Venus	12437-08-17 21:50 G	6263810.27	6263810.41	6263810.56	0.0284	0.0201
Venus	12438-04-04 13:11 G	6264039.84	6264040.05	6264040.26	0.0284	0.0023
Venus	12438-11-20 04:33 G	6264269.59	6264269.69	6264269.80	0.0284	0.0247
Mercury	12439-03-05 13:26 G	6264374.98	6264375.06	6264375.15	0.0284	0.0238
Mercury	12439-06-02 06:28 G	6264463.62	6264463.77	6264463.91	0.0284	0.0119
Mercury	12439-08-29 23:31 G	6264552.32	6264552.48	6264552.64	0.0284	0.0005
Mercury	12439-11-26 17:02 G	6264641.07	6264641.21	6264641.36	0.0284	0.0127
Mercury	12440-02-23 11:02 G	6264729.89	6264729.96	6264730.04	0.0284	0.0253
Moon	12442-10-06 02:38 G	6265685.36	6265685.61	6265685.85	0.0282	0.0030
Earth	12442-10-06 06:14 G	6265685.51	6265685.76	6265686.00	0.0282	0.0025 *
Venus	12452-01-31 00:00 G	6269089.49	6269089.50	6269089.52	0.0275	0.0273
Venus	12452-09-16 08:23 G	6269318.65	6269318.85	6269319.06	0.0275	0.0071
Venus	12453-05-03 16:48 G	6269548.02	6269548.20	6269548.39	0.0275	0.0133
Mercury	12454-01-07 06:43 G	6269796.68	6269796.78	6269796.88	0.0275	0.0202
Mercury	12454-04-05 20:52 G	6269885.23	6269885.37	6269885.52	0.0275	0.0097
Mercury	12454-07-03 11:02 G	6269973.81	6269973.96	6269974.11	0.0275	0.0008
Mercury	12454-09-30 00:43 G	6270062.39	6270062.53	6270062.66	0.0276	0.0109
Mercury	12454-12-27 14:09 G	6270150.99	6270151.09	6270151.18	0.0276	0.0209
Earth	12457-04-02 23:31 G	6270978.41	6270978.48	6270978.54	0.0277	0.0267
Moon	12457-04-02 23:16 G	6270978.43	6270978.47	6270978.54	0.0277	0.0270 *
Moon	12458-04-15 16:33 G	6271356.05	6271356.19	6271356.32	0.0278	0.0231
Earth	12458-04-15 19:55 G	6271356.22	6271356.33	6271356.45	0.0278	0.0246 *
Mars	12462-01-03 13:26 G	6272714.77	6272715.06	6272715.35	0.0281	0.0006
Venus	12467-02-28 08:09 G	6274596.68	6274596.84	6274597.02	0.0284	0.0165
Venus	12467-10-15 23:45 G	6274826.29	6274826.49	6274826.70	0.0284	0.0060
Venus	12468-06-01 15:36 G	6275056.15	6275056.15	6275056.15	0.0284	0.0284
Mercury	12468-07-22 16:19 G	6275107.12	6275107.18	6275107.25	0.0284	0.0259
Mercury	12468-10-19 09:07 G	6275195.74	6275195.88	6275196.02	0.0284	0.0141

Mercury	12469-01-16 02:09 G	6275284.43	6275284.59	6275284.75	0.0284	0.0021
Mercury	12469-04-14 19:40 G	6275373.17	6275373.32	6275373.47	0.0284	0.0104
Mercury	12469-07-12 13:26 G	6275461.98	6275462.06	6275462.16	0.0284	0.0230
Earth	12471-10-01 02:52 G	6276272.51	6276272.62	6276272.75	0.0282	0.0245
Moon	12471-10-01 06:43 G	6276272.67	6276272.78	6276272.91	0.0282	0.0244 *
Mars	12476-03-22 06:28 G	6277906.54	6277906.77	6277907.00	0.0278	0.0175
Venus	12481-08-12 08:23 G	6279875.75	6279875.85	6279875.95	0.0275	0.0240
Venus	12482-03-29 16:33 G	6280104.98	6280105.19	6280105.40	0.0274	0.0038
Venus	12482-11-14 00:28 G	6280334.36	6280334.52	6280334.70	0.0274	0.0165
Mercury	12483-05-27 09:07 G	6280528.80	6280528.88	6280528.97	0.0275	0.0227
Mercury	12483-08-23 23:31 G	6280617.34	6280617.48	6280617.61	0.0275	0.0121
Mercury	12483-11-20 13:26 G	6280705.91	6280706.06	6280706.21	0.0275	0.0018
Mercury	12484-02-17 03:07 G	6280794.49	6280794.63	6280794.77	0.0275	0.0085
Mercury	12484-05-15 16:33 G	6280883.09	6280883.19	6280883.30	0.0275	0.0185
Earth	12487-04-10 14:09 G	6281942.84	6281943.09	6281943.33	0.0277	0.0023
Moon	12487-04-10 17:31 G	6281942.99	6281943.23	6281943.47	0.0277	0.0013 *
Venus	12496-09-09 10:19 G	6285382.75	6285382.93	6285383.12	0.0284	0.0141
Venus	12497-04-27 01:55 G	6285612.38	6285612.58	6285612.78	0.0284	0.0084
Mercury	12498-03-08 08:23 G	6285927.73	6285927.85	6285927.97	0.0284	0.0184
Mercury	12498-06-05 01:11 G	6286016.40	6286016.55	6286016.71	0.0284	0.0065
Mercury	12498-09-01 18:28 G	6286105.12	6286105.27	6286105.43	0.0284	0.0058
Mercury	12498-11-29 12:14 G	6286193.89	6286194.01	6286194.14	0.0284	0.0183
Moon	12501-10-08 14:23 G	6287236.87	6287237.10	6287237.34	0.0282	0.0038
Earth	12501-10-08 15:50 G	6287236.92	6287237.16	6287237.41	0.0282	0.0045 *
Venus	12511-02-23 10:33 G	6290661.82	6290661.94	6290662.08	0.0275	0.0219
Venus	12511-10-10 19:11 G	6290891.08	6290891.30	6290891.51	0.0275	0.0016
Venus	12512-05-27 03:07 G	6291120.49	6291120.63	6291120.79	0.0275	0.0188
Mercury	12512-10-14 09:50 G	6291260.87	6291260.91	6291260.96	0.0275	0.0262
Mercury	12513-01-11 00:14 G	6291349.39	6291349.51	6291349.64	0.0275	0.0156
Mercury	12513-04-09 14:38 G	6291437.96	6291438.11	6291438.25	0.0275	0.0051

Mercury	12513-07-07 04:19 G	6291526.54	6291526.68	6291526.83	0.0275	0.0052
Mercury	12513-10-03 18:00 G	6291615.13	6291615.25	6291615.37	0.0275	0.0153
Mercury	12513-12-31 07:11 G	6291703.75	6291703.80	6291703.86	0.0276	0.0251
Moon	12516-04-05 02:23 G	6292529.45	6292529.60	6292529.77	0.0277	0.0211
Earth	12516-04-05 06:14 G	6292529.60	6292529.76	6292529.93	0.0277	0.0203 *
Venus	12526-03-23 19:26 G	6296169.12	6296169.31	6296169.51	0.0284	0.0106
Venus	12526-11-08 11:02 G	6296398.77	6296398.96	6296399.15	0.0284	0.0118
Mercury	12527-07-27 10:33 G	6296659.84	6296659.94	6296660.04	0.0284	0.0210
Mercury	12527-10-24 03:21 G	6296748.49	6296748.64	6296748.79	0.0284	0.0091
Mercury	12528-01-20 20:38 G	6296837.20	6296837.36	6296837.52	0.0284	0.0032
Mercury	12528-04-18 14:23 G	6296925.96	6296926.10	6296926.24	0.0284	0.0156
Mercury	12528-07-16 08:23 G	6297014.84	6297014.85	6297014.86	0.0284	0.0283
Earth	12530-10-03 11:16 G	6297823.78	6297823.97	6297824.16	0.0282	0.0179
Moon	12530-10-03 12:28 G	6297823.84	6297824.02	6297824.23	0.0282	0.0182 *
Venus	12540-09-04 19:26 G	6301448.15	6301448.31	6301448.47	0.0275	0.0184
Venus	12541-04-22 03:36 G	6301677.43	6301677.65	6301677.86	0.0274	0.0019
Venus	12541-12-07 11:45 G	6301906.86	6301906.99	6301907.11	0.0274	0.0220
Mercury	12542-05-31 02:52 G	6302081.51	6302081.62	6302081.74	0.0275	0.0179
Mercury	12542-08-27 17:02 G	6302170.07	6302170.21	6302170.36	0.0275	0.0075
Mercury	12542-11-24 06:57 G	6302258.65	6302258.79	6302258.94	0.0275	0.0030
Mercury	12543-02-20 20:38 G	6302347.23	6302347.36	6302347.49	0.0275	0.0130
Mercury	12543-05-20 10:04 G	6302435.84	6302435.92	6302436.00	0.0275	0.0228
Earth	12546-04-12 21:36 G	6303494.17	6303494.40	6303494.63	0.0277	0.0087
Moon	12546-04-12 23:45 G	6303494.25	6303494.49	6303494.74	0.0277	0.0075 *
Mars	12550-05-31 05:45 G	6305003.46	6305003.74	6305004.02	0.0281	0.0069
Venus	12555-10-03 21:21 G	6306955.19	6306955.39	6306955.60	0.0284	0.0082
Venus	12556-05-20 12:57 G	6307184.86	6307185.04	6307185.22	0.0284	0.0143
Mercury	12556-12-13 09:50 G	6307391.84	6307391.91	6307391.98	0.0284	0.0253
Mercury	12557-03-12 02:38 G	6307480.47	6307480.61	6307480.75	0.0284	0.0135
Mercury	12557-06-08 19:40 G	6307569.16	6307569.32	6307569.48	0.0284	0.0015

Mercury	12557-09-05 13:11 G	6307657.90	6307658.05	6307658.20	0.0284	0.0109
Mercury	12557-12-03 06:57 G	6307746.71	6307746.79	6307746.89	0.0284	0.0235
Earth	12560-10-09 23:31 G	6308788.26	6308788.48	6308788.71	0.0282	0.0110
Moon	12560-10-10 02:23 G	6308788.38	6308788.60	6308788.83	0.0282	0.0101 *
Mars	12564-08-16 18:14 G	6310194.99	6310195.26	6310195.52	0.0278	0.0126
Venus	12570-03-17 20:23 G	6312234.19	6312234.35	6312234.53	0.0275	0.0165
Venus	12570-11-02 05:02 G	6312463.50	6312463.71	6312463.92	0.0275	0.0039
Venus	12571-06-19 12:57 G	6312692.95	6312693.04	6312693.15	0.0275	0.0241
Mercury	12571-10-18 03:21 G	6312813.55	6312813.64	6312813.73	0.0275	0.0217
Mercury	12572-01-14 17:31 G	6312902.10	6312902.23	6312902.38	0.0275	0.0112
Mercury	12572-04-12 07:40 G	6312990.67	6312990.82	6312990.97	0.0275	0.0009
Mercury	12572-07-09 21:21 G	6313079.26	6313079.39	6313079.53	0.0275	0.0095
Mercury	12572-10-06 10:48 G	6313167.85	6313167.95	6313168.06	0.0275	0.0194
Moon	12575-04-07 09:36 G	6314080.70	6314080.90	6314081.10	0.0277	0.0154
Earth	12575-04-07 11:16 G	6314080.77	6314080.97	6314081.19	0.0277	0.0143 *
Venus	12584-08-28 13:26 G	6317512.02	6317512.06	6317512.12	0.0284	0.0274
Venus	12585-04-15 05:16 G	6317741.51	6317741.72	6317741.93	0.0284	0.0050
Venus	12585-11-30 20:52 G	6317971.20	6317971.37	6317971.54	0.0284	0.0175
Mercury	12586-05-02 11:31 G	6318123.97	6318123.98	6318124.01	0.0284	0.0281
Mercury	12586-07-30 04:19 G	6318212.55	6318212.68	6318212.81	0.0284	0.0164
Mercury	12586-10-26 21:21 G	6318301.23	6318301.39	6318301.55	0.0284	0.0044
Mercury	12587-01-23 14:38 G	6318389.96	6318390.11	6318390.27	0.0284	0.0079
Mercury	12587-04-22 08:23 G	6318478.74	6318478.85	6318478.97	0.0284	0.0205
Moon	12589-10-04 13:55 G	6319374.86	6319375.08	6319375.31	0.0282	0.0125
Earth	12589-10-04 17:16 G	6319375.00	6319375.22	6319375.44	0.0282	0.0117 *
Venus	12599-09-28 05:16 G	6323020.54	6323020.72	6323020.91	0.0275	0.0130
Venus	12600-05-15 13:26 G	6323249.85	6323250.06	6323250.26	0.0274	0.0073
Venus	12600-12-30 21:07 G	6323479.38	6323479.38	6323479.41	0.0274	0.0274
Mercury	12601-03-07 06:00 G	6323545.68	6323545.75	6323545.83	0.0274	0.0239
Mercury	12601-06-03 20:23 G	6323634.22	6323634.35	6323634.48	0.0275	0.0134

Mercury	12601-08-31 10:33 G	6323722.79	6323722.94	6323723.09	0.0275	0.0030
Mercury	12601-11-28 00:14 G	6323811.37	6323811.51	6323811.65	0.0275	0.0072
Mercury	12602-02-24 13:40 G	6323899.96	6323900.07	6323900.19	0.0275	0.0172
Mercury	12602-05-24 03:07 G	6323988.60	6323988.63	6323988.65	0.0275	0.0269
Moon	12605-04-15 00:43 G	6325045.32	6325045.53	6325045.76	0.0276	0.0133
Earth	12605-04-15 03:21 G	6325045.44	6325045.64	6325045.85	0.0276	0.0148 *
Venus	12614-03-11 15:36 G	6328298.05	6328298.15	6328298.25	0.0284	0.0250
Venus	12614-10-27 06:57 G	6328527.58	6328527.79	6328528.00	0.0284	0.0026
Venus	12615-06-13 22:19 G	6328757.29	6328757.43	6328757.59	0.0284	0.0199
Mercury	12615-12-18 03:21 G	6328944.54	6328944.64	6328944.75	0.0284	0.0208
Mercury	12616-03-15 20:23 G	6329033.20	6329033.35	6329033.50	0.0284	0.0089
Mercury	12616-06-12 13:26 G	6329121.90	6329122.06	6329122.22	0.0284	0.0033
Mercury	12616-09-09 06:57 G	6329210.66	6329210.79	6329210.93	0.0284	0.0158
Mercury	12616-12-07 01:11 G	6329299.54	6329299.55	6329299.56	0.0284	0.0283
Earth	12619-10-13 05:02 G	6330339.51	6330339.71	6330339.90	0.0282	0.0170
Moon	12619-10-13 07:55 G	6330339.63	6330339.83	6330340.04	0.0282	0.0158 *
Venus	12629-04-10 05:45 G	6333806.55	6333806.74	6333806.94	0.0275	0.0111
Venus	12629-11-25 14:09 G	6334035.89	6334036.09	6334036.29	0.0275	0.0092
Mercury	12630-10-21 20:38 G	6334366.24	6334366.36	6334366.48	0.0275	0.0173
Mercury	12631-01-18 10:48 G	6334454.81	6334454.95	6334455.10	0.0275	0.0069
Mercury	12631-04-17 00:43 G	6334543.38	6334543.53	6334543.68	0.0275	0.0034
Mercury	12631-07-14 14:23 G	6334631.97	6334632.10	6334632.23	0.0275	0.0135
Mercury	12631-10-11 03:36 G	6334720.58	6334720.65	6334720.73	0.0275	0.0234
Earth	12634-04-09 15:36 G	6335631.92	6335632.15	6335632.39	0.0277	0.0085
Moon	12634-04-09 18:14 G	6335632.05	6335632.26	6335632.49	0.0277	0.0099 *
Mars	12638-10-25 17:45 G	6337291.98	6337292.24	6337292.50	0.0281	0.0124
Venus	12643-09-21 21:36 G	6339084.27	6339084.40	6339084.53	0.0284	0.0221
Venus	12644-05-08 13:26 G	6339313.84	6339314.06	6339314.27	0.0284	0.0007
Venus	12644-12-24 05:02 G	6339543.59	6339543.71	6339543.84	0.0284	0.0228
Mercury	12645-05-06 04:33 G	6339676.61	6339676.69	6339676.78	0.0284	0.0240

Mercury	12645-08-02 21:21 G	6339765.25	6339765.39	6339765.54	0.0284	0.0122
Mercury	12645-10-30 14:38 G	6339853.95	6339854.11	6339854.27	0.0284	0.0005
Mercury	12646-01-27 08:09 G	6339942.69	6339942.84	6339942.98	0.0284	0.0123
Mercury	12646-04-26 02:09 G	6340031.51	6340031.59	6340031.66	0.0284	0.0249
Moon	12648-10-06 17:45 G	6340926.01	6340926.24	6340926.48	0.0282	0.0071
Earth	12648-10-06 20:23 G	6340926.11	6340926.35	6340926.59	0.0282	0.0060 *
Mars	12653-01-12 00:43 G	6342484.24	6342484.53	6342484.83	0.0278	0.0035
Venus	12658-10-21 14:23 G	6344592.90	6344593.10	6344593.30	0.0275	0.0076
Venus	12659-06-07 22:19 G	6344822.24	6344822.43	6344822.62	0.0274	0.0125
Mercury	12660-03-09 23:16 G	6345098.37	6345098.47	6345098.58	0.0274	0.0196
Mercury	12660-06-06 13:26 G	6345186.92	6345187.06	6345187.21	0.0275	0.0091
Mercury	12660-09-03 03:21 G	6345275.50	6345275.64	6345275.79	0.0275	0.0015
Mercury	12660-11-30 17:02 G	6345364.08	6345364.21	6345364.35	0.0275	0.0113
Mercury	12661-02-27 06:28 G	6345452.68	6345452.77	6345452.86	0.0275	0.0212
Moon	12664-04-16 04:33 G	6346596.51	6346596.69	6346596.86	0.0276	0.0189
Earth	12664-04-16 07:55 G	6346596.66	6346596.83	6346596.99	0.0276	0.0205 *
Venus	12673-04-03 00:00 G	6349870.35	6349870.50	6349870.65	0.0284	0.0196
Venus	12673-11-18 15:21 G	6350099.93	6350100.14	6350100.35	0.0284	0.0028
Venus	12674-07-06 06:43 G	6350329.70	6350329.78	6350329.89	0.0284	0.0252
Mercury	12674-09-23 04:04 G	6350408.66	6350408.67	6350408.69	0.0284	0.0282
Mercury	12674-12-20 20:38 G	6350497.24	6350497.36	6350497.49	0.0284	0.0165
Mercury	12675-03-19 13:40 G	6350585.91	6350586.07	6350586.23	0.0284	0.0045
Mercury	12675-06-16 06:57 G	6350674.64	6350674.79	6350674.95	0.0284	0.0077
Mercury	12675-09-13 00:43 G	6350763.42	6350763.53	6350763.65	0.0284	0.0202
Moon	12678-10-14 06:43 G	6351890.62	6351890.78	6351890.95	0.0282	0.0212
Earth	12678-10-14 08:23 G	6351890.72	6351890.85	6351891.01	0.0282	0.0228 *
Venus	12687-09-16 05:45 G	6355149.68	6355149.74	6355149.81	0.0274	0.0261
Venus	12688-05-02 14:09 G	6355378.88	6355379.09	6355379.30	0.0274	0.0059
Venus	12688-12-17 22:19 G	6355608.25	6355608.43	6355608.61	0.0274	0.0143
Mercury	12689-07-27 23:02 G	6355830.39	6355830.46	6355830.54	0.0275	0.0238

Mercury	12689-10-24 13:26 G	6355918.93	6355919.06	6355919.19	0.0275	0.0132
Mercury	12690-01-21 03:36 G	6356007.50	6356007.65	6356007.80	0.0275	0.0028
Mercury	12690-04-19 17:16 G	6356096.08	6356096.22	6356096.37	0.0275	0.0074
Mercury	12690-07-17 06:57 G	6356184.67	6356184.79	6356184.90	0.0275	0.0173
Mercury	12690-10-13 20:09 G	6356273.32	6356273.34	6356273.36	0.0275	0.0271
Earth	12693-04-10 18:28 G	6357183.03	6357183.27	6357183.52	0.0277	0.0029
Moon	12693-04-10 21:36 G	6357183.15	6357183.40	6357183.64	0.0277	0.0044 *
Venus	12702-10-15 04:19 G	6360656.52	6360656.68	6360656.86	0.0284	0.0170
Venus	12703-06-01 20:09 G	6360886.14	6360886.34	6360886.55	0.0284	0.0055
Venus	12704-01-17 12:00 G	6361115.97	6361116.00	6361116.04	0.0284	0.0279
Mercury	12704-05-09 21:07 G	6361229.28	6361229.38	6361229.50	0.0284	0.0201
Mercury	12704-08-06 14:09 G	6361317.94	6361318.09	6361318.24	0.0284	0.0082
Mercury	12704-11-03 07:26 G	6361406.65	6361406.81	6361406.97	0.0284	0.0040
Mercury	12705-01-31 01:11 G	6361495.41	6361495.55	6361495.68	0.0284	0.0164
Earth	12707-10-09 21:21 G	6362477.14	6362477.39	6362477.63	0.0282	0.0007
Moon	12707-10-09 23:02 G	6362477.23	6362477.46	6362477.70	0.0282	0.0020 *
Venus	12717-03-29 14:23 G	6365935.98	6365936.10	6365936.22	0.0275	0.0226
Venus	12717-11-13 22:48 G	6366165.23	6366165.45	6366165.66	0.0275	0.0025
Venus	12718-07-01 06:28 G	6366394.62	6366394.77	6366394.94	0.0275	0.0177
Mercury	12718-12-16 01:40 G	6366562.53	6366562.57	6366562.62	0.0275	0.0260
Mercury	12719-03-14 16:19 G	6366651.05	6366651.18	6366651.30	0.0275	0.0154
Mercury	12719-06-11 06:14 G	6366739.62	6366739.76	6366739.91	0.0275	0.0051
Mercury	12719-09-07 20:09 G	6366828.20	6366828.34	6366828.49	0.0275	0.0052
Mercury	12719-12-05 09:36 G	6366916.79	6366916.90	6366917.03	0.0275	0.0153
Mercury	12720-03-02 23:02 G	6367005.41	6367005.46	6367005.52	0.0275	0.0250
Moon	12722-04-06 13:55 G	6367769.99	6367770.08	6367770.17	0.0276	0.0255
Earth	12722-04-06 16:48 G	6367770.09	6367770.20	6367770.32	0.0276	0.0243 *
Earth	12723-04-19 11:16 G	6368147.90	6368147.97	6368148.05	0.0276	0.0260
Moon	12723-04-19 12:14 G	6368147.92	6368148.01	6368148.13	0.0276	0.0246 *
Mars	12727-03-22 05:16 G	6369580.51	6369580.72	6369580.95	0.0280	0.0177

Venus	12732-04-26 07:26 G	6371442.63	6371442.81	6371442.99	0.0284	0.0144
Venus	12732-12-11 22:48 G	6371672.25	6371672.45	6371672.65	0.0284	0.0080
Mercury	12733-09-26 20:52 G	6371961.29	6371961.37	6371961.45	0.0284	0.0243
Mercury	12733-12-24 13:26 G	6372049.92	6372050.06	6372050.21	0.0284	0.0125
Mercury	12734-03-23 06:43 G	6372138.62	6372138.78	6372138.94	0.0284	0.0009
Mercury	12734-06-20 00:00 G	6372227.36	6372227.50	6372227.65	0.0284	0.0119
Mercury	12734-09-16 18:00 G	6372316.17	6372316.25	6372316.33	0.0284	0.0244
Moon	12736-10-02 23:02 G	6373063.40	6373063.46	6373063.54	0.0283	0.0270
Earth	12736-10-03 00:57 G	6373063.46	6373063.54	6373063.64	0.0283	0.0260 *
Moon	12737-10-16 06:28 G	6373441.70	6373441.77	6373441.86	0.0282	0.0265
Earth	12737-10-16 10:04 G	6373441.91	6373441.92	6373441.95	0.0282	0.0281
Mars	12741-06-07 20:38 G	6374772.06	6374772.36	6374772.66	0.0278	0.0012
Venus	12746-10-09 13:40 G	6376721.94	6376722.07	6376722.21	0.0274	0.0210
Venus	12747-05-26 21:50 G	6376951.20	6376951.41	6376951.63	0.0274	0.0010
Venus	12748-01-11 05:45 G	6377180.60	6377180.74	6377180.90	0.0274	0.0194
Mercury	12748-07-31 15:50 G	6377383.06	6377383.16	6377383.27	0.0274	0.0197
Mercury	12748-10-28 06:14 G	6377471.62	6377471.76	6377471.90	0.0275	0.0092
Mercury	12749-01-24 20:09 G	6377560.19	6377560.34	6377560.49	0.0275	0.0011
Mercury	12749-04-23 09:50 G	6377648.78	6377648.91	6377649.05	0.0275	0.0112
Mercury	12749-07-20 23:16 G	6377737.38	6377737.47	6377737.56	0.0275	0.0211
Moon	12752-04-12 19:26 G	6378734.06	6378734.31	6378734.57	0.0276	0.0011
Earth	12752-04-12 20:52 G	6378734.13	6378734.37	6378734.62	0.0276	0.0025 *
Venus	12761-11-06 10:33 G	6382228.76	6382228.94	6382229.14	0.0284	0.0121
Venus	12762-06-24 02:38 G	6382458.41	6382458.61	6382458.80	0.0284	0.0105
Mercury	12763-02-13 21:07 G	6382693.36	6382693.38	6382693.40	0.0284	0.0280
Mercury	12763-05-13 13:40 G	6382781.94	6382782.07	6382782.20	0.0284	0.0164
Mercury	12763-08-10 06:43 G	6382870.62	6382870.78	6382870.93	0.0284	0.0044
Mercury	12763-11-07 00:00 G	6382959.35	6382959.50	6382959.66	0.0284	0.0079
Mercury	12764-02-03 17:45 G	6383048.13	6383048.24	6383048.35	0.0284	0.0204
Earth	12766-10-10 21:07 G	6384028.14	6384028.38	6384028.62	0.0282	0.0043

Moon	12766-10-11 00:43 G	6384028.28	6384028.53	6384028.77	0.0282	0.0030 *
Venus	12776-04-20 21:50 G	6387508.25	6387508.41	6387508.57	0.0275	0.0176
Venus	12776-12-06 06:14 G	6387737.55	6387737.76	6387737.97	0.0275	0.0026
Venus	12777-07-23 13:55 G	6387966.98	6387967.08	6387967.21	0.0275	0.0228
Mercury	12777-12-18 18:28 G	6388115.18	6388115.27	6388115.36	0.0275	0.0219
Mercury	12778-03-17 08:52 G	6388203.73	6388203.87	6388204.01	0.0275	0.0114
Mercury	12778-06-13 23:02 G	6388292.31	6388292.46	6388292.61	0.0275	0.0012
Mercury	12778-09-10 12:43 G	6388380.89	6388381.03	6388381.17	0.0275	0.0091
Mercury	12778-12-08 02:09 G	6388469.49	6388469.59	6388469.70	0.0275	0.0190
Earth	12781-04-07 19:40 G	6389321.15	6389321.32	6389321.51	0.0276	0.0189
Moon	12781-04-07 20:23 G	6389321.20	6389321.35	6389321.52	0.0276	0.0202 *
Venus	12791-05-19 14:23 G	6393014.91	6393015.10	6393015.31	0.0284	0.0093
Venus	12792-01-04 05:45 G	6393244.56	6393244.74	6393244.93	0.0284	0.0131
Mercury	12792-09-29 13:26 G	6393513.95	6393514.06	6393514.17	0.0284	0.0204
Mercury	12792-12-27 06:14 G	6393602.61	6393602.76	6393602.91	0.0284	0.0086
Mercury	12793-03-25 23:16 G	6393691.32	6393691.47	6393691.63	0.0284	0.0036
Mercury	12793-06-22 16:48 G	6393780.07	6393780.20	6393780.34	0.0284	0.0160
Moon	12795-10-04 22:19 G	6394614.28	6394614.43	6394614.58	0.0283	0.0221
Earth	12795-10-05 01:26 G	6394614.41	6394614.56	6394614.74	0.0283	0.0209 *
Venus	12805-10-31 21:07 G	6398294.21	6398294.38	6398294.56	0.0274	0.0161
Venus	12806-06-18 05:31 G	6398523.52	6398523.73	6398523.94	0.0274	0.0042
Venus	12807-02-02 13:11 G	6398752.97	6398753.05	6398753.16	0.0274	0.0244
Mercury	12807-05-07 18:00 G	6398847.22	6398847.25	6398847.30	0.0274	0.0263
Mercury	12807-08-04 08:38 G	6398935.74	6398935.86	6398935.98	0.0274	0.0157
Mercury	12807-10-31 22:48 G	6399024.30	6399024.45	6399024.60	0.0275	0.0053
Mercury	12808-01-28 12:43 G	6399112.88	6399113.03	6399113.18	0.0275	0.0049
Mercury	12808-04-26 02:09 G	6399201.47	6399201.59	6399201.72	0.0275	0.0150
Mercury	12808-07-23 15:36 G	6399290.09	6399290.15	6399290.21	0.0275	0.0247
Moon	12811-04-14 20:09 G	6400285.10	6400285.34	6400285.58	0.0276	0.0064
Earth	12811-04-14 23:45 G	6400285.25	6400285.49	6400285.72	0.0276	0.0079 *

Mars	12815-08-15 03:07 G	6401868.44	6401868.63	6401868.83	0.0281	0.0208
Venus	12820-11-28 16:48 G	6403801.00	6403801.20	6403801.41	0.0284	0.0071
Venus	12821-07-16 08:23 G	6404030.68	6404030.85	6404031.03	0.0284	0.0154
Mercury	12822-02-16 13:11 G	6404245.98	6404246.05	6404246.13	0.0284	0.0245
Mercury	12822-05-16 06:00 G	6404334.61	6404334.75	6404334.89	0.0284	0.0127
Mercury	12822-08-12 23:02 G	6404423.30	6404423.46	6404423.62	0.0284	0.0007
Mercury	12822-11-09 16:19 G	6404512.04	6404512.18	6404512.33	0.0284	0.0117
Mercury	12823-02-06 10:19 G	6404600.85	6404600.93	6404601.02	0.0284	0.0242
Moon	12825-10-11 20:09 G	6405579.10	6405579.34	6405579.59	0.0282	0.0077
Earth	12825-10-11 19:55 G	6405579.11	6405579.33	6405579.57	0.0282	0.0092 *
Mars	12829-11-01 09:36 G	6407060.61	6407060.90	6407061.20	0.0279	0.0046
Venus	12835-05-14 05:02 G	6409080.52	6409080.71	6409080.90	0.0275	0.0127
Venus	12835-12-29 13:26 G	6409309.86	6409310.06	6409310.27	0.0275	0.0076
Mercury	12836-12-21 11:02 G	6409667.86	6409667.96	6409668.08	0.0275	0.0180
Mercury	12837-03-20 01:26 G	6409756.42	6409756.56	6409756.71	0.0275	0.0075
Mercury	12837-06-16 15:21 G	6409845.00	6409845.14	6409845.29	0.0275	0.0029
Mercury	12837-09-13 05:02 G	6409933.59	6409933.71	6409933.84	0.0275	0.0129
Mercury	12837-12-10 18:28 G	6410022.19	6410022.27	6410022.35	0.0275	0.0227
Earth	12840-04-08 22:48 G	6410872.24	6410872.45	6410872.67	0.0276	0.0134
Moon	12840-04-09 02:23 G	6410872.40	6410872.60	6410872.81	0.0276	0.0149 *
Venus	12849-10-24 06:28 G	6414357.70	6414357.77	6414357.84	0.0284	0.0264
Venus	12850-06-10 21:36 G	6414587.19	6414587.40	6414587.61	0.0284	0.0042
Venus	12851-01-26 12:43 G	6414816.88	6414817.03	6414817.20	0.0284	0.0182
Mercury	12851-07-06 13:26 G	6414978.05	6414978.06	6414978.09	0.0284	0.0281
Mercury	12851-10-03 06:00 G	6415066.63	6415066.75	6415066.88	0.0284	0.0165
Mercury	12851-12-30 23:02 G	6415155.30	6415155.46	6415155.62	0.0284	0.0046
Mercury	12852-03-28 16:19 G	6415244.02	6415244.18	6415244.33	0.0284	0.0076
Mercury	12852-06-25 09:50 G	6415332.80	6415332.91	6415333.03	0.0284	0.0201
Earth	12854-10-06 02:09 G	6416165.40	6416165.59	6416165.80	0.0283	0.0157
Moon	12854-10-06 02:23 G	6416165.42	6416165.60	6416165.79	0.0283	0.0172 *

Venus	12864-11-23 04:33 G	6419866.50	6419866.69	6419866.89	0.0275	0.0111
Venus	12865-07-10 12:57 G	6420095.84	6420096.04	6420096.24	0.0274	0.0092
Mercury	12866-05-10 10:48 G	6420399.87	6420399.95	6420400.04	0.0274	0.0223
Mercury	12866-08-07 01:11 G	6420488.42	6420488.55	6420488.69	0.0274	0.0118
Mercury	12866-11-03 15:21 G	6420576.99	6420577.14	6420577.29	0.0275	0.0014
Mercury	12867-01-31 05:02 G	6420665.57	6420665.71	6420665.85	0.0275	0.0088
Mercury	12867-04-29 18:43 G	6420754.17	6420754.28	6420754.39	0.0275	0.0187
Moon	12870-04-16 01:26 G	6421836.35	6421836.56	6421836.78	0.0276	0.0119
Earth	12870-04-16 02:23 G	6421836.39	6421836.60	6421836.82	0.0276	0.0132 *
Venus	12879-05-06 07:55 G	6425143.73	6425143.83	6425143.94	0.0284	0.0243
Venus	12879-12-21 23:31 G	6425373.27	6425373.48	6425373.69	0.0284	0.0021
Venus	12880-08-07 14:52 G	6425602.98	6425603.12	6425603.27	0.0284	0.0204
Mercury	12881-02-19 05:31 G	6425798.63	6425798.73	6425798.84	0.0284	0.0208
Mercury	12881-05-18 22:19 G	6425887.28	6425887.43	6425887.58	0.0284	0.0090
Mercury	12881-08-15 15:36 G	6425975.99	6425976.15	6425976.31	0.0284	0.0032
Mercury	12881-11-12 09:07 G	6426064.75	6426064.88	6426065.02	0.0284	0.0156
Mercury	12882-02-09 03:07 G	6426153.62	6426153.63	6426153.65	0.0284	0.0282
Moon	12884-10-12 16:04 G	6427129.95	6427130.17	6427130.39	0.0282	0.0124
Earth	12884-10-12 19:26 G	6427130.11	6427130.31	6427130.53	0.0282	0.0140 *
Venus	12894-06-05 12:14 G	6430652.81	6430653.01	6430653.21	0.0275	0.0077
Venus	12895-01-20 20:38 G	6430882.17	6430882.36	6430882.55	0.0275	0.0126
Mercury	12895-09-27 13:11 G	6431131.99	6431132.05	6431132.13	0.0275	0.0247
Mercury	12895-12-25 03:50 G	6431220.53	6431220.66	6431220.79	0.0275	0.0140
Mercury	12896-03-22 18:00 G	6431309.11	6431309.25	6431309.40	0.0275	0.0036
Mercury	12896-06-19 07:55 G	6431397.69	6431397.83	6431397.98	0.0275	0.0067
Mercury	12896-09-15 21:36 G	6431486.28	6431486.40	6431486.52	0.0275	0.0167
Mercury	12896-12-13 10:48 G	6431574.92	6431574.95	6431574.99	0.0275	0.0265
Earth	12899-04-11 02:23 G	6432423.37	6432423.60	6432423.84	0.0276	0.0079
Moon	12899-04-11 03:36 G	6432423.42	6432423.65	6432423.89	0.0276	0.0094 *
Mars	12904-01-10 00:43 G	6434157.47	6434157.53	6434157.61	0.0280	0.0271

Venus	12908-11-16 14:09 G	6435929.96	6435930.09	6435930.24	0.0284	0.0213
Venus	12909-07-04 05:31 G	6436159.52	6436159.73	6436159.94	0.0284	0.0011
Venus	12910-02-18 20:23 G	6436389.24	6436389.35	6436389.48	0.0284	0.0234
Mercury	12910-07-10 06:28 G	6436530.69	6436530.77	6436530.85	0.0284	0.0241
Mercury	12910-10-06 23:02 G	6436619.32	6436619.46	6436619.60	0.0284	0.0124
Mercury	12911-01-03 16:04 G	6436708.01	6436708.17	6436708.33	0.0284	0.0008
Mercury	12911-04-02 09:21 G	6436796.74	6436796.89	6436797.04	0.0284	0.0118
Mercury	12911-06-30 03:07 G	6436885.55	6436885.63	6436885.71	0.0284	0.0243
Earth	12913-10-08 03:36 G	6437716.43	6437716.65	6437716.88	0.0283	0.0104
Moon	12913-10-08 07:11 G	6437716.59	6437716.80	6437717.03	0.0283	0.0121 *
Mars	12918-03-28 06:00 G	6439348.47	6439348.75	6439349.05	0.0279	0.0070
Venus	12923-05-02 03:36 G	6441209.60	6441209.65	6441209.72	0.0275	0.0263
Venus	12923-12-17 12:28 G	6441438.81	6441439.02	6441439.23	0.0275	0.0060
Venus	12924-08-02 20:38 G	6441668.19	6441668.36	6441668.55	0.0275	0.0143
Mercury	12925-05-14 03:50 G	6441952.55	6441952.66	6441952.77	0.0275	0.0182
Mercury	12925-08-10 18:00 G	6442041.11	6442041.25	6442041.40	0.0275	0.0077
Mercury	12925-11-07 08:09 G	6442129.69	6442129.84	6442129.99	0.0275	0.0026
Mercury	12926-02-03 21:50 G	6442218.28	6442218.41	6442218.54	0.0275	0.0127
Mercury	12926-05-03 11:16 G	6442306.89	6442306.97	6442307.05	0.0275	0.0225
Earth	12929-04-18 06:00 G	6443387.59	6443387.75	6443387.94	0.0276	0.0189
Moon	12929-04-18 09:21 G	6443387.71	6443387.89	6443388.08	0.0276	0.0175 *
Venus	12938-05-29 15:21 G	6446715.99	6446716.14	6446716.30	0.0284	0.0192
Venus	12939-01-14 06:43 G	6446945.57	6446945.78	6446945.99	0.0284	0.0032
Venus	12939-08-31 22:04 G	6447175.33	6447175.42	6447175.52	0.0284	0.0255
Mercury	12940-02-23 22:04 G	6447351.30	6447351.42	6447351.55	0.0284	0.0169
Mercury	12940-05-22 15:07 G	6447439.98	6447440.13	6447440.29	0.0284	0.0050
Mercury	12940-08-19 08:23 G	6447528.70	6447528.85	6447529.01	0.0284	0.0072
Mercury	12940-11-16 01:55 G	6447617.47	6447617.58	6447617.70	0.0284	0.0197
Moon	12943-10-15 18:14 G	6448681.09	6448681.26	6448681.46	0.0282	0.0177
Earth	12943-10-15 20:23 G	6448681.17	6448681.35	6448681.53	0.0282	0.0191 *

Venus	12952-11-11 11:02 G	6451995.85	6451995.96	6451996.08	0.0276	0.0231
Venus	12953-06-28 19:55 G	6452225.12	6452225.33	6452225.54	0.0275	0.0027
Venus	12954-02-13 04:19 G	6452454.52	6452454.68	6452454.85	0.0275	0.0176
Mercury	12954-10-01 06:14 G	6452684.66	6452684.76	6452684.86	0.0275	0.0205
Mercury	12954-12-28 20:38 G	6452773.22	6452773.36	6452773.50	0.0275	0.0100
Mercury	12955-03-27 10:48 G	6452861.80	6452861.95	6452862.10	0.0275	0.0005
Mercury	12955-06-24 00:28 G	6452950.39	6452950.52	6452950.66	0.0275	0.0106
Mercury	12955-09-20 14:09 G	6453038.99	6453039.09	6453039.19	0.0275	0.0205
Moon	12958-04-13 03:36 G	6453974.40	6453974.65	6453974.89	0.0276	0.0039
Earth	12958-04-13 06:57 G	6453974.55	6453974.79	6453975.04	0.0276	0.0022 *
Venus	12967-12-09 23:16 G	6457502.30	6457502.47	6457502.65	0.0283	0.0159
Venus	12968-07-26 14:23 G	6457731.89	6457732.10	6457732.30	0.0284	0.0065
Mercury	12969-07-12 23:31 G	6458083.38	6458083.48	6458083.60	0.0284	0.0199
Mercury	12969-10-09 16:19 G	6458172.03	6458172.18	6458172.33	0.0284	0.0081
Mercury	12970-01-06 09:21 G	6458260.74	6458260.89	6458261.05	0.0284	0.0041
Mercury	12970-04-05 02:52 G	6458349.49	6458349.62	6458349.76	0.0284	0.0163
Earth	12972-10-09 06:57 G	6459267.54	6459267.79	6459268.03	0.0283	0.0048
Moon	12972-10-09 08:09 G	6459267.59	6459267.84	6459268.09	0.0283	0.0063 *
Venus	12982-05-24 12:00 G	6462781.87	6462782.00	6462782.14	0.0275	0.0212
Venus	12983-01-08 20:38 G	6463011.15	6463011.36	6463011.58	0.0275	0.0011
Venus	12983-08-26 04:48 G	6463240.56	6463240.70	6463240.86	0.0275	0.0194
Mercury	12984-02-18 06:00 G	6463416.70	6463416.75	6463416.83	0.0275	0.0247
Mercury	12984-05-16 20:38 G	6463505.24	6463505.36	6463505.50	0.0275	0.0141
Mercury	12984-08-13 11:02 G	6463593.81	6463593.96	6463594.11	0.0275	0.0036
Mercury	12984-11-10 00:57 G	6463682.39	6463682.54	6463682.68	0.0275	0.0066
Mercury	12985-02-06 14:23 G	6463770.99	6463771.10	6463771.22	0.0275	0.0167
Mercury	12985-05-06 03:50 G	6463859.63	6463859.66	6463859.70	0.0275	0.0264
Earth	12987-04-07 17:02 G	6464561.13	6464561.21	6464561.32	0.0276	0.0255
Moon	12987-04-07 20:52 G	6464561.33	6464561.37	6464561.42	0.0276	0.0270
Earth	12988-04-19 11:16 G	6464938.88	6464938.97	6464939.10	0.0276	0.0247

Moon	12988-04-19 14:09 G	6464938.97	6464939.09	6464939.23	0.0276	0.0233	*
Venus	12997-06-21 00:14 G	6468288.34	6468288.51	6468288.71	0.0284	0.0138	
Venus	12998-02-05 15:36 G	6468517.95	6468518.15	6468518.35	0.0284	0.0086	
Mercury	12998-11-29 23:02 G	6468815.38	6468815.46	6468815.54	0.0284	0.0242	
Mercury	12999-02-26 15:36 G	6468904.01	6468904.15	6468904.29	0.0284	0.0126	
Mercury	12999-05-26 08:38 G	6468992.70	6468992.86	6468993.02	0.0284	0.0007	
Mercury	12999-08-23 01:55 G	6469081.43	6469081.58	6469081.73	0.0284	0.0117	
Mercury	12999-11-19 19:40 G	6469170.24	6469170.32	6469170.41	0.0284	0.0242	

14TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 14th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	13002-10-17 22:48 G	6470232.33	6470232.45	6470232.57	0.0282	0.0245		
Moon	13002-10-18 01:40 G	6470232.44	6470232.57	6470232.71	0.0282	0.0232	*	
Mars	13006-08-22 16:19 G	6471636.91	6471637.18	6471637.45	0.0279	0.0117		
Venus	13011-12-05 18:57 G	6473568.14	6473568.29	6473568.46	0.0276	0.0181		
Venus	13012-07-22 04:04 G	6473797.46	6473797.67	6473797.88	0.0276	0.0023		
Venus	13013-03-08 12:28 G	6474026.91	6474027.02	6474027.15	0.0276	0.0227		
Mercury	13013-07-08 08:38 G	6474148.84	6474148.86	6474148.89	0.0276	0.0271		
Mercury	13013-10-04 23:16 G	6474237.35	6474237.47	6474237.59	0.0276	0.0164		
Mercury	13014-01-01 13:40 G	6474325.92	6474326.07	6474326.21	0.0276	0.0058		
Mercury	13014-03-31 03:36 G	6474414.51	6474414.65	6474414.80	0.0276	0.0045		
Mercury	13014-06-27 17:16 G	6474503.10	6474503.22	6474503.35	0.0276	0.0146		

Mercury	13014-09-24 06:43 G	6474591.72	6474591.78	6474591.85	0.0276	0.0245
Moon	13017-04-15 10:04 G	6475525.68	6475525.92	6475526.16	0.0276	0.0023
Earth	13017-04-15 12:28 G	6475525.78	6475526.02	6475526.27	0.0276	0.0037 *
Venus	13027-01-02 09:36 G	6479074.70	6479074.90	6479075.10	0.0283	0.0102
Venus	13027-08-20 00:28 G	6479304.33	6479304.52	6479304.71	0.0283	0.0120
Mercury	13028-04-19 00:57 G	6479547.49	6479547.54	6479547.59	0.0284	0.0268
Mercury	13028-07-16 17:16 G	6479636.10	6479636.22	6479636.36	0.0284	0.0153
Mercury	13028-10-13 10:19 G	6479724.77	6479724.93	6479725.09	0.0284	0.0034
Mercury	13029-01-10 03:21 G	6479813.49	6479813.64	6479813.80	0.0284	0.0088
Mercury	13029-04-08 21:07 G	6479902.27	6479902.38	6479902.49	0.0284	0.0212
Moon	13031-10-12 08:52 G	6480818.62	6480818.87	6480819.12	0.0283	0.0004
Earth	13031-10-12 12:14 G	6480818.76	6480819.01	6480819.25	0.0283	0.0013 *
Venus	13041-06-16 21:21 G	6484354.22	6484354.39	6484354.56	0.0275	0.0160
Venus	13042-02-01 06:00 G	6484583.54	6484583.75	6484583.96	0.0275	0.0044
Venus	13042-09-18 14:23 G	6484813.01	6484813.10	6484813.20	0.0275	0.0246
Mercury	13043-02-21 23:31 G	6484969.39	6484969.48	6484969.59	0.0275	0.0202
Mercury	13043-05-21 14:09 G	6485057.95	6485058.09	6485058.23	0.0275	0.0096
Mercury	13043-08-18 04:19 G	6485146.53	6485146.68	6485146.83	0.0275	0.0009
Mercury	13043-11-14 18:00 G	6485235.12	6485235.25	6485235.39	0.0275	0.0109
Mercury	13044-02-11 07:40 G	6485323.72	6485323.82	6485323.91	0.0275	0.0208
Earth	13046-04-10 00:00 G	6486112.33	6486112.50	6486112.68	0.0276	0.0194
Moon	13046-04-10 02:09 G	6486112.43	6486112.59	6486112.76	0.0276	0.0208 *
Mars	13050-09-11 07:40 G	6487727.72	6487727.82	6487727.96	0.0279	0.0253
Venus	13056-07-14 10:48 G	6489860.75	6489860.95	6489861.16	0.0284	0.0080
Venus	13057-03-01 01:40 G	6490090.39	6490090.57	6490090.76	0.0284	0.0143
Mercury	13057-12-03 16:33 G	6490368.09	6490368.19	6490368.31	0.0284	0.0197
Mercury	13058-03-02 09:21 G	6490456.74	6490456.89	6490457.05	0.0284	0.0079
Mercury	13058-05-30 02:38 G	6490545.45	6490545.61	6490545.76	0.0284	0.0042
Mercury	13058-08-26 19:55 G	6490634.20	6490634.33	6490634.47	0.0284	0.0165
Earth	13060-10-05 18:14 G	6491405.13	6491405.26	6491405.40	0.0283	0.0235

Moon	13060-10-05 21:36 G	6491405.29	6491405.40	6491405.51	0.0283	0.0249 *
Venus	13070-12-28 03:36 G	6495140.47	6495140.65	6495140.85	0.0276	0.0130
Venus	13071-08-14 12:43 G	6495369.83	6495370.03	6495370.24	0.0276	0.0075
Mercury	13072-07-11 01:55 G	6495701.50	6495701.58	6495701.67	0.0276	0.0227
Mercury	13072-10-07 16:33 G	6495790.05	6495790.19	6495790.33	0.0276	0.0120
Mercury	13073-01-04 06:43 G	6495878.63	6495878.78	6495878.93	0.0276	0.0017
Mercury	13073-04-02 20:38 G	6495967.22	6495967.36	6495967.50	0.0276	0.0087
Mercury	13073-06-30 10:19 G	6496055.83	6496055.93	6496056.04	0.0276	0.0187
Earth	13076-04-16 18:57 G	6497077.07	6497077.29	6497077.53	0.0277	0.0098
Moon	13076-04-16 21:07 G	6497077.16	6497077.38	6497077.61	0.0277	0.0087 *
Venus	13085-06-09 06:43 G	6500417.71	6500417.78	6500417.85	0.0283	0.0264
Venus	13086-01-24 21:21 G	6500647.18	6500647.39	6500647.60	0.0283	0.0044
Venus	13086-09-11 12:14 G	6500876.84	6500877.01	6500877.17	0.0283	0.0179
Mercury	13087-04-22 19:11 G	6501100.21	6501100.30	6501100.40	0.0283	0.0219
Mercury	13087-07-20 11:45 G	6501188.85	6501188.99	6501189.14	0.0283	0.0102
Mercury	13087-10-17 04:48 G	6501277.54	6501277.70	6501277.86	0.0283	0.0017
Mercury	13088-01-13 22:04 G	6501366.28	6501366.42	6501366.56	0.0283	0.0140
Mercury	13088-04-11 15:50 G	6501455.11	6501455.16	6501455.22	0.0283	0.0265
Moon	13090-10-13 17:02 G	6502369.98	6502370.21	6502370.45	0.0283	0.0064
Earth	13090-10-13 19:55 G	6502370.09	6502370.33	6502370.56	0.0283	0.0076 *
Mars	13095-01-16 11:31 G	6503925.77	6503925.98	6503926.22	0.0279	0.0183
Venus	13100-07-10 07:26 G	6505926.62	6505926.81	6505927.01	0.0275	0.0106
Venus	13101-02-24 16:04 G	6506155.98	6506156.17	6506156.37	0.0275	0.0098
Mercury	13101-11-29 02:52 G	6506433.57	6506433.62	6506433.66	0.0275	0.0262
Mercury	13102-02-25 17:16 G	6506522.10	6506522.22	6506522.35	0.0275	0.0156
Mercury	13102-05-25 07:40 G	6506610.67	6506610.82	6506610.97	0.0275	0.0051
Mercury	13102-08-21 21:36 G	6506699.26	6506699.40	6506699.55	0.0275	0.0053
Mercury	13102-11-18 11:16 G	6506787.86	6506787.97	6506788.10	0.0275	0.0153
Mercury	13103-02-15 00:43 G	6506876.48	6506876.53	6506876.60	0.0275	0.0251
Moon	13105-04-12 06:00 G	6507663.54	6507663.75	6507663.97	0.0276	0.0143

Earth	13105-04-12 07:55 G	6507663.63	6507663.83	6507664.06	0.0276	0.0131	*
Venus	13114-12-21 07:55 G	6511203.73	6511203.83	6511203.94	0.0283	0.0242	
Venus	13115-08-07 22:33 G	6511433.23	6511433.44	6511433.65	0.0283	0.0022	
Venus	13116-03-24 13:11 G	6511662.92	6511663.05	6511663.21	0.0284	0.0202	
Mercury	13116-09-09 18:43 G	6511832.22	6511832.28	6511832.33	0.0284	0.0262	
Mercury	13116-12-07 11:02 G	6511920.83	6511920.96	6511921.10	0.0284	0.0147	
Mercury	13117-03-06 03:50 G	6512009.51	6512009.66	6512009.82	0.0284	0.0029	
Mercury	13117-06-02 21:07 G	6512098.23	6512098.38	6512098.53	0.0284	0.0094	
Mercury	13117-08-30 14:38 G	6512187.01	6512187.11	6512187.22	0.0284	0.0218	
Earth	13119-10-09 01:55 G	6512956.39	6512956.58	6512956.77	0.0283	0.0171	
Moon	13119-10-09 04:33 G	6512956.51	6512956.69	6512956.88	0.0283	0.0185	*
Venus	13130-01-20 13:40 G	6516712.87	6516713.07	6516713.28	0.0276	0.0076	
Venus	13130-09-06 22:33 G	6516942.26	6516942.44	6516942.64	0.0276	0.0129	
Mercury	13131-07-15 19:40 G	6517254.20	6517254.32	6517254.43	0.0276	0.0181	
Mercury	13131-10-12 10:04 G	6517342.77	6517342.92	6517343.06	0.0276	0.0075	
Mercury	13132-01-09 00:14 G	6517431.36	6517431.51	6517431.66	0.0276	0.0029	
Mercury	13132-04-06 13:55 G	6517519.95	6517520.08	6517520.21	0.0276	0.0131	
Mercury	13132-07-04 03:36 G	6517608.57	6517608.65	6517608.73	0.0276	0.0230	
Earth	13135-04-20 02:52 G	6518628.43	6518628.62	6518628.83	0.0277	0.0161	
Moon	13135-04-20 06:28 G	6518628.57	6518628.77	6518628.98	0.0277	0.0151	*
Mars	13139-02-07 02:38 G	6520017.37	6520017.61	6520017.85	0.0279	0.0155	
Venus	13144-07-02 19:26 G	6521990.17	6521990.31	6521990.46	0.0283	0.0204	
Venus	13145-02-17 10:04 G	6522219.71	6522219.92	6522220.13	0.0283	0.0017	
Venus	13145-10-05 00:57 G	6522449.43	6522449.54	6522449.65	0.0283	0.0239	
Mercury	13146-01-27 21:36 G	6522564.39	6522564.40	6522564.42	0.0283	0.0281	
Mercury	13146-04-26 13:55 G	6522652.96	6522653.08	6522653.21	0.0283	0.0167	
Mercury	13146-07-24 06:43 G	6522741.63	6522741.78	6522741.94	0.0283	0.0049	
Mercury	13146-10-20 23:45 G	6522830.34	6522830.49	6522830.65	0.0283	0.0073	
Mercury	13147-01-17 17:16 G	6522919.11	6522919.22	6522919.34	0.0283	0.0196	
Earth	13149-10-16 05:45 G	6523921.53	6523921.74	6523921.95	0.0282	0.0144	

Moon	13149-10-16 06:43 G	6523921.58	6523921.78	6523922.00	0.0282	0.0135 *
Venus	13158-12-16 09:07 G	6527269.81	6527269.88	6527269.97	0.0276	0.0255
Venus	13159-08-02 18:14 G	6527499.06	6527499.26	6527499.48	0.0275	0.0052
Venus	13160-03-19 03:07 G	6527728.46	6527728.63	6527728.81	0.0275	0.0153
Mercury	13160-12-01 20:38 G	6527986.27	6527986.36	6527986.46	0.0275	0.0214
Mercury	13161-02-28 11:16 G	6528074.83	6528074.97	6528075.11	0.0275	0.0108
Mercury	13161-05-28 01:26 G	6528163.41	6528163.56	6528163.71	0.0275	0.0005
Mercury	13161-08-24 15:21 G	6528252.00	6528252.14	6528252.28	0.0275	0.0098
Mercury	13161-11-21 05:02 G	6528340.61	6528340.71	6528340.81	0.0275	0.0198
Moon	13164-04-13 13:55 G	6529214.85	6529215.08	6529215.31	0.0276	0.0078
Earth	13164-04-13 17:16 G	6529214.99	6529215.22	6529215.46	0.0276	0.0065 *
Venus	13174-01-12 21:07 G	6532776.23	6532776.38	6532776.55	0.0283	0.0181
Venus	13174-08-30 11:45 G	6533005.79	6533005.99	6533006.20	0.0283	0.0041
Venus	13175-04-17 02:23 G	6533235.54	6533235.60	6533235.69	0.0284	0.0263
Mercury	13175-09-13 13:26 G	6533384.96	6533385.06	6533385.17	0.0284	0.0209
Mercury	13175-12-11 06:00 G	6533473.60	6533473.75	6533473.90	0.0284	0.0093
Mercury	13176-03-08 23:02 G	6533562.30	6533562.46	6533562.62	0.0284	0.0027
Mercury	13176-06-05 16:19 G	6533651.05	6533651.18	6533651.32	0.0283	0.0150
Mercury	13176-09-02 10:04 G	6533739.89	6533739.92	6533739.96	0.0283	0.0275
Moon	13178-10-10 10:33 G	6534507.71	6534507.94	6534508.18	0.0283	0.0116
Earth	13178-10-10 12:00 G	6534507.77	6534508.00	6534508.23	0.0283	0.0103 *
Mars	13183-06-13 06:57 G	6536214.66	6536214.79	6536214.95	0.0279	0.0245
Venus	13188-06-27 14:52 G	6538056.00	6538056.12	6538056.24	0.0276	0.0227
Venus	13189-02-12 00:14 G	6538285.30	6538285.51	6538285.72	0.0276	0.0021
Venus	13189-09-29 09:07 G	6538514.73	6538514.88	6538515.04	0.0276	0.0183
Mercury	13190-04-20 22:33 G	6538718.38	6538718.44	6538718.52	0.0276	0.0242
Mercury	13190-07-18 13:11 G	6538806.93	6538807.05	6538807.19	0.0276	0.0135
Mercury	13190-10-15 03:36 G	6538895.51	6538895.65	6538895.80	0.0276	0.0031
Mercury	13191-01-11 17:45 G	6538984.10	6538984.24	6538984.38	0.0276	0.0074
Mercury	13191-04-10 07:26 G	6539072.70	6539072.81	6539072.92	0.0276	0.0175

Mercury	13191-07-07 20:52 G	6539161.36	6539161.37	6539161.39	0.0276	0.0273
Earth	13193-04-08 16:04 G	6539802.16	6539802.17	6539802.19	0.0277	0.0276
Moon	13194-04-21 12:00 G	6540179.85	6540180.00	6540180.17	0.0277	0.0217
Earth	13194-04-21 11:45 G	6540179.86	6540179.99	6540180.14	0.0277	0.0225 *
Venus	13203-07-26 08:52 G	6543562.69	6543562.87	6543563.06	0.0283	0.0142
Venus	13204-03-11 23:45 G	6543792.28	6543792.49	6543792.69	0.0283	0.0080
Mercury	13205-01-30 16:33 G	6544117.10	6544117.19	6544117.29	0.0283	0.0228
Mercury	13205-04-29 09:07 G	6544205.74	6544205.88	6544206.03	0.0283	0.0112
Mercury	13205-07-27 02:09 G	6544294.43	6544294.59	6544294.75	0.0283	0.0010
Mercury	13205-10-23 19:26 G	6544383.16	6544383.31	6544383.45	0.0283	0.0129
Mercury	13206-01-20 12:57 G	6544471.97	6544472.04	6544472.11	0.0283	0.0254
Earth	13208-10-17 16:48 G	6545473.06	6545473.20	6545473.37	0.0282	0.0215
Moon	13208-10-17 20:23 G	6545473.20	6545473.35	6545473.53	0.0282	0.0203 *
Venus	13218-01-07 21:07 G	6548842.24	6548842.38	6548842.53	0.0276	0.0198
Venus	13218-08-25 06:14 G	6549071.55	6549071.76	6549071.98	0.0275	0.0007
Venus	13219-04-11 14:52 G	6549300.99	6549301.12	6549301.26	0.0275	0.0210
Mercury	13219-09-08 00:14 G	6549450.49	6549450.51	6549450.54	0.0275	0.0271
Mercury	13219-12-05 14:52 G	6549539.01	6549539.12	6549539.25	0.0275	0.0165
Mercury	13220-03-03 05:31 G	6549627.58	6549627.73	6549627.87	0.0275	0.0059
Mercury	13220-05-30 19:26 G	6549716.17	6549716.31	6549716.46	0.0275	0.0045
Mercury	13220-08-27 09:21 G	6549804.76	6549804.89	6549805.01	0.0275	0.0145
Mercury	13220-11-23 22:48 G	6549893.39	6549893.45	6549893.52	0.0275	0.0244
Moon	13223-04-16 03:21 G	6550766.40	6550766.64	6550766.88	0.0276	0.0010
Earth	13223-04-16 03:50 G	6550766.41	6550766.66	6550766.90	0.0276	0.0004 *
Mars	13227-07-03 22:48 G	6552306.18	6552306.45	6552306.72	0.0279	0.0088
Venus	13233-02-04 11:02 G	6554348.77	6554348.96	6554349.15	0.0283	0.0118
Venus	13233-09-22 01:26 G	6554578.37	6554578.56	6554578.76	0.0283	0.0104
Mercury	13234-06-19 16:04 G	6554849.13	6554849.17	6554849.22	0.0283	0.0269
Mercury	13234-09-16 08:23 G	6554937.73	6554937.85	6554937.99	0.0283	0.0155
Mercury	13234-12-14 01:11 G	6555026.40	6555026.55	6555026.71	0.0283	0.0038

Mercury	13235-03-12 18:28 G	6555115.12	6555115.27	6555115.42	0.0283	0.0084
Mercury	13235-06-09 12:00 G	6555203.89	6555204.00	6555204.11	0.0283	0.0208
Moon	13237-10-11 19:40 G	6556059.08	6556059.32	6556059.56	0.0283	0.0046
Earth	13237-10-11 23:16 G	6556059.23	6556059.47	6556059.72	0.0283	0.0032 *
Venus	13247-07-21 02:09 G	6559628.43	6559628.59	6559628.76	0.0276	0.0171
Venus	13248-03-06 11:31 G	6559857.77	6559857.98	6559858.19	0.0276	0.0034
Venus	13248-10-21 20:09 G	6560087.25	6560087.34	6560087.46	0.0276	0.0239
Mercury	13249-04-23 16:48 G	6560271.09	6560271.20	6560271.31	0.0276	0.0193
Mercury	13249-07-21 07:12 G	6560359.66	6560359.80	6560359.95	0.0276	0.0087
Mercury	13249-10-17 21:36 G	6560448.25	6560448.40	6560448.55	0.0276	0.0019
Mercury	13250-01-14 11:16 G	6560536.84	6560536.97	6560537.11	0.0276	0.0120
Mercury	13250-04-13 00:57 G	6560625.46	6560625.54	6560625.63	0.0276	0.0219
Earth	13252-04-10 00:43 G	6561353.38	6561353.53	6561353.70	0.0277	0.0211
Moon	13252-04-10 00:57 G	6561353.41	6561353.54	6561353.70	0.0277	0.0225 *
Venus	13262-08-17 22:48 G	6565135.25	6565135.45	6565135.66	0.0283	0.0080
Venus	13263-04-04 13:26 G	6565364.89	6565365.06	6565365.25	0.0283	0.0142
Mercury	13264-02-03 11:45 G	6565669.87	6565669.99	6565670.12	0.0283	0.0173
Mercury	13264-05-02 04:33 G	6565758.54	6565758.69	6565758.85	0.0283	0.0055
Mercury	13264-07-29 21:36 G	6565847.25	6565847.40	6565847.56	0.0283	0.0066
Mercury	13264-10-26 15:07 G	6565936.01	6565936.13	6565936.25	0.0283	0.0188
Earth	13266-10-06 20:52 G	6566646.27	6566646.37	6566646.50	0.0283	0.0248
Moon	13266-10-07 00:57 G	6566646.46	6566646.54	6566646.63	0.0283	0.0263 *
Moon	13267-10-20 06:57 G	6567024.76	6567024.79	6567024.86	0.0282	0.0277
Venus	13277-01-30 09:36 G	6570414.72	6570414.90	6570415.08	0.0276	0.0140
Venus	13277-09-16 18:28 G	6570644.06	6570644.27	6570644.48	0.0275	0.0064
Venus	13278-05-04 02:52 G	6570873.59	6570873.62	6570873.68	0.0275	0.0267
Mercury	13278-09-10 18:43 G	6571003.19	6571003.28	6571003.37	0.0275	0.0220
Mercury	13278-12-08 09:21 G	6571091.75	6571091.89	6571092.03	0.0275	0.0114
Mercury	13279-03-06 23:31 G	6571180.33	6571180.48	6571180.63	0.0275	0.0011
Mercury	13279-06-03 13:26 G	6571268.93	6571269.06	6571269.20	0.0275	0.0093

Mercury	13279-08-31 03:07 G	6571357.53	6571357.63	6571357.74	0.0275	0.0193
Earth	13282-04-17 13:55 G	6572317.85	6572318.08	6572318.32	0.0276	0.0071
Moon	13282-04-17 17:31 G	6572317.99	6572318.23	6572318.47	0.0276	0.0059 *
Venus	13291-07-13 10:19 G	6575691.90	6575691.93	6575691.99	0.0283	0.0275
Venus	13292-02-28 00:57 G	6575921.34	6575921.54	6575921.75	0.0283	0.0055
Venus	13292-10-14 15:36 G	6576150.98	6576151.15	6576151.32	0.0283	0.0166
Mercury	13293-06-22 11:16 G	6576401.88	6576401.97	6576402.08	0.0283	0.0214
Mercury	13293-09-19 03:50 G	6576490.52	6576490.66	6576490.81	0.0283	0.0098
Mercury	13293-12-16 20:52 G	6576579.21	6576579.37	6576579.53	0.0283	0.0021
Mercury	13294-03-15 13:55 G	6576667.95	6576668.08	6576668.23	0.0283	0.0144
Mercury	13294-06-12 07:40 G	6576756.78	6576756.82	6576756.88	0.0283	0.0268
Moon	13296-10-13 10:19 G	6577610.70	6577610.93	6577611.17	0.0282	0.0029
Earth	13296-10-13 11:16 G	6577610.73	6577610.97	6577611.21	0.0282	0.0040 *
Venus	13306-08-13 13:55 G	6581200.89	6581201.08	6581201.28	0.0276	0.0114
Venus	13307-03-30 23:02 G	6581430.26	6581430.46	6581430.66	0.0276	0.0091
Mercury	13308-01-29 19:55 G	6581735.28	6581735.33	6581735.40	0.0276	0.0252
Mercury	13308-04-27 10:48 G	6581823.82	6581823.95	6581824.08	0.0276	0.0144
Mercury	13308-07-25 01:12 G	6581912.40	6581912.55	6581912.70	0.0276	0.0039
Mercury	13308-10-21 15:21 G	6582000.99	6582001.14	6582001.28	0.0276	0.0064
Mercury	13309-01-18 05:02 G	6582089.60	6582089.71	6582089.83	0.0276	0.0166
Mercury	13309-04-16 18:43 G	6582178.24	6582178.28	6582178.32	0.0276	0.0264
Moon	13311-04-13 06:28 G	6582904.57	6582904.77	6582904.97	0.0277	0.0157
Earth	13311-04-13 09:50 G	6582904.71	6582904.91	6582905.13	0.0277	0.0145 *
Mars	13315-11-29 15:36 G	6584595.87	6584596.15	6584596.44	0.0280	0.0011
Venus	13321-01-23 21:36 G	6586478.30	6586478.40	6586478.52	0.0283	0.0238
Venus	13321-09-10 12:28 G	6586707.80	6586708.02	6586708.23	0.0283	0.0018
Venus	13322-04-28 03:07 G	6586937.49	6586937.63	6586937.78	0.0283	0.0204
Mercury	13322-11-10 14:24 G	6587134.02	6587134.10	6587134.19	0.0283	0.0233
Mercury	13323-02-07 06:57 G	6587222.65	6587222.79	6587222.94	0.0283	0.0118
Mercury	13323-05-07 00:00 G	6587311.34	6587311.50	6587311.65	0.0283	0.0008

Mercury	13323-08-03 17:02 G	6587400.07	6587400.21	6587400.36	0.0283	0.0123
Mercury	13323-10-31 10:48 G	6587488.87	6587488.95	6587489.03	0.0283	0.0247
Earth	13325-10-09 08:52 G	6588197.69	6588197.87	6588198.08	0.0283	0.0176
Moon	13325-10-09 09:50 G	6588197.72	6588197.91	6588198.10	0.0283	0.0188 *
Mars	13330-02-13 11:31 G	6589785.80	6589785.98	6589786.19	0.0280	0.0214
Venus	13336-02-23 22:04 G	6591987.22	6591987.42	6591987.63	0.0275	0.0081
Venus	13336-10-10 06:57 G	6592216.60	6592216.79	6592216.98	0.0275	0.0122
Mercury	13337-09-14 13:12 G	6592555.93	6592556.05	6592556.17	0.0275	0.0169
Mercury	13337-12-12 03:36 G	6592644.50	6592644.65	6592644.80	0.0275	0.0064
Mercury	13338-03-10 17:45 G	6592733.09	6592733.24	6592733.39	0.0275	0.0039
Mercury	13338-06-07 07:26 G	6592821.69	6592821.81	6592821.94	0.0275	0.0141
Mercury	13338-09-03 21:07 G	6592910.31	6592910.38	6592910.45	0.0275	0.0239
Jupiter	13340-08-21 19:55 G	6593627.95	6593628.33	6593628.72	0.0276	0.0127
Earth	13341-04-20 00:14 G	6593869.30	6593869.51	6593869.72	0.0276	0.0137
Moon	13341-04-20 02:38 G	6593869.39	6593869.61	6593869.83	0.0276	0.0128 *
Venus	13350-08-06 00:00 G	6597264.37	6597264.50	6597264.64	0.0283	0.0213
Venus	13351-03-23 14:38 G	6597493.90	6597494.11	6597494.32	0.0283	0.0007
Venus	13351-11-08 05:16 G	6597723.60	6597723.72	6597723.85	0.0284	0.0229
Mercury	13352-03-29 14:09 G	6597866.06	6597866.09	6597866.13	0.0284	0.0274
Mercury	13352-06-26 06:28 G	6597954.64	6597954.77	6597954.90	0.0284	0.0159
Mercury	13352-09-22 23:16 G	6598043.31	6598043.47	6598043.62	0.0284	0.0042
Mercury	13352-12-20 16:19 G	6598132.02	6598132.18	6598132.33	0.0284	0.0078
Mercury	13353-03-19 09:36 G	6598220.79	6598220.90	6598221.02	0.0283	0.0202
Earth	13355-10-16 23:02 G	6599162.24	6599162.46	6599162.69	0.0282	0.0112
Moon	13355-10-17 02:24 G	6599162.38	6599162.60	6599162.83	0.0282	0.0104 *
Venus	13365-01-18 16:04 G	6602544.11	6602544.17	6602544.25	0.0276	0.0261
Venus	13365-09-05 01:26 G	6602773.36	6602773.56	6602773.77	0.0276	0.0057
Venus	13366-04-22 10:19 G	6603002.76	6603002.93	6603003.12	0.0276	0.0148
Mercury	13367-02-01 14:09 G	6603287.99	6603288.09	6603288.20	0.0276	0.0203
Mercury	13367-05-01 04:48 G	6603376.56	6603376.70	6603376.84	0.0276	0.0096

Mercury	13367-07-28 19:12 G	6603465.15	6603465.30	6603465.45	0.0276	0.0011
Mercury	13367-10-25 08:52 G	6603553.74	6603553.87	6603554.01	0.0276	0.0111
Mercury	13368-01-21 22:48 G	6603642.35	6603642.45	6603642.54	0.0276	0.0210
Moon	13370-04-14 16:19 G	6604455.96	6604456.18	6604456.41	0.0277	0.0090
Earth	13370-04-14 18:28 G	6604456.03	6604456.27	6604456.50	0.0277	0.0080 *
Venus	13380-02-16 10:19 G	6608050.77	6608050.93	6608051.10	0.0283	0.0178
Venus	13380-10-03 00:57 G	6608280.34	6608280.54	6608280.76	0.0283	0.0045
Venus	13381-05-20 16:04 G	6608510.10	6608510.17	6608510.24	0.0283	0.0265
Mercury	13381-11-13 09:21 G	6608686.77	6608686.89	6608687.01	0.0283	0.0181
Mercury	13382-02-10 01:55 G	6608775.43	6608775.58	6608775.74	0.0283	0.0064
Mercury	13382-05-09 18:57 G	6608864.13	6608864.29	6608864.45	0.0283	0.0056
Mercury	13382-08-06 12:14 G	6608952.89	6608953.01	6608953.14	0.0283	0.0179
Moon	13384-10-10 16:33 G	6609748.97	6609749.19	6609749.43	0.0283	0.0116
Earth	13384-10-10 19:55 G	6609749.11	6609749.33	6609749.57	0.0283	0.0106 *
Venus	13394-08-01 01:12 G	6613330.44	6613330.55	6613330.68	0.0276	0.0227
Venus	13395-03-18 10:19 G	6613559.72	6613559.93	6613560.14	0.0275	0.0023
Venus	13395-11-02 18:43 G	6613789.13	6613789.28	6613789.45	0.0275	0.0181
Mercury	13396-06-20 16:48 G	6614020.12	6614020.20	6614020.29	0.0275	0.0225
Mercury	13396-09-17 07:26 G	6614108.67	6614108.81	6614108.95	0.0275	0.0119
Mercury	13396-12-14 21:50 G	6614197.26	6614197.41	6614197.56	0.0275	0.0016
Mercury	13397-03-13 11:45 G	6614285.85	6614285.99	6614286.13	0.0275	0.0087
Mercury	13397-06-10 01:26 G	6614374.45	6614374.56	6614374.67	0.0275	0.0187
Moon	13400-04-22 07:12 G	6615420.64	6615420.80	6615420.99	0.0276	0.0199
Earth	13400-04-22 09:50 G	6615420.75	6615420.91	6615421.08	0.0276	0.0203 *
Mars	13404-04-25 13:12 G	6616884.79	6616885.05	6616885.34	0.0279	0.0080
Venus	13409-08-29 12:28 G	6618836.85	6618837.02	6618837.21	0.0283	0.0154
Venus	13410-04-16 03:07 G	6619066.43	6619066.63	6619066.84	0.0283	0.0069
Mercury	13411-04-03 08:38 G	6619418.78	6619418.86	6619418.97	0.0284	0.0223
Mercury	13411-07-01 01:26 G	6619507.41	6619507.56	6619507.70	0.0284	0.0107
Mercury	13411-09-27 18:14 G	6619596.10	6619596.26	6619596.42	0.0284	0.0013

Mercury	13411-12-25 11:16 G	6619684.83	6619684.97	6619685.12	0.0284	0.0134
Mercury	13412-03-23 04:48 G	6619773.65	6619773.70	6619773.78	0.0284	0.0258
Earth	13414-10-19 09:21 G	6620713.71	6620713.89	6620714.09	0.0282	0.0180
Moon	13414-10-19 12:00 G	6620713.81	6620714.00	6620714.20	0.0282	0.0174 *
Mars	13418-07-11 06:28 G	6622074.52	6622074.77	6622075.03	0.0279	0.0153
Venus	13424-02-12 03:36 G	6624116.52	6624116.65	6624116.80	0.0276	0.0205
Venus	13424-09-28 12:43 G	6624345.82	6624346.03	6624346.25	0.0276	0.0005
Venus	13425-05-15 21:36 G	6624575.26	6624575.40	6624575.55	0.0276	0.0203
Mercury	13425-11-08 17:31 G	6624752.19	6624752.23	6624752.28	0.0276	0.0261
Mercury	13426-02-05 08:09 G	6624840.72	6624840.84	6624840.97	0.0276	0.0154
Mercury	13426-05-04 22:33 G	6624929.30	6624929.44	6624929.59	0.0276	0.0050
Mercury	13426-08-01 12:43 G	6625017.89	6625018.03	6625018.18	0.0276	0.0054
Mercury	13426-10-29 02:38 G	6625106.49	6625106.61	6625106.73	0.0276	0.0155
Mercury	13427-01-25 16:04 G	6625195.12	6625195.17	6625195.23	0.0276	0.0254
Earth	13429-04-17 01:55 G	6626007.34	6626007.58	6626007.83	0.0277	0.0017
Moon	13429-04-17 04:04 G	6626007.44	6626007.67	6626007.91	0.0277	0.0025 *
Venus	13439-03-11 21:36 G	6629623.21	6629623.40	6629623.60	0.0283	0.0119
Venus	13439-10-27 12:28 G	6629852.83	6629853.02	6629853.22	0.0283	0.0102
Mercury	13440-08-20 11:02 G	6630150.90	6630150.96	6630151.05	0.0283	0.0247
Mercury	13440-11-17 03:36 G	6630239.51	6630239.65	6630239.79	0.0283	0.0131
Mercury	13441-02-13 20:24 G	6630328.19	6630328.35	6630328.51	0.0283	0.0014
Mercury	13441-05-13 13:40 G	6630416.92	6630417.07	6630417.22	0.0283	0.0108
Mercury	13441-08-10 07:12 G	6630505.71	6630505.80	6630505.89	0.0283	0.0232
Moon	13443-10-14 02:38 G	6631300.37	6631300.61	6631300.84	0.0283	0.0049
Earth	13443-10-14 05:02 G	6631300.47	6631300.71	6631300.96	0.0283	0.0039 *
Venus	13453-08-24 12:57 G	6634902.88	6634903.04	6634903.21	0.0276	0.0169
Venus	13454-04-10 21:50 G	6635132.20	6635132.41	6635132.62	0.0275	0.0034
Venus	13454-11-26 06:14 G	6635361.66	6635361.76	6635361.88	0.0275	0.0237
Mercury	13455-06-25 10:48 G	6635572.84	6635572.95	6635573.07	0.0275	0.0176
Mercury	13455-09-22 01:26 G	6635661.41	6635661.56	6635661.70	0.0275	0.0071

Mercury	13455-12-19 15:36 G	6635750.00	6635750.15	6635750.30	0.0275	0.0032
Mercury	13456-03-17 05:16 G	6635838.60	6635838.72	6635838.85	0.0275	0.0133
Mercury	13456-06-13 18:57 G	6635927.21	6635927.29	6635927.37	0.0275	0.0232
Moon	13458-04-11 20:52 G	6636594.26	6636594.37	6636594.51	0.0275	0.0239
Earth	13458-04-11 23:02 G	6636594.33	6636594.46	6636594.60	0.0275	0.0228 *
Moon	13459-04-24 14:09 G	6636972.04	6636972.09	6636972.17	0.0276	0.0265
Earth	13459-04-24 17:31 G	6636972.18	6636972.23	6636972.31	0.0276	0.0266
Venus	13468-09-21 00:00 G	6640409.30	6640409.50	6640409.70	0.0283	0.0095
Venus	13469-05-08 14:38 G	6640638.93	6640639.11	6640639.30	0.0283	0.0127
Mercury	13470-04-06 03:07 G	6640971.51	6640971.63	6640971.76	0.0284	0.0173
Mercury	13470-07-03 19:40 G	6641060.17	6641060.32	6641060.48	0.0284	0.0057
Mercury	13470-09-30 12:43 G	6641148.88	6641149.03	6641149.19	0.0284	0.0064
Mercury	13470-12-28 06:00 G	6641237.63	6641237.75	6641237.88	0.0284	0.0186
Moon	13473-10-20 16:04 G	6642265.06	6642265.17	6642265.31	0.0282	0.0244
Earth	13473-10-20 18:00 G	6642265.14	6642265.25	6642265.38	0.0282	0.0245 *
Venus	13483-03-06 14:09 G	6645688.92	6645689.09	6645689.28	0.0276	0.0150
Venus	13483-10-21 23:16 G	6645918.26	6645918.47	6645918.68	0.0275	0.0054
Venus	13484-06-07 07:40 G	6646147.76	6646147.82	6646147.91	0.0275	0.0258
Mercury	13484-11-11 11:16 G	6646304.88	6646304.97	6646305.06	0.0275	0.0215
Mercury	13485-02-08 01:55 G	6646393.44	6646393.58	6646393.72	0.0275	0.0108
Mercury	13485-05-07 16:04 G	6646482.02	6646482.17	6646482.32	0.0275	0.0008
Mercury	13485-08-04 06:00 G	6646570.62	6646570.75	6646570.90	0.0275	0.0099
Mercury	13485-10-31 19:55 G	6646659.23	6646659.33	6646659.43	0.0276	0.0198
Earth	13488-04-18 08:09 G	6647558.60	6647558.84	6647559.09	0.0276	0.0044
Moon	13488-04-18 11:31 G	6647558.74	6647558.98	6647559.23	0.0276	0.0038 *
Mars	13492-09-19 11:16 G	6649173.73	6649173.97	6649174.22	0.0280	0.0149
Venus	13497-08-16 17:02 G	6650966.21	6650966.21	6650966.21	0.0283	0.0283
Venus	13498-04-03 07:40 G	6651195.61	6651195.82	6651196.02	0.0283	0.0063
Venus	13498-11-18 22:33 G	6651425.27	6651425.44	6651425.62	0.0283	0.0158
Mercury	13499-08-24 05:02 G	6651703.60	6651703.71	6651703.82	0.0283	0.0201

Mercury	13499-11-20 21:36 G	6651792.25	6651792.40	6651792.55	0.0283	0.0085
Mercury	13500-02-17 14:24 G	6651880.94	6651881.10	6651881.26	0.0283	0.0035
Mercury	13500-05-17 07:40 G	6651969.69	6651969.82	6651969.96	0.0283	0.0157
Mercury	13500-08-14 01:12 G	6652058.54	6652058.55	6652058.58	0.0283	0.0282
Earth	13502-10-16 11:16 G	6652851.73	6652851.97	6652852.22	0.0283	0.0023
Moon	13502-10-16 12:43 G	6652851.79	6652852.03	6652852.27	0.0283	0.0015 *
Mars	13506-12-06 23:16 G	6654364.17	6654364.47	6654364.77	0.0280	0.0044
Venus	13512-09-16 23:31 G	6656475.29	6656475.48	6656475.68	0.0276	0.0114
Venus	13513-05-04 08:24 G	6656704.65	6656704.85	6656705.05	0.0275	0.0090
Mercury	13514-04-01 13:55 G	6657037.01	6657037.08	6657037.16	0.0275	0.0236
Mercury	13514-06-29 04:33 G	6657125.56	6657125.69	6657125.83	0.0275	0.0130
Mercury	13514-09-25 18:57 G	6657214.14	6657214.29	6657214.44	0.0275	0.0026
Mercury	13514-12-23 09:07 G	6657302.73	6657302.88	6657303.02	0.0275	0.0077
Mercury	13515-03-21 22:33 G	6657391.34	6657391.44	6657391.56	0.0275	0.0177
Mercury	13515-06-18 12:14 G	6657480.00	6657480.01	6657480.02	0.0275	0.0274
Moon	13517-04-14 02:24 G	6658145.42	6658145.60	6658145.79	0.0275	0.0178
Earth	13517-04-14 06:00 G	6658145.56	6658145.75	6658145.95	0.0275	0.0166 *
Venus	13527-02-27 19:26 G	6661752.23	6661752.31	6661752.39	0.0283	0.0258
Venus	13527-10-15 09:50 G	6661981.70	6661981.91	6661982.12	0.0283	0.0039
Venus	13528-06-01 00:43 G	6662211.37	6662211.53	6662211.69	0.0284	0.0183
Mercury	13529-01-11 04:19 G	6662435.61	6662435.68	6662435.77	0.0284	0.0243
Mercury	13529-04-09 20:52 G	6662524.23	6662524.37	6662524.51	0.0284	0.0127
Mercury	13529-07-07 13:40 G	6662612.91	6662613.07	6662613.23	0.0284	0.0010
Mercury	13529-10-04 06:43 G	6662701.63	6662701.78	6662701.93	0.0284	0.0112
Mercury	13530-01-01 00:14 G	6662790.42	6662790.51	6662790.60	0.0284	0.0235
Moon	13531-10-10 13:12 G	6663437.92	6663438.05	6663438.20	0.0283	0.0236
Earth	13531-10-10 15:07 G	6663437.99	6663438.13	6663438.28	0.0283	0.0226 *
Venus	13542-03-30 00:14 G	6667261.31	6667261.51	6667261.71	0.0275	0.0095
Venus	13542-11-14 09:07 G	6667490.69	6667490.88	6667491.08	0.0275	0.0108
Mercury	13543-11-16 04:33 G	6667857.58	6667857.69	6667857.82	0.0275	0.0170

Mercury	13544-02-12 19:12 G	6667946.15	6667946.30	6667946.45	0.0275	0.0065
Mercury	13544-05-11 09:21 G	6668034.74	6668034.89	6668035.04	0.0275	0.0039
Mercury	13544-08-07 23:16 G	6668123.34	6668123.47	6668123.60	0.0275	0.0140
Mercury	13544-11-04 12:43 G	6668211.97	6668212.03	6668212.11	0.0275	0.0239
Moon	13547-04-21 12:57 G	6669109.80	6669110.04	6669110.28	0.0276	0.0097
Earth	13547-04-21 12:57 G	6669109.82	6669110.04	6669110.27	0.0276	0.0101 *
Venus	13556-09-09 01:12 G	6672538.43	6672538.55	6672538.67	0.0283	0.0231
Venus	13557-04-26 16:04 G	6672767.96	6672768.17	6672768.38	0.0283	0.0010
Venus	13557-12-12 06:57 G	6672997.66	6672997.79	6672997.94	0.0283	0.0212
Mercury	13558-05-31 05:45 G	6673167.71	6673167.74	6673167.78	0.0283	0.0273
Mercury	13558-08-27 22:04 G	6673256.30	6673256.42	6673256.55	0.0283	0.0159
Mercury	13558-11-24 14:52 G	6673344.96	6673345.12	6673345.28	0.0283	0.0041
Mercury	13559-02-21 07:55 G	6673433.68	6673433.83	6673433.98	0.0283	0.0079
Mercury	13559-05-21 01:26 G	6673522.44	6673522.56	6673522.67	0.0283	0.0202
Earth	13561-10-17 15:21 G	6674402.91	6674403.14	6674403.38	0.0283	0.0080
Moon	13561-10-17 18:57 G	6674403.06	6674403.29	6674403.53	0.0283	0.0073 *
Venus	13571-02-23 00:00 G	6677818.45	6677818.50	6677818.57	0.0276	0.0263
Venus	13571-10-10 09:07 G	6678047.67	6678047.88	6678048.09	0.0276	0.0060
Venus	13572-05-26 17:31 G	6678277.06	6678277.23	6678277.42	0.0275	0.0144
Mercury	13573-04-04 07:26 G	6678589.70	6678589.81	6678589.92	0.0275	0.0191
Mercury	13573-07-01 22:04 G	6678678.27	6678678.42	6678678.56	0.0275	0.0086
Mercury	13573-09-28 12:14 G	6678766.86	6678767.01	6678767.16	0.0275	0.0018
Mercury	13573-12-26 02:09 G	6678855.45	6678855.59	6678855.72	0.0275	0.0119
Mercury	13574-03-24 15:36 G	6678944.07	6678944.15	6678944.24	0.0275	0.0218
Earth	13576-04-15 11:16 G	6679696.75	6679696.97	6679697.21	0.0275	0.0109
Moon	13576-04-15 11:16 G	6679696.76	6679696.97	6679697.19	0.0275	0.0117 *
Mars	13581-02-14 03:50 G	6681462.48	6681462.66	6681462.86	0.0279	0.0206
Venus	13586-03-22 04:04 G	6683324.53	6683324.67	6683324.82	0.0283	0.0205
Venus	13586-11-06 18:43 G	6683554.06	6683554.28	6683554.49	0.0283	0.0016
Venus	13587-06-24 09:36 G	6683783.78	6683783.90	6683784.01	0.0283	0.0236

Mercury	13588-01-14 21:50 G	6683988.30	6683988.41	6683988.52	0.0284	0.0200
Mercury	13588-04-12 14:09 G	6684076.94	6684077.09	6684077.24	0.0284	0.0084
Mercury	13588-07-10 07:12 G	6684165.64	6684165.80	6684165.96	0.0284	0.0035
Mercury	13588-10-07 00:14 G	6684254.38	6684254.51	6684254.65	0.0284	0.0157
Mercury	13589-01-03 18:00 G	6684343.23	6684343.25	6684343.27	0.0284	0.0281
Moon	13590-10-11 15:07 G	6684988.95	6684989.13	6684989.33	0.0283	0.0178
Earth	13590-10-11 18:57 G	6684989.10	6684989.29	6684989.49	0.0283	0.0169 *
Mars	13595-05-02 00:28 G	6686652.22	6686652.52	6686652.82	0.0280	0.0012
Venus	13600-09-03 23:45 G	6688604.41	6688604.49	6688604.59	0.0276	0.0246
Venus	13601-04-21 08:52 G	6688833.67	6688833.87	6688834.09	0.0275	0.0043
Venus	13601-12-06 17:45 G	6689063.08	6689063.24	6689063.42	0.0275	0.0161
Mercury	13602-08-22 06:57 G	6689321.72	6689321.79	6689321.88	0.0275	0.0234
Mercury	13602-11-18 21:50 G	6689410.28	6689410.41	6689410.55	0.0275	0.0127
Mercury	13603-02-15 12:14 G	6689498.86	6689499.01	6689499.16	0.0275	0.0023
Mercury	13603-05-15 02:24 G	6689587.45	6689587.60	6689587.74	0.0275	0.0080
Mercury	13603-08-11 16:04 G	6689676.06	6689676.17	6689676.28	0.0275	0.0179
Moon	13606-04-22 13:12 G	6690660.85	6690661.05	6690661.26	0.0276	0.0155
Earth	13606-04-22 16:48 G	6690661.00	6690661.20	6690661.40	0.0276	0.0157 *
Venus	13615-10-02 08:09 G	6694110.68	6694110.84	6694111.01	0.0283	0.0180
Venus	13616-05-18 23:16 G	6694340.26	6694340.47	6694340.68	0.0283	0.0041
Venus	13617-01-03 14:09 G	6694570.02	6694570.09	6694570.18	0.0283	0.0263
Mercury	13617-06-02 22:33 G	6694720.35	6694720.44	6694720.52	0.0284	0.0235
Mercury	13617-08-30 14:52 G	6694808.98	6694809.12	6694809.26	0.0284	0.0120
Mercury	13617-11-27 07:40 G	6694897.66	6694897.82	6694897.98	0.0284	0.0001
Mercury	13618-02-24 00:43 G	6694986.39	6694986.53	6694986.68	0.0284	0.0120
Mercury	13618-05-23 18:14 G	6695075.19	6695075.26	6695075.35	0.0284	0.0244
Earth	13620-10-18 16:48 G	6695953.99	6695954.20	6695954.42	0.0283	0.0132
Moon	13620-10-18 17:16 G	6695954.00	6695954.22	6695954.45	0.0283	0.0130 *
Venus	13630-03-17 08:38 G	6699390.73	6699390.86	6699391.01	0.0276	0.0211
Venus	13630-11-01 17:45 G	6699620.03	6699620.24	6699620.46	0.0276	0.0009

Venus	13631-06-19 02:24 G	6699849.46	6699849.60	6699849.75	0.0275	0.0195
Mercury	13632-01-09 09:50 G	6700053.86	6700053.91	6700053.97	0.0275	0.0255
Mercury	13632-04-07 00:28 G	6700142.40	6700142.52	6700142.65	0.0275	0.0149
Mercury	13632-07-04 15:07 G	6700230.98	6700231.13	6700231.28	0.0275	0.0045
Mercury	13632-10-01 05:02 G	6700319.57	6700319.71	6700319.86	0.0275	0.0059
Mercury	13632-12-28 18:57 G	6700408.17	6700408.29	6700408.41	0.0275	0.0159
Mercury	13633-03-27 08:24 G	6700496.81	6700496.85	6700496.90	0.0275	0.0257
Earth	13635-04-17 15:36 G	6701247.92	6701248.15	6701248.40	0.0275	0.0053
Moon	13635-04-17 19:26 G	6701248.07	6701248.31	6701248.55	0.0275	0.0058 *
Venus	13645-04-13 11:31 G	6704896.81	6704896.98	6704897.17	0.0283	0.0154
Venus	13645-11-29 02:09 G	6705126.39	6705126.59	6705126.80	0.0283	0.0067
Mercury	13646-10-20 22:19 G	6705452.40	6705452.43	6705452.47	0.0284	0.0274
Mercury	13647-01-17 14:24 G	6705540.98	6705541.10	6705541.24	0.0284	0.0161
Mercury	13647-04-16 07:12 G	6705629.64	6705629.80	6705629.96	0.0284	0.0043
Mercury	13647-07-14 00:14 G	6705718.35	6705718.51	6705718.66	0.0284	0.0077
Mercury	13647-10-10 17:31 G	6705807.12	6705807.23	6705807.35	0.0284	0.0199
Earth	13649-10-12 21:07 G	6706540.16	6706540.38	6706540.61	0.0283	0.0115
Moon	13649-10-12 21:21 G	6706540.18	6706540.39	6706540.61	0.0283	0.0118 *
Venus	13659-09-27 07:55 G	6710176.69	6710176.83	6710176.98	0.0275	0.0195
Venus	13660-05-13 17:02 G	6710406.00	6710406.21	6710406.42	0.0275	0.0008
Venus	13660-12-29 01:40 G	6710635.44	6710635.57	6710635.71	0.0275	0.0211
Mercury	13661-08-25 00:00 G	6710874.40	6710874.50	6710874.61	0.0275	0.0193
Mercury	13661-11-21 14:38 G	6710962.97	6710963.11	6710963.26	0.0275	0.0087
Mercury	13662-02-18 05:02 G	6711051.56	6711051.71	6711051.86	0.0275	0.0017
Mercury	13662-05-17 18:57 G	6711140.15	6711140.29	6711140.42	0.0275	0.0118
Mercury	13662-08-14 08:24 G	6711228.77	6711228.85	6711228.95	0.0275	0.0217
Moon	13665-04-23 17:31 G	6712212.10	6712212.23	6712212.40	0.0276	0.0213
Earth	13665-04-23 19:12 G	6712212.16	6712212.30	6712212.48	0.0276	0.0210 *
Mars	13669-07-10 06:28 G	6713750.65	6713750.77	6713750.92	0.0279	0.0245
Venus	13674-10-24 14:38 G	6715682.93	6715683.11	6715683.30	0.0283	0.0130

Venus	13675-06-11 05:45 G	6715912.54	6715912.74	6715912.94	0.0283	0.0091
Mercury	13676-06-05 14:52 G	6716273.01	6716273.12	6716273.23	0.0284	0.0198
Mercury	13676-09-02 07:26 G	6716361.66	6716361.81	6716361.96	0.0284	0.0082
Mercury	13676-11-30 00:14 G	6716450.35	6716450.51	6716450.67	0.0284	0.0037
Mercury	13677-02-26 17:31 G	6716539.10	6716539.23	6716539.36	0.0284	0.0159
Mercury	13677-05-26 11:02 G	6716627.96	6716627.96	6716627.97	0.0284	0.0283
Moon	13679-10-20 13:12 G	6717504.87	6717505.05	6717505.24	0.0283	0.0185
Earth	13679-10-20 16:48 G	6717505.02	6717505.20	6717505.40	0.0283	0.0182 *
Mars	13683-09-25 19:12 G	6718941.01	6718941.30	6718941.60	0.0280	0.0055
Venus	13689-04-08 16:19 G	6720963.01	6720963.18	6720963.36	0.0276	0.0161
Venus	13689-11-24 01:26 G	6721192.35	6721192.56	6721192.77	0.0276	0.0043
Venus	13690-07-11 10:19 G	6721421.83	6721421.93	6721422.02	0.0275	0.0245
Mercury	13691-01-12 02:38 G	6721606.52	6721606.61	6721606.71	0.0275	0.0215
Mercury	13691-04-10 17:16 G	6721695.09	6721695.22	6721695.37	0.0275	0.0109
Mercury	13691-07-08 07:40 G	6721783.67	6721783.82	6721783.97	0.0275	0.0006
Mercury	13691-10-04 21:36 G	6721872.27	6721872.40	6721872.54	0.0275	0.0097
Mercury	13692-01-01 11:31 G	6721960.88	6721960.98	6721961.08	0.0275	0.0196
Earth	13694-04-18 18:57 G	6722799.04	6722799.29	6722799.53	0.0275	0.0002
Moon	13694-04-18 20:38 G	6722799.10	6722799.36	6722799.61	0.0275	0.0004 *
Venus	13704-05-06 18:43 G	6726469.09	6726469.28	6726469.48	0.0283	0.0103
Venus	13704-12-22 09:21 G	6726698.70	6726698.89	6726699.08	0.0283	0.0117
Mercury	13705-10-24 14:52 G	6727005.04	6727005.12	6727005.20	0.0283	0.0236
Mercury	13706-01-21 07:12 G	6727093.66	6727093.80	6727093.94	0.0284	0.0122
Mercury	13706-04-20 00:00 G	6727182.34	6727182.50	6727182.66	0.0284	0.0007
Mercury	13706-07-17 17:02 G	6727271.06	6727271.21	6727271.35	0.0284	0.0116
Mercury	13706-10-14 10:19 G	6727359.85	6727359.93	6727360.02	0.0284	0.0240
Earth	13708-10-14 21:50 G	6728091.18	6728091.41	6728091.65	0.0283	0.0064
Moon	13708-10-15 01:40 G	6728091.33	6728091.57	6728091.81	0.0283	0.0062 *
Venus	13718-10-20 15:50 G	6731748.98	6731749.16	6731749.34	0.0276	0.0145
Venus	13719-06-07 00:43 G	6731978.33	6731978.53	6731978.74	0.0275	0.0059

Venus	13720-01-22 09:36 G	6732207.83	6732207.90	6732207.96	0.0275	0.0260
Mercury	13720-06-01 02:09 G	6732338.54	6732338.59	6732338.64	0.0275	0.0259
Mercury	13720-08-28 16:48 G	6732427.08	6732427.20	6732427.33	0.0275	0.0153
Mercury	13720-11-25 07:26 G	6732515.66	6732515.81	6732515.96	0.0275	0.0048
Mercury	13721-02-21 21:36 G	6732604.25	6732604.40	6732604.55	0.0275	0.0055
Mercury	13721-05-21 11:16 G	6732692.85	6732692.97	6732693.10	0.0275	0.0156
Mercury	13721-08-18 00:43 G	6732781.49	6732781.53	6732781.60	0.0275	0.0254
Moon	13723-04-14 02:38 G	6733385.50	6733385.61	6733385.75	0.0275	0.0233
Earth	13723-04-14 03:50 G	6733385.54	6733385.66	6733385.81	0.0275	0.0229 *
Earth	13724-04-25 21:50 G	6733763.35	6733763.41	6733763.50	0.0276	0.0262
Moon	13724-04-26 00:57 G	6733763.50	6733763.54	6733763.60	0.0276	0.0270 *
Venus	13733-11-16 20:38 G	6737255.16	6737255.36	6737255.57	0.0283	0.0082
Venus	13734-07-04 11:31 G	6737484.81	6737484.98	6737485.17	0.0283	0.0140
Mercury	13735-03-13 14:38 G	6737737.09	6737737.11	6737737.15	0.0283	0.0277
Mercury	13735-06-10 06:57 G	6737825.67	6737825.79	6737825.92	0.0284	0.0163
Mercury	13735-09-06 23:31 G	6737914.33	6737914.48	6737914.64	0.0284	0.0047
Mercury	13735-12-04 16:33 G	6738003.04	6738003.19	6738003.35	0.0284	0.0074
Mercury	13736-03-02 10:04 G	6738091.80	6738091.92	6738092.03	0.0284	0.0197
Moon	13738-10-22 14:24 G	6739055.98	6739056.10	6739056.24	0.0283	0.0238
Earth	13738-10-22 16:19 G	6739056.04	6739056.18	6739056.32	0.0283	0.0229 *
Venus	13748-05-01 23:31 G	6742535.29	6742535.48	6742535.67	0.0276	0.0111
Venus	13748-12-17 08:38 G	6742764.67	6742764.86	6742765.07	0.0276	0.0093
Mercury	13750-01-15 19:26 G	6743159.19	6743159.31	6743159.43	0.0275	0.0175
Mercury	13750-04-14 10:04 G	6743247.77	6743247.92	6743248.06	0.0275	0.0070
Mercury	13750-07-12 00:14 G	6743336.36	6743336.51	6743336.66	0.0275	0.0033
Mercury	13750-10-08 14:09 G	6743424.96	6743425.09	6743425.22	0.0275	0.0134
Mercury	13751-01-05 03:36 G	6743513.58	6743513.65	6743513.74	0.0275	0.0234
Moon	13753-04-20 18:28 G	6744350.02	6744350.27	6744350.52	0.0275	0.0059
Earth	13753-04-20 21:36 G	6744350.16	6744350.40	6744350.64	0.0275	0.0054 *
Venus	13762-10-12 11:45 G	6747811.93	6747811.99	6747812.05	0.0282	0.0271

Venus	13763-05-30 01:55 G	6748041.38	6748041.58	6748041.79	0.0283	0.0053
Venus	13764-01-14 16:19 G	6748271.02	6748271.18	6748271.36	0.0283	0.0168
Mercury	13764-10-27 07:26 G	6748557.70	6748557.81	6748557.92	0.0283	0.0198
Mercury	13765-01-23 23:45 G	6748646.35	6748646.49	6748646.65	0.0283	0.0084
Mercury	13765-04-22 16:33 G	6748735.04	6748735.19	6748735.35	0.0283	0.0037
Mercury	13765-07-20 09:50 G	6748823.78	6748823.91	6748824.05	0.0283	0.0157
Mercury	13765-10-17 03:21 G	6748912.63	6748912.64	6748912.67	0.0284	0.0280
Earth	13767-10-16 22:48 G	6749642.20	6749642.45	6749642.69	0.0283	0.0014
Moon	13767-10-16 23:45 G	6749642.24	6749642.49	6749642.75	0.0283	0.0009 *
Mars	13772-02-19 12:00 G	6751228.71	6751229.00	6751229.29	0.0280	0.0076
Venus	13777-11-11 23:02 G	6753321.27	6753321.46	6753321.67	0.0276	0.0096
Venus	13778-06-29 08:09 G	6753550.65	6753550.84	6753551.04	0.0275	0.0108
Mercury	13779-06-04 18:57 G	6753891.20	6753891.29	6753891.38	0.0275	0.0219
Mercury	13779-09-01 09:36 G	6753979.76	6753979.90	6753980.04	0.0275	0.0113
Mercury	13779-11-29 00:00 G	6754068.35	6754068.50	6754068.65	0.0275	0.0009
Mercury	13780-02-25 13:55 G	6754156.95	6754157.08	6754157.23	0.0275	0.0093
Mercury	13780-05-24 03:50 G	6754245.56	6754245.66	6754245.76	0.0275	0.0192
Earth	13782-04-15 06:43 G	6754936.59	6754936.78	6754936.97	0.0275	0.0175
Moon	13782-04-15 09:21 G	6754936.72	6754936.89	6754937.09	0.0275	0.0176 *
Venus	13792-04-23 12:28 G	6758597.93	6758598.02	6758598.12	0.0283	0.0251
Venus	13792-12-09 03:07 G	6758827.42	6758827.63	6758827.84	0.0283	0.0032
Venus	13793-07-26 17:45 G	6759057.09	6759057.24	6759057.40	0.0283	0.0189
Mercury	13794-03-16 06:57 G	6759289.71	6759289.79	6759289.87	0.0283	0.0241
Mercury	13794-06-12 23:16 G	6759378.33	6759378.47	6759378.61	0.0283	0.0126
Mercury	13794-09-09 16:04 G	6759467.01	6759467.17	6759467.32	0.0283	0.0011
Mercury	13794-12-07 09:07 G	6759555.73	6759555.88	6759556.02	0.0283	0.0112
Mercury	13795-03-06 02:38 G	6759644.52	6759644.61	6759644.70	0.0283	0.0235
Moon	13796-10-10 04:19 G	6760228.58	6760228.68	6760228.78	0.0283	0.0254
Earth	13796-10-10 05:02 G	6760228.62	6760228.71	6760228.83	0.0283	0.0256 *
Earth	13797-10-23 15:07 G	6760607.09	6760607.13	6760607.19	0.0283	0.0277

Venus	13806-10-08 20:52 G	6763878.33	6763878.37	6763878.43	0.0277	0.0267
Venus	13807-05-26 06:43 G	6764107.57	6764107.78	6764107.98	0.0276	0.0063
Venus	13808-01-10 15:50 G	6764336.98	6764337.16	6764337.35	0.0276	0.0142
Mercury	13808-10-22 21:21 G	6764623.32	6764623.39	6764623.46	0.0276	0.0243
Mercury	13809-01-19 12:00 G	6764711.88	6764712.00	6764712.14	0.0276	0.0137
Mercury	13809-04-18 02:38 G	6764800.46	6764800.61	6764800.76	0.0276	0.0031
Mercury	13809-07-15 16:48 G	6764889.06	6764889.20	6764889.34	0.0276	0.0071
Mercury	13809-10-12 06:43 G	6764977.66	6764977.78	6764977.89	0.0275	0.0172
Mercury	13810-01-08 20:09 G	6765066.32	6765066.34	6765066.37	0.0275	0.0270
Moon	13812-04-22 21:50 G	6765901.20	6765901.41	6765901.64	0.0276	0.0115
Earth	13812-04-23 00:43 G	6765901.31	6765901.53	6765901.76	0.0276	0.0108 *
Mars	13816-03-13 11:45 G	6767321.88	6767321.99	6767322.11	0.0278	0.0253
Venus	13821-11-04 18:57 G	6769384.17	6769384.29	6769384.43	0.0282	0.0221
Venus	13822-06-22 09:21 G	6769613.68	6769613.89	6769614.10	0.0283	0.0003
Venus	13823-02-06 23:45 G	6769843.36	6769843.49	6769843.63	0.0283	0.0218
Mercury	13823-08-04 07:55 G	6770021.80	6770021.83	6770021.87	0.0283	0.0273
Mercury	13823-11-01 00:00 G	6770110.38	6770110.50	6770110.63	0.0283	0.0160
Mercury	13824-01-28 16:33 G	6770199.04	6770199.19	6770199.35	0.0283	0.0044
Mercury	13824-04-26 09:36 G	6770287.75	6770287.90	6770288.05	0.0283	0.0076
Mercury	13824-07-24 02:52 G	6770376.51	6770376.62	6770376.73	0.0283	0.0197
Moon	13826-10-18 20:38 G	6771193.11	6771193.36	6771193.61	0.0283	0.0048
Earth	13826-10-18 23:45 G	6771193.25	6771193.49	6771193.73	0.0283	0.0038 *
Venus	13836-04-19 21:07 G	6774664.30	6774664.38	6774664.48	0.0276	0.0249
Venus	13836-12-05 06:43 G	6774893.58	6774893.78	6774894.00	0.0276	0.0046
Venus	13837-07-22 15:50 G	6775122.99	6775123.16	6775123.34	0.0275	0.0158
Mercury	13838-06-08 11:45 G	6775443.88	6775443.99	6775444.11	0.0275	0.0179
Mercury	13838-09-05 02:24 G	6775532.45	6775532.60	6775532.75	0.0275	0.0074
Mercury	13838-12-02 16:33 G	6775621.05	6775621.19	6775621.34	0.0275	0.0031
Mercury	13839-03-01 06:28 G	6775709.65	6775709.77	6775709.91	0.0275	0.0131
Mercury	13839-05-28 20:09 G	6775798.27	6775798.34	6775798.43	0.0275	0.0230

Earth	13841-04-17 09:50 G	6776487.70	6776487.91	6776488.14	0.0275	0.0122
Moon	13841-04-17 12:43 G	6776487.82	6776488.03	6776488.27	0.0275	0.0121 *
Venus	13851-05-17 19:40 G	6780170.18	6780170.32	6780170.48	0.0283	0.0201
Venus	13852-01-02 10:19 G	6780399.72	6780399.93	6780400.14	0.0283	0.0019
Venus	13852-08-19 00:43 G	6780629.43	6780629.53	6780629.65	0.0283	0.0239
Mercury	13853-03-19 23:31 G	6780842.37	6780842.48	6780842.59	0.0283	0.0203
Mercury	13853-06-16 15:50 G	6780931.02	6780931.16	6780931.31	0.0283	0.0088
Mercury	13853-09-13 08:38 G	6781019.71	6781019.86	6781020.02	0.0283	0.0031
Mercury	13853-12-11 01:55 G	6781108.44	6781108.58	6781108.72	0.0283	0.0152
Mercury	13854-03-09 19:26 G	6781197.28	6781197.31	6781197.35	0.0283	0.0275
Earth	13855-10-13 05:31 G	6781779.58	6781779.73	6781779.91	0.0283	0.0206
Moon	13855-10-13 08:52 G	6781779.70	6781779.87	6781780.04	0.0283	0.0200 *
Mars	13860-07-15 18:28 G	6783517.00	6783517.27	6783517.55	0.0281	0.0119
Venus	13865-10-31 04:04 G	6785450.55	6785450.67	6785450.80	0.0277	0.0219
Venus	13866-06-17 13:55 G	6785679.87	6785680.08	6785680.29	0.0276	0.0014
Venus	13867-02-01 23:02 G	6785909.31	6785909.46	6785909.62	0.0276	0.0191
Mercury	13867-10-26 13:55 G	6786175.99	6786176.08	6786176.19	0.0276	0.0204
Mercury	13868-01-23 04:48 G	6786264.56	6786264.70	6786264.84	0.0276	0.0097
Mercury	13868-04-20 19:12 G	6786353.15	6786353.30	6786353.45	0.0276	0.0007
Mercury	13868-07-18 09:21 G	6786441.75	6786441.89	6786442.02	0.0276	0.0109
Mercury	13868-10-14 23:02 G	6786530.37	6786530.46	6786530.56	0.0276	0.0209
Earth	13871-04-25 04:19 G	6787452.49	6787452.68	6787452.88	0.0276	0.0162
Moon	13871-04-25 05:31 G	6787452.55	6787452.73	6787452.92	0.0276	0.0171 *
Venus	13880-11-27 03:36 G	6790956.48	6790956.65	6790956.82	0.0282	0.0168
Venus	13881-07-14 17:45 G	6791186.03	6791186.24	6791186.45	0.0283	0.0051
Venus	13882-03-01 07:55 G	6791415.78	6791415.83	6791415.90	0.0283	0.0270
Mercury	13882-08-07 00:57 G	6791574.46	6791574.54	6791574.63	0.0283	0.0232
Mercury	13882-11-03 17:16 G	6791663.08	6791663.22	6791663.36	0.0283	0.0119
Mercury	13883-01-31 09:50 G	6791751.75	6791751.91	6791752.07	0.0283	0.0003
Mercury	13883-04-30 02:52 G	6791840.47	6791840.62	6791840.76	0.0283	0.0118

Mercury	13883-07-27 20:09 G	6791929.26	6791929.34	6791929.43	0.0283	0.0241
Moon	13885-10-19 23:16 G	6792744.25	6792744.47	6792744.70	0.0283	0.0103
Earth	13885-10-20 02:09 G	6792744.36	6792744.59	6792744.82	0.0283	0.0092 *
Venus	13895-05-13 05:16 G	6796236.58	6796236.72	6796236.87	0.0276	0.0200
Venus	13895-12-28 15:07 G	6796465.91	6796466.13	6796466.34	0.0276	0.0007
Venus	13896-08-14 00:00 G	6796695.37	6796695.50	6796695.64	0.0276	0.0209
Mercury	13897-03-14 13:55 G	6796908.02	6796908.08	6796908.15	0.0275	0.0245
Mercury	13897-06-11 04:48 G	6796996.57	6796996.70	6796996.83	0.0275	0.0138
Mercury	13897-09-07 19:26 G	6797085.16	6797085.31	6797085.46	0.0275	0.0034
Mercury	13897-12-05 09:36 G	6797173.75	6797173.90	6797174.04	0.0275	0.0070
Mercury	13898-03-03 23:16 G	6797262.36	6797262.47	6797262.59	0.0275	0.0171
Mercury	13898-05-31 12:57 G	6797351.01	6797351.04	6797351.07	0.0275	0.0268
Moon	13900-04-19 13:40 G	6798038.82	6798039.07	6798039.32	0.0275	0.0061
Earth	13900-04-19 14:52 G	6798038.88	6798039.12	6798039.36	0.0275	0.0066 *
Mars	13904-08-07 13:26 G	6799609.89	6799610.06	6799610.23	0.0278	0.0219
Venus	13910-06-10 04:04 G	6801742.50	6801742.67	6801742.86	0.0283	0.0148
Venus	13911-01-25 18:28 G	6801972.06	6801972.27	6801972.47	0.0283	0.0071
Mercury	13911-12-26 00:14 G	6802306.48	6802306.51	6802306.55	0.0283	0.0276
Mercury	13912-03-23 16:19 G	6802395.06	6802395.18	6802395.31	0.0283	0.0163
Mercury	13912-06-20 08:52 G	6802483.72	6802483.87	6802484.03	0.0283	0.0047
Mercury	13912-09-17 01:40 G	6802572.42	6802572.57	6802572.73	0.0283	0.0073
Mercury	13912-12-14 18:57 G	6802661.18	6802661.29	6802661.41	0.0283	0.0194
Earth	13914-10-15 07:40 G	6803330.61	6803330.82	6803331.03	0.0283	0.0152
Moon	13914-10-15 10:19 G	6803330.73	6803330.93	6803331.16	0.0283	0.0145 *
Venus	13924-11-23 12:00 G	6807022.84	6807023.00	6807023.17	0.0277	0.0169
Venus	13925-07-10 21:50 G	6807252.20	6807252.41	6807252.62	0.0277	0.0037
Venus	13926-02-25 07:12 G	6807481.70	6807481.80	6807481.90	0.0276	0.0241
Mercury	13926-08-02 16:04 G	6807640.15	6807640.17	6807640.20	0.0276	0.0271
Mercury	13926-10-30 06:57 G	6807728.67	6807728.79	6807728.92	0.0276	0.0163
Mercury	13927-01-26 21:50 G	6807817.26	6807817.41	6807817.55	0.0276	0.0057

Mercury	13927-04-25 12:00 G	6807905.85	6807906.00	6807906.15	0.0276	0.0047
Mercury	13927-07-23 01:55 G	6807994.46	6807994.58	6807994.71	0.0276	0.0149
Mercury	13927-10-19 15:36 G	6808083.09	6808083.15	6808083.22	0.0276	0.0248
Earth	13929-04-14 14:09 G	6808626.05	6808626.09	6808626.13	0.0276	0.0271
Moon	13929-04-14 15:07 G	6808626.10	6808626.13	6808626.18	0.0276	0.0272 *
Earth	13930-04-27 08:52 G	6809003.73	6809003.87	6809004.03	0.0276	0.0218
Moon	13930-04-27 12:43 G	6809003.89	6809004.03	6809004.17	0.0276	0.0227 *
Venus	13939-12-21 13:12 G	6812528.86	6812529.05	6812529.25	0.0282	0.0114
Venus	13940-08-07 03:21 G	6812758.44	6812758.64	6812758.83	0.0282	0.0105
Mercury	13941-08-10 18:28 G	6813127.16	6813127.27	6813127.38	0.0283	0.0189
Mercury	13941-11-07 10:48 G	6813215.80	6813215.95	6813216.10	0.0283	0.0074
Mercury	13942-02-04 03:36 G	6813304.49	6813304.65	6813304.80	0.0283	0.0044
Mercury	13942-05-03 20:38 G	6813393.23	6813393.36	6813393.49	0.0283	0.0165
Earth	13944-10-22 06:43 G	6814295.58	6814295.78	6814295.99	0.0283	0.0150
Moon	13944-10-22 08:09 G	6814295.65	6814295.84	6814296.03	0.0283	0.0162 *
Mars	13948-12-10 03:36 G	6815805.43	6815805.65	6815805.91	0.0281	0.0169
Venus	13954-06-05 14:09 G	6817808.92	6817809.09	6817809.28	0.0276	0.0148
Venus	13955-01-21 00:00 G	6818038.29	6818038.50	6818038.71	0.0276	0.0057
Venus	13955-09-07 09:07 G	6818267.81	6818267.88	6818267.95	0.0276	0.0260
Mercury	13956-03-18 07:12 G	6818460.71	6818460.80	6818460.91	0.0275	0.0202
Mercury	13956-06-14 22:04 G	6818549.28	6818549.42	6818549.56	0.0275	0.0095
Mercury	13956-09-11 12:28 G	6818637.87	6818638.02	6818638.17	0.0275	0.0010
Mercury	13956-12-09 02:38 G	6818726.47	6818726.61	6818726.74	0.0275	0.0111
Mercury	13957-03-07 16:19 G	6818815.09	6818815.18	6818815.28	0.0275	0.0211
Moon	13959-04-21 17:02 G	6819589.96	6819590.21	6819590.45	0.0275	0.0004
Earth	13959-04-21 20:38 G	6819590.12	6819590.36	6819590.61	0.0275	0.0009 *
Venus	13969-07-02 13:55 G	6823314.89	6823315.08	6823315.28	0.0282	0.0094
Venus	13970-02-17 04:04 G	6823544.48	6823544.67	6823544.86	0.0283	0.0126
Mercury	13970-12-28 17:31 G	6823859.15	6823859.23	6823859.33	0.0283	0.0233
Mercury	13971-03-27 09:50 G	6823947.77	6823947.91	6823948.06	0.0283	0.0119

Mercury	13971-06-24 02:38 G	6824036.45	6824036.61	6824036.77	0.0283	0.0006
Mercury	13971-09-20 19:26 G	6824125.17	6824125.31	6824125.46	0.0283	0.0118
Mercury	13971-12-18 12:57 G	6824213.96	6824214.04	6824214.12	0.0283	0.0240
Moon	13973-10-16 10:04 G	6824881.68	6824881.92	6824882.17	0.0283	0.0083
Earth	13973-10-16 12:00 G	6824881.77	6824882.00	6824882.23	0.0283	0.0095 *
Venus	13983-12-16 20:24 G	6828595.17	6828595.35	6828595.55	0.0277	0.0119
Venus	13984-08-02 06:28 G	6828824.57	6828824.77	6828824.97	0.0277	0.0088
Mercury	13985-08-05 09:21 G	6829192.81	6829192.89	6829192.98	0.0276	0.0228
Mercury	13985-11-02 00:14 G	6829281.38	6829281.51	6829281.65	0.0276	0.0121
Mercury	13986-01-29 14:52 G	6829369.97	6829370.12	6829370.27	0.0276	0.0015
Mercury	13986-04-28 05:02 G	6829458.57	6829458.71	6829458.85	0.0276	0.0088
Mercury	13986-07-25 18:57 G	6829547.19	6829547.29	6829547.40	0.0276	0.0189
Earth	13988-04-15 19:40 G	6830177.18	6830177.32	6830177.49	0.0276	0.0213
Moon	13988-04-15 23:45 G	6830177.33	6830177.49	6830177.65	0.0276	0.0208 *
Mars	13993-01-02 01:26 G	6831899.31	6831899.56	6831899.81	0.0278	0.0135
Venus	13998-05-28 10:33 G	6833871.90	6833871.94	6833871.99	0.0282	0.0274
Venus	13999-01-13 00:14 G	6834101.30	6834101.51	6834101.72	0.0282	0.0058
Venus	13999-08-30 13:55 G	6834330.92	6834331.08	6834331.26	0.0282	0.0162
Mercury	14000-05-16 20:24 G	6834591.28	6834591.35	6834591.41	0.0283	0.0255
Mercury	14000-08-13 12:28 G	6834679.88	6834680.02	6834680.15	0.0283	0.0142
Mercury	14000-11-10 05:02 G	6834768.55	6834768.71	6834768.86	0.0283	0.0027

15TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 15th millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Mercury	14001-02-06 21:50 G	6834857.26	6834857.41	6834857.56	0.0283	0.0093
Mercury	14001-05-06 15:07 G	6834946.02	6834946.13	6834946.23	0.0283	0.0214
Earth	14003-10-24 13:26 G	6835846.90	6835847.06	6835847.22	0.0283	0.0210
Moon	14003-10-24 17:02 G	6835847.07	6835847.21	6835847.37	0.0283	0.0225 *
Venus	14013-06-28 00:14 G	6839381.31	6839381.51	6839381.71	0.0276	0.0095
Venus	14014-02-12 09:50 G	6839610.72	6839610.91	6839611.11	0.0276	0.0110
Mercury	14014-12-23 10:04 G	6839924.88	6839924.92	6839924.96	0.0276	0.0264
Mercury	14015-03-22 00:57 G	6840013.42	6840013.54	6840013.67	0.0276	0.0156
Mercury	14015-06-18 15:36 G	6840102.00	6840102.15	6840102.30	0.0276	0.0051
Mercury	14015-09-15 06:00 G	6840190.60	6840190.75	6840190.90	0.0275	0.0053
Mercury	14015-12-12 19:55 G	6840279.21	6840279.33	6840279.45	0.0275	0.0154
Mercury	14016-03-10 09:36 G	6840367.85	6840367.90	6840367.96	0.0275	0.0253
Moon	14018-04-23 03:36 G	6841141.42	6841141.65	6841141.88	0.0276	0.0064
Earth	14018-04-23 04:19 G	6841141.43	6841141.68	6841141.92	0.0276	0.0054 *
Venus	14027-12-08 11:16 G	6844657.89	6844657.97	6844658.07	0.0282	0.0253
Venus	14028-07-25 01:12 G	6844887.34	6844887.55	6844887.76	0.0282	0.0036
Venus	14029-03-11 15:07 G	6845116.97	6845117.13	6845117.30	0.0283	0.0183
Mercury	14029-12-31 11:45 G	6845411.88	6845411.99	6845412.11	0.0283	0.0186
Mercury	14030-03-30 04:04 G	6845500.52	6845500.67	6845500.82	0.0283	0.0071
Mercury	14030-06-26 20:52 G	6845589.21	6845589.37	6845589.53	0.0283	0.0047
Mercury	14030-09-23 13:55 G	6845677.95	6845678.08	6845678.21	0.0283	0.0168
Moon	14032-10-17 15:21 G	6846432.89	6846433.14	6846433.38	0.0283	0.0019
Earth	14032-10-17 18:57 G	6846433.05	6846433.29	6846433.53	0.0283	0.0033 *
Mars	14037-05-05 16:04 G	6848094.00	6848094.17	6848094.37	0.0281	0.0220
Venus	14042-05-23 19:40 G	6849938.29	6849938.32	6849938.36	0.0277	0.0273
Venus	14043-01-08 06:00 G	6850167.55	6850167.75	6850167.96	0.0277	0.0067
Venus	14043-08-25 16:04 G	6850396.99	6850397.17	6850397.35	0.0277	0.0140
Mercury	14044-08-08 02:52 G	6850745.51	6850745.62	6850745.74	0.0277	0.0184

Mercury	14044-11-04 17:45 G	6850834.10	6850834.24	6850834.39	0.0276	0.0076
Mercury	14045-02-01 08:09 G	6850922.69	6850922.84	6850922.99	0.0276	0.0029
Mercury	14045-04-30 22:19 G	6851011.30	6851011.43	6851011.56	0.0276	0.0131
Mercury	14045-07-28 12:14 G	6851099.93	6851100.01	6851100.09	0.0276	0.0231
Earth	14047-04-18 02:52 G	6851728.42	6851728.62	6851728.83	0.0276	0.0152
Moon	14047-04-18 03:07 G	6851728.43	6851728.63	6851728.86	0.0276	0.0145 *
Venus	14057-06-19 22:33 G	6855444.31	6855444.44	6855444.58	0.0282	0.0216
Venus	14058-02-04 12:14 G	6855673.80	6855674.01	6855674.23	0.0282	0.0005
Venus	14058-09-22 02:09 G	6855903.47	6855903.59	6855903.73	0.0282	0.0219
Mercury	14059-05-20 14:38 G	6856144.01	6856144.11	6856144.22	0.0283	0.0206
Mercury	14059-08-17 06:57 G	6856232.64	6856232.79	6856232.94	0.0283	0.0091
Mercury	14059-11-13 23:31 G	6856321.33	6856321.48	6856321.64	0.0283	0.0027
Mercury	14060-02-10 16:33 G	6856410.06	6856410.19	6856410.33	0.0283	0.0146
Mercury	14060-05-09 09:50 G	6856498.87	6856498.91	6856498.97	0.0283	0.0268
Earth	14061-10-12 13:40 G	6857019.96	6857020.07	6857020.19	0.0283	0.0250
Moon	14061-10-12 17:16 G	6857020.09	6857020.22	6857020.35	0.0283	0.0237 *
Earth	14062-10-25 22:19 G	6857398.39	6857398.43	6857398.49	0.0283	0.0276
Venus	14071-12-04 00:57 G	6860724.45	6860724.54	6860724.64	0.0277	0.0246
Venus	14072-07-20 11:02 G	6860953.75	6860953.96	6860954.17	0.0276	0.0040
Venus	14073-03-06 20:38 G	6861183.19	6861183.36	6861183.53	0.0276	0.0165
Mercury	14073-12-26 04:04 G	6861477.58	6861477.67	6861477.77	0.0276	0.0216
Mercury	14074-03-24 18:57 G	6861566.15	6861566.29	6861566.43	0.0276	0.0109
Mercury	14074-06-21 09:36 G	6861654.74	6861654.90	6861655.05	0.0276	0.0009
Mercury	14074-09-17 23:45 G	6861743.35	6861743.49	6861743.63	0.0276	0.0099
Mercury	14074-12-15 13:40 G	6861831.97	6861832.07	6861832.17	0.0276	0.0199
Earth	14077-04-24 12:57 G	6862692.83	6862693.04	6862693.27	0.0276	0.0118
Moon	14077-04-24 16:33 G	6862692.98	6862693.19	6862693.41	0.0276	0.0131 *
Mars	14081-05-28 17:16 G	6864187.96	6864188.22	6864188.50	0.0278	0.0079
Venus	14086-12-31 00:00 G	6866230.35	6866230.50	6866230.66	0.0282	0.0194
Venus	14087-08-17 13:40 G	6866459.86	6866460.07	6866460.28	0.0282	0.0024

Venus	14088-04-03 03:36 G	6866689.55	6866689.65	6866689.76	0.0283	0.0242
Mercury	14088-10-06 14:09 G	6866876.02	6866876.09	6866876.17	0.0283	0.0247
Mercury	14089-01-03 06:14 G	6866964.63	6866964.76	6866964.90	0.0283	0.0135
Mercury	14089-04-01 22:48 G	6867053.29	6867053.45	6867053.61	0.0283	0.0019
Mercury	14089-06-29 15:36 G	6867142.00	6867142.15	6867142.30	0.0283	0.0100
Mercury	14089-09-26 08:52 G	6867230.77	6867230.87	6867230.97	0.0283	0.0222
Earth	14091-10-20 03:50 G	6867984.42	6867984.66	6867984.91	0.0283	0.0033
Moon	14091-10-20 04:04 G	6867984.44	6867984.67	6867984.90	0.0283	0.0048 *
Venus	14101-06-16 06:14 G	6871510.64	6871510.76	6871510.89	0.0277	0.0219
Venus	14102-01-31 16:33 G	6871739.98	6871740.19	6871740.40	0.0277	0.0012
Venus	14102-09-18 02:24 G	6871969.45	6871969.60	6871969.75	0.0277	0.0194
Mercury	14103-05-16 06:00 G	6872209.68	6872209.75	6872209.82	0.0277	0.0245
Mercury	14103-08-12 20:52 G	6872298.24	6872298.37	6872298.50	0.0277	0.0137
Mercury	14103-11-09 11:31 G	6872386.83	6872386.98	6872387.13	0.0277	0.0031
Mercury	14104-02-06 01:55 G	6872475.43	6872475.58	6872475.72	0.0277	0.0073
Mercury	14104-05-04 15:50 G	6872564.05	6872564.16	6872564.27	0.0276	0.0175
Mercury	14104-08-01 05:31 G	6872652.71	6872652.73	6872652.75	0.0276	0.0274
Moon	14106-04-20 07:55 G	6873279.59	6873279.83	6873280.07	0.0276	0.0078
Earth	14106-04-20 11:16 G	6873279.74	6873279.97	6873280.21	0.0276	0.0089 *
Venus	14116-07-13 11:31 G	6877016.81	6877016.98	6877017.16	0.0282	0.0157
Venus	14117-02-28 01:12 G	6877246.35	6877246.55	6877246.76	0.0282	0.0062
Venus	14117-10-15 15:07 G	6877476.11	6877476.13	6877476.17	0.0282	0.0279
Mercury	14118-02-24 17:31 G	6877608.18	6877608.23	6877608.28	0.0282	0.0265
Mercury	14118-05-24 09:21 G	6877696.77	6877696.89	6877697.03	0.0283	0.0154
Mercury	14118-08-21 01:55 G	6877785.43	6877785.58	6877785.74	0.0283	0.0038
Mercury	14118-11-17 18:43 G	6877874.13	6877874.28	6877874.43	0.0283	0.0080
Mercury	14119-02-14 12:00 G	6877962.88	6877963.00	6877963.11	0.0283	0.0201
Moon	14120-10-15 00:43 G	6878571.33	6878571.53	6878571.73	0.0283	0.0168
Earth	14120-10-15 00:28 G	6878571.34	6878571.52	6878571.72	0.0283	0.0181 *
Venus	14130-12-27 12:57 G	6882296.89	6882297.04	6882297.20	0.0277	0.0189

Venus	14131-08-13 23:02 G	6882526.24	6882526.46	6882526.67	0.0276	0.0018
Venus	14132-03-30 08:24 G	6882755.73	6882755.85	6882755.98	0.0276	0.0221
Mercury	14132-10-02 07:26 G	6882941.80	6882941.81	6882941.82	0.0276	0.0274
Mercury	14132-12-29 22:33 G	6883030.32	6883030.44	6883030.56	0.0276	0.0166
Mercury	14133-03-28 13:12 G	6883118.90	6883119.05	6883119.20	0.0276	0.0060
Mercury	14133-06-25 03:36 G	6883207.50	6883207.65	6883207.80	0.0276	0.0044
Mercury	14133-09-21 17:31 G	6883296.11	6883296.23	6883296.36	0.0276	0.0146
Mercury	14133-12-19 07:26 G	6883384.74	6883384.81	6883384.87	0.0276	0.0245
Earth	14136-04-26 23:02 G	6884244.28	6884244.46	6884244.64	0.0276	0.0183
Moon	14136-04-27 01:12 G	6884244.38	6884244.55	6884244.73	0.0276	0.0197 *
Venus	14146-01-23 13:26 G	6887802.88	6887803.06	6887803.25	0.0282	0.0133
Venus	14146-09-10 03:07 G	6888032.43	6888032.63	6888032.84	0.0282	0.0085
Mercury	14147-10-11 09:07 G	6888428.77	6888428.88	6888428.99	0.0283	0.0195
Mercury	14148-01-08 01:26 G	6888517.41	6888517.56	6888517.71	0.0283	0.0081
Mercury	14148-04-05 18:00 G	6888606.09	6888606.25	6888606.41	0.0283	0.0037
Mercury	14148-07-03 11:02 G	6888694.83	6888694.96	6888695.09	0.0283	0.0156
Mercury	14148-09-30 04:19 G	6888783.66	6888783.68	6888783.71	0.0283	0.0279
Earth	14150-10-22 14:52 G	6889535.90	6889536.12	6889536.35	0.0283	0.0102
Moon	14150-10-22 18:28 G	6889536.05	6889536.27	6889536.49	0.0283	0.0118 *
Venus	14160-07-08 17:31 G	6893083.06	6893083.23	6893083.40	0.0277	0.0163
Venus	14161-02-23 03:36 G	6893312.44	6893312.65	6893312.86	0.0277	0.0044
Venus	14161-10-10 13:12 G	6893541.97	6893542.05	6893542.15	0.0277	0.0249
Mercury	14162-05-19 00:00 G	6893762.39	6893762.50	6893762.61	0.0277	0.0197
Mercury	14162-08-15 14:52 G	6893850.97	6893851.12	6893851.26	0.0277	0.0090
Mercury	14162-11-12 05:16 G	6893939.57	6893939.72	6893939.87	0.0277	0.0016
Mercury	14163-02-08 19:26 G	6894028.18	6894028.31	6894028.45	0.0277	0.0119
Mercury	14163-05-08 09:21 G	6894116.80	6894116.89	6894116.98	0.0277	0.0219
Moon	14165-04-21 17:31 G	6894831.00	6894831.23	6894831.47	0.0277	0.0015
Earth	14165-04-21 20:09 G	6894831.09	6894831.34	6894831.58	0.0277	0.0025 *
Mars	14169-10-24 10:33 G	6896477.65	6896477.94	6896478.22	0.0278	0.0020

Venus	14175-08-06 01:12 G	6898589.35	6898589.55	6898589.75	0.0282	0.0095
Venus	14176-03-22 14:52 G	6898818.94	6898819.12	6898819.32	0.0282	0.0123
Mercury	14177-02-27 12:28 G	6899160.92	6899161.02	6899161.12	0.0282	0.0212
Mercury	14177-05-27 04:48 G	6899249.55	6899249.70	6899249.84	0.0283	0.0099
Mercury	14177-08-23 21:21 G	6899338.23	6899338.39	6899338.54	0.0283	0.0019
Mercury	14177-11-20 14:09 G	6899426.95	6899427.09	6899427.23	0.0283	0.0137
Mercury	14178-02-17 07:26 G	6899515.75	6899515.81	6899515.88	0.0283	0.0259
Moon	14179-10-17 09:36 G	6900122.67	6900122.90	6900123.13	0.0283	0.0096
Earth	14179-10-17 12:43 G	6900122.81	6900123.03	6900123.27	0.0283	0.0110 *
Mars	14184-01-05 18:57 G	6901664.23	6901664.29	6901664.35	0.0281	0.0275
Venus	14190-01-19 01:26 G	6903869.37	6903869.56	6903869.74	0.0277	0.0131
Venus	14190-09-05 11:02 G	6904098.76	6904098.96	6904099.17	0.0276	0.0075
Mercury	14191-10-06 01:55 G	6904494.49	6904494.58	6904494.67	0.0276	0.0223
Mercury	14192-01-02 16:48 G	6904583.06	6904583.20	6904583.34	0.0276	0.0116
Mercury	14192-03-31 07:26 G	6904671.66	6904671.81	6904671.96	0.0276	0.0011
Mercury	14192-06-27 21:36 G	6904760.26	6904760.40	6904760.54	0.0276	0.0092
Mercury	14192-09-24 11:31 G	6904848.88	6904848.98	6904849.09	0.0276	0.0193
Earth	14194-04-16 14:09 G	6905417.97	6905418.09	6905418.22	0.0276	0.0236
Moon	14194-04-16 17:02 G	6905418.08	6905418.21	6905418.35	0.0276	0.0230 *
Moon	14195-04-29 07:12 G	6905795.74	6905795.80	6905795.89	0.0276	0.0263
Earth	14195-04-29 09:07 G	6905795.79	6905795.88	6905796.00	0.0276	0.0250 *
Venus	14205-02-16 03:21 G	6909375.44	6909375.64	6909375.85	0.0282	0.0071
Venus	14205-10-03 17:02 G	6909605.03	6909605.21	6909605.39	0.0282	0.0147
Mercury	14206-07-18 12:14 G	6909892.95	6909893.01	6909893.08	0.0283	0.0253
Mercury	14206-10-15 04:04 G	6909981.54	6909981.67	6909981.81	0.0283	0.0141
Mercury	14207-01-11 20:38 G	6910070.20	6910070.36	6910070.52	0.0283	0.0025
Mercury	14207-04-10 13:26 G	6910158.91	6910159.06	6910159.21	0.0283	0.0093
Mercury	14207-07-08 06:28 G	6910247.67	6910247.77	6910247.88	0.0283	0.0214
Earth	14209-10-25 02:38 G	6911087.43	6911087.61	6911087.81	0.0283	0.0173
Moon	14209-10-25 05:02 G	6911087.52	6911087.71	6911087.90	0.0283	0.0187 *

Venus	14219-08-02 05:31 G	6914655.54	6914655.73	6914655.93	0.0277	0.0106
Venus	14220-03-18 15:21 G	6914884.95	6914885.14	6914885.35	0.0277	0.0101
Mercury	14221-02-23 03:07 G	6915226.58	6915226.63	6915226.69	0.0277	0.0256
Mercury	14221-05-22 18:14 G	6915315.13	6915315.26	6915315.39	0.0277	0.0148
Mercury	14221-08-19 08:52 G	6915403.72	6915403.87	6915404.02	0.0277	0.0041
Mercury	14221-11-15 23:16 G	6915492.32	6915492.47	6915492.62	0.0277	0.0063
Mercury	14222-02-12 13:26 G	6915580.94	6915581.06	6915581.18	0.0276	0.0165
Mercury	14222-05-12 02:52 G	6915669.59	6915669.62	6915669.67	0.0276	0.0265
Earth	14224-04-24 05:02 G	6916382.47	6916382.71	6916382.96	0.0277	0.0041
Moon	14224-04-24 06:28 G	6916382.54	6916382.77	6916383.01	0.0277	0.0053 *
Venus	14234-01-12 00:57 G	6919932.45	6919932.54	6919932.64	0.0282	0.0250
Venus	14234-08-29 14:38 G	6920161.90	6920162.11	6920162.32	0.0282	0.0034
Venus	14235-04-16 04:19 G	6920391.53	6920391.68	6920391.85	0.0282	0.0185
Mercury	14235-12-05 15:21 G	6920625.11	6920625.14	6920625.19	0.0282	0.0271
Mercury	14236-03-03 07:26 G	6920713.69	6920713.81	6920713.94	0.0283	0.0159
Mercury	14236-05-30 23:45 G	6920802.34	6920802.49	6920802.65	0.0283	0.0044
Mercury	14236-08-27 16:33 G	6920891.04	6920891.19	6920891.34	0.0283	0.0074
Mercury	14236-11-24 09:36 G	6920979.79	6920979.90	6920980.02	0.0283	0.0194
Moon	14238-10-19 22:33 G	6921674.21	6921674.44	6921674.68	0.0283	0.0025
Earth	14238-10-20 01:12 G	6921674.31	6921674.55	6921674.79	0.0283	0.0038 *
Venus	14249-02-11 13:55 G	6925441.88	6925442.08	6925442.29	0.0277	0.0072
Venus	14249-09-28 23:31 G	6925671.30	6925671.48	6925671.67	0.0276	0.0133
Mercury	14250-10-09 20:24 G	6926047.24	6926047.35	6926047.47	0.0276	0.0172
Mercury	14251-01-06 11:16 G	6926135.82	6926135.97	6926136.12	0.0276	0.0066
Mercury	14251-04-05 01:40 G	6926224.42	6926224.57	6926224.72	0.0276	0.0038
Mercury	14251-07-02 15:50 G	6926313.03	6926313.16	6926313.29	0.0276	0.0140
Mercury	14251-09-29 05:31 G	6926401.66	6926401.73	6926401.80	0.0276	0.0240
Moon	14253-04-18 23:02 G	6926969.26	6926969.46	6926969.67	0.0276	0.0160
Earth	14253-04-19 00:28 G	6926969.33	6926969.52	6926969.72	0.0276	0.0170 *
Mars	14258-03-21 09:50 G	6928766.66	6928766.91	6928767.19	0.0278	0.0091

Venus	14263-07-25 03:36 G	6930718.53	6930718.65	6930718.78	0.0282	0.0225
Venus	14264-03-10 17:16 G	6930948.00	6930948.22	6930948.43	0.0282	0.0010
Venus	14264-10-26 06:57 G	6931177.65	6931177.79	6931177.93	0.0282	0.0209
Mercury	14265-07-21 07:12 G	6931445.70	6931445.80	6931445.91	0.0283	0.0199
Mercury	14265-10-17 23:31 G	6931534.33	6931534.48	6931534.63	0.0283	0.0085
Mercury	14266-01-14 16:04 G	6931623.01	6931623.17	6931623.33	0.0283	0.0032
Mercury	14266-04-13 08:52 G	6931711.74	6931711.87	6931712.01	0.0283	0.0151
Mercury	14266-07-11 02:09 G	6931800.56	6931800.59	6931800.64	0.0283	0.0273
Earth	14267-10-14 06:43 G	6932260.75	6932260.78	6932260.81	0.0283	0.0279
Moon	14267-10-14 08:52 G	6932260.80	6932260.87	6932260.97	0.0283	0.0266 *
Moon	14268-10-26 12:57 G	6932638.95	6932639.04	6932639.15	0.0283	0.0257
Earth	14268-10-26 14:52 G	6932639.01	6932639.12	6932639.25	0.0283	0.0243 *
Mars	14272-06-01 16:48 G	6933953.00	6933953.20	6933953.41	0.0281	0.0207
Venus	14278-01-07 06:43 G	6935998.72	6935998.78	6935998.88	0.0277	0.0255
Venus	14278-08-24 17:16 G	6936228.01	6936228.22	6936228.43	0.0277	0.0049
Venus	14279-04-11 03:07 G	6936457.46	6936457.63	6936457.81	0.0277	0.0157
Mercury	14280-02-26 21:21 G	6936779.29	6936779.39	6936779.50	0.0277	0.0206
Mercury	14280-05-25 12:14 G	6936867.87	6936868.01	6936868.16	0.0276	0.0099
Mercury	14280-08-22 02:52 G	6936956.47	6936956.62	6936956.77	0.0276	0.0007
Mercury	14280-11-18 17:02 G	6937045.08	6937045.21	6937045.35	0.0276	0.0110
Mercury	14281-02-15 06:57 G	6937133.70	6937133.79	6937133.89	0.0276	0.0210
Earth	14283-04-26 13:40 G	6937933.85	6937934.07	6937934.30	0.0277	0.0105
Moon	14283-04-26 17:31 G	6937934.01	6937934.23	6937934.45	0.0277	0.0118 *
Venus	14293-02-03 13:40 G	6941504.92	6941505.07	6941505.23	0.0282	0.0190
Venus	14293-09-21 03:21 G	6941734.43	6941734.64	6941734.85	0.0282	0.0027
Venus	14294-05-08 17:16 G	6941964.12	6941964.22	6941964.33	0.0282	0.0245
Mercury	14294-12-08 10:04 G	6942177.83	6942177.92	6942178.02	0.0283	0.0220
Mercury	14295-03-07 02:09 G	6942266.45	6942266.59	6942266.74	0.0283	0.0107
Mercury	14295-06-03 18:43 G	6942355.13	6942355.28	6942355.44	0.0283	0.0013
Mercury	14295-08-31 11:45 G	6942443.85	6942443.99	6942444.13	0.0283	0.0129

Mercury	14295-11-28 04:48 G	6942532.64	6942532.70	6942532.78	0.0283	0.0251
Earth	14297-10-21 12:14 G	6943225.77	6943226.01	6943226.25	0.0283	0.0031
Moon	14297-10-21 13:55 G	6943225.84	6943226.08	6943226.31	0.0283	0.0046 *
Venus	14307-07-21 16:48 G	6946785.07	6946785.20	6946785.33	0.0277	0.0218
Venus	14308-03-07 02:38 G	6947014.40	6947014.61	6947014.82	0.0277	0.0013
Venus	14308-10-22 12:00 G	6947243.86	6947244.00	6947244.16	0.0276	0.0191
Mercury	14309-07-17 00:00 G	6947511.42	6947511.50	6947511.59	0.0276	0.0228
Mercury	14309-10-13 14:52 G	6947599.99	6947600.12	6947600.26	0.0276	0.0121
Mercury	14310-01-10 05:31 G	6947688.58	6947688.73	6947688.88	0.0276	0.0016
Mercury	14310-04-08 19:40 G	6947777.18	6947777.32	6947777.47	0.0276	0.0088
Mercury	14310-07-06 09:50 G	6947865.80	6947865.91	6947866.02	0.0276	0.0188
Moon	14312-04-21 06:57 G	6948520.56	6948520.79	6948521.02	0.0276	0.0092
Earth	14312-04-21 10:48 G	6948520.73	6948520.95	6948521.18	0.0276	0.0104 *
Venus	14322-08-17 16:19 G	6952291.01	6952291.18	6952291.35	0.0282	0.0165
Venus	14323-04-04 06:00 G	6952520.54	6952520.75	6952520.96	0.0282	0.0052
Venus	14323-11-19 19:55 G	6952750.27	6952750.33	6952750.39	0.0283	0.0269
Mercury	14324-04-27 10:04 G	6952909.86	6952909.92	6952909.98	0.0283	0.0258
Mercury	14324-07-25 01:55 G	6952998.45	6952998.58	6952998.72	0.0283	0.0147
Mercury	14324-10-21 18:28 G	6953087.11	6953087.27	6953087.42	0.0283	0.0032
Mercury	14325-01-18 11:02 G	6953175.81	6953175.96	6953176.12	0.0283	0.0086
Mercury	14325-04-17 04:04 G	6953264.57	6953264.67	6953264.79	0.0283	0.0207
Moon	14326-10-16 15:21 G	6953811.97	6953812.14	6953812.33	0.0283	0.0195
Earth	14326-10-16 17:31 G	6953812.08	6953812.23	6953812.41	0.0283	0.0211 *
Venus	14337-01-30 18:43 G	6957571.14	6957571.28	6957571.44	0.0277	0.0197
Venus	14337-09-17 05:02 G	6957800.49	6957800.71	6957800.92	0.0277	0.0010
Venus	14338-05-04 14:24 G	6958029.98	6958030.10	6958030.24	0.0276	0.0214
Mercury	14338-12-04 00:28 G	6958243.48	6958243.52	6958243.56	0.0276	0.0266
Mercury	14339-03-02 15:36 G	6958332.02	6958332.15	6958332.27	0.0276	0.0158
Mercury	14339-05-30 06:14 G	6958420.61	6958420.76	6958420.91	0.0276	0.0051
Mercury	14339-08-26 20:38 G	6958509.22	6958509.36	6958509.51	0.0276	0.0053

Mercury	14339-11-23 10:48 G	6958597.83	6958597.95	6958598.07	0.0276	0.0155
Mercury	14340-02-20 00:28 G	6958686.47	6958686.52	6958686.58	0.0276	0.0254
Earth	14342-04-28 21:21 G	6959485.20	6959485.39	6959485.60	0.0276	0.0167
Moon	14342-04-28 22:04 G	6959485.23	6959485.42	6959485.62	0.0276	0.0181 *
Mars	14346-08-16 14:52 G	6961055.91	6961056.12	6961056.35	0.0278	0.0173
Venus	14352-02-28 01:12 G	6963077.37	6963077.55	6963077.75	0.0282	0.0132
Venus	14352-10-14 15:07 G	6963306.94	6963307.13	6963307.34	0.0282	0.0086
Mercury	14353-09-14 12:43 G	6963642.02	6963642.03	6963642.04	0.0283	0.0281
Mercury	14353-12-12 04:33 G	6963730.57	6963730.69	6963730.82	0.0283	0.0170
Mercury	14354-03-10 20:52 G	6963819.22	6963819.37	6963819.52	0.0283	0.0055
Mercury	14354-06-07 13:26 G	6963907.91	6963908.06	6963908.22	0.0283	0.0063
Mercury	14354-09-04 06:28 G	6963996.65	6963996.77	6963996.90	0.0283	0.0182
Earth	14356-10-23 22:04 G	6964777.19	6964777.42	6964777.65	0.0283	0.0097
Moon	14356-10-24 01:55 G	6964777.35	6964777.58	6964777.80	0.0283	0.0114 *
Mars	14360-10-28 18:28 G	6966242.98	6966243.27	6966243.56	0.0281	0.0083
Venus	14366-08-13 04:33 G	6968357.53	6968357.69	6968357.87	0.0277	0.0161
Venus	14367-03-30 14:38 G	6968586.90	6968587.11	6968587.32	0.0276	0.0045
Venus	14367-11-15 00:00 G	6968816.41	6968816.50	6968816.59	0.0276	0.0248
Mercury	14368-07-19 18:14 G	6969064.15	6969064.26	6969064.38	0.0276	0.0179
Mercury	14368-10-16 09:07 G	6969152.73	6969152.88	6969153.03	0.0276	0.0072
Mercury	14369-01-12 23:31 G	6969241.33	6969241.48	6969241.63	0.0276	0.0032
Mercury	14369-04-11 13:40 G	6969329.94	6969330.07	6969330.20	0.0276	0.0134
Mercury	14369-07-09 03:36 G	6969418.57	6969418.65	6969418.73	0.0276	0.0233
Moon	14371-04-23 19:12 G	6970072.06	6970072.30	6970072.54	0.0275	0.0027
Earth	14371-04-23 19:26 G	6970072.07	6970072.31	6970072.56	0.0275	0.0041 *
Venus	14381-09-09 03:50 G	6973863.47	6973863.66	6973863.86	0.0282	0.0107
Venus	14382-04-26 17:31 G	6974093.04	6974093.23	6974093.43	0.0282	0.0111
Mercury	14383-05-01 04:19 G	6974462.58	6974462.68	6974462.78	0.0283	0.0210
Mercury	14383-07-28 20:24 G	6974551.21	6974551.35	6974551.50	0.0283	0.0097
Mercury	14383-10-25 12:57 G	6974639.88	6974640.04	6974640.20	0.0283	0.0020

Mercury	14384-01-22 05:45 G	6974728.60	6974728.74	6974728.88	0.0283	0.0139
Mercury	14384-04-19 23:02 G	6974817.40	6974817.46	6974817.52	0.0283	0.0260
Moon	14385-10-17 23:31 G	6975363.27	6975363.48	6975363.70	0.0283	0.0129
Earth	14385-10-18 02:52 G	6975363.42	6975363.62	6975363.84	0.0283	0.0145 *
Venus	14396-02-23 06:14 G	6979143.58	6979143.76	6979143.95	0.0277	0.0140
Venus	14396-10-09 16:04 G	6979372.97	6979373.17	6979373.38	0.0276	0.0065
Venus	14397-05-27 01:40 G	6979602.53	6979602.57	6979602.62	0.0276	0.0268
Mercury	14397-12-06 18:28 G	6979796.18	6979796.27	6979796.37	0.0276	0.0217
Mercury	14398-03-05 09:21 G	6979884.76	6979884.89	6979885.04	0.0276	0.0111
Mercury	14398-06-02 00:14 G	6979973.35	6979973.51	6979973.66	0.0276	0.0009
Mercury	14398-08-29 14:24 G	6980061.96	6980062.10	6980062.24	0.0276	0.0098
Mercury	14398-11-26 04:19 G	6980150.58	6980150.68	6980150.78	0.0276	0.0199
Moon	14400-04-17 08:52 G	6980658.77	6980658.87	6980658.99	0.0276	0.0247
Earth	14400-04-17 08:52 G	6980658.80	6980658.87	6980658.96	0.0276	0.0259 *
Moon	14401-04-30 00:57 G	6981036.43	6981036.54	6981036.67	0.0276	0.0242
Earth	14401-04-30 04:33 G	6981036.56	6981036.69	6981036.84	0.0276	0.0226 *
Venus	14411-03-22 11:16 G	6984649.77	6984649.97	6984650.18	0.0282	0.0076
Venus	14411-11-07 01:26 G	6984879.38	6984879.56	6984879.74	0.0282	0.0142
Mercury	14412-09-17 06:28 G	6985194.68	6985194.77	6985194.85	0.0283	0.0236
Mercury	14412-12-14 22:19 G	6985283.29	6985283.43	6985283.57	0.0283	0.0124
Mercury	14413-03-13 14:52 G	6985371.96	6985372.12	6985372.28	0.0283	0.0009
Mercury	14413-06-10 07:40 G	6985460.67	6985460.82	6985460.97	0.0283	0.0111
Mercury	14413-09-07 00:43 G	6985549.45	6985549.53	6985549.63	0.0283	0.0232
Earth	14415-10-26 05:02 G	6986328.52	6986328.71	6986328.92	0.0283	0.0159
Moon	14415-10-26 05:16 G	6986328.52	6986328.72	6986328.92	0.0283	0.0174 *
Venus	14425-09-04 16:04 G	6989929.97	6989930.17	6989930.37	0.0277	0.0103
Venus	14426-04-22 01:40 G	6990159.37	6990159.57	6990159.77	0.0276	0.0101
Mercury	14427-04-25 21:21 G	6990528.31	6990528.39	6990528.47	0.0276	0.0238
Mercury	14427-07-23 12:14 G	6990616.88	6990617.01	6990617.15	0.0276	0.0131
Mercury	14427-10-20 02:52 G	6990705.47	6990705.62	6990705.77	0.0276	0.0026

Mercury	14428-01-16 17:16 G	6990794.08	6990794.22	6990794.36	0.0276	0.0078
Mercury	14428-04-14 07:12 G	6990882.69	6990882.80	6990882.92	0.0276	0.0179
Earth	14430-04-25 02:52 G	6991623.38	6991623.62	6991623.87	0.0275	0.0021
Moon	14430-04-25 06:28 G	6991623.53	6991623.77	6991624.01	0.0275	0.0036 *
Mars	14435-01-10 12:00 G	6993344.86	6993345.00	6993345.15	0.0278	0.0236
Venus	14440-02-15 00:57 G	6995206.47	6995206.54	6995206.60	0.0282	0.0266
Venus	14440-10-01 14:09 G	6995435.89	6995436.09	6995436.30	0.0282	0.0051
Venus	14441-05-19 04:04 G	6995665.50	6995665.67	6995665.84	0.0282	0.0167
Mercury	14442-02-04 06:14 G	6995926.73	6995926.76	6995926.80	0.0283	0.0275
Mercury	14442-05-03 22:04 G	6996015.30	6996015.42	6996015.55	0.0283	0.0164
Mercury	14442-07-31 14:24 G	6996103.95	6996104.10	6996104.26	0.0283	0.0050
Mercury	14442-10-28 07:12 G	6996192.64	6996192.80	6996192.95	0.0283	0.0068
Mercury	14443-01-25 00:00 G	6996281.39	6996281.50	6996281.63	0.0283	0.0188
Earth	14444-10-19 10:04 G	6996914.69	6996914.92	6996915.16	0.0283	0.0083
Moon	14444-10-19 10:48 G	6996914.72	6996914.95	6996915.17	0.0283	0.0069 *
Mars	14449-03-24 02:52 G	6998531.32	6998531.62	6998531.93	0.0281	0.0036
Venus	14455-03-17 16:33 G	7000716.00	7000716.19	7000716.40	0.0277	0.0086
Venus	14455-11-02 02:24 G	7000945.41	7000945.60	7000945.79	0.0276	0.0120
Mercury	14456-12-09 12:14 G	7001348.89	7001349.01	7001349.13	0.0276	0.0171
Mercury	14457-03-08 03:07 G	7001437.48	7001437.63	7001437.78	0.0276	0.0065
Mercury	14457-06-04 17:31 G	7001526.08	7001526.23	7001526.38	0.0276	0.0039
Mercury	14457-09-01 07:40 G	7001614.69	7001614.82	7001614.95	0.0276	0.0141
Mercury	14457-11-28 21:21 G	7001703.33	7001703.39	7001703.47	0.0276	0.0241
Moon	14459-04-19 11:31 G	7002209.80	7002209.98	7002210.16	0.0276	0.0187
Earth	14459-04-19 14:52 G	7002209.96	7002210.12	7002210.29	0.0276	0.0201 *
Venus	14469-08-27 06:14 G	7005992.66	7005992.76	7005992.88	0.0282	0.0239
Venus	14470-04-13 20:09 G	7006222.13	7006222.34	7006222.55	0.0282	0.0022
Venus	14470-11-29 10:19 G	7006451.78	7006451.93	7006452.08	0.0282	0.0196
Mercury	14471-09-20 23:31 G	7006747.37	7006747.48	7006747.60	0.0283	0.0194
Mercury	14471-12-18 15:50 G	7006836.01	7006836.16	7006836.31	0.0283	0.0080

Mercury	14472-03-16 08:24 G	7006924.69	7006924.85	7006925.01	0.0283	0.0037
Mercury	14472-06-13 01:12 G	7007013.42	7007013.55	7007013.69	0.0283	0.0156
Mercury	14472-09-09 18:28 G	7007102.25	7007102.27	7007102.30	0.0283	0.0278
Moon	14474-10-27 06:00 G	7007879.62	7007879.75	7007879.90	0.0283	0.0230
Earth	14474-10-27 10:04 G	7007879.76	7007879.92	7007880.07	0.0283	0.0216 *
Venus	14484-02-10 16:04 G	7011273.10	7011273.17	7011273.27	0.0277	0.0253
Venus	14484-09-27 02:09 G	7011502.39	7011502.59	7011502.80	0.0277	0.0049
Venus	14485-05-14 11:45 G	7011731.82	7011731.99	7011732.17	0.0276	0.0156
Mercury	14486-04-28 14:52 G	7012081.02	7012081.12	7012081.24	0.0276	0.0192
Mercury	14486-07-26 06:00 G	7012169.60	7012169.75	7012169.89	0.0276	0.0085
Mercury	14486-10-22 20:24 G	7012258.20	7012258.35	7012258.50	0.0276	0.0020
Mercury	14487-01-19 10:33 G	7012346.81	7012346.94	7012347.08	0.0276	0.0121
Mercury	14487-04-18 00:28 G	7012435.44	7012435.52	7012435.61	0.0276	0.0221
Earth	14489-04-26 09:21 G	7013174.65	7013174.89	7013175.13	0.0275	0.0079
Moon	14489-04-26 11:31 G	7013174.74	7013174.98	7013175.22	0.0275	0.0093 *
Venus	14499-03-09 09:50 G	7016778.77	7016778.91	7016779.04	0.0282	0.0213
Venus	14499-10-24 23:16 G	7017008.25	7017008.47	7017008.68	0.0282	0.0006
Venus	14500-06-11 12:57 G	7017237.92	7017238.04	7017238.18	0.0282	0.0221
Mercury	14501-02-07 23:31 G	7017479.40	7017479.48	7017479.57	0.0283	0.0233
Mercury	14501-05-07 15:36 G	7017568.01	7017568.15	7017568.29	0.0283	0.0121
Mercury	14501-08-04 07:55 G	7017656.67	7017656.83	7017656.99	0.0283	0.0005
Mercury	14501-11-01 00:43 G	7017745.38	7017745.53	7017745.67	0.0283	0.0113
Mercury	14502-01-28 17:45 G	7017834.16	7017834.24	7017834.33	0.0283	0.0234
Earth	14503-10-22 14:38 G	7018465.87	7018466.11	7018466.35	0.0283	0.0026
Moon	14503-10-22 18:14 G	7018466.02	7018466.26	7018466.50	0.0283	0.0011 *
Venus	14513-08-23 16:19 G	7022059.08	7022059.18	7022059.29	0.0277	0.0236
Venus	14514-04-10 02:24 G	7022288.39	7022288.60	7022288.81	0.0276	0.0031
Venus	14514-11-25 12:00 G	7022517.84	7022518.00	7022518.17	0.0276	0.0173
Mercury	14515-09-16 14:38 G	7022813.03	7022813.11	7022813.19	0.0276	0.0235
Mercury	14515-12-14 05:45 G	7022901.60	7022901.74	7022901.87	0.0276	0.0127

Mercury	14516-03-11 20:24 G	7022990.20	7022990.35	7022990.50	0.0276	0.0022
Mercury	14516-06-08 10:33 G	7023078.80	7023078.94	7023079.09	0.0276	0.0082
Mercury	14516-09-05 00:43 G	7023167.42	7023167.53	7023167.64	0.0276	0.0182
Moon	14518-04-21 17:31 G	7023761.03	7023761.23	7023761.44	0.0276	0.0132
Earth	14518-04-21 19:40 G	7023761.12	7023761.32	7023761.54	0.0276	0.0145 *
Venus	14528-09-19 13:40 G	7027564.92	7027565.07	7027565.23	0.0282	0.0188
Venus	14529-05-07 03:36 G	7027794.44	7027794.65	7027794.86	0.0282	0.0029
Venus	14529-12-22 17:45 G	7028024.14	7028024.24	7028024.35	0.0283	0.0247
Mercury	14530-06-28 00:28 G	7028211.47	7028211.52	7028211.57	0.0283	0.0266
Mercury	14530-09-24 16:19 G	7028300.05	7028300.18	7028300.31	0.0283	0.0155
Mercury	14530-12-22 08:38 G	7028388.71	7028388.86	7028389.02	0.0283	0.0040
Mercury	14531-03-21 01:26 G	7028477.40	7028477.56	7028477.71	0.0283	0.0078
Mercury	14531-06-17 18:14 G	7028566.15	7028566.26	7028566.38	0.0283	0.0198
Moon	14532-10-15 23:31 G	7029052.36	7029052.48	7029052.62	0.0283	0.0239
Earth	14532-10-16 02:52 G	7029052.53	7029052.62	7029052.74	0.0283	0.0254 *
Moon	14533-10-29 10:48 G	7029430.93	7029430.95	7029430.98	0.0283	0.0281
Earth	14533-10-29 12:28 G	7029430.95	7029431.02	7029431.10	0.0283	0.0268 *
Mars	14537-08-19 06:28 G	7030820.47	7030820.77	7030821.07	0.0282	0.0049
Venus	14543-03-06 01:26 G	7032845.42	7032845.56	7032845.71	0.0277	0.0201
Venus	14543-10-21 11:31 G	7033074.76	7033074.98	7033075.19	0.0277	0.0006
Venus	14544-06-06 20:52 G	7033304.24	7033304.37	7033304.51	0.0276	0.0208
Mercury	14545-02-02 17:16 G	7033545.17	7033545.22	7033545.28	0.0276	0.0256
Mercury	14545-05-02 08:24 G	7033633.72	7033633.85	7033633.98	0.0276	0.0148
Mercury	14545-07-29 23:16 G	7033722.32	7033722.47	7033722.62	0.0276	0.0043
Mercury	14545-10-26 13:40 G	7033810.92	7033811.07	7033811.21	0.0276	0.0061
Mercury	14546-01-23 03:36 G	7033899.53	7033899.65	7033899.77	0.0276	0.0162
Mercury	14546-04-21 17:16 G	7033988.18	7033988.22	7033988.27	0.0276	0.0261
Moon	14548-04-28 12:00 G	7034725.79	7034726.00	7034726.22	0.0275	0.0148
Earth	14548-04-28 13:55 G	7034725.88	7034726.08	7034726.31	0.0275	0.0135 *
Venus	14558-04-01 17:31 G	7038351.06	7038351.23	7038351.40	0.0282	0.0162

Venus	14558-11-17 06:57 G	7038580.59	7038580.79	7038581.00	0.0282	0.0055
Venus	14559-07-04 20:52 G	7038810.32	7038810.37	7038810.43	0.0282	0.0272
Mercury	14560-02-11 16:19 G	7039032.07	7039032.18	7039032.29	0.0283	0.0194
Mercury	14560-05-10 08:24 G	7039120.70	7039120.85	7039121.00	0.0283	0.0081
Mercury	14560-08-07 00:57 G	7039209.38	7039209.54	7039209.70	0.0283	0.0036
Mercury	14560-11-03 17:45 G	7039298.11	7039298.24	7039298.38	0.0283	0.0155
Mercury	14561-01-31 11:02 G	7039386.94	7039386.96	7039387.00	0.0283	0.0277
Earth	14562-10-23 17:16 G	7040016.98	7040017.22	7040017.47	0.0283	0.0028
Moon	14562-10-23 18:57 G	7040017.04	7040017.29	7040017.54	0.0283	0.0041 *
Venus	14572-09-15 00:57 G	7043631.39	7043631.54	7043631.70	0.0277	0.0184
Venus	14573-05-02 11:02 G	7043860.75	7043860.96	7043861.17	0.0276	0.0021
Venus	14573-12-17 20:38 G	7044090.24	7044090.36	7044090.48	0.0276	0.0225
Mercury	14574-09-19 07:55 G	7044365.72	7044365.83	7044365.94	0.0276	0.0192
Mercury	14574-12-16 22:48 G	7044454.31	7044454.45	7044454.60	0.0276	0.0085
Mercury	14575-03-15 13:26 G	7044542.91	7044543.06	7044543.21	0.0276	0.0020
Mercury	14575-06-12 03:36 G	7044631.52	7044631.65	7044631.78	0.0276	0.0121
Mercury	14575-09-08 17:31 G	7044720.14	7044720.23	7044720.32	0.0276	0.0221
Earth	14577-04-22 23:45 G	7045312.26	7045312.49	7045312.72	0.0275	0.0091
Moon	14577-04-23 01:40 G	7045312.34	7045312.57	7045312.80	0.0275	0.0076 *
Mars	14581-09-12 15:36 G	7046916.06	7046916.15	7046916.26	0.0277	0.0257
Venus	14587-10-12 20:09 G	7049137.16	7049137.34	7049137.53	0.0282	0.0139
Venus	14588-05-29 10:04 G	7049366.72	7049366.92	7049367.13	0.0282	0.0078
Mercury	14589-06-30 16:33 G	7049764.11	7049764.19	7049764.28	0.0283	0.0231
Mercury	14589-09-27 08:38 G	7049852.72	7049852.86	7049853.01	0.0283	0.0118
Mercury	14589-12-25 01:12 G	7049941.39	7049941.55	7049941.71	0.0283	0.0003
Mercury	14590-03-23 18:00 G	7050030.10	7050030.25	7050030.39	0.0283	0.0116
Mercury	14590-06-20 11:02 G	7050118.88	7050118.96	7050119.05	0.0283	0.0237
Jupiter	14591-10-07 11:45 G	7050592.62	7050592.99	7050593.42	0.0283	0.0174
Moon	14591-10-18 01:40 G	7050603.40	7050603.57	7050603.75	0.0283	0.0191
Earth	14591-10-18 03:07 G	7050603.47	7050603.63	7050603.81	0.0283	0.0205 *

Venus	14602-03-29 09:36 G	7054417.73	7054417.90	7054418.08	0.0277	0.0150
Venus	14602-11-13 19:40 G	7054647.11	7054647.32	7054647.53	0.0277	0.0056
Venus	14603-07-01 05:16 G	7054876.65	7054876.72	7054876.79	0.0276	0.0259
Mercury	14604-02-07 10:19 G	7055097.84	7055097.93	7055098.04	0.0276	0.0215
Mercury	14604-05-06 01:26 G	7055186.42	7055186.56	7055186.70	0.0276	0.0107
Mercury	14604-08-02 16:04 G	7055275.02	7055275.17	7055275.32	0.0276	0.0004
Mercury	14604-10-30 06:28 G	7055363.63	7055363.77	7055363.91	0.0276	0.0101
Mercury	14605-01-26 20:24 G	7055452.25	7055452.35	7055452.45	0.0276	0.0201
Moon	14607-05-01 14:24 G	7056276.95	7056277.10	7056277.27	0.0275	0.0202
Earth	14607-05-01 18:00 G	7056277.07	7056277.25	7056277.43	0.0275	0.0187 *
Venus	14617-04-25 00:28 G	7059923.33	7059923.52	7059923.72	0.0282	0.0113
Venus	14617-12-10 14:09 G	7060152.89	7060153.09	7060153.29	0.0282	0.0104
Mercury	14618-11-18 17:02 G	7060496.17	7060496.21	7060496.26	0.0283	0.0267
Mercury	14619-02-15 08:52 G	7060584.75	7060584.87	7060585.00	0.0283	0.0156
Mercury	14619-05-15 01:12 G	7060673.39	7060673.55	7060673.70	0.0283	0.0042
Mercury	14619-08-11 17:45 G	7060762.09	7060762.24	7060762.39	0.0283	0.0076
Mercury	14619-11-08 10:48 G	7060850.84	7060850.95	7060851.06	0.0283	0.0195
Moon	14621-10-25 16:04 G	7061567.93	7061568.17	7061568.41	0.0283	0.0090
Earth	14621-10-25 18:43 G	7061568.05	7061568.28	7061568.52	0.0283	0.0079 *
Mars	14626-01-12 23:16 G	7063108.18	7063108.47	7063108.77	0.0282	0.0072
Venus	14631-10-09 09:07 G	7065203.70	7065203.88	7065204.07	0.0277	0.0134
Venus	14632-05-25 19:12 G	7065433.09	7065433.30	7065433.50	0.0276	0.0072
Venus	14633-01-10 04:48 G	7065662.68	7065662.70	7065662.72	0.0276	0.0274
Mercury	14633-06-26 09:50 G	7065829.86	7065829.91	7065829.96	0.0276	0.0259
Mercury	14633-09-23 00:57 G	7065918.41	7065918.54	7065918.67	0.0276	0.0151
Mercury	14633-12-20 15:36 G	7066007.00	7066007.15	7066007.30	0.0276	0.0045
Mercury	14634-03-19 06:00 G	7066095.61	7066095.75	7066095.90	0.0276	0.0059
Mercury	14634-06-15 20:09 G	7066184.22	7066184.34	7066184.46	0.0276	0.0160
Mercury	14634-09-12 09:50 G	7066272.87	7066272.91	7066272.97	0.0275	0.0259
Earth	14636-04-25 02:52 G	7066863.38	7066863.62	7066863.87	0.0275	0.0038

Moon	14636-04-25 06:28 G	7066863.53	7066863.77	7066864.02	0.0275	0.0022 *
Venus	14646-11-05 02:09 G	7070709.39	7070709.59	7070709.79	0.0282	0.0091
Venus	14647-06-22 16:19 G	7070938.99	7070939.18	7070939.37	0.0282	0.0127
Mercury	14648-07-04 08:52 G	7071316.76	7071316.87	7071316.98	0.0283	0.0196
Mercury	14648-10-01 00:57 G	7071405.39	7071405.54	7071405.69	0.0283	0.0082
Mercury	14648-12-28 17:31 G	7071494.07	7071494.23	7071494.39	0.0283	0.0034
Mercury	14649-03-27 10:19 G	7071582.80	7071582.93	7071583.07	0.0283	0.0153
Mercury	14649-06-24 03:36 G	7071671.62	7071671.65	7071671.69	0.0283	0.0275
Earth	14650-10-20 02:38 G	7072154.41	7072154.61	7072154.82	0.0283	0.0157
Moon	14650-10-20 05:31 G	7072154.53	7072154.73	7072154.94	0.0283	0.0142 *
Venus	14661-04-20 17:02 G	7075990.01	7075990.21	7075990.41	0.0277	0.0101
Venus	14661-12-06 03:07 G	7076219.44	7076219.63	7076219.83	0.0277	0.0105
Mercury	14663-02-10 03:21 G	7076650.52	7076650.64	7076650.76	0.0276	0.0174
Mercury	14663-05-09 18:14 G	7076739.11	7076739.26	7076739.41	0.0276	0.0068
Mercury	14663-08-06 08:52 G	7076827.72	7076827.87	7076828.02	0.0276	0.0037
Mercury	14663-11-02 22:48 G	7076916.33	7076916.45	7076916.59	0.0276	0.0139
Mercury	14664-01-30 12:57 G	7077004.97	7077005.04	7077005.11	0.0276	0.0238
Moon	14665-04-19 22:33 G	7077450.31	7077450.44	7077450.59	0.0276	0.0225
Earth	14665-04-20 02:09 G	7077450.48	7077450.59	7077450.71	0.0276	0.0240 *
Earth	14666-05-02 20:52 G	7077828.26	7077828.37	7077828.50	0.0275	0.0240
Moon	14666-05-02 21:07 G	7077828.29	7077828.38	7077828.47	0.0275	0.0254 *
Mars	14670-02-07 13:12 G	7079204.86	7079205.05	7079205.25	0.0276	0.0197
Venus	14675-09-30 18:14 G	7081266.24	7081266.26	7081266.31	0.0281	0.0277
Venus	14676-05-17 07:40 G	7081495.61	7081495.82	7081496.03	0.0281	0.0063
Venus	14677-01-01 21:07 G	7081725.21	7081725.38	7081725.56	0.0282	0.0154
Mercury	14677-11-21 09:21 G	7082048.81	7082048.89	7082048.99	0.0282	0.0231
Mercury	14678-02-18 01:26 G	7082137.42	7082137.56	7082137.70	0.0283	0.0118
Mercury	14678-05-17 17:45 G	7082226.08	7082226.24	7082226.40	0.0283	0.0004
Mercury	14678-08-14 10:19 G	7082314.79	7082314.93	7082315.08	0.0283	0.0115
Mercury	14678-11-11 03:36 G	7082403.56	7082403.65	7082403.74	0.0283	0.0235

Moon	14680-10-26 16:04 G	7083118.97	7083119.17	7083119.38	0.0283	0.0139
Earth	14680-10-26 19:12 G	7083119.09	7083119.30	7083119.52	0.0283	0.0128 *
Venus	14690-10-31 16:48 G	7086776.00	7086776.20	7086776.41	0.0277	0.0084
Venus	14691-06-18 02:38 G	7087005.43	7087005.61	7087005.81	0.0276	0.0122
Mercury	14692-06-29 02:38 G	7087382.52	7087382.61	7087382.71	0.0276	0.0219
Mercury	14692-09-25 17:45 G	7087471.10	7087471.24	7087471.38	0.0276	0.0111
Mercury	14692-12-23 08:24 G	7087559.70	7087559.85	7087560.00	0.0276	0.0007
Mercury	14693-03-21 22:48 G	7087648.31	7087648.45	7087648.59	0.0276	0.0097
Mercury	14693-06-18 12:43 G	7087736.93	7087737.03	7087737.14	0.0276	0.0197
Moon	14695-04-27 05:31 G	7088414.48	7088414.73	7088414.98	0.0275	0.0030
Earth	14695-04-27 06:14 G	7088414.51	7088414.76	7088415.00	0.0275	0.0016 *
Venus	14705-04-12 18:57 G	7092052.21	7092052.29	7092052.38	0.0281	0.0257
Venus	14705-11-28 08:24 G	7092281.64	7092281.85	7092282.06	0.0282	0.0043
Venus	14706-07-15 22:04 G	7092511.26	7092511.42	7092511.59	0.0282	0.0174
Mercury	14707-04-11 09:07 G	7092780.84	7092780.88	7092780.92	0.0283	0.0272
Mercury	14707-07-09 00:57 G	7092869.42	7092869.54	7092869.67	0.0283	0.0161
Mercury	14707-10-05 17:16 G	7092958.06	7092958.22	7092958.37	0.0283	0.0047
Mercury	14708-01-02 09:50 G	7093046.75	7093046.91	7093047.06	0.0283	0.0070
Mercury	14708-03-31 02:38 G	7093135.50	7093135.61	7093135.73	0.0283	0.0190
Earth	14709-10-22 01:40 G	7093705.35	7093705.57	7093705.80	0.0283	0.0110
Moon	14709-10-22 04:33 G	7093705.46	7093705.69	7093705.93	0.0283	0.0097 *
Mars	14714-06-09 04:33 G	7095396.41	7095396.69	7095396.97	0.0282	0.0114
Venus	14719-09-27 13:26 G	7097332.99	7097333.06	7097333.14	0.0278	0.0259
Venus	14720-05-14 00:14 G	7097562.30	7097562.51	7097562.72	0.0278	0.0052
Venus	14720-12-29 10:19 G	7097791.76	7097791.93	7097792.11	0.0277	0.0155
Mercury	14721-11-17 04:48 G	7098114.64	7098114.70	7098114.78	0.0277	0.0244
Mercury	14722-02-13 20:09 G	7098203.21	7098203.34	7098203.47	0.0276	0.0135
Mercury	14722-05-13 10:48 G	7098291.80	7098291.95	7098292.11	0.0276	0.0031
Mercury	14722-08-10 01:26 G	7098380.41	7098380.56	7098380.70	0.0276	0.0075
Mercury	14722-11-06 15:21 G	7098469.03	7098469.14	7098469.26	0.0276	0.0176

Mercury	14723-02-03 05:16 G	7098557.71	7098557.72	7098557.73	0.0276	0.0274
Earth	14724-04-22 05:02 G	7099001.54	7099001.71	7099001.90	0.0276	0.0188
Moon	14724-04-22 06:00 G	7099001.57	7099001.75	7099001.93	0.0276	0.0173 *
Venus	14734-10-24 01:40 G	7102838.45	7102838.57	7102838.70	0.0281	0.0228
Venus	14735-06-10 14:52 G	7103067.91	7103068.12	7103068.33	0.0281	0.0013
Venus	14736-01-26 04:19 G	7103297.54	7103297.68	7103297.83	0.0282	0.0203
Mercury	14736-11-25 01:55 G	7103601.48	7103601.58	7103601.70	0.0282	0.0193
Mercury	14737-02-21 18:00 G	7103690.11	7103690.25	7103690.41	0.0282	0.0081
Mercury	14737-05-21 10:33 G	7103778.78	7103778.94	7103779.10	0.0283	0.0035
Mercury	14737-08-18 03:21 G	7103867.51	7103867.64	7103867.77	0.0283	0.0154
Mercury	14737-11-14 20:24 G	7103956.32	7103956.35	7103956.39	0.0283	0.0275
Earth	14739-10-29 20:09 G	7104670.15	7104670.34	7104670.53	0.0283	0.0179
Moon	14739-10-29 21:21 G	7104670.22	7104670.39	7104670.58	0.0283	0.0186 *
Venus	14749-04-08 13:40 G	7108118.98	7108119.07	7108119.18	0.0277	0.0241
Venus	14749-11-24 00:28 G	7108348.31	7108348.52	7108348.73	0.0277	0.0035
Venus	14750-07-11 10:19 G	7108577.77	7108577.93	7108578.10	0.0276	0.0171
Mercury	14751-07-03 19:26 G	7108935.20	7108935.31	7108935.43	0.0276	0.0179
Mercury	14751-09-30 10:33 G	7109023.79	7109023.94	7109024.09	0.0276	0.0072
Mercury	14751-12-28 01:12 G	7109112.40	7109112.55	7109112.70	0.0276	0.0033
Mercury	14752-03-25 15:21 G	7109201.01	7109201.14	7109201.27	0.0276	0.0135
Mercury	14752-06-22 05:16 G	7109289.65	7109289.72	7109289.80	0.0276	0.0234
Moon	14754-04-29 05:31 G	7109965.49	7109965.73	7109965.97	0.0275	0.0081
Earth	14754-04-29 09:21 G	7109965.65	7109965.89	7109966.13	0.0275	0.0068 *
Mars	14758-07-04 12:28 G	7111492.81	7111493.02	7111493.25	0.0277	0.0169
Venus	14764-05-05 01:55 G	7113624.45	7113624.58	7113624.73	0.0281	0.0209
Venus	14764-12-20 15:21 G	7113853.93	7113854.14	7113854.35	0.0282	0.0007
Venus	14765-08-07 04:48 G	7114083.58	7114083.70	7114083.84	0.0282	0.0224
Mercury	14766-04-14 01:26 G	7114333.48	7114333.56	7114333.65	0.0282	0.0236
Mercury	14766-07-11 17:16 G	7114422.09	7114422.22	7114422.37	0.0283	0.0125
Mercury	14766-10-08 09:50 G	7114510.75	7114510.91	7114511.06	0.0283	0.0013

Mercury	14767-01-05 02:24 G	7114599.45	7114599.60	7114599.75	0.0283	0.0108
Mercury	14767-04-03 19:26 G	7114688.22	7114688.31	7114688.40	0.0283	0.0229
Moon	14768-10-22 23:31 G	7115256.24	7115256.48	7115256.73	0.0283	0.0054
Earth	14768-10-23 01:40 G	7115256.34	7115256.57	7115256.81	0.0283	0.0061 *
Venus	14778-10-19 20:24 G	7118905.22	7118905.35	7118905.49	0.0278	0.0211
Venus	14779-06-06 07:12 G	7119134.59	7119134.80	7119135.01	0.0278	0.0004
Venus	14780-01-21 17:31 G	7119364.09	7119364.23	7119364.38	0.0277	0.0202
Mercury	14780-11-19 21:50 G	7119667.31	7119667.41	7119667.51	0.0277	0.0204
Mercury	14781-02-16 12:43 G	7119755.89	7119756.03	7119756.18	0.0277	0.0097
Mercury	14781-05-16 03:36 G	7119844.50	7119844.65	7119844.80	0.0277	0.0011
Mercury	14781-08-12 17:45 G	7119933.11	7119933.24	7119933.38	0.0276	0.0113
Mercury	14781-11-09 07:55 G	7120021.74	7120021.83	7120021.93	0.0276	0.0213
Earth	14783-04-24 08:24 G	7120552.63	7120552.85	7120553.06	0.0276	0.0134
Moon	14783-04-24 12:00 G	7120552.78	7120553.00	7120553.22	0.0276	0.0119 *
Venus	14793-11-15 09:36 G	7124410.74	7124410.90	7124411.07	0.0281	0.0177
Venus	14794-07-02 22:48 G	7124640.24	7124640.45	7124640.66	0.0281	0.0037
Venus	14795-02-17 12:14 G	7124869.92	7124870.01	7124870.10	0.0282	0.0253
Mercury	14795-09-01 03:07 G	7125065.58	7125065.63	7125065.68	0.0282	0.0264
Mercury	14795-11-28 18:43 G	7125154.16	7125154.28	7125154.42	0.0282	0.0154
Mercury	14796-02-25 11:02 G	7125242.80	7125242.96	7125243.11	0.0282	0.0040
Mercury	14796-05-24 03:36 G	7125331.50	7125331.65	7125331.80	0.0282	0.0076
Mercury	14796-08-20 20:24 G	7125420.24	7125420.35	7125420.47	0.0283	0.0195
Moon	14797-10-17 15:50 G	7125843.13	7125843.16	7125843.21	0.0283	0.0278
Earth	14798-10-30 21:50 G	7126221.27	7126221.41	7126221.56	0.0283	0.0230
Moon	14798-10-31 01:40 G	7126221.44	7126221.57	7126221.71	0.0283	0.0233 *
Mars	14802-11-02 04:19 G	7127684.43	7127684.68	7127684.94	0.0282	0.0150
Venus	14808-04-30 21:36 G	7129691.26	7129691.40	7129691.56	0.0278	0.0192
Venus	14808-12-16 08:24 G	7129920.64	7129920.85	7129921.07	0.0277	0.0017
Venus	14809-08-02 18:28 G	7130150.15	7130150.27	7130150.40	0.0277	0.0221
Mercury	14810-04-08 21:21 G	7130399.33	7130399.39	7130399.46	0.0276	0.0246

Mercury	14810-07-06 12:28 G	7130487.90	7130488.02	7130488.16	0.0276	0.0138
Mercury	14810-10-03 03:36 G	7130576.49	7130576.65	7130576.80	0.0276	0.0032
Mercury	14810-12-30 18:00 G	7130665.10	7130665.25	7130665.40	0.0276	0.0072
Mercury	14811-03-29 08:09 G	7130753.73	7130753.84	7130753.95	0.0276	0.0173
Mercury	14811-06-25 22:04 G	7130842.40	7130842.42	7130842.44	0.0276	0.0272
Moon	14813-04-30 12:28 G	7131516.82	7131517.02	7131517.24	0.0275	0.0132
Earth	14813-04-30 13:12 G	7131516.84	7131517.05	7131517.28	0.0275	0.0123 *
Venus	14823-05-28 09:50 G	7135196.74	7135196.91	7135197.09	0.0281	0.0158
Venus	14824-01-12 23:02 G	7135426.26	7135426.46	7135426.67	0.0282	0.0058
Venus	14824-08-29 12:28 G	7135655.98	7135656.02	7135656.08	0.0282	0.0273
Mercury	14825-04-16 18:14 G	7135886.15	7135886.26	7135886.37	0.0282	0.0198
Mercury	14825-07-14 10:04 G	7135974.78	7135974.92	7135975.07	0.0282	0.0086
Mercury	14825-10-11 02:38 G	7136063.45	7136063.61	7136063.76	0.0283	0.0031
Mercury	14826-01-07 19:12 G	7136152.17	7136152.30	7136152.44	0.0283	0.0149
Mercury	14826-04-06 12:28 G	7136240.98	7136241.02	7136241.07	0.0283	0.0270
Moon	14827-10-25 00:00 G	7136807.26	7136807.50	7136807.74	0.0283	0.0008
Earth	14827-10-25 03:21 G	7136807.39	7136807.64	7136807.88	0.0283	0.0010 *
Venus	14837-11-11 03:50 G	7140477.49	7140477.66	7140477.83	0.0278	0.0163
Venus	14838-06-28 14:38 G	7140706.90	7140707.11	7140707.32	0.0278	0.0045
Venus	14839-02-13 00:43 G	7140936.46	7140936.53	7140936.63	0.0277	0.0252
Mercury	14839-08-26 23:16 G	7141131.46	7141131.47	7141131.49	0.0277	0.0274
Mercury	14839-11-23 14:38 G	7141219.99	7141220.11	7141220.24	0.0277	0.0165
Mercury	14840-02-20 05:31 G	7141308.59	7141308.73	7141308.88	0.0277	0.0058
Mercury	14840-05-18 20:09 G	7141397.19	7141397.34	7141397.49	0.0277	0.0048
Mercury	14840-08-15 10:33 G	7141485.81	7141485.94	7141486.06	0.0277	0.0150
Mercury	14840-11-12 00:28 G	7141574.46	7141574.52	7141574.58	0.0277	0.0250
Earth	14842-04-25 12:00 G	7142103.76	7142104.00	7142104.23	0.0276	0.0080
Moon	14842-04-25 13:12 G	7142103.80	7142104.05	7142104.30	0.0276	0.0067 *
Mars	14846-11-28 17:16 G	7143781.97	7143782.22	7143782.49	0.0276	0.0097
Venus	14852-12-07 18:57 G	7145983.10	7145983.29	7145983.48	0.0281	0.0125

Venus	14853-07-25 07:55 G	7146212.63	7146212.83	7146213.03	0.0281	0.0090
Mercury	14854-09-03 20:09 G	7146618.26	7146618.34	7146618.44	0.0282	0.0223
Mercury	14854-12-01 12:14 G	7146706.87	7146707.01	7146707.15	0.0282	0.0111
Mercury	14855-02-28 04:33 G	7146795.53	7146795.69	7146795.84	0.0282	0.0007
Mercury	14855-05-27 21:07 G	7146884.24	7146884.38	7146884.52	0.0282	0.0120
Mercury	14855-08-24 13:55 G	7146973.01	7146973.08	7146973.17	0.0282	0.0241
Earth	14856-10-18 17:45 G	7147394.10	7147394.24	7147394.38	0.0283	0.0230
Moon	14856-10-18 20:52 G	7147394.23	7147394.37	7147394.53	0.0283	0.0222 *
Moon	14857-11-01 01:40 G	7147772.57	7147772.57	7147772.59	0.0283	0.0283
Venus	14867-05-24 06:00 G	7151263.58	7151263.75	7151263.94	0.0278	0.0142
Venus	14868-01-08 17:02 G	7151493.00	7151493.21	7151493.41	0.0277	0.0066
Venus	14868-08-25 02:52 G	7151722.59	7151722.62	7151722.67	0.0277	0.0271
Mercury	14869-04-11 14:52 G	7151952.01	7151952.12	7151952.22	0.0276	0.0204
Mercury	14869-07-09 05:45 G	7152040.60	7152040.74	7152040.89	0.0276	0.0096
Mercury	14869-10-05 20:38 G	7152129.21	7152129.36	7152129.51	0.0276	0.0010
Mercury	14870-01-02 10:48 G	7152217.82	7152217.95	7152218.09	0.0276	0.0113
Mercury	14870-04-01 00:57 G	7152306.45	7152306.54	7152306.64	0.0276	0.0213
Earth	14872-05-01 18:14 G	7153068.09	7153068.26	7153068.46	0.0275	0.0179
Moon	14872-05-01 21:36 G	7153068.23	7153068.40	7153068.58	0.0275	0.0186 *
Venus	14882-06-19 19:12 G	7156769.11	7156769.30	7156769.50	0.0281	0.0105
Venus	14883-02-04 08:09 G	7156998.65	7156998.84	7156999.04	0.0282	0.0110
Mercury	14884-01-21 19:40 G	7157350.27	7157350.32	7157350.37	0.0282	0.0266
Mercury	14884-04-19 11:16 G	7157438.85	7157438.97	7157439.10	0.0282	0.0156
Mercury	14884-07-17 03:36 G	7157527.49	7157527.65	7157527.80	0.0282	0.0043
Mercury	14884-10-13 19:55 G	7157616.18	7157616.33	7157616.49	0.0282	0.0074
Mercury	14885-01-10 12:43 G	7157704.92	7157705.03	7157705.15	0.0283	0.0193
Earth	14886-10-26 06:28 G	7158358.53	7158358.77	7158359.02	0.0283	0.0046
Moon	14886-10-26 06:57 G	7158358.56	7158358.79	7158359.03	0.0283	0.0046 *
Mars	14891-03-28 08:24 G	7159972.64	7159972.85	7159973.09	0.0282	0.0190
Venus	14896-12-03 12:14 G	7162049.81	7162050.01	7162050.20	0.0278	0.0113

Venus	14897-07-20 23:02 G	7162279.26	7162279.46	7162279.66	0.0278	0.0096
Mercury	14898-08-29 16:33 G	7162684.11	7162684.19	7162684.28	0.0277	0.0232
Mercury	14898-11-26 07:40 G	7162772.69	7162772.82	7162772.96	0.0277	0.0124
Mercury	14899-02-22 22:33 G	7162861.29	7162861.44	7162861.60	0.0277	0.0019
Mercury	14899-05-22 13:12 G	7162949.91	7162950.05	7162950.19	0.0277	0.0088
Mercury	14899-08-19 03:21 G	7163038.53	7163038.64	7163038.75	0.0277	0.0190
Moon	14901-04-27 14:09 G	7163654.84	7163655.09	7163655.34	0.0276	0.0012
Earth	14901-04-27 17:02 G	7163654.97	7163655.21	7163655.46	0.0276	0.0023 *
Venus	14912-01-01 05:02 G	7167555.51	7167555.71	7167555.92	0.0281	0.0071
Venus	14912-08-17 18:00 G	7167785.07	7167785.25	7167785.44	0.0281	0.0145
Mercury	14913-09-07 13:55 G	7168170.97	7168171.08	7168171.20	0.0282	0.0179
Mercury	14913-12-05 06:00 G	7168259.60	7168259.75	7168259.90	0.0282	0.0066
Mercury	14914-03-03 22:19 G	7168348.28	7168348.43	7168348.59	0.0282	0.0049
Mercury	14914-05-31 15:07 G	7168437.00	7168437.13	7168437.26	0.0282	0.0167
Moon	14915-10-21 23:31 G	7168945.28	7168945.48	7168945.69	0.0283	0.0165
Earth	14915-10-21 23:31 G	7168945.30	7168945.48	7168945.69	0.0283	0.0171 *
Venus	14926-06-16 15:50 G	7172835.96	7172836.16	7172836.36	0.0278	0.0089
Venus	14927-02-01 02:24 G	7173065.41	7173065.60	7173065.79	0.0277	0.0119
Mercury	14928-01-17 17:02 G	7173416.18	7173416.21	7173416.24	0.0277	0.0269
Mercury	14928-04-15 08:24 G	7173504.72	7173504.85	7173504.97	0.0276	0.0160
Mercury	14928-07-12 23:16 G	7173593.32	7173593.47	7173593.62	0.0276	0.0053
Mercury	14928-10-09 13:55 G	7173681.93	7173682.08	7173682.23	0.0276	0.0052
Mercury	14929-01-06 04:19 G	7173770.55	7173770.68	7173770.80	0.0276	0.0154
Mercury	14929-04-04 18:00 G	7173859.20	7173859.25	7173859.31	0.0276	0.0254
Earth	14930-04-22 05:02 G	7174241.60	7174241.71	7174241.84	0.0276	0.0241
Moon	14930-04-22 07:55 G	7174241.70	7174241.83	7174241.97	0.0276	0.0227 *
Earth	14931-05-05 00:57 G	7174619.42	7174619.54	7174619.67	0.0275	0.0237
Moon	14931-05-05 03:50 G	7174619.55	7174619.66	7174619.78	0.0275	0.0243 *
Mars	14935-04-25 03:07 G	7176070.36	7176070.63	7176070.91	0.0277	0.0052
Venus	14940-11-25 17:16 G	7178112.15	7178112.22	7178112.30	0.0281	0.0262

Venus	14941-07-13 06:00 G	7178341.54	7178341.75	7178341.96	0.0281	0.0049
Venus	14942-02-27 18:57 G	7178571.12	7178571.29	7178571.46	0.0281	0.0166
Mercury	14943-01-25 13:26 G	7178902.97	7178903.06	7178903.16	0.0282	0.0221
Mercury	14943-04-24 05:16 G	7178991.58	7178991.72	7178991.86	0.0282	0.0110
Mercury	14943-07-21 21:36 G	7179080.24	7179080.40	7179080.55	0.0282	0.0009
Mercury	14943-10-18 14:09 G	7179168.94	7179169.09	7179169.23	0.0282	0.0121
Mercury	14944-01-15 06:57 G	7179257.72	7179257.79	7179257.88	0.0282	0.0241
Earth	14945-10-28 12:43 G	7179909.81	7179910.03	7179910.26	0.0283	0.0105
Moon	14945-10-28 16:04 G	7179909.95	7179910.17	7179910.40	0.0283	0.0104 *
Venus	14955-05-12 09:36 G	7183392.86	7183392.90	7183392.96	0.0279	0.0270
Venus	14955-12-27 21:07 G	7183622.18	7183622.38	7183622.59	0.0278	0.0062
Venus	14956-08-13 08:09 G	7183851.66	7183851.84	7183852.02	0.0278	0.0147
Mercury	14957-09-02 10:04 G	7184236.81	7184236.92	7184237.03	0.0277	0.0189
Mercury	14957-11-30 01:12 G	7184325.40	7184325.55	7184325.69	0.0277	0.0080
Mercury	14958-02-26 15:50 G	7184414.01	7184414.16	7184414.31	0.0277	0.0026
Mercury	14958-05-26 06:14 G	7184502.63	7184502.76	7184502.90	0.0277	0.0129
Mercury	14958-08-22 20:24 G	7184591.27	7184591.35	7184591.43	0.0277	0.0230
Moon	14960-04-28 19:55 G	7185206.10	7185206.33	7185206.57	0.0276	0.0047
Earth	14960-04-28 23:02 G	7185206.22	7185206.46	7185206.71	0.0276	0.0035 *
Venus	14970-06-08 03:50 G	7188898.55	7188898.66	7188898.79	0.0280	0.0227
Venus	14971-01-23 16:33 G	7189127.98	7189128.19	7189128.40	0.0281	0.0014
Venus	14971-09-10 05:31 G	7189357.59	7189357.73	7189357.88	0.0281	0.0201
Mercury	14972-06-13 16:19 G	7189635.11	7189635.18	7189635.26	0.0282	0.0241
Mercury	14972-09-10 08:09 G	7189723.70	7189723.84	7189723.98	0.0282	0.0131
Mercury	14972-12-08 00:14 G	7189812.36	7189812.51	7189812.67	0.0282	0.0018
Mercury	14973-03-06 16:48 G	7189901.05	7189901.20	7189901.35	0.0282	0.0099
Mercury	14973-06-03 09:36 G	7189989.80	7189989.90	7189990.00	0.0282	0.0218
Moon	14974-10-23 04:19 G	7190496.46	7190496.68	7190496.92	0.0283	0.0104
Earth	14974-10-23 07:40 G	7190496.61	7190496.82	7190497.06	0.0283	0.0108 *
Mars	14979-08-23 12:43 G	7192261.97	7192262.03	7192262.10	0.0282	0.0275

Venus	14984-11-21 15:07 G	7194179.04	7194179.13	7194179.25	0.0278	0.0242
Venus	14985-07-09 02:24 G	7194408.39	7194408.60	7194408.81	0.0278	0.0034
Venus	14986-02-23 12:43 G	7194637.88	7194638.03	7194638.21	0.0277	0.0174
Mercury	14987-01-20 11:02 G	7194968.87	7194968.96	7194969.05	0.0277	0.0222
Mercury	14987-04-19 02:09 G	7195057.46	7195057.59	7195057.74	0.0277	0.0113
Mercury	14987-07-16 17:02 G	7195146.06	7195146.21	7195146.37	0.0276	0.0010
Mercury	14987-10-13 07:40 G	7195234.68	7195234.82	7195234.96	0.0276	0.0097
Mercury	14988-01-09 21:50 G	7195323.31	7195323.41	7195323.51	0.0276	0.0198
Jupiter	14989-02-17 05:31 G	7195727.33	7195727.73	7195728.14	0.0276	0.0100
Earth	14989-04-23 13:26 G	7195792.88	7195793.06	7195793.25	0.0276	0.0179
Moon	14989-04-23 16:33 G	7195792.99	7195793.19	7195793.40	0.0276	0.0165 *
Venus	14999-12-19 05:02 G	7199684.58	7199684.71	7199684.86	0.0281	0.0205
Venus	15000-08-05 17:45 G	7199914.03	7199914.24	7199914.45	0.0281	0.0009

16TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 16th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	15001-03-23 06:28 G		7200143.65	7200143.77	7200143.91	0.0281	0.0224	
Mercury	15002-01-29 07:40 G		7200455.70	7200455.82	7200455.94	0.0282	0.0173	
Mercury	15002-04-27 23:31 G		7200544.33	7200544.48	7200544.64	0.0282	0.0061	
Mercury	15002-07-25 15:50 G		7200633.01	7200633.16	7200633.32	0.0282	0.0055	
Mercury	15002-10-22 08:38 G		7200721.74	7200721.86	7200721.99	0.0282	0.0173	
Earth	15004-10-30 20:52 G		7201461.19	7201461.37	7201461.58	0.0283	0.0169	

Moon	15004-10-30 23:02 G	7201461.26	7201461.46	7201461.67	0.0283	0.0166 *
Venus	15014-06-04 19:55 G	7204965.21	7204965.33	7204965.47	0.0279	0.0216
Venus	15015-01-20 07:26 G	7205194.60	7205194.81	7205195.03	0.0278	0.0008
Venus	15015-09-06 18:28 G	7205424.12	7205424.27	7205424.41	0.0278	0.0200
Mercury	15016-06-09 12:28 G	7205700.96	7205701.02	7205701.08	0.0278	0.0253
Mercury	15016-09-06 03:50 G	7205789.53	7205789.66	7205789.79	0.0277	0.0143
Mercury	15016-12-03 18:43 G	7205878.13	7205878.28	7205878.44	0.0277	0.0036
Mercury	15017-03-02 09:21 G	7205966.75	7205966.89	7205967.04	0.0277	0.0070
Mercury	15017-05-29 23:45 G	7206055.38	7206055.49	7206055.61	0.0277	0.0172
Mercury	15017-08-26 13:40 G	7206144.05	7206144.07	7206144.10	0.0277	0.0272
Earth	15019-05-02 06:14 G	7206757.53	7206757.76	7206758.00	0.0277	0.0096
Moon	15019-05-02 07:12 G	7206757.59	7206757.80	7206758.03	0.0277	0.0106 *
Mars	15023-09-20 16:19 G	7208359.91	7208360.18	7208360.46	0.0277	0.0038
Venus	15029-07-01 16:19 G	7210471.02	7210471.18	7210471.36	0.0280	0.0168
Venus	15030-02-16 05:02 G	7210700.50	7210700.71	7210700.92	0.0281	0.0045
Venus	15030-10-03 18:00 G	7210930.18	7210930.25	7210930.34	0.0281	0.0259
Mercury	15031-06-18 11:02 G	7211187.84	7211187.96	7211188.07	0.0282	0.0191
Mercury	15031-09-15 02:52 G	7211276.47	7211276.62	7211276.77	0.0282	0.0079
Mercury	15031-12-12 19:12 G	7211365.14	7211365.30	7211365.45	0.0282	0.0036
Mercury	15032-03-10 11:45 G	7211453.86	7211453.99	7211454.12	0.0282	0.0153
Mercury	15032-06-07 04:48 G	7211542.66	7211542.70	7211542.74	0.0282	0.0273
Moon	15033-10-25 16:19 G	7212047.94	7212048.18	7212048.41	0.0283	0.0039
Earth	15033-10-25 18:28 G	7212048.03	7212048.27	7212048.51	0.0283	0.0040 *
Venus	15043-12-16 03:07 G	7215751.47	7215751.63	7215751.79	0.0278	0.0185
Venus	15044-08-01 14:09 G	7215980.88	7215981.09	7215981.30	0.0278	0.0023
Venus	15045-03-19 00:28 G	7216210.40	7216210.52	7216210.64	0.0277	0.0228
Mercury	15046-01-24 05:16 G	7216521.60	7216521.72	7216521.84	0.0277	0.0173
Mercury	15046-04-22 20:24 G	7216610.20	7216610.35	7216610.50	0.0277	0.0065
Mercury	15046-07-20 11:02 G	7216698.81	7216698.96	7216699.11	0.0276	0.0041
Mercury	15046-10-17 01:26 G	7216787.43	7216787.56	7216787.69	0.0276	0.0143

Mercury	15047-01-13 15:36 G	7216876.08	7216876.15	7216876.22	0.0276	0.0243
Moon	15048-04-25 20:52 G	7217344.14	7217344.37	7217344.61	0.0276	0.0105
Earth	15048-04-25 22:33 G	7217344.22	7217344.44	7217344.67	0.0276	0.0116 *
Venus	15059-01-11 18:14 G	7221257.08	7221257.26	7221257.44	0.0281	0.0145
Venus	15059-08-29 06:43 G	7221486.58	7221486.78	7221486.99	0.0281	0.0068
Mercury	15060-11-04 10:33 G	7221919.86	7221919.94	7221920.03	0.0282	0.0232
Mercury	15061-02-01 02:24 G	7222008.46	7222008.60	7222008.74	0.0282	0.0121
Mercury	15061-04-30 18:28 G	7222097.11	7222097.27	7222097.43	0.0282	0.0008
Mercury	15061-07-28 11:02 G	7222185.81	7222185.96	7222186.10	0.0282	0.0108
Mercury	15061-10-25 03:50 G	7222274.57	7222274.66	7222274.76	0.0282	0.0227
Earth	15062-10-19 23:45 G	7222634.46	7222634.49	7222634.55	0.0283	0.0277
Moon	15062-10-20 01:40 G	7222634.51	7222634.57	7222634.63	0.0283	0.0273 *
Moon	15063-11-02 05:16 G	7223012.58	7223012.72	7223012.87	0.0283	0.0228
Earth	15063-11-02 07:26 G	7223012.69	7223012.81	7223012.95	0.0283	0.0235 *
Venus	15073-06-27 07:12 G	7226537.64	7226537.80	7226537.98	0.0279	0.0161
Venus	15074-02-11 18:43 G	7226767.07	7226767.28	7226767.49	0.0278	0.0049
Venus	15074-09-29 05:16 G	7226996.65	7226996.72	7226996.81	0.0278	0.0255
Mercury	15075-06-13 06:28 G	7227253.67	7227253.77	7227253.88	0.0278	0.0205
Mercury	15075-09-09 21:50 G	7227342.27	7227342.41	7227342.55	0.0277	0.0096
Mercury	15075-12-07 12:43 G	7227430.88	7227431.03	7227431.18	0.0277	0.0011
Mercury	15076-03-05 03:07 G	7227519.50	7227519.63	7227519.77	0.0277	0.0116
Mercury	15076-06-01 17:16 G	7227608.14	7227608.22	7227608.32	0.0277	0.0217
Earth	15078-05-03 14:52 G	7228308.92	7228309.12	7228309.32	0.0277	0.0159
Moon	15078-05-03 18:43 G	7228309.09	7228309.28	7228309.48	0.0277	0.0166 *
Venus	15088-07-24 05:31 G	7232043.53	7232043.73	7232043.92	0.0280	0.0109
Venus	15089-03-10 18:14 G	7232273.06	7232273.26	7232273.45	0.0281	0.0105
Mercury	15090-03-24 13:55 G	7232652.02	7232652.08	7232652.15	0.0282	0.0249
Mercury	15090-06-21 05:31 G	7232740.60	7232740.73	7232740.87	0.0282	0.0140
Mercury	15090-09-17 21:50 G	7232829.25	7232829.41	7232829.56	0.0282	0.0027
Mercury	15090-12-15 14:09 G	7232917.94	7232918.09	7232918.24	0.0282	0.0089

Mercury	15091-03-14 06:57 G	7233006.69	7233006.79	7233006.90	0.0282	0.0208
Earth	15092-10-27 05:45 G	7233599.49	7233599.74	7233599.98	0.0283	0.0029
Moon	15092-10-27 08:09 G	7233599.60	7233599.84	7233600.07	0.0283	0.0027 *
Venus	15103-01-08 15:36 G	7237323.97	7237324.15	7237324.34	0.0278	0.0127
Venus	15103-08-26 02:24 G	7237553.40	7237553.60	7237553.81	0.0278	0.0081
Mercury	15104-10-31 08:38 G	7237985.78	7237985.86	7237985.94	0.0277	0.0231
Mercury	15105-01-28 00:00 G	7238074.36	7238074.50	7238074.63	0.0277	0.0122
Mercury	15105-04-26 14:52 G	7238162.96	7238163.12	7238163.27	0.0277	0.0017
Mercury	15105-07-24 05:16 G	7238251.58	7238251.72	7238251.87	0.0276	0.0089
Mercury	15105-10-20 19:40 G	7238340.21	7238340.32	7238340.42	0.0276	0.0191
Moon	15107-04-29 05:16 G	7238895.48	7238895.72	7238895.97	0.0276	0.0043
Earth	15107-04-29 09:07 G	7238895.64	7238895.88	7238896.12	0.0276	0.0050 *
Mars	15112-02-15 14:52 G	7240648.87	7240649.12	7240649.39	0.0277	0.0105
Venus	15118-02-04 07:40 G	7242829.62	7242829.82	7242830.02	0.0281	0.0085
Venus	15118-09-21 20:09 G	7243059.16	7243059.34	7243059.53	0.0281	0.0129
Mercury	15119-11-09 05:31 G	7243472.61	7243472.73	7243472.85	0.0282	0.0179
Mercury	15120-02-05 21:21 G	7243561.24	7243561.39	7243561.54	0.0282	0.0068
Mercury	15120-05-04 13:40 G	7243649.92	7243650.07	7243650.23	0.0282	0.0047
Mercury	15120-08-01 06:14 G	7243738.64	7243738.76	7243738.89	0.0282	0.0165
Moon	15121-10-22 08:38 G	7244185.71	7244185.86	7244186.04	0.0283	0.0210
Earth	15121-10-22 12:00 G	7244185.83	7244186.00	7244186.16	0.0283	0.0207 *
Mars	15126-04-24 01:40 G	7245830.57	7245830.57	7245830.62	0.0282	0.0281
Venus	15132-07-20 19:26 G	7248110.11	7248110.31	7248110.51	0.0278	0.0103
Venus	15133-03-07 06:28 G	7248339.58	7248339.77	7248339.97	0.0278	0.0105
Mercury	15134-03-20 09:36 G	7248717.86	7248717.90	7248717.94	0.0278	0.0265
Mercury	15134-06-17 00:57 G	7248806.41	7248806.54	7248806.67	0.0277	0.0155
Mercury	15134-09-13 16:04 G	7248895.02	7248895.17	7248895.32	0.0277	0.0047
Mercury	15134-12-11 06:43 G	7248983.63	7248983.78	7248983.93	0.0277	0.0059
Mercury	15135-03-09 21:07 G	7249072.26	7249072.38	7249072.50	0.0277	0.0161
Mercury	15135-06-06 11:02 G	7249160.92	7249160.96	7249161.01	0.0277	0.0262

Earth	15136-04-23 01:55 G	7249482.51	7249482.58	7249482.68	0.0277	0.0259
Moon	15136-04-23 05:31 G	7249482.63	7249482.73	7249482.85	0.0277	0.0247 *
Earth	15137-05-05 23:45 G	7249860.35	7249860.49	7249860.64	0.0277	0.0222
Moon	15137-05-06 00:28 G	7249860.37	7249860.52	7249860.67	0.0277	0.0223 *
Venus	15146-12-31 06:00 G	7253386.68	7253386.75	7253386.83	0.0280	0.0260
Venus	15147-08-17 18:28 G	7253616.07	7253616.27	7253616.48	0.0281	0.0049
Venus	15148-04-03 07:12 G	7253845.64	7253845.80	7253845.98	0.0281	0.0166
Mercury	15149-03-28 08:38 G	7254204.76	7254204.86	7254204.98	0.0282	0.0198
Mercury	15149-06-25 00:28 G	7254293.38	7254293.52	7254293.67	0.0282	0.0087
Mercury	15149-09-21 16:48 G	7254382.05	7254382.20	7254382.36	0.0282	0.0028
Mercury	15149-12-19 09:21 G	7254470.76	7254470.89	7254471.03	0.0282	0.0145
Mercury	15150-03-18 02:24 G	7254559.55	7254559.60	7254559.65	0.0282	0.0264
Earth	15151-10-30 17:31 G	7255151.01	7255151.23	7255151.46	0.0283	0.0098
Moon	15151-10-30 21:07 G	7255151.15	7255151.38	7255151.61	0.0283	0.0093 *
Venus	15161-06-15 17:02 G	7258667.19	7258667.21	7258667.25	0.0278	0.0276
Venus	15162-01-31 04:33 G	7258896.48	7258896.69	7258896.90	0.0278	0.0068
Venus	15162-09-17 15:07 G	7259125.95	7259126.13	7259126.32	0.0278	0.0139
Mercury	15163-11-04 03:21 G	7259538.52	7259538.64	7259538.76	0.0277	0.0179
Mercury	15164-01-31 18:28 G	7259627.12	7259627.27	7259627.42	0.0277	0.0071
Mercury	15164-04-29 09:07 G	7259715.73	7259715.88	7259716.03	0.0277	0.0035
Mercury	15164-07-26 23:31 G	7259804.35	7259804.48	7259804.61	0.0276	0.0138
Mercury	15164-10-23 13:40 G	7259893.00	7259893.07	7259893.15	0.0276	0.0238
Moon	15166-04-30 19:12 G	7260447.07	7260447.30	7260447.54	0.0276	0.0022
Earth	15166-04-30 19:55 G	7260447.08	7260447.33	7260447.57	0.0276	0.0016 *
Venus	15176-07-12 08:52 G	7264172.76	7264172.87	7264172.98	0.0280	0.0236
Venus	15177-02-26 21:07 G	7264402.17	7264402.38	7264402.59	0.0281	0.0024
Venus	15177-10-14 09:36 G	7264631.76	7264631.90	7264632.07	0.0281	0.0190
Mercury	15178-08-15 08:52 G	7264936.79	7264936.87	7264936.95	0.0282	0.0236
Mercury	15178-11-12 00:28 G	7265025.38	7265025.52	7265025.66	0.0282	0.0126
Mercury	15179-02-08 16:33 G	7265114.03	7265114.19	7265114.35	0.0282	0.0013

Mercury	15179-05-08 08:52 G	7265202.73	7265202.87	7265203.02	0.0282	0.0103
Mercury	15179-08-05 01:40 G	7265291.48	7265291.57	7265291.67	0.0282	0.0221
Moon	15180-10-23 20:52 G	7265737.16	7265737.37	7265737.58	0.0283	0.0142
Earth	15180-10-23 23:45 G	7265737.28	7265737.49	7265737.71	0.0283	0.0138 *
Venus	15190-12-26 20:09 G	7269453.27	7269453.34	7269453.44	0.0279	0.0254
Venus	15191-08-13 07:55 G	7269682.62	7269682.83	7269683.04	0.0278	0.0045
Venus	15192-03-29 18:28 G	7269912.11	7269912.27	7269912.45	0.0278	0.0163
Mercury	15193-03-23 03:50 G	7270270.57	7270270.66	7270270.77	0.0277	0.0215
Mercury	15193-06-19 19:12 G	7270359.16	7270359.30	7270359.45	0.0277	0.0105
Mercury	15193-09-16 10:19 G	7270447.77	7270447.93	7270448.08	0.0277	0.0006
Mercury	15193-12-14 00:43 G	7270536.40	7270536.53	7270536.67	0.0277	0.0106
Mercury	15194-03-12 14:52 G	7270625.03	7270625.12	7270625.22	0.0277	0.0208
Earth	15195-04-25 11:31 G	7271033.81	7271033.98	7271034.16	0.0277	0.0195
Moon	15195-04-25 12:28 G	7271033.84	7271034.02	7271034.22	0.0277	0.0184 *
Mars	15200-07-12 02:09 G	7272938.39	7272938.59	7272938.79	0.0277	0.0194
Venus	15206-01-22 18:28 G	7274959.13	7274959.27	7274959.42	0.0280	0.0202
Venus	15206-09-09 07:12 G	7275188.59	7275188.80	7275189.01	0.0281	0.0011
Venus	15207-04-26 20:09 G	7275418.22	7275418.34	7275418.47	0.0281	0.0225
Mercury	15208-01-02 11:45 G	7275668.93	7275668.99	7275669.06	0.0282	0.0256
Mercury	15208-03-31 03:21 G	7275757.51	7275757.64	7275757.78	0.0282	0.0146
Mercury	15208-06-27 19:26 G	7275846.16	7275846.31	7275846.47	0.0282	0.0034
Mercury	15208-09-24 11:45 G	7275934.84	7275934.99	7275935.14	0.0282	0.0082
Mercury	15208-12-22 04:33 G	7276023.58	7276023.69	7276023.80	0.0282	0.0200
Moon	15210-11-01 04:19 G	7276702.48	7276702.68	7276702.90	0.0283	0.0158
Earth	15210-11-01 05:02 G	7276702.52	7276702.71	7276702.91	0.0283	0.0166 *
Mars	15214-09-19 08:52 G	7278120.61	7278120.87	7278121.14	0.0282	0.0149
Venus	15220-07-08 06:28 G	7280239.65	7280239.77	7280239.91	0.0278	0.0216
Venus	15221-02-22 17:31 G	7280469.02	7280469.23	7280469.45	0.0278	0.0010
Venus	15221-10-10 04:04 G	7280698.53	7280698.67	7280698.82	0.0277	0.0198
Mercury	15222-08-10 06:28 G	7281002.70	7281002.77	7281002.86	0.0277	0.0236

Mercury	15222-11-06 21:50 G	7281091.28	7281091.41	7281091.55	0.0277	0.0127
Mercury	15223-02-03 12:57 G	7281179.89	7281180.04	7281180.19	0.0277	0.0020
Mercury	15223-05-03 03:36 G	7281268.50	7281268.65	7281268.79	0.0277	0.0084
Mercury	15223-07-30 17:45 G	7281357.13	7281357.24	7281357.35	0.0276	0.0186
Earth	15225-05-02 06:14 G	7281998.53	7281998.76	7281999.00	0.0276	0.0081
Moon	15225-05-02 09:21 G	7281998.66	7281998.89	7281999.12	0.0276	0.0085 *
Venus	15235-08-04 21:21 G	7285745.24	7285745.39	7285745.56	0.0281	0.0177
Venus	15236-03-21 10:04 G	7285974.71	7285974.92	7285975.13	0.0281	0.0036
Venus	15236-11-05 22:48 G	7286204.36	7286204.45	7286204.55	0.0281	0.0250
Mercury	15237-08-18 03:21 G	7286489.53	7286489.64	7286489.76	0.0282	0.0185
Mercury	15237-11-14 19:12 G	7286578.16	7286578.30	7286578.46	0.0282	0.0074
Mercury	15238-02-11 11:31 G	7286666.83	7286666.98	7286667.14	0.0282	0.0041
Mercury	15238-05-11 04:04 G	7286755.54	7286755.67	7286755.80	0.0282	0.0158
Mercury	15238-08-07 21:07 G	7286844.36	7286844.38	7286844.41	0.0282	0.0277
Earth	15239-10-26 11:16 G	7287288.73	7287288.97	7287289.21	0.0283	0.0069
Moon	15239-10-26 12:00 G	7287288.77	7287289.00	7287289.22	0.0283	0.0074 *
Venus	15250-01-18 08:52 G	7291025.72	7291025.87	7291026.02	0.0278	0.0195
Venus	15250-09-04 19:55 G	7291255.12	7291255.33	7291255.54	0.0278	0.0013
Venus	15251-04-22 06:28 G	7291484.65	7291484.77	7291484.91	0.0278	0.0220
Mercury	15251-12-28 06:43 G	7291734.77	7291734.78	7291734.81	0.0277	0.0275
Mercury	15252-03-25 22:19 G	7291823.31	7291823.43	7291823.56	0.0277	0.0164
Mercury	15252-06-22 13:40 G	7291911.92	7291912.07	7291912.22	0.0277	0.0056
Mercury	15252-09-19 04:19 G	7292000.53	7292000.68	7292000.83	0.0277	0.0050
Mercury	15252-12-16 18:43 G	7292089.16	7292089.28	7292089.41	0.0277	0.0153
Mercury	15253-03-15 08:52 G	7292177.81	7292177.87	7292177.93	0.0277	0.0253
Moon	15254-04-26 17:16 G	7292585.01	7292585.22	7292585.46	0.0277	0.0124
Earth	15254-04-26 20:38 G	7292585.14	7292585.36	7292585.58	0.0277	0.0132 *
Venus	15265-02-14 06:14 G	7296531.58	7296531.76	7296531.95	0.0281	0.0144
Venus	15265-10-01 18:57 G	7296761.09	7296761.29	7296761.50	0.0281	0.0070
Mercury	15267-01-05 06:00 G	7297221.65	7297221.75	7297221.86	0.0282	0.0207

Mercury	15267-04-03 21:50 G	7297310.27	7297310.41	7297310.56	0.0282	0.0096
Mercury	15267-07-01 13:55 G	7297398.93	7297399.08	7297399.24	0.0282	0.0020
Mercury	15267-09-28 06:28 G	7297487.64	7297487.77	7297487.91	0.0282	0.0134
Mercury	15267-12-25 23:31 G	7297576.41	7297576.48	7297576.55	0.0282	0.0253
Moon	15268-10-20 06:57 G	7297875.76	7297875.79	7297875.85	0.0282	0.0277
Earth	15268-10-20 07:12 G	7297875.77	7297875.80	7297875.85	0.0282	0.0279 *
Moon	15269-11-02 11:16 G	7298253.82	7298253.97	7298254.13	0.0283	0.0220
Earth	15269-11-02 14:52 G	7298253.99	7298254.12	7298254.27	0.0283	0.0231 *
Venus	15279-07-31 19:12 G	7301812.13	7301812.30	7301812.48	0.0278	0.0157
Venus	15280-03-17 06:00 G	7302041.55	7302041.75	7302041.97	0.0278	0.0051
Venus	15280-11-01 16:19 G	7302271.11	7302271.18	7302271.27	0.0277	0.0256
Mercury	15281-08-13 01:12 G	7302555.44	7302555.55	7302555.67	0.0277	0.0184
Mercury	15281-11-09 16:19 G	7302644.04	7302644.18	7302644.33	0.0277	0.0077
Mercury	15282-02-06 07:12 G	7302732.65	7302732.80	7302732.95	0.0277	0.0029
Mercury	15282-05-05 21:36 G	7302821.27	7302821.40	7302821.54	0.0276	0.0133
Mercury	15282-08-02 11:45 G	7302909.92	7302909.99	7302910.07	0.0276	0.0233
Earth	15284-05-03 15:36 G	7303549.95	7303550.15	7303550.37	0.0276	0.0145
Moon	15284-05-03 18:43 G	7303550.07	7303550.28	7303550.50	0.0276	0.0149 *
Mars	15288-12-06 03:50 G	7305227.58	7305227.66	7305227.74	0.0276	0.0264
Venus	15294-08-27 09:07 G	7307317.70	7307317.88	7307318.08	0.0281	0.0119
Venus	15295-04-13 21:50 G	7307547.21	7307547.41	7307547.61	0.0281	0.0095
Mercury	15296-05-24 06:14 G	7307953.69	7307953.76	7307953.83	0.0282	0.0245
Mercury	15296-08-20 21:50 G	7308042.28	7308042.41	7308042.55	0.0282	0.0135
Mercury	15296-11-17 13:55 G	7308130.92	7308131.08	7308131.23	0.0282	0.0023
Mercury	15297-02-14 06:14 G	7308219.61	7308219.76	7308219.91	0.0282	0.0093
Mercury	15297-05-13 22:48 G	7308308.35	7308308.45	7308308.56	0.0282	0.0211
Earth	15298-10-27 21:07 G	7308840.14	7308840.38	7308840.62	0.0283	0.0004
Moon	15298-10-28 00:28 G	7308840.28	7308840.52	7308840.77	0.0283	0.0011 *
Mars	15303-02-14 00:00 G	7310409.21	7310409.50	7310409.80	0.0282	0.0089
Venus	15309-02-10 20:52 G	7312598.18	7312598.37	7312598.55	0.0278	0.0136

Venus	15309-09-28 07:40 G	7312827.62	7312827.82	7312828.03	0.0278	0.0071
Venus	15310-05-15 18:00 G	7313057.25	7313057.25	7313057.28	0.0277	0.0276
Mercury	15311-01-01 01:12 G	7313287.47	7313287.55	7313287.65	0.0277	0.0224
Mercury	15311-03-30 16:33 G	7313376.06	7313376.19	7313376.34	0.0277	0.0115
Mercury	15311-06-27 07:40 G	7313464.67	7313464.82	7313464.97	0.0277	0.0009
Mercury	15311-09-23 22:04 G	7313553.29	7313553.42	7313553.57	0.0277	0.0097
Mercury	15311-12-21 12:28 G	7313641.92	7313642.02	7313642.12	0.0277	0.0198
Moon	15313-04-29 01:55 G	7314136.35	7314136.58	7314136.82	0.0276	0.0064
Earth	15313-04-29 04:48 G	7314136.46	7314136.70	7314136.94	0.0276	0.0071 *
Venus	15324-03-09 16:33 G	7318103.99	7318104.19	7318104.40	0.0281	0.0088
Venus	15324-10-25 05:31 G	7318333.54	7318333.73	7318333.92	0.0281	0.0126
Mercury	15325-10-12 08:24 G	7318685.81	7318685.85	7318685.89	0.0282	0.0269
Mercury	15326-01-09 00:00 G	7318774.38	7318774.50	7318774.63	0.0282	0.0161
Mercury	15326-04-07 15:50 G	7318863.01	7318863.16	7318863.32	0.0282	0.0049
Mercury	15326-07-05 08:09 G	7318951.69	7318951.84	7318952.00	0.0282	0.0067
Mercury	15326-10-02 00:57 G	7319040.42	7319040.54	7319040.66	0.0282	0.0184
Moon	15327-10-23 11:31 G	7319426.83	7319426.98	7319427.14	0.0283	0.0219
Earth	15327-10-23 15:21 G	7319426.98	7319427.14	7319427.29	0.0283	0.0217 *
Venus	15338-08-24 06:57 G	7323384.60	7323384.79	7323384.99	0.0278	0.0099
Venus	15339-04-10 17:45 G	7323614.04	7323614.24	7323614.44	0.0278	0.0108
Mercury	15340-05-20 04:04 G	7324019.60	7324019.67	7324019.75	0.0277	0.0244
Mercury	15340-08-16 19:26 G	7324108.18	7324108.31	7324108.45	0.0277	0.0135
Mercury	15340-11-13 10:33 G	7324196.79	7324196.94	7324197.09	0.0277	0.0029
Mercury	15341-02-10 01:12 G	7324285.40	7324285.55	7324285.69	0.0277	0.0076
Mercury	15341-05-09 15:21 G	7324374.03	7324374.14	7324374.26	0.0276	0.0178
Earth	15342-04-24 03:07 G	7324723.60	7324723.63	7324723.69	0.0276	0.0270
Moon	15342-04-24 06:14 G	7324723.68	7324723.76	7324723.85	0.0276	0.0259 *
Moon	15343-05-06 22:33 G	7325101.28	7325101.44	7325101.62	0.0276	0.0205
Earth	15343-05-07 00:00 G	7325101.34	7325101.50	7325101.67	0.0276	0.0205 *
Mars	15347-03-16 18:43 G	7326511.16	7326511.28	7326511.42	0.0276	0.0244

Venus	15353-02-02 07:40 G	7328660.78	7328660.82	7328660.87	0.0280	0.0274
Venus	15353-09-19 19:55 G	7328890.13	7328890.33	7328890.54	0.0281	0.0063
Venus	15354-05-07 08:38 G	7329119.68	7329119.86	7329120.04	0.0281	0.0151
Mercury	15355-05-29 00:00 G	7329506.40	7329506.50	7329506.62	0.0282	0.0199
Mercury	15355-08-25 15:50 G	7329595.02	7329595.16	7329595.31	0.0282	0.0088
Mercury	15355-11-22 08:09 G	7329683.68	7329683.84	7329683.99	0.0282	0.0027
Mercury	15356-02-19 00:28 G	7329772.39	7329772.52	7329772.66	0.0282	0.0143
Mercury	15356-05-17 17:31 G	7329861.17	7329861.23	7329861.29	0.0282	0.0262
Earth	15357-10-30 05:02 G	7330391.47	7330391.71	7330391.95	0.0283	0.0058
Moon	15357-10-30 06:57 G	7330391.54	7330391.79	7330392.04	0.0283	0.0051 *
Venus	15368-03-05 07:55 G	7334170.63	7334170.83	7334171.03	0.0278	0.0080
Venus	15368-10-20 18:28 G	7334400.09	7334400.27	7334400.47	0.0277	0.0127
Mercury	15370-01-03 19:26 G	7334840.19	7334840.31	7334840.43	0.0277	0.0176
Mercury	15370-04-02 10:33 G	7334928.79	7334928.94	7334929.09	0.0277	0.0068
Mercury	15370-06-30 01:12 G	7335017.40	7335017.55	7335017.71	0.0277	0.0038
Mercury	15370-09-26 15:50 G	7335106.03	7335106.16	7335106.29	0.0277	0.0140
Mercury	15370-12-24 06:00 G	7335194.68	7335194.75	7335194.82	0.0276	0.0241
Earth	15372-04-30 11:45 G	7335687.74	7335687.99	7335688.23	0.0276	0.0012
Moon	15372-04-30 13:26 G	7335687.82	7335688.06	7335688.30	0.0276	0.0010 *
Venus	15382-08-15 12:57 G	7339446.94	7339447.04	7339447.14	0.0280	0.0247
Venus	15383-04-02 01:40 G	7339676.36	7339676.57	7339676.78	0.0281	0.0035
Venus	15383-11-17 14:38 G	7339905.95	7339906.11	7339906.27	0.0281	0.0179
Mercury	15384-10-15 01:40 G	7340238.48	7340238.57	7340238.66	0.0282	0.0228
Mercury	15385-01-11 17:16 G	7340327.08	7340327.22	7340327.36	0.0282	0.0118
Mercury	15385-04-10 09:21 G	7340415.74	7340415.89	7340416.05	0.0282	0.0007
Mercury	15385-07-08 01:55 G	7340504.43	7340504.58	7340504.72	0.0282	0.0112
Mercury	15385-10-04 18:43 G	7340593.19	7340593.28	7340593.37	0.0282	0.0230
Moon	15386-10-24 18:43 G	7340978.09	7340978.28	7340978.48	0.0283	0.0167
Earth	15386-10-24 20:09 G	7340978.15	7340978.34	7340978.55	0.0283	0.0161 *
Mars	15391-07-11 14:52 G	7342698.81	7342699.12	7342699.43	0.0283	0.0014

Venus	15397-01-29 06:43 G	7344727.69	7344727.78	7344727.88	0.0279	0.0250
Venus	15397-09-15 18:00 G	7344957.04	7344957.25	7344957.46	0.0278	0.0043
Venus	15398-05-03 04:33 G	7345186.52	7345186.69	7345186.86	0.0278	0.0164
Mercury	15399-05-23 22:19 G	7345572.32	7345572.43	7345572.53	0.0277	0.0196
Mercury	15399-08-20 13:26 G	7345660.91	7345661.06	7345661.21	0.0277	0.0088
Mercury	15399-11-17 04:19 G	7345749.53	7345749.68	7345749.83	0.0277	0.0018
Mercury	15400-02-13 18:43 G	7345838.15	7345838.28	7345838.42	0.0276	0.0121
Mercury	15400-05-13 08:52 G	7345926.79	7345926.87	7345926.96	0.0276	0.0222
Moon	15401-04-26 08:52 G	7346274.71	7346274.87	7346275.05	0.0276	0.0205
Earth	15401-04-26 10:48 G	7346274.80	7346274.95	7346275.12	0.0276	0.0211 *
Moon	15402-05-09 03:07 G	7346652.56	7346652.63	7346652.72	0.0276	0.0260
Earth	15402-05-09 06:57 G	7346652.73	7346652.79	7346652.87	0.0276	0.0263
Venus	15412-02-26 16:48 G	7350233.08	7350233.20	7350233.33	0.0280	0.0221
Venus	15412-10-13 05:16 G	7350462.51	7350462.72	7350462.93	0.0281	0.0010
Venus	15413-05-30 18:00 G	7350692.11	7350692.25	7350692.40	0.0281	0.0204
Mercury	15414-03-05 01:55 G	7350970.53	7350970.58	7350970.63	0.0282	0.0264
Mercury	15414-06-01 17:31 G	7351059.10	7351059.23	7351059.36	0.0282	0.0156
Mercury	15414-08-29 09:21 G	7351147.74	7351147.89	7351148.05	0.0282	0.0044
Mercury	15414-11-26 01:40 G	7351236.42	7351236.57	7351236.72	0.0282	0.0071
Mercury	15415-02-22 18:14 G	7351325.15	7351325.26	7351325.38	0.0282	0.0189
Moon	15416-11-01 07:40 G	7351942.59	7351942.82	7351943.06	0.0283	0.0103
Earth	15416-11-01 10:19 G	7351942.72	7351942.93	7351943.16	0.0283	0.0116 *
Venus	15426-08-12 06:57 G	7355513.68	7355513.79	7355513.90	0.0278	0.0233
Venus	15427-03-29 18:00 G	7355743.04	7355743.25	7355743.46	0.0278	0.0026
Venus	15427-11-14 04:33 G	7355972.53	7355972.69	7355972.85	0.0277	0.0181
Mercury	15428-10-10 21:36 G	7356304.33	7356304.40	7356304.48	0.0277	0.0240
Mercury	15429-01-07 12:57 G	7356392.91	7356393.04	7356393.18	0.0277	0.0131
Mercury	15429-04-06 04:04 G	7356481.52	7356481.67	7356481.82	0.0277	0.0024
Mercury	15429-07-03 18:43 G	7356570.13	7356570.28	7356570.42	0.0276	0.0080
Mercury	15429-09-30 08:52 G	7356658.77	7356658.87	7356658.99	0.0276	0.0183

Earth	15431-05-03 17:02 G	7357238.97	7357239.21	7357239.45	0.0276	0.0044
Moon	15431-05-03 20:52 G	7357239.12	7357239.37	7357239.61	0.0276	0.0043 *
Mars	15435-08-11 04:48 G	7358799.52	7358799.70	7358799.91	0.0277	0.0197
Venus	15441-09-07 20:52 G	7361019.22	7361019.37	7361019.52	0.0281	0.0196
Venus	15442-04-25 09:21 G	7361248.68	7361248.89	7361249.11	0.0281	0.0017
Venus	15442-12-10 22:33 G	7361478.32	7361478.44	7361478.56	0.0281	0.0231
Mercury	15443-10-19 18:28 G	7361791.16	7361791.27	7361791.39	0.0282	0.0188
Mercury	15444-01-16 10:19 G	7361879.78	7361879.93	7361880.08	0.0282	0.0077
Mercury	15444-04-14 02:24 G	7361968.45	7361968.60	7361968.76	0.0282	0.0038
Mercury	15444-07-11 18:57 G	7362057.16	7362057.29	7362057.43	0.0282	0.0154
Mercury	15444-10-08 12:00 G	7362145.97	7362146.00	7362146.04	0.0282	0.0273
Earth	15445-10-26 23:16 G	7362529.25	7362529.47	7362529.71	0.0283	0.0108
Moon	15445-10-27 02:24 G	7362529.39	7362529.60	7362529.83	0.0283	0.0118 *
Venus	15456-02-22 16:19 G	7366300.03	7366300.18	7366300.33	0.0279	0.0197
Venus	15456-10-09 03:21 G	7366529.43	7366529.64	7366529.85	0.0278	0.0011
Venus	15457-05-26 13:55 G	7366758.95	7366759.08	7366759.21	0.0278	0.0217
Mercury	15458-02-28 00:14 G	7367036.47	7367036.51	7367036.56	0.0277	0.0262
Mercury	15458-05-27 15:36 G	7367125.03	7367125.15	7367125.29	0.0277	0.0152
Mercury	15458-08-24 06:43 G	7367213.63	7367213.78	7367213.94	0.0277	0.0045
Mercury	15458-11-20 21:36 G	7367302.25	7367302.40	7367302.55	0.0277	0.0060
Mercury	15459-02-17 12:00 G	7367390.88	7367391.00	7367391.12	0.0277	0.0163
Mercury	15459-05-17 01:55 G	7367479.54	7367479.58	7367479.63	0.0276	0.0263
Moon	15460-04-27 12:43 G	7367825.84	7367826.03	7367826.24	0.0276	0.0153
Earth	15460-04-27 16:19 G	7367825.98	7367826.18	7367826.39	0.0276	0.0155 *
Venus	15471-03-21 00:43 G	7371805.37	7371805.53	7371805.71	0.0280	0.0170
Venus	15471-11-05 13:12 G	7372034.85	7372035.05	7372035.26	0.0281	0.0043
Venus	15472-06-22 02:09 G	7372264.51	7372264.59	7372264.68	0.0281	0.0256
Mercury	15473-03-07 18:57 G	7372523.20	7372523.29	7372523.38	0.0282	0.0225
Mercury	15473-06-04 10:33 G	7372611.80	7372611.94	7372612.08	0.0282	0.0115
Mercury	15473-09-01 02:24 G	7372700.45	7372700.60	7372700.76	0.0282	0.0009

Mercury	15473-11-28 18:57 G	7372789.14	7372789.29	7372789.43	0.0282	0.0113
Mercury	15474-02-25 11:45 G	7372877.90	7372877.99	7372878.08	0.0282	0.0232
Moon	15475-11-03 10:33 G	7373493.74	7373493.94	7373494.14	0.0283	0.0154
Earth	15475-11-03 13:26 G	7373493.88	7373494.06	7373494.27	0.0283	0.0169 *
Mars	15479-12-05 13:26 G	7374986.76	7374987.06	7374987.37	0.0283	0.0047
Venus	15485-09-03 16:04 G	7377086.02	7377086.17	7377086.34	0.0278	0.0180
Venus	15486-04-21 03:21 G	7377315.43	7377315.64	7377315.85	0.0278	0.0028
Venus	15486-12-06 13:40 G	7377544.97	7377545.07	7377545.19	0.0277	0.0233
Mercury	15487-10-14 15:07 G	7377857.02	7377857.13	7377857.24	0.0277	0.0196
Mercury	15488-01-11 06:14 G	7377945.62	7377945.76	7377945.91	0.0277	0.0088
Mercury	15488-04-08 21:07 G	7378034.23	7378034.38	7378034.54	0.0276	0.0020
Mercury	15488-07-06 11:45 G	7378122.86	7378122.99	7378123.13	0.0276	0.0122
Mercury	15488-10-03 01:55 G	7378211.50	7378211.58	7378211.67	0.0276	0.0223
Moon	15490-05-04 21:21 G	7378790.15	7378790.39	7378790.63	0.0276	0.0093
Earth	15490-05-04 21:36 G	7378790.17	7378790.40	7378790.63	0.0276	0.0098 *
Venus	15500-10-01 03:21 G	7382591.46	7382591.64	7382591.82	0.0281	0.0147
Venus	15501-05-18 16:04 G	7382820.96	7382821.17	7382821.38	0.0281	0.0066
Venus	15502-01-03 05:02 G	7383050.70	7383050.71	7383050.74	0.0281	0.0280
Mercury	15502-07-26 19:26 G	7383255.25	7383255.31	7383255.36	0.0282	0.0261
Mercury	15502-10-23 10:48 G	7383343.83	7383343.95	7383344.08	0.0282	0.0152
Mercury	15503-01-20 02:52 G	7383432.46	7383432.62	7383432.77	0.0282	0.0040
Mercury	15503-04-18 19:12 G	7383521.15	7383521.30	7383521.45	0.0282	0.0075
Mercury	15503-07-16 11:45 G	7383609.88	7383609.99	7383610.11	0.0282	0.0193
Earth	15504-10-29 00:28 G	7384080.28	7384080.52	7384080.75	0.0283	0.0058
Moon	15504-10-29 03:07 G	7384080.39	7384080.63	7384080.87	0.0283	0.0070 *
Venus	15515-03-18 00:43 G	7387872.36	7387872.53	7387872.72	0.0279	0.0146
Venus	15515-11-02 12:00 G	7388101.79	7388102.00	7388102.21	0.0278	0.0062
Venus	15516-06-18 22:19 G	7388331.39	7388331.43	7388331.49	0.0278	0.0268
Mercury	15517-03-03 17:31 G	7388589.14	7388589.23	7388589.33	0.0277	0.0219
Mercury	15517-05-31 08:52 G	7388677.73	7388677.87	7388678.01	0.0277	0.0110

Mercury	15517-08-28 00:00 G	7388766.34	7388766.50	7388766.65	0.0277	0.0008
Mercury	15517-11-24 14:38 G	7388854.97	7388855.11	7388855.25	0.0277	0.0101
Mercury	15518-02-21 04:48 G	7388943.60	7388943.70	7388943.80	0.0277	0.0202
Earth	15519-04-30 20:24 G	7389377.12	7389377.35	7389377.58	0.0276	0.0102
Moon	15519-04-30 20:09 G	7389377.12	7389377.34	7389377.57	0.0276	0.0101 *
Mars	15524-01-06 04:04 G	7391088.43	7391088.67	7391088.91	0.0276	0.0136
Venus	15530-04-13 08:09 G	7393377.65	7393377.84	7393378.03	0.0280	0.0120
Venus	15530-11-28 20:38 G	7393607.16	7393607.36	7393607.56	0.0281	0.0092
Mercury	15532-03-11 11:16 G	7394075.87	7394075.97	7394076.09	0.0282	0.0188
Mercury	15532-06-08 03:07 G	7394164.49	7394164.63	7394164.78	0.0282	0.0077
Mercury	15532-09-04 19:12 G	7394253.15	7394253.30	7394253.46	0.0282	0.0038
Mercury	15532-12-02 11:45 G	7394341.86	7394341.99	7394342.12	0.0282	0.0154
Mercury	15533-03-01 04:48 G	7394430.66	7394430.70	7394430.73	0.0282	0.0273
Earth	15534-11-05 15:21 G	7395045.00	7395045.14	7395045.31	0.0283	0.0220
Moon	15534-11-05 17:02 G	7395045.06	7395045.21	7395045.38	0.0283	0.0205 *
Venus	15544-09-27 00:28 G	7398658.34	7398658.52	7398658.71	0.0278	0.0129
Venus	15545-05-14 11:31 G	7398887.78	7398887.98	7398888.19	0.0278	0.0079
Mercury	15546-07-21 16:48 G	7399321.16	7399321.20	7399321.24	0.0277	0.0264
Mercury	15546-10-18 08:09 G	7399409.72	7399409.84	7399409.97	0.0277	0.0155
Mercury	15547-01-14 23:16 G	7399498.32	7399498.47	7399498.62	0.0277	0.0047
Mercury	15547-04-13 14:09 G	7399586.94	7399587.09	7399587.24	0.0276	0.0058
Mercury	15547-07-11 04:33 G	7399675.57	7399675.69	7399675.81	0.0276	0.0161
Mercury	15547-10-07 18:43 G	7399764.23	7399764.28	7399764.33	0.0276	0.0260
Moon	15549-05-06 21:21 G	7400341.18	7400341.39	7400341.60	0.0276	0.0140
Earth	15549-05-07 00:43 G	7400341.33	7400341.53	7400341.75	0.0276	0.0150 *
Venus	15559-10-24 09:21 G	7404163.70	7404163.89	7404164.09	0.0280	0.0100
Venus	15560-06-09 22:04 G	7404393.23	7404393.42	7404393.62	0.0281	0.0114
Mercury	15561-07-29 11:16 G	7404807.89	7404807.97	7404808.07	0.0282	0.0227
Mercury	15561-10-26 03:07 G	7404896.49	7404896.63	7404896.77	0.0282	0.0117
Mercury	15562-01-22 18:57 G	7404985.14	7404985.29	7404985.45	0.0282	0.0009

Mercury	15562-04-21 11:16 G	7405073.83	7405073.97	7405074.12	0.0282	0.0113
Mercury	15562-07-19 04:04 G	7405162.59	7405162.67	7405162.77	0.0282	0.0231
Moon	15563-10-30 21:50 G	7405631.16	7405631.41	7405631.66	0.0283	0.0026
Earth	15563-10-30 23:45 G	7405631.25	7405631.49	7405631.74	0.0283	0.0012 *
Mars	15568-05-01 00:00 G	7407275.22	7407275.50	7407275.80	0.0283	0.0100
Venus	15574-04-09 08:38 G	7409444.66	7409444.86	7409445.06	0.0279	0.0096
Venus	15574-11-24 19:40 G	7409674.13	7409674.32	7409674.52	0.0278	0.0113
Mercury	15576-03-06 10:33 G	7410141.83	7410141.94	7410142.06	0.0277	0.0178
Mercury	15576-06-03 01:55 G	7410230.43	7410230.58	7410230.73	0.0277	0.0070
Mercury	15576-08-30 16:48 G	7410319.05	7410319.20	7410319.35	0.0277	0.0036
Mercury	15576-11-27 07:12 G	7410407.68	7410407.80	7410407.93	0.0277	0.0140
Mercury	15577-02-23 21:36 G	7410496.32	7410496.40	7410496.47	0.0277	0.0240
Earth	15578-05-01 23:45 G	7410928.25	7410928.49	7410928.74	0.0276	0.0049
Moon	15578-05-02 03:07 G	7410928.39	7410928.63	7410928.87	0.0276	0.0050 *
Venus	15589-05-05 14:52 G	7414949.92	7414950.12	7414950.33	0.0280	0.0072
Venus	15589-12-21 03:07 G	7415179.46	7415179.63	7415179.82	0.0281	0.0141
Mercury	15590-12-16 12:14 G	7415539.96	7415540.01	7415540.07	0.0281	0.0260
Mercury	15591-03-15 03:50 G	7415628.53	7415628.66	7415628.79	0.0282	0.0151
Mercury	15591-06-11 19:40 G	7415717.17	7415717.32	7415717.47	0.0282	0.0040
Mercury	15591-09-08 12:00 G	7415805.84	7415806.00	7415806.15	0.0282	0.0075
Mercury	15591-12-06 04:19 G	7415894.57	7415894.68	7415894.80	0.0282	0.0193
Earth	15592-10-24 08:52 G	7416217.75	7416217.87	7416218.01	0.0283	0.0238
Moon	15592-10-24 10:48 G	7416217.85	7416217.95	7416218.07	0.0283	0.0250 *
Earth	15593-11-06 16:04 G	7416596.10	7416596.17	7416596.25	0.0283	0.0268
Moon	15593-11-06 19:40 G	7416596.22	7416596.32	7416596.43	0.0283	0.0252 *
Venus	15603-10-20 08:24 G	7420230.65	7420230.85	7420231.06	0.0278	0.0079
Venus	15604-06-05 19:26 G	7420460.13	7420460.31	7420460.50	0.0278	0.0129
Mercury	15605-07-24 09:50 G	7420873.82	7420873.91	7420874.00	0.0277	0.0223
Mercury	15605-10-21 01:12 G	7420962.41	7420962.55	7420962.69	0.0277	0.0114
Mercury	15606-01-17 16:19 G	7421051.02	7421051.18	7421051.33	0.0277	0.0009

Mercury	15606-04-16 06:43 G	7421139.65	7421139.78	7421139.93	0.0276	0.0098
Mercury	15606-07-13 21:07 G	7421228.28	7421228.38	7421228.49	0.0276	0.0199
Moon	15607-04-26 03:36 G	7421514.62	7421514.65	7421514.71	0.0276	0.0270
Earth	15607-04-26 07:12 G	7421514.77	7421514.80	7421514.85	0.0276	0.0271
Moon	15608-05-08 01:55 G	7421892.42	7421892.58	7421892.76	0.0276	0.0193
Earth	15608-05-08 03:50 G	7421892.50	7421892.66	7421892.84	0.0276	0.0201 *
Mars	15612-05-31 04:04 G	7423376.41	7423376.67	7423376.92	0.0276	0.0109
Venus	15618-03-31 03:07 G	7425506.57	7425506.63	7425506.71	0.0280	0.0263
Venus	15618-11-15 15:21 G	7425735.94	7425736.14	7425736.35	0.0280	0.0053
Venus	15619-07-03 04:04 G	7425965.50	7425965.67	7425965.85	0.0281	0.0161
Mercury	15620-08-01 03:21 G	7426360.54	7426360.64	7426360.76	0.0282	0.0193
Mercury	15620-10-28 19:12 G	7426449.15	7426449.30	7426449.45	0.0282	0.0082
Mercury	15621-01-25 11:16 G	7426537.82	7426537.97	7426538.13	0.0282	0.0032
Mercury	15621-04-24 03:50 G	7426626.52	7426626.66	7426626.79	0.0282	0.0148
Mercury	15621-07-21 20:38 G	7426715.31	7426715.36	7426715.41	0.0282	0.0267
Moon	15622-10-31 19:40 G	7427182.08	7427182.32	7427182.56	0.0283	0.0020
Earth	15622-10-31 23:02 G	7427182.22	7427182.46	7427182.71	0.0283	0.0036 *
Venus	15632-09-14 03:50 G	7430787.58	7430787.66	7430787.75	0.0279	0.0257
Venus	15633-05-01 15:36 G	7431016.95	7431017.15	7431017.37	0.0279	0.0048
Venus	15633-12-17 02:52 G	7431246.46	7431246.62	7431246.80	0.0278	0.0161
Mercury	15634-12-11 12:00 G	7431605.93	7431606.00	7431606.07	0.0278	0.0249
Mercury	15635-03-10 03:21 G	7431694.51	7431694.64	7431694.78	0.0277	0.0139
Mercury	15635-06-06 18:28 G	7431783.12	7431783.27	7431783.43	0.0277	0.0032
Mercury	15635-09-03 09:21 G	7431871.74	7431871.89	7431872.04	0.0277	0.0074
Mercury	15635-11-30 23:45 G	7431960.38	7431960.49	7431960.61	0.0277	0.0176
Mercury	15636-02-27 13:55 G	7432049.07	7432049.08	7432049.09	0.0277	0.0276
Earth	15637-05-03 02:24 G	7432479.36	7432479.60	7432479.85	0.0276	0.0005
Moon	15637-05-03 04:48 G	7432479.45	7432479.70	7432479.96	0.0276	0.0005 *
Venus	15647-10-11 10:04 G	7436292.81	7436292.92	7436293.04	0.0279	0.0234
Venus	15648-05-27 22:04 G	7436522.20	7436522.42	7436522.63	0.0280	0.0024

Venus	15649-01-12 10:19 G	7436751.78	7436751.93	7436752.09	0.0281	0.0189
Mercury	15649-12-19 04:48 G	7437092.61	7437092.70	7437092.79	0.0281	0.0224
Mercury	15650-03-17 20:24 G	7437181.21	7437181.35	7437181.49	0.0281	0.0114
Mercury	15650-06-14 12:14 G	7437269.85	7437270.01	7437270.17	0.0282	0.0002
Mercury	15650-09-11 04:33 G	7437358.55	7437358.69	7437358.83	0.0282	0.0113
Mercury	15650-12-08 21:07 G	7437447.30	7437447.38	7437447.48	0.0282	0.0231
Earth	15651-10-26 09:36 G	7437768.72	7437768.90	7437769.09	0.0283	0.0188
Moon	15651-10-26 12:57 G	7437768.88	7437769.04	7437769.23	0.0283	0.0202 *
Mars	15656-09-23 19:55 G	7439563.06	7439563.33	7439563.61	0.0283	0.0129
Venus	15662-03-27 04:33 G	7441573.59	7441573.69	7441573.80	0.0279	0.0238
Venus	15662-11-11 16:19 G	7441802.97	7441803.18	7441803.39	0.0278	0.0029
Venus	15663-06-29 03:21 G	7442032.48	7442032.64	7442032.80	0.0278	0.0178
Mercury	15664-07-27 02:38 G	7442426.50	7442426.61	7442426.74	0.0277	0.0183
Mercury	15664-10-23 18:00 G	7442515.11	7442515.25	7442515.40	0.0277	0.0075
Mercury	15665-01-20 09:07 G	7442603.73	7442603.88	7442604.03	0.0277	0.0032
Mercury	15665-04-18 23:31 G	7442692.35	7442692.48	7442692.61	0.0276	0.0135
Mercury	15665-07-16 13:40 G	7442781.00	7442781.07	7442781.15	0.0276	0.0236
Moon	15666-04-27 08:38 G	7443065.72	7443065.86	7443066.00	0.0276	0.0221
Earth	15666-04-27 10:33 G	7443065.80	7443065.94	7443066.09	0.0276	0.0218 *
Earth	15667-05-10 06:57 G	7443443.71	7443443.79	7443443.90	0.0276	0.0253
Moon	15667-05-10 09:36 G	7443443.79	7443443.90	7443444.02	0.0276	0.0242 *
Venus	15677-04-22 09:50 G	7447078.78	7447078.91	7447079.05	0.0280	0.0215
Venus	15677-12-07 21:50 G	7447308.20	7447308.41	7447308.62	0.0280	0.0006
Venus	15678-07-25 10:19 G	7447537.80	7447537.93	7447538.08	0.0281	0.0208
Mercury	15679-05-08 04:04 G	7447824.63	7447824.67	7447824.72	0.0281	0.0267
Mercury	15679-08-04 19:40 G	7447913.19	7447913.32	7447913.45	0.0282	0.0158
Mercury	15679-11-01 11:31 G	7448001.83	7448001.98	7448002.13	0.0282	0.0047
Mercury	15680-01-29 03:36 G	7448090.50	7448090.65	7448090.80	0.0282	0.0068
Mercury	15680-04-26 20:09 G	7448179.22	7448179.34	7448179.46	0.0282	0.0185
Earth	15681-11-01 22:19 G	7448733.20	7448733.43	7448733.66	0.0283	0.0083

Moon	15681-11-01 22:19 G	7448733.20	7448733.43	7448733.66	0.0283	0.0069 *
Venus	15691-10-07 11:02 G	7452359.82	7452359.96	7452360.10	0.0280	0.0209
Venus	15692-05-23 22:48 G	7452589.24	7452589.45	7452589.67	0.0279	0.0005
Venus	15693-01-08 10:04 G	7452818.79	7452818.92	7452819.07	0.0279	0.0210
Mercury	15693-12-14 04:48 G	7453158.60	7453158.70	7453158.80	0.0278	0.0210
Mercury	15694-03-12 20:09 G	7453247.20	7453247.34	7453247.49	0.0278	0.0100
Mercury	15694-06-09 11:16 G	7453335.82	7453335.97	7453336.12	0.0277	0.0007
Mercury	15694-09-06 01:55 G	7453424.44	7453424.58	7453424.72	0.0277	0.0112
Mercury	15694-12-03 16:19 G	7453513.09	7453513.18	7453513.27	0.0277	0.0213
Moon	15696-05-04 03:07 G	7454030.38	7454030.63	7454030.88	0.0276	0.0046
Earth	15696-05-04 05:16 G	7454030.49	7454030.72	7454030.97	0.0276	0.0055 *
Mars	15700-10-26 04:48 G	7455665.43	7455665.70	7455665.98	0.0275	0.0046
Venus	15706-11-03 17:16 G	7457865.07	7457865.22	7457865.39	0.0279	0.0186
Venus	15707-06-21 05:31 G	7458094.52	7458094.73	7458094.94	0.0280	0.0026
Venus	15708-02-05 17:31 G	7458324.13	7458324.23	7458324.35	0.0280	0.0238
Mercury	15708-12-22 21:21 G	7458645.28	7458645.39	7458645.50	0.0281	0.0186
Mercury	15709-03-21 12:57 G	7458733.89	7458734.04	7458734.19	0.0281	0.0076
Mercury	15709-06-18 05:02 G	7458822.55	7458822.71	7458822.86	0.0282	0.0037
Mercury	15709-09-14 21:21 G	7458911.26	7458911.39	7458911.53	0.0282	0.0153
Mercury	15709-12-12 14:09 G	7459000.05	7459000.09	7459000.13	0.0282	0.0271
Earth	15710-10-28 11:16 G	7459319.76	7459319.97	7459320.18	0.0283	0.0137
Moon	15710-10-28 11:02 G	7459319.76	7459319.96	7459320.19	0.0283	0.0152 *
Venus	15721-04-19 12:28 G	7463145.87	7463146.02	7463146.18	0.0279	0.0189
Venus	15721-12-05 00:14 G	7463375.30	7463375.51	7463375.72	0.0278	0.0020
Venus	15722-07-22 11:02 G	7463604.86	7463604.96	7463605.10	0.0278	0.0228
Mercury	15723-05-04 04:19 G	7463890.62	7463890.68	7463890.75	0.0277	0.0252
Mercury	15723-07-31 19:55 G	7463979.20	7463979.33	7463979.46	0.0277	0.0142
Mercury	15723-10-28 11:02 G	7464067.81	7464067.96	7464068.11	0.0277	0.0034
Mercury	15724-01-25 01:55 G	7464156.43	7464156.58	7464156.73	0.0277	0.0071
Mercury	15724-04-22 16:19 G	7464245.07	7464245.18	7464245.30	0.0276	0.0174

Mercury	15724-07-20 06:28 G	7464333.76	7464333.77	7464333.79	0.0276	0.0273
Earth	15725-04-29 13:55 G	7464616.90	7464617.08	7464617.29	0.0276	0.0165
Moon	15725-04-29 16:48 G	7464617.02	7464617.20	7464617.40	0.0276	0.0172 *
Venus	15736-05-15 17:16 G	7468651.06	7468651.22	7468651.39	0.0280	0.0167
Venus	15736-12-31 05:16 G	7468880.51	7468880.72	7468880.93	0.0280	0.0044
Venus	15737-08-17 17:31 G	7469110.16	7469110.23	7469110.33	0.0281	0.0257
Mercury	15738-05-11 20:38 G	7469377.28	7469377.36	7469377.45	0.0281	0.0230
Mercury	15738-08-08 12:14 G	7469465.87	7469466.01	7469466.15	0.0281	0.0121
Mercury	15738-11-05 04:04 G	7469554.52	7469554.67	7469554.83	0.0282	0.0009
Mercury	15739-02-01 20:24 G	7469643.20	7469643.35	7469643.49	0.0282	0.0106
Mercury	15739-05-01 12:57 G	7469731.95	7469732.04	7469732.14	0.0282	0.0224
Earth	15740-11-03 23:02 G	7470284.24	7470284.46	7470284.67	0.0283	0.0132
Moon	15740-11-04 02:24 G	7470284.38	7470284.60	7470284.82	0.0283	0.0117 *
Mars	15745-02-17 18:14 G	7471851.01	7471851.26	7471851.52	0.0283	0.0160
Venus	15750-10-30 18:00 G	7473932.08	7473932.25	7473932.43	0.0280	0.0162
Venus	15751-06-17 06:14 G	7474161.55	7474161.76	7474161.97	0.0279	0.0049
Venus	15752-02-01 17:45 G	7474391.16	7474391.24	7474391.32	0.0279	0.0257
Mercury	15752-12-17 21:50 G	7474711.28	7474711.41	7474711.53	0.0278	0.0170
Mercury	15753-03-16 12:57 G	7474799.89	7474800.04	7474800.19	0.0278	0.0062
Mercury	15753-06-13 04:04 G	7474888.52	7474888.67	7474888.82	0.0278	0.0046
Mercury	15753-09-09 18:28 G	7474977.15	7474977.27	7474977.40	0.0277	0.0150
Mercury	15753-12-07 08:52 G	7475065.81	7475065.87	7475065.93	0.0277	0.0250
Moon	15755-05-07 05:16 G	7475581.50	7475581.72	7475581.96	0.0276	0.0097
Earth	15755-05-07 08:52 G	7475581.65	7475581.87	7475582.10	0.0276	0.0108 *
Venus	15765-11-26 01:55 G	7479437.40	7479437.58	7479437.77	0.0279	0.0135
Venus	15766-07-13 13:55 G	7479666.88	7479667.08	7479667.28	0.0280	0.0076
Mercury	15767-09-28 22:48 G	7480109.40	7480109.45	7480109.52	0.0281	0.0255
Mercury	15767-12-26 14:09 G	7480197.97	7480198.09	7480198.23	0.0281	0.0147
Mercury	15768-03-24 06:00 G	7480286.60	7480286.75	7480286.91	0.0281	0.0036
Mercury	15768-06-20 22:04 G	7480375.27	7480375.42	7480375.58	0.0281	0.0079

Mercury	15768-09-17 14:38 G	7480464.00	7480464.11	7480464.23	0.0282	0.0195
Moon	15769-10-29 10:19 G	7480870.71	7480870.93	7480871.16	0.0282	0.0100
Earth	15769-10-29 14:09 G	7480870.86	7480871.09	7480871.33	0.0282	0.0083 *
Venus	15780-05-11 20:38 G	7484718.19	7484718.36	7484718.55	0.0279	0.0139
Venus	15780-12-27 08:52 G	7484947.66	7484947.87	7484948.07	0.0279	0.0071
Venus	15781-08-13 19:55 G	7485177.32	7485177.33	7485177.34	0.0278	0.0277
Mercury	15782-05-06 21:36 G	7485443.31	7485443.40	7485443.51	0.0277	0.0210
Mercury	15782-08-03 13:12 G	7485531.90	7485532.05	7485532.19	0.0277	0.0100
Mercury	15782-10-31 04:19 G	7485620.52	7485620.68	7485620.83	0.0277	0.0010
Mercury	15783-01-27 18:57 G	7485709.15	7485709.29	7485709.43	0.0277	0.0111
Mercury	15783-04-26 09:21 G	7485797.80	7485797.89	7485797.98	0.0277	0.0213
Earth	15784-04-30 18:57 G	7486168.07	7486168.29	7486168.52	0.0276	0.0109
Moon	15784-04-30 22:04 G	7486168.20	7486168.42	7486168.65	0.0276	0.0119 *
Mars	15789-03-21 10:19 G	7487953.65	7487953.93	7487954.20	0.0276	0.0011
Venus	15795-06-08 01:55 G	7490223.39	7490223.58	7490223.78	0.0280	0.0116
Venus	15796-01-23 13:55 G	7490452.88	7490453.08	7490453.28	0.0280	0.0095
Mercury	15797-05-14 13:40 G	7490929.96	7490930.07	7490930.18	0.0281	0.0191
Mercury	15797-08-11 05:16 G	7491018.57	7491018.72	7491018.87	0.0281	0.0081
Mercury	15797-11-07 21:07 G	7491107.23	7491107.38	7491107.54	0.0282	0.0033
Mercury	15798-02-04 13:26 G	7491195.93	7491196.06	7491196.20	0.0282	0.0148
Mercury	15798-05-04 06:14 G	7491284.72	7491284.76	7491284.81	0.0282	0.0266
Earth	15799-11-06 01:40 G	7491835.39	7491835.57	7491835.76	0.0283	0.0185
Moon	15799-11-06 03:21 G	7491835.45	7491835.64	7491835.85	0.0283	0.0171 *
Venus	15809-11-23 02:09 G	7495504.40	7495504.59	7495504.79	0.0280	0.0112
Venus	15810-07-10 14:09 G	7495733.90	7495734.09	7495734.30	0.0279	0.0099
Mercury	15811-09-24 23:02 G	7496175.39	7496175.46	7496175.55	0.0278	0.0241
Mercury	15811-12-22 14:52 G	7496263.98	7496264.12	7496264.25	0.0278	0.0130
Mercury	15812-03-20 06:00 G	7496352.60	7496352.75	7496352.90	0.0278	0.0021
Mercury	15812-06-16 20:52 G	7496441.23	7496441.37	7496441.52	0.0278	0.0085
Mercury	15812-09-13 11:16 G	7496529.87	7496529.97	7496530.09	0.0278	0.0188

Earth	15814-05-09 12:57 G	7497132.85	7497133.04	7497133.25	0.0277	0.0164
Moon	15814-05-09 14:09 G	7497132.89	7497133.09	7497133.29	0.0277	0.0150 *
Venus	15824-12-19 11:31 G	7501009.78	7501009.98	7501010.19	0.0279	0.0082
Venus	15825-08-05 23:16 G	7501239.29	7501239.47	7501239.67	0.0280	0.0129
Mercury	15826-10-02 16:04 G	7501662.08	7501662.17	7501662.28	0.0281	0.0213
Mercury	15826-12-30 07:40 G	7501750.68	7501750.82	7501750.97	0.0281	0.0104
Mercury	15827-03-28 23:45 G	7501839.33	7501839.49	7501839.64	0.0281	0.0012
Mercury	15827-06-25 15:50 G	7501928.02	7501928.16	7501928.30	0.0281	0.0123
Mercury	15827-09-22 08:24 G	7502016.77	7502016.85	7502016.94	0.0282	0.0240
Moon	15828-10-31 17:45 G	7502422.01	7502422.24	7502422.48	0.0282	0.0041
Earth	15828-10-31 19:26 G	7502422.06	7502422.31	7502422.55	0.0282	0.0025 *
Mars	15833-07-15 10:19 G	7504139.76	7504139.93	7504140.13	0.0283	0.0228
Venus	15839-06-05 06:00 G	7506290.55	7506290.75	7506290.95	0.0279	0.0087
Venus	15840-01-20 17:45 G	7506520.06	7506520.24	7506520.44	0.0279	0.0123
Mercury	15841-02-10 23:31 G	7506907.48	7506907.48	7506907.48	0.0278	0.0278
Mercury	15841-05-10 15:07 G	7506996.01	7506996.13	7506996.26	0.0277	0.0167
Mercury	15841-08-07 06:28 G	7507084.62	7507084.77	7507084.92	0.0277	0.0058
Mercury	15841-11-03 21:36 G	7507173.25	7507173.40	7507173.55	0.0277	0.0049
Mercury	15842-01-31 12:00 G	7507261.88	7507262.00	7507262.13	0.0277	0.0153
Mercury	15842-04-30 02:24 G	7507350.55	7507350.60	7507350.66	0.0277	0.0254
Moon	15843-05-03 23:45 G	7507719.24	7507719.49	7507719.74	0.0276	0.0063
Earth	15843-05-04 01:12 G	7507719.31	7507719.55	7507719.79	0.0276	0.0051 *
Venus	15853-11-14 00:43 G	7511566.49	7511566.53	7511566.59	0.0279	0.0270
Venus	15854-07-01 12:14 G	7511795.80	7511796.01	7511796.22	0.0280	0.0062
Venus	15855-02-15 23:45 G	7512025.32	7512025.49	7512025.68	0.0280	0.0149
Mercury	15856-02-19 15:36 G	7512394.10	7512394.15	7512394.22	0.0281	0.0255
Mercury	15856-05-18 07:12 G	7512482.67	7512482.80	7512482.93	0.0281	0.0147
Mercury	15856-08-14 22:48 G	7512571.30	7512571.45	7512571.61	0.0281	0.0037
Mercury	15856-11-11 14:52 G	7512659.97	7512660.12	7512660.27	0.0281	0.0077
Mercury	15857-02-08 07:26 G	7512748.70	7512748.81	7512748.92	0.0282	0.0194

Earth	15857-10-26 00:43 G	7513008.43	7513008.53	7513008.63	0.0282	0.0257
Moon	15857-10-26 01:12 G	7513008.50	7513008.55	7513008.63	0.0282	0.0272 *
Moon	15858-11-08 03:36 G	7513386.52	7513386.65	7513386.81	0.0283	0.0230
Earth	15858-11-08 06:43 G	7513386.66	7513386.78	7513386.91	0.0283	0.0242 *
Venus	15868-04-29 22:19 G	7516847.39	7516847.43	7516847.48	0.0280	0.0272
Venus	15868-12-15 11:02 G	7517076.76	7517076.96	7517077.17	0.0280	0.0061
Venus	15869-08-01 23:16 G	7517306.29	7517306.47	7517306.65	0.0279	0.0150
Mercury	15870-09-27 16:33 G	7517728.09	7517728.19	7517728.31	0.0278	0.0198
Mercury	15870-12-25 08:09 G	7517816.70	7517816.84	7517816.99	0.0278	0.0087
Mercury	15871-03-23 23:16 G	7517905.32	7517905.47	7517905.62	0.0278	0.0021
Mercury	15871-06-20 13:55 G	7517993.95	7517994.08	7517994.22	0.0278	0.0126
Mercury	15871-09-17 04:33 G	7518082.60	7518082.69	7518082.77	0.0278	0.0228
Earth	15872-04-27 19:40 G	7518306.23	7518306.32	7518306.42	0.0277	0.0254
Moon	15872-04-27 20:24 G	7518306.29	7518306.35	7518306.44	0.0277	0.0263 *
Earth	15873-05-10 18:28 G	7518684.14	7518684.27	7518684.43	0.0277	0.0221
Moon	15873-05-10 22:19 G	7518684.28	7518684.43	7518684.61	0.0277	0.0205 *
Mars	15877-08-16 19:26 G	7520243.05	7520243.31	7520243.59	0.0276	0.0072
Venus	15883-05-27 11:02 G	7522352.85	7522352.96	7522353.08	0.0279	0.0235
Venus	15884-01-11 22:19 G	7522582.22	7522582.43	7522582.65	0.0279	0.0028
Venus	15884-08-28 10:04 G	7522811.77	7522811.92	7522812.09	0.0280	0.0184
Mercury	15885-07-08 18:43 G	7523126.26	7523126.28	7523126.31	0.0280	0.0274
Mercury	15885-10-05 10:04 G	7523214.80	7523214.92	7523215.04	0.0281	0.0167
Mercury	15886-01-02 01:40 G	7523303.42	7523303.57	7523303.72	0.0281	0.0058
Mercury	15886-03-31 17:45 G	7523392.08	7523392.24	7523392.39	0.0281	0.0055
Mercury	15886-06-28 10:04 G	7523480.80	7523480.92	7523481.05	0.0281	0.0171
Earth	15887-11-03 02:24 G	7523973.36	7523973.60	7523973.85	0.0282	0.0037
Moon	15887-11-03 05:31 G	7523973.49	7523973.73	7523973.97	0.0282	0.0023 *
Venus	15897-11-10 04:04 G	7527633.58	7527633.67	7527633.78	0.0280	0.0244
Venus	15898-06-27 16:33 G	7527862.98	7527863.19	7527863.40	0.0279	0.0033
Venus	15899-02-12 04:19 G	7528092.52	7528092.68	7528092.85	0.0279	0.0176

Mercury	15900-02-14 17:31 G	7528460.15	7528460.23	7528460.32	0.0278	0.0231
Mercury	15900-05-14 09:07 G	7528548.74	7528548.88	7528549.02	0.0278	0.0120
Mercury	15900-08-11 00:28 G	7528637.36	7528637.52	7528637.67	0.0277	0.0014
Mercury	15900-11-07 15:07 G	7528725.99	7528726.13	7528726.28	0.0277	0.0094
Mercury	15901-02-04 05:45 G	7528814.63	7528814.74	7528814.84	0.0277	0.0196
Moon	15902-05-06 05:16 G	7529270.47	7529270.72	7529270.97	0.0276	0.0005
Earth	15902-05-06 08:52 G	7529270.62	7529270.87	7529271.11	0.0276	0.0009 *
Venus	15912-12-07 12:14 G	7533138.88	7533139.01	7533139.14	0.0279	0.0214
Venus	15913-07-24 23:31 G	7533368.27	7533368.48	7533368.69	0.0280	0.0007
Venus	15914-03-11 11:16 G	7533597.83	7533597.97	7533598.12	0.0280	0.0205
Mercury	15915-02-23 09:36 G	7533946.81	7533946.90	7533947.01	0.0281	0.0209
Mercury	15915-05-23 01:12 G	7534035.41	7534035.55	7534035.70	0.0281	0.0100
Mercury	15915-08-19 17:02 G	7534124.06	7534124.21	7534124.37	0.0281	0.0012
Mercury	15915-11-16 09:21 G	7534212.75	7534212.89	7534213.03	0.0281	0.0126
Mercury	15916-02-13 01:55 G	7534301.50	7534301.58	7534301.66	0.0282	0.0244
Moon	15916-10-28 05:16 G	7534559.56	7534559.72	7534559.89	0.0282	0.0209
Earth	15916-10-28 08:38 G	7534559.69	7534559.86	7534560.03	0.0282	0.0195 *
Mars	15921-12-09 19:55 G	7536428.29	7536428.33	7536428.41	0.0283	0.0277
Venus	15927-05-24 08:09 G	7538419.72	7538419.84	7538419.98	0.0280	0.0220
Venus	15928-01-08 21:07 G	7538649.17	7538649.38	7538649.59	0.0280	0.0008
Venus	15928-08-25 08:52 G	7538878.73	7538878.87	7538879.02	0.0279	0.0203
Mercury	15929-07-04 18:28 G	7539192.23	7539192.27	7539192.32	0.0279	0.0265
Mercury	15929-10-01 10:19 G	7539280.80	7539280.93	7539281.06	0.0278	0.0153
Mercury	15929-12-29 01:40 G	7539369.42	7539369.57	7539369.72	0.0278	0.0043
Mercury	15930-03-27 16:48 G	7539458.05	7539458.20	7539458.35	0.0278	0.0064
Mercury	15930-06-24 07:26 G	7539546.69	7539546.81	7539546.93	0.0278	0.0168
Mercury	15930-09-20 21:36 G	7539635.37	7539635.40	7539635.44	0.0278	0.0270
Earth	15931-05-01 02:09 G	7539857.42	7539857.59	7539857.77	0.0277	0.0195
Moon	15931-05-01 05:45 G	7539857.58	7539857.74	7539857.91	0.0277	0.0204 *
Moon	15932-05-13 02:09 G	7540235.53	7540235.59	7540235.68	0.0277	0.0264

Venus	15942-06-19 23:02 G	7543925.31	7543925.46	7543925.63	0.0279	0.0179
Venus	15943-02-04 10:33 G	7544154.73	7544154.94	7544155.15	0.0279	0.0030
Venus	15943-09-21 22:19 G	7544384.33	7544384.43	7544384.54	0.0280	0.0240
Mercury	15944-07-12 12:57 G	7544678.96	7544679.04	7544679.13	0.0280	0.0227
Mercury	15944-10-09 04:19 G	7544767.55	7544767.68	7544767.83	0.0281	0.0119
Mercury	15945-01-05 20:09 G	7544856.19	7544856.34	7544856.50	0.0281	0.0010
Mercury	15945-04-04 12:14 G	7544944.87	7544945.01	7544945.16	0.0281	0.0107
Mercury	15945-07-02 04:48 G	7545033.61	7545033.70	7545033.80	0.0281	0.0223
Earth	15946-11-05 12:00 G	7545524.78	7545525.00	7545525.24	0.0282	0.0100
Moon	15946-11-05 15:07 G	7545524.89	7545525.13	7545525.37	0.0282	0.0088 *
Venus	15956-12-03 15:36 G	7549206.00	7549206.15	7549206.31	0.0280	0.0188
Venus	15957-07-21 03:50 G	7549435.45	7549435.66	7549435.87	0.0279	0.0023
Venus	15958-03-07 15:36 G	7549665.03	7549665.15	7549665.26	0.0279	0.0231
Mercury	15959-02-18 11:45 G	7550012.88	7550012.99	7550013.11	0.0278	0.0182
Mercury	15959-05-18 03:21 G	7550101.49	7550101.64	7550101.78	0.0278	0.0073
Mercury	15959-08-14 18:14 G	7550190.11	7550190.26	7550190.42	0.0277	0.0036
Mercury	15959-11-11 09:07 G	7550278.75	7550278.88	7550279.01	0.0277	0.0139
Mercury	15960-02-07 23:16 G	7550367.41	7550367.47	7550367.55	0.0277	0.0241
Moon	15961-05-07 16:19 G	7550821.95	7550822.18	7550822.41	0.0276	0.0059
Earth	15961-05-07 17:31 G	7550821.99	7550822.23	7550822.47	0.0276	0.0071 *
Mars	15966-01-11 13:55 G	7552531.84	7552532.08	7552532.33	0.0276	0.0130
Venus	15971-12-31 00:43 G	7554711.35	7554711.53	7554711.70	0.0279	0.0157
Venus	15972-08-16 12:00 G	7554940.79	7554941.00	7554941.21	0.0280	0.0053
Venus	15973-04-02 23:45 G	7555170.42	7555170.49	7555170.56	0.0280	0.0262
Mercury	15973-11-29 12:57 G	7555411.00	7555411.04	7555411.09	0.0281	0.0266
Mercury	15974-02-26 04:04 G	7555499.55	7555499.67	7555499.80	0.0281	0.0160
Mercury	15974-05-25 19:40 G	7555588.17	7555588.32	7555588.48	0.0281	0.0050
Mercury	15974-08-22 11:45 G	7555676.84	7555676.99	7555677.14	0.0281	0.0063
Mercury	15974-11-19 04:04 G	7555765.55	7555765.67	7555765.79	0.0281	0.0179
Moon	15975-10-30 15:36 G	7556110.95	7556111.15	7556111.36	0.0282	0.0144

Earth	15975-10-30 18:28 G	7556111.06	7556111.27	7556111.49	0.0282	0.0130	*
Venus	15986-06-15 19:26 G	7559992.15	7559992.31	7559992.49	0.0280	0.0164	
Venus	15987-01-31 08:09 G	7560221.63	7560221.84	7560222.05	0.0280	0.0048	
Venus	15987-09-17 19:55 G	7560451.26	7560451.33	7560451.42	0.0279	0.0257	
Mercury	15988-07-07 12:57 G	7560744.94	7560745.04	7560745.13	0.0279	0.0216	
Mercury	15988-10-04 04:19 G	7560833.54	7560833.68	7560833.83	0.0278	0.0106	
Mercury	15988-12-31 19:40 G	7560922.17	7560922.32	7560922.47	0.0278	0.0004	
Mercury	15989-03-30 10:33 G	7561010.80	7561010.94	7561011.08	0.0278	0.0109	
Mercury	15989-06-27 00:57 G	7561099.45	7561099.54	7561099.64	0.0278	0.0213	
Earth	15990-05-02 10:19 G	7561408.72	7561408.93	7561409.15	0.0277	0.0133	
Moon	15990-05-02 12:00 G	7561408.78	7561409.00	7561409.22	0.0277	0.0144	*

17TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 17th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	16001-07-12 11:31 G	7565497.80	7565497.98	7565498.18	0.0279	0.0121		
Venus	16002-02-26 23:16 G	7565727.27	7565727.47	7565727.67	0.0279	0.0089		
Mercury	16003-07-16 07:26 G	7566231.70	7566231.81	7566231.93	0.0281	0.0177		
Mercury	16003-10-12 23:02 G	7566320.31	7566320.46	7566320.61	0.0281	0.0068		
Mercury	16004-01-09 15:07 G	7566408.97	7566409.13	7566409.28	0.0281	0.0045		
Mercury	16004-04-07 07:12 G	7566497.68	7566497.80	7566497.94	0.0281	0.0160		
Mercury	16004-07-05 00:00 G	7566586.48	7566586.50	7566586.52	0.0281	0.0278		
Moon	16005-11-06 22:04 G	7567076.22	7567076.42	7567076.64	0.0282	0.0157		

Earth	16005-11-06 23:16 G	7567076.27	7567076.47	7567076.66	0.0282	0.0167 *
Venus	16015-12-27 04:04 G	7570778.48	7570778.67	7570778.86	0.0280	0.0129
Venus	16016-08-12 16:04 G	7571007.97	7571008.17	7571008.38	0.0279	0.0081
Mercury	16017-11-24 14:38 G	7571477.04	7571477.11	7571477.19	0.0278	0.0243
Mercury	16018-02-21 06:14 G	7571565.63	7571565.76	7571565.90	0.0278	0.0132
Mercury	16018-05-20 21:36 G	7571654.25	7571654.40	7571654.56	0.0278	0.0024
Mercury	16018-08-17 12:28 G	7571742.88	7571743.02	7571743.17	0.0277	0.0083
Mercury	16018-11-14 03:07 G	7571831.52	7571831.63	7571831.74	0.0277	0.0186
Earth	16020-05-09 03:07 G	7572373.42	7572373.63	7572373.85	0.0276	0.0135
Moon	16020-05-09 05:45 G	7572373.53	7572373.74	7572373.97	0.0276	0.0121 *
Venus	16031-01-22 13:55 G	7576283.88	7576284.08	7576284.28	0.0279	0.0097
Venus	16031-09-09 01:12 G	7576513.36	7576513.55	7576513.75	0.0280	0.0113
Mercury	16032-12-02 07:40 G	7576963.72	7576963.82	7576963.92	0.0281	0.0215
Mercury	16033-02-28 23:02 G	7577052.32	7577052.46	7577052.60	0.0281	0.0107
Mercury	16033-05-28 14:52 G	7577140.96	7577141.12	7577141.27	0.0281	0.0007
Mercury	16033-08-25 06:57 G	7577229.65	7577229.79	7577229.93	0.0281	0.0118
Mercury	16033-11-21 23:31 G	7577318.39	7577318.48	7577318.56	0.0281	0.0235
Earth	16034-11-01 06:14 G	7577662.53	7577662.76	7577663.00	0.0282	0.0062
Moon	16034-11-01 07:12 G	7577662.57	7577662.80	7577663.03	0.0282	0.0075 *
Venus	16045-07-08 07:40 G	7581564.62	7581564.82	7581565.01	0.0280	0.0106
Venus	16046-02-22 19:40 G	7581794.13	7581794.32	7581794.53	0.0279	0.0106
Mercury	16047-07-11 07:12 G	7582297.68	7582297.80	7582297.92	0.0278	0.0166
Mercury	16047-10-07 22:33 G	7582386.29	7582386.44	7582386.59	0.0278	0.0057
Mercury	16048-01-04 13:40 G	7582474.92	7582475.07	7582475.22	0.0278	0.0051
Mercury	16048-04-02 04:19 G	7582563.56	7582563.68	7582563.81	0.0278	0.0156
Mercury	16048-06-29 18:43 G	7582652.23	7582652.28	7582652.34	0.0278	0.0258
Moon	16049-05-03 16:04 G	7582959.94	7582960.17	7582960.42	0.0277	0.0086
Earth	16049-05-03 19:26 G	7582960.07	7582960.31	7582960.55	0.0277	0.0071 *
Mars	16054-06-08 01:40 G	7584821.41	7584821.57	7584821.74	0.0276	0.0220
Venus	16059-12-18 12:57 G	7586841.00	7586841.04	7586841.10	0.0279	0.0269

Venus	16060-08-04 00:28 G	7587070.31	7587070.52	7587070.73	0.0279	0.0062
Venus	16061-03-21 11:45 G	7587299.82	7587299.99	7587300.18	0.0280	0.0149
Mercury	16062-04-21 11:02 G	7587695.88	7587695.96	7587696.04	0.0280	0.0233
Mercury	16062-07-19 02:09 G	7587784.46	7587784.59	7587784.73	0.0281	0.0126
Mercury	16062-10-15 18:00 G	7587873.10	7587873.25	7587873.41	0.0281	0.0015
Mercury	16063-01-12 10:04 G	7587961.77	7587961.92	7587962.07	0.0281	0.0099
Mercury	16063-04-11 02:24 G	7588050.51	7588050.60	7588050.71	0.0281	0.0215
Earth	16063-10-27 05:31 G	7588249.65	7588249.73	7588249.83	0.0282	0.0261
Moon	16063-10-27 04:33 G	7588249.66	7588249.69	7588249.76	0.0282	0.0276 *
Moon	16064-11-08 06:57 G	7588627.66	7588627.79	7588627.95	0.0282	0.0224
Earth	16064-11-08 10:48 G	7588627.82	7588627.95	7588628.09	0.0282	0.0233 *
Mars	16068-08-09 00:14 G	7589997.35	7589997.51	7589997.69	0.0283	0.0236
Venus	16074-06-03 04:48 G	7592121.69	7592121.70	7592121.71	0.0280	0.0279
Venus	16075-01-18 17:16 G	7592351.02	7592351.22	7592351.43	0.0280	0.0070
Venus	16075-09-05 05:02 G	7592580.54	7592580.71	7592580.90	0.0279	0.0140
Mercury	16076-11-27 09:21 G	7593029.79	7593029.89	7593030.01	0.0278	0.0190
Mercury	16077-02-24 00:57 G	7593118.40	7593118.54	7593118.69	0.0278	0.0080
Mercury	16077-05-23 16:04 G	7593207.02	7593207.17	7593207.33	0.0278	0.0029
Mercury	16077-08-20 06:57 G	7593295.66	7593295.79	7593295.92	0.0277	0.0132
Mercury	16077-11-16 21:21 G	7593384.31	7593384.39	7593384.47	0.0277	0.0234
Earth	16078-04-28 14:38 G	7593547.08	7593547.11	7593547.16	0.0277	0.0272
Earth	16079-05-11 13:40 G	7593924.92	7593925.07	7593925.26	0.0276	0.0200
Moon	16079-05-11 17:02 G	7593925.04	7593925.21	7593925.41	0.0276	0.0184 *
Venus	16089-06-29 15:50 G	7597627.07	7597627.16	7597627.27	0.0279	0.0245
Venus	16090-02-14 03:07 G	7597856.42	7597856.63	7597856.84	0.0279	0.0037
Venus	16090-10-01 14:38 G	7598085.94	7598086.11	7598086.28	0.0280	0.0172
Mercury	16091-09-08 11:16 G	7598427.93	7598427.97	7598428.01	0.0281	0.0270
Mercury	16091-12-06 02:24 G	7598516.48	7598516.60	7598516.73	0.0281	0.0163
Mercury	16092-03-03 18:00 G	7598605.10	7598605.25	7598605.40	0.0281	0.0054
Mercury	16092-05-31 09:50 G	7598693.76	7598693.91	7598694.07	0.0281	0.0059

Mercury	16092-08-28 02:09 G	7598782.47	7598782.59	7598782.72	0.0281	0.0174
Earth	16093-11-02 18:14 G	7599214.02	7599214.26	7599214.51	0.0282	0.0006
Moon	16093-11-02 22:04 G	7599214.17	7599214.42	7599214.66	0.0282	0.0008 *
Venus	16103-12-15 07:26 G	7602907.74	7602907.81	7602907.90	0.0280	0.0258
Venus	16104-07-31 20:09 G	7603137.14	7603137.34	7603137.56	0.0280	0.0048
Venus	16105-03-18 08:09 G	7603366.68	7603366.84	7603367.02	0.0279	0.0163
Mercury	16106-04-17 10:04 G	7603761.83	7603761.92	7603762.01	0.0278	0.0227
Mercury	16106-07-15 01:40 G	7603850.43	7603850.57	7603850.71	0.0278	0.0116
Mercury	16106-10-11 17:02 G	7603939.05	7603939.21	7603939.36	0.0278	0.0009
Mercury	16107-01-08 07:55 G	7604027.69	7604027.83	7604027.97	0.0278	0.0099
Mercury	16107-04-06 22:19 G	7604116.34	7604116.43	7604116.54	0.0278	0.0203
Moon	16108-05-06 01:40 G	7604511.33	7604511.57	7604511.81	0.0277	0.0025
Earth	16108-05-06 04:33 G	7604511.45	7604511.69	7604511.94	0.0277	0.0010 *
Mars	16112-09-16 01:26 G	7606105.55	7606105.56	7606105.61	0.0276	0.0275
Venus	16119-01-11 01:26 G	7608413.43	7608413.56	7608413.70	0.0279	0.0211
Venus	16119-08-28 12:57 G	7608642.83	7608643.04	7608643.25	0.0279	0.0005
Venus	16120-04-14 00:43 G	7608872.40	7608872.53	7608872.68	0.0280	0.0208
Mercury	16121-04-25 05:31 G	7609248.62	7609248.73	7609248.85	0.0281	0.0182
Mercury	16121-07-22 21:07 G	7609337.23	7609337.38	7609337.53	0.0281	0.0073
Mercury	16121-10-19 12:57 G	7609425.88	7609426.04	7609426.19	0.0281	0.0039
Mercury	16122-01-16 05:02 G	7609514.58	7609514.71	7609514.85	0.0281	0.0154
Mercury	16122-04-14 21:36 G	7609603.37	7609603.40	7609603.45	0.0281	0.0271
Moon	16122-10-29 13:12 G	7609800.90	7609801.05	7609801.22	0.0282	0.0209
Earth	16122-10-29 17:02 G	7609801.04	7609801.21	7609801.40	0.0282	0.0195 *
Venus	16133-06-26 18:14 G	7613694.13	7613694.26	7613694.39	0.0280	0.0219
Venus	16134-02-11 06:28 G	7613923.56	7613923.77	7613923.99	0.0279	0.0011
Venus	16134-09-28 18:14 G	7614153.11	7614153.26	7614153.41	0.0279	0.0199
Mercury	16135-09-04 12:43 G	7614493.96	7614494.03	7614494.09	0.0278	0.0249
Mercury	16135-12-02 04:19 G	7614582.55	7614582.68	7614582.82	0.0278	0.0137
Mercury	16136-02-28 19:40 G	7614671.17	7614671.32	7614671.47	0.0278	0.0029

Mercury	16136-05-27 10:33 G	7614759.80	7614759.94	7614760.09	0.0278	0.0078
Mercury	16136-08-24 01:12 G	7614848.44	7614848.55	7614848.67	0.0277	0.0181
Earth	16137-05-01 01:26 G	7615098.41	7615098.56	7615098.73	0.0277	0.0208
Moon	16137-05-01 04:04 G	7615098.53	7615098.67	7615098.84	0.0277	0.0221 *
Moon	16138-05-13 23:16 G	7615476.36	7615476.47	7615476.59	0.0276	0.0246
Earth	16138-05-14 00:14 G	7615476.45	7615476.51	7615476.60	0.0276	0.0263 *
Venus	16148-07-23 04:48 G	7619199.54	7619199.70	7619199.86	0.0279	0.0186
Venus	16149-03-09 16:04 G	7619428.95	7619429.17	7619429.38	0.0280	0.0023
Venus	16149-10-25 03:21 G	7619658.54	7619658.64	7619658.77	0.0280	0.0232
Mercury	16150-09-12 05:45 G	7619980.65	7619980.74	7619980.84	0.0281	0.0219
Mercury	16150-12-09 21:07 G	7620069.24	7620069.38	7620069.52	0.0281	0.0111
Mercury	16151-03-08 12:57 G	7620157.88	7620158.04	7620158.19	0.0281	0.0007
Mercury	16151-06-05 04:48 G	7620246.56	7620246.70	7620246.85	0.0281	0.0114
Mercury	16151-09-01 21:21 G	7620335.30	7620335.39	7620335.48	0.0281	0.0229
Earth	16152-11-05 05:45 G	7620765.51	7620765.74	7620765.98	0.0282	0.0073
Moon	16152-11-05 07:12 G	7620765.56	7620765.80	7620766.05	0.0282	0.0063 *
Mars	16157-01-03 19:40 G	7622286.08	7622286.32	7622286.59	0.0283	0.0168
Venus	16163-01-06 20:38 G	7624480.22	7624480.36	7624480.51	0.0280	0.0198
Venus	16163-08-24 09:07 G	7624709.67	7624709.88	7624710.09	0.0279	0.0012
Venus	16164-04-09 20:52 G	7624939.24	7624939.37	7624939.50	0.0279	0.0221
Mercury	16165-04-20 04:33 G	7625314.58	7625314.69	7625314.82	0.0278	0.0175
Mercury	16165-07-17 20:09 G	7625403.19	7625403.34	7625403.49	0.0278	0.0065
Mercury	16165-10-14 11:16 G	7625491.82	7625491.97	7625492.12	0.0278	0.0043
Mercury	16166-01-11 02:09 G	7625580.46	7625580.59	7625580.72	0.0278	0.0147
Mercury	16166-04-09 16:33 G	7625669.13	7625669.19	7625669.25	0.0278	0.0249
Earth	16167-05-08 14:09 G	7626062.85	7626063.09	7626063.33	0.0277	0.0054
Moon	16167-05-08 15:36 G	7626062.92	7626063.15	7626063.39	0.0277	0.0039 *
Venus	16178-02-02 12:57 G	7629985.87	7629986.04	7629986.22	0.0279	0.0155
Venus	16178-09-20 00:43 G	7630215.32	7630215.53	7630215.74	0.0280	0.0055
Venus	16179-05-07 12:28 G	7630444.97	7630445.02	7630445.10	0.0280	0.0265

Mercury	16180-01-30 08:24 G	7630712.78	7630712.85	7630712.93	0.0281	0.0241
Mercury	16180-04-27 23:45 G	7630801.36	7630801.49	7630801.63	0.0281	0.0133
Mercury	16180-07-25 15:36 G	7630889.99	7630890.15	7630890.30	0.0281	0.0024
Mercury	16180-10-22 07:26 G	7630978.67	7630978.81	7630978.96	0.0281	0.0091
Mercury	16181-01-18 23:45 G	7631067.39	7631067.49	7631067.60	0.0281	0.0207
Moon	16181-10-31 01:55 G	7631352.39	7631352.58	7631352.79	0.0282	0.0144
Earth	16181-10-31 03:07 G	7631352.42	7631352.63	7631352.85	0.0282	0.0131 *
Venus	16192-07-19 07:40 G	7635266.65	7635266.82	7635267.00	0.0280	0.0159
Venus	16193-03-05 19:40 G	7635496.11	7635496.32	7635496.53	0.0279	0.0051
Venus	16193-10-21 07:12 G	7635725.73	7635725.80	7635725.88	0.0279	0.0258
Mercury	16194-09-07 07:26 G	7636046.70	7636046.81	7636046.92	0.0278	0.0195
Mercury	16194-12-04 23:02 G	7636135.31	7636135.46	7636135.61	0.0278	0.0085
Mercury	16195-03-03 14:09 G	7636223.94	7636224.09	7636224.25	0.0278	0.0023
Mercury	16195-05-31 05:02 G	7636312.58	7636312.71	7636312.84	0.0277	0.0127
Mercury	16195-08-27 19:26 G	7636401.23	7636401.31	7636401.40	0.0277	0.0229
Moon	16196-05-02 10:48 G	7636649.74	7636649.95	7636650.16	0.0277	0.0157
Earth	16196-05-02 12:14 G	7636649.80	7636650.01	7636650.22	0.0277	0.0144 *
Mars	16201-02-11 06:14 G	7638394.58	7638394.76	7638394.95	0.0275	0.0201
Venus	16207-08-16 16:33 G	7640772.00	7640772.19	7640772.38	0.0279	0.0129
Venus	16208-04-02 03:50 G	7641001.46	7641001.66	7641001.87	0.0280	0.0080
Mercury	16209-06-19 09:07 G	7641444.86	7641444.88	7641444.90	0.0281	0.0276
Mercury	16209-09-16 00:14 G	7641533.39	7641533.51	7641533.63	0.0281	0.0170
Mercury	16209-12-13 15:36 G	7641622.00	7641622.15	7641622.30	0.0281	0.0061
Mercury	16210-03-12 07:26 G	7641710.66	7641710.81	7641710.97	0.0281	0.0052
Mercury	16210-06-08 23:45 G	7641799.37	7641799.49	7641799.62	0.0281	0.0166
Moon	16211-11-08 13:12 G	7642316.84	7642317.05	7642317.28	0.0282	0.0131
Earth	16211-11-08 16:33 G	7642316.98	7642317.19	7642317.41	0.0282	0.0138 *
Venus	16222-01-30 09:21 G	7646052.71	7646052.89	7646053.07	0.0279	0.0139
Venus	16222-09-16 21:36 G	7646282.19	7646282.40	7646282.60	0.0279	0.0071
Venus	16223-05-04 08:52 G	7646511.87	7646511.87	7646511.89	0.0279	0.0279

Mercury	16224-01-26 07:26 G	7646778.73	7646778.81	7646778.89	0.0278	0.0235
Mercury	16224-04-23 23:02 G	7646867.33	7646867.46	7646867.60	0.0278	0.0125
Mercury	16224-07-21 14:24 G	7646955.95	7646956.10	7646956.26	0.0278	0.0016
Mercury	16224-10-18 05:31 G	7647044.58	7647044.73	7647044.87	0.0278	0.0091
Mercury	16225-01-14 20:09 G	7647133.23	7647133.34	7647133.44	0.0278	0.0194
Earth	16226-05-10 22:48 G	7647614.23	7647614.45	7647614.68	0.0277	0.0114
Moon	16226-05-11 02:24 G	7647614.37	7647614.60	7647614.84	0.0277	0.0099 *
Venus	16237-02-25 23:31 G	7651558.29	7651558.48	7651558.68	0.0279	0.0099
Venus	16237-10-13 11:16 G	7651787.78	7651787.97	7651788.17	0.0280	0.0111
Mercury	16239-02-03 02:24 G	7652265.49	7652265.60	7652265.71	0.0281	0.0195
Mercury	16239-05-02 17:45 G	7652354.10	7652354.24	7652354.39	0.0281	0.0086
Mercury	16239-07-30 09:36 G	7652442.75	7652442.90	7652443.06	0.0281	0.0025
Mercury	16239-10-27 01:40 G	7652531.44	7652531.57	7652531.71	0.0281	0.0140
Mercury	16240-01-23 18:28 G	7652620.20	7652620.27	7652620.33	0.0281	0.0257
Earth	16240-11-02 11:16 G	7652903.73	7652903.97	7652904.21	0.0282	0.0071
Moon	16240-11-02 14:09 G	7652903.87	7652904.09	7652904.33	0.0282	0.0080 *
Mars	16245-06-01 21:07 G	7654576.07	7654576.38	7654576.69	0.0283	0.0047
Venus	16251-08-12 20:09 G	7656839.15	7656839.34	7656839.54	0.0280	0.0100
Venus	16252-03-29 08:09 G	7657068.65	7657068.84	7657069.03	0.0279	0.0110
Mercury	16253-06-14 10:19 G	7657510.87	7657510.93	7657510.99	0.0278	0.0255
Mercury	16253-09-11 01:55 G	7657599.45	7657599.58	7657599.72	0.0278	0.0144
Mercury	16253-12-08 17:31 G	7657688.08	7657688.23	7657688.38	0.0278	0.0035
Mercury	16254-03-07 08:24 G	7657776.71	7657776.85	7657777.00	0.0278	0.0072
Mercury	16254-06-03 23:02 G	7657865.35	7657865.46	7657865.58	0.0277	0.0175
Mercury	16254-08-31 13:26 G	7657954.05	7657954.06	7657954.07	0.0277	0.0276
Moon	16255-05-05 18:28 G	7658201.04	7658201.27	7658201.50	0.0277	0.0097
Earth	16255-05-05 21:50 G	7658201.18	7658201.41	7658201.65	0.0277	0.0082 *
Venus	16266-09-08 03:21 G	7662344.44	7662344.64	7662344.84	0.0279	0.0073
Venus	16267-04-25 14:52 G	7662573.93	7662574.12	7662574.30	0.0280	0.0136
Mercury	16268-06-22 02:52 G	7662997.54	7662997.62	7662997.70	0.0281	0.0231

Mercury	16268-09-18 18:00 G	7663086.12	7663086.25	7663086.39	0.0281	0.0124
Mercury	16268-12-16 09:50 G	7663174.75	7663174.91	7663175.06	0.0281	0.0014
Mercury	16269-03-15 01:40 G	7663263.43	7663263.57	7663263.72	0.0281	0.0101
Mercury	16269-06-11 18:00 G	7663352.16	7663352.25	7663352.36	0.0281	0.0216
Moon	16270-11-09 22:04 G	7663868.26	7663868.42	7663868.60	0.0282	0.0195
Earth	16270-11-10 00:43 G	7663868.37	7663868.53	7663868.71	0.0282	0.0198 *
Venus	16281-02-21 21:21 G	7667625.19	7667625.39	7667625.59	0.0279	0.0081
Venus	16281-10-09 09:07 G	7667854.70	7667854.88	7667855.07	0.0279	0.0129
Mercury	16283-01-29 01:40 G	7668331.46	7668331.57	7668331.69	0.0278	0.0186
Mercury	16283-04-27 17:16 G	7668420.07	7668420.22	7668420.37	0.0278	0.0076
Mercury	16283-07-25 08:38 G	7668508.70	7668508.86	7668509.01	0.0278	0.0033
Mercury	16283-10-21 23:16 G	7668597.34	7668597.47	7668597.61	0.0277	0.0137
Mercury	16284-01-18 13:40 G	7668686.00	7668686.07	7668686.15	0.0277	0.0239
Earth	16285-05-12 06:43 G	7669165.60	7669165.78	7669165.98	0.0277	0.0173
Moon	16285-05-12 07:40 G	7669165.62	7669165.82	7669166.03	0.0277	0.0159 *
Mars	16289-07-07 23:45 G	7670683.25	7670683.49	7670683.72	0.0276	0.0141
Venus	16295-08-03 21:21 G	7672901.30	7672901.39	7672901.47	0.0279	0.0253
Venus	16296-03-20 08:38 G	7673130.65	7673130.86	7673131.07	0.0279	0.0046
Venus	16296-11-04 20:38 G	7673360.19	7673360.36	7673360.53	0.0280	0.0164
Mercury	16297-11-09 04:33 G	7673729.64	7673729.69	7673729.75	0.0281	0.0259
Mercury	16298-02-05 19:40 G	7673818.20	7673818.32	7673818.45	0.0281	0.0152
Mercury	16298-05-05 11:16 G	7673906.82	7673906.97	7673907.13	0.0281	0.0042
Mercury	16298-08-02 03:07 G	7673995.48	7673995.63	7673995.79	0.0281	0.0071
Mercury	16298-10-29 19:26 G	7674084.20	7674084.31	7674084.43	0.0281	0.0186
Earth	16299-11-04 17:16 G	7674454.98	7674455.22	7674455.46	0.0282	0.0014
Moon	16299-11-04 20:09 G	7674455.09	7674455.34	7674455.59	0.0282	0.0022 *
Venus	16310-01-18 19:26 G	7678182.22	7678182.31	7678182.40	0.0280	0.0253
Venus	16310-09-05 07:55 G	7678411.62	7678411.83	7678412.04	0.0280	0.0043
Venus	16311-04-22 19:26 G	7678641.15	7678641.31	7678641.49	0.0279	0.0166
Mercury	16312-06-18 04:48 G	7679063.59	7679063.70	7679063.80	0.0278	0.0206

Mercury	16312-09-14 20:24 G	7679152.20	7679152.35	7679152.49	0.0278	0.0095
Mercury	16312-12-12 11:31 G	7679240.83	7679240.98	7679241.13	0.0278	0.0013
Mercury	16313-03-11 02:24 G	7679329.46	7679329.60	7679329.74	0.0277	0.0118
Mercury	16313-06-07 16:48 G	7679418.12	7679418.20	7679418.30	0.0277	0.0220
Moon	16314-05-08 04:48 G	7679752.46	7679752.70	7679752.94	0.0277	0.0037
Earth	16314-05-08 06:00 G	7679752.51	7679752.75	7679753.00	0.0277	0.0023 *
Venus	16325-02-14 01:40 G	7683687.46	7683687.57	7683687.70	0.0279	0.0227
Venus	16325-10-01 12:43 G	7683916.82	7683917.03	7683917.25	0.0279	0.0021
Venus	16326-05-19 00:14 G	7684146.36	7684146.51	7684146.67	0.0280	0.0190
Mercury	16327-06-26 20:09 G	7684550.23	7684550.34	7684550.46	0.0281	0.0188
Mercury	16327-09-23 11:31 G	7684638.84	7684638.98	7684639.13	0.0281	0.0080
Mercury	16327-12-21 03:21 G	7684727.49	7684727.64	7684727.80	0.0281	0.0033
Mercury	16328-03-18 19:40 G	7684816.18	7684816.32	7684816.45	0.0281	0.0147
Mercury	16328-06-15 12:00 G	7684904.95	7684905.00	7684905.06	0.0282	0.0264
Moon	16328-10-29 23:16 G	7685041.37	7685041.47	7685041.59	0.0282	0.0249
Earth	16328-10-30 02:09 G	7685041.47	7685041.59	7685041.73	0.0282	0.0237 *
Earth	16329-11-12 06:43 G	7685419.69	7685419.78	7685419.90	0.0282	0.0256
Moon	16329-11-12 08:24 G	7685419.76	7685419.85	7685419.96	0.0282	0.0256 *
Mars	16333-10-27 03:21 G	7686864.33	7686864.64	7686864.96	0.0283	0.0004
Venus	16339-07-31 19:40 G	7688968.22	7688968.32	7688968.44	0.0280	0.0235
Venus	16340-03-17 08:09 G	7689197.63	7689197.84	7689198.05	0.0279	0.0025
Venus	16340-11-01 19:55 G	7689427.17	7689427.33	7689427.49	0.0279	0.0184
Mercury	16341-11-05 03:50 G	7689795.60	7689795.66	7689795.74	0.0278	0.0250
Mercury	16342-02-01 19:40 G	7689884.19	7689884.32	7689884.46	0.0278	0.0138
Mercury	16342-05-01 11:16 G	7689972.81	7689972.97	7689973.12	0.0278	0.0030
Mercury	16342-07-29 02:09 G	7690061.45	7690061.59	7690061.74	0.0277	0.0077
Mercury	16342-10-25 16:48 G	7690150.09	7690150.20	7690150.32	0.0277	0.0181
Earth	16343-05-02 14:24 G	7690338.98	7690339.10	7690339.22	0.0277	0.0240
Moon	16343-05-02 15:21 G	7690339.04	7690339.14	7690339.24	0.0277	0.0254 *
Moon	16344-05-14 10:19 G	7690716.78	7690716.93	7690717.10	0.0276	0.0214

Earth	16344-05-14 13:26 G	7690716.93	7690717.06	7690717.21	0.0276	0.0229 *
Venus	16354-08-27 05:16 G	7694473.58	7694473.72	7694473.87	0.0279	0.0203
Venus	16355-04-13 16:48 G	7694702.99	7694703.20	7694703.41	0.0280	0.0007
Venus	16355-11-29 04:33 G	7694932.56	7694932.69	7694932.83	0.0280	0.0215
Mercury	16356-11-12 21:21 G	7695282.30	7695282.39	7695282.48	0.0281	0.0220
Mercury	16357-02-09 12:43 G	7695370.89	7695371.03	7695371.17	0.0281	0.0112
Mercury	16357-05-09 04:19 G	7695459.53	7695459.68	7695459.84	0.0281	0.0005
Mercury	16357-08-05 20:24 G	7695548.21	7695548.35	7695548.50	0.0281	0.0113
Mercury	16357-11-02 12:43 G	7695636.95	7695637.03	7695637.13	0.0281	0.0230
Moon	16358-11-06 19:26 G	7696006.06	7696006.31	7696006.56	0.0282	0.0034
Earth	16358-11-06 20:52 G	7696006.13	7696006.37	7696006.61	0.0282	0.0038 *
Venus	16369-02-10 05:31 G	7699754.59	7699754.73	7699754.89	0.0280	0.0199
Venus	16369-09-27 18:00 G	7699984.04	7699984.25	7699984.47	0.0280	0.0013
Venus	16370-05-15 05:45 G	7700213.62	7700213.74	7700213.87	0.0279	0.0220
Mercury	16371-03-25 06:43 G	7700527.75	7700527.78	7700527.81	0.0278	0.0271
Mercury	16371-06-21 22:33 G	7700616.31	7700616.44	7700616.57	0.0278	0.0159
Mercury	16371-09-18 14:09 G	7700704.93	7700705.09	7700705.24	0.0278	0.0050
Mercury	16371-12-16 05:02 G	7700793.57	7700793.71	7700793.86	0.0278	0.0058
Mercury	16372-03-13 19:55 G	7700882.21	7700882.33	7700882.45	0.0277	0.0162
Mercury	16372-06-10 10:19 G	7700970.89	7700970.93	7700970.97	0.0277	0.0263
Earth	16373-05-09 12:43 G	7701303.78	7701304.03	7701304.27	0.0277	0.0034
Moon	16373-05-09 15:36 G	7701303.91	7701304.15	7701304.40	0.0277	0.0019 *
Mars	16377-12-03 01:12 G	7702972.30	7702972.55	7702972.83	0.0275	0.0076
Venus	16384-03-08 09:50 G	7705259.75	7705259.91	7705260.08	0.0279	0.0177
Venus	16384-10-23 21:07 G	7705489.17	7705489.38	7705489.59	0.0279	0.0031
Venus	16385-06-10 08:38 G	7705718.76	7705718.86	7705718.97	0.0280	0.0240
Mercury	16386-04-01 21:50 G	7706014.36	7706014.41	7706014.48	0.0281	0.0255
Mercury	16386-06-29 13:12 G	7706102.92	7706103.05	7706103.18	0.0281	0.0148
Mercury	16386-09-26 04:48 G	7706191.55	7706191.70	7706191.85	0.0281	0.0038
Mercury	16386-12-23 20:38 G	7706280.21	7706280.36	7706280.51	0.0281	0.0074

Mercury	16387-03-22 12:57 G	7706368.92	7706369.04	7706369.15	0.0281	0.0189
Earth	16387-11-01 05:45 G	7706592.57	7706592.74	7706592.94	0.0282	0.0184
Moon	16387-11-01 07:12 G	7706592.64	7706592.80	7706592.98	0.0282	0.0193 *
Venus	16398-08-23 06:00 G	7710540.59	7710540.75	7710540.91	0.0280	0.0181
Venus	16399-04-09 18:14 G	7710770.05	7710770.26	7710770.47	0.0279	0.0030
Venus	16399-11-25 05:45 G	7710999.64	7710999.74	7710999.86	0.0279	0.0238
Mercury	16400-11-07 21:36 G	7711348.30	7711348.40	7711348.51	0.0278	0.0204
Mercury	16401-02-04 13:26 G	7711436.91	7711437.06	7711437.21	0.0278	0.0093
Mercury	16401-05-04 04:48 G	7711525.54	7711525.70	7711525.85	0.0277	0.0017
Mercury	16401-07-31 19:26 G	7711614.18	7711614.31	7711614.45	0.0277	0.0121
Mercury	16401-10-28 10:04 G	7711702.84	7711702.92	7711703.01	0.0277	0.0222
Moon	16402-05-03 16:19 G	7711890.02	7711890.18	7711890.36	0.0277	0.0202
Earth	16402-05-03 19:55 G	7711890.16	7711890.33	7711890.52	0.0277	0.0185 *
Moon	16403-05-16 15:50 G	7712268.12	7712268.16	7712268.23	0.0276	0.0270
Venus	16413-09-18 12:00 G	7716045.83	7716046.00	7716046.18	0.0279	0.0155
Venus	16414-05-05 23:31 G	7716275.28	7716275.48	7716275.69	0.0280	0.0054
Venus	16414-12-21 11:16 G	7716504.92	7716504.97	7716505.05	0.0280	0.0264
Mercury	16415-11-16 13:40 G	7716834.96	7716835.07	7716835.19	0.0281	0.0184
Mercury	16416-02-13 05:16 G	7716923.57	7716923.72	7716923.87	0.0281	0.0075
Mercury	16416-05-11 20:52 G	7717012.22	7717012.37	7717012.53	0.0281	0.0038
Mercury	16416-08-08 13:12 G	7717100.92	7717101.05	7717101.18	0.0281	0.0152
Mercury	16416-11-05 05:45 G	7717189.70	7717189.74	7717189.78	0.0281	0.0269
Moon	16417-11-07 18:43 G	7717557.05	7717557.28	7717557.51	0.0282	0.0085
Earth	16417-11-07 22:19 G	7717557.20	7717557.43	7717557.66	0.0282	0.0088 *
Mars	16422-03-22 22:04 G	7719153.13	7719153.42	7719153.74	0.0284	0.0070
Venus	16428-03-04 14:38 G	7721326.93	7721327.11	7721327.29	0.0280	0.0147
Venus	16428-10-20 02:52 G	7721556.42	7721556.62	7721556.83	0.0280	0.0065
Venus	16429-06-06 14:38 G	7721786.07	7721786.11	7721786.16	0.0279	0.0272
Mercury	16430-03-28 00:14 G	7722080.42	7722080.51	7722080.60	0.0278	0.0227
Mercury	16430-06-24 15:50 G	7722169.03	7722169.16	7722169.31	0.0278	0.0116

Mercury	16430-09-21 07:26 G	7722257.65	7722257.81	7722257.96	0.0278	0.0009
Mercury	16430-12-18 22:19 G	7722346.29	7722346.43	7722346.57	0.0278	0.0099
Mercury	16431-03-17 12:57 G	7722434.94	7722435.04	7722435.14	0.0278	0.0202
Earth	16432-05-10 17:31 G	7722855.00	7722855.23	7722855.47	0.0277	0.0088
Moon	16432-05-10 20:24 G	7722855.11	7722855.35	7722855.60	0.0277	0.0072 *
Venus	16443-03-31 17:31 G	7726832.04	7726832.23	7726832.42	0.0279	0.0128
Venus	16443-11-16 04:33 G	7727061.49	7727061.69	7727061.89	0.0279	0.0080
Mercury	16445-04-04 14:38 G	7727567.02	7727567.11	7727567.21	0.0280	0.0217
Mercury	16445-07-02 05:45 G	7727655.61	7727655.74	7727655.89	0.0281	0.0110
Mercury	16445-09-28 21:36 G	7727744.24	7727744.40	7727744.55	0.0281	0.0005
Mercury	16445-12-26 13:26 G	7727832.92	7727833.06	7727833.21	0.0281	0.0114
Mercury	16446-03-25 05:45 G	7727921.66	7727921.74	7727921.84	0.0281	0.0230
Earth	16446-11-02 07:55 G	7728143.62	7728143.83	7728144.05	0.0282	0.0133
Moon	16446-11-02 11:45 G	7728143.78	7728143.99	7728144.21	0.0282	0.0139 *
Venus	16457-09-14 14:52 G	7732112.93	7732113.12	7732113.31	0.0280	0.0129
Venus	16458-05-02 03:07 G	7732342.43	7732342.63	7732342.83	0.0279	0.0081
Mercury	16459-08-14 23:02 G	7732812.44	7732812.46	7732812.50	0.0278	0.0273
Mercury	16459-11-11 15:07 G	7732901.01	7732901.13	7732901.26	0.0278	0.0161
Mercury	16460-02-08 06:43 G	7732989.63	7732989.78	7732989.93	0.0278	0.0051
Mercury	16460-05-06 21:50 G	7733078.26	7733078.41	7733078.56	0.0277	0.0056
Mercury	16460-08-03 12:28 G	7733166.90	7733167.02	7733167.15	0.0277	0.0161
Mercury	16460-10-31 02:52 G	7733255.58	7733255.62	7733255.67	0.0277	0.0262
Moon	16461-05-04 22:19 G	7733441.23	7733441.43	7733441.64	0.0277	0.0147
Earth	16461-05-05 00:28 G	7733441.31	7733441.52	7733441.74	0.0277	0.0131 *
Mars	16466-04-28 04:33 G	7735260.43	7735260.69	7735260.97	0.0275	0.0043
Venus	16472-10-10 18:14 G	7737618.07	7737618.26	7737618.46	0.0279	0.0108
Venus	16473-05-28 05:45 G	7737847.54	7737847.74	7737847.94	0.0280	0.0101
Mercury	16474-08-22 14:38 G	7738299.06	7738299.11	7738299.18	0.0281	0.0256
Mercury	16474-11-19 06:00 G	7738387.62	7738387.75	7738387.88	0.0281	0.0149
Mercury	16475-02-15 21:21 G	7738476.24	7738476.39	7738476.55	0.0281	0.0040

Mercury	16475-05-15 13:12 G	7738564.90	7738565.05	7738565.21	0.0281	0.0074
Mercury	16475-08-12 05:31 G	7738653.62	7738653.73	7738653.85	0.0281	0.0189
Moon	16476-11-08 21:36 G	7739108.20	7739108.40	7739108.61	0.0282	0.0136
Earth	16476-11-08 22:04 G	7739108.21	7739108.42	7739108.63	0.0282	0.0134 *
Venus	16487-03-27 22:48 G	7742899.25	7742899.45	7742899.65	0.0280	0.0096
Venus	16487-11-12 11:02 G	7743128.78	7743128.96	7743129.16	0.0280	0.0115
Mercury	16489-03-30 17:31 G	7743633.11	7743633.23	7743633.35	0.0278	0.0185
Mercury	16489-06-27 09:07 G	7743721.73	7743721.88	7743722.03	0.0278	0.0074
Mercury	16489-09-24 00:28 G	7743810.36	7743810.52	7743810.67	0.0278	0.0035
Mercury	16489-12-21 15:07 G	7743899.00	7743899.13	7743899.27	0.0278	0.0139
Mercury	16490-03-20 05:45 G	7743987.67	7743987.74	7743987.81	0.0278	0.0241
Moon	16491-05-12 19:12 G	7744406.08	7744406.30	7744406.53	0.0277	0.0127
Earth	16491-05-12 21:21 G	7744406.18	7744406.39	7744406.61	0.0277	0.0140 *
Venus	16502-04-24 00:14 G	7748404.31	7748404.51	7748404.71	0.0279	0.0080
Venus	16502-12-09 11:16 G	7748633.79	7748633.97	7748634.16	0.0279	0.0128
Mercury	16504-04-08 06:57 G	7749119.68	7749119.79	7749119.91	0.0280	0.0181
Mercury	16504-07-05 22:19 G	7749208.29	7749208.43	7749208.58	0.0281	0.0073
Mercury	16504-10-02 14:09 G	7749296.93	7749297.09	7749297.24	0.0281	0.0039
Mercury	16504-12-30 06:14 G	7749385.63	7749385.76	7749385.89	0.0281	0.0153
Mercury	16505-03-28 22:33 G	7749474.40	7749474.44	7749474.49	0.0281	0.0269
Moon	16505-11-04 08:52 G	7749694.64	7749694.87	7749695.12	0.0282	0.0084
Earth	16505-11-04 09:07 G	7749694.65	7749694.88	7749695.11	0.0282	0.0084 *
Mars	16510-08-16 17:31 G	7751440.94	7751441.23	7751441.53	0.0284	0.0101
Venus	16516-10-07 22:48 G	7753685.25	7753685.45	7753685.66	0.0280	0.0079
Venus	16517-05-25 11:02 G	7753914.78	7753914.96	7753915.15	0.0279	0.0132
Mercury	16518-08-18 16:19 G	7754365.10	7754365.18	7754365.27	0.0278	0.0231
Mercury	16518-11-15 08:09 G	7754453.71	7754453.84	7754453.99	0.0278	0.0120
Mercury	16519-02-11 23:45 G	7754542.33	7754542.49	7754542.64	0.0278	0.0013
Mercury	16519-05-11 14:38 G	7754630.97	7754631.11	7754631.26	0.0277	0.0095
Mercury	16519-08-08 05:16 G	7754719.62	7754719.72	7754719.83	0.0277	0.0199

Earth	16520-05-07 03:50 G	7754992.43	7754992.66	7754992.90	0.0277	0.0080
Moon	16520-05-07 06:14 G	7754992.54	7754992.76	7754992.99	0.0277	0.0092 *
Venus	16531-03-19 13:40 G	7758961.02	7758961.07	7758961.13	0.0278	0.0267
Venus	16531-11-04 00:28 G	7759190.32	7759190.52	7759190.73	0.0279	0.0061
Venus	16532-06-20 12:00 G	7759419.82	7759420.00	7759420.18	0.0279	0.0148
Mercury	16533-08-26 06:43 G	7759851.69	7759851.78	7759851.87	0.0280	0.0222
Mercury	16533-11-22 22:04 G	7759940.28	7759940.42	7759940.56	0.0281	0.0115
Mercury	16534-02-19 13:40 G	7760028.91	7760029.07	7760029.22	0.0281	0.0005
Mercury	16534-05-19 05:31 G	7760117.59	7760117.73	7760117.88	0.0281	0.0109
Mercury	16534-08-15 21:50 G	7760206.32	7760206.41	7760206.51	0.0281	0.0225
Earth	16535-11-11 21:07 G	7760659.20	7760659.38	7760659.57	0.0282	0.0180
Moon	16535-11-12 00:43 G	7760659.36	7760659.53	7760659.72	0.0282	0.0187 *
Venus	16545-09-02 16:48 G	7764242.13	7764242.20	7764242.28	0.0281	0.0261
Venus	16546-04-20 06:00 G	7764471.54	7764471.75	7764471.96	0.0280	0.0048
Venus	16546-12-05 18:28 G	7764701.10	7764701.27	7764701.44	0.0280	0.0163
Mercury	16548-01-05 18:28 G	7765097.21	7765097.27	7765097.33	0.0279	0.0258
Mercury	16548-04-03 10:19 G	7765185.80	7765185.93	7765186.06	0.0279	0.0146
Mercury	16548-07-01 01:55 G	7765274.43	7765274.58	7765274.73	0.0278	0.0036
Mercury	16548-09-27 17:02 G	7765363.06	7765363.21	7765363.36	0.0278	0.0071
Mercury	16548-12-25 07:40 G	7765451.71	7765451.82	7765451.94	0.0278	0.0176
Mercury	16549-03-23 22:19 G	7765540.43	7765540.43	7765540.43	0.0278	0.0277
Earth	16549-05-02 00:00 G	7765579.50	7765579.50	7765579.52	0.0278	0.0277
Moon	16550-05-14 20:24 G	7765957.18	7765957.35	7765957.54	0.0277	0.0182
Earth	16550-05-15 00:00 G	7765957.33	7765957.50	7765957.68	0.0277	0.0191 *
Mars	16554-09-23 03:50 G	7767549.38	7767549.66	7767549.93	0.0275	0.0018
Venus	16560-09-28 20:09 G	7769747.25	7769747.34	7769747.46	0.0278	0.0239
Venus	16561-05-16 06:57 G	7769976.58	7769976.79	7769977.00	0.0278	0.0033
Venus	16561-12-31 18:00 G	7770206.09	7770206.25	7770206.42	0.0279	0.0175
Mercury	16563-01-13 08:09 G	7770583.78	7770583.84	7770583.91	0.0280	0.0252
Mercury	16563-04-11 23:16 G	7770672.34	7770672.47	7770672.60	0.0280	0.0146

Mercury	16563-07-09 14:52 G	7770760.96	7770761.12	7770761.27	0.0281	0.0037
Mercury	16563-10-06 06:28 G	7770849.62	7770849.77	7770849.92	0.0281	0.0076
Mercury	16564-01-02 22:48 G	7770938.33	7770938.45	7770938.56	0.0281	0.0190
Moon	16564-11-05 05:45 G	7771245.49	7771245.74	7771245.98	0.0282	0.0030
Earth	16564-11-05 09:36 G	7771245.65	7771245.90	7771246.14	0.0282	0.0036 *
Venus	16575-03-15 17:31 G	7775028.14	7775028.23	7775028.35	0.0280	0.0242
Venus	16575-10-31 06:43 G	7775257.57	7775257.78	7775257.99	0.0280	0.0029
Venus	16576-06-16 18:57 G	7775487.14	7775487.29	7775487.46	0.0279	0.0181
Mercury	16577-08-21 09:36 G	7775917.79	7775917.90	7775918.02	0.0278	0.0190
Mercury	16577-11-18 01:12 G	7776006.41	7776006.55	7776006.70	0.0278	0.0080
Mercury	16578-02-14 16:33 G	7776095.04	7776095.19	7776095.34	0.0278	0.0029
Mercury	16578-05-14 07:26 G	7776183.68	7776183.81	7776183.95	0.0277	0.0134
Mercury	16578-08-10 22:04 G	7776272.35	7776272.42	7776272.50	0.0277	0.0236
Earth	16579-05-09 07:12 G	7776543.56	7776543.80	7776544.05	0.0277	0.0028
Moon	16579-05-09 10:33 G	7776543.70	7776543.94	7776544.19	0.0277	0.0040 *
Venus	16590-04-10 19:55 G	7780533.21	7780533.33	7780533.46	0.0278	0.0221
Venus	16590-11-26 06:43 G	7780762.57	7780762.78	7780762.99	0.0279	0.0015
Venus	16591-07-13 18:00 G	7780992.10	7780992.25	7780992.41	0.0279	0.0194
Mercury	16592-08-28 22:48 G	7781404.34	7781404.45	7781404.56	0.0280	0.0188
Mercury	16592-11-25 14:09 G	7781492.94	7781493.09	7781493.24	0.0281	0.0080
Mercury	16593-02-22 05:45 G	7781581.59	7781581.74	7781581.90	0.0281	0.0031
Mercury	16593-05-21 21:50 G	7781670.28	7781670.41	7781670.55	0.0281	0.0145
Mercury	16593-08-18 14:09 G	7781759.04	7781759.09	7781759.15	0.0281	0.0262
Earth	16593-10-30 15:50 G	7781832.08	7781832.16	7781832.25	0.0281	0.0262
Moon	16593-10-30 19:26 G	7781832.22	7781832.31	7781832.41	0.0281	0.0259 *
Earth	16594-11-12 20:09 G	7782210.21	7782210.34	7782210.50	0.0282	0.0227
Moon	16594-11-12 22:04 G	7782210.29	7782210.42	7782210.56	0.0282	0.0236 *
Mars	16599-01-09 13:55 G	7783728.81	7783729.08	7783729.37	0.0284	0.0131
Venus	16604-09-25 23:31 G	7785814.35	7785814.48	7785814.62	0.0281	0.0214
Venus	16605-05-13 12:57 G	7786043.83	7786044.04	7786044.25	0.0281	0.0002

Venus	16605-12-29 01:26 G	7786273.43	7786273.56	7786273.71	0.0280	0.0211
Mercury	16607-01-09 11:16 G	7786649.88	7786649.97	7786650.07	0.0279	0.0219
Mercury	16607-04-08 03:07 G	7786738.49	7786738.63	7786738.77	0.0279	0.0107
Mercury	16607-07-05 18:28 G	7786827.12	7786827.27	7786827.43	0.0279	0.0006
Mercury	16607-10-02 09:36 G	7786915.76	7786915.90	7786916.04	0.0278	0.0109
Mercury	16607-12-30 00:14 G	7787004.42	7787004.51	7787004.61	0.0278	0.0212
Moon	16608-05-03 22:33 G	7787130.33	7787130.44	7787130.57	0.0278	0.0242
Earth	16608-05-04 02:24 G	7787130.46	7787130.60	7787130.74	0.0278	0.0226 *
Earth	16609-05-17 01:55 G	7787508.48	7787508.58	7787508.71	0.0277	0.0242
Moon	16609-05-17 02:24 G	7787508.49	7787508.60	7787508.73	0.0277	0.0236 *
Venus	16619-10-23 03:36 G	7791319.50	7791319.65	7791319.81	0.0278	0.0191
Venus	16620-06-08 14:09 G	7791548.88	7791549.09	7791549.31	0.0278	0.0016
Venus	16621-01-24 01:12 G	7791778.43	7791778.55	7791778.68	0.0279	0.0223
Mercury	16622-01-17 00:28 G	7792136.44	7792136.52	7792136.63	0.0280	0.0216
Mercury	16622-04-15 15:50 G	7792225.02	7792225.16	7792225.30	0.0280	0.0109
Mercury	16622-07-13 07:26 G	7792313.65	7792313.81	7792313.96	0.0280	0.0002
Mercury	16622-10-09 23:16 G	7792402.33	7792402.47	7792402.61	0.0281	0.0114
Mercury	16623-01-06 15:36 G	7792491.06	7792491.15	7792491.24	0.0281	0.0229
Moon	16623-11-08 09:21 G	7792796.66	7792796.89	7792797.13	0.0282	0.0023
Earth	16623-11-08 10:48 G	7792796.70	7792796.95	7792797.19	0.0282	0.0015 *
Venus	16634-04-08 01:12 G	7796600.41	7796600.55	7796600.71	0.0281	0.0193
Venus	16634-11-23 14:24 G	7796829.89	7796830.10	7796830.31	0.0280	0.0020
Venus	16635-07-11 02:38 G	7797059.50	7797059.61	7797059.74	0.0279	0.0229
Mercury	16636-05-28 10:33 G	7797381.90	7797381.94	7797382.00	0.0278	0.0263
Mercury	16636-08-25 02:38 G	7797470.48	7797470.61	7797470.74	0.0278	0.0150
Mercury	16636-11-21 18:14 G	7797559.11	7797559.26	7797559.41	0.0278	0.0040
Mercury	16637-02-18 09:21 G	7797647.74	7797647.89	7797648.04	0.0278	0.0068
Mercury	16637-05-18 00:14 G	7797736.39	7797736.51	7797736.63	0.0278	0.0172
Mercury	16637-08-14 14:38 G	7797825.09	7797825.11	7797825.13	0.0277	0.0274
Jupiter	16637-08-26 17:02 G	7797836.82	7797837.21	7797837.60	0.0277	0.0124

Moon	16638-05-11 10:04 G	7798094.66	7798094.92	7798095.18	0.0277	0.0016
Earth	16638-05-11 10:19 G	7798094.69	7798094.93	7798095.18	0.0277	0.0025 *
Mars	16643-02-17 05:02 G	7799837.44	7799837.71	7799837.98	0.0275	0.0045
Venus	16649-05-04 02:52 G	7802105.47	7802105.62	7802105.79	0.0278	0.0174
Venus	16649-12-19 13:40 G	7802334.86	7802335.07	7802335.28	0.0279	0.0033
Venus	16650-08-06 00:43 G	7802564.44	7802564.53	7802564.65	0.0279	0.0241
Mercury	16651-06-06 00:00 G	7802868.45	7802868.50	7802868.56	0.0280	0.0259
Mercury	16651-09-02 15:07 G	7802957.01	7802957.13	7802957.26	0.0280	0.0153
Mercury	16651-11-30 06:28 G	7803045.62	7803045.77	7803045.93	0.0281	0.0045
Mercury	16652-02-26 22:19 G	7803134.28	7803134.43	7803134.58	0.0281	0.0068
Mercury	16652-05-25 14:24 G	7803222.98	7803223.10	7803223.22	0.0281	0.0182
Earth	16652-11-01 16:04 G	7803383.02	7803383.17	7803383.34	0.0281	0.0213
Moon	16652-11-01 17:16 G	7803383.06	7803383.22	7803383.40	0.0281	0.0208 *
Earth	16653-11-14 20:24 G	7803761.30	7803761.35	7803761.42	0.0282	0.0274
Venus	16663-10-19 06:43 G	7807386.61	7807386.78	7807386.95	0.0281	0.0166
Venus	16664-06-04 20:09 G	7807616.13	7807616.34	7807616.55	0.0281	0.0048
Venus	16665-01-20 08:52 G	7807845.79	7807845.87	7807845.95	0.0280	0.0258
Mercury	16666-01-12 04:04 G	7808202.56	7808202.67	7808202.79	0.0279	0.0180
Mercury	16666-04-10 19:55 G	7808291.18	7808291.33	7808291.48	0.0279	0.0069
Mercury	16666-07-08 11:16 G	7808379.82	7808379.97	7808380.12	0.0279	0.0040
Mercury	16666-10-05 02:09 G	7808468.47	7808468.59	7808468.72	0.0278	0.0146
Mercury	16667-01-01 16:48 G	7808557.14	7808557.20	7808557.27	0.0278	0.0249
Earth	16667-05-06 05:02 G	7808681.52	7808681.71	7808681.90	0.0278	0.0174
Moon	16667-05-06 04:48 G	7808681.54	7808681.70	7808681.89	0.0278	0.0188 *
Venus	16678-11-14 11:16 G	7812891.80	7812891.97	7812892.16	0.0278	0.0143
Venus	16679-07-01 22:04 G	7813121.21	7813121.42	7813121.63	0.0278	0.0064
Venus	16680-02-16 09:07 G	7813350.84	7813350.88	7813350.93	0.0279	0.0271
Mercury	16681-01-19 17:16 G	7813689.11	7813689.22	7813689.34	0.0280	0.0178
Mercury	16681-04-18 08:38 G	7813777.71	7813777.86	7813778.01	0.0280	0.0070
Mercury	16681-07-16 00:14 G	7813866.36	7813866.51	7813866.67	0.0280	0.0040

Mercury	16681-10-12 16:19 G	7813955.05	7813955.18	7813955.31	0.0281	0.0154
Mercury	16682-01-09 08:38 G	7814043.82	7814043.86	7814043.90	0.0281	0.0270
Earth	16682-11-09 12:43 G	7814347.80	7814348.03	7814348.27	0.0282	0.0066
Moon	16682-11-09 15:36 G	7814347.93	7814348.15	7814348.38	0.0282	0.0077 *
Mars	16687-06-05 19:55 G	7816017.10	7816017.33	7816017.57	0.0284	0.0182
Venus	16693-04-30 09:36 G	7818172.72	7818172.90	7818173.08	0.0281	0.0143
Venus	16693-12-15 22:33 G	7818402.24	7818402.44	7818402.65	0.0280	0.0070
Venus	16694-08-02 11:02 G	7818631.95	7818631.96	7818631.97	0.0279	0.0279
Mercury	16695-06-01 03:50 G	7818934.57	7818934.66	7818934.76	0.0279	0.0221
Mercury	16695-08-28 19:40 G	7819023.18	7819023.32	7819023.47	0.0278	0.0109
Mercury	16695-11-25 11:16 G	7819111.82	7819111.97	7819112.12	0.0278	0.0001
Mercury	16696-02-22 02:24 G	7819200.46	7819200.60	7819200.74	0.0278	0.0107
Mercury	16696-05-20 17:02 G	7819289.12	7819289.21	7819289.31	0.0278	0.0211
Moon	16697-05-12 10:48 G	7819645.71	7819645.95	7819646.19	0.0277	0.0070
Earth	16697-05-12 14:24 G	7819645.87	7819646.10	7819646.34	0.0277	0.0079 *
Venus	16708-05-27 11:02 G	7823677.78	7823677.96	7823678.15	0.0278	0.0124
Venus	16709-01-11 21:36 G	7823907.20	7823907.40	7823907.61	0.0279	0.0083
Mercury	16710-06-09 16:48 G	7824421.11	7824421.20	7824421.29	0.0280	0.0221
Mercury	16710-09-06 07:55 G	7824509.69	7824509.83	7824509.97	0.0280	0.0115
Mercury	16710-12-03 23:31 G	7824598.32	7824598.48	7824598.63	0.0280	0.0009
Mercury	16711-03-02 15:07 G	7824686.99	7824687.13	7824687.28	0.0281	0.0108
Mercury	16711-05-30 07:26 G	7824775.72	7824775.81	7824775.91	0.0281	0.0223
Moon	16711-11-04 15:36 G	7824933.94	7824934.15	7824934.36	0.0281	0.0153
Earth	16711-11-04 18:28 G	7824934.07	7824934.27	7824934.47	0.0281	0.0161 *
Venus	16722-11-11 14:24 G	7828958.91	7828959.10	7828959.29	0.0281	0.0117
Venus	16723-06-29 03:36 G	7829188.46	7829188.65	7829188.85	0.0281	0.0097
Mercury	16724-10-19 05:02 G	7829666.65	7829666.71	7829666.78	0.0280	0.0254
Mercury	16725-01-15 21:07 G	7829755.25	7829755.38	7829755.52	0.0279	0.0140
Mercury	16725-04-14 12:43 G	7829843.88	7829844.03	7829844.19	0.0279	0.0030
Mercury	16725-07-12 04:04 G	7829932.52	7829932.67	7829932.82	0.0279	0.0079

Mercury	16725-10-08 18:57 G	7830021.18	7830021.29	7830021.40	0.0279	0.0184
Earth	16726-05-08 07:55 G	7830232.62	7830232.83	7830233.06	0.0278	0.0121
Moon	16726-05-08 11:31 G	7830232.78	7830232.98	7830233.21	0.0278	0.0134 *
Mars	16731-07-15 09:07 G	7832126.64	7832126.88	7832127.14	0.0275	0.0116
Venus	16737-12-07 20:09 G	7834464.15	7834464.34	7834464.55	0.0278	0.0092
Venus	16738-07-25 06:57 G	7834693.60	7834693.79	7834693.98	0.0278	0.0115
Mercury	16739-10-27 19:26 G	7835153.24	7835153.31	7835153.38	0.0280	0.0243
Mercury	16740-01-24 10:19 G	7835241.80	7835241.93	7835242.07	0.0280	0.0138
Mercury	16740-04-22 01:55 G	7835330.42	7835330.58	7835330.73	0.0280	0.0030
Mercury	16740-07-19 17:31 G	7835419.08	7835419.23	7835419.38	0.0280	0.0083
Mercury	16740-10-16 09:36 G	7835507.79	7835507.90	7835508.02	0.0280	0.0197
Earth	16741-11-11 16:33 G	7835898.98	7835899.19	7835899.42	0.0281	0.0121
Moon	16741-11-11 19:40 G	7835899.11	7835899.32	7835899.55	0.0281	0.0132 *
Venus	16752-05-23 18:28 G	7839745.07	7839745.27	7839745.47	0.0281	0.0092
Venus	16753-01-08 07:40 G	7839974.63	7839974.82	7839975.01	0.0280	0.0121
Mercury	16754-06-04 21:21 G	7840487.28	7840487.39	7840487.52	0.0279	0.0178
Mercury	16754-09-01 13:12 G	7840575.90	7840576.05	7840576.20	0.0278	0.0066
Mercury	16754-11-29 04:33 G	7840664.54	7840664.69	7840664.84	0.0278	0.0043
Mercury	16755-02-25 19:40 G	7840753.19	7840753.32	7840753.44	0.0278	0.0148
Mercury	16755-05-25 10:19 G	7840841.87	7840841.93	7840841.99	0.0278	0.0251
Moon	16756-05-14 18:00 G	7841197.05	7841197.25	7841197.47	0.0277	0.0129
Earth	16756-05-14 19:40 G	7841197.11	7841197.32	7841197.55	0.0277	0.0135 *
Venus	16766-11-02 10:19 G	7845020.92	7845020.93	7845020.96	0.0278	0.0276
Venus	16767-06-19 20:24 G	7845250.15	7845250.35	7845250.56	0.0278	0.0072
Venus	16768-02-04 06:57 G	7845479.61	7845479.79	7845479.98	0.0279	0.0134
Mercury	16769-06-12 09:50 G	7845973.80	7845973.91	7845974.03	0.0280	0.0181
Mercury	16769-09-09 01:12 G	7846062.40	7846062.55	7846062.70	0.0280	0.0073
Mercury	16769-12-06 16:48 G	7846151.04	7846151.20	7846151.35	0.0280	0.0038
Mercury	16770-03-05 08:38 G	7846239.73	7846239.86	7846239.99	0.0281	0.0151
Mercury	16770-06-02 00:57 G	7846328.50	7846328.54	7846328.59	0.0281	0.0267

Moon	16770-11-05 19:40 G	7846485.10	7846485.32	7846485.55	0.0281	0.0097
Earth	16770-11-05 22:33 G	7846485.22	7846485.44	7846485.67	0.0281	0.0106 *
Mars	16775-10-30 20:09 G	7848305.15	7848305.34	7848305.55	0.0284	0.0217
Venus	16781-04-18 08:52 G	7850301.87	7850301.87	7850301.90	0.0282	0.0281
Venus	16781-12-03 23:02 G	7850531.26	7850531.46	7850531.67	0.0281	0.0066
Venus	16782-07-21 12:28 G	7850760.84	7850761.02	7850761.20	0.0281	0.0147
Mercury	16783-10-22 22:33 G	7851219.34	7851219.44	7851219.54	0.0280	0.0211
Mercury	16784-01-19 14:24 G	7851307.96	7851308.10	7851308.25	0.0279	0.0098
Mercury	16784-04-17 06:00 G	7851396.60	7851396.75	7851396.90	0.0279	0.0012
Mercury	16784-07-14 21:07 G	7851485.24	7851485.38	7851485.52	0.0279	0.0119
Mercury	16784-10-11 11:45 G	7851573.91	7851573.99	7851574.09	0.0279	0.0224
Earth	16785-05-09 12:28 G	7851783.79	7851784.02	7851784.27	0.0278	0.0066
Moon	16785-05-09 13:55 G	7851783.84	7851784.08	7851784.33	0.0278	0.0075 *
Venus	16796-05-14 19:55 G	7855807.25	7855807.33	7855807.45	0.0277	0.0244
Venus	16796-12-30 06:14 G	7856036.55	7856036.76	7856036.97	0.0278	0.0039
Venus	16797-08-16 16:48 G	7856266.04	7856266.20	7856266.37	0.0278	0.0168
Mercury	16798-10-30 12:57 G	7856705.94	7856706.04	7856706.15	0.0279	0.0200
Mercury	16799-01-27 04:04 G	7856794.53	7856794.67	7856794.82	0.0280	0.0094
Mercury	16799-04-25 19:40 G	7856883.16	7856883.32	7856883.47	0.0280	0.0017
Mercury	16799-07-23 11:31 G	7856971.84	7856971.98	7856972.12	0.0280	0.0128
Mercury	16799-10-20 03:36 G	7857060.58	7857060.65	7857060.73	0.0280	0.0244
Moon	16800-11-12 22:04 G	7857450.24	7857450.42	7857450.61	0.0281	0.0191
Earth	16800-11-12 23:02 G	7857450.28	7857450.46	7857450.66	0.0281	0.0179 *
Venus	16810-10-29 14:52 G	7861088.03	7861088.12	7861088.22	0.0281	0.0251
Venus	16811-06-16 04:33 G	7861317.48	7861317.69	7861317.90	0.0281	0.0038
Venus	16812-01-31 17:31 G	7861547.07	7861547.23	7861547.41	0.0280	0.0174
Mercury	16813-03-10 23:16 G	7861951.40	7861951.47	7861951.55	0.0279	0.0245
Mercury	16813-06-07 15:21 G	7862040.00	7862040.14	7862040.28	0.0279	0.0132
Mercury	16813-09-04 06:57 G	7862128.63	7862128.79	7862128.94	0.0279	0.0022
Mercury	16813-12-01 22:04 G	7862217.28	7862217.42	7862217.57	0.0278	0.0086

Mercury	16814-02-28 12:57 G	7862305.93	7862306.04	7862306.15	0.0278	0.0191
Earth	16814-05-04 00:43 G	7862370.51	7862370.53	7862370.58	0.0278	0.0275
Earth	16815-05-17 02:24 G	7862748.43	7862748.60	7862748.78	0.0277	0.0192
Moon	16815-05-17 05:02 G	7862748.55	7862748.71	7862748.90	0.0277	0.0191 *
Mars	16819-12-08 20:52 G	7864415.16	7864415.37	7864415.60	0.0275	0.0161
Venus	16825-11-24 20:52 G	7866593.26	7866593.37	7866593.51	0.0278	0.0223
Venus	16826-07-12 07:12 G	7866822.59	7866822.80	7866823.01	0.0278	0.0018
Venus	16827-02-26 17:45 G	7867052.08	7867052.24	7867052.39	0.0279	0.0188
Mercury	16828-03-18 12:43 G	7867437.96	7867438.03	7867438.11	0.0280	0.0241
Mercury	16828-06-15 03:36 G	7867526.52	7867526.65	7867526.79	0.0280	0.0136
Mercury	16828-09-11 18:57 G	7867615.14	7867615.29	7867615.45	0.0280	0.0028
Mercury	16828-12-09 10:48 G	7867703.80	7867703.95	7867704.10	0.0280	0.0084
Mercury	16829-03-08 02:38 G	7867792.51	7867792.61	7867792.73	0.0281	0.0198
Earth	16829-11-07 05:31 G	7868036.49	7868036.73	7868036.97	0.0281	0.0047
Moon	16829-11-07 06:57 G	7868036.55	7868036.79	7868037.02	0.0281	0.0034 *
Venus	16840-05-10 18:43 G	7871874.16	7871874.28	7871874.41	0.0282	0.0228
Venus	16840-12-26 08:52 G	7872103.66	7872103.87	7872104.08	0.0281	0.0013
Venus	16841-08-12 21:50 G	7872333.27	7872333.41	7872333.57	0.0281	0.0200
Mercury	16842-10-25 16:19 G	7872772.05	7872772.18	7872772.30	0.0280	0.0166
Mercury	16843-01-22 08:09 G	7872860.68	7872860.84	7872860.99	0.0279	0.0054
Mercury	16843-04-20 23:31 G	7872949.33	7872949.48	7872949.63	0.0279	0.0055
Mercury	16843-07-18 14:24 G	7873037.98	7873038.10	7873038.23	0.0279	0.0162
Mercury	16843-10-15 05:02 G	7873126.67	7873126.71	7873126.76	0.0279	0.0265
Moon	16844-05-10 15:21 G	7873334.89	7873335.14	7873335.39	0.0278	0.0012
Earth	16844-05-10 18:43 G	7873335.03	7873335.28	7873335.53	0.0278	0.0008 *
Venus	16855-06-07 07:12 G	7877379.66	7877379.80	7877379.96	0.0277	0.0189
Venus	16856-01-22 17:31 G	7877609.02	7877609.23	7877609.44	0.0278	0.0016
Venus	16856-09-08 04:04 G	7877838.55	7877838.67	7877838.80	0.0278	0.0222
Mercury	16857-08-05 15:50 G	7878170.11	7878170.16	7878170.22	0.0279	0.0259
Mercury	16857-11-02 06:43 G	7878258.66	7878258.78	7878258.91	0.0279	0.0155

Mercury	16858-01-29 22:04 G	7878347.27	7878347.42	7878347.57	0.0280	0.0047
Mercury	16858-04-28 13:40 G	7878435.92	7878436.07	7878436.22	0.0280	0.0064
Mercury	16858-07-26 05:45 G	7878524.62	7878524.74	7878524.86	0.0280	0.0177
Moon	16858-11-02 03:21 G	7878623.50	7878623.64	7878623.79	0.0280	0.0229
Earth	16858-11-02 04:48 G	7878623.59	7878623.70	7878623.84	0.0280	0.0240 *
Moon	16859-11-15 03:36 G	7879001.56	7879001.65	7879001.76	0.0281	0.0255
Earth	16859-11-15 07:12 G	7879001.69	7879001.80	7879001.94	0.0281	0.0240 *
Venus	16869-11-21 02:24 G	7882660.45	7882660.60	7882660.75	0.0281	0.0195
Venus	16870-07-08 15:50 G	7882889.95	7882890.16	7882890.38	0.0281	0.0019
Venus	16871-02-23 04:48 G	7883119.59	7883119.70	7883119.83	0.0280	0.0229
Mercury	16872-03-13 17:31 G	7883504.12	7883504.23	7883504.35	0.0279	0.0197
Mercury	16872-06-10 09:21 G	7883592.75	7883592.89	7883593.04	0.0279	0.0085
Mercury	16872-09-07 00:57 G	7883681.39	7883681.54	7883681.69	0.0279	0.0025
Mercury	16872-12-04 16:04 G	7883770.04	7883770.17	7883770.30	0.0278	0.0132
Mercury	16873-03-03 06:43 G	7883858.71	7883858.78	7883858.86	0.0278	0.0236
Earth	16873-05-05 09:07 G	7883921.73	7883921.88	7883922.04	0.0278	0.0214
Moon	16873-05-05 12:00 G	7883921.87	7883922.00	7883922.16	0.0278	0.0221 *
Earth	16874-05-18 11:02 G	7884299.86	7884299.96	7884300.06	0.0277	0.0252
Moon	16874-05-18 13:55 G	7884299.99	7884300.08	7884300.19	0.0277	0.0254 *
Venus	16884-12-17 08:38 G	7888165.70	7888165.86	7888166.03	0.0278	0.0167
Venus	16885-08-03 18:57 G	7888395.08	7888395.29	7888395.50	0.0278	0.0038
Venus	16886-03-21 05:16 G	7888624.63	7888624.72	7888624.83	0.0279	0.0244
Mercury	16887-03-22 06:43 G	7888990.68	7888990.78	7888990.89	0.0280	0.0194
Mercury	16887-06-18 21:50 G	7889079.27	7889079.41	7889079.56	0.0280	0.0088
Mercury	16887-09-15 13:26 G	7889167.90	7889168.06	7889168.21	0.0280	0.0023
Mercury	16887-12-13 05:02 G	7889256.58	7889256.71	7889256.85	0.0280	0.0135
Mercury	16888-03-10 21:21 G	7889345.32	7889345.39	7889345.46	0.0281	0.0249
Earth	16888-11-08 14:38 G	7889587.87	7889588.11	7889588.35	0.0281	0.0016
Moon	16888-11-08 18:28 G	7889588.03	7889588.27	7889588.51	0.0281	0.0031 *
Venus	16899-06-03 05:45 G	7893446.58	7893446.74	7893446.92	0.0282	0.0172

Venus	16900-01-18 19:55 G	7893676.12	7893676.33	7893676.54	0.0281	0.0042
Venus	16900-09-05 08:52 G	7893905.79	7893905.87	7893905.96	0.0281	0.0254
Mercury	16901-08-01 18:14 G	7894236.18	7894236.26	7894236.35	0.0280	0.0232
Mercury	16901-10-29 10:19 G	7894324.79	7894324.93	7894325.07	0.0280	0.0119
Mercury	16902-01-26 01:55 G	7894413.43	7894413.58	7894413.74	0.0279	0.0011
Mercury	16902-04-24 17:16 G	7894502.08	7894502.22	7894502.36	0.0279	0.0100
Mercury	16902-07-22 08:09 G	7894590.74	7894590.84	7894590.94	0.0279	0.0206
Moon	16903-05-13 23:31 G	7894886.24	7894886.48	7894886.72	0.0278	0.0050
Earth	16903-05-14 02:09 G	7894886.35	7894886.59	7894886.84	0.0278	0.0051 *
Mars	16908-05-05 06:43 G	7896704.68	7896704.78	7896704.91	0.0276	0.0247
Venus	16914-06-30 19:26 G	7898952.12	7898952.31	7898952.49	0.0277	0.0132
Venus	16915-02-15 05:31 G	7899181.53	7899181.73	7899181.94	0.0278	0.0073
Mercury	16916-08-09 10:04 G	7899722.83	7899722.92	7899723.02	0.0279	0.0212
Mercury	16916-11-06 01:12 G	7899811.41	7899811.55	7899811.69	0.0279	0.0105
Mercury	16917-02-02 16:33 G	7899900.04	7899900.19	7899900.35	0.0280	0.0007
Mercury	16917-05-02 08:24 G	7899988.71	7899988.85	7899988.99	0.0280	0.0115
Mercury	16917-07-30 00:28 G	7900077.44	7900077.52	7900077.61	0.0280	0.0230
Moon	16917-11-04 11:16 G	7900174.78	7900174.97	7900175.17	0.0280	0.0164
Earth	16917-11-04 14:52 G	7900174.94	7900175.12	7900175.32	0.0280	0.0177 *
Venus	16928-12-14 14:38 G	7904232.93	7904233.11	7904233.30	0.0281	0.0138
Venus	16929-08-01 04:04 G	7904462.47	7904462.67	7904462.88	0.0281	0.0076
Mercury	16930-12-19 20:09 G	7904968.28	7904968.34	7904968.39	0.0279	0.0260
Mercury	16931-03-18 12:00 G	7905056.88	7905057.00	7905057.14	0.0279	0.0146
Mercury	16931-06-15 03:50 G	7905145.51	7905145.66	7905145.82	0.0279	0.0035
Mercury	16931-09-11 19:12 G	7905234.15	7905234.30	7905234.45	0.0279	0.0074
Mercury	16931-12-09 10:04 G	7905322.81	7905322.92	7905323.04	0.0278	0.0180
Earth	16932-05-07 18:57 G	7905473.08	7905473.29	7905473.50	0.0278	0.0151
Moon	16932-05-07 21:50 G	7905473.21	7905473.41	7905473.62	0.0278	0.0158 *
Venus	16944-01-10 21:36 G	7909738.20	7909738.40	7909738.59	0.0278	0.0109
Venus	16944-08-27 07:40 G	7909967.62	7909967.82	7909968.02	0.0278	0.0096

Mercury	16945-12-27 10:33 G	7910454.87	7910454.94	7910455.00	0.0279	0.0249
Mercury	16946-03-26 01:26 G	7910543.43	7910543.56	7910543.69	0.0280	0.0144
Mercury	16946-06-22 16:33 G	7910632.04	7910632.19	7910632.34	0.0280	0.0036
Mercury	16946-09-19 08:09 G	7910720.69	7910720.84	7910720.99	0.0280	0.0075
Mercury	16946-12-17 00:00 G	7910809.39	7910809.50	7910809.62	0.0280	0.0188
Earth	16947-11-12 01:40 G	7911139.33	7911139.57	7911139.80	0.0281	0.0081
Moon	16947-11-12 01:55 G	7911139.35	7911139.58	7911139.82	0.0281	0.0096 *
Venus	16958-06-26 18:00 G	7915019.06	7915019.25	7915019.44	0.0281	0.0114
Venus	16959-02-11 07:40 G	7915248.62	7915248.82	7915249.02	0.0281	0.0099
Mercury	16960-08-04 12:43 G	7915788.91	7915789.03	7915789.15	0.0280	0.0182
Mercury	16960-11-01 04:33 G	7915877.54	7915877.69	7915877.85	0.0279	0.0070
Mercury	16961-01-28 20:09 G	7915966.19	7915966.34	7915966.49	0.0279	0.0040
Mercury	16961-04-27 11:16 G	7916054.84	7916054.97	7916055.10	0.0279	0.0147
Mercury	16961-07-25 02:09 G	7916143.52	7916143.59	7916143.65	0.0279	0.0251
Earth	16962-05-15 11:02 G	7916437.74	7916437.96	7916438.19	0.0278	0.0112
Moon	16962-05-15 12:14 G	7916437.80	7916438.01	7916438.23	0.0278	0.0114 *
Mars	16966-08-13 15:21 G	7917989.00	7917989.14	7917989.28	0.0276	0.0235
Venus	16972-12-05 21:36 G	7920295.40	7920295.40	7920295.40	0.0277	0.0277
Venus	16973-07-23 07:40 G	7920524.62	7920524.82	7920525.02	0.0278	0.0074
Venus	16974-03-09 18:00 G	7920754.07	7920754.25	7920754.44	0.0278	0.0131
Mercury	16975-05-16 13:40 G	7921187.03	7921187.07	7921187.12	0.0279	0.0266
Mercury	16975-08-13 04:33 G	7921275.57	7921275.69	7921275.82	0.0279	0.0162
Mercury	16975-11-09 19:55 G	7921364.18	7921364.33	7921364.48	0.0280	0.0055
Mercury	16976-02-06 11:16 G	7921452.82	7921452.97	7921453.13	0.0280	0.0056
Mercury	16976-05-05 03:07 G	7921541.51	7921541.63	7921541.76	0.0280	0.0169
Moon	16976-11-06 01:26 G	7921726.34	7921726.56	7921726.78	0.0281	0.0100
Earth	16976-11-06 01:55 G	7921726.36	7921726.58	7921726.81	0.0281	0.0112 *
Venus	16988-01-07 04:04 G	7925805.47	7925805.67	7925805.88	0.0281	0.0077
Venus	16988-08-23 17:16 G	7926035.04	7926035.22	7926035.41	0.0281	0.0136
Mercury	16989-12-22 14:52 G	7926521.02	7926521.12	7926521.23	0.0279	0.0206

Mercury	16990-03-21 06:57 G	7926609.65	7926609.79	7926609.94	0.0279	0.0093
Mercury	16990-06-17 22:33 G	7926698.29	7926698.44	7926698.59	0.0279	0.0017
Mercury	16990-09-14 13:40 G	7926786.94	7926787.07	7926787.21	0.0279	0.0124
Mercury	16990-12-12 04:19 G	7926875.61	7926875.68	7926875.77	0.0278	0.0229
Moon	16991-05-10 05:02 G	7927024.47	7927024.71	7927024.95	0.0278	0.0091
Earth	16991-05-10 06:00 G	7927024.51	7927024.75	7927024.98	0.0278	0.0087 *

18TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 18th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	17002-06-19 00:28 G		7931081.45	7931081.52	7931081.61	0.0277	0.0253	
Venus	17003-02-03 10:33 G		7931310.73	7931310.94	7931311.15	0.0278	0.0050	
Venus	17003-09-20 20:38 G		7931540.19	7931540.36	7931540.54	0.0278	0.0156	
Mercury	17004-12-31 05:02 G		7932007.61	7932007.71	7932007.82	0.0280	0.0198	
Mercury	17005-03-29 20:09 G		7932096.19	7932096.34	7932096.48	0.0280	0.0092	
Mercury	17005-06-26 11:31 G		7932184.82	7932184.98	7932185.13	0.0280	0.0017	
Mercury	17005-09-23 03:07 G		7932273.50	7932273.63	7932273.77	0.0280	0.0129	
Mercury	17005-12-20 19:12 G		7932362.23	7932362.30	7932362.38	0.0280	0.0244	
Moon	17006-11-14 10:04 G		7932690.73	7932690.92	7932691.13	0.0281	0.0163	
Earth	17006-11-14 13:40 G		7932690.86	7932691.07	7932691.28	0.0281	0.0148 *	
Mars	17010-11-24 14:24 G		7934162.00	7934162.10	7934162.21	0.0283	0.0268	
Venus	17016-12-02 16:48 G		7936362.14	7936362.20	7936362.27	0.0282	0.0268	
Venus	17017-07-20 06:43 G		7936591.58	7936591.78	7936591.99	0.0281	0.0055	

Venus	17018-03-06 20:09 G	7936821.17	7936821.34	7936821.52	0.0281	0.0158
Mercury	17019-05-12 15:07 G	7937253.06	7937253.13	7937253.21	0.0280	0.0245
Mercury	17019-08-09 07:26 G	7937341.67	7937341.81	7937341.95	0.0280	0.0131
Mercury	17019-11-05 23:02 G	7937430.31	7937430.46	7937430.62	0.0279	0.0020
Mercury	17020-02-02 14:24 G	7937518.96	7937519.10	7937519.25	0.0279	0.0089
Mercury	17020-05-01 05:16 G	7937607.62	7937607.72	7937607.83	0.0279	0.0195
Earth	17021-05-17 20:09 G	7937989.16	7937989.34	7937989.55	0.0278	0.0175
Moon	17021-05-18 00:00 G	7937989.32	7937989.50	7937989.70	0.0278	0.0175 *
Venus	17031-12-30 09:36 G	7941867.78	7941867.90	7941868.04	0.0277	0.0221
Venus	17032-08-15 20:09 G	7942097.12	7942097.34	7942097.55	0.0278	0.0017
Venus	17033-04-02 06:43 G	7942326.62	7942326.78	7942326.93	0.0278	0.0190
Mercury	17034-05-20 08:09 G	7942739.75	7942739.84	7942739.94	0.0279	0.0217
Mercury	17034-08-16 23:02 G	7942828.33	7942828.46	7942828.61	0.0279	0.0112
Mercury	17034-11-13 14:38 G	7942916.95	7942917.11	7942917.26	0.0280	0.0007
Mercury	17035-02-10 06:14 G	7943005.62	7943005.76	7943005.90	0.0280	0.0109
Mercury	17035-05-09 22:19 G	7943094.34	7943094.43	7943094.53	0.0280	0.0223
Earth	17035-11-09 13:12 G	7943277.81	7943278.05	7943278.29	0.0281	0.0047
Moon	17035-11-09 16:19 G	7943277.94	7943278.18	7943278.41	0.0281	0.0034 *
Venus	17046-06-15 03:50 G	7947148.55	7947148.66	7947148.79	0.0282	0.0229
Venus	17047-01-30 17:45 G	7947378.03	7947378.24	7947378.45	0.0281	0.0016
Venus	17047-09-17 06:43 G	7947607.63	7947607.78	7947607.93	0.0280	0.0195
Mercury	17048-09-28 18:00 G	7947985.20	7947985.25	7947985.29	0.0279	0.0266
Mercury	17048-12-26 10:04 G	7948073.79	7948073.92	7948074.05	0.0279	0.0152
Mercury	17049-03-25 01:55 G	7948162.42	7948162.58	7948162.73	0.0279	0.0041
Mercury	17049-06-21 17:16 G	7948251.07	7948251.22	7948251.37	0.0279	0.0068
Mercury	17049-09-18 08:09 G	7948339.73	7948339.84	7948339.96	0.0279	0.0174
Mercury	17049-12-15 22:48 G	7948428.44	7948428.45	7948428.47	0.0278	0.0277
Moon	17050-05-12 13:12 G	7948575.81	7948576.05	7948576.30	0.0278	0.0027
Earth	17050-05-12 17:02 G	7948575.97	7948576.21	7948576.46	0.0278	0.0024 *
Mars	17055-01-08 20:38 G	7950278.15	7950278.36	7950278.59	0.0275	0.0162

Venus	17061-07-11 13:12 G	7952653.91	7952654.05	7952654.21	0.0277	0.0196
Venus	17062-02-25 23:16 G	7952883.26	7952883.47	7952883.68	0.0278	0.0008
Venus	17062-10-13 09:36 G	7953112.77	7953112.90	7953113.04	0.0279	0.0214
Mercury	17063-10-07 08:52 G	7953471.81	7953471.87	7953471.93	0.0279	0.0252
Mercury	17064-01-03 23:31 G	7953560.36	7953560.48	7953560.61	0.0280	0.0148
Mercury	17064-04-01 14:52 G	7953648.97	7953649.12	7953649.27	0.0280	0.0040
Mercury	17064-06-29 06:14 G	7953737.62	7953737.76	7953737.92	0.0280	0.0071
Mercury	17064-09-25 22:19 G	7953826.31	7953826.43	7953826.55	0.0280	0.0183
Moon	17064-11-02 20:38 G	7953864.26	7953864.36	7953864.48	0.0280	0.0251
Earth	17064-11-02 23:45 G	7953864.42	7953864.49	7953864.58	0.0280	0.0263 *
Moon	17065-11-15 22:33 G	7954242.32	7954242.44	7954242.59	0.0281	0.0229
Earth	17065-11-16 01:12 G	7954242.40	7954242.55	7954242.72	0.0281	0.0213 *
Venus	17075-12-26 06:28 G	7957934.63	7957934.77	7957934.92	0.0281	0.0208
Venus	17076-08-11 20:09 G	7958164.13	7958164.34	7958164.56	0.0281	0.0008
Venus	17077-03-29 09:07 G	7958393.76	7958393.88	7958394.02	0.0280	0.0218
Mercury	17078-05-15 10:19 G	7958805.81	7958805.93	7958806.04	0.0279	0.0191
Mercury	17078-08-12 02:09 G	7958894.44	7958894.59	7958894.74	0.0279	0.0078
Mercury	17078-11-08 17:45 G	7958983.08	7958983.24	7958983.39	0.0279	0.0032
Mercury	17079-02-05 08:52 G	7959071.74	7959071.87	7959072.00	0.0279	0.0139
Mercury	17079-05-04 23:45 G	7959160.42	7959160.49	7959160.56	0.0279	0.0243
Earth	17079-05-07 03:21 G	7959162.51	7959162.64	7959162.78	0.0279	0.0234
Moon	17079-05-07 06:57 G	7959162.68	7959162.79	7959162.93	0.0279	0.0240 *
Earth	17080-05-19 06:14 G	7959540.64	7959540.76	7959540.90	0.0278	0.0235
Moon	17080-05-19 07:40 G	7959540.70	7959540.82	7959540.97	0.0278	0.0238 *
Venus	17091-01-21 21:21 G	7963440.22	7963440.39	7963440.56	0.0278	0.0164
Venus	17091-09-08 07:55 G	7963669.62	7963669.83	7963670.04	0.0278	0.0041
Venus	17092-04-24 18:43 G	7963899.18	7963899.28	7963899.37	0.0279	0.0247
Mercury	17093-02-23 11:31 G	7964203.96	7964203.98	7964204.02	0.0279	0.0273
Mercury	17093-05-23 02:24 G	7964292.48	7964292.60	7964292.72	0.0279	0.0168
Mercury	17093-08-19 17:31 G	7964381.09	7964381.23	7964381.38	0.0280	0.0062

Mercury	17093-11-16 09:07 G	7964469.73	7964469.88	7964470.03	0.0280	0.0049
Mercury	17094-02-13 00:57 G	7964558.42	7964558.54	7964558.67	0.0280	0.0162
Mercury	17094-05-12 17:16 G	7964647.20	7964647.22	7964647.24	0.0280	0.0277
Earth	17094-11-10 23:45 G	7964829.24	7964829.49	7964829.73	0.0281	0.0016
Moon	17094-11-11 02:38 G	7964829.36	7964829.61	7964829.86	0.0281	0.0030 *
Mars	17099-04-21 23:16 G	7966452.20	7966452.47	7966452.76	0.0284	0.0134
Venus	17105-07-08 17:31 G	7968721.07	7968721.23	7968721.41	0.0281	0.0169
Venus	17106-02-23 07:12 G	7968950.59	7968950.80	7968951.01	0.0281	0.0045
Venus	17106-10-10 19:40 G	7969180.25	7969180.32	7969180.42	0.0280	0.0256
Mercury	17107-10-03 12:57 G	7969537.94	7969538.04	7969538.14	0.0279	0.0211
Mercury	17107-12-31 04:48 G	7969626.56	7969626.70	7969626.85	0.0279	0.0099
Mercury	17108-03-28 20:38 G	7969715.20	7969715.36	7969715.51	0.0279	0.0013
Mercury	17108-06-25 11:45 G	7969803.85	7969803.99	7969804.13	0.0279	0.0119
Mercury	17108-09-22 02:38 G	7969892.52	7969892.61	7969892.70	0.0278	0.0223
Moon	17109-05-15 02:38 G	7970127.38	7970127.61	7970127.85	0.0278	0.0040
Earth	17109-05-15 04:04 G	7970127.42	7970127.67	7970127.91	0.0278	0.0040 *
Venus	17120-08-04 01:26 G	7974226.38	7974226.56	7974226.75	0.0278	0.0138
Venus	17121-03-21 11:31 G	7974455.78	7974455.98	7974456.19	0.0278	0.0066
Venus	17121-11-05 22:04 G	7974685.38	7974685.42	7974685.47	0.0279	0.0272
Mercury	17122-10-11 03:07 G	7975024.53	7975024.63	7975024.74	0.0280	0.0203
Mercury	17123-01-07 18:14 G	7975113.11	7975113.26	7975113.40	0.0280	0.0097
Mercury	17123-04-06 09:36 G	7975201.74	7975201.90	7975202.05	0.0280	0.0014
Mercury	17123-07-04 01:12 G	7975290.41	7975290.55	7975290.69	0.0280	0.0124
Mercury	17123-09-30 17:16 G	7975379.14	7975379.22	7975379.30	0.0280	0.0238
Moon	17123-11-06 07:55 G	7975415.66	7975415.83	7975416.01	0.0280	0.0186
Earth	17123-11-06 10:33 G	7975415.78	7975415.94	7975416.13	0.0280	0.0200 *
Earth	17124-11-18 12:28 G	7975793.98	7975794.02	7975794.06	0.0281	0.0277
Venus	17135-01-18 19:40 G	7979507.14	7979507.32	7979507.50	0.0281	0.0147
Venus	17135-09-05 09:07 G	7979736.68	7979736.88	7979737.09	0.0281	0.0066
Venus	17136-04-21 21:50 G	7979966.38	7979966.41	7979966.45	0.0280	0.0275

Mercury	17137-02-19 12:43 G	7980269.97	7980270.03	7980270.10	0.0279	0.0252
Mercury	17137-05-19 04:48 G	7980358.57	7980358.70	7980358.84	0.0279	0.0139
Mercury	17137-08-15 20:38 G	7980447.21	7980447.36	7980447.52	0.0279	0.0027
Mercury	17137-11-12 12:00 G	7980535.86	7980536.00	7980536.15	0.0279	0.0081
Mercury	17138-02-09 03:07 G	7980624.52	7980624.63	7980624.74	0.0279	0.0187
Earth	17138-05-09 13:12 G	7980713.87	7980714.05	7980714.25	0.0278	0.0173
Moon	17138-05-09 13:55 G	7980713.89	7980714.08	7980714.29	0.0278	0.0174 *
Mars	17143-06-05 20:24 G	7982567.10	7982567.35	7982567.62	0.0276	0.0093
Venus	17150-02-14 08:09 G	7985012.65	7985012.84	7985013.03	0.0278	0.0109
Venus	17150-10-01 18:28 G	7985242.08	7985242.27	7985242.47	0.0278	0.0097
Mercury	17152-02-28 05:31 G	7985756.64	7985756.73	7985756.82	0.0279	0.0227
Mercury	17152-05-26 20:24 G	7985845.21	7985845.35	7985845.49	0.0280	0.0121
Mercury	17152-08-23 11:45 G	7985933.83	7985933.99	7985934.14	0.0280	0.0013
Mercury	17152-11-20 03:21 G	7986022.50	7986022.64	7986022.79	0.0280	0.0098
Mercury	17153-02-16 19:12 G	7986111.21	7986111.30	7986111.41	0.0280	0.0213
Moon	17153-11-13 06:57 G	7986380.56	7986380.79	7986381.04	0.0281	0.0091
Earth	17153-11-13 08:24 G	7986380.62	7986380.85	7986381.09	0.0281	0.0075 *
Venus	17164-07-31 07:12 G	7990293.60	7990293.80	7990293.99	0.0281	0.0108
Venus	17165-03-17 20:24 G	7990523.15	7990523.35	7990523.55	0.0281	0.0105
Mercury	17166-07-09 15:36 G	7991002.12	7991002.15	7991002.19	0.0279	0.0272
Mercury	17166-10-06 07:55 G	7991090.70	7991090.83	7991090.96	0.0279	0.0158
Mercury	17167-01-02 23:45 G	7991179.34	7991179.49	7991179.64	0.0279	0.0046
Mercury	17167-04-01 15:07 G	7991267.98	7991268.13	7991268.28	0.0279	0.0063
Mercury	17167-06-29 06:14 G	7991356.64	7991356.76	7991356.88	0.0279	0.0169
Mercury	17167-09-25 20:52 G	7991445.34	7991445.37	7991445.40	0.0278	0.0272
Earth	17168-05-16 14:24 G	7991678.87	7991679.10	7991679.33	0.0278	0.0102
Moon	17168-05-16 17:31 G	7991679.01	7991679.23	7991679.46	0.0278	0.0106 *
Venus	17179-08-27 12:28 G	7995798.82	7995799.02	7995799.22	0.0278	0.0083
Venus	17180-04-12 22:33 G	7996028.25	7996028.44	7996028.63	0.0278	0.0122
Mercury	17181-07-17 06:14 G	7996488.71	7996488.76	7996488.82	0.0279	0.0260

Mercury	17181-10-13 21:07 G	7996577.26	7996577.38	7996577.51	0.0280	0.0156
Mercury	17182-01-10 12:14 G	7996665.86	7996666.01	7996666.16	0.0280	0.0049
Mercury	17182-04-09 03:50 G	7996754.50	7996754.66	7996754.81	0.0280	0.0062
Mercury	17182-07-06 19:26 G	7996843.20	7996843.31	7996843.44	0.0280	0.0175
Earth	17182-11-07 19:40 G	7996967.11	7996967.32	7996967.53	0.0281	0.0139
Moon	17182-11-07 21:21 G	7996967.18	7996967.39	7996967.60	0.0281	0.0124 *
Mars	17187-09-16 15:21 G	7998740.84	7998741.14	7998741.45	0.0284	0.0070
Venus	17194-02-10 08:24 G	8001079.65	8001079.85	8001080.05	0.0281	0.0088
Venus	17194-09-27 21:36 G	8001309.21	8001309.40	8001309.59	0.0280	0.0124
Mercury	17196-02-23 07:26 G	8001822.70	8001822.81	8001822.92	0.0279	0.0200
Mercury	17196-05-21 23:16 G	8001911.33	8001911.47	8001911.62	0.0279	0.0088
Mercury	17196-08-18 14:52 G	8001999.97	8002000.12	8002000.28	0.0279	0.0024
Mercury	17196-11-15 06:14 G	8002088.62	8002088.76	8002088.89	0.0279	0.0129
Mercury	17197-02-11 21:07 G	8002177.30	8002177.38	8002177.46	0.0278	0.0234
Moon	17197-05-10 19:12 G	8002265.07	8002265.30	8002265.53	0.0278	0.0109
Earth	17197-05-10 22:33 G	8002265.22	8002265.44	8002265.67	0.0278	0.0113 *
Venus	17208-07-22 07:12 G	8006355.74	8006355.80	8006355.89	0.0278	0.0260
Venus	17209-03-08 17:31 G	8006585.03	8006585.23	8006585.44	0.0278	0.0056
Venus	17209-10-24 04:04 G	8006814.50	8006814.67	8006814.86	0.0278	0.0151
Mercury	17211-03-02 22:48 G	8007309.34	8007309.45	8007309.57	0.0280	0.0184
Mercury	17211-05-30 13:55 G	8007397.94	8007398.08	8007398.23	0.0280	0.0077
Mercury	17211-08-27 05:31 G	8007486.57	8007486.73	8007486.88	0.0280	0.0033
Mercury	17211-11-23 21:07 G	8007575.25	8007575.38	8007575.52	0.0280	0.0145
Mercury	17212-02-20 13:12 G	8007664.00	8007664.05	8007664.12	0.0280	0.0261
Moon	17212-11-14 11:16 G	8007931.78	8007931.97	8007932.19	0.0281	0.0149
Earth	17212-11-14 15:21 G	8007931.93	8007932.14	8007932.36	0.0281	0.0132 *
Venus	17223-01-06 05:16 G	8011636.66	8011636.72	8011636.80	0.0282	0.0263
Venus	17223-08-23 19:12 G	8011866.09	8011866.30	8011866.51	0.0281	0.0049
Venus	17224-04-09 08:09 G	8012095.68	8012095.84	8012096.02	0.0281	0.0163
Mercury	17225-07-12 10:19 G	8012554.84	8012554.93	8012555.03	0.0279	0.0220

Mercury	17225-10-09 02:24 G	8012643.45	8012643.60	8012643.74	0.0279	0.0107
Mercury	17226-01-05 18:00 G	8012732.10	8012732.25	8012732.41	0.0279	0.0003
Mercury	17226-04-04 09:21 G	8012820.75	8012820.89	8012821.03	0.0279	0.0111
Mercury	17226-07-02 00:00 G	8012909.41	8012909.50	8012909.60	0.0278	0.0216
Earth	17227-05-18 23:02 G	8013230.27	8013230.46	8013230.67	0.0278	0.0161
Moon	17227-05-19 01:55 G	8013230.39	8013230.58	8013230.79	0.0278	0.0167 *
Mars	17231-10-31 02:09 G	8014856.32	8014856.59	8014856.86	0.0275	0.0022
Venus	17238-02-01 12:14 G	8017141.90	8017142.01	8017142.13	0.0277	0.0233
Venus	17238-09-18 22:04 G	8017371.21	8017371.42	8017371.63	0.0278	0.0030
Venus	17239-05-06 08:24 G	8017600.69	8017600.85	8017601.02	0.0278	0.0176
Mercury	17240-07-19 23:45 G	8018041.40	8018041.49	8018041.58	0.0279	0.0217
Mercury	17240-10-16 14:38 G	8018129.97	8018130.11	8018130.25	0.0280	0.0112
Mercury	17241-01-13 06:00 G	8018218.59	8018218.75	8018218.90	0.0280	0.0006
Mercury	17241-04-11 21:36 G	8018307.26	8018307.40	8018307.54	0.0280	0.0107
Mercury	17241-07-09 13:26 G	8018395.97	8018396.06	8018396.16	0.0280	0.0222
Earth	17241-11-09 02:09 G	8018518.36	8018518.59	8018518.83	0.0281	0.0083
Moon	17241-11-09 06:00 G	8018518.51	8018518.75	8018518.99	0.0281	0.0066 *
Venus	17252-07-18 06:14 G	8022422.67	8022422.76	8022422.87	0.0281	0.0244
Venus	17253-03-04 20:09 G	8022652.13	8022652.34	8022652.55	0.0281	0.0030
Venus	17253-10-20 09:07 G	8022881.72	8022881.88	8022882.05	0.0280	0.0181
Mercury	17254-11-29 09:36 G	8023286.85	8023286.90	8023286.95	0.0279	0.0265
Mercury	17255-02-26 01:40 G	8023375.44	8023375.57	8023375.71	0.0279	0.0151
Mercury	17255-05-25 17:31 G	8023464.08	8023464.23	8023464.39	0.0279	0.0039
Mercury	17255-08-22 08:52 G	8023552.73	8023552.87	8023553.02	0.0279	0.0070
Mercury	17255-11-19 00:00 G	8023641.39	8023641.50	8023641.62	0.0278	0.0176
Moon	17256-05-12 04:04 G	8023816.44	8023816.67	8023816.91	0.0278	0.0051
Earth	17256-05-12 06:43 G	8023816.54	8023816.78	8023817.03	0.0278	0.0054 *
Venus	17267-08-14 15:21 G	8027928.02	8027928.14	8027928.29	0.0278	0.0210
Venus	17268-03-31 01:55 G	8028157.36	8028157.58	8028157.79	0.0278	0.0007
Venus	17268-11-15 12:28 G	8028386.88	8028387.02	8028387.17	0.0279	0.0201

Mercury	17269-12-07 00:57 G	8028773.48	8028773.54	8028773.61	0.0279	0.0248
Mercury	17270-03-05 15:50 G	8028862.03	8028862.16	8028862.29	0.0280	0.0144
Mercury	17270-06-02 06:57 G	8028950.64	8028950.79	8028950.95	0.0280	0.0037
Mercury	17270-08-29 22:33 G	8029039.29	8029039.44	8029039.59	0.0280	0.0075
Moon	17270-11-03 14:09 G	8029105.05	8029105.09	8029105.14	0.0280	0.0275
Mercury	17270-11-26 14:24 G	8029127.99	8029128.10	8029128.22	0.0280	0.0189
Earth	17271-11-16 19:26 G	8029483.13	8029483.31	8029483.50	0.0281	0.0184
Moon	17271-11-16 18:57 G	8029483.14	8029483.29	8029483.47	0.0281	0.0200 *
Mars	17276-02-10 23:16 G	8031030.16	8031030.47	8031030.79	0.0284	0.0019
Venus	17282-01-28 16:33 G	8033209.05	8033209.19	8033209.33	0.0282	0.0207
Venus	17282-09-15 06:14 G	8033438.55	8033438.76	8033438.97	0.0281	0.0007
Venus	17283-05-02 19:12 G	8033668.17	8033668.30	8033668.44	0.0281	0.0218
Mercury	17284-07-15 04:33 G	8034107.57	8034107.69	8034107.81	0.0279	0.0172
Mercury	17284-10-11 20:24 G	8034196.20	8034196.35	8034196.50	0.0279	0.0060
Mercury	17285-01-08 12:00 G	8034284.85	8034285.00	8034285.15	0.0279	0.0050
Mercury	17285-04-07 02:52 G	8034373.50	8034373.62	8034373.75	0.0279	0.0157
Earth	17285-05-07 04:04 G	8034403.56	8034403.67	8034403.78	0.0279	0.0248
Moon	17285-05-07 06:57 G	8034403.69	8034403.79	8034403.91	0.0279	0.0251 *
Mercury	17285-07-04 17:45 G	8034462.19	8034462.24	8034462.29	0.0278	0.0260
Moon	17286-05-20 05:02 G	8034781.56	8034781.71	8034781.85	0.0278	0.0226
Earth	17286-05-20 06:14 G	8034781.62	8034781.76	8034781.92	0.0278	0.0218 *
Venus	17297-02-23 20:38 G	8038714.21	8038714.36	8038714.53	0.0277	0.0183
Venus	17297-10-11 06:43 G	8038943.57	8038943.78	8038943.99	0.0278	0.0021
Venus	17298-05-28 17:02 G	8039173.09	8039173.21	8039173.34	0.0278	0.0226
Mercury	17299-07-23 16:48 G	8039594.08	8039594.20	8039594.32	0.0279	0.0177
Mercury	17299-10-20 07:40 G	8039682.68	8039682.82	8039682.97	0.0280	0.0071
Mercury	17300-01-16 23:16 G	8039771.31	8039771.47	8039771.62	0.0280	0.0039
Mercury	17300-04-15 14:52 G	8039859.99	8039860.12	8039860.26	0.0280	0.0151
Mercury	17300-07-13 07:12 G	8039948.75	8039948.80	8039948.84	0.0280	0.0266
Moon	17300-11-11 06:43 G	8040069.53	8040069.78	8040070.03	0.0281	0.0014

Earth	17300-11-11 06:43 G	8040069.54	8040069.78	8040070.03	0.0281	0.0030 *
Venus	17311-08-11 17:02 G	8043995.06	8043995.21	8043995.37	0.0281	0.0188
Venus	17312-03-28 06:43 G	8044224.57	8044224.78	8044224.99	0.0281	0.0025
Venus	17312-11-12 19:26 G	8044454.21	8044454.31	8044454.43	0.0280	0.0236
Mercury	17313-12-03 03:36 G	8044839.55	8044839.65	8044839.75	0.0279	0.0217
Mercury	17314-03-01 19:40 G	8044928.18	8044928.32	8044928.47	0.0279	0.0104
Mercury	17314-05-29 11:16 G	8045016.82	8045016.97	8045017.13	0.0279	0.0008
Mercury	17314-08-26 02:38 G	8045105.47	8045105.61	8045105.75	0.0278	0.0114
Mercury	17314-11-22 17:31 G	8045194.14	8045194.23	8045194.33	0.0278	0.0219
Earth	17315-05-15 13:12 G	8045367.80	8045368.05	8045368.29	0.0278	0.0005
Moon	17315-05-15 14:38 G	8045367.87	8045368.11	8045368.34	0.0278	0.0008 *
Mars	17320-03-26 11:02 G	8047144.69	8047144.96	8047145.23	0.0275	0.0019
Venus	17326-09-06 22:48 G	8049500.28	8049500.45	8049500.62	0.0278	0.0161
Venus	17327-04-24 08:52 G	8049729.66	8049729.87	8049730.08	0.0278	0.0044
Venus	17327-12-09 19:26 G	8049959.23	8049959.31	8049959.41	0.0279	0.0250
Mercury	17328-12-10 17:16 G	8050326.13	8050326.22	8050326.32	0.0280	0.0212
Mercury	17329-03-09 08:24 G	8050414.71	8050414.85	8050414.99	0.0280	0.0106
Mercury	17329-06-05 23:45 G	8050503.33	8050503.49	8050503.64	0.0280	0.0007
Mercury	17329-09-02 15:21 G	8050592.00	8050592.14	8050592.28	0.0280	0.0114
Moon	17329-11-05 19:12 G	8050656.17	8050656.30	8050656.45	0.0280	0.0228
Earth	17329-11-05 19:26 G	8050656.19	8050656.31	8050656.43	0.0280	0.0241 *
Mercury	17329-11-30 07:12 G	8050680.72	8050680.80	8050680.90	0.0280	0.0229
Earth	17330-11-18 21:07 G	8051034.26	8051034.38	8051034.53	0.0281	0.0234
Moon	17330-11-19 00:57 G	8051034.43	8051034.54	8051034.66	0.0281	0.0246 *
Venus	17341-02-21 02:09 G	8054781.42	8054781.59	8054781.77	0.0282	0.0154
Venus	17341-10-08 15:50 G	8055010.96	8055011.16	8055011.37	0.0281	0.0060
Venus	17342-05-26 04:48 G	8055240.66	8055240.70	8055240.76	0.0281	0.0271
Mercury	17343-04-22 06:00 G	8055571.68	8055571.75	8055571.83	0.0280	0.0240
Mercury	17343-07-19 22:19 G	8055660.29	8055660.43	8055660.57	0.0279	0.0126
Mercury	17343-10-16 14:09 G	8055748.93	8055749.09	8055749.24	0.0279	0.0017

Mercury	17344-01-13 05:16 G	8055837.58	8055837.72	8055837.87	0.0279	0.0094
Mercury	17344-04-10 20:24 G	8055926.25	8055926.35	8055926.46	0.0279	0.0199
Moon	17344-05-09 08:52 G	8055954.69	8055954.87	8055955.06	0.0279	0.0191
Earth	17344-05-09 10:04 G	8055954.75	8055954.92	8055955.11	0.0279	0.0192 *
Earth	17345-05-22 12:14 G	8056332.97	8056333.01	8056333.07	0.0278	0.0272
Venus	17356-03-19 04:19 G	8060286.50	8060286.68	8060286.87	0.0277	0.0134
Venus	17356-11-03 14:09 G	8060515.89	8060516.09	8060516.30	0.0278	0.0070
Venus	17357-06-21 00:28 G	8060745.50	8060745.52	8060745.56	0.0278	0.0275
Mercury	17358-04-29 18:28 G	8061058.21	8061058.27	8061058.35	0.0279	0.0244
Mercury	17358-07-27 09:21 G	8061146.76	8061146.89	8061147.02	0.0279	0.0139
Mercury	17358-10-24 00:28 G	8061235.37	8061235.52	8061235.67	0.0280	0.0032
Mercury	17359-01-20 16:04 G	8061324.02	8061324.17	8061324.32	0.0280	0.0078
Mercury	17359-04-19 07:55 G	8061412.72	8061412.83	8061412.94	0.0280	0.0191
Moon	17359-11-13 05:31 G	8061620.49	8061620.73	8061620.98	0.0281	0.0035
Earth	17359-11-13 09:07 G	8061620.64	8061620.88	8061621.12	0.0281	0.0021 *
Mars	17364-07-07 00:00 G	8063318.19	8063318.50	8063318.81	0.0284	0.0059
Venus	17370-09-03 02:52 G	8065567.44	8065567.62	8065567.81	0.0281	0.0135
Venus	17371-04-20 16:19 G	8065796.98	8065797.18	8065797.39	0.0281	0.0078
Mercury	17372-12-05 21:21 G	8066392.27	8066392.39	8066392.51	0.0279	0.0172
Mercury	17373-03-04 13:12 G	8066480.90	8066481.05	8066481.21	0.0279	0.0060
Mercury	17373-06-01 04:48 G	8066569.55	8066569.70	8066569.85	0.0278	0.0050
Mercury	17373-08-28 19:55 G	8066658.21	8066658.33	8066658.46	0.0278	0.0156
Mercury	17373-11-25 10:33 G	8066746.90	8066746.94	8066747.00	0.0278	0.0260
Earth	17374-05-16 18:14 G	8066919.03	8066919.26	8066919.51	0.0278	0.0056
Moon	17374-05-16 22:04 G	8066919.18	8066919.42	8066919.66	0.0278	0.0062 *
Venus	17385-09-29 05:02 G	8071072.52	8071072.71	8071072.91	0.0277	0.0115
Venus	17386-05-16 15:07 G	8071301.93	8071302.13	8071302.33	0.0278	0.0090
Mercury	17387-12-14 09:36 G	8071878.78	8071878.90	8071879.01	0.0280	0.0178
Mercury	17388-03-12 00:28 G	8071967.38	8071967.52	8071967.67	0.0280	0.0072
Mercury	17388-06-08 16:04 G	8072056.01	8072056.17	8072056.32	0.0280	0.0039

Mercury	17388-09-05 07:40 G	8072144.69	8072144.82	8072144.96	0.0280	0.0151
Earth	17388-11-06 19:12 G	8072207.14	8072207.30	8072207.48	0.0280	0.0195
Moon	17388-11-06 22:33 G	8072207.27	8072207.44	8072207.64	0.0280	0.0179 *
Mercury	17388-12-03 00:00 G	8072233.45	8072233.50	8072233.55	0.0280	0.0266
Earth	17389-11-19 21:36 G	8072585.38	8072585.40	8072585.43	0.0281	0.0279
Venus	17400-03-16 10:48 G	8076353.75	8076353.95	8076354.15	0.0282	0.0103
Venus	17400-11-01 00:28 G	8076583.33	8076583.52	8076583.72	0.0281	0.0111
Mercury	17402-04-25 23:16 G	8077124.37	8077124.47	8077124.59	0.0280	0.0198
Mercury	17402-07-23 15:36 G	8077213.00	8077213.15	8077213.30	0.0279	0.0084
Mercury	17402-10-20 07:12 G	8077301.65	8077301.80	8077301.95	0.0279	0.0026
Mercury	17403-01-16 22:33 G	8077390.30	8077390.44	8077390.57	0.0279	0.0134
Mercury	17403-04-15 13:12 G	8077478.98	8077479.05	8077479.13	0.0279	0.0239
Moon	17403-05-12 10:33 G	8077505.73	8077505.94	8077506.16	0.0279	0.0135
Earth	17403-05-12 14:09 G	8077505.89	8077506.09	8077506.32	0.0279	0.0140 *
Mars	17408-08-21 12:28 G	8079433.76	8079434.02	8079434.28	0.0274	0.0081
Venus	17415-04-12 11:02 G	8081858.77	8081858.96	8081859.17	0.0277	0.0088
Venus	17415-11-27 20:52 G	8082088.18	8082088.37	8082088.57	0.0278	0.0117
Mercury	17417-05-03 11:02 G	8082610.86	8082610.96	8082611.05	0.0279	0.0209
Mercury	17417-07-31 01:40 G	8082699.43	8082699.57	8082699.72	0.0279	0.0104
Mercury	17417-10-27 17:02 G	8082788.06	8082788.21	8082788.36	0.0280	0.0005
Mercury	17418-01-24 08:38 G	8082876.72	8082876.86	8082877.00	0.0280	0.0116
Mercury	17418-04-23 00:28 G	8082965.44	8082965.52	8082965.61	0.0280	0.0230
Moon	17418-11-15 08:24 G	8083171.62	8083171.85	8083172.08	0.0281	0.0082
Earth	17418-11-15 10:04 G	8083171.69	8083171.92	8083172.16	0.0281	0.0070 *
Venus	17429-09-26 11:16 G	8087139.77	8087139.97	8087140.18	0.0281	0.0085
Venus	17430-05-14 00:57 G	8087369.35	8087369.54	8087369.73	0.0281	0.0129
Mercury	17431-09-12 22:19 G	8087856.36	8087856.43	8087856.51	0.0279	0.0244
Mercury	17431-12-10 14:38 G	8087944.97	8087945.11	8087945.25	0.0279	0.0129
Mercury	17432-03-08 06:28 G	8088033.62	8088033.77	8088033.93	0.0279	0.0018
Mercury	17432-06-04 21:50 G	8088122.27	8088122.41	8088122.56	0.0279	0.0091

Mercury	17432-09-01 12:57 G	8088210.93	8088211.04	8088211.15	0.0278	0.0196
Earth	17433-05-18 22:33 G	8088470.22	8088470.44	8088470.67	0.0278	0.0108
Moon	17433-05-18 23:16 G	8088470.24	8088470.47	8088470.70	0.0278	0.0118 *
Venus	17444-03-07 01:40 G	8092415.53	8092415.57	8092415.62	0.0277	0.0270
Venus	17444-10-22 11:02 G	8092644.76	8092644.96	8092645.17	0.0277	0.0069
Venus	17445-06-08 21:07 G	8092874.20	8092874.38	8092874.57	0.0278	0.0136
Mercury	17446-09-20 10:33 G	8093342.88	8093342.94	8093343.02	0.0279	0.0249
Mercury	17446-12-18 01:26 G	8093431.44	8093431.56	8093431.69	0.0279	0.0145
Mercury	17447-03-16 16:33 G	8093520.04	8093520.19	8093520.35	0.0280	0.0038
Mercury	17447-06-13 08:09 G	8093608.69	8093608.84	8093608.99	0.0280	0.0073
Mercury	17447-09-10 00:00 G	8093697.38	8093697.50	8093697.62	0.0280	0.0186
Earth	17447-11-09 18:14 G	8093758.07	8093758.26	8093758.48	0.0280	0.0150
Moon	17447-11-09 20:09 G	8093758.13	8093758.34	8093758.57	0.0280	0.0135 *
Mars	17452-12-01 00:28 G	8095606.23	8095606.52	8095606.83	0.0284	0.0095
Venus	17458-08-22 03:50 G	8097696.61	8097696.66	8097696.73	0.0283	0.0270
Venus	17459-04-08 18:28 G	8097926.06	8097926.27	8097926.48	0.0282	0.0054
Venus	17459-11-24 08:09 G	8098155.67	8098155.84	8098156.02	0.0281	0.0160
Mercury	17461-01-30 00:14 G	8098588.48	8098588.51	8098588.55	0.0280	0.0272
Mercury	17461-04-28 16:33 G	8098677.06	8098677.19	8098677.32	0.0280	0.0157
Mercury	17461-07-26 08:38 G	8098765.70	8098765.86	8098766.01	0.0280	0.0044
Mercury	17461-10-23 00:00 G	8098854.36	8098854.50	8098854.66	0.0279	0.0067
Mercury	17462-01-19 15:07 G	8098943.02	8098943.13	8098943.26	0.0279	0.0173
Mercury	17462-04-18 06:14 G	8099031.74	8099031.76	8099031.77	0.0279	0.0276
Moon	17462-05-13 17:16 G	8099056.99	8099057.22	8099057.45	0.0279	0.0079
Earth	17462-05-13 17:31 G	8099057.00	8099057.23	8099057.47	0.0279	0.0087 *
Venus	17473-09-17 08:24 G	8103201.76	8103201.85	8103201.95	0.0276	0.0242
Venus	17474-05-04 17:45 G	8103431.03	8103431.24	8103431.45	0.0277	0.0041
Venus	17474-12-20 03:36 G	8103660.48	8103660.65	8103660.82	0.0277	0.0163
Mercury	17476-02-07 12:28 G	8104075.01	8104075.02	8104075.04	0.0279	0.0277
Mercury	17476-05-06 03:07 G	8104163.51	8104163.63	8104163.75	0.0279	0.0174

Mercury	17476-08-02 18:00 G	8104252.11	8104252.25	8104252.40	0.0279	0.0068
Mercury	17476-10-30 09:21 G	8104340.74	8104340.89	8104341.05	0.0280	0.0042
Mercury	17477-01-27 01:12 G	8104429.42	8104429.55	8104429.68	0.0280	0.0153
Mercury	17477-04-25 17:02 G	8104518.17	8104518.21	8104518.26	0.0280	0.0268
Earth	17477-11-16 10:33 G	8104722.72	8104722.94	8104723.16	0.0281	0.0117
Moon	17477-11-16 12:57 G	8104722.83	8104723.04	8104723.25	0.0281	0.0128 *
Venus	17488-03-03 05:02 G	8108482.62	8108482.71	8108482.81	0.0282	0.0250
Venus	17488-10-18 19:26 G	8108712.10	8108712.31	8108712.52	0.0281	0.0035
Venus	17489-06-05 08:52 G	8108941.72	8108941.87	8108942.04	0.0281	0.0179
Mercury	17490-09-15 15:50 G	8109409.05	8109409.16	8109409.27	0.0279	0.0201
Mercury	17490-12-13 07:55 G	8109497.68	8109497.83	8109497.98	0.0279	0.0088
Mercury	17491-03-11 23:31 G	8109586.33	8109586.48	8109586.64	0.0279	0.0023
Mercury	17491-06-08 14:52 G	8109674.99	8109675.12	8109675.26	0.0279	0.0130
Mercury	17491-09-05 05:45 G	8109763.66	8109763.74	8109763.82	0.0278	0.0235
Moon	17492-05-19 22:19 G	8110021.25	8110021.43	8110021.63	0.0278	0.0174
Earth	17492-05-20 02:09 G	8110021.39	8110021.59	8110021.79	0.0278	0.0160 *
Mars	17497-01-14 13:55 G	8111721.84	8111722.08	8111722.34	0.0275	0.0108
Venus	17503-03-31 07:55 G	8113987.71	8113987.83	8113987.95	0.0277	0.0225
Venus	17503-11-15 17:16 G	8114217.01	8114217.22	8114217.43	0.0277	0.0023
Venus	17504-07-02 03:07 G	8114446.48	8114446.63	8114446.80	0.0278	0.0181
Mercury	17505-09-24 02:38 G	8114895.52	8114895.61	8114895.71	0.0279	0.0216
Mercury	17505-12-21 17:31 G	8114984.09	8114984.23	8114984.37	0.0279	0.0111
Mercury	17506-03-20 08:38 G	8115072.71	8115072.86	8115073.02	0.0280	0.0009
Mercury	17506-06-17 00:14 G	8115161.37	8115161.51	8115161.66	0.0280	0.0108
Mercury	17506-09-13 16:04 G	8115250.08	8115250.17	8115250.27	0.0280	0.0222
Moon	17506-11-11 14:52 G	8115308.89	8115309.12	8115309.36	0.0280	0.0090
Earth	17506-11-11 17:45 G	8115309.01	8115309.24	8115309.47	0.0280	0.0103 *
Venus	17517-09-14 10:48 G	8119268.82	8119268.95	8119269.08	0.0283	0.0223
Venus	17518-05-02 01:26 G	8119498.35	8119498.56	8119498.77	0.0282	0.0007
Venus	17518-12-17 15:07 G	8119728.00	8119728.13	8119728.28	0.0282	0.0208

Mercury	17520-02-03 17:16 G	8120141.13	8120141.22	8120141.31	0.0280	0.0233
Mercury	17520-05-02 09:21 G	8120229.75	8120229.89	8120230.04	0.0280	0.0118
Mercury	17520-07-30 01:26 G	8120318.40	8120318.56	8120318.71	0.0280	0.0010
Mercury	17520-10-26 16:48 G	8120407.06	8120407.20	8120407.34	0.0280	0.0103
Mercury	17521-01-23 07:55 G	8120495.73	8120495.83	8120495.93	0.0279	0.0210
Earth	17521-05-15 19:40 G	8120608.08	8120608.32	8120608.57	0.0279	0.0036
Moon	17521-05-15 23:31 G	8120608.23	8120608.48	8120608.72	0.0279	0.0024 *
Venus	17532-10-10 15:21 G	8124774.00	8124774.14	8124774.29	0.0276	0.0196
Venus	17533-05-28 00:43 G	8125003.31	8125003.53	8125003.74	0.0277	0.0008
Venus	17534-01-12 10:04 G	8125232.80	8125232.92	8125233.07	0.0277	0.0210
Mercury	17535-02-11 04:33 G	8125627.63	8125627.69	8125627.77	0.0279	0.0243
Mercury	17535-05-10 19:26 G	8125716.18	8125716.31	8125716.44	0.0279	0.0138
Mercury	17535-08-07 10:33 G	8125804.79	8125804.94	8125805.09	0.0279	0.0032
Mercury	17535-11-04 01:55 G	8125893.43	8125893.58	8125893.73	0.0279	0.0078
Mercury	17536-01-31 17:31 G	8125982.12	8125982.23	8125982.35	0.0280	0.0191
Earth	17536-11-18 11:02 G	8126273.77	8126273.96	8126274.16	0.0281	0.0165
Moon	17536-11-18 14:24 G	8126273.91	8126274.10	8126274.30	0.0281	0.0175 *
Mars	17541-04-27 00:00 G	8127894.23	8127894.50	8127894.79	0.0284	0.0137
Venus	17547-03-27 12:43 G	8130054.89	8130055.03	8130055.19	0.0282	0.0201
Venus	17547-11-12 03:07 G	8130284.42	8130284.63	8130284.85	0.0282	0.0016
Venus	17548-06-28 17:02 G	8130514.08	8130514.21	8130514.33	0.0281	0.0227
Mercury	17549-06-22 16:33 G	8130873.17	8130873.19	8130873.21	0.0280	0.0276
Mercury	17549-09-19 08:52 G	8130961.74	8130961.87	8130962.00	0.0279	0.0161
Mercury	17549-12-17 00:57 G	8131050.38	8131050.54	8131050.69	0.0279	0.0048
Mercury	17550-03-15 16:33 G	8131139.04	8131139.19	8131139.34	0.0279	0.0062
Moon	17550-05-09 22:04 G	8131194.30	8131194.42	8131194.55	0.0279	0.0241
Earth	17550-05-10 01:40 G	8131194.48	8131194.57	8131194.68	0.0279	0.0252 *
Mercury	17550-06-12 07:40 G	8131227.70	8131227.82	8131227.94	0.0279	0.0169
Mercury	17550-09-08 22:33 G	8131316.41	8131316.44	8131316.47	0.0278	0.0273
Moon	17551-05-23 03:21 G	8131572.52	8131572.64	8131572.79	0.0278	0.0228

Earth	17551-05-23 05:16 G	8131572.58	8131572.72	8131572.89	0.0278	0.0212	*
Venus	17562-04-22 14:38 G	8135559.95	8135560.11	8135560.27	0.0277	0.0179	
Venus	17562-12-07 23:45 G	8135789.28	8135789.49	8135789.70	0.0277	0.0024	
Venus	17563-07-25 09:36 G	8136018.79	8136018.90	8136019.03	0.0278	0.0227	
Mercury	17564-09-26 18:43 G	8136448.17	8136448.28	8136448.40	0.0279	0.0182	
Mercury	17564-12-24 09:50 G	8136536.76	8136536.91	8136537.05	0.0279	0.0076	
Mercury	17565-03-23 00:57 G	8136625.39	8136625.54	8136625.70	0.0280	0.0033	
Mercury	17565-06-19 16:33 G	8136714.06	8136714.19	8136714.33	0.0280	0.0144	
Mercury	17565-09-16 08:38 G	8136802.81	8136802.86	8136802.92	0.0280	0.0258	
Moon	17565-11-12 14:38 G	8136859.88	8136860.11	8136860.35	0.0280	0.0046	
Earth	17565-11-12 17:31 G	8136860.00	8136860.23	8136860.47	0.0280	0.0056	*
Venus	17576-10-06 18:00 G	8140841.08	8140841.25	8140841.41	0.0283	0.0175	
Venus	17577-05-24 08:38 G	8141070.65	8141070.86	8141071.07	0.0282	0.0041	
Venus	17578-01-08 22:33 G	8141300.36	8141300.44	8141300.54	0.0282	0.0255	
Mercury	17579-02-06 10:04 G	8141693.81	8141693.92	8141694.04	0.0280	0.0193	
Mercury	17579-05-06 02:09 G	8141782.45	8141782.59	8141782.75	0.0280	0.0080	
Mercury	17579-08-02 18:00 G	8141871.10	8141871.25	8141871.41	0.0280	0.0033	
Mercury	17579-10-30 09:21 G	8141959.76	8141959.89	8141960.03	0.0280	0.0141	
Mercury	17580-01-27 00:28 G	8142048.45	8142048.52	8142048.59	0.0279	0.0246	
Earth	17580-05-16 22:19 G	8142159.18	8142159.43	8142159.68	0.0279	0.0015	
Moon	17580-05-17 00:00 G	8142159.25	8142159.50	8142159.76	0.0279	0.0029	*
Mars	17585-06-11 16:19 G	8144010.98	8144011.18	8144011.40	0.0275	0.0173	
Venus	17591-11-02 22:48 G	8146346.28	8146346.45	8146346.63	0.0276	0.0149	
Venus	17592-06-19 07:55 G	8146575.63	8146575.83	8146576.04	0.0277	0.0054	
Venus	17593-02-03 17:45 G	8146805.17	8146805.24	8146805.32	0.0277	0.0256	
Mercury	17594-02-13 21:07 G	8147180.29	8147180.38	8147180.49	0.0278	0.0206	
Mercury	17594-05-13 12:00 G	8147268.86	8147269.00	8147269.14	0.0279	0.0101	
Mercury	17594-08-10 03:07 G	8147357.48	8147357.63	8147357.79	0.0279	0.0007	
Mercury	17594-11-06 18:43 G	8147446.14	8147446.28	8147446.42	0.0279	0.0117	
Earth	17594-11-07 12:57 G	8147446.95	8147447.04	8147447.16	0.0279	0.0250	

Moon	17594-11-07 15:50 G	8147447.04	8147447.16	8147447.30	0.0279	0.0237 *
Mercury	17595-02-03 10:33 G	8147534.85	8147534.94	8147535.03	0.0280	0.0230
Moon	17595-11-20 11:31 G	8147824.83	8147824.98	8147825.14	0.0281	0.0218
Earth	17595-11-20 12:57 G	8147824.88	8147825.04	8147825.19	0.0281	0.0215 *
Venus	17606-04-18 20:38 G	8151627.19	8151627.36	8151627.55	0.0282	0.0152
Venus	17606-12-04 11:16 G	8151856.76	8151856.97	8151857.17	0.0282	0.0064
Venus	17607-07-22 00:43 G	8152086.50	8152086.53	8152086.58	0.0281	0.0276
Mercury	17608-06-25 09:36 G	8152425.82	8152425.90	8152425.99	0.0280	0.0235
Mercury	17608-09-22 01:55 G	8152514.44	8152514.58	8152514.73	0.0280	0.0120
Mercury	17608-12-19 18:00 G	8152603.09	8152603.25	8152603.40	0.0279	0.0008
Mercury	17609-03-18 09:21 G	8152691.75	8152691.89	8152692.04	0.0279	0.0102
Moon	17609-05-11 03:36 G	8152745.48	8152745.65	8152745.82	0.0279	0.0189
Earth	17609-05-11 05:02 G	8152745.55	8152745.71	8152745.89	0.0279	0.0199 *
Mercury	17609-06-15 00:28 G	8152780.42	8152780.52	8152780.62	0.0279	0.0208
Earth	17610-05-24 08:52 G	8153123.81	8153123.87	8153123.95	0.0278	0.0264
Venus	17621-05-14 22:19 G	8157132.25	8157132.43	8157132.62	0.0277	0.0131
Venus	17621-12-30 07:26 G	8157361.61	8157361.81	8157362.02	0.0277	0.0072
Venus	17622-08-16 17:16 G	8157591.20	8157591.22	8157591.26	0.0278	0.0275
Mercury	17623-07-03 20:38 G	8157912.30	8157912.36	8157912.43	0.0279	0.0249
Mercury	17623-09-30 11:31 G	8158000.85	8158000.98	8158001.11	0.0279	0.0145
Mercury	17623-12-28 02:24 G	8158089.45	8158089.60	8158089.75	0.0279	0.0038
Mercury	17624-03-25 17:45 G	8158178.09	8158178.24	8158178.39	0.0279	0.0071
Mercury	17624-06-22 09:21 G	8158266.78	8158266.89	8158267.01	0.0280	0.0183
Earth	17624-11-13 19:12 G	8158411.06	8158411.30	8158411.55	0.0280	0.0006
Moon	17624-11-13 21:07 G	8158411.14	8158411.38	8158411.62	0.0280	0.0001 *
Mars	17629-09-19 17:45 G	8160181.98	8160182.24	8160182.50	0.0284	0.0161
Venus	17635-10-30 01:12 G	8162413.36	8162413.55	8162413.74	0.0283	0.0127
Venus	17636-06-15 15:50 G	8162642.96	8162643.16	8162643.37	0.0282	0.0090
Mercury	17637-11-12 10:33 G	8163157.90	8163157.94	8163157.99	0.0281	0.0270
Mercury	17638-02-09 03:07 G	8163246.50	8163246.63	8163246.76	0.0281	0.0154

Mercury	17638-05-08 19:12 G	8163335.15	8163335.30	8163335.45	0.0280	0.0040
Mercury	17638-08-05 10:48 G	8163423.80	8163423.95	8163424.10	0.0280	0.0071
Mercury	17638-11-02 02:09 G	8163512.47	8163512.59	8163512.71	0.0280	0.0179
Moon	17639-05-18 22:19 G	8163710.19	8163710.43	8163710.67	0.0279	0.0082
Earth	17639-05-19 00:57 G	8163710.30	8163710.54	8163710.78	0.0279	0.0067 *
Venus	17650-11-25 06:57 G	8167918.60	8167918.79	8167919.00	0.0276	0.0100
Venus	17651-07-12 16:19 G	8168147.99	8168148.18	8168148.38	0.0277	0.0103
Mercury	17652-11-19 23:31 G	8168644.45	8168644.48	8168644.51	0.0278	0.0270
Mercury	17653-02-16 14:09 G	8168732.97	8168733.09	8168733.21	0.0278	0.0168
Mercury	17653-05-16 05:02 G	8168821.56	8168821.71	8168821.86	0.0279	0.0062
Mercury	17653-08-12 20:09 G	8168910.19	8168910.34	8168910.49	0.0279	0.0047
Moon	17653-11-08 14:38 G	8168997.93	8168998.11	8168998.30	0.0279	0.0190
Earth	17653-11-08 16:33 G	8168998.02	8168998.19	8168998.36	0.0279	0.0197 *
Mercury	17653-11-09 11:45 G	8168998.86	8168998.99	8168999.12	0.0279	0.0158
Mercury	17654-02-06 03:36 G	8169087.63	8169087.65	8169087.69	0.0280	0.0272
Moon	17654-11-21 12:14 G	8169375.94	8169376.01	8169376.09	0.0280	0.0266
Earth	17654-11-21 16:04 G	8169376.10	8169376.17	8169376.25	0.0280	0.0267
Venus	17665-05-11 05:45 G	8173199.54	8173199.74	8173199.94	0.0282	0.0101
Venus	17665-12-26 20:09 G	8173429.15	8173429.34	8173429.53	0.0282	0.0115
Mercury	17667-06-29 03:07 G	8173978.52	8173978.63	8173978.75	0.0280	0.0192
Mercury	17667-09-25 19:26 G	8174067.16	8174067.31	8174067.46	0.0280	0.0077
Mercury	17667-12-23 11:16 G	8174155.82	8174155.97	8174156.12	0.0279	0.0034
Mercury	17668-03-21 02:38 G	8174244.48	8174244.61	8174244.74	0.0279	0.0142
Earth	17668-05-12 09:50 G	8174296.70	8174296.91	8174297.13	0.0279	0.0144
Moon	17668-05-12 12:28 G	8174296.81	8174297.02	8174297.23	0.0279	0.0131 *
Mercury	17668-06-17 17:31 G	8174333.17	8174333.23	8174333.30	0.0279	0.0248
Mars	17673-11-04 22:33 G	8176299.28	8176299.44	8176299.63	0.0274	0.0209
Venus	17680-06-06 07:12 G	8178704.60	8178704.80	8178705.00	0.0276	0.0081
Venus	17681-01-21 16:19 G	8178933.99	8178934.18	8178934.37	0.0277	0.0121
Mercury	17682-07-06 13:40 G	8179464.98	8179465.07	8179465.17	0.0279	0.0209

Mercury	17682-10-03 04:33 G	8179553.55	8179553.69	8179553.83	0.0279	0.0105
Mercury	17682-12-30 19:26 G	8179642.16	8179642.31	8179642.47	0.0279	0.0009
Mercury	17683-03-29 11:02 G	8179730.82	8179730.96	8179731.10	0.0279	0.0113
Mercury	17683-06-26 02:38 G	8179819.53	8179819.61	8179819.71	0.0280	0.0226
Earth	17683-11-15 22:48 G	8179962.22	8179962.45	8179962.70	0.0280	0.0049
Moon	17683-11-16 02:24 G	8179962.36	8179962.60	8179962.85	0.0280	0.0050 *
Venus	17694-11-21 09:21 G	8183985.69	8183985.89	8183986.10	0.0283	0.0077
Venus	17695-07-09 00:00 G	8184215.32	8184215.50	8184215.69	0.0282	0.0140
Mercury	17696-11-15 03:50 G	8184710.57	8184710.66	8184710.75	0.0281	0.0228
Mercury	17697-02-11 20:09 G	8184799.20	8184799.34	8184799.49	0.0281	0.0113
Mercury	17697-05-11 12:14 G	8184887.85	8184888.01	8184888.17	0.0280	0.0001
Mercury	17697-08-08 03:50 G	8184976.52	8184976.66	8184976.80	0.0280	0.0111
Mercury	17697-11-04 18:57 G	8185065.20	8185065.29	8185065.39	0.0280	0.0218
Moon	17698-05-20 01:12 G	8185261.35	8185261.55	8185261.77	0.0279	0.0135
Earth	17698-05-20 04:19 G	8185261.47	8185261.68	8185261.91	0.0279	0.0121 *
Venus	17709-05-03 07:40 G	8189261.74	8189261.82	8189261.93	0.0276	0.0248
Venus	17709-12-18 16:33 G	8189490.99	8189491.19	8189491.40	0.0276	0.0048
Venus	17710-08-05 01:55 G	8189720.41	8189720.58	8189720.76	0.0277	0.0154
Mercury	17711-11-24 16:48 G	8190197.12	8190197.20	8190197.28	0.0278	0.0229
Mercury	17712-02-21 07:26 G	8190285.67	8190285.81	8190285.94	0.0278	0.0125
Mercury	17712-05-19 22:19 G	8190374.28	8190374.43	8190374.59	0.0279	0.0020
Mercury	17712-08-16 13:40 G	8190462.93	8190463.07	8190463.22	0.0279	0.0091
Moon	17712-11-10 18:43 G	8190549.07	8190549.28	8190549.49	0.0279	0.0136
Earth	17712-11-10 22:19 G	8190549.22	8190549.43	8190549.64	0.0279	0.0142 *
Mercury	17712-11-13 05:31 G	8190551.62	8190551.73	8190551.84	0.0279	0.0203
Mars	17718-02-14 16:19 G	8192471.04	8192471.18	8192471.35	0.0284	0.0245
Venus	17723-10-18 00:00 G	8194542.44	8194542.50	8194542.59	0.0283	0.0264
Venus	17724-06-03 15:07 G	8194771.93	8194772.13	8194772.34	0.0282	0.0048
Venus	17725-01-19 05:31 G	8195001.57	8195001.73	8195001.91	0.0282	0.0168
Mercury	17726-04-05 04:19 G	8195442.64	8195442.68	8195442.74	0.0280	0.0263

Mercury	17726-07-02 20:52 G	8195531.24	8195531.37	8195531.51	0.0280	0.0147
Mercury	17726-09-29 12:57 G	8195619.89	8195620.04	8195620.20	0.0280	0.0034
Mercury	17726-12-27 04:33 G	8195708.55	8195708.69	8195708.84	0.0280	0.0078
Mercury	17727-03-25 19:55 G	8195797.22	8195797.33	8195797.45	0.0279	0.0185
Earth	17727-05-15 15:36 G	8195847.92	8195848.15	8195848.39	0.0279	0.0088
Moon	17727-05-15 18:57 G	8195848.05	8195848.29	8195848.54	0.0279	0.0074 *
Mars	17732-02-14 11:02 G	8197583.94	8197583.96	8197584.02	0.0275	0.0271
Venus	17738-11-13 08:24 G	8200047.74	8200047.85	8200047.97	0.0276	0.0228
Venus	17739-06-30 17:16 G	8200277.01	8200277.22	8200277.43	0.0276	0.0028
Venus	17740-02-15 02:09 G	8200506.44	8200506.59	8200506.76	0.0277	0.0174
Mercury	17741-04-12 16:33 G	8200929.16	8200929.19	8200929.23	0.0278	0.0269
Mercury	17741-07-10 07:12 G	8201017.68	8201017.80	8201017.92	0.0279	0.0167
Mercury	17741-10-06 22:04 G	8201106.27	8201106.42	8201106.56	0.0279	0.0062
Mercury	17742-01-03 13:12 G	8201194.90	8201195.05	8201195.20	0.0279	0.0047
Mercury	17742-04-02 04:33 G	8201283.57	8201283.69	8201283.82	0.0279	0.0158
Mercury	17742-06-29 20:24 G	8201372.33	8201372.35	8201372.40	0.0280	0.0272
Moon	17742-11-18 04:48 G	8201513.47	8201513.70	8201513.94	0.0280	0.0103
Earth	17742-11-18 04:48 G	8201513.48	8201513.70	8201513.93	0.0280	0.0105 *
Venus	17753-04-29 03:36 G	8205328.55	8205328.65	8205328.76	0.0283	0.0242
Venus	17753-12-14 18:57 G	8205558.08	8205558.29	8205558.50	0.0283	0.0024
Venus	17754-08-01 09:36 G	8205787.75	8205787.90	8205788.06	0.0282	0.0192
Mercury	17755-11-19 21:36 G	8206263.28	8206263.40	8206263.52	0.0281	0.0183
Mercury	17756-02-16 13:55 G	8206351.93	8206352.08	8206352.23	0.0281	0.0068
Moon	17756-05-09 00:00 G	8206434.49	8206434.50	8206434.51	0.0280	0.0280
Mercury	17756-05-15 05:45 G	8206440.59	8206440.74	8206440.89	0.0280	0.0044
Mercury	17756-08-11 21:07 G	8206529.26	8206529.38	8206529.51	0.0280	0.0153
Mercury	17756-11-08 12:14 G	8206617.96	8206618.01	8206618.07	0.0280	0.0259
Earth	17757-05-22 09:36 G	8206812.72	8206812.90	8206813.10	0.0279	0.0177
Moon	17757-05-22 10:19 G	8206812.76	8206812.93	8206813.11	0.0279	0.0191 *
Venus	17768-05-25 18:14 G	8210834.12	8210834.26	8210834.41	0.0276	0.0195

Venus	17769-01-10 03:07 G	8211063.42	8211063.63	8211063.84	0.0276	0.0005
Venus	17769-08-27 12:28 G	8211292.88	8211293.02	8211293.16	0.0277	0.0207
Mercury	17770-11-27 10:19 G	8211749.82	8211749.93	8211750.04	0.0278	0.0185
Mercury	17771-02-24 01:12 G	8211838.40	8211838.55	8211838.69	0.0278	0.0081
Mercury	17771-05-23 16:19 G	8211927.02	8211927.18	8211927.33	0.0279	0.0028
Mercury	17771-08-20 07:40 G	8212015.69	8212015.82	8212015.96	0.0279	0.0138
Moon	17771-11-13 05:02 G	8212100.48	8212100.71	8212100.93	0.0279	0.0079
Earth	17771-11-13 05:31 G	8212100.50	8212100.73	8212100.96	0.0279	0.0083 *
Mercury	17771-11-16 23:31 G	8212104.42	8212104.48	8212104.55	0.0279	0.0251
Venus	17782-11-09 11:02 G	8216114.83	8216114.96	8216115.11	0.0283	0.0209
Venus	17783-06-27 02:09 G	8216344.38	8216344.59	8216344.80	0.0282	0.0008
Venus	17784-02-11 16:33 G	8216574.06	8216574.19	8216574.32	0.0282	0.0222
Mercury	17785-04-07 22:48 G	8216995.35	8216995.45	8216995.55	0.0280	0.0215
Mercury	17785-07-05 15:07 G	8217083.98	8217084.13	8217084.28	0.0280	0.0100
Mercury	17785-10-02 06:57 G	8217172.64	8217172.79	8217172.95	0.0280	0.0013
Mercury	17785-12-29 22:33 G	8217261.30	8217261.44	8217261.58	0.0280	0.0122
Mercury	17786-03-28 13:40 G	8217349.99	8217350.07	8217350.16	0.0279	0.0229
Moon	17786-05-16 22:19 G	8217399.17	8217399.43	8217399.68	0.0279	0.0014
Earth	17786-05-16 23:02 G	8217399.22	8217399.46	8217399.71	0.0279	0.0030 *
Venus	17797-12-05 19:26 G	8221620.16	8221620.31	8221620.48	0.0276	0.0174
Venus	17798-07-23 04:33 G	8221849.48	8221849.69	8221849.90	0.0277	0.0027
Venus	17799-03-09 13:40 G	8222078.96	8222079.07	8222079.19	0.0277	0.0228
Mercury	17800-04-16 10:33 G	8222481.85	8222481.94	8222482.03	0.0278	0.0224
Mercury	17800-07-14 00:57 G	8222570.41	8222570.54	8222570.68	0.0279	0.0121
Mercury	17800-10-10 16:04 G	8222659.02	8222659.17	8222659.32	0.0279	0.0014
Mercury	17801-01-07 07:26 G	8222747.66	8222747.81	8222747.95	0.0279	0.0096
Mercury	17801-04-05 23:02 G	8222836.36	8222836.46	8222836.57	0.0279	0.0207
Moon	17801-11-20 09:50 G	8223064.72	8223064.91	8223065.13	0.0280	0.0161
Earth	17801-11-20 13:26 G	8223064.87	8223065.06	8223065.26	0.0280	0.0165 *
Venus	17812-05-22 14:24 G	8226900.94	8226901.10	8226901.26	0.0283	0.0186

Venus	17813-01-07 05:31 G	8227130.52	8227130.73	8227130.95	0.0283	0.0032
Venus	17813-08-24 19:55 G	8227360.24	8227360.33	8227360.44	0.0282	0.0246
Mercury	17814-08-26 23:02 G	8227727.40	8227727.46	8227727.53	0.0281	0.0253
Mercury	17814-11-23 15:36 G	8227816.01	8227816.15	8227816.29	0.0281	0.0136
Mercury	17815-02-20 07:40 G	8227904.67	8227904.82	8227904.98	0.0281	0.0023
Earth	17815-05-12 09:36 G	8227985.78	8227985.90	8227986.04	0.0280	0.0236
Moon	17815-05-12 11:02 G	8227985.82	8227985.96	8227986.11	0.0280	0.0221 *
Mercury	17815-05-19 23:16 G	8227993.33	8227993.47	8227993.62	0.0280	0.0089
Mercury	17815-08-16 14:38 G	8228082.01	8228082.11	8228082.22	0.0280	0.0197
Earth	17816-05-24 16:19 G	8228364.05	8228364.18	8228364.32	0.0279	0.0233
Moon	17816-05-24 19:55 G	8228364.23	8228364.33	8228364.45	0.0279	0.0250 *
Mars	17820-07-11 16:19 G	8229872.99	8229873.18	8229873.37	0.0276	0.0193
Venus	17827-06-19 05:31 G	8232406.55	8232406.73	8232406.91	0.0276	0.0140
Venus	17828-02-03 14:24 G	8232635.90	8232636.10	8232636.31	0.0276	0.0061
Venus	17828-09-20 00:00 G	8232865.43	8232865.50	8232865.56	0.0277	0.0262
Mercury	17829-09-03 13:55 G	8233214.01	8233214.08	8233214.15	0.0278	0.0241
Mercury	17829-12-01 04:19 G	8233302.55	8233302.68	8233302.82	0.0278	0.0138
Mercury	17830-02-27 19:12 G	8233391.15	8233391.30	8233391.46	0.0278	0.0033
Mercury	17830-05-27 10:33 G	8233479.79	8233479.94	8233480.09	0.0279	0.0076
Mercury	17830-08-24 02:09 G	8233568.48	8233568.59	8233568.71	0.0279	0.0188
Earth	17830-11-15 14:24 G	8233651.86	8233652.10	8233652.35	0.0279	0.0023
Moon	17830-11-15 17:31 G	8233652.00	8233652.23	8233652.47	0.0279	0.0019 *
Venus	17841-12-02 23:31 G	8237687.31	8237687.48	8237687.67	0.0283	0.0151
Venus	17842-07-20 14:24 G	8237916.89	8237917.10	8237917.31	0.0282	0.0066
Venus	17843-03-07 04:33 G	8238146.67	8238146.69	8238146.72	0.0282	0.0279
Mercury	17844-01-14 00:43 G	8238459.53	8238459.53	8238459.54	0.0281	0.0281
Mercury	17844-04-11 17:16 G	8238548.10	8238548.22	8238548.35	0.0280	0.0164
Mercury	17844-07-09 09:36 G	8238636.74	8238636.90	8238637.05	0.0280	0.0050
Mercury	17844-10-06 01:12 G	8238725.40	8238725.55	8238725.70	0.0280	0.0062
Mercury	17845-01-02 16:33 G	8238814.08	8238814.19	8238814.32	0.0280	0.0171

Mercury	17845-04-01 07:40 G	8238902.80	8238902.82	8238902.84	0.0279	0.0275
Moon	17845-05-19 04:33 G	8238950.45	8238950.69	8238950.93	0.0279	0.0048
Earth	17845-05-19 08:24 G	8238950.61	8238950.85	8238951.10	0.0279	0.0032 *
Venus	17856-12-29 07:26 G	8243192.63	8243192.81	8243193.01	0.0276	0.0118
Venus	17857-08-15 16:33 G	8243421.99	8243422.19	8243422.39	0.0277	0.0083
Mercury	17859-01-21 14:24 G	8243946.09	8243946.10	8243946.10	0.0278	0.0277
Mercury	17859-04-20 04:48 G	8244034.58	8244034.70	8244034.81	0.0278	0.0176
Mercury	17859-07-17 19:26 G	8244123.16	8244123.31	8244123.46	0.0279	0.0071
Mercury	17859-10-14 10:33 G	8244211.79	8244211.94	8244212.09	0.0279	0.0037
Moon	17859-11-09 21:50 G	8244238.28	8244238.41	8244238.57	0.0279	0.0227
Earth	17859-11-10 01:40 G	8244238.44	8244238.57	8244238.71	0.0279	0.0232 *
Mercury	17860-01-11 01:55 G	8244300.45	8244300.58	8244300.72	0.0279	0.0147
Mercury	17860-04-08 17:45 G	8244389.19	8244389.24	8244389.30	0.0279	0.0260
Moon	17860-11-21 20:52 G	8244616.25	8244616.37	8244616.53	0.0280	0.0224
Earth	17860-11-21 23:31 G	8244616.35	8244616.48	8244616.63	0.0280	0.0227 *
Venus	17871-06-15 02:24 G	8248473.42	8248473.60	8248473.80	0.0283	0.0128
Venus	17872-01-30 17:31 G	8248703.03	8248703.23	8248703.44	0.0282	0.0089
Mercury	17873-08-29 17:31 G	8249280.12	8249280.23	8249280.34	0.0281	0.0202
Mercury	17873-11-26 09:50 G	8249368.77	8249368.91	8249369.06	0.0281	0.0087
Mercury	17874-02-23 01:55 G	8249457.43	8249457.58	8249457.73	0.0281	0.0026
Earth	17874-05-13 18:14 G	8249537.08	8249537.26	8249537.46	0.0280	0.0176
Moon	17874-05-13 22:04 G	8249537.22	8249537.42	8249537.63	0.0280	0.0160 *
Mercury	17874-05-22 17:16 G	8249546.09	8249546.22	8249546.36	0.0280	0.0137
Mercury	17874-08-19 08:38 G	8249634.79	8249634.86	8249634.93	0.0280	0.0243
Venus	17886-07-11 17:16 G	8253979.02	8253979.22	8253979.42	0.0276	0.0084
Venus	17887-02-26 02:24 G	8254208.41	8254208.60	8254208.79	0.0277	0.0117
Mercury	17888-09-06 07:55 G	8254766.73	8254766.83	8254766.94	0.0278	0.0193
Mercury	17888-12-03 22:48 G	8254855.30	8254855.45	8254855.59	0.0278	0.0089
Mercury	17889-03-02 13:40 G	8254943.92	8254944.07	8254944.23	0.0279	0.0019
Mercury	17889-05-30 05:16 G	8255032.58	8255032.72	8255032.85	0.0279	0.0128

Mercury	17889-08-26 20:52 G	8255121.30	8255121.37	8255121.45	0.0279	0.0241
Earth	17889-11-17 00:57 G	8255203.30	8255203.54	8255203.78	0.0279	0.0040
Moon	17889-11-17 03:50 G	8255203.41	8255203.66	8255203.90	0.0279	0.0041 *
Venus	17900-12-26 12:57 G	8259259.84	8259260.04	8259260.24	0.0283	0.0090
Venus	17901-08-13 03:36 G	8259489.46	8259489.65	8259489.84	0.0282	0.0126
Mercury	17903-01-17 19:40 G	8260012.23	8260012.32	8260012.42	0.0281	0.0227
Mercury	17903-04-16 12:14 G	8260100.87	8260101.01	8260101.15	0.0280	0.0111
Mercury	17903-07-14 04:19 G	8260189.52	8260189.68	8260189.83	0.0280	0.0007
Mercury	17903-10-10 19:40 G	8260278.19	8260278.32	8260278.47	0.0280	0.0113
Mercury	17904-01-07 11:02 G	8260366.87	8260366.96	8260367.05	0.0280	0.0219
Moon	17904-05-21 17:45 G	8260502.02	8260502.24	8260502.46	0.0279	0.0109
Earth	17904-05-21 18:43 G	8260502.05	8260502.28	8260502.51	0.0279	0.0094 *
Mars	17908-12-06 17:31 G	8262162.00	8262162.23	8262162.48	0.0275	0.0127
Venus	17915-06-07 11:31 G	8264535.91	8264535.98	8264536.05	0.0276	0.0259
Venus	17916-01-22 20:09 G	8264765.13	8264765.34	8264765.54	0.0276	0.0061
Venus	17916-09-08 05:02 G	8264994.53	8264994.71	8264994.90	0.0277	0.0141
Mercury	17918-01-25 08:38 G	8265498.78	8265498.86	8265498.94	0.0278	0.0229
Mercury	17918-04-23 23:16 G	8265587.33	8265587.47	8265587.60	0.0278	0.0126
Mercury	17918-07-21 14:09 G	8265675.93	8265676.09	8265676.24	0.0279	0.0020
Mercury	17918-10-18 05:16 G	8265764.58	8265764.72	8265764.87	0.0279	0.0089
Moon	17918-11-12 10:33 G	8265789.76	8265789.94	8265790.13	0.0279	0.0167
Earth	17918-11-12 12:43 G	8265789.85	8265790.03	8265790.23	0.0279	0.0169 *
Mercury	17919-01-14 20:52 G	8265853.27	8265853.37	8265853.48	0.0279	0.0201
Venus	17930-07-08 15:36 G	8270045.94	8270046.15	8270046.36	0.0283	0.0068
Venus	17931-02-23 06:14 G	8270275.59	8270275.76	8270275.95	0.0282	0.0148
Mercury	17932-06-05 19:40 G	8270744.28	8270744.32	8270744.37	0.0281	0.0267
Mercury	17932-09-02 12:14 G	8270832.88	8270833.01	8270833.15	0.0281	0.0150
Mercury	17932-11-30 04:33 G	8270921.54	8270921.69	8270921.85	0.0281	0.0035
Mercury	17933-02-26 20:24 G	8271010.20	8271010.35	8271010.50	0.0280	0.0076
Earth	17933-05-16 04:19 G	8271088.46	8271088.68	8271088.91	0.0280	0.0115

Moon	17933-05-16 05:02 G	8271088.48	8271088.71	8271088.96	0.0280	0.0100 *
Mercury	17933-05-26 11:45 G	8271098.88	8271098.99	8271099.10	0.0280	0.0185
Venus	17944-12-17 20:09 G	8275322.22	8275322.34	8275322.46	0.0276	0.0227
Venus	17945-08-04 05:02 G	8275551.50	8275551.71	8275551.93	0.0276	0.0028
Venus	17946-03-21 14:09 G	8275780.94	8275781.09	8275781.27	0.0277	0.0175
Mercury	17947-06-14 11:45 G	8276230.93	8276230.99	8276231.06	0.0278	0.0247
Mercury	17947-09-11 02:24 G	8276319.47	8276319.60	8276319.73	0.0278	0.0144
Mercury	17947-12-08 17:16 G	8276408.06	8276408.22	8276408.37	0.0278	0.0039
Mercury	17948-03-06 08:24 G	8276496.70	8276496.85	8276497.00	0.0279	0.0070
Mercury	17948-06-02 23:45 G	8276585.38	8276585.49	8276585.62	0.0279	0.0181
Moon	17948-11-19 09:36 G	8276754.67	8276754.90	8276755.14	0.0279	0.0098
Earth	17948-11-19 11:45 G	8276754.76	8276754.99	8276755.22	0.0279	0.0102 *
Mars	17953-03-11 07:55 G	8278327.67	8278327.83	8278328.02	0.0284	0.0237
Venus	17959-06-03 11:45 G	8280602.89	8280602.99	8280603.10	0.0283	0.0244
Venus	17960-01-19 03:07 G	8280832.42	8280832.63	8280832.84	0.0283	0.0028
Venus	17960-09-04 17:16 G	8281062.07	8281062.22	8281062.38	0.0282	0.0187
Mercury	17962-01-20 15:07 G	8281565.00	8281565.13	8281565.25	0.0281	0.0171
Mercury	17962-04-19 07:12 G	8281653.65	8281653.80	8281653.96	0.0280	0.0057
Mercury	17962-07-16 23:02 G	8281742.31	8281742.46	8281742.61	0.0280	0.0055
Mercury	17962-10-13 14:24 G	8281830.98	8281831.10	8281831.23	0.0280	0.0164
Mercury	17963-01-10 05:31 G	8281919.70	8281919.73	8281919.77	0.0280	0.0269
Earth	17963-05-24 06:14 G	8282053.56	8282053.76	8282053.96	0.0279	0.0157
Moon	17963-05-24 09:07 G	8282053.70	8282053.88	8282054.08	0.0279	0.0171 *
Venus	17974-06-29 23:45 G	8286108.36	8286108.49	8286108.64	0.0276	0.0203
Venus	17975-02-14 08:38 G	8286337.65	8286337.86	8286338.07	0.0276	0.0003
Venus	17975-10-01 17:31 G	8286567.10	8286567.23	8286567.39	0.0277	0.0199
Mercury	17977-01-28 02:52 G	8287051.51	8287051.62	8287051.74	0.0278	0.0180
Mercury	17977-04-26 17:45 G	8287140.09	8287140.24	8287140.39	0.0279	0.0074
Mercury	17977-07-24 08:52 G	8287228.72	8287228.87	8287229.02	0.0279	0.0033
Mercury	17977-10-21 00:14 G	8287317.38	8287317.51	8287317.64	0.0279	0.0143

Earth	17977-11-14 00:14 G	8287341.29	8287341.51	8287341.74	0.0279	0.0105
Moon	17977-11-14 02:24 G	8287341.39	8287341.60	8287341.83	0.0279	0.0107 *
Mercury	17978-01-17 16:04 G	8287406.11	8287406.17	8287406.23	0.0279	0.0256
Venus	17988-12-13 14:09 G	8291388.97	8291389.09	8291389.23	0.0283	0.0223
Venus	17989-07-31 05:16 G	8291618.51	8291618.72	8291618.94	0.0282	0.0008
Venus	17990-03-17 19:55 G	8291848.19	8291848.33	8291848.47	0.0282	0.0208
Mercury	17991-06-09 14:52 G	8292297.02	8292297.12	8292297.22	0.0281	0.0212
Mercury	17991-09-06 07:12 G	8292385.66	8292385.80	8292385.95	0.0281	0.0096
Mercury	17991-12-03 23:16 G	8292474.32	8292474.47	8292474.63	0.0280	0.0017
Mercury	17992-03-01 14:52 G	8292562.99	8292563.12	8292563.26	0.0280	0.0127
Moon	17992-05-17 12:00 G	8292639.75	8292640.00	8292640.25	0.0280	0.0038
Earth	17992-05-17 15:07 G	8292639.89	8292640.13	8292640.37	0.0280	0.0052 *
Mercury	17992-05-29 06:00 G	8292651.67	8292651.75	8292651.84	0.0280	0.0234
Mars	17997-05-02 19:55 G	8294451.06	8294451.33	8294451.59	0.0276	0.0053

19TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 19th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	18004-01-10 07:26 G		8296894.65	8296894.81	8296894.98	0.0276	0.0172	
Venus	18004-08-26 16:33 G		8297123.99	8297124.19	8297124.41	0.0277	0.0030	
Venus	18005-04-13 01:55 G		8297353.48	8297353.58	8297353.71	0.0277	0.0231	
Mercury	18006-06-17 06:00 G		8297783.64	8297783.75	8297783.85	0.0278	0.0199	
Mercury	18006-09-13 20:38 G		8297872.22	8297872.36	8297872.50	0.0278	0.0095	

Mercury	18006-12-11 11:31 G	8297960.83	8297960.98	8297961.14	0.0279	0.0013
Mercury	18007-03-10 02:52 G	8298049.48	8298049.62	8298049.76	0.0279	0.0121
Mercury	18007-06-06 18:43 G	8298138.20	8298138.28	8298138.36	0.0279	0.0234
Moon	18007-11-21 18:28 G	8298306.07	8298306.27	8298306.47	0.0280	0.0156
Earth	18007-11-21 21:50 G	8298306.23	8298306.41	8298306.62	0.0280	0.0164 *
Venus	18018-06-26 02:09 G	8302175.43	8302175.59	8302175.75	0.0283	0.0183
Venus	18019-02-10 17:02 G	8302405.00	8302405.21	8302405.42	0.0283	0.0034
Venus	18019-09-28 06:57 G	8302634.70	8302634.79	8302634.90	0.0282	0.0247
Mercury	18020-10-26 17:31 G	8303029.15	8303029.23	8303029.33	0.0281	0.0232
Mercury	18021-01-23 10:19 G	8303117.78	8303117.93	8303118.07	0.0281	0.0116
Mercury	18021-04-22 02:09 G	8303206.44	8303206.59	8303206.75	0.0280	0.0007
Earth	18021-05-12 11:16 G	8303226.87	8303226.97	8303227.10	0.0280	0.0246
Moon	18021-05-12 14:24 G	8303226.97	8303227.10	8303227.24	0.0280	0.0231 *
Mercury	18021-07-19 18:00 G	8303295.11	8303295.25	8303295.39	0.0280	0.0108
Mercury	18021-10-16 09:07 G	8303383.79	8303383.88	8303383.98	0.0280	0.0215
Earth	18022-05-25 17:45 G	8303605.10	8303605.24	8303605.40	0.0279	0.0220
Moon	18022-05-25 20:38 G	8303605.23	8303605.36	8303605.51	0.0279	0.0233 *
Venus	18033-07-22 12:00 G	8307680.82	8307681.00	8307681.18	0.0276	0.0146
Venus	18034-03-08 20:38 G	8307910.16	8307910.36	8307910.57	0.0276	0.0054
Venus	18034-10-24 06:00 G	8308139.67	8308139.75	8308139.83	0.0277	0.0255
Mercury	18035-11-04 06:57 G	8308515.71	8308515.79	8308515.87	0.0278	0.0233
Mercury	18036-01-31 21:21 G	8308604.26	8308604.39	8308604.52	0.0278	0.0130
Mercury	18036-04-29 12:14 G	8308692.86	8308693.01	8308693.16	0.0279	0.0024
Mercury	18036-07-27 03:21 G	8308781.50	8308781.64	8308781.79	0.0279	0.0085
Mercury	18036-10-23 18:57 G	8308870.18	8308870.29	8308870.40	0.0279	0.0196
Earth	18036-11-15 11:02 G	8308892.72	8308892.96	8308893.20	0.0279	0.0044
Moon	18036-11-15 14:24 G	8308892.86	8308893.10	8308893.34	0.0279	0.0046 *
Mars	18041-08-05 03:36 G	8310616.41	8310616.65	8310616.93	0.0284	0.0166
Venus	18048-01-06 04:19 G	8312961.51	8312961.68	8312961.86	0.0283	0.0161
Venus	18048-08-22 19:12 G	8313191.09	8313191.30	8313191.51	0.0282	0.0055

Venus	18049-04-09 09:07 G	8313420.83	8313420.88	8313420.95	0.0282	0.0268
Mercury	18050-03-15 17:16 G	8313761.19	8313761.22	8313761.25	0.0281	0.0274
Mercury	18050-06-12 10:04 G	8313849.79	8313849.92	8313850.05	0.0281	0.0157
Mercury	18050-09-09 02:09 G	8313938.44	8313938.59	8313938.75	0.0280	0.0042
Mercury	18050-12-06 18:00 G	8314027.10	8314027.25	8314027.40	0.0280	0.0069
Mercury	18051-03-05 09:21 G	8314115.78	8314115.89	8314116.01	0.0280	0.0178
Moon	18051-05-19 23:02 G	8314191.22	8314191.46	8314191.71	0.0280	0.0025
Earth	18051-05-20 02:09 G	8314191.34	8314191.59	8314191.84	0.0280	0.0010 *
Venus	18063-02-01 18:14 G	8318467.07	8318467.26	8318467.45	0.0276	0.0118
Venus	18063-09-19 03:21 G	8318696.44	8318696.64	8318696.85	0.0277	0.0084
Mercury	18065-03-23 09:07 G	8319247.83	8319247.88	8319247.94	0.0278	0.0256
Mercury	18065-06-19 23:45 G	8319336.37	8319336.49	8319336.62	0.0278	0.0153
Mercury	18065-09-16 14:38 G	8319424.96	8319425.11	8319425.26	0.0279	0.0048
Moon	18065-11-10 05:16 G	8319479.60	8319479.72	8319479.86	0.0279	0.0233
Earth	18065-11-10 08:38 G	8319479.75	8319479.86	8319480.01	0.0279	0.0236 *
Mercury	18065-12-14 05:45 G	8319513.59	8319513.74	8319513.89	0.0279	0.0060
Mercury	18066-03-12 21:07 G	8319602.26	8319602.38	8319602.51	0.0279	0.0172
Earth	18066-11-23 07:12 G	8319857.65	8319857.80	8319857.95	0.0280	0.0222
Moon	18066-11-23 07:12 G	8319857.65	8319857.80	8319857.95	0.0280	0.0214 *
Venus	18077-07-18 16:04 G	8323747.98	8323748.17	8323748.36	0.0283	0.0121
Venus	18078-03-05 06:43 G	8323977.58	8323977.78	8323977.98	0.0282	0.0095
Mercury	18079-10-30 12:57 G	8324581.92	8324582.04	8324582.16	0.0281	0.0176
Mercury	18080-01-27 05:16 G	8324670.57	8324670.72	8324670.87	0.0280	0.0061
Mercury	18080-04-24 21:07 G	8324759.23	8324759.38	8324759.53	0.0280	0.0051
Earth	18080-05-13 23:02 G	8324778.28	8324778.46	8324778.66	0.0280	0.0182
Moon	18080-05-14 02:38 G	8324778.40	8324778.61	8324778.81	0.0280	0.0165 *
Mercury	18080-07-22 12:28 G	8324847.90	8324848.02	8324848.15	0.0280	0.0160
Mercury	18080-10-19 03:36 G	8324936.61	8324936.65	8324936.70	0.0280	0.0265
Mars	18085-09-27 04:04 G	8326740.40	8326740.67	8326740.94	0.0275	0.0024
Venus	18092-08-13 23:02 G	8329253.26	8329253.46	8329253.66	0.0276	0.0092

Venus	18093-03-31 07:55 G	8329482.64	8329482.83	8329483.03	0.0277	0.0109
Mercury	18094-11-07 00:43 G	8330068.42	8330068.53	8330068.64	0.0278	0.0186
Mercury	18095-02-03 15:21 G	8330157.00	8330157.14	8330157.29	0.0278	0.0082
Mercury	18095-05-03 06:28 G	8330245.62	8330245.77	8330245.92	0.0279	0.0025
Mercury	18095-07-30 21:50 G	8330334.27	8330334.41	8330334.54	0.0279	0.0135
Mercury	18095-10-27 13:26 G	8330423.00	8330423.06	8330423.14	0.0279	0.0248
Moon	18095-11-17 20:38 G	8330444.10	8330444.36	8330444.61	0.0279	0.0012
Earth	18095-11-17 20:24 G	8330444.11	8330444.35	8330444.59	0.0279	0.0016 *
Venus	18107-01-29 17:31 G	8334534.04	8334534.23	8334534.43	0.0282	0.0101
Venus	18107-09-16 08:09 G	8334763.65	8334763.84	8334764.04	0.0282	0.0115
Mercury	18109-03-19 12:14 G	8335313.92	8335314.01	8335314.11	0.0281	0.0220
Mercury	18109-06-16 04:48 G	8335402.55	8335402.70	8335402.85	0.0280	0.0104
Mercury	18109-09-12 20:52 G	8335491.21	8335491.37	8335491.52	0.0280	0.0010
Mercury	18109-12-10 12:28 G	8335579.88	8335580.02	8335580.16	0.0280	0.0120
Mercury	18110-03-09 03:36 G	8335668.57	8335668.65	8335668.74	0.0280	0.0227
Earth	18110-05-22 12:00 G	8335742.77	8335743.00	8335743.25	0.0279	0.0071
Moon	18110-05-22 13:12 G	8335742.82	8335743.05	8335743.28	0.0279	0.0084 *
Venus	18121-07-10 18:57 G	8339810.24	8339810.29	8339810.36	0.0276	0.0264
Venus	18122-02-25 04:04 G	8340039.46	8340039.67	8340039.88	0.0276	0.0065
Venus	18122-10-12 13:12 G	8340268.87	8340269.05	8340269.24	0.0277	0.0137
Mercury	18124-03-27 02:38 G	8340800.52	8340800.61	8340800.71	0.0278	0.0213
Mercury	18124-06-23 17:16 G	8340889.08	8340889.22	8340889.36	0.0278	0.0109
Mercury	18124-09-20 08:24 G	8340977.69	8340977.85	8340978.00	0.0279	0.0009
Moon	18124-11-12 15:07 G	8341030.96	8341031.13	8341031.32	0.0279	0.0180
Earth	18124-11-12 15:50 G	8341030.98	8341031.16	8341031.35	0.0279	0.0180 *
Mercury	18124-12-17 23:31 G	8341066.34	8341066.48	8341066.63	0.0279	0.0107
Mercury	18125-03-16 15:07 G	8341155.04	8341155.13	8341155.23	0.0279	0.0219
Earth	18125-11-25 14:09 G	8341409.07	8341409.09	8341409.13	0.0280	0.0278
Moon	18125-11-25 17:31 G	8341409.17	8341409.23	8341409.31	0.0280	0.0267
Mars	18129-12-31 23:45 G	8342906.17	8342906.49	8342906.80	0.0284	0.0056

Venus	18135-12-25 13:40 G	8345091.04	8345091.07	8345091.11	0.0283	0.0278
Venus	18136-08-11 04:48 G	8345320.50	8345320.70	8345320.91	0.0283	0.0062
Venus	18137-03-28 19:12 G	8345550.13	8345550.30	8345550.49	0.0282	0.0155
Mercury	18138-08-06 15:07 G	8346046.06	8346046.13	8346046.22	0.0281	0.0240
Mercury	18138-11-03 07:40 G	8346134.68	8346134.82	8346134.97	0.0281	0.0123
Mercury	18139-01-31 00:00 G	8346223.34	8346223.50	8346223.65	0.0280	0.0012
Mercury	18139-04-29 15:36 G	8346312.01	8346312.15	8346312.29	0.0280	0.0101
Moon	18139-05-17 07:55 G	8346329.60	8346329.83	8346330.08	0.0280	0.0105
Earth	18139-05-17 09:21 G	8346329.68	8346329.89	8346330.12	0.0280	0.0121 *
Mercury	18139-07-27 06:57 G	8346400.69	8346400.79	8346400.89	0.0280	0.0209
Venus	18151-01-21 00:14 G	8350596.41	8350596.51	8350596.62	0.0276	0.0238
Venus	18151-09-07 08:52 G	8350825.67	8350825.87	8350826.09	0.0276	0.0039
Venus	18152-04-23 17:45 G	8351055.08	8351055.24	8351055.42	0.0277	0.0163
Mercury	18153-08-14 03:50 G	8351532.60	8351532.66	8351532.73	0.0278	0.0244
Mercury	18153-11-10 18:14 G	8351621.14	8351621.26	8351621.39	0.0278	0.0142
Mercury	18154-02-07 09:07 G	8351709.73	8351709.88	8351710.03	0.0279	0.0037
Mercury	18154-05-07 00:14 G	8351798.36	8351798.51	8351798.66	0.0279	0.0072
Mercury	18154-08-03 15:36 G	8351887.04	8351887.15	8351887.27	0.0279	0.0183
Moon	18154-11-20 00:14 G	8351995.28	8351995.51	8351995.76	0.0279	0.0066
Earth	18154-11-20 03:36 G	8351995.42	8351995.65	8351995.89	0.0279	0.0073 *
Venus	18165-07-06 14:52 G	8355877.05	8355877.12	8355877.22	0.0283	0.0258
Venus	18166-02-21 06:14 G	8356106.55	8356106.76	8356106.97	0.0282	0.0042
Venus	18166-10-08 20:38 G	8356336.20	8356336.36	8356336.53	0.0282	0.0174
Mercury	18168-03-22 06:57 G	8356866.67	8356866.79	8356866.92	0.0280	0.0167
Mercury	18168-06-18 23:16 G	8356955.32	8356955.47	8356955.63	0.0280	0.0053
Mercury	18168-09-15 15:07 G	8357043.98	8357044.13	8357044.29	0.0280	0.0060
Mercury	18168-12-13 06:43 G	8357132.66	8357132.78	8357132.90	0.0280	0.0168
Mercury	18169-03-11 21:50 G	8357221.38	8357221.41	8357221.44	0.0279	0.0274
Earth	18169-05-23 21:21 G	8357294.17	8357294.39	8357294.61	0.0279	0.0129
Moon	18169-05-24 01:12 G	8357294.34	8357294.55	8357294.77	0.0279	0.0143 *

Mars	18174-02-21 18:57 G	8359029.04	8359029.29	8359029.56	0.0275	0.0076
Venus	18180-08-02 03:36 G	8361382.52	8361382.65	8361382.79	0.0276	0.0214
Venus	18181-03-19 12:28 G	8361611.81	8361612.02	8361612.24	0.0277	0.0015
Venus	18181-11-03 21:36 G	8361841.26	8361841.40	8361841.57	0.0277	0.0189
Mercury	18183-01-01 05:16 G	8362264.70	8362264.72	8362264.74	0.0278	0.0274
Mercury	18183-03-30 19:40 G	8362353.20	8362353.32	8362353.44	0.0278	0.0173
Mercury	18183-06-27 10:19 G	8362441.79	8362441.93	8362442.08	0.0279	0.0068
Mercury	18183-09-24 01:26 G	8362530.41	8362530.56	8362530.71	0.0279	0.0040
Earth	18183-11-14 20:24 G	8362582.14	8362582.35	8362582.57	0.0279	0.0128
Moon	18183-11-14 23:45 G	8362582.28	8362582.49	8362582.71	0.0279	0.0130 *
Mercury	18183-12-21 16:48 G	8362619.08	8362619.20	8362619.34	0.0279	0.0151
Mercury	18184-03-19 08:38 G	8362707.82	8362707.86	8362707.91	0.0279	0.0264
Venus	18195-01-17 01:12 G	8366663.43	8366663.55	8366663.69	0.0283	0.0222
Venus	18195-09-03 16:33 G	8366892.98	8366893.19	8366893.40	0.0283	0.0005
Venus	18196-04-20 06:57 G	8367122.65	8367122.79	8367122.93	0.0282	0.0210
Mercury	18197-08-09 09:50 G	8367598.79	8367598.91	8367599.02	0.0281	0.0189
Mercury	18197-11-06 02:09 G	8367687.44	8367687.59	8367687.74	0.0281	0.0074
Mercury	18198-02-02 18:00 G	8367776.10	8367776.25	8367776.41	0.0280	0.0040
Mercury	18198-05-02 09:36 G	8367864.77	8367864.90	8367865.03	0.0280	0.0149
Moon	18198-05-18 14:09 G	8367880.85	8367881.09	8367881.33	0.0280	0.0048
Earth	18198-05-18 18:00 G	8367881.01	8367881.25	8367881.49	0.0280	0.0062 *
Mercury	18198-07-30 00:43 G	8367953.48	8367953.53	8367953.60	0.0280	0.0255
Venus	18210-02-13 09:21 G	8372168.74	8372168.89	8372169.05	0.0276	0.0187
Venus	18210-09-30 18:00 G	8372398.04	8372398.25	8372398.46	0.0276	0.0012
Venus	18211-05-18 02:52 G	8372627.49	8372627.62	8372627.76	0.0277	0.0214
Mercury	18212-08-17 20:52 G	8373085.27	8373085.37	8373085.48	0.0278	0.0204
Mercury	18212-11-14 11:31 G	8373173.84	8373173.98	8373174.12	0.0278	0.0100
Mercury	18213-02-11 02:24 G	8373262.45	8373262.60	8373262.75	0.0279	0.0007
Mercury	18213-05-10 17:45 G	8373351.10	8373351.24	8373351.38	0.0279	0.0116
Mercury	18213-08-07 09:21 G	8373439.80	8373439.89	8373439.98	0.0279	0.0228

Moon	18213-11-22 06:28 G	8373546.56	8373546.77	8373546.99	0.0280	0.0118
Earth	18213-11-22 08:52 G	8373546.66	8373546.87	8373547.09	0.0280	0.0126 *
Mars	18218-05-28 08:09 G	8375194.52	8375194.84	8375195.16	0.0284	0.0003
Venus	18224-07-30 02:24 G	8377449.46	8377449.60	8377449.75	0.0283	0.0202
Venus	18225-03-16 17:31 G	8377679.02	8377679.23	8377679.44	0.0282	0.0015
Venus	18225-11-01 07:55 G	8377908.71	8377908.83	8377908.95	0.0282	0.0229
Mercury	18226-12-28 08:38 G	8378330.78	8378330.86	8378330.95	0.0280	0.0235
Mercury	18227-03-27 01:12 G	8378419.41	8378419.55	8378419.70	0.0280	0.0119
Earth	18227-05-13 21:50 G	8378467.40	8378467.41	8378467.44	0.0280	0.0278
Moon	18227-05-14 01:26 G	8378467.49	8378467.56	8378467.65	0.0280	0.0263
Mercury	18227-06-23 17:31 G	8378508.07	8378508.23	8378508.38	0.0280	0.0006
Mercury	18227-09-20 09:07 G	8378596.74	8378596.88	8378597.03	0.0280	0.0106
Mercury	18227-12-18 00:28 G	8378685.43	8378685.52	8378685.62	0.0279	0.0213
Earth	18228-05-26 04:48 G	8378845.53	8378845.70	8378845.89	0.0279	0.0186
Moon	18228-05-26 05:31 G	8378845.56	8378845.73	8378845.92	0.0279	0.0195 *
Venus	18239-08-26 11:02 G	8382954.80	8382954.96	8382955.14	0.0276	0.0166
Venus	18240-04-11 19:55 G	8383184.12	8383184.33	8383184.54	0.0277	0.0034
Venus	18240-11-27 05:02 G	8383413.62	8383413.71	8383413.83	0.0277	0.0236
Mercury	18242-01-04 21:36 G	8383817.33	8383817.40	8383817.48	0.0278	0.0238
Mercury	18242-04-03 12:14 G	8383905.88	8383906.01	8383906.14	0.0278	0.0135
Mercury	18242-07-01 03:07 G	8383994.48	8383994.63	8383994.78	0.0279	0.0029
Mercury	18242-09-27 18:14 G	8384083.11	8384083.26	8384083.41	0.0279	0.0080
Earth	18242-11-16 22:48 G	8384133.21	8384133.45	8384133.68	0.0279	0.0079
Moon	18242-11-17 00:57 G	8384133.30	8384133.54	8384133.78	0.0279	0.0085 *
Mercury	18242-12-25 09:50 G	8384171.80	8384171.91	8384172.02	0.0279	0.0191
Venus	18254-02-09 11:45 G	8388235.82	8388235.99	8388236.16	0.0284	0.0167
Venus	18254-09-27 03:07 G	8388465.42	8388465.63	8388465.83	0.0283	0.0050
Venus	18255-05-14 17:16 G	8388695.16	8388695.22	8388695.30	0.0282	0.0264
Mercury	18256-05-16 11:16 G	8389062.91	8389062.97	8389063.03	0.0281	0.0258
Mercury	18256-08-13 03:50 G	8389151.52	8389151.66	8389151.80	0.0281	0.0141

Mercury	18256-11-09 20:09 G	8389240.18	8389240.34	8389240.49	0.0281	0.0027
Mercury	18257-02-06 11:45 G	8389328.85	8389328.99	8389329.14	0.0280	0.0085
Mercury	18257-05-06 03:21 G	8389417.53	8389417.64	8389417.75	0.0280	0.0193
Moon	18257-05-21 00:28 G	8389432.28	8389432.52	8389432.76	0.0280	0.0006
Earth	18257-05-21 00:57 G	8389432.29	8389432.54	8389432.79	0.0280	0.0005 *
Mars	18262-07-20 00:14 G	8391318.29	8391318.51	8391318.75	0.0275	0.0144
Venus	18269-03-07 17:02 G	8393741.03	8393741.21	8393741.40	0.0275	0.0140
Venus	18269-10-23 01:40 G	8393970.37	8393970.57	8393970.78	0.0276	0.0061
Venus	18270-06-09 10:33 G	8394199.89	8394199.94	8394200.02	0.0277	0.0262
Mercury	18271-05-24 23:16 G	8394549.44	8394549.47	8394549.51	0.0278	0.0267
Mercury	18271-08-21 13:40 G	8394637.95	8394638.07	8394638.19	0.0278	0.0166
Earth	18271-11-11 14:52 G	8394720.10	8394720.12	8394720.16	0.0278	0.0276
Mercury	18271-11-18 04:19 G	8394726.53	8394726.68	8394726.83	0.0278	0.0061
Mercury	18272-02-14 19:26 G	8394815.15	8394815.31	8394815.46	0.0279	0.0047
Mercury	18272-05-13 10:33 G	8394903.82	8394903.94	8394904.07	0.0279	0.0157
Mercury	18272-08-10 02:24 G	8394992.57	8394992.60	8394992.64	0.0279	0.0269
Earth	18272-11-23 11:45 G	8395097.81	8395097.99	8395098.19	0.0280	0.0176
Moon	18272-11-23 14:09 G	8395097.90	8395098.09	8395098.29	0.0280	0.0164 *
Venus	18283-08-22 12:28 G	8399021.85	8399022.02	8399022.21	0.0283	0.0148
Venus	18284-04-08 03:36 G	8399251.44	8399251.65	8399251.86	0.0282	0.0069
Mercury	18285-12-31 02:38 G	8399883.50	8399883.61	8399883.73	0.0280	0.0188
Jupiter	18286-02-28 02:24 G	8399942.23	8399942.60	8399942.98	0.0280	0.0148
Mercury	18286-03-29 19:12 G	8399972.15	8399972.30	8399972.45	0.0280	0.0073
Earth	18286-05-15 03:50 G	8400018.52	8400018.66	8400018.82	0.0280	0.0223
Moon	18286-05-15 04:19 G	8400018.52	8400018.68	8400018.85	0.0280	0.0210 *
Mercury	18286-06-26 11:02 G	8400060.81	8400060.96	8400061.12	0.0280	0.0040
Mercury	18286-09-23 02:38 G	8400149.48	8400149.61	8400149.74	0.0280	0.0150
Mercury	18286-12-20 17:45 G	8400238.19	8400238.24	8400238.30	0.0279	0.0256
Moon	18287-05-28 06:57 G	8400396.68	8400396.79	8400396.92	0.0279	0.0244
Earth	18287-05-28 10:48 G	8400396.82	8400396.95	8400397.07	0.0279	0.0239 *

Venus	18298-09-17 17:45 G	8404527.06	8404527.24	8404527.44	0.0276	0.0120
Venus	18299-05-05 02:38 G	8404756.41	8404756.61	8404756.81	0.0277	0.0081
Mercury	18301-01-08 13:55 G	8405369.98	8405370.08	8405370.18	0.0278	0.0203
Mercury	18301-04-07 04:33 G	8405458.55	8405458.69	8405458.83	0.0278	0.0099
Mercury	18301-07-04 19:26 G	8405547.16	8405547.31	8405547.46	0.0279	0.0008
Mercury	18301-10-01 10:48 G	8405635.81	8405635.95	8405636.09	0.0279	0.0117
Moon	18301-11-18 20:52 G	8405684.12	8405684.37	8405684.61	0.0279	0.0044
Earth	18301-11-18 23:45 G	8405684.24	8405684.49	8405684.73	0.0279	0.0032 *
Mercury	18301-12-29 02:24 G	8405724.51	8405724.60	8405724.69	0.0279	0.0229
Mars	18306-10-22 18:43 G	8407482.97	8407483.28	8407483.60	0.0284	0.0051
Venus	18313-03-04 20:24 G	8409808.17	8409808.35	8409808.55	0.0284	0.0117
Venus	18313-10-20 11:45 G	8410037.79	8410037.99	8410038.19	0.0283	0.0102
Mercury	18315-05-21 04:48 G	8410615.60	8410615.70	8410615.80	0.0281	0.0214
Mercury	18315-08-17 21:21 G	8410704.24	8410704.39	8410704.54	0.0281	0.0098
Mercury	18315-11-14 13:26 G	8410792.90	8410793.06	8410793.21	0.0281	0.0016
Mercury	18316-02-11 05:02 G	8410881.58	8410881.71	8410881.85	0.0280	0.0127
Mercury	18316-05-09 20:24 G	8410970.27	8410970.35	8410970.43	0.0280	0.0234
Earth	18316-05-23 05:31 G	8410983.48	8410983.73	8410983.97	0.0280	0.0048
Moon	18316-05-23 08:38 G	8410983.63	8410983.86	8410984.10	0.0280	0.0058 *
Venus	18328-03-31 00:00 G	8415313.30	8415313.50	8415313.70	0.0275	0.0093
Venus	18328-11-15 08:38 G	8415542.66	8415542.86	8415543.05	0.0276	0.0107
Mercury	18330-05-28 15:21 G	8416102.07	8416102.14	8416102.23	0.0278	0.0233
Mercury	18330-08-25 06:00 G	8416190.62	8416190.75	8416190.88	0.0278	0.0130
Earth	18330-11-13 16:04 G	8416271.04	8416271.17	8416271.32	0.0278	0.0228
Moon	18330-11-13 18:43 G	8416271.17	8416271.28	8416271.42	0.0278	0.0238 *
Mercury	18330-11-21 20:38 G	8416279.21	8416279.36	8416279.52	0.0278	0.0026
Mercury	18331-02-18 11:45 G	8416367.85	8416367.99	8416368.14	0.0279	0.0084
Mercury	18331-05-18 03:21 G	8416456.53	8416456.64	8416456.75	0.0279	0.0195
Earth	18331-11-26 13:12 G	8416648.91	8416649.05	8416649.20	0.0280	0.0224
Moon	18331-11-26 16:19 G	8416649.03	8416649.18	8416649.36	0.0280	0.0209 *

Venus	18342-09-14 21:50 G	8420594.21	8420594.41	8420594.61	0.0283	0.0096
Venus	18343-05-02 12:43 G	8420823.84	8420824.03	8420824.22	0.0282	0.0121
Mercury	18344-10-07 03:36 G	8421347.60	8421347.65	8421347.71	0.0281	0.0261
Mercury	18345-01-03 20:24 G	8421436.21	8421436.35	8421436.48	0.0280	0.0143
Mercury	18345-04-02 12:43 G	8421524.87	8421525.03	8421525.18	0.0280	0.0029
Moon	18345-05-17 05:31 G	8421569.53	8421569.73	8421569.95	0.0280	0.0157
Earth	18345-05-17 08:52 G	8421569.68	8421569.87	8421570.08	0.0280	0.0169 *
Mercury	18345-06-30 04:33 G	8421613.54	8421613.69	8421613.83	0.0280	0.0083
Mercury	18345-09-26 19:55 G	8421702.22	8421702.33	8421702.44	0.0280	0.0191
Mars	18350-12-14 02:52 G	8423606.42	8423606.62	8423606.84	0.0275	0.0172
Venus	18357-02-23 15:50 G	8425870.13	8425870.16	8425870.19	0.0275	0.0272
Venus	18357-10-10 23:45 G	8426099.29	8426099.49	8426099.70	0.0276	0.0075
Venus	18358-05-28 08:24 G	8426328.67	8426328.85	8426329.04	0.0276	0.0126
Mercury	18359-10-15 15:36 G	8426834.12	8426834.15	8426834.18	0.0278	0.0272
Mercury	18360-01-12 06:00 G	8426922.63	8426922.75	8426922.86	0.0278	0.0170
Mercury	18360-04-09 20:24 G	8427011.21	8427011.35	8427011.50	0.0278	0.0067
Mercury	18360-07-07 11:31 G	8427099.83	8427099.98	8427100.13	0.0279	0.0042
Mercury	18360-10-04 02:52 G	8427188.49	8427188.62	8427188.75	0.0279	0.0152
Moon	18360-11-19 20:09 G	8427235.10	8427235.34	8427235.58	0.0279	0.0004
Earth	18360-11-19 23:02 G	8427235.21	8427235.46	8427235.70	0.0279	0.0013 *
Mercury	18360-12-31 18:28 G	8427277.23	8427277.27	8427277.32	0.0279	0.0265
Venus	18372-03-27 04:33 G	8431380.48	8431380.69	8431380.90	0.0284	0.0067
Venus	18372-11-11 19:40 G	8431610.15	8431610.32	8431610.50	0.0283	0.0151
Mercury	18374-05-23 22:04 G	8432168.29	8432168.42	8432168.54	0.0281	0.0173
Mercury	18374-08-20 14:24 G	8432256.95	8432257.10	8432257.26	0.0281	0.0057
Mercury	18374-11-17 06:28 G	8432345.62	8432345.77	8432345.92	0.0281	0.0056
Mercury	18375-02-13 22:04 G	8432434.30	8432434.42	8432434.54	0.0280	0.0166
Mercury	18375-05-13 13:12 G	8432523.02	8432523.05	8432523.08	0.0280	0.0272
Earth	18375-05-25 08:38 G	8432534.63	8432534.86	8432535.09	0.0280	0.0100
Moon	18375-05-25 11:16 G	8432534.73	8432534.97	8432535.20	0.0280	0.0108 *

Venus	18386-09-05 22:33 G	8436656.35	8436656.44	8436656.54	0.0275	0.0244
Venus	18387-04-23 06:28 G	8436885.57	8436885.77	8436885.98	0.0275	0.0047
Venus	18387-12-08 14:52 G	8437114.95	8437115.12	8437115.30	0.0276	0.0153
Mercury	18389-05-31 07:40 G	8437654.72	8437654.82	8437654.93	0.0278	0.0198
Mercury	18389-08-27 22:19 G	8437743.29	8437743.43	8437743.57	0.0278	0.0095
Earth	18389-11-14 17:02 G	8437822.02	8437822.21	8437822.39	0.0278	0.0181
Moon	18389-11-14 19:40 G	8437822.15	8437822.32	8437822.51	0.0278	0.0190 *
Mercury	18389-11-24 13:12 G	8437831.89	8437832.05	8437832.20	0.0278	0.0013
Mercury	18390-02-21 04:19 G	8437920.54	8437920.68	8437920.82	0.0279	0.0121
Mercury	18390-05-20 19:55 G	8438009.25	8438009.33	8438009.41	0.0279	0.0232
Moon	18390-11-27 12:14 G	8438199.93	8438200.01	8438200.13	0.0279	0.0255
Earth	18390-11-27 13:40 G	8438200.02	8438200.07	8438200.14	0.0279	0.0271 *
Mars	18395-03-17 16:48 G	8439770.90	8439771.20	8439771.51	0.0284	0.0093
Venus	18401-02-19 13:55 G	8441937.02	8441937.08	8441937.17	0.0284	0.0265
Venus	18401-10-07 05:45 G	8442166.54	8442166.74	8442166.96	0.0283	0.0047
Venus	18402-05-24 20:52 G	8442396.20	8442396.37	8442396.54	0.0282	0.0170
Mercury	18403-10-10 20:52 G	8442900.28	8442900.37	8442900.48	0.0281	0.0219
Mercury	18404-01-07 13:40 G	8442988.92	8442989.07	8442989.21	0.0280	0.0102
Mercury	18404-04-05 05:45 G	8443077.58	8443077.74	8443077.89	0.0280	0.0012
Moon	18404-05-18 10:04 G	8443120.70	8443120.92	8443121.15	0.0280	0.0107
Earth	18404-05-18 12:28 G	8443120.80	8443121.02	8443121.25	0.0280	0.0117 *
Mercury	18404-07-02 21:21 G	8443166.26	8443166.39	8443166.53	0.0280	0.0123
Mercury	18404-09-29 12:43 G	8443254.95	8443255.03	8443255.12	0.0280	0.0230
Venus	18416-03-17 21:50 G	8447442.29	8447442.41	8447442.53	0.0275	0.0227
Venus	18416-11-02 05:45 G	8447671.53	8447671.74	8447671.95	0.0276	0.0030
Venus	18417-06-19 14:09 G	8447900.93	8447901.09	8447901.27	0.0276	0.0171
Mercury	18418-10-18 07:26 G	8448386.74	8448386.81	8448386.88	0.0278	0.0240
Mercury	18419-01-14 21:50 G	8448475.28	8448475.41	8448475.54	0.0278	0.0138
Mercury	18419-04-13 12:28 G	8448563.87	8448564.02	8448564.17	0.0278	0.0033
Mercury	18419-07-11 03:36 G	8448652.50	8448652.65	8448652.80	0.0279	0.0076

Mercury	18419-10-07 18:57 G	8448741.18	8448741.29	8448741.41	0.0279	0.0187
Earth	18419-11-21 21:50 G	8448786.17	8448786.41	8448786.65	0.0279	0.0058
Moon	18419-11-21 23:16 G	8448786.24	8448786.47	8448786.71	0.0279	0.0044 *
Venus	18430-09-01 19:26 G	8452723.21	8452723.31	8452723.44	0.0284	0.0239
Venus	18431-04-19 11:45 G	8452952.78	8452952.99	8452953.20	0.0284	0.0019
Venus	18431-12-05 02:52 G	8453182.48	8453182.62	8453182.78	0.0283	0.0199
Mercury	18433-02-26 22:19 G	8453632.36	8453632.43	8453632.50	0.0282	0.0251
Mercury	18433-05-26 14:52 G	8453720.99	8453721.12	8453721.26	0.0281	0.0133
Mercury	18433-08-23 07:12 G	8453809.65	8453809.80	8453809.96	0.0281	0.0019
Mercury	18433-11-19 23:16 G	8453898.32	8453898.47	8453898.61	0.0281	0.0095
Mercury	18434-02-16 14:38 G	8453987.01	8453987.11	8453987.22	0.0281	0.0204
Moon	18434-05-26 09:07 G	8454085.67	8454085.88	8454086.09	0.0280	0.0154
Earth	18434-05-26 10:48 G	8454085.75	8454085.95	8454086.17	0.0280	0.0150 *
Mars	18439-05-10 03:36 G	8455895.51	8455895.65	8455895.79	0.0275	0.0234
Venus	18445-09-28 04:48 G	8458228.57	8458228.70	8458228.86	0.0275	0.0200
Venus	18446-05-15 12:57 G	8458457.83	8458458.04	8458458.25	0.0275	0.0002
Venus	18446-12-30 21:21 G	8458687.25	8458687.39	8458687.54	0.0276	0.0198
Mercury	18448-03-06 09:36 G	8459118.86	8459118.90	8459118.94	0.0277	0.0265
Mercury	18448-06-02 23:45 G	8459207.37	8459207.49	8459207.62	0.0277	0.0164
Mercury	18448-08-30 14:24 G	8459295.95	8459296.10	8459296.25	0.0278	0.0060
Moon	18448-11-15 16:04 G	8459372.96	8459373.17	8459373.39	0.0278	0.0145
Earth	18448-11-15 17:02 G	8459373.01	8459373.21	8459373.43	0.0278	0.0134 *
Mercury	18448-11-27 05:16 G	8459384.57	8459384.72	8459384.88	0.0278	0.0048
Mercury	18449-02-23 20:38 G	8459473.23	8459473.36	8459473.49	0.0278	0.0157
Mercury	18449-05-23 12:14 G	8459561.98	8459562.01	8459562.05	0.0279	0.0269
Venus	18460-03-13 22:04 G	8463509.28	8463509.42	8463509.56	0.0284	0.0215
Venus	18460-10-29 13:40 G	8463738.86	8463739.07	8463739.29	0.0283	0.0007
Venus	18461-06-16 04:48 G	8463968.57	8463968.70	8463968.83	0.0283	0.0220
Mercury	18462-10-13 14:09 G	8464452.97	8464453.09	8464453.22	0.0281	0.0177
Mercury	18463-01-10 06:43 G	8464541.63	8464541.78	8464541.93	0.0281	0.0061

Mercury	18463-04-08 22:48 G	8464630.30	8464630.45	8464630.60	0.0280	0.0052
Earth	18463-05-20 15:36 G	8464671.91	8464672.15	8464672.39	0.0280	0.0065
Moon	18463-05-20 18:00 G	8464672.01	8464672.25	8464672.48	0.0280	0.0058 *
Mercury	18463-07-06 14:24 G	8464718.98	8464719.10	8464719.22	0.0280	0.0162
Mercury	18463-10-03 05:31 G	8464807.70	8464807.73	8464807.77	0.0280	0.0269
Venus	18475-04-10 03:50 G	8469014.51	8469014.66	8469014.83	0.0275	0.0183
Venus	18475-11-25 12:00 G	8469243.79	8469244.00	8469244.21	0.0276	0.0015
Venus	18476-07-11 20:24 G	8469473.23	8469473.35	8469473.49	0.0276	0.0215
Mercury	18477-10-20 23:31 G	8469939.38	8469939.48	8469939.58	0.0278	0.0207
Mercury	18478-01-17 13:55 G	8470027.94	8470028.08	8470028.22	0.0278	0.0104
Mercury	18478-04-16 04:33 G	8470116.54	8470116.69	8470116.85	0.0278	0.0007
Mercury	18478-07-13 19:40 G	8470205.18	8470205.32	8470205.47	0.0279	0.0111
Mercury	18478-10-10 11:16 G	8470293.88	8470293.97	8470294.06	0.0279	0.0222
Earth	18478-11-22 21:21 G	8470337.17	8470337.39	8470337.62	0.0279	0.0104
Moon	18478-11-23 00:57 G	8470337.31	8470337.54	8470337.77	0.0279	0.0089 *
Mars	18483-08-10 06:43 G	8472058.49	8472058.78	8472059.08	0.0284	0.0113
Venus	18489-09-24 02:24 G	8474295.46	8474295.60	8474295.77	0.0284	0.0192
Venus	18490-05-11 18:43 G	8474525.07	8474525.28	8474525.49	0.0284	0.0029
Venus	18490-12-27 09:50 G	8474754.82	8474754.91	8474755.02	0.0283	0.0247
Mercury	18492-03-01 15:07 G	8475185.03	8475185.13	8475185.24	0.0282	0.0212
Moon	18492-05-14 00:43 G	8475258.43	8475258.53	8475258.63	0.0282	0.0258
Earth	18492-05-14 03:36 G	8475258.57	8475258.65	8475258.72	0.0282	0.0267 *
Mercury	18492-05-29 07:40 G	8475273.68	8475273.82	8475273.97	0.0282	0.0095
Mercury	18492-08-26 00:00 G	8475362.35	8475362.50	8475362.66	0.0281	0.0021
Mercury	18492-11-22 15:50 G	8475451.02	8475451.16	8475451.30	0.0281	0.0132
Mercury	18493-02-19 07:12 G	8475539.73	8475539.80	8475539.88	0.0281	0.0240
Moon	18493-05-27 08:52 G	8475636.72	8475636.87	8475637.05	0.0280	0.0203
Earth	18493-05-27 12:28 G	8475636.86	8475637.02	8475637.21	0.0280	0.0201 *
Mars	18497-08-17 12:14 G	8477179.91	8477180.01	8477180.12	0.0275	0.0252
Venus	18504-10-21 11:45 G	8479800.82	8479800.99	8479801.17	0.0275	0.0154

Venus	18505-06-07 19:40 G	8480030.12	8480030.32	8480030.53	0.0275	0.0045
Venus	18506-01-23 04:04 G	8480259.58	8480259.67	8480259.77	0.0276	0.0244
Mercury	18507-03-11 01:40 G	8480671.50	8480671.57	8480671.66	0.0277	0.0231
Mercury	18507-06-07 16:04 G	8480760.04	8480760.17	8480760.31	0.0277	0.0129
Mercury	18507-09-04 06:43 G	8480848.63	8480848.78	8480848.94	0.0278	0.0025
Moon	18507-11-18 14:38 G	8480923.88	8480924.11	8480924.34	0.0278	0.0100
Earth	18507-11-18 18:00 G	8480924.03	8480924.25	8480924.49	0.0278	0.0086 *
Mercury	18507-12-01 21:50 G	8480937.26	8480937.41	8480937.56	0.0278	0.0084
Mercury	18508-02-28 13:12 G	8481025.94	8481026.05	8481026.16	0.0278	0.0194
Venus	18519-04-07 06:00 G	8485081.58	8485081.75	8485081.92	0.0284	0.0166
Venus	18519-11-22 21:36 G	8485311.19	8485311.40	8485311.61	0.0283	0.0053
Venus	18520-07-09 12:28 G	8485540.97	8485541.02	8485541.10	0.0283	0.0269
Mercury	18521-07-20 14:38 G	8485917.05	8485917.11	8485917.18	0.0281	0.0254
Mercury	18521-10-17 07:26 G	8486005.67	8486005.81	8486005.95	0.0281	0.0136
Mercury	18522-01-13 23:45 G	8486094.34	8486094.49	8486094.65	0.0281	0.0021
Mercury	18522-04-12 15:36 G	8486183.01	8486183.15	8486183.30	0.0280	0.0093
Earth	18522-05-22 18:43 G	8486223.04	8486223.28	8486223.53	0.0280	0.0013
Moon	18522-05-22 22:19 G	8486223.18	8486223.43	8486223.68	0.0280	0.0009 *
Mercury	18522-07-10 07:12 G	8486271.70	8486271.80	8486271.91	0.0280	0.0201
Mars	18527-10-04 05:45 G	8488183.66	8488183.74	8488183.82	0.0274	0.0261
Venus	18534-05-03 11:02 G	8490586.78	8490586.96	8490587.15	0.0275	0.0136
Venus	18534-12-18 18:57 G	8490816.08	8490816.29	8490816.50	0.0276	0.0062
Venus	18535-08-05 03:21 G	8491045.58	8491045.64	8491045.72	0.0276	0.0261
Mercury	18536-07-28 01:26 G	8491403.54	8491403.56	8491403.59	0.0277	0.0273
Mercury	18536-10-24 15:36 G	8491492.04	8491492.15	8491492.27	0.0278	0.0172
Mercury	18537-01-21 06:14 G	8491580.61	8491580.76	8491580.90	0.0278	0.0068
Mercury	18537-04-19 21:07 G	8491669.23	8491669.38	8491669.53	0.0278	0.0039
Mercury	18537-07-17 12:14 G	8491757.88	8491758.01	8491758.14	0.0278	0.0148
Mercury	18537-10-14 03:50 G	8491846.61	8491846.66	8491846.72	0.0279	0.0260
Earth	18537-11-24 22:04 G	8491888.22	8491888.42	8491888.63	0.0279	0.0151

Moon	18537-11-24 22:33 G	8491888.22	8491888.44	8491888.66	0.0279	0.0137 *
Venus	18548-10-17 09:50 G	8495867.73	8495867.91	8495868.10	0.0284	0.0143
Venus	18549-06-04 01:55 G	8496097.38	8496097.58	8496097.79	0.0284	0.0078
Mercury	18551-03-06 08:09 G	8496737.72	8496737.84	8496737.97	0.0282	0.0172
Moon	18551-05-17 02:38 G	8496809.45	8496809.61	8496809.77	0.0282	0.0212
Earth	18551-05-17 05:31 G	8496809.58	8496809.73	8496809.89	0.0282	0.0216 *
Mercury	18551-06-03 00:43 G	8496826.38	8496826.53	8496826.68	0.0282	0.0055
Mercury	18551-08-30 16:48 G	8496915.05	8496915.20	8496915.35	0.0281	0.0059
Mercury	18551-11-27 08:24 G	8497003.73	8497003.85	8497003.98	0.0281	0.0170
Mercury	18552-02-23 23:45 G	8497092.48	8497092.49	8497092.51	0.0281	0.0278
Earth	18552-05-29 15:07 G	8497188.03	8497188.13	8497188.24	0.0280	0.0251
Moon	18552-05-29 15:21 G	8497188.04	8497188.14	8497188.25	0.0280	0.0249 *
Venus	18563-11-13 19:26 G	8501373.12	8501373.31	8501373.51	0.0275	0.0106
Venus	18564-06-30 03:21 G	8501602.44	8501602.64	8501602.84	0.0275	0.0092
Mercury	18566-03-13 18:28 G	8502224.16	8502224.27	8502224.37	0.0277	0.0194
Mercury	18566-06-10 08:52 G	8502312.72	8502312.87	8502313.01	0.0277	0.0092
Mercury	18566-09-06 23:31 G	8502401.33	8502401.48	8502401.63	0.0278	0.0015
Moon	18566-11-19 19:55 G	8502475.10	8502475.33	8502475.56	0.0278	0.0050
Earth	18566-11-19 20:38 G	8502475.12	8502475.36	8502475.60	0.0278	0.0035 *
Mercury	18566-12-04 14:38 G	8502489.97	8502490.11	8502490.25	0.0278	0.0123
Mercury	18567-03-03 06:00 G	8502578.67	8502578.75	8502578.84	0.0278	0.0234
Mars	18572-01-04 17:16 G	8504346.98	8504347.22	8504347.48	0.0284	0.0177
Venus	18578-04-29 14:24 G	8506653.91	8506654.10	8506654.30	0.0284	0.0116
Venus	18578-12-15 06:14 G	8506883.56	8506883.76	8506883.96	0.0283	0.0103
Mercury	18580-07-23 07:55 G	8507469.73	8507469.83	8507469.94	0.0282	0.0212
Mercury	18580-10-20 00:43 G	8507558.38	8507558.53	8507558.68	0.0281	0.0094
Mercury	18581-01-16 17:02 G	8507647.05	8507647.21	8507647.36	0.0281	0.0021
Mercury	18581-04-15 08:52 G	8507735.73	8507735.87	8507736.00	0.0281	0.0133
Moon	18581-05-23 21:36 G	8507774.15	8507774.40	8507774.66	0.0280	0.0039
Earth	18581-05-23 22:48 G	8507774.20	8507774.45	8507774.69	0.0280	0.0040 *

Mercury	18581-07-13 00:14 G	8507824.44	8507824.51	8507824.59	0.0280	0.0241
Mars	18586-01-11 18:43 G	8509468.13	8509468.28	8509468.45	0.0275	0.0220
Venus	18593-05-25 19:12 G	8512159.10	8512159.30	8512159.50	0.0275	0.0088
Venus	18594-01-10 03:07 G	8512388.43	8512388.63	8512388.82	0.0275	0.0110
Mercury	18595-07-31 18:14 G	8512956.18	8512956.26	8512956.33	0.0277	0.0236
Mercury	18595-10-28 08:24 G	8513044.72	8513044.85	8513044.98	0.0277	0.0134
Earth	18595-11-14 05:45 G	8513061.63	8513061.74	8513061.86	0.0277	0.0243
Moon	18595-11-14 06:00 G	8513061.66	8513061.75	8513061.85	0.0277	0.0257 *
Mercury	18596-01-24 23:02 G	8513133.31	8513133.46	8513133.61	0.0278	0.0030
Mercury	18596-04-22 13:55 G	8513221.93	8513222.08	8513222.23	0.0278	0.0078
Mercury	18596-07-20 05:16 G	8513310.61	8513310.72	8513310.83	0.0278	0.0188
Moon	18596-11-25 21:21 G	8513439.22	8513439.39	8513439.58	0.0279	0.0187
Earth	18596-11-26 00:43 G	8513439.37	8513439.53	8513439.71	0.0279	0.0202 *
Venus	18607-11-10 17:31 G	8517440.04	8517440.23	8517440.44	0.0284	0.0094
Venus	18608-06-27 09:50 G	8517669.72	8517669.91	8517670.10	0.0284	0.0127
Mercury	18609-12-11 08:24 G	8518201.78	8518201.85	8518201.92	0.0282	0.0250
Mercury	18610-03-10 01:12 G	8518290.41	8518290.55	8518290.69	0.0282	0.0131
Earth	18610-05-19 08:24 G	8518360.65	8518360.85	8518361.05	0.0282	0.0164
Moon	18610-05-19 09:36 G	8518360.71	8518360.90	8518361.10	0.0282	0.0164 *
Mercury	18610-06-06 17:45 G	8518379.08	8518379.24	8518379.40	0.0282	0.0015
Mercury	18610-09-03 09:36 G	8518467.76	8518467.90	8518468.05	0.0282	0.0100
Mercury	18610-12-01 01:12 G	8518556.46	8518556.55	8518556.66	0.0281	0.0209
Venus	18622-04-21 20:38 G	8522716.29	8522716.36	8522716.45	0.0274	0.0252
Venus	18622-12-07 04:19 G	8522945.47	8522945.68	8522945.88	0.0275	0.0057
Venus	18623-07-24 12:14 G	8523174.83	8523175.01	8523175.19	0.0275	0.0142
Mercury	18624-12-18 20:52 G	8523688.33	8523688.37	8523688.44	0.0277	0.0256
Mercury	18625-03-17 11:16 G	8523776.85	8523776.97	8523777.10	0.0277	0.0155
Mercury	18625-06-14 01:55 G	8523865.43	8523865.58	8523865.73	0.0277	0.0051
Mercury	18625-09-10 16:33 G	8523954.05	8523954.19	8523954.35	0.0278	0.0056
Earth	18625-11-22 00:43 G	8524026.29	8524026.53	8524026.78	0.0278	0.0019

Moon	18625-11-22 04:19 G	8524026.44	8524026.68	8524026.92	0.0278	0.0002 *
Mercury	18625-12-08 07:55 G	8524042.71	8524042.83	8524042.95	0.0278	0.0165
Mercury	18626-03-06 23:31 G	8524131.47	8524131.48	8524131.49	0.0278	0.0277
Venus	18636-10-05 07:26 G	8527996.80	8527996.81	8527996.84	0.0285	0.0282
Venus	18637-05-23 00:00 G	8528226.29	8528226.50	8528226.70	0.0284	0.0063
Venus	18638-01-07 15:36 G	8528455.98	8528456.15	8528456.33	0.0283	0.0156
Mercury	18639-07-28 01:40 G	8529022.45	8529022.57	8529022.71	0.0282	0.0167
Mercury	18639-10-24 18:28 G	8529111.11	8529111.27	8529111.42	0.0281	0.0050
Mercury	18640-01-21 10:33 G	8529199.79	8529199.94	8529200.09	0.0281	0.0065
Mercury	18640-04-19 02:09 G	8529288.48	8529288.59	8529288.71	0.0281	0.0175
Moon	18640-05-26 00:14 G	8529325.28	8529325.51	8529325.75	0.0281	0.0090
Earth	18640-05-26 04:04 G	8529325.44	8529325.67	8529325.91	0.0281	0.0096 *
Venus	18651-11-01 20:52 G	8533502.27	8533502.37	8533502.49	0.0274	0.0234
Venus	18652-06-18 04:33 G	8533731.48	8533731.69	8533731.90	0.0275	0.0037
Venus	18653-02-02 12:14 G	8533960.85	8533961.01	8533961.19	0.0275	0.0161
Mercury	18654-08-04 11:16 G	8534508.86	8534508.97	8534509.07	0.0277	0.0195
Mercury	18654-11-01 01:40 G	8534597.42	8534597.57	8534597.71	0.0277	0.0093
Moon	18654-11-16 07:12 G	8534612.65	8534612.80	8534612.98	0.0277	0.0205
Earth	18654-11-16 11:02 G	8534612.79	8534612.96	8534613.14	0.0277	0.0188 *
Mercury	18655-01-28 16:19 G	8534686.03	8534686.18	8534686.33	0.0278	0.0013
Mercury	18655-04-27 07:12 G	8534774.67	8534774.80	8534774.94	0.0278	0.0121
Mercury	18655-07-24 22:48 G	8534863.36	8534863.45	8534863.53	0.0278	0.0232
Moon	18655-11-29 03:36 G	8534990.54	8534990.65	8534990.77	0.0279	0.0243
Earth	18655-11-29 05:45 G	8534990.65	8534990.74	8534990.84	0.0279	0.0256 *
Mars	18660-05-30 13:55 G	8536634.88	8536635.08	8536635.31	0.0284	0.0210
Venus	18666-04-17 10:19 G	8538782.85	8538782.93	8538783.02	0.0285	0.0261
Venus	18666-12-03 02:52 G	8539012.42	8539012.62	8539012.84	0.0284	0.0041
Venus	18667-07-20 18:57 G	8539242.13	8539242.29	8539242.46	0.0284	0.0179
Mercury	18668-12-14 02:09 G	8539754.48	8539754.59	8539754.70	0.0282	0.0205
Mercury	18669-03-12 18:43 G	8539843.14	8539843.28	8539843.43	0.0282	0.0087

Earth	18669-05-20 12:57 G	8539911.82	8539912.04	8539912.27	0.0282	0.0110
Moon	18669-05-20 16:33 G	8539911.97	8539912.19	8539912.42	0.0282	0.0111 *
Mercury	18669-06-09 11:02 G	8539931.81	8539931.96	8539932.12	0.0282	0.0030
Mercury	18669-09-06 03:07 G	8540020.49	8540020.63	8540020.76	0.0282	0.0141
Mercury	18669-12-03 18:28 G	8540109.21	8540109.27	8540109.34	0.0281	0.0250
Mars	18674-06-08 20:38 G	8541757.14	8541757.36	8541757.59	0.0276	0.0148
Venus	18681-05-14 06:14 G	8544288.63	8544288.76	8544288.91	0.0274	0.0201
Venus	18681-12-29 13:55 G	8544517.87	8544518.08	8544518.29	0.0275	0.0005
Venus	18682-08-15 21:50 G	8544747.27	8544747.41	8544747.57	0.0275	0.0194
Mercury	18683-12-22 14:24 G	8545241.01	8545241.10	8545241.20	0.0277	0.0213
Mercury	18684-03-20 04:48 G	8545329.56	8545329.70	8545329.84	0.0277	0.0112
Mercury	18684-06-16 19:26 G	8545418.16	8545418.31	8545418.46	0.0277	0.0007
Mercury	18684-09-13 10:19 G	8545506.79	8545506.93	8545507.08	0.0278	0.0101
Earth	18684-11-23 07:12 G	8545577.57	8545577.80	8545578.04	0.0278	0.0074
Moon	18684-11-23 09:21 G	8545577.65	8545577.89	8545578.14	0.0278	0.0059 *
Mercury	18684-12-11 01:40 G	8545595.47	8545595.57	8545595.67	0.0278	0.0211
Venus	18695-10-28 18:00 G	8549569.13	8549569.25	8549569.38	0.0285	0.0228
Venus	18696-06-14 10:19 G	8549798.72	8549798.93	8549799.15	0.0284	0.0010
Venus	18697-01-30 02:09 G	8550028.45	8550028.59	8550028.73	0.0283	0.0210
Mercury	18698-05-03 02:52 G	8550486.54	8550486.62	8550486.71	0.0282	0.0238
Mercury	18698-07-30 19:55 G	8550575.19	8550575.33	8550575.47	0.0282	0.0119
Mercury	18698-10-27 12:14 G	8550663.86	8550664.01	8550664.17	0.0281	0.0005
Mercury	18699-01-24 04:19 G	8550752.54	8550752.68	8550752.82	0.0281	0.0110
Mercury	18699-04-22 19:40 G	8550841.23	8550841.32	8550841.42	0.0281	0.0220
Moon	18699-05-28 09:50 G	8550876.71	8550876.91	8550877.12	0.0281	0.0147
Earth	18699-05-28 10:48 G	8550876.75	8550876.95	8550877.16	0.0281	0.0153 *
Venus	18710-11-25 07:40 G	8555074.67	8555074.82	8555074.98	0.0274	0.0180
Venus	18711-07-12 15:21 G	8555303.92	8555304.14	8555304.35	0.0275	0.0017
Venus	18712-02-26 23:02 G	8555533.33	8555533.46	8555533.60	0.0276	0.0214
Mercury	18713-05-11 14:52 G	8555973.06	8555973.12	8555973.18	0.0277	0.0251

Mercury	18713-08-08 04:48 G	8556061.58	8556061.70	8556061.83	0.0277	0.0151
Mercury	18713-11-04 19:26 G	8556150.16	8556150.31	8556150.46	0.0277	0.0047
Moon	18713-11-18 17:02 G	8556164.01	8556164.21	8556164.41	0.0277	0.0146
Earth	18713-11-18 18:43 G	8556164.07	8556164.28	8556164.50	0.0277	0.0131 *
Mercury	18714-02-01 10:04 G	8556238.78	8556238.92	8556239.07	0.0278	0.0060
Mercury	18714-05-01 01:26 G	8556327.43	8556327.56	8556327.68	0.0278	0.0168
Venus	18725-05-10 20:52 G	8560355.23	8560355.37	8560355.52	0.0285	0.0206
Venus	18725-12-26 13:26 G	8560584.85	8560585.06	8560585.27	0.0284	0.0014
Venus	18726-08-13 05:16 G	8560814.61	8560814.72	8560814.84	0.0284	0.0233
Mercury	18727-09-21 02:52 G	8561218.60	8561218.62	8561218.65	0.0283	0.0279
Mercury	18727-12-18 19:55 G	8561307.21	8561307.33	8561307.47	0.0282	0.0159
Mercury	18728-03-16 12:43 G	8561395.87	8561396.03	8561396.18	0.0282	0.0041
Earth	18728-05-22 19:12 G	8561463.07	8561463.30	8561463.55	0.0282	0.0054
Moon	18728-05-22 20:24 G	8561463.10	8561463.35	8561463.61	0.0282	0.0056 *
Mercury	18728-06-13 04:48 G	8561484.55	8561484.70	8561484.85	0.0282	0.0074
Mercury	18728-09-09 20:24 G	8561573.25	8561573.35	8561573.47	0.0282	0.0186
Venus	18740-06-06 17:02 G	8565861.03	8565861.21	8565861.39	0.0274	0.0148
Venus	18741-01-22 00:43 G	8566090.32	8566090.53	8566090.74	0.0275	0.0049
Venus	18741-09-08 08:52 G	8566319.78	8566319.87	8566319.96	0.0275	0.0247
Mercury	18742-09-28 18:00 G	8566705.22	8566705.25	8566705.29	0.0276	0.0269
Mercury	18742-12-26 08:09 G	8566793.73	8566793.84	8566793.96	0.0277	0.0168
Mercury	18743-03-24 22:33 G	8566882.30	8566882.44	8566882.59	0.0277	0.0066
Mercury	18743-06-21 13:26 G	8566970.91	8566971.06	8566971.21	0.0277	0.0041
Mercury	18743-09-18 04:33 G	8567059.56	8567059.69	8567059.82	0.0278	0.0149
Moon	18743-11-26 12:57 G	8567128.82	8567129.04	8567129.27	0.0278	0.0119
Earth	18743-11-26 15:21 G	8567128.94	8567129.14	8567129.37	0.0278	0.0132 *
Mercury	18743-12-15 19:55 G	8567148.28	8567148.33	8567148.38	0.0278	0.0260
Venus	18754-11-21 06:14 G	8571141.60	8571141.76	8571141.94	0.0285	0.0170
Venus	18755-07-08 22:33 G	8571371.23	8571371.44	8571371.65	0.0284	0.0050
Venus	18756-02-23 14:09 G	8571601.03	8571601.09	8571601.16	0.0283	0.0267

Mercury	18757-05-06 21:36 G	8572039.29	8572039.40	8572039.52	0.0282	0.0187
Moon	18757-05-17 07:40 G	8572049.73	8572049.82	8572049.93	0.0282	0.0255
Earth	18757-05-17 08:52 G	8572049.78	8572049.87	8572049.98	0.0282	0.0255 *
Mercury	18757-08-03 14:24 G	8572127.95	8572128.10	8572128.25	0.0282	0.0068
Mercury	18757-10-31 06:43 G	8572216.62	8572216.78	8572216.93	0.0281	0.0047
Mercury	18758-01-27 22:33 G	8572305.31	8572305.44	8572305.56	0.0281	0.0158
Mercury	18758-04-26 13:40 G	8572394.04	8572394.07	8572394.13	0.0281	0.0267
Earth	18758-05-30 19:55 G	8572428.17	8572428.33	8572428.49	0.0281	0.0212
Moon	18758-05-30 22:19 G	8572428.28	8572428.43	8572428.61	0.0281	0.0205 *
Mars	18762-11-03 17:16 G	8574045.98	8574046.22	8574046.48	0.0275	0.0091
Venus	18769-12-17 19:12 G	8576647.12	8576647.30	8576647.49	0.0275	0.0126
Venus	18770-08-04 02:52 G	8576876.42	8576876.62	8576876.83	0.0275	0.0071
Venus	18771-03-21 10:48 G	8577105.91	8577105.95	8577106.00	0.0276	0.0269
Mercury	18772-05-14 08:38 G	8577525.77	8577525.86	8577525.96	0.0277	0.0205
Mercury	18772-08-10 23:02 G	8577614.32	8577614.46	8577614.60	0.0277	0.0103
Mercury	18772-11-07 13:40 G	8577702.91	8577703.07	8577703.22	0.0277	0.0006
Earth	18772-11-20 04:19 G	8577715.45	8577715.68	8577715.92	0.0277	0.0071
Moon	18772-11-20 06:43 G	8577715.56	8577715.78	8577716.01	0.0277	0.0084 *
Mercury	18773-02-04 04:33 G	8577791.55	8577791.69	8577791.83	0.0278	0.0109
Mercury	18773-05-03 19:55 G	8577880.23	8577880.33	8577880.42	0.0278	0.0219
Venus	18784-06-02 08:38 G	8581927.69	8581927.86	8581928.05	0.0284	0.0148
Venus	18785-01-18 01:12 G	8582157.35	8582157.55	8582157.76	0.0284	0.0072
Mercury	18786-09-23 21:36 G	8582771.31	8582771.40	8582771.49	0.0282	0.0228
Mercury	18786-12-21 14:24 G	8582859.96	8582860.10	8582860.25	0.0282	0.0108
Mercury	18787-03-20 06:57 G	8582948.63	8582948.79	8582948.94	0.0282	0.0010
Moon	18787-05-25 00:14 G	8583014.26	8583014.51	8583014.77	0.0282	0.0005
Earth	18787-05-25 03:21 G	8583014.39	8583014.64	8583014.89	0.0282	0.0005 *
Mercury	18787-06-16 22:48 G	8583037.32	8583037.45	8583037.59	0.0282	0.0122
Mercury	18787-09-13 14:24 G	8583126.02	8583126.10	8583126.19	0.0281	0.0231
Venus	18799-06-30 04:33 G	8587433.49	8587433.69	8587433.89	0.0275	0.0093

Venus	18800-02-14 12:14 G	8587662.82	8587663.01	8587663.21	0.0275	0.0105
Mercury	18801-10-01 12:00 G	8588257.92	8588258.00	8588258.09	0.0277	0.0222
Moon	18801-11-15 06:00 G	8588302.68	8588302.75	8588302.84	0.0277	0.0262
Earth	18801-11-15 07:55 G	8588302.73	8588302.83	8588302.94	0.0277	0.0248 *
Mercury	18801-12-29 02:09 G	8588346.46	8588346.59	8588346.73	0.0277	0.0121
Mercury	18802-03-27 16:48 G	8588435.05	8588435.20	8588435.36	0.0277	0.0017
Mercury	18802-06-24 07:40 G	8588523.68	8588523.82	8588523.97	0.0277	0.0091
Mercury	18802-09-20 23:02 G	8588612.35	8588612.46	8588612.57	0.0278	0.0200
Moon	18802-11-27 22:04 G	8588680.25	8588680.42	8588680.62	0.0278	0.0181
Earth	18802-11-28 01:26 G	8588680.39	8588680.56	8588680.74	0.0278	0.0192 *
Venus	18813-12-13 19:26 G	8592714.12	8592714.31	8592714.51	0.0284	0.0109
Venus	18814-07-31 11:31 G	8592943.78	8592943.98	8592944.18	0.0284	0.0110
Mercury	18816-02-10 23:45 G	8593503.42	8593503.49	8593503.56	0.0282	0.0252
Mercury	18816-05-09 16:33 G	8593592.05	8593592.19	8593592.33	0.0282	0.0133
Earth	18816-05-18 18:57 G	8593601.13	8593601.29	8593601.48	0.0282	0.0194
Moon	18816-05-18 22:33 G	8593601.27	8593601.44	8593601.62	0.0282	0.0196 *
Mercury	18816-08-06 09:07 G	8593680.72	8593680.88	8593681.04	0.0282	0.0016
Mercury	18816-11-03 01:12 G	8593769.41	8593769.55	8593769.70	0.0281	0.0097
Mercury	18817-01-30 16:48 G	8593858.10	8593858.20	8593858.31	0.0281	0.0208
Earth	18817-06-01 05:31 G	8593979.69	8593979.73	8593979.80	0.0281	0.0273
Moon	18817-06-01 08:52 G	8593979.80	8593979.87	8593979.96	0.0281	0.0264 *
Venus	18828-05-25 00:00 G	8597990.45	8597990.50	8597990.56	0.0274	0.0264
Venus	18829-01-09 07:26 G	8598219.60	8598219.81	8598220.01	0.0275	0.0069
Venus	18829-08-26 15:07 G	8598448.95	8598449.13	8598449.32	0.0275	0.0128
Mercury	18831-02-18 12:57 G	8598989.99	8598990.04	8598990.09	0.0277	0.0256
Mercury	18831-05-18 02:52 G	8599078.50	8599078.62	8599078.75	0.0277	0.0156
Mercury	18831-08-14 17:16 G	8599167.08	8599167.22	8599167.37	0.0277	0.0054
Mercury	18831-11-11 08:09 G	8599255.69	8599255.84	8599255.99	0.0277	0.0053
Earth	18831-11-22 15:21 G	8599266.89	8599267.14	8599267.38	0.0278	0.0009
Moon	18831-11-22 18:43 G	8599267.04	8599267.28	8599267.53	0.0278	0.0023 *

Mercury	18832-02-07 23:16 G	8599344.35	8599344.47	8599344.59	0.0278	0.0162
Mercury	18832-05-06 14:38 G	8599433.09	8599433.11	8599433.14	0.0278	0.0273
Venus	18843-06-25 22:04 G	8603500.22	8603500.42	8603500.62	0.0284	0.0087
Venus	18844-02-10 14:09 G	8603729.91	8603730.09	8603730.29	0.0284	0.0133
Mercury	18845-09-26 16:33 G	8604324.06	8604324.19	8604324.31	0.0282	0.0174
Mercury	18845-12-24 09:07 G	8604412.73	8604412.88	8604413.04	0.0282	0.0056
Mercury	18846-03-23 01:26 G	8604501.41	8604501.56	8604501.71	0.0282	0.0060
Moon	18846-05-26 10:33 G	8604565.70	8604565.94	8604566.18	0.0282	0.0057
Earth	18846-05-26 13:26 G	8604565.83	8604566.06	8604566.31	0.0282	0.0066 *
Mercury	18846-06-19 17:16 G	8604590.10	8604590.22	8604590.34	0.0281	0.0172
Mercury	18846-09-16 08:38 G	8604678.86	8604678.86	8604678.88	0.0281	0.0280
Mars	18851-03-30 20:09 G	8606335.08	8606335.34	8606335.61	0.0276	0.0016
Venus	18857-12-05 08:24 G	8608776.74	8608776.85	8608776.96	0.0275	0.0233
Venus	18858-07-22 16:04 G	8609005.96	8609006.17	8609006.38	0.0275	0.0037
Venus	18859-03-09 00:00 G	8609235.34	8609235.50	8609235.68	0.0275	0.0161
Mercury	18860-07-07 16:04 G	8609722.16	8609722.17	8609722.19	0.0276	0.0274
Mercury	18860-10-04 06:14 G	8609810.65	8609810.76	8609810.88	0.0277	0.0174
Moon	18860-11-16 14:24 G	8609853.95	8609854.10	8609854.27	0.0277	0.0205
Earth	18860-11-16 18:00 G	8609854.09	8609854.25	8609854.44	0.0277	0.0189 *
Mercury	18860-12-31 20:38 G	8609899.21	8609899.36	8609899.51	0.0277	0.0071
Mercury	18861-03-30 11:16 G	8609987.82	8609987.97	8609988.12	0.0277	0.0035
Mercury	18861-06-27 02:24 G	8610076.47	8610076.60	8610076.73	0.0278	0.0143
Mercury	18861-09-23 17:45 G	8610165.18	8610165.24	8610165.30	0.0278	0.0254
Moon	18861-11-29 12:00 G	8610231.90	8610232.00	8610232.12	0.0278	0.0243
Earth	18861-11-29 12:14 G	8610231.91	8610232.01	8610232.11	0.0278	0.0251 *
Venus	18872-05-20 17:16 G	8614057.15	8614057.22	8614057.29	0.0285	0.0266
Venus	18873-01-05 09:36 G	8614286.69	8614286.90	8614287.11	0.0284	0.0047
Venus	18873-08-23 01:12 G	8614516.39	8614516.55	8614516.73	0.0284	0.0172
Mercury	18875-02-13 18:57 G	8615056.18	8615056.29	8615056.41	0.0282	0.0196
Mercury	18875-05-13 11:45 G	8615144.84	8615144.99	8615145.14	0.0282	0.0078

Earth	18875-05-21 07:12 G	8615152.58	8615152.80	8615153.02	0.0282	0.0130
Moon	18875-05-21 10:04 G	8615152.70	8615152.92	8615153.14	0.0282	0.0135 *
Mercury	18875-08-10 04:04 G	8615233.52	8615233.67	8615233.82	0.0282	0.0038
Mercury	18875-11-06 19:55 G	8615322.20	8615322.33	8615322.46	0.0281	0.0150
Mercury	18876-02-03 11:16 G	8615410.92	8615410.97	8615411.04	0.0281	0.0259
Venus	18887-06-17 12:14 G	8619562.88	8619563.01	8619563.16	0.0274	0.0208
Venus	18888-02-01 19:55 G	8619792.12	8619792.33	8619792.54	0.0275	0.0012
Venus	18888-09-18 03:36 G	8620021.50	8620021.65	8620021.81	0.0275	0.0186
Mercury	18890-02-21 07:12 G	8620542.71	8620542.80	8620542.90	0.0277	0.0207
Mercury	18890-05-20 21:36 G	8620631.26	8620631.40	8620631.53	0.0277	0.0105
Mercury	18890-08-17 12:00 G	8620719.85	8620720.00	8620720.15	0.0277	0.0005
Mercury	18890-11-14 02:52 G	8620808.48	8620808.62	8620808.76	0.0278	0.0107
Earth	18890-11-24 02:52 G	8620818.38	8620818.62	8620818.86	0.0278	0.0053
Moon	18890-11-24 03:07 G	8620818.38	8620818.63	8620818.88	0.0278	0.0040 *
Mercury	18891-02-10 18:00 G	8620897.16	8620897.25	8620897.35	0.0278	0.0217
Mars	18895-06-23 22:33 G	8622491.35	8622491.44	8622491.53	0.0283	0.0271
Venus	18901-12-01 19:26 G	8624843.21	8624843.31	8624843.43	0.0284	0.0244
Venus	18902-07-19 12:00 G	8625072.79	8625073.00	8625073.21	0.0284	0.0025
Venus	18903-03-06 03:50 G	8625302.51	8625302.66	8625302.82	0.0283	0.0193
Mercury	18904-07-03 18:28 G	8625788.19	8625788.27	8625788.36	0.0282	0.0238
Mercury	18904-09-30 11:31 G	8625876.84	8625876.98	8625877.13	0.0282	0.0119
Mercury	18904-12-28 04:04 G	8625965.51	8625965.67	8625965.83	0.0282	0.0002
Mercury	18905-03-26 20:09 G	8626054.20	8626054.34	8626054.48	0.0281	0.0112
Earth	18905-05-29 00:14 G	8626117.29	8626117.51	8626117.73	0.0281	0.0126
Moon	18905-05-29 01:55 G	8626117.36	8626117.58	8626117.79	0.0281	0.0116 *
Mercury	18905-06-23 11:45 G	8626142.90	8626142.99	8626143.09	0.0281	0.0222
Venus	18916-12-28 19:26 G	8630349.16	8630349.31	8630349.48	0.0275	0.0179
Venus	18917-08-15 03:36 G	8630578.44	8630578.65	8630578.86	0.0275	0.0019
Venus	18918-04-01 11:45 G	8630807.86	8630807.99	8630808.12	0.0276	0.0217
Mercury	18919-07-12 10:04 G	8631274.84	8631274.92	8631275.01	0.0277	0.0227

Mercury	18919-10-09 00:14 G	8631363.38	8631363.51	8631363.65	0.0277	0.0126
Earth	18919-11-20 04:04 G	8631405.46	8631405.67	8631405.89	0.0277	0.0130
Moon	18919-11-20 04:04 G	8631405.47	8631405.67	8631405.87	0.0277	0.0146 *
Mercury	18920-01-05 14:52 G	8631451.97	8631452.12	8631452.27	0.0277	0.0021
Mercury	18920-04-03 05:45 G	8631540.59	8631540.74	8631540.88	0.0277	0.0086
Mercury	18920-06-30 20:52 G	8631629.26	8631629.37	8631629.48	0.0278	0.0195
Venus	18931-06-14 07:40 G	8635629.68	8635629.82	8635629.98	0.0285	0.0204
Venus	18932-01-30 00:14 G	8635859.30	8635859.51	8635859.72	0.0284	0.0016
Venus	18932-09-15 15:36 G	8636089.04	8636089.15	8636089.28	0.0284	0.0234
Mercury	18933-11-20 21:21 G	8636520.34	8636520.39	8636520.46	0.0282	0.0258
Mercury	18934-02-17 14:24 G	8636608.97	8636609.10	8636609.24	0.0282	0.0138
Mercury	18934-05-17 06:57 G	8636697.64	8636697.79	8636697.95	0.0282	0.0023
Moon	18934-05-23 18:00 G	8636704.01	8636704.25	8636704.50	0.0282	0.0075
Earth	18934-05-23 19:55 G	8636704.09	8636704.33	8636704.57	0.0282	0.0066 *
Mercury	18934-08-13 23:16 G	8636786.32	8636786.47	8636786.61	0.0281	0.0093
Mercury	18934-11-10 14:52 G	8636875.02	8636875.12	8636875.23	0.0281	0.0203
Mars	18939-08-26 05:02 G	8638624.45	8638624.71	8638624.98	0.0275	0.0061
Venus	18946-07-11 00:14 G	8641135.34	8641135.51	8641135.69	0.0274	0.0153
Venus	18947-02-25 07:55 G	8641364.62	8641364.83	8641365.04	0.0275	0.0044
Venus	18947-10-12 15:50 G	8641594.07	8641594.16	8641594.26	0.0275	0.0242
Mercury	18948-11-28 11:31 G	8642006.93	8642006.98	8642007.03	0.0277	0.0258
Mercury	18949-02-25 01:26 G	8642095.44	8642095.56	8642095.68	0.0277	0.0158
Mercury	18949-05-24 15:50 G	8642184.01	8642184.16	8642184.31	0.0277	0.0055
Mercury	18949-08-21 06:28 G	8642272.62	8642272.77	8642272.92	0.0277	0.0052
Mercury	18949-11-17 21:36 G	8642361.28	8642361.40	8642361.53	0.0278	0.0160
Moon	18949-11-26 10:19 G	8642369.70	8642369.93	8642370.16	0.0278	0.0101
Earth	18949-11-26 13:40 G	8642369.86	8642370.07	8642370.30	0.0278	0.0114 *
Mercury	18950-02-14 12:57 G	8642450.01	8642450.04	8642450.08	0.0278	0.0271
Venus	18960-12-24 10:04 G	8646415.77	8646415.92	8646416.09	0.0284	0.0182
Venus	18961-08-11 02:24 G	8646645.39	8646645.60	8646645.81	0.0284	0.0038

Venus	18962-03-28 18:00 G	8646875.16	8646875.25	8646875.34	0.0283	0.0255
Earth	18963-05-17 23:45 G	8647290.48	8647290.49	8647290.53	0.0282	0.0280
Mercury	18963-07-07 13:55 G	8647340.96	8647341.08	8647341.21	0.0282	0.0181
Mercury	18963-10-04 06:43 G	8647429.63	8647429.78	8647429.93	0.0282	0.0063
Mercury	18963-12-31 23:02 G	8647518.31	8647518.46	8647518.61	0.0281	0.0052
Mercury	18964-03-29 14:52 G	8647607.00	8647607.12	8647607.25	0.0281	0.0164
Earth	18964-05-30 11:16 G	8647668.80	8647668.97	8647669.17	0.0281	0.0188
Moon	18964-05-30 15:21 G	8647668.95	8647669.14	8647669.33	0.0281	0.0174 *
Mercury	18964-06-26 06:14 G	8647695.74	8647695.76	8647695.80	0.0281	0.0273
Venus	18976-01-21 06:14 G	8651921.58	8651921.76	8651921.95	0.0275	0.0125
Venus	18976-09-06 14:24 G	8652150.90	8652151.10	8652151.31	0.0275	0.0073
Venus	18977-04-23 22:33 G	8652380.42	8652380.44	8652380.49	0.0276	0.0272
Mercury	18978-07-15 03:50 G	8652827.56	8652827.66	8652827.78	0.0277	0.0181
Mercury	18978-10-11 18:14 G	8652916.12	8652916.26	8652916.41	0.0277	0.0078
Earth	18978-11-21 13:12 G	8652956.82	8652957.05	8652957.29	0.0277	0.0072
Moon	18978-11-21 16:48 G	8652956.97	8652957.20	8652957.43	0.0277	0.0087 *
Mercury	18979-01-08 09:07 G	8653004.72	8653004.88	8653005.03	0.0277	0.0029
Mercury	18979-04-07 00:00 G	8653093.37	8653093.50	8653093.64	0.0278	0.0136
Mercury	18979-07-04 15:21 G	8653182.07	8653182.14	8653182.21	0.0278	0.0247
Mars	18983-11-20 04:48 G	8654781.43	8654781.70	8654781.99	0.0283	0.0147
Venus	18990-07-06 22:19 G	8657202.24	8657202.43	8657202.61	0.0285	0.0141
Venus	18991-02-21 14:24 G	8657431.90	8657432.10	8657432.31	0.0284	0.0078
Mercury	18992-11-23 17:02 G	8658073.10	8658073.21	8658073.32	0.0282	0.0200
Mercury	18993-02-20 09:50 G	8658161.76	8658161.91	8658162.06	0.0282	0.0082
Mercury	18993-05-20 02:09 G	8658250.43	8658250.59	8658250.74	0.0282	0.0034
Moon	18993-05-25 04:19 G	8658255.44	8658255.68	8658255.93	0.0282	0.0013
Earth	18993-05-25 07:55 G	8658255.58	8658255.83	8658256.08	0.0282	0.0003 *
Mercury	18993-08-16 18:00 G	8658339.12	8658339.25	8658339.38	0.0281	0.0146
Mercury	18993-11-13 09:36 G	8658427.84	8658427.90	8658427.96	0.0281	0.0255

20TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 20th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	19005-08-03 11:31	G	8662707.78	8662707.98	8662708.18	0.0275	0.0098	
Venus	19006-03-20 19:12	G	8662937.10	8662937.30	8662937.50	0.0275	0.0099	
Earth	19007-11-17 06:14	G	8663543.71	8663543.76	8663543.84	0.0277	0.0265	
Mercury	19007-12-03 05:16	G	8663559.63	8663559.72	8663559.82	0.0277	0.0212	
Mercury	19008-02-29 19:26	G	8663648.18	8663648.31	8663648.45	0.0277	0.0110	
Mercury	19008-05-28 10:04	G	8663736.77	8663736.92	8663737.07	0.0277	0.0007	
Mercury	19008-08-25 00:43	G	8663825.39	8663825.53	8663825.68	0.0278	0.0102	
Mercury	19008-11-21 16:04	G	8663914.07	8663914.17	8663914.27	0.0278	0.0211	
Moon	19008-11-28 21:21	G	8663921.20	8663921.39	8663921.59	0.0278	0.0163	
Earth	19008-11-28 23:31	G	8663921.29	8663921.48	8663921.67	0.0278	0.0172	*
Venus	19020-01-18 00:28	G	8667988.33	8667988.52	8667988.71	0.0284	0.0119	
Venus	19020-09-03 16:33	G	8668217.99	8668218.19	8668218.39	0.0284	0.0100	
Mercury	19022-04-13 16:19	G	8668805.10	8668805.18	8668805.26	0.0282	0.0244	
Earth	19022-05-20 11:45	G	8668841.84	8668841.99	8668842.16	0.0282	0.0217	
Moon	19022-05-20 15:21	G	8668842.00	8668842.14	8668842.30	0.0282	0.0222	*
Mercury	19022-07-11 09:07	G	8668893.74	8668893.88	8668894.03	0.0282	0.0125	
Mercury	19022-10-08 01:40	G	8668982.42	8668982.57	8668982.73	0.0281	0.0010	
Mercury	19023-01-04 17:45	G	8669071.10	8669071.24	8669071.39	0.0281	0.0106	
Mercury	19023-04-03 09:36	G	8669159.80	8669159.90	8669160.00	0.0281	0.0216	
Earth	19023-06-02 22:33	G	8669220.34	8669220.44	8669220.56	0.0281	0.0249	

Moon	19023-06-02 23:02 G	8669220.34	8669220.46	8669220.61	0.0281	0.0235 *
Mars	19028-01-21 01:26 G	8670913.32	8670913.56	8670913.81	0.0276	0.0121
Venus	19034-06-29 08:24 G	8673264.82	8673264.85	8673264.91	0.0275	0.0267
Venus	19035-02-13 16:04 G	8673493.97	8673494.17	8673494.38	0.0275	0.0072
Venus	19035-10-01 00:14 G	8673723.32	8673723.51	8673723.70	0.0275	0.0126
Mercury	19037-04-21 07:12 G	8674291.73	8674291.80	8674291.88	0.0277	0.0238
Mercury	19037-07-18 21:21 G	8674380.27	8674380.39	8674380.52	0.0277	0.0137
Mercury	19037-10-15 12:00 G	8674468.85	8674469.00	8674469.15	0.0277	0.0033
Earth	19037-11-23 20:09 G	8674508.10	8674508.34	8674508.59	0.0277	0.0018
Moon	19037-11-23 22:04 G	8674508.17	8674508.42	8674508.67	0.0277	0.0030 *
Mercury	19038-01-12 02:38 G	8674557.47	8674557.61	8674557.76	0.0278	0.0074
Mercury	19038-04-10 17:45 G	8674646.13	8674646.24	8674646.36	0.0278	0.0184
Venus	19049-07-30 12:00 G	8678774.80	8678775.00	8678775.21	0.0285	0.0080
Venus	19050-03-17 04:04 G	8679004.49	8679004.67	8679004.86	0.0284	0.0139
Mercury	19051-08-31 19:12 G	8679537.25	8679537.30	8679537.35	0.0282	0.0265
Mercury	19051-11-28 12:14 G	8679625.87	8679626.01	8679626.15	0.0282	0.0144
Mercury	19052-02-25 04:48 G	8679714.54	8679714.70	8679714.86	0.0282	0.0027
Mercury	19052-05-23 20:52 G	8679803.23	8679803.37	8679803.52	0.0281	0.0088
Moon	19052-05-27 18:14 G	8679807.03	8679807.26	8679807.50	0.0281	0.0051
Earth	19052-05-27 19:12 G	8679807.06	8679807.30	8679807.54	0.0281	0.0060 *
Mercury	19052-08-20 12:43 G	8679891.93	8679892.03	8679892.14	0.0281	0.0198
Venus	19064-01-09 13:55 G	8684051.00	8684051.08	8684051.19	0.0274	0.0241
Venus	19064-08-25 21:36 G	8684280.20	8684280.40	8684280.61	0.0275	0.0046
Venus	19065-04-12 05:16 G	8684509.55	8684509.72	8684509.91	0.0275	0.0152
Mercury	19066-09-08 08:38 G	8685023.84	8685023.86	8685023.90	0.0277	0.0268
Moon	19066-11-18 11:45 G	8685094.87	8685094.99	8685095.14	0.0277	0.0224
Earth	19066-11-18 13:40 G	8685094.93	8685095.07	8685095.24	0.0277	0.0210 *
Mercury	19066-12-05 22:48 G	8685112.34	8685112.45	8685112.57	0.0277	0.0168
Mercury	19067-03-04 13:12 G	8685200.90	8685201.05	8685201.20	0.0277	0.0065
Mercury	19067-06-01 03:50 G	8685289.51	8685289.66	8685289.81	0.0277	0.0041

Mercury	19067-08-28 18:43 G	8685378.16	8685378.28	8685378.41	0.0278	0.0150
Mercury	19067-11-25 10:04 G	8685466.87	8685466.92	8685466.98	0.0278	0.0260
Earth	19067-12-01 07:12 G	8685472.67	8685472.80	8685472.95	0.0278	0.0228
Moon	19067-12-01 09:36 G	8685472.78	8685472.90	8685473.06	0.0278	0.0223 *
Mars	19072-04-15 23:16 G	8687070.16	8687070.47	8687070.78	0.0283	0.0077
Venus	19078-06-24 21:21 G	8689331.35	8689331.39	8689331.43	0.0284	0.0278
Venus	19079-02-09 13:55 G	8689560.87	8689561.08	8689561.29	0.0284	0.0059
Venus	19079-09-27 05:45 G	8689790.57	8689790.74	8689790.92	0.0283	0.0160
Mercury	19081-04-16 11:16 G	8690357.86	8690357.97	8690358.09	0.0282	0.0189
Earth	19081-05-21 22:33 G	8690393.24	8690393.44	8690393.65	0.0282	0.0156
Moon	19081-05-21 23:16 G	8690393.27	8690393.47	8690393.69	0.0282	0.0163 *
Mercury	19081-07-14 04:04 G	8690446.52	8690446.67	8690446.83	0.0281	0.0071
Mercury	19081-10-10 20:24 G	8690535.20	8690535.35	8690535.51	0.0281	0.0045
Mercury	19082-01-07 12:14 G	8690623.89	8690624.01	8690624.15	0.0281	0.0157
Mercury	19082-04-06 03:50 G	8690712.62	8690712.66	8690712.71	0.0281	0.0266
Venus	19093-07-21 17:16 G	8694837.10	8694837.22	8694837.36	0.0275	0.0218
Venus	19094-03-08 00:57 G	8695066.33	8695066.54	8695066.76	0.0275	0.0022
Venus	19094-10-23 09:07 G	8695295.72	8695295.88	8695296.04	0.0276	0.0177
Mercury	19096-04-24 00:14 G	8695844.41	8695844.51	8695844.62	0.0277	0.0198
Mercury	19096-07-21 14:38 G	8695932.97	8695933.11	8695933.25	0.0277	0.0096
Mercury	19096-10-18 05:02 G	8696021.56	8696021.71	8696021.87	0.0277	0.0012
Moon	19096-11-24 22:33 G	8696059.20	8696059.44	8696059.70	0.0278	0.0026
Earth	19096-11-25 01:12 G	8696059.31	8696059.55	8696059.80	0.0278	0.0034 *
Mercury	19097-01-14 20:09 G	8696110.20	8696110.34	8696110.48	0.0278	0.0118
Mercury	19097-04-13 11:16 G	8696198.89	8696198.97	8696199.06	0.0278	0.0228
Venus	19108-01-06 07:40 G	8700117.72	8700117.82	8700117.94	0.0285	0.0242
Venus	19108-08-23 00:28 G	8700347.31	8700347.52	8700347.73	0.0285	0.0022
Venus	19109-04-09 16:19 G	8700577.03	8700577.18	8700577.34	0.0284	0.0197
Mercury	19110-09-04 13:55 G	8701089.98	8701090.08	8701090.19	0.0282	0.0212
Mercury	19110-12-02 06:57 G	8701178.64	8701178.79	8701178.94	0.0282	0.0092

Mercury	19111-02-28 23:31 G	8701267.32	8701267.48	8701267.63	0.0282	0.0025
Mercury	19111-05-28 15:21 G	8701356.01	8701356.14	8701356.28	0.0281	0.0137
Earth	19111-05-31 04:48 G	8701358.48	8701358.70	8701358.93	0.0281	0.0120
Moon	19111-05-31 07:40 G	8701358.60	8701358.82	8701359.05	0.0281	0.0109 *
Mercury	19111-08-25 06:57 G	8701444.72	8701444.79	8701444.87	0.0281	0.0247
Mars	19116-06-17 11:45 G	8703202.80	8703202.99	8703203.18	0.0275	0.0195
Venus	19123-02-01 23:16 G	8705623.32	8705623.47	8705623.62	0.0274	0.0191
Venus	19123-09-19 06:43 G	8705852.57	8705852.78	8705852.99	0.0275	0.0005
Venus	19124-05-05 14:24 G	8706081.96	8706082.10	8706082.25	0.0275	0.0202
Mercury	19125-09-12 01:55 G	8706576.50	8706576.58	8706576.66	0.0277	0.0227
Earth	19125-11-20 18:57 G	8706646.10	8706646.29	8706646.50	0.0277	0.0157
Moon	19125-11-20 21:21 G	8706646.20	8706646.39	8706646.58	0.0277	0.0169 *
Mercury	19125-12-09 16:04 G	8706665.03	8706665.17	8706665.30	0.0277	0.0126
Mercury	19126-03-08 06:28 G	8706753.62	8706753.77	8706753.92	0.0277	0.0022
Mercury	19126-06-04 21:07 G	8706842.24	8706842.38	8706842.53	0.0277	0.0085
Mercury	19126-09-01 12:14 G	8706930.91	8706931.01	8706931.13	0.0278	0.0194
Moon	19126-12-03 15:50 G	8707024.15	8707024.16	8707024.19	0.0278	0.0277
Venus	19137-07-18 09:36 G	8710903.77	8710903.90	8710904.03	0.0284	0.0221
Venus	19138-03-05 02:09 G	8711133.38	8711133.59	8711133.80	0.0284	0.0001
Venus	19138-10-20 17:45 G	8711363.11	8711363.24	8711363.38	0.0283	0.0217
Mercury	19140-01-22 12:57 G	8711821.98	8711822.04	8711822.11	0.0282	0.0257
Mercury	19140-04-20 06:00 G	8711910.62	8711910.75	8711910.89	0.0282	0.0137
Moon	19140-05-24 04:33 G	8711944.46	8711944.69	8711944.93	0.0281	0.0107
Earth	19140-05-24 07:55 G	8711944.61	8711944.83	8711945.07	0.0281	0.0096 *
Mercury	19140-07-17 22:48 G	8711999.29	8711999.45	8711999.60	0.0281	0.0021
Mercury	19140-10-14 14:52 G	8712087.97	8712088.12	8712088.27	0.0281	0.0094
Mercury	19141-01-11 06:43 G	8712176.67	8712176.78	8712176.88	0.0281	0.0205
Venus	19152-08-14 01:12 G	8716409.38	8716409.55	8716409.71	0.0275	0.0170
Venus	19153-03-31 08:38 G	8716638.65	8716638.86	8716639.07	0.0275	0.0027
Venus	19153-11-15 16:33 G	8716868.08	8716868.19	8716868.32	0.0276	0.0225

Mercury	19155-01-30 02:38 G	8717308.57	8717308.61	8717308.67	0.0277	0.0261
Mercury	19155-04-28 16:48 G	8717397.08	8717397.20	8717397.33	0.0277	0.0160
Mercury	19155-07-26 07:12 G	8717485.66	8717485.80	8717485.95	0.0277	0.0057
Mercury	19155-10-22 21:50 G	8717574.27	8717574.41	8717574.57	0.0278	0.0050
Moon	19155-11-28 00:57 G	8717610.32	8717610.54	8717610.78	0.0278	0.0076
Earth	19155-11-28 04:04 G	8717610.44	8717610.67	8717610.91	0.0278	0.0083 *
Mercury	19156-01-19 12:57 G	8717662.92	8717663.04	8717663.17	0.0278	0.0158
Mercury	19156-04-17 04:19 G	8717751.65	8717751.68	8717751.72	0.0278	0.0270
Mars	19160-09-10 23:31 G	8719359.16	8719359.48	8719359.80	0.0284	0.0005
Venus	19167-01-28 19:12 G	8721690.14	8721690.30	8721690.46	0.0285	0.0186
Venus	19167-09-15 11:45 G	8721919.78	8721919.99	8721920.20	0.0285	0.0035
Venus	19168-05-02 03:36 G	8722149.56	8722149.65	8722149.75	0.0284	0.0252
Mercury	19169-06-10 15:21 G	8722554.14	8722554.14	8722554.15	0.0283	0.0282
Mercury	19169-09-07 08:24 G	8722642.72	8722642.85	8722642.99	0.0282	0.0161
Mercury	19169-12-05 01:12 G	8722731.39	8722731.55	8722731.71	0.0282	0.0043
Mercury	19170-03-03 17:31 G	8722820.08	8722820.23	8722820.38	0.0282	0.0072
Mercury	19170-05-31 09:21 G	8722908.78	8722908.89	8722909.01	0.0281	0.0184
Earth	19170-06-01 12:28 G	8722909.84	8722910.02	8722910.22	0.0281	0.0177
Moon	19170-06-01 15:36 G	8722909.95	8722910.15	8722910.36	0.0281	0.0164 *
Venus	19182-02-24 07:12 G	8727195.63	8727195.80	8727195.99	0.0274	0.0143
Venus	19182-10-11 14:38 G	8727424.90	8727425.11	8727425.32	0.0274	0.0053
Venus	19183-05-28 22:19 G	8727654.35	8727654.43	8727654.52	0.0275	0.0250
Mercury	19184-09-14 18:28 G	8728129.17	8728129.27	8728129.38	0.0277	0.0189
Earth	19184-11-21 22:19 G	8728197.21	8728197.43	8728197.66	0.0277	0.0107
Moon	19184-11-22 01:55 G	8728197.36	8728197.58	8728197.81	0.0277	0.0119 *
Mercury	19184-12-12 08:52 G	8728217.72	8728217.87	8728218.01	0.0277	0.0087
Mercury	19185-03-10 23:16 G	8728306.32	8728306.47	8728306.62	0.0277	0.0018
Mercury	19185-06-07 14:09 G	8728394.96	8728395.09	8728395.23	0.0278	0.0125
Mercury	19185-09-04 05:16 G	8728483.65	8728483.72	8728483.81	0.0278	0.0236
Venus	19196-08-09 20:24 G	8732476.18	8732476.35	8732476.52	0.0285	0.0166

Venus	19197-03-27 12:57 G	8732705.83	8732706.04	8732706.25	0.0284	0.0055
Venus	19197-11-12 04:33 G	8732935.64	8732935.69	8732935.75	0.0283	0.0272
Mercury	19199-01-25 07:12 G	8733374.70	8733374.80	8733374.92	0.0282	0.0208
Mercury	19199-04-24 00:14 G	8733463.36	8733463.51	8733463.66	0.0282	0.0088
Moon	19199-05-26 12:43 G	8733495.80	8733496.03	8733496.27	0.0281	0.0053
Earth	19199-05-26 15:21 G	8733495.89	8733496.14	8733496.38	0.0281	0.0039 *
Mercury	19199-07-21 16:48 G	8733552.04	8733552.20	8733552.35	0.0281	0.0028
Mercury	19199-10-18 08:38 G	8733640.73	8733640.86	8733641.00	0.0281	0.0141
Mercury	19200-01-15 00:28 G	8733729.45	8733729.52	8733729.58	0.0281	0.0250
Mars	19204-11-10 19:40 G	8735491.19	8735491.32	8735491.48	0.0275	0.0233
Venus	19211-09-06 08:09 G	8737981.65	8737981.84	8737982.03	0.0274	0.0124
Venus	19212-04-22 15:21 G	8738210.94	8738211.14	8738211.35	0.0275	0.0073
Venus	19212-12-07 23:16 G	8738440.44	8738440.47	8738440.52	0.0276	0.0270
Mercury	19214-02-01 18:57 G	8738861.21	8738861.29	8738861.38	0.0277	0.0226
Mercury	19214-05-01 09:07 G	8738949.75	8738949.88	8738950.01	0.0277	0.0125
Mercury	19214-07-28 23:31 G	8739038.33	8739038.48	8739038.63	0.0277	0.0021
Mercury	19214-10-25 14:24 G	8739126.95	8739127.10	8739127.24	0.0278	0.0087
Earth	19214-11-29 05:02 G	8739161.50	8739161.71	8739161.93	0.0278	0.0130
Moon	19214-11-29 05:45 G	8739161.53	8739161.74	8739161.95	0.0278	0.0126 *
Mercury	19215-01-22 05:31 G	8739215.62	8739215.73	8739215.84	0.0278	0.0196
Venus	19226-02-20 04:33 G	8743262.51	8743262.69	8743262.89	0.0285	0.0135
Venus	19226-10-07 21:21 G	8743492.19	8743492.39	8743492.59	0.0285	0.0087
Earth	19228-05-20 06:28 G	8744082.64	8744082.77	8744082.91	0.0283	0.0234
Moon	19228-05-20 08:24 G	8744082.74	8744082.85	8744082.99	0.0283	0.0245 *
Mercury	19228-06-13 09:21 G	8744106.80	8744106.89	8744106.98	0.0283	0.0235
Mercury	19228-09-10 02:24 G	8744195.45	8744195.60	8744195.74	0.0282	0.0115
Mercury	19228-12-07 18:57 G	8744284.13	8744284.29	8744284.45	0.0282	0.0003
Mercury	19229-03-06 11:02 G	8744372.82	8744372.96	8744373.11	0.0282	0.0117
Moon	19229-06-02 16:48 G	8744461.04	8744461.20	8744461.36	0.0281	0.0216
Earth	19229-06-02 18:14 G	8744461.13	8744461.26	8744461.41	0.0281	0.0232 *

Mercury	19229-06-03 02:52 G	8744461.53	8744461.62	8744461.71	0.0281	0.0227
Venus	19241-03-18 14:24 G	8748767.91	8748768.10	8748768.30	0.0274	0.0097
Venus	19241-11-02 21:36 G	8748997.21	8748997.40	8748997.60	0.0274	0.0099
Mercury	19243-06-21 20:52 G	8749593.32	8749593.37	8749593.43	0.0276	0.0253
Mercury	19243-09-18 10:48 G	8749681.83	8749681.95	8749682.08	0.0277	0.0153
Moon	19243-11-23 23:31 G	8749748.24	8749748.48	8749748.73	0.0277	0.0068
Earth	19243-11-24 00:14 G	8749748.27	8749748.51	8749748.75	0.0277	0.0059 *
Mercury	19243-12-16 01:12 G	8749770.40	8749770.55	8749770.70	0.0277	0.0050
Mercury	19244-03-13 15:50 G	8749859.01	8749859.16	8749859.31	0.0277	0.0055
Mercury	19244-06-10 06:43 G	8749947.66	8749947.78	8749947.91	0.0277	0.0164
Mercury	19244-09-06 22:04 G	8750036.41	8750036.42	8750036.44	0.0278	0.0275
Mars	19249-02-04 01:55 G	8751647.26	8751647.58	8751647.90	0.0284	0.0044
Venus	19255-09-02 06:14 G	8754048.57	8754048.76	8754048.96	0.0285	0.0113
Venus	19256-04-18 22:33 G	8754278.25	8754278.44	8754278.64	0.0284	0.0108
Mercury	19257-10-31 08:09 G	8754838.84	8754838.84	8754838.84	0.0282	0.0282
Mercury	19258-01-28 01:12 G	8754927.43	8754927.55	8754927.69	0.0282	0.0161
Mercury	19258-04-26 18:00 G	8755016.10	8755016.25	8755016.41	0.0282	0.0043
Earth	19258-05-27 20:52 G	8755047.12	8755047.37	8755047.62	0.0281	0.0016
Moon	19258-05-27 23:02 G	8755047.22	8755047.46	8755047.70	0.0281	0.0006 *
Mercury	19258-07-24 10:19 G	8755104.78	8755104.93	8755105.08	0.0281	0.0073
Mercury	19258-10-21 02:09 G	8755193.48	8755193.59	8755193.71	0.0281	0.0184
Mars	19263-02-19 10:48 G	8756775.85	8756775.95	8756776.06	0.0276	0.0251
Venus	19270-02-11 07:26 G	8759324.79	8759324.81	8759324.83	0.0274	0.0272
Venus	19270-09-28 14:24 G	8759553.89	8759554.10	8759554.30	0.0274	0.0079
Venus	19271-05-15 21:36 G	8759783.21	8759783.40	8759783.59	0.0275	0.0118
Earth	19272-11-17 12:00 G	8760334.92	8760335.00	8760335.09	0.0276	0.0258
Moon	19272-11-17 12:57 G	8760335.00	8760335.04	8760335.10	0.0276	0.0270 *
Mercury	19273-02-04 11:02 G	8760413.85	8760413.96	8760414.06	0.0277	0.0193
Mercury	19273-05-04 01:12 G	8760502.41	8760502.55	8760502.69	0.0277	0.0091
Mercury	19273-07-31 15:36 G	8760591.00	8760591.15	8760591.31	0.0277	0.0017

Mercury	19273-10-28 06:28 G	8760679.64	8760679.77	8760679.91	0.0278	0.0122
Earth	19273-11-30 04:48 G	8760712.52	8760712.70	8760712.90	0.0278	0.0175
Moon	19273-11-30 08:24 G	8760712.67	8760712.85	8760713.05	0.0278	0.0173 *
Mercury	19274-01-24 21:50 G	8760768.33	8760768.41	8760768.49	0.0278	0.0232
Venus	19285-03-14 12:43 G	8764834.83	8764835.03	8764835.24	0.0285	0.0085
Venus	19285-10-30 05:31 G	8765064.55	8765064.73	8765064.92	0.0285	0.0137
Moon	19287-05-22 07:12 G	8765633.63	8765633.80	8765633.99	0.0283	0.0195
Earth	19287-05-22 09:36 G	8765633.73	8765633.90	8765634.10	0.0283	0.0182 *
Mercury	19287-06-17 02:38 G	8765659.50	8765659.61	8765659.73	0.0283	0.0193
Mercury	19287-09-13 19:40 G	8765748.17	8765748.32	8765748.47	0.0283	0.0073
Mercury	19287-12-11 12:14 G	8765836.85	8765837.01	8765837.16	0.0282	0.0045
Mercury	19288-03-09 04:04 G	8765925.55	8765925.67	8765925.80	0.0282	0.0158
Moon	19288-06-03 18:14 G	8766012.19	8766012.26	8766012.34	0.0282	0.0267
Mercury	19288-06-05 19:40 G	8766014.28	8766014.32	8766014.37	0.0282	0.0267
Venus	19299-08-24 14:09 G	8770111.01	8770111.09	8770111.19	0.0273	0.0245
Venus	19300-04-10 21:07 G	8770340.17	8770340.38	8770340.59	0.0274	0.0052
Venus	19300-11-26 04:19 G	8770569.50	8770569.68	8770569.86	0.0274	0.0144
Mercury	19302-06-25 12:57 G	8771145.96	8771146.04	8771146.13	0.0276	0.0219
Mercury	19302-09-22 03:07 G	8771234.50	8771234.63	8771234.77	0.0276	0.0118
Moon	19302-11-25 21:07 G	8771299.14	8771299.38	8771299.63	0.0277	0.0017
Earth	19302-11-26 01:12 G	8771299.30	8771299.55	8771299.79	0.0277	0.0013 *
Mercury	19302-12-19 17:31 G	8771323.08	8771323.23	8771323.38	0.0277	0.0015
Mercury	19303-03-18 08:09 G	8771411.70	8771411.84	8771411.99	0.0277	0.0092
Mercury	19303-06-14 23:16 G	8771500.37	8771500.47	8771500.58	0.0277	0.0201
Venus	19314-02-07 21:36 G	8775391.39	8775391.40	8775391.42	0.0285	0.0284
Venus	19314-09-25 14:38 G	8775620.91	8775621.11	8775621.32	0.0285	0.0063
Venus	19315-05-13 06:57 G	8775850.63	8775850.79	8775850.98	0.0284	0.0158
Mercury	19316-11-04 01:40 G	8776391.49	8776391.57	8776391.65	0.0282	0.0238
Mercury	19317-01-31 18:43 G	8776480.14	8776480.28	8776480.43	0.0282	0.0118
Mercury	19317-04-30 11:16 G	8776568.82	8776568.97	8776569.13	0.0282	0.0008

Earth	19317-05-30 00:43 G	8776598.30	8776598.53	8776598.77	0.0282	0.0069
Moon	19317-05-30 04:04 G	8776598.43	8776598.67	8776598.92	0.0282	0.0054 *
Mercury	19317-07-28 03:36 G	8776657.51	8776657.65	8776657.79	0.0281	0.0114
Mercury	19317-10-24 19:12 G	8776746.22	8776746.30	8776746.40	0.0281	0.0225
Venus	19329-03-06 13:12 G	8780896.95	8780897.05	8780897.18	0.0274	0.0229
Venus	19329-10-21 20:09 G	8781126.13	8781126.34	8781126.55	0.0274	0.0035
Venus	19330-06-08 03:21 G	8781355.47	8781355.64	8781355.82	0.0275	0.0162
Mercury	19331-11-12 12:43 G	8781877.99	8781878.03	8781878.09	0.0276	0.0261
Earth	19331-11-20 11:16 G	8781885.83	8781885.97	8781886.13	0.0276	0.0214
Moon	19331-11-20 15:21 G	8781885.99	8781886.14	8781886.28	0.0276	0.0220 *
Mercury	19332-02-09 02:52 G	8781966.50	8781966.62	8781966.74	0.0277	0.0160
Mercury	19332-05-07 17:02 G	8782055.07	8782055.21	8782055.36	0.0277	0.0058
Mercury	19332-08-04 07:40 G	8782143.67	8782143.82	8782143.97	0.0277	0.0048
Mercury	19332-10-31 22:33 G	8782232.32	8782232.44	8782232.57	0.0277	0.0156
Earth	19332-12-02 03:50 G	8782263.52	8782263.66	8782263.82	0.0278	0.0219
Moon	19332-12-02 05:02 G	8782263.56	8782263.71	8782263.87	0.0278	0.0221 *
Mercury	19333-01-28 13:55 G	8782321.04	8782321.08	8782321.12	0.0278	0.0267
Mars	19337-06-30 18:43 G	8783934.98	8783935.28	8783935.60	0.0284	0.0069
Venus	19343-08-21 02:52 G	8786177.54	8786177.62	8786177.71	0.0286	0.0258
Venus	19344-04-06 20:24 G	8786407.14	8786407.35	8786407.56	0.0285	0.0035
Venus	19344-11-22 13:12 G	8786636.89	8786637.05	8786637.21	0.0285	0.0186
Mercury	19346-03-24 02:38 G	8787123.57	8787123.61	8787123.65	0.0283	0.0273
Moon	19346-05-24 08:52 G	8787184.67	8787184.87	8787185.09	0.0283	0.0146
Earth	19346-05-24 12:14 G	8787184.80	8787185.01	8787185.23	0.0283	0.0130 *
Mercury	19346-06-20 19:55 G	8787212.20	8787212.33	8787212.46	0.0283	0.0151
Mercury	19346-09-17 12:43 G	8787300.87	8787301.03	8787301.19	0.0283	0.0032
Mercury	19346-12-15 05:02 G	8787389.56	8787389.71	8787389.86	0.0282	0.0084
Mercury	19347-03-13 21:07 G	8787478.27	8787478.38	8787478.49	0.0282	0.0196
Mars	19351-07-17 11:45 G	8789064.81	8789064.99	8789065.20	0.0276	0.0186
Venus	19358-09-16 20:38 G	8791683.22	8791683.36	8791683.51	0.0273	0.0201

Venus	19359-05-04 03:21 G	8791912.43	8791912.64	8791912.85	0.0274	0.0007
Venus	19359-12-19 10:19 G	8792141.79	8792141.93	8792142.09	0.0274	0.0189
Mercury	19361-06-28 05:02 G	8792698.60	8792698.71	8792698.82	0.0276	0.0186
Mercury	19361-09-24 19:12 G	8792787.16	8792787.30	8792787.44	0.0276	0.0084
Moon	19361-11-27 00:28 G	8792850.29	8792850.52	8792850.76	0.0277	0.0035
Earth	19361-11-27 01:12 G	8792850.31	8792850.55	8792850.80	0.0277	0.0035 *
Mercury	19361-12-22 09:36 G	8792875.75	8792875.90	8792876.05	0.0277	0.0021
Mercury	19362-03-21 00:28 G	8792964.38	8792964.52	8792964.66	0.0277	0.0127
Mercury	19362-06-17 15:36 G	8793053.08	8793053.15	8793053.23	0.0277	0.0237
Venus	19373-03-02 05:31 G	8796963.61	8796963.73	8796963.85	0.0285	0.0235
Venus	19373-10-17 22:33 G	8797193.23	8797193.44	8797193.65	0.0285	0.0014
Venus	19374-06-04 14:52 G	8797422.99	8797423.12	8797423.27	0.0284	0.0207
Mercury	19375-11-07 18:57 G	8797944.18	8797944.29	8797944.40	0.0282	0.0197
Mercury	19376-02-04 11:45 G	8798032.84	8798032.99	8798033.15	0.0282	0.0078
Mercury	19376-05-03 04:19 G	8798121.53	8798121.68	8798121.84	0.0282	0.0041
Moon	19376-05-31 03:07 G	8798149.39	8798149.63	8798149.87	0.0282	0.0106
Earth	19376-05-31 03:36 G	8798149.43	8798149.65	8798149.88	0.0282	0.0120 *
Mercury	19376-07-30 20:38 G	8798210.23	8798210.36	8798210.49	0.0281	0.0154
Mercury	19376-10-27 12:00 G	8798298.96	8798299.00	8798299.06	0.0281	0.0264
Venus	19388-03-28 19:55 G	8802469.17	8802469.33	8802469.48	0.0274	0.0184
Venus	19388-11-13 02:24 G	8802698.39	8802698.60	8802698.82	0.0274	0.0011
Venus	19389-06-30 09:36 G	8802927.76	8802927.90	8802928.04	0.0275	0.0206
Mercury	19390-11-15 04:48 G	8803430.62	8803430.70	8803430.78	0.0276	0.0227
Earth	19390-11-21 11:31 G	8803436.79	8803436.98	8803437.17	0.0276	0.0167
Moon	19390-11-21 11:31 G	8803436.79	8803436.98	8803437.19	0.0276	0.0170 *
Mercury	19391-02-11 18:43 G	8803519.15	8803519.28	8803519.42	0.0276	0.0127
Mercury	19391-05-11 09:07 G	8803607.73	8803607.88	8803608.03	0.0277	0.0024
Mercury	19391-08-07 23:45 G	8803696.35	8803696.49	8803696.64	0.0277	0.0082
Mercury	19391-11-04 14:38 G	8803785.01	8803785.11	8803785.23	0.0277	0.0192
Moon	19391-12-04 00:00 G	8803814.46	8803814.50	8803814.56	0.0277	0.0272

Earth	19391-12-04 03:50 G	8803814.58	8803814.66	8803814.73	0.0277	0.0263
Venus	19402-09-13 09:36 G	8807749.76	8807749.90	8807750.05	0.0286	0.0211
Venus	19403-05-01 03:07 G	8807979.42	8807979.63	8807979.84	0.0285	0.0012
Venus	19403-12-16 19:55 G	8808209.21	8808209.33	8808209.45	0.0285	0.0233
Mercury	19405-03-27 19:40 G	8808676.23	8808676.32	8808676.40	0.0283	0.0234
Earth	19405-05-26 13:12 G	8808735.82	8808736.05	8808736.29	0.0283	0.0082
Moon	19405-05-26 13:40 G	8808735.85	8808736.07	8808736.30	0.0283	0.0096 *
Mercury	19405-06-24 12:43 G	8808764.88	8808765.03	8808765.18	0.0283	0.0112
Mercury	19405-09-21 05:31 G	8808853.57	8808853.73	8808853.88	0.0283	0.0008
Mercury	19405-12-18 21:50 G	8808942.27	8808942.41	8808942.55	0.0282	0.0122
Mercury	19406-03-17 13:40 G	8809030.98	8809031.07	8809031.15	0.0282	0.0233
Venus	19417-10-10 03:21 G	8813255.47	8813255.64	8813255.82	0.0273	0.0155
Venus	19418-05-27 09:50 G	8813484.70	8813484.91	8813485.12	0.0274	0.0039
Venus	19419-01-11 17:02 G	8813714.10	8813714.21	8813714.32	0.0274	0.0234
Mercury	19420-04-04 07:26 G	8814162.75	8814162.81	8814162.87	0.0276	0.0251
Mercury	19420-07-01 21:07 G	8814251.26	8814251.38	8814251.51	0.0276	0.0152
Mercury	19420-09-28 11:31 G	8814339.83	8814339.98	8814340.12	0.0276	0.0050
Earth	19420-11-29 01:55 G	8814401.34	8814401.58	8814401.81	0.0276	0.0081
Moon	19420-11-29 05:16 G	8814401.49	8814401.72	8814401.95	0.0276	0.0086 *
Mercury	19420-12-26 01:55 G	8814428.43	8814428.58	8814428.73	0.0277	0.0056
Mercury	19421-03-24 16:48 G	8814517.08	8814517.20	8814517.33	0.0277	0.0164
Mercury	19421-06-21 07:55 G	8814605.82	8814605.83	8814605.86	0.0277	0.0275
Mars	19425-11-24 22:04 G	8816223.14	8816223.42	8816223.72	0.0284	0.0122
Venus	19432-03-25 13:12 G	8818535.90	8818536.05	8818536.22	0.0286	0.0186
Venus	19432-11-10 06:28 G	8818765.56	8818765.77	8818765.98	0.0285	0.0037
Venus	19433-06-27 22:48 G	8818995.37	8818995.45	8818995.55	0.0284	0.0257
Mercury	19434-08-14 18:57 G	8819408.26	8819408.29	8819408.32	0.0283	0.0277
Mercury	19434-11-11 12:14 G	8819496.88	8819497.01	8819497.14	0.0283	0.0155
Mercury	19435-02-08 05:02 G	8819585.55	8819585.71	8819585.87	0.0282	0.0035
Mercury	19435-05-07 21:21 G	8819674.24	8819674.39	8819674.54	0.0282	0.0081

Moon	19435-06-03 03:07 G	8819700.43	8819700.63	8819700.84	0.0282	0.0157
Earth	19435-06-03 06:28 G	8819700.59	8819700.77	8819700.98	0.0282	0.0172 *
Mercury	19435-08-04 13:26 G	8819762.95	8819763.06	8819763.17	0.0282	0.0193
Mars	19439-12-11 14:52 G	8821352.91	8821353.12	8821353.35	0.0275	0.0160
Venus	19447-04-22 02:24 G	8824041.42	8824041.60	8824041.79	0.0273	0.0139
Venus	19447-12-07 09:07 G	8824270.67	8824270.88	8824271.09	0.0274	0.0055
Venus	19448-07-23 16:04 G	8824500.09	8824500.17	8824500.26	0.0275	0.0251
Mercury	19449-11-18 20:52 G	8824983.27	8824983.37	8824983.48	0.0276	0.0194
Moon	19449-11-23 08:38 G	8824987.64	8824987.86	8824988.09	0.0276	0.0118
Earth	19449-11-23 12:14 G	8824987.79	8824988.01	8824988.23	0.0276	0.0120 *
Mercury	19450-02-15 11:02 G	8825071.82	8825071.96	8825072.10	0.0276	0.0092
Mercury	19450-05-15 01:26 G	8825160.41	8825160.56	8825160.71	0.0277	0.0012
Mercury	19450-08-11 16:04 G	8825249.03	8825249.17	8825249.31	0.0277	0.0118
Mercury	19450-11-08 07:12 G	8825337.71	8825337.80	8825337.89	0.0277	0.0228
Venus	19461-10-05 16:48 G	8829322.02	8829322.20	8829322.37	0.0286	0.0163
Venus	19462-05-23 10:04 G	8829551.72	8829551.92	8829552.13	0.0285	0.0060
Venus	19463-01-08 02:52 G	8829781.59	8829781.62	8829781.66	0.0285	0.0280
Mercury	19464-03-30 12:14 G	8830228.90	8830229.01	8830229.13	0.0284	0.0195
Earth	19464-05-27 14:24 G	8830286.86	8830287.10	8830287.35	0.0283	0.0032
Moon	19464-05-27 18:00 G	8830287.01	8830287.25	8830287.50	0.0283	0.0048 *
Mercury	19464-06-27 05:31 G	8830317.58	8830317.73	8830317.88	0.0283	0.0073
Mercury	19464-09-23 22:04 G	8830406.27	8830406.42	8830406.58	0.0283	0.0045
Mercury	19464-12-21 14:09 G	8830494.97	8830495.09	8830495.22	0.0283	0.0160
Mercury	19465-03-20 06:00 G	8830583.71	8830583.75	8830583.80	0.0282	0.0270
Venus	19476-11-01 10:33 G	8834827.75	8834827.94	8834828.14	0.0273	0.0109
Venus	19477-06-18 17:02 G	8835057.01	8835057.21	8835057.42	0.0274	0.0085
Mercury	19479-04-07 23:31 G	8835715.40	8835715.48	8835715.58	0.0275	0.0216
Mercury	19479-07-05 13:40 G	8835803.93	8835804.07	8835804.20	0.0276	0.0115
Mercury	19479-10-02 03:50 G	8835892.51	8835892.66	8835892.82	0.0276	0.0015
Earth	19479-12-01 03:36 G	8835952.44	8835952.65	8835952.87	0.0276	0.0129

Moon	19479-12-01 05:45 G	8835952.53	8835952.74	8835952.97	0.0276	0.0136	*
Mercury	19479-12-29 18:28 G	8835981.13	8835981.27	8835981.42	0.0276	0.0094	
Mercury	19480-03-27 09:21 G	8836069.80	8836069.89	8836070.00	0.0277	0.0203	
Venus	19491-04-17 21:21 G	8840108.21	8840108.39	8840108.58	0.0286	0.0136	
Venus	19491-12-03 14:24 G	8840337.90	8840338.10	8840338.31	0.0285	0.0087	
Moon	19493-05-21 15:21 G	8840873.05	8840873.14	8840873.24	0.0283	0.0262	
Earth	19493-05-21 19:12 G	8840873.18	8840873.30	8840873.43	0.0283	0.0245	*
Mercury	19493-08-17 12:00 G	8840960.92	8840961.00	8840961.10	0.0283	0.0235	
Mercury	19493-11-14 05:16 G	8841049.58	8841049.72	8841049.87	0.0283	0.0114	
Mercury	19494-02-10 22:04 G	8841138.27	8841138.42	8841138.58	0.0282	0.0008	
Mercury	19494-05-10 14:24 G	8841226.96	8841227.10	8841227.24	0.0282	0.0121	
Moon	19494-06-04 07:40 G	8841251.68	8841251.82	8841251.99	0.0282	0.0210	
Earth	19494-06-04 09:36 G	8841251.75	8841251.90	8841252.05	0.0282	0.0222	*
Mercury	19494-08-07 06:14 G	8841315.68	8841315.76	8841315.85	0.0282	0.0233	
Venus	19506-05-15 09:50 G	8845613.72	8845613.91	8845614.12	0.0273	0.0092	
Venus	19506-12-30 16:33 G	8845842.99	8845843.19	8845843.38	0.0274	0.0102	
Mercury	19508-08-25 23:31 G	8846447.43	8846447.48	8846447.53	0.0276	0.0256	
Mercury	19508-11-22 13:26 G	8846535.94	8846536.06	8846536.18	0.0276	0.0157	
Moon	19508-11-25 12:00 G	8846538.78	8846539.00	8846539.24	0.0276	0.0069	
Earth	19508-11-25 14:09 G	8846538.86	8846539.09	8846539.33	0.0276	0.0072	*
Mercury	19509-02-19 03:21 G	8846624.50	8846624.64	8846624.79	0.0276	0.0056	
Mercury	19509-05-18 18:00 G	8846713.10	8846713.25	8846713.40	0.0277	0.0049	
Mercury	19509-08-15 08:38 G	8846801.74	8846801.86	8846801.99	0.0277	0.0157	
Mercury	19509-11-12 00:00 G	8846890.46	8846890.50	8846890.54	0.0277	0.0267	
Mars	19514-04-20 10:19 G	8848510.66	8848510.93	8848511.22	0.0283	0.0141	
Venus	19520-10-29 00:14 G	8850894.32	8850894.51	8850894.71	0.0286	0.0114	
Venus	19521-06-15 17:45 G	8851124.05	8851124.24	8851124.44	0.0285	0.0110	
Mercury	19523-01-05 12:14 G	8851692.97	8851693.01	8851693.04	0.0284	0.0276	
Mercury	19523-04-04 05:31 G	8851781.60	8851781.73	8851781.87	0.0284	0.0153	
Earth	19523-05-30 16:48 G	8851837.95	8851838.20	8851838.45	0.0283	0.0018	

Moon	19523-05-30 18:14 G	8851838.00	8851838.26	8851838.51	0.0283	0.0004 *
Mercury	19523-07-01 22:33 G	8851870.28	8851870.44	8851870.60	0.0283	0.0033
Mercury	19523-09-28 15:07 G	8851958.98	8851959.13	8851959.28	0.0283	0.0085
Mercury	19523-12-26 06:57 G	8852047.69	8852047.79	8852047.91	0.0283	0.0199
Mars	19528-05-07 12:28 G	8853641.77	8853642.02	8853642.27	0.0276	0.0096
Venus	19535-04-10 12:14 G	8856170.93	8856171.01	8856171.09	0.0273	0.0253
Venus	19535-11-25 18:28 G	8856400.06	8856400.27	8856400.47	0.0273	0.0062
Venus	19536-07-12 00:57 G	8856629.36	8856629.54	8856629.73	0.0274	0.0133
Earth	19537-11-20 16:33 G	8857126.10	8857126.19	8857126.32	0.0275	0.0245
Moon	19537-11-20 19:26 G	8857126.22	8857126.31	8857126.43	0.0275	0.0248 *
Mercury	19538-04-11 16:19 G	8857268.07	8857268.18	8857268.29	0.0275	0.0178
Mercury	19538-07-09 06:14 G	8857356.62	8857356.76	8857356.91	0.0276	0.0077
Mercury	19538-10-05 20:38 G	8857445.21	8857445.36	8857445.52	0.0276	0.0029
Moon	19538-12-03 04:33 G	8857503.52	8857503.69	8857503.88	0.0276	0.0189
Earth	19538-12-03 06:43 G	8857503.61	8857503.78	8857503.98	0.0276	0.0179 *
Mercury	19539-01-02 11:31 G	8857533.85	8857533.98	8857534.11	0.0276	0.0134
Mercury	19539-04-01 02:38 G	8857622.54	8857622.61	8857622.68	0.0277	0.0243
Venus	19550-05-11 06:28 G	8861680.57	8861680.77	8861680.98	0.0286	0.0084
Venus	19550-12-26 23:31 G	8861910.30	8861910.48	8861910.67	0.0285	0.0139
Moon	19552-05-23 22:48 G	8862424.30	8862424.45	8862424.62	0.0284	0.0208
Earth	19552-05-23 23:31 G	8862424.31	8862424.48	8862424.67	0.0284	0.0191 *
Mercury	19552-08-21 05:45 G	8862513.63	8862513.74	8862513.86	0.0283	0.0190
Mercury	19552-11-17 22:48 G	8862602.30	8862602.45	8862602.61	0.0283	0.0070
Mercury	19553-02-14 15:36 G	8862690.99	8862691.15	8862691.30	0.0283	0.0049
Mercury	19553-05-14 07:40 G	8862779.70	8862779.82	8862779.95	0.0282	0.0163
Earth	19553-06-06 13:40 G	8862803.03	8862803.07	8862803.13	0.0282	0.0275
Moon	19553-06-06 16:33 G	8862803.11	8862803.19	8862803.28	0.0282	0.0263 *
Mercury	19553-08-10 23:31 G	8862868.45	8862868.48	8862868.51	0.0282	0.0274
Venus	19564-10-20 12:14 G	8866956.91	8866957.01	8866957.12	0.0273	0.0235
Venus	19565-06-06 18:28 G	8867186.06	8867186.27	8867186.48	0.0273	0.0043

Venus	19566-01-22 00:57 G	8867415.37	8867415.54	8867415.72	0.0274	0.0151
Mercury	19567-08-29 16:19 G	8868000.09	8868000.18	8868000.27	0.0276	0.0217
Mercury	19567-11-26 06:14 G	8868088.63	8868088.76	8868088.90	0.0276	0.0118
Earth	19567-11-27 18:43 G	8868090.03	8868090.28	8868090.52	0.0276	0.0020
Moon	19567-11-27 20:38 G	8868090.12	8868090.36	8868090.60	0.0276	0.0014 *
Mercury	19568-02-22 20:24 G	8868177.20	8868177.35	8868177.51	0.0276	0.0017
Mercury	19568-05-21 11:02 G	8868265.82	8868265.96	8868266.11	0.0277	0.0091
Mercury	19568-08-18 01:55 G	8868354.48	8868354.58	8868354.69	0.0277	0.0199
Venus	19579-04-05 14:52 G	8872237.11	8872237.12	8872237.15	0.0286	0.0285
Venus	19579-11-21 08:52 G	8872466.67	8872466.87	8872467.08	0.0286	0.0062
Venus	19580-07-08 02:09 G	8872696.43	8872696.59	8872696.78	0.0285	0.0162
Mercury	19582-01-08 05:31 G	8873245.64	8873245.73	8873245.83	0.0284	0.0233
Mercury	19582-04-06 22:48 G	8873334.31	8873334.45	8873334.60	0.0284	0.0110
Moon	19582-05-31 16:48 G	8873388.96	8873389.20	8873389.45	0.0283	0.0056
Earth	19582-05-31 20:09 G	8873389.10	8873389.34	8873389.58	0.0283	0.0070 *
Mercury	19582-07-04 15:50 G	8873423.00	8873423.16	8873423.31	0.0283	0.0012
Mercury	19582-10-01 08:09 G	8873511.70	8873511.84	8873511.98	0.0283	0.0126
Mercury	19582-12-29 00:00 G	8873600.42	8873600.50	8873600.59	0.0283	0.0239
Venus	19594-05-02 20:52 G	8877743.23	8877743.37	8877743.51	0.0273	0.0204
Venus	19594-12-18 03:07 G	8877972.42	8877972.63	8877972.85	0.0273	0.0013
Venus	19595-08-04 10:04 G	8878201.76	8878201.92	8878202.08	0.0274	0.0183
Moon	19596-11-21 20:09 G	8878677.16	8878677.34	8878677.52	0.0275	0.0190
Earth	19596-11-21 21:50 G	8878677.25	8878677.41	8878677.60	0.0275	0.0193 *
Mercury	19597-01-15 19:26 G	8878732.24	8878732.31	8878732.39	0.0275	0.0236
Mercury	19597-04-14 09:21 G	8878820.76	8878820.89	8878821.02	0.0275	0.0137
Mercury	19597-07-11 23:31 G	8878909.33	8878909.48	8878909.63	0.0276	0.0035
Mercury	19597-10-08 13:55 G	8878997.94	8878998.08	8878998.23	0.0276	0.0071
Moon	19597-12-04 08:38 G	8879054.76	8879054.86	8879054.98	0.0276	0.0242
Earth	19597-12-04 12:00 G	8879054.88	8879055.00	8879055.14	0.0276	0.0231 *
Mercury	19598-01-05 04:48 G	8879086.59	8879086.70	8879086.82	0.0276	0.0178

Mars	19602-09-14 14:38 G	8880799.95	8880800.11	8880800.31	0.0283	0.0233
Venus	19608-10-15 23:02 G	8883023.37	8883023.46	8883023.57	0.0286	0.0251
Venus	19609-06-02 16:48 G	8883252.99	8883253.20	8883253.41	0.0286	0.0029
Venus	19610-01-18 09:36 G	8883482.76	8883482.90	8883483.07	0.0285	0.0194
Earth	19611-05-26 05:31 G	8883975.52	8883975.73	8883975.96	0.0284	0.0136
Moon	19611-05-26 09:07 G	8883975.68	8883975.88	8883976.09	0.0284	0.0150 *
Mercury	19611-05-28 06:28 G	8883977.72	8883977.77	8883977.82	0.0284	0.0266
Mercury	19611-08-24 23:45 G	8884066.36	8884066.49	8884066.63	0.0283	0.0143
Mercury	19611-11-21 16:48 G	8884155.04	8884155.20	8884155.36	0.0283	0.0023
Mercury	19612-02-18 09:07 G	8884243.74	8884243.88	8884244.03	0.0283	0.0095
Mercury	19612-05-17 01:12 G	8884332.45	8884332.55	8884332.66	0.0282	0.0208
Mars	19616-10-01 01:40 G	8885930.31	8885930.57	8885930.84	0.0276	0.0051
Venus	19623-11-12 22:04 G	8888529.26	8888529.42	8888529.57	0.0273	0.0184
Venus	19624-06-29 04:19 G	8888758.46	8888758.68	8888758.89	0.0273	0.0010
Venus	19625-02-13 10:48 G	8888987.81	8888987.95	8888988.09	0.0274	0.0202
Mercury	19626-06-04 19:55 G	8889464.32	8889464.33	8889464.35	0.0275	0.0273
Mercury	19626-09-01 09:36 G	8889552.79	8889552.90	8889553.02	0.0276	0.0175
Earth	19626-11-29 00:57 G	8889641.30	8889641.54	8889641.78	0.0276	0.0034
Mercury	19626-11-28 23:31 G	8889641.34	8889641.48	8889641.63	0.0276	0.0075 *
Moon	19626-11-29 04:33 G	8889641.45	8889641.69	8889641.93	0.0276	0.0043 *
Mercury	19627-02-25 13:55 G	8889729.93	8889730.08	8889730.23	0.0276	0.0030
Mercury	19627-05-25 04:33 G	8889818.56	8889818.69	8889818.83	0.0276	0.0136
Mercury	19627-08-21 19:40 G	8889907.25	8889907.32	8889907.39	0.0277	0.0245
Venus	19638-04-28 01:12 G	8893809.44	8893809.55	8893809.69	0.0286	0.0230
Venus	19638-12-13 19:12 G	8894039.09	8894039.30	8894039.51	0.0286	0.0007
Venus	19639-07-31 12:14 G	8894268.89	8894269.01	8894269.16	0.0285	0.0216
Mercury	19641-01-10 23:31 G	8894798.36	8894798.48	8894798.60	0.0284	0.0185
Mercury	19641-04-09 16:48 G	8894887.04	8894887.20	8894887.35	0.0284	0.0063
Moon	19641-06-01 23:02 G	8894940.25	8894940.46	8894940.69	0.0283	0.0115
Earth	19641-06-02 01:40 G	8894940.35	8894940.57	8894940.80	0.0283	0.0124 *

Mercury	19641-07-07 09:21 G	8894975.74	8894975.89	8894976.05	0.0283	0.0055
Mercury	19641-10-04 01:40 G	8895064.45	8895064.57	8895064.69	0.0283	0.0170
Mercury	19641-12-31 17:31 G	8895153.22	8895153.23	8895153.24	0.0283	0.0282
Venus	19653-05-25 06:28 G	8899315.60	8899315.77	8899315.95	0.0273	0.0153
Venus	19654-01-09 12:57 G	8899544.83	8899545.04	8899545.25	0.0273	0.0041
Venus	19654-08-26 19:55 G	8899774.23	8899774.33	8899774.44	0.0274	0.0235
Jupiter	19655-07-31 01:12 G	8900112.27	8900112.55	8900112.85	0.0275	0.0217
Moon	19655-11-24 01:26 G	8900228.36	8900228.56	8900228.78	0.0275	0.0133
Earth	19655-11-24 05:16 G	8900228.51	8900228.72	8900228.93	0.0275	0.0138 *
Mercury	19656-01-19 12:57 G	8900284.93	8900285.04	8900285.14	0.0275	0.0193
Mercury	19656-04-17 02:52 G	8900373.48	8900373.62	8900373.76	0.0275	0.0093
Mercury	19656-07-14 17:02 G	8900462.06	8900462.21	8900462.37	0.0276	0.0014
Mercury	19656-10-11 07:40 G	8900550.69	8900550.82	8900550.96	0.0276	0.0116
Mercury	19657-01-07 22:48 G	8900639.36	8900639.45	8900639.54	0.0276	0.0225
Venus	19667-11-08 11:02 G	8904595.80	8904595.96	8904596.11	0.0286	0.0193
Venus	19668-06-25 04:33 G	8904825.48	8904825.69	8904825.90	0.0286	0.0030
Venus	19669-02-09 21:07 G	8905055.30	8905055.38	8905055.50	0.0285	0.0251
Earth	19670-05-27 13:40 G	8905526.84	8905527.07	8905527.31	0.0284	0.0078
Moon	19670-05-27 16:04 G	8905526.93	8905527.17	8905527.42	0.0284	0.0090 *
Mercury	19670-05-31 00:57 G	8905530.44	8905530.54	8905530.65	0.0284	0.0215
Mercury	19670-08-27 18:14 G	8905619.11	8905619.26	8905619.41	0.0283	0.0092
Mercury	19670-11-24 11:02 G	8905707.80	8905707.96	8905708.12	0.0283	0.0027
Mercury	19671-02-21 03:21 G	8905796.51	8905796.64	8905796.78	0.0283	0.0142
Mercury	19671-05-20 19:12 G	8905885.24	8905885.30	8905885.37	0.0282	0.0254
Venus	19682-12-05 08:38 G	8910101.68	8910101.86	8910102.05	0.0273	0.0131
Venus	19683-07-22 15:07 G	8910330.92	8910331.13	8910331.33	0.0274	0.0062
Venus	19684-03-07 21:50 G	8910560.34	8910560.41	8910560.48	0.0274	0.0255
Mercury	19685-06-07 13:26 G	8911016.99	8911017.06	8911017.15	0.0275	0.0229
Mercury	19685-09-04 03:21 G	8911105.51	8911105.64	8911105.77	0.0276	0.0130
Moon	19685-11-30 09:07 G	8911192.65	8911192.88	8911193.12	0.0276	0.0103

Earth	19685-11-30 09:21 G	8911192.66	8911192.89	8911193.12	0.0276	0.0091 *
Mercury	19685-12-01 17:31 G	8911194.08	8911194.23	8911194.38	0.0276	0.0028
Mercury	19686-02-28 07:55 G	8911282.69	8911282.83	8911282.98	0.0276	0.0077
Mercury	19686-05-27 22:48 G	8911371.34	8911371.45	8911371.56	0.0277	0.0184
Venus	19697-05-20 13:12 G	8915381.88	8915382.05	8915382.22	0.0286	0.0172
Venus	19698-01-05 06:43 G	8915611.58	8915611.78	8915611.99	0.0286	0.0051
Venus	19698-08-23 00:00 G	8915841.44	8915841.50	8915841.56	0.0285	0.0271
Mercury	19699-10-18 00:28 G	8916262.46	8916262.52	8916262.59	0.0284	0.0258
Mercury	19700-01-14 18:00 G	8916351.11	8916351.25	8916351.39	0.0284	0.0134
Mercury	19700-04-13 11:02 G	8916439.80	8916439.96	8916440.12	0.0283	0.0014
Earth	19700-06-04 09:21 G	8916491.70	8916491.89	8916492.08	0.0283	0.0181
Moon	19700-06-04 11:16 G	8916491.79	8916491.97	8916492.16	0.0283	0.0175 *
Mercury	19700-07-11 03:36 G	8916528.50	8916528.65	8916528.79	0.0283	0.0103
Mercury	19700-10-07 19:40 G	8916617.22	8916617.32	8916617.42	0.0283	0.0217
Mars	19705-02-26 01:26 G	8918219.29	8918219.56	8918219.82	0.0277	0.0019
Venus	19712-06-17 17:02 G	8920888.02	8920888.21	8920888.41	0.0273	0.0100
Venus	19713-02-01 23:45 G	8921117.29	8921117.49	8921117.69	0.0274	0.0094
Mercury	19714-10-26 16:48 G	8921749.14	8921749.20	8921749.27	0.0275	0.0247
Earth	19714-11-26 13:40 G	8921779.84	8921780.07	8921780.31	0.0275	0.0082
Moon	19714-11-26 13:55 G	8921779.86	8921780.08	8921780.31	0.0275	0.0074 *
Mercury	19715-01-23 06:43 G	8921837.65	8921837.78	8921837.90	0.0275	0.0148
Mercury	19715-04-21 20:38 G	8921926.22	8921926.36	8921926.51	0.0276	0.0047
Mercury	19715-07-19 11:02 G	8922014.82	8922014.96	8922015.11	0.0276	0.0059
Mercury	19715-10-16 01:55 G	8922103.46	8922103.58	8922103.70	0.0276	0.0165
Mercury	19716-01-12 17:02 G	8922192.20	8922192.21	8922192.22	0.0277	0.0275
Venus	19726-12-02 00:00 G	8926168.32	8926168.50	8926168.69	0.0286	0.0133
Venus	19727-07-19 17:16 G	8926398.03	8926398.22	8926398.43	0.0286	0.0090
Mercury	19729-03-07 02:38 G	8926994.61	8926994.61	8926994.61	0.0284	0.0283
Moon	19729-05-29 22:04 G	8927078.17	8927078.42	8927078.68	0.0284	0.0027
Earth	19729-05-30 00:00 G	8927078.26	8927078.50	8927078.75	0.0284	0.0018 *

Mercury	19729-06-03 20:09 G	8927083.21	8927083.34	8927083.47	0.0284	0.0160
Mercury	19729-08-31 13:12 G	8927171.89	8927172.05	8927172.20	0.0283	0.0039
Mercury	19729-11-28 05:45 G	8927260.59	8927260.74	8927260.89	0.0283	0.0079
Mercury	19730-02-24 21:50 G	8927349.30	8927349.41	8927349.53	0.0283	0.0193
Venus	19741-05-13 13:55 G	8931445.05	8931445.08	8931445.13	0.0273	0.0268
Venus	19741-12-28 20:09 G	8931674.14	8931674.34	8931674.54	0.0273	0.0077
Venus	19742-08-15 02:38 G	8931903.42	8931903.61	8931903.81	0.0274	0.0117
Moon	19743-11-21 06:28 G	8932366.71	8932366.77	8932366.84	0.0275	0.0265
Earth	19743-11-21 06:28 G	8932366.75	8932366.77	8932366.83	0.0275	0.0271 *
Mercury	19744-06-11 07:26 G	8932569.71	8932569.81	8932569.93	0.0275	0.0182
Mercury	19744-09-07 21:21 G	8932658.25	8932658.39	8932658.54	0.0276	0.0082
Moon	19744-12-02 15:36 G	8932743.97	8932744.15	8932744.36	0.0276	0.0165
Earth	19744-12-02 19:26 G	8932744.12	8932744.31	8932744.52	0.0276	0.0150 *
Mercury	19744-12-05 11:45 G	8932746.84	8932746.99	8932747.14	0.0276	0.0022
Mercury	19745-03-04 02:24 G	8932835.46	8932835.60	8932835.73	0.0276	0.0128
Mercury	19745-05-31 17:16 G	8932924.15	8932924.22	8932924.30	0.0277	0.0237
Venus	19756-06-13 02:24 G	8936954.41	8936954.60	8936954.80	0.0286	0.0111
Venus	19757-01-28 19:55 G	8937184.14	8937184.33	8937184.53	0.0285	0.0112
Earth	19758-05-24 02:52 G	8937664.49	8937664.62	8937664.77	0.0284	0.0231
Moon	19758-05-24 04:48 G	8937664.59	8937664.70	8937664.83	0.0284	0.0244 *
Mercury	19758-10-21 19:26 G	8937815.21	8937815.31	8937815.43	0.0284	0.0203
Mercury	19759-01-18 12:43 G	8937903.88	8937904.03	8937904.19	0.0283	0.0081
Mercury	19759-04-17 05:31 G	8937992.58	8937992.73	8937992.89	0.0283	0.0039
Earth	19759-06-06 19:12 G	8938043.17	8938043.30	8938043.43	0.0283	0.0239
Moon	19759-06-06 22:33 G	8938043.31	8938043.44	8938043.59	0.0283	0.0234 *
Mercury	19759-07-14 22:04 G	8938081.29	8938081.42	8938081.55	0.0283	0.0154
Mercury	19759-10-11 13:55 G	8938170.03	8938170.08	8938170.13	0.0283	0.0266
Venus	19770-11-23 21:36 G	8942231.31	8942231.40	8942231.51	0.0273	0.0238
Venus	19771-07-11 04:19 G	8942460.47	8942460.68	8942460.89	0.0273	0.0045
Venus	19772-02-25 11:02 G	8942689.78	8942689.96	8942690.14	0.0274	0.0149

Mercury	19773-10-29 10:48 G	8943301.85	8943301.95	8943302.05	0.0275	0.0200
Earth	19773-11-27 23:16 G	8943331.23	8943331.47	8943331.72	0.0275	0.0025
Moon	19773-11-28 02:52 G	8943331.38	8943331.62	8943331.86	0.0275	0.0014 *
Mercury	19774-01-26 00:43 G	8943390.39	8943390.53	8943390.67	0.0275	0.0100
Mercury	19774-04-24 14:52 G	8943478.97	8943479.12	8943479.27	0.0276	0.0004
Mercury	19774-07-22 05:16 G	8943567.59	8943567.72	8943567.87	0.0276	0.0109
Mercury	19774-10-18 20:24 G	8943656.25	8943656.35	8943656.44	0.0276	0.0217
Venus	19785-12-24 14:09 G	8947740.88	8947741.09	8947741.30	0.0286	0.0071
Venus	19786-08-11 07:26 G	8947970.63	8947970.81	8947970.99	0.0285	0.0151
Mercury	19788-03-09 22:04 G	8948547.32	8948547.42	8948547.52	0.0284	0.0226
Moon	19788-05-31 08:09 G	8948629.60	8948629.84	8948630.09	0.0283	0.0036
Earth	19788-05-31 11:45 G	8948629.75	8948629.99	8948630.24	0.0283	0.0046 *
Mercury	19788-06-06 15:21 G	8948635.99	8948636.14	8948636.29	0.0283	0.0103
Mercury	19788-09-03 08:09 G	8948724.69	8948724.84	8948725.00	0.0283	0.0017
Mercury	19788-12-01 00:28 G	8948813.39	8948813.52	8948813.66	0.0283	0.0133
Mercury	19789-02-27 16:33 G	8948902.12	8948902.19	8948902.27	0.0282	0.0245
Mars	19793-07-23 07:40 G	8950508.57	8950508.82	8950509.08	0.0276	0.0090
Venus	19800-06-06 01:55 G	8953017.45	8953017.58	8953017.72	0.0273	0.0213
Venus	19801-01-21 08:09 G	8953246.63	8953246.84	8953247.05	0.0273	0.0021
Venus	19801-09-07 14:52 G	8953475.96	8953476.12	8953476.29	0.0274	0.0173
Moon	19802-11-23 14:09 G	8953917.93	8953918.09	8953918.26	0.0275	0.0205
Earth	19802-11-23 17:31 G	8953918.08	8953918.23	8953918.39	0.0275	0.0212 *
Mercury	19803-03-19 11:45 G	8954033.92	8954033.99	8954034.08	0.0275	0.0233
Mercury	19803-06-16 01:40 G	8954122.44	8954122.57	8954122.70	0.0276	0.0133
Mercury	19803-09-12 15:50 G	8954211.01	8954211.16	8954211.31	0.0276	0.0031
Moon	19803-12-06 05:16 G	8954295.58	8954295.72	8954295.85	0.0276	0.0224
Earth	19803-12-06 06:43 G	8954295.62	8954295.78	8954295.94	0.0276	0.0209 *
Mercury	19803-12-10 06:14 G	8954299.61	8954299.76	8954299.91	0.0276	0.0074
Mercury	19804-03-07 20:52 G	8954388.26	8954388.37	8954388.49	0.0276	0.0181
Venus	19814-11-19 22:48 G	8958297.40	8958297.45	8958297.53	0.0286	0.0271

Venus	19815-07-07 16:48 G	8958526.99	8958527.20	8958527.41	0.0285	0.0049
Venus	19816-02-22 10:04 G	8958756.75	8958756.92	8958757.09	0.0285	0.0173
Earth	19817-05-26 14:38 G	8959215.92	8959216.11	8959216.32	0.0284	0.0168
Moon	19817-05-26 18:28 G	8959216.09	8959216.27	8959216.47	0.0284	0.0181 *
Mercury	19817-07-28 21:21 G	8959279.35	8959279.39	8959279.44	0.0284	0.0270
Mercury	19817-10-25 14:52 G	8959367.99	8959368.12	8959368.26	0.0284	0.0146
Mercury	19818-01-22 07:55 G	8959456.68	8959456.83	8959456.99	0.0283	0.0025
Mercury	19818-04-21 00:28 G	8959545.38	8959545.52	8959545.67	0.0283	0.0093
Mercury	19818-07-18 16:48 G	8959634.10	8959634.20	8959634.30	0.0283	0.0207
Venus	19829-12-17 08:38 G	8963803.71	8963803.86	8963804.02	0.0273	0.0184
Venus	19830-08-03 15:21 G	8964032.93	8964033.14	8964033.36	0.0274	0.0011
Venus	19831-03-20 22:19 G	8964262.30	8964262.43	8964262.58	0.0274	0.0204
Mercury	19832-08-05 14:52 G	8964766.07	8964766.12	8964766.18	0.0275	0.0252
Mercury	19832-11-02 04:33 G	8964854.57	8964854.69	8964854.82	0.0275	0.0153
Earth	19832-11-30 09:07 G	8964882.64	8964882.88	8964883.12	0.0276	0.0033
Moon	19832-11-30 11:02 G	8964882.71	8964882.96	8964883.21	0.0276	0.0043 *
Mercury	19833-01-29 18:43 G	8964943.13	8964943.28	8964943.43	0.0276	0.0051
Mercury	19833-04-28 09:07 G	8965031.73	8965031.88	8965032.03	0.0276	0.0053
Mercury	19833-07-25 23:45 G	8965120.37	8965120.49	8965120.62	0.0276	0.0160
Mercury	19833-10-22 14:52 G	8965209.09	8965209.12	8965209.15	0.0277	0.0269
Mars	19837-10-08 19:40 G	8966656.18	8966656.32	8966656.47	0.0282	0.0252
Venus	19844-06-01 11:16 G	8969083.86	8969083.97	8969084.11	0.0286	0.0230
Venus	19845-01-17 05:16 G	8969313.50	8969313.72	8969313.93	0.0286	0.0009
Venus	19845-09-03 22:04 G	8969543.29	8969543.42	8969543.57	0.0285	0.0214
Mercury	19847-03-14 17:45 G	8970100.11	8970100.24	8970100.37	0.0284	0.0166
Moon	19847-06-04 00:00 G	8970181.28	8970181.50	8970181.72	0.0283	0.0102
Earth	19847-06-04 00:43 G	8970181.31	8970181.53	8970181.77	0.0283	0.0111 *
Mercury	19847-06-11 10:48 G	8970188.80	8970188.95	8970189.11	0.0283	0.0046
Mercury	19847-09-08 03:36 G	8970277.50	8970277.65	8970277.80	0.0283	0.0073
Mercury	19847-12-05 19:40 G	8970366.21	8970366.32	8970366.44	0.0283	0.0188

Venus	19859-06-29 13:40 G	8974589.91	8974590.07	8974590.25	0.0273	0.0158
Venus	19860-02-13 20:09 G	8974819.13	8974819.34	8974819.55	0.0273	0.0035
Venus	19860-09-30 02:52 G	8975048.51	8975048.62	8975048.74	0.0274	0.0229
Moon	19861-11-25 01:55 G	8975469.39	8975469.58	8975469.79	0.0275	0.0147
Earth	19861-11-25 04:19 G	8975469.48	8975469.68	8975469.89	0.0275	0.0153 *
Mercury	19862-03-22 06:00 G	8975586.65	8975586.75	8975586.86	0.0275	0.0184
Mercury	19862-06-18 19:55 G	8975675.19	8975675.33	8975675.48	0.0276	0.0084
Mercury	19862-09-15 10:19 G	8975763.78	8975763.93	8975764.08	0.0276	0.0020
Earth	19862-12-07 17:16 G	8975847.18	8975847.22	8975847.29	0.0276	0.0269
Mercury	19862-12-13 00:43 G	8975852.40	8975852.53	8975852.67	0.0276	0.0127
Mercury	19863-03-11 15:36 G	8975941.08	8975941.15	8975941.24	0.0277	0.0235
Venus	19873-12-12 13:40 G	8979869.93	8979870.07	8979870.22	0.0286	0.0208
Venus	19874-07-30 07:26 G	8980099.60	8980099.81	8980100.02	0.0285	0.0015
Venus	19875-03-17 00:14 G	8980329.40	8980329.51	8980329.64	0.0285	0.0236
Earth	19876-05-28 03:21 G	8980767.41	8980767.64	8980767.87	0.0284	0.0105
Moon	19876-05-28 03:36 G	8980767.41	8980767.65	8980767.88	0.0284	0.0114 *
Mercury	19876-07-31 17:02 G	8980832.11	8980832.21	8980832.32	0.0284	0.0210
Mercury	19876-10-28 10:19 G	8980920.78	8980920.93	8980921.08	0.0283	0.0088
Mercury	19877-01-25 03:07 G	8981009.48	8981009.63	8981009.79	0.0283	0.0032
Mercury	19877-04-23 19:26 G	8981098.18	8981098.31	8981098.45	0.0283	0.0148
Mercury	19877-07-21 11:31 G	8981186.93	8981186.98	8981187.04	0.0282	0.0260
Mars	19881-12-18 06:14 G	8982797.55	8982797.76	8982797.99	0.0277	0.0156
Venus	19889-01-08 19:26 G	8985376.13	8985376.31	8985376.51	0.0274	0.0131
Venus	19889-08-26 02:24 G	8985605.40	8985605.60	8985605.81	0.0274	0.0064
Venus	19890-04-12 09:21 G	8985834.84	8985834.89	8985834.97	0.0274	0.0259
Mercury	19891-08-09 08:38 G	8986318.77	8986318.86	8986318.96	0.0275	0.0206
Mercury	19891-11-05 22:33 G	8986407.31	8986407.44	8986407.58	0.0276	0.0106
Moon	19891-12-02 16:04 G	8986433.95	8986434.17	8986434.41	0.0276	0.0102
Earth	19891-12-02 18:28 G	8986434.04	8986434.27	8986434.50	0.0276	0.0089 *
Mercury	19892-02-02 12:43 G	8986495.88	8986496.03	8986496.19	0.0276	0.0008

Mercury	19892-05-01 03:21 G	8986584.50	8986584.64	8986584.78	0.0276	0.0103
Mercury	19892-07-28 18:00 G	8986673.16	8986673.25	8986673.36	0.0276	0.0212
Venus	19903-06-26 02:09 G	8990656.42	8990656.59	8990656.77	0.0286	0.0167
Venus	19904-02-10 19:55 G	8990886.12	8990886.33	8990886.54	0.0286	0.0056
Venus	19904-09-27 12:28 G	8991115.98	8991116.02	8991116.08	0.0285	0.0277
Mercury	19905-12-19 19:55 G	8991564.24	8991564.33	8991564.43	0.0284	0.0230
Mercury	19906-03-18 13:26 G	8991652.91	8991653.06	8991653.21	0.0284	0.0107
Earth	19906-06-06 13:26 G	8991732.88	8991733.06	8991733.27	0.0283	0.0174
Moon	19906-06-06 16:48 G	8991733.01	8991733.20	8991733.40	0.0283	0.0167 *
Mercury	19906-06-15 06:14 G	8991741.60	8991741.76	8991741.92	0.0283	0.0013
Mercury	19906-09-11 22:48 G	8991830.31	8991830.45	8991830.59	0.0283	0.0129
Mercury	19906-12-09 14:38 G	8991919.04	8991919.11	8991919.19	0.0283	0.0242
Venus	19918-07-23 01:12 G	8996162.36	8996162.55	8996162.75	0.0273	0.0104
Venus	19919-03-09 07:40 G	8996391.62	8996391.82	8996392.02	0.0273	0.0090
Earth	19920-11-27 14:09 G	8997020.86	8997021.09	8997021.32	0.0275	0.0096
Moon	19920-11-27 16:04 G	8997020.94	8997021.17	8997021.39	0.0275	0.0086 *
Mercury	19920-12-27 10:19 G	8997050.86	8997050.93	8997051.01	0.0275	0.0235
Mercury	19921-03-26 00:00 G	8997139.38	8997139.50	8997139.63	0.0276	0.0136
Mercury	19921-06-22 14:09 G	8997227.94	8997228.09	8997228.24	0.0276	0.0034
Mercury	19921-09-19 04:33 G	8997316.54	8997316.69	8997316.84	0.0276	0.0071
Mercury	19921-12-16 19:12 G	8997405.19	8997405.30	8997405.42	0.0276	0.0178
Mars	19926-03-05 19:26 G	8998945.07	8998945.31	8998945.58	0.0282	0.0172
Venus	19933-01-05 04:48 G	9001442.52	9001442.70	9001442.89	0.0286	0.0144
Venus	19933-08-22 22:19 G	9001672.23	9001672.43	9001672.63	0.0285	0.0079
Mercury	19935-05-08 19:12 G	9002296.26	9002296.30	9002296.34	0.0284	0.0275
Moon	19935-05-31 12:28 G	9002318.78	9002319.02	9002319.27	0.0283	0.0048
Earth	19935-05-31 16:19 G	9002318.94	9002319.18	9002319.43	0.0283	0.0041 *
Mercury	19935-08-05 12:43 G	9002384.90	9002385.03	9002385.16	0.0283	0.0151
Mercury	19935-11-02 05:45 G	9002473.58	9002473.74	9002473.90	0.0283	0.0030
Mercury	19936-01-29 22:19 G	9002562.29	9002562.43	9002562.58	0.0283	0.0088

Mercury	19936-04-27 14:38 G	9002651.00	9002651.11	9002651.22	0.0282	0.0202
Venus	19947-06-17 23:31 G	9006719.45	9006719.48	9006719.51	0.0273	0.0270
Venus	19948-02-02 05:45 G	9006948.54	9006948.74	9006948.95	0.0274	0.0078
Venus	19948-09-18 12:43 G	9007177.84	9007178.03	9007178.22	0.0274	0.0116
Moon	19949-11-22 10:19 G	9007607.89	9007607.93	9007607.99	0.0275	0.0268
Mercury	19950-05-16 12:28 G	9007782.98	9007783.02	9007783.07	0.0275	0.0260
Mercury	19950-08-13 02:09 G	9007871.47	9007871.59	9007871.71	0.0276	0.0162
Mercury	19950-11-09 16:19 G	9007960.03	9007960.18	9007960.32	0.0276	0.0060
Moon	19950-12-04 22:33 G	9007985.25	9007985.44	9007985.65	0.0276	0.0158
Earth	19950-12-05 02:09 G	9007985.39	9007985.59	9007985.80	0.0276	0.0144 *
Mercury	19951-02-06 06:28 G	9008048.62	9008048.77	9008048.92	0.0276	0.0045
Mercury	19951-05-05 21:07 G	9008137.26	9008137.38	9008137.51	0.0276	0.0152
Mercury	19951-08-02 12:14 G	9008225.96	9008226.01	9008226.06	0.0277	0.0261
Venus	19962-07-18 16:19 G	9012228.99	9012229.18	9012229.39	0.0286	0.0105
Venus	19963-03-05 10:04 G	9012458.73	9012458.92	9012459.11	0.0286	0.0118
Earth	19964-05-25 09:50 G	9012905.77	9012905.91	9012906.06	0.0284	0.0232
Moon	19964-05-25 13:12 G	9012905.94	9012906.05	9012906.19	0.0284	0.0242 *
Mercury	19964-12-22 15:36 G	9013117.02	9013117.15	9013117.28	0.0284	0.0172
Mercury	19965-03-21 08:38 G	9013205.71	9013205.86	9013206.02	0.0283	0.0051
Earth	19965-06-08 01:26 G	9013284.44	9013284.56	9013284.71	0.0283	0.0236
Moon	19965-06-08 04:19 G	9013284.55	9013284.68	9013284.83	0.0283	0.0232 *
Mercury	19965-06-18 01:26 G	9013294.41	9013294.56	9013294.71	0.0283	0.0068
Mercury	19965-09-14 17:45 G	9013383.12	9013383.24	9013383.36	0.0283	0.0183
Mars	19970-05-15 19:12 G	9015087.17	9015087.30	9015087.44	0.0276	0.0236
Venus	19976-12-28 05:31 G	9017505.64	9017505.73	9017505.83	0.0273	0.0243
Venus	19977-08-14 11:45 G	9017734.79	9017734.99	9017735.20	0.0273	0.0052
Venus	19978-03-31 18:28 G	9017964.09	9017964.27	9017964.45	0.0274	0.0143
Earth	19979-11-29 22:33 G	9018572.20	9018572.44	9018572.68	0.0275	0.0040
Moon	19979-11-30 02:09 G	9018572.35	9018572.59	9018572.84	0.0275	0.0028 *
Mercury	19979-12-31 03:50 G	9018603.56	9018603.66	9018603.77	0.0275	0.0190

Mercury	19980-03-28 17:45 G	9018692.10	9018692.24	9018692.38	0.0276	0.0090
Mercury	19980-06-25 08:09 G	9018780.69	9018780.84	9018780.99	0.0276	0.0015
Mercury	19980-09-21 22:33 G	9018869.30	9018869.44	9018869.58	0.0276	0.0119
Mercury	19980-12-19 13:26 G	9018957.98	9018958.06	9018958.15	0.0277	0.0228
Venus	19992-01-28 18:57 G	9023015.09	9023015.29	9023015.49	0.0286	0.0082
Venus	19992-09-14 12:00 G	9023244.83	9023245.00	9023245.19	0.0285	0.0141
Mercury	19994-05-11 14:38 G	9023849.01	9023849.11	9023849.21	0.0283	0.0217
Moon	19994-06-02 02:09 G	9023870.35	9023870.59	9023870.83	0.0283	0.0018
Earth	19994-06-02 04:04 G	9023870.43	9023870.67	9023870.92	0.0283	0.0022 *
Mercury	19994-08-08 07:55 G	9023937.68	9023937.83	9023937.98	0.0283	0.0095
Mercury	19994-11-05 00:57 G	9024026.38	9024026.54	9024026.69	0.0283	0.0026
Mercury	19995-02-01 17:16 G	9024115.09	9024115.22	9024115.36	0.0282	0.0141
Mercury	19995-05-01 09:07 G	9024203.83	9024203.88	9024203.95	0.0282	0.0255

21ST MILLENNIUM CE

This is a list of transits visible from Saturn in the 21st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	20006-07-10 08:24 G		9028291.74	9028291.85	9028291.98	0.0273	0.0220	
Venus	20007-02-24 15:07 G		9028520.92	9028521.13	9028521.34	0.0274	0.0028	
Venus	20007-10-11 21:50 G		9028750.25	9028750.41	9028750.58	0.0274	0.0167	
Moon	20008-11-23 14:52 G		9029158.98	9029159.12	9029159.27	0.0275	0.0214	
Earth	20008-11-23 18:00 G		9029159.13	9029159.25	9029159.41	0.0275	0.0225 *	
Mercury	20009-05-19 05:31 G		9029335.65	9029335.73	9029335.82	0.0275	0.0220	

Mercury	20009-08-15 19:26 G	9029424.17	9029424.31	9029424.44	0.0276	0.0120
Mercury	20009-11-12 09:36 G	9029512.75	9029512.90	9029513.05	0.0276	0.0018
Earth	20009-12-06 07:55 G	9029536.66	9029536.83	9029537.00	0.0276	0.0195
Moon	20009-12-06 07:55 G	9029536.69	9029536.83	9029536.99	0.0276	0.0211 *
Mercury	20010-02-09 00:00 G	9029601.36	9029601.50	9029601.64	0.0276	0.0089
Mercury	20010-05-08 14:38 G	9029690.01	9029690.11	9029690.22	0.0277	0.0197
Mars	20014-07-31 09:50 G	9031234.60	9031234.91	9031235.23	0.0282	0.0077
Venus	20020-12-23 12:00 G	9033571.93	9033572.00	9033572.07	0.0286	0.0268
Venus	20021-08-10 06:00 G	9033801.54	9033801.75	9033801.96	0.0286	0.0045
Venus	20022-03-27 23:16 G	9034031.31	9034031.47	9034031.64	0.0286	0.0178
Earth	20023-05-27 21:07 G	9034457.19	9034457.38	9034457.58	0.0284	0.0169
Moon	20023-05-27 23:16 G	9034457.28	9034457.47	9034457.67	0.0284	0.0178 *
Mercury	20023-09-28 17:16 G	9034581.14	9034581.22	9034581.31	0.0284	0.0239
Mercury	20023-12-26 10:48 G	9034669.80	9034669.95	9034670.10	0.0284	0.0116
Mercury	20024-03-24 03:50 G	9034758.50	9034758.66	9034758.82	0.0283	0.0007
Mercury	20024-06-20 20:09 G	9034847.20	9034847.34	9034847.49	0.0283	0.0122
Mercury	20024-09-17 12:14 G	9034935.93	9034936.01	9034936.10	0.0283	0.0236
Mars	20028-08-23 15:50 G	9036372.04	9036372.16	9036372.31	0.0277	0.0237
Venus	20036-01-20 14:52 G	9039077.98	9039078.12	9039078.27	0.0273	0.0193
Venus	20036-09-05 21:21 G	9039307.17	9039307.39	9039307.60	0.0273	0.0005
Venus	20037-04-23 03:36 G	9039536.51	9039536.65	9039536.81	0.0274	0.0194
Mercury	20038-10-06 07:26 G	9040067.75	9040067.81	9040067.88	0.0275	0.0247
Moon	20038-12-01 04:04 G	9040123.42	9040123.67	9040123.92	0.0275	0.0027
Earth	20038-12-01 04:33 G	9040123.45	9040123.69	9040123.94	0.0275	0.0013 *
Mercury	20039-01-02 21:07 G	9040156.26	9040156.38	9040156.51	0.0275	0.0148
Mercury	20039-04-01 11:16 G	9040244.82	9040244.97	9040245.11	0.0276	0.0047
Mercury	20039-06-29 01:26 G	9040333.41	9040333.56	9040333.71	0.0276	0.0058
Mercury	20039-09-25 16:04 G	9040422.05	9040422.17	9040422.30	0.0276	0.0165
Mercury	20039-12-23 07:12 G	9040510.78	9040510.80	9040510.82	0.0277	0.0274
Venus	20050-07-05 13:55 G	9044357.98	9044358.08	9044358.19	0.0286	0.0246

Venus	20051-02-20 07:55 G	9044587.62	9044587.83	9044588.04	0.0286	0.0023
Venus	20051-10-08 00:57 G	9044817.40	9044817.54	9044817.70	0.0285	0.0199
Mercury	20053-05-14 09:36 G	9045401.77	9045401.90	9045402.04	0.0283	0.0162
Earth	20053-06-03 14:24 G	9045421.86	9045422.10	9045422.34	0.0283	0.0082
Moon	20053-06-03 16:33 G	9045421.96	9045422.19	9045422.42	0.0283	0.0082 *
Mercury	20053-08-11 02:52 G	9045490.46	9045490.62	9045490.78	0.0283	0.0040
Mercury	20053-11-07 19:40 G	9045579.16	9045579.32	9045579.47	0.0283	0.0078
Mercury	20054-02-04 11:45 G	9045667.88	9045667.99	9045668.11	0.0282	0.0192
Venus	20065-08-01 16:33 G	9049864.04	9049864.19	9049864.37	0.0273	0.0173
Venus	20066-03-18 23:16 G	9050093.26	9050093.47	9050093.68	0.0274	0.0021
Venus	20066-11-03 06:00 G	9050322.62	9050322.75	9050322.88	0.0274	0.0215
Earth	20067-11-25 22:04 G	9050710.24	9050710.42	9050710.61	0.0275	0.0175
Moon	20067-11-25 22:33 G	9050710.26	9050710.44	9050710.64	0.0275	0.0164 *
Mercury	20068-05-21 22:04 G	9050888.32	9050888.42	9050888.54	0.0276	0.0182
Mercury	20068-08-18 12:14 G	9050976.86	9050977.01	9050977.15	0.0276	0.0080
Mercury	20068-11-15 02:24 G	9051065.45	9051065.60	9051065.75	0.0276	0.0024
Earth	20068-12-07 11:45 G	9051087.88	9051087.99	9051088.10	0.0276	0.0245
Moon	20068-12-07 15:21 G	9051088.08	9051088.14	9051088.23	0.0276	0.0262 *
Mercury	20069-02-11 17:02 G	9051154.07	9051154.21	9051154.34	0.0276	0.0130
Mercury	20069-05-11 07:55 G	9051242.76	9051242.83	9051242.91	0.0277	0.0239
Venus	20080-01-15 23:31 G	9055144.35	9055144.48	9055144.63	0.0287	0.0212
Venus	20080-09-01 17:31 G	9055374.02	9055374.23	9055374.45	0.0286	0.0014
Venus	20081-04-19 10:48 G	9055603.84	9055603.95	9055604.08	0.0286	0.0235
Moon	20082-05-29 03:36 G	9056008.42	9056008.65	9056008.89	0.0284	0.0116
Earth	20082-05-29 05:45 G	9056008.51	9056008.74	9056008.97	0.0284	0.0110 *
Mercury	20082-10-01 12:00 G	9056133.88	9056134.00	9056134.12	0.0284	0.0187
Mercury	20082-12-29 05:16 G	9056222.57	9056222.72	9056222.88	0.0284	0.0065
Mercury	20083-03-27 22:04 G	9056311.27	9056311.42	9056311.58	0.0283	0.0055
Mercury	20083-06-24 14:24 G	9056399.98	9056400.10	9056400.23	0.0283	0.0171
Venus	20095-02-11 23:16 G	9060650.29	9060650.47	9060650.65	0.0273	0.0145

Venus	20095-09-29 05:16 G	9060879.52	9060879.72	9060879.94	0.0273	0.0048
Venus	20096-05-15 11:45 G	9061108.90	9061108.99	9061109.10	0.0274	0.0241
Mercury	20097-10-09 00:14 G	9061620.41	9061620.51	9061620.60	0.0275	0.0208
Moon	20097-12-02 04:48 G	9061674.47	9061674.70	9061674.94	0.0275	0.0079
Earth	20097-12-02 08:24 G	9061674.62	9061674.85	9061675.09	0.0275	0.0063 *
Mercury	20098-01-05 13:55 G	9061708.95	9061709.08	9061709.22	0.0275	0.0109
Mercury	20098-04-04 04:04 G	9061797.52	9061797.67	9061797.82	0.0276	0.0006
Mercury	20098-07-01 18:28 G	9061886.13	9061886.27	9061886.41	0.0276	0.0099
Mercury	20098-09-28 09:07 G	9061974.79	9061974.88	9061974.99	0.0276	0.0207
Mars	20102-12-25 21:07 G	9063523.06	9063523.38	9063523.71	0.0283	0.0015
Venus	20109-07-29 01:26 G	9065930.41	9065930.56	9065930.73	0.0286	0.0190
Venus	20110-03-15 19:40 G	9066160.11	9066160.32	9066160.53	0.0286	0.0034
Venus	20110-10-31 12:43 G	9066389.94	9066390.03	9066390.13	0.0285	0.0255
Mercury	20112-02-19 10:48 G	9066865.87	9066865.95	9066866.05	0.0283	0.0234
Mercury	20112-05-18 04:19 G	9066954.53	9066954.68	9066954.83	0.0283	0.0110
Earth	20112-06-05 22:48 G	9066973.24	9066973.45	9066973.66	0.0283	0.0140
Moon	20112-06-06 02:09 G	9066973.38	9066973.59	9066973.81	0.0283	0.0140 *
Mercury	20112-08-14 21:21 G	9067043.23	9067043.39	9067043.55	0.0283	0.0010
Mercury	20112-11-11 13:40 G	9067131.94	9067132.07	9067132.22	0.0282	0.0128
Mercury	20113-02-08 06:00 G	9067220.67	9067220.75	9067220.83	0.0282	0.0240
Mars	20117-01-18 02:09 G	9068660.42	9068660.59	9068660.79	0.0277	0.0199
Venus	20124-08-24 23:45 G	9071436.31	9071436.49	9071436.69	0.0273	0.0126
Venus	20125-04-11 06:14 G	9071665.55	9071665.76	9071665.97	0.0274	0.0067
Venus	20125-11-26 12:43 G	9071894.98	9071895.03	9071895.10	0.0274	0.0261
Earth	20126-11-27 23:45 G	9072261.27	9072261.49	9072261.70	0.0275	0.0128
Moon	20126-11-28 03:07 G	9072261.42	9072261.63	9072261.86	0.0275	0.0115 *
Mercury	20127-02-27 00:43 G	9072352.47	9072352.53	9072352.60	0.0275	0.0245
Mercury	20127-05-26 14:24 G	9072440.98	9072441.10	9072441.23	0.0276	0.0146
Mercury	20127-08-23 04:33 G	9072529.54	9072529.69	9072529.84	0.0276	0.0044
Mercury	20127-11-19 18:43 G	9072618.14	9072618.28	9072618.43	0.0276	0.0062

Mercury	20128-02-16 09:21 G	9072706.78	9072706.89	9072707.02	0.0276	0.0169
Venus	20139-02-08 10:04 G	9076716.74	9076716.92	9076717.10	0.0287	0.0158
Venus	20139-09-26 04:04 G	9076946.46	9076946.67	9076946.88	0.0286	0.0067
Moon	20141-05-31 08:38 G	9077559.63	9077559.86	9077560.10	0.0284	0.0060
Earth	20141-05-31 12:14 G	9077559.77	9077560.01	9077560.26	0.0284	0.0054 *
Mercury	20141-07-08 12:28 G	9077597.97	9077598.02	9077598.09	0.0284	0.0264
Mercury	20141-10-05 06:14 G	9077686.62	9077686.76	9077686.90	0.0284	0.0138
Mercury	20142-01-01 23:16 G	9077775.32	9077775.47	9077775.63	0.0284	0.0018
Mercury	20142-03-31 16:04 G	9077864.02	9077864.17	9077864.31	0.0283	0.0102
Mercury	20142-06-28 08:09 G	9077952.75	9077952.84	9077952.94	0.0283	0.0216
Venus	20154-03-07 06:14 G	9082222.57	9082222.76	9082222.97	0.0272	0.0100
Venus	20154-10-22 12:28 G	9082451.83	9082452.02	9082452.22	0.0273	0.0094
Mercury	20156-07-16 02:52 G	9083084.60	9083084.62	9083084.65	0.0275	0.0270
Mercury	20156-10-12 16:33 G	9083173.08	9083173.19	9083173.30	0.0275	0.0172
Moon	20156-12-04 09:21 G	9083225.69	9083225.89	9083226.11	0.0275	0.0126
Earth	20156-12-04 10:33 G	9083225.72	9083225.94	9083226.17	0.0275	0.0111 *
Mercury	20157-01-09 06:28 G	9083261.62	9083261.77	9083261.91	0.0275	0.0072
Mercury	20157-04-07 20:38 G	9083350.21	9083350.36	9083350.51	0.0276	0.0032
Mercury	20157-07-05 11:02 G	9083438.83	9083438.96	9083439.10	0.0276	0.0138
Mercury	20157-10-02 01:55 G	9083527.52	9083527.58	9083527.65	0.0276	0.0247
Venus	20168-08-20 11:45 G	9087502.81	9087502.99	9087503.19	0.0286	0.0137
Venus	20169-04-07 05:45 G	9087732.54	9087732.74	9087732.94	0.0286	0.0088
Earth	20170-05-25 11:45 G	9088145.94	9088145.99	9088146.08	0.0284	0.0272
Moon	20170-05-25 15:36 G	9088146.11	9088146.15	9088146.21	0.0284	0.0278
Mercury	20171-02-22 05:02 G	9088418.59	9088418.71	9088418.83	0.0283	0.0185
Mercury	20171-05-21 22:19 G	9088507.28	9088507.43	9088507.59	0.0283	0.0063
Earth	20171-06-08 04:48 G	9088524.53	9088524.70	9088524.88	0.0283	0.0196
Moon	20171-06-08 04:48 G	9088524.53	9088524.70	9088524.90	0.0283	0.0197 *
Mercury	20171-08-18 15:07 G	9088595.98	9088596.13	9088596.29	0.0283	0.0057
Mercury	20171-11-15 07:26 G	9088684.69	9088684.81	9088684.94	0.0282	0.0173

Venus	20183-01-31 00:14 G	9092779.51	9092779.51	9092779.53	0.0273	0.0272
Venus	20183-09-17 06:14 G	9093008.56	9093008.76	9093008.96	0.0273	0.0081
Venus	20184-05-03 12:14 G	9093237.82	9093238.01	9093238.21	0.0273	0.0112
Earth	20185-11-28 23:45 G	9093812.26	9093812.49	9093812.73	0.0275	0.0083
Moon	20185-11-29 01:12 G	9093812.31	9093812.55	9093812.80	0.0275	0.0070 *
Mercury	20186-03-01 16:48 G	9093905.11	9093905.20	9093905.29	0.0275	0.0211
Mercury	20186-05-29 06:28 G	9093993.64	9093993.77	9093993.91	0.0276	0.0112
Mercury	20186-08-25 20:38 G	9094082.21	9094082.36	9094082.51	0.0276	0.0010
Mercury	20186-11-22 11:02 G	9094170.82	9094170.96	9094171.10	0.0276	0.0096
Mercury	20187-02-19 01:40 G	9094259.47	9094259.57	9094259.68	0.0276	0.0204
Mars	20191-05-20 22:48 G	9095811.13	9095811.45	9095811.78	0.0283	0.0025
Venus	20198-03-02 18:43 G	9098289.09	9098289.28	9098289.48	0.0287	0.0107
Venus	20198-10-18 12:57 G	9098518.84	9098519.04	9098519.23	0.0286	0.0118
Earth	20200-06-02 16:33 G	9099110.94	9099111.19	9099111.44	0.0285	0.0001
Moon	20200-06-02 16:33 G	9099110.95	9099111.19	9099111.43	0.0285	0.0002 *
Mercury	20200-07-12 06:28 G	9099150.66	9099150.77	9099150.87	0.0284	0.0218
Mercury	20200-10-08 23:45 G	9099239.34	9099239.49	9099239.64	0.0284	0.0094
Mercury	20201-01-05 16:48 G	9099328.04	9099328.20	9099328.36	0.0284	0.0027
Mercury	20201-04-04 09:21 G	9099416.76	9099416.89	9099417.03	0.0283	0.0145
Mercury	20201-07-02 01:26 G	9099505.50	9099505.56	9099505.62	0.0283	0.0258
Mars	20205-06-15 06:00 G	9100949.53	9100949.75	9100950.00	0.0277	0.0129
Venus	20212-08-13 07:26 G	9103565.72	9103565.81	9103565.90	0.0272	0.0244
Venus	20213-03-30 12:57 G	9103794.83	9103795.04	9103795.25	0.0272	0.0054
Venus	20213-11-14 18:57 G	9104024.11	9104024.29	9104024.47	0.0273	0.0138
Moon	20214-11-24 22:04 G	9104399.32	9104399.42	9104399.52	0.0274	0.0245
Earth	20214-11-24 23:45 G	9104399.41	9104399.49	9104399.58	0.0274	0.0256 *
Mercury	20215-07-20 18:57 G	9104637.22	9104637.29	9104637.36	0.0275	0.0237
Mercury	20215-10-17 08:38 G	9104725.73	9104725.86	9104725.99	0.0275	0.0138
Earth	20215-12-07 11:02 G	9104776.77	9104776.96	9104777.17	0.0275	0.0156
Moon	20215-12-07 13:55 G	9104776.90	9104777.08	9104777.27	0.0275	0.0170 *

Mercury	20216-01-13 22:33 G	9104814.29	9104814.44	9104814.59	0.0275	0.0037
Mercury	20216-04-11 12:43 G	9104902.89	9104903.03	9104903.18	0.0276	0.0068
Mercury	20216-07-09 03:21 G	9104991.53	9104991.64	9104991.76	0.0276	0.0174
Venus	20227-09-13 21:07 G	9109075.18	9109075.38	9109075.58	0.0286	0.0084
Venus	20228-04-30 14:52 G	9109304.94	9109305.12	9109305.31	0.0286	0.0140
Moon	20229-05-27 15:50 G	9109696.99	9109697.16	9109697.32	0.0285	0.0218
Earth	20229-05-27 16:33 G	9109697.04	9109697.19	9109697.36	0.0285	0.0218 *
Mercury	20229-11-29 05:02 G	9109882.66	9109882.71	9109882.77	0.0284	0.0265
Mercury	20230-02-25 22:48 G	9109971.31	9109971.45	9109971.59	0.0284	0.0140
Mercury	20230-05-25 15:50 G	9110060.01	9110060.16	9110060.32	0.0283	0.0020
Moon	20230-06-10 05:45 G	9110075.65	9110075.74	9110075.86	0.0283	0.0254
Earth	20230-06-10 09:36 G	9110075.79	9110075.90	9110076.02	0.0283	0.0248 *
Mercury	20230-08-22 08:38 G	9110148.72	9110148.86	9110149.01	0.0283	0.0100
Mercury	20230-11-19 00:43 G	9110237.44	9110237.53	9110237.64	0.0283	0.0216
Venus	20242-02-23 06:14 G	9114351.66	9114351.76	9114351.88	0.0272	0.0229
Venus	20242-10-10 12:00 G	9114580.79	9114581.00	9114581.21	0.0273	0.0038
Venus	20243-05-27 18:00 G	9114810.08	9114810.25	9114810.43	0.0273	0.0155
Moon	20244-11-30 20:24 G	9115363.10	9115363.35	9115363.60	0.0275	0.0023
Earth	20244-11-30 23:16 G	9115363.23	9115363.47	9115363.71	0.0275	0.0039 *
Mercury	20245-03-05 08:38 G	9115457.74	9115457.86	9115457.97	0.0275	0.0180
Mercury	20245-06-01 22:19 G	9115546.29	9115546.43	9115546.57	0.0275	0.0079
Mercury	20245-08-29 12:28 G	9115634.87	9115635.02	9115635.17	0.0276	0.0024
Mercury	20245-11-26 02:52 G	9115723.49	9115723.62	9115723.76	0.0276	0.0131
Mercury	20246-02-22 17:45 G	9115812.17	9115812.24	9115812.32	0.0276	0.0239
Venus	20256-08-08 07:40 G	9119631.79	9119631.82	9119631.85	0.0287	0.0283
Venus	20257-03-26 02:24 G	9119861.40	9119861.60	9119861.81	0.0287	0.0058
Venus	20257-11-10 20:24 G	9120091.19	9120091.35	9120091.53	0.0286	0.0167
Earth	20259-06-04 18:43 G	9120662.04	9120662.28	9120662.53	0.0285	0.0050
Moon	20259-06-04 22:33 G	9120662.20	9120662.44	9120662.68	0.0285	0.0054 *
Mercury	20259-07-15 23:31 G	9120703.36	9120703.48	9120703.61	0.0285	0.0176

Mercury	20259-10-12 17:02 G	9120792.05	9120792.21	9120792.36	0.0284	0.0052
Mercury	20260-01-09 09:50 G	9120880.76	9120880.91	9120881.06	0.0284	0.0068
Mercury	20260-04-07 02:24 G	9120969.48	9120969.60	9120969.72	0.0283	0.0185
Venus	20271-09-05 13:26 G	9125137.93	9125138.06	9125138.21	0.0272	0.0201
Venus	20272-04-21 19:12 G	9125367.09	9125367.30	9125367.51	0.0272	0.0011
Venus	20272-12-07 00:57 G	9125596.39	9125596.54	9125596.70	0.0273	0.0182
Earth	20273-11-25 23:45 G	9125950.35	9125950.49	9125950.65	0.0274	0.0211
Moon	20273-11-26 02:52 G	9125950.45	9125950.62	9125950.79	0.0274	0.0196 *
Mercury	20274-07-23 10:48 G	9126189.86	9126189.95	9126190.05	0.0274	0.0204
Mercury	20274-10-20 00:28 G	9126278.39	9126278.52	9126278.66	0.0275	0.0105
Earth	20274-12-08 11:02 G	9126327.80	9126327.96	9126328.13	0.0275	0.0201
Moon	20274-12-08 13:55 G	9126327.93	9126328.08	9126328.24	0.0275	0.0214 *
Mercury	20275-01-16 14:38 G	9126366.96	9126367.11	9126367.26	0.0275	0.0003
Mercury	20275-04-15 05:02 G	9126455.57	9126455.71	9126455.85	0.0275	0.0102
Mercury	20275-07-12 19:40 G	9126544.22	9126544.32	9126544.42	0.0276	0.0210
Mars	20279-10-14 23:31 G	9128099.18	9128099.48	9128099.81	0.0283	0.0074
Venus	20286-02-18 10:48 G	9130417.86	9130417.95	9130418.04	0.0287	0.0259
Venus	20286-10-06 05:16 G	9130647.51	9130647.72	9130647.93	0.0286	0.0035
Venus	20287-05-23 23:02 G	9130877.30	9130877.46	9130877.62	0.0286	0.0189
Moon	20288-05-28 15:36 G	9131247.96	9131248.15	9131248.36	0.0285	0.0163
Earth	20288-05-28 19:26 G	9131248.12	9131248.31	9131248.52	0.0285	0.0167 *
Mercury	20288-12-01 22:33 G	9131435.34	9131435.44	9131435.54	0.0284	0.0222
Mercury	20289-02-28 16:04 G	9131524.02	9131524.17	9131524.32	0.0284	0.0097
Mercury	20289-05-28 09:07 G	9131612.73	9131612.88	9131613.04	0.0283	0.0025
Mercury	20289-08-25 01:40 G	9131701.44	9131701.57	9131701.71	0.0283	0.0142
Mercury	20289-11-21 17:45 G	9131790.19	9131790.24	9131790.31	0.0283	0.0256
Mars	20293-11-08 08:24 G	9133237.61	9133237.85	9133238.11	0.0276	0.0103
Venus	20301-03-18 12:14 G	9135923.87	9135924.01	9135924.18	0.0272	0.0186
Venus	20301-11-02 18:00 G	9136153.04	9136153.25	9136153.46	0.0273	0.0006
Venus	20302-06-19 23:45 G	9136382.35	9136382.49	9136382.64	0.0273	0.0198

Moon	20303-12-03 19:55 G	9136914.09	9136914.33	9136914.57	0.0275	0.0021
Earth	20303-12-03 22:48 G	9136914.20	9136914.45	9136914.69	0.0275	0.0006 *
Mercury	20303-12-11 10:33 G	9136921.89	9136921.94	9136922.01	0.0275	0.0246
Mercury	20304-03-09 00:14 G	9137010.39	9137010.51	9137010.64	0.0275	0.0147
Mercury	20304-06-05 14:09 G	9137098.95	9137099.09	9137099.24	0.0275	0.0046
Mercury	20304-09-02 04:19 G	9137187.54	9137187.68	9137187.83	0.0276	0.0058
Mercury	20304-11-29 18:57 G	9137276.17	9137276.29	9137276.41	0.0276	0.0164
Mercury	20305-02-26 09:50 G	9137364.89	9137364.91	9137364.93	0.0276	0.0273
Venus	20315-09-01 14:24 G	9141203.99	9141204.10	9141204.23	0.0287	0.0237
Venus	20316-04-18 09:21 G	9141433.68	9141433.89	9141434.11	0.0287	0.0012
Venus	20316-12-04 03:36 G	9141663.52	9141663.65	9141663.79	0.0286	0.0215
Mercury	20318-04-21 22:48 G	9142167.39	9142167.45	9142167.52	0.0285	0.0261
Earth	20318-06-06 20:09 G	9142213.11	9142213.34	9142213.57	0.0285	0.0099
Moon	20318-06-06 21:21 G	9142213.16	9142213.39	9142213.63	0.0285	0.0107 *
Mercury	20318-07-19 16:33 G	9142256.05	9142256.19	9142256.33	0.0285	0.0135
Mercury	20318-10-16 09:50 G	9142344.75	9142344.91	9142345.07	0.0284	0.0012
Mercury	20319-01-13 02:38 G	9142433.47	9142433.61	9142433.76	0.0284	0.0107
Mercury	20319-04-11 18:57 G	9142522.20	9142522.29	9142522.39	0.0284	0.0223
Venus	20330-09-28 19:40 G	9146710.15	9146710.32	9146710.50	0.0272	0.0157
Venus	20331-05-16 01:12 G	9146939.34	9146939.55	9146939.76	0.0272	0.0034
Venus	20331-12-31 06:57 G	9147168.68	9147168.79	9147168.91	0.0273	0.0225
Earth	20332-11-28 00:00 G	9147501.32	9147501.50	9147501.70	0.0274	0.0166
Moon	20332-11-28 03:07 G	9147501.42	9147501.63	9147501.84	0.0274	0.0149 *
Mercury	20333-04-29 13:26 G	9147654.03	9147654.06	9147654.09	0.0274	0.0268
Mercury	20333-07-27 02:52 G	9147742.51	9147742.62	9147742.73	0.0274	0.0171
Mercury	20333-10-23 16:33 G	9147831.05	9147831.19	9147831.34	0.0275	0.0071
Moon	20333-12-10 09:36 G	9147878.82	9147878.90	9147879.00	0.0275	0.0256
Earth	20333-12-10 11:02 G	9147878.87	9147878.96	9147879.08	0.0275	0.0246 *
Mercury	20334-01-20 06:43 G	9147919.63	9147919.78	9147919.93	0.0275	0.0032
Mercury	20334-04-18 21:07 G	9148008.25	9148008.38	9148008.51	0.0275	0.0138

Mercury	20334-07-16 11:45 G	9148096.93	9148096.99	9148097.06	0.0276	0.0246
Venus	20345-03-13 18:28 G	9151990.14	9151990.27	9151990.42	0.0287	0.0210
Venus	20345-10-29 13:12 G	9152219.84	9152220.05	9152220.26	0.0287	0.0016
Venus	20346-06-16 06:57 G	9152449.68	9152449.79	9152449.91	0.0286	0.0239
Moon	20347-05-31 21:21 G	9152799.17	9152799.39	9152799.61	0.0285	0.0110
Earth	20347-05-31 21:50 G	9152799.19	9152799.41	9152799.64	0.0285	0.0116 *
Mercury	20347-12-06 15:50 G	9152988.04	9152988.16	9152988.29	0.0284	0.0179
Mercury	20348-03-04 09:21 G	9153076.73	9153076.89	9153077.04	0.0284	0.0055
Mercury	20348-06-01 02:09 G	9153165.44	9153165.59	9153165.75	0.0284	0.0066
Mercury	20348-08-28 18:43 G	9153254.16	9153254.28	9153254.40	0.0283	0.0182
Venus	20360-04-09 18:57 G	9157496.11	9157496.29	9157496.47	0.0272	0.0141
Venus	20360-11-25 00:14 G	9157725.30	9157725.51	9157725.72	0.0273	0.0050
Venus	20361-07-12 05:45 G	9157954.66	9157954.74	9157954.85	0.0273	0.0242
Earth	20362-12-04 22:48 G	9158465.22	9158465.45	9158465.70	0.0274	0.0052
Moon	20362-12-05 00:43 G	9158465.30	9158465.53	9158465.77	0.0274	0.0065 *
Mercury	20362-12-14 02:38 G	9158474.52	9158474.61	9158474.70	0.0275	0.0213
Mercury	20363-03-12 16:19 G	9158563.05	9158563.18	9158563.32	0.0275	0.0114
Mercury	20363-06-09 06:14 G	9158651.61	9158651.76	9158651.91	0.0275	0.0012
Mercury	20363-09-05 20:38 G	9158740.21	9158740.36	9158740.50	0.0275	0.0093
Mercury	20363-12-03 11:02 G	9158828.86	9158828.96	9158829.07	0.0276	0.0200
Mars	20368-03-09 06:28 G	9160386.47	9160386.77	9160387.09	0.0283	0.0087
Venus	20374-09-23 21:21 G	9162776.23	9162776.39	9162776.55	0.0287	0.0189
Venus	20375-05-11 16:19 G	9163005.97	9163006.18	9163006.39	0.0287	0.0038
Venus	20375-12-27 10:19 G	9163235.86	9163235.93	9163236.02	0.0287	0.0262
Mercury	20377-04-24 15:50 G	9163720.06	9163720.16	9163720.26	0.0285	0.0221
Moon	20377-06-07 17:31 G	9163764.03	9163764.23	9163764.44	0.0285	0.0160
Earth	20377-06-07 20:52 G	9163764.16	9163764.37	9163764.58	0.0285	0.0147 *
Mercury	20377-07-22 09:21 G	9163808.74	9163808.89	9163809.04	0.0285	0.0096
Mercury	20377-10-19 02:38 G	9163897.45	9163897.61	9163897.77	0.0284	0.0027
Mercury	20378-01-15 19:12 G	9163986.17	9163986.30	9163986.44	0.0284	0.0146

Mercury	20378-04-14 11:31 G	9164074.93	9164074.98	9164075.04	0.0284	0.0261
Mars	20382-04-05 04:33 G	9165526.43	9165526.69	9165526.96	0.0277	0.0041
Venus	20389-10-21 02:24 G	9168282.42	9168282.60	9168282.80	0.0272	0.0112
Venus	20390-06-07 07:55 G	9168511.63	9168511.83	9168512.03	0.0272	0.0079
Venus	20391-01-22 13:55 G	9168741.05	9168741.08	9168741.10	0.0273	0.0270
Moon	20391-11-29 23:31 G	9169052.25	9169052.48	9169052.72	0.0273	0.0104
Earth	20391-11-30 01:40 G	9169052.35	9169052.57	9169052.79	0.0273	0.0119 *
Mercury	20392-05-02 05:31 G	9169206.66	9169206.73	9169206.80	0.0274	0.0234
Mercury	20392-07-29 18:57 G	9169295.16	9169295.29	9169295.42	0.0274	0.0136
Mercury	20392-10-26 08:52 G	9169383.72	9169383.87	9169384.02	0.0275	0.0035
Mercury	20393-01-22 23:02 G	9169472.31	9169472.46	9169472.61	0.0275	0.0068
Mercury	20393-04-21 13:26 G	9169560.95	9169561.06	9169561.18	0.0275	0.0175
Venus	20404-04-05 02:24 G	9173562.43	9173562.60	9173562.78	0.0287	0.0160
Venus	20404-11-20 20:52 G	9173792.17	9173792.37	9173792.58	0.0287	0.0066
Earth	20406-06-02 00:28 G	9174350.28	9174350.52	9174350.76	0.0285	0.0065
Moon	20406-06-02 03:36 G	9174350.42	9174350.65	9174350.89	0.0285	0.0055 *
Mercury	20406-09-11 15:21 G	9174452.09	9174452.14	9174452.21	0.0285	0.0263
Mercury	20406-12-09 09:07 G	9174540.74	9174540.88	9174541.03	0.0284	0.0137
Mercury	20407-03-08 02:24 G	9174629.45	9174629.60	9174629.76	0.0284	0.0016
Mercury	20407-06-04 19:12 G	9174718.16	9174718.30	9174718.45	0.0284	0.0107
Mercury	20407-09-01 11:31 G	9174806.90	9174806.98	9174807.08	0.0283	0.0223
Venus	20419-05-03 01:55 G	9179068.38	9179068.58	9179068.78	0.0272	0.0095
Venus	20419-12-18 07:12 G	9179297.60	9179297.80	9179298.00	0.0272	0.0096
Earth	20421-12-06 00:28 G	9180016.29	9180016.52	9180016.75	0.0274	0.0099
Moon	20421-12-06 04:04 G	9180016.45	9180016.67	9180016.90	0.0274	0.0110 *
Mercury	20421-12-16 18:57 G	9180027.18	9180027.29	9180027.40	0.0274	0.0177
Mercury	20422-03-15 08:38 G	9180115.72	9180115.86	9180116.00	0.0275	0.0078
Mercury	20422-06-11 22:33 G	9180204.29	9180204.44	9180204.59	0.0275	0.0025
Mercury	20422-09-08 12:57 G	9180292.91	9180293.04	9180293.17	0.0275	0.0130
Mercury	20422-12-06 03:36 G	9180381.58	9180381.65	9180381.73	0.0276	0.0237

Venus	20433-10-16 04:48 G	9184348.52	9184348.70	9184348.89	0.0287	0.0139
Venus	20434-06-02 23:45 G	9184578.29	9184578.49	9184578.69	0.0287	0.0088
Moon	20435-05-26 22:48 G	9184936.38	9184936.45	9184936.54	0.0286	0.0270
Earth	20435-05-27 02:09 G	9184936.54	9184936.59	9184936.66	0.0286	0.0278 *
Mercury	20436-04-27 08:52 G	9185272.75	9185272.87	9185273.00	0.0285	0.0179
Moon	20436-06-08 20:09 G	9185315.19	9185315.34	9185315.51	0.0285	0.0210
Earth	20436-06-08 22:33 G	9185315.27	9185315.44	9185315.63	0.0285	0.0197 *
Mercury	20436-07-25 02:24 G	9185361.45	9185361.60	9185361.76	0.0285	0.0055
Mercury	20436-10-21 19:26 G	9185450.16	9185450.31	9185450.47	0.0285	0.0067
Mercury	20437-01-18 12:00 G	9185538.89	9185539.00	9185539.12	0.0284	0.0185
Venus	20448-03-28 04:33 G	9189625.63	9189625.69	9189625.78	0.0272	0.0254
Venus	20448-11-12 09:50 G	9189854.71	9189854.91	9189855.12	0.0272	0.0065
Venus	20449-06-29 15:21 G	9190083.95	9190084.14	9190084.33	0.0272	0.0126
Moon	20450-12-01 00:57 G	9190603.31	9190603.54	9190603.78	0.0273	0.0058
Earth	20450-12-01 04:19 G	9190603.45	9190603.68	9190603.92	0.0273	0.0071 *
Mercury	20451-05-05 21:50 G	9190759.31	9190759.41	9190759.52	0.0274	0.0198
Mercury	20451-08-02 11:31 G	9190847.84	9190847.98	9190848.12	0.0274	0.0099
Mercury	20451-10-30 01:26 G	9190936.41	9190936.56	9190936.71	0.0274	0.0005
Mercury	20452-01-26 15:36 G	9191025.02	9191025.15	9191025.30	0.0275	0.0108
Mercury	20452-04-24 06:14 G	9191113.67	9191113.76	9191113.86	0.0275	0.0214
Mars	20456-08-02 22:48 G	9192675.19	9192675.45	9192675.72	0.0282	0.0160
Venus	20463-04-28 11:02 G	9195134.77	9195134.96	9195135.16	0.0287	0.0108
Venus	20463-12-14 05:31 G	9195364.54	9195364.73	9195364.93	0.0287	0.0117
Earth	20465-06-03 03:50 G	9195901.41	9195901.66	9195901.90	0.0285	0.0014
Moon	20465-06-03 06:28 G	9195901.51	9195901.77	9195902.02	0.0285	0.0006 *
Mercury	20465-09-14 08:52 G	9196004.77	9196004.87	9196004.98	0.0285	0.0219
Mercury	20465-12-12 02:38 G	9196093.46	9196093.61	9196093.76	0.0285	0.0093
Mercury	20466-03-10 19:40 G	9196182.17	9196182.32	9196182.48	0.0284	0.0030
Mercury	20466-06-07 12:28 G	9196270.89	9196271.02	9196271.15	0.0284	0.0148
Mercury	20466-09-04 04:33 G	9196359.65	9196359.69	9196359.76	0.0283	0.0264

Mars	20470-08-29 12:43 G	9197814.77	9197815.03	9197815.30	0.0277	0.0008
Venus	20477-10-08 05:02 G	9200411.61	9200411.71	9200411.82	0.0272	0.0235
Venus	20478-05-25 10:04 G	9200640.71	9200640.92	9200641.13	0.0272	0.0046
Venus	20479-01-09 15:21 G	9200869.96	9200870.14	9200870.32	0.0272	0.0144
Earth	20479-11-25 18:57 G	9201190.22	9201190.29	9201190.38	0.0273	0.0258
Moon	20479-11-25 22:19 G	9201190.33	9201190.43	9201190.55	0.0273	0.0243 *
Mercury	20480-09-21 22:04 G	9201491.35	9201491.42	9201491.50	0.0274	0.0236
Moon	20480-12-07 03:21 G	9201567.44	9201567.64	9201567.86	0.0274	0.0155
Earth	20480-12-07 04:19 G	9201567.48	9201567.68	9201567.89	0.0274	0.0148 *
Mercury	20480-12-19 11:31 G	9201579.86	9201579.98	9201580.11	0.0274	0.0139
Mercury	20481-03-18 01:26 G	9201668.41	9201668.56	9201668.71	0.0275	0.0038
Mercury	20481-06-14 15:36 G	9201757.00	9201757.15	9201757.29	0.0275	0.0065
Mercury	20481-09-11 06:00 G	9201845.63	9201845.75	9201845.87	0.0275	0.0171
Venus	20492-11-07 13:12 G	9205920.85	9205921.05	9205921.25	0.0287	0.0088
Venus	20493-06-25 07:55 G	9206150.65	9206150.83	9206151.02	0.0287	0.0139
Moon	20494-05-28 02:09 G	9206487.45	9206487.59	9206487.76	0.0286	0.0220
Earth	20494-05-28 04:48 G	9206487.55	9206487.70	9206487.85	0.0286	0.0228 *
Mercury	20495-02-01 08:09 G	9206736.79	9206736.84	9206736.91	0.0286	0.0264
Mercury	20495-05-01 02:09 G	9206825.45	9206825.59	9206825.73	0.0285	0.0136
Earth	20495-06-11 01:12 G	9206866.44	9206866.55	9206866.68	0.0285	0.0246
Moon	20495-06-11 03:07 G	9206866.54	9206866.63	9206866.72	0.0285	0.0260 *
Mercury	20495-07-28 19:40 G	9206914.16	9206914.32	9206914.48	0.0285	0.0013
Mercury	20495-10-25 12:28 G	9207002.88	9207003.02	9207003.17	0.0285	0.0109
Mercury	20496-01-22 05:02 G	9207091.62	9207091.71	9207091.80	0.0284	0.0225
Venus	20507-04-21 12:57 G	9211197.91	9211198.04	9211198.18	0.0272	0.0205
Venus	20507-12-06 18:14 G	9211427.05	9211427.26	9211427.47	0.0272	0.0016
Venus	20508-07-22 23:45 G	9211656.33	9211656.49	9211656.65	0.0272	0.0175
Earth	20509-12-03 08:52 G	9212154.63	9212154.87	9212155.11	0.0273	0.0020
Moon	20509-12-03 08:52 G	9212154.64	9212154.87	9212155.11	0.0273	0.0012 *
Mercury	20510-02-10 01:12 G	9212223.51	9212223.55	9212223.61	0.0274	0.0255

Mercury	20510-05-09 14:38 G	9212311.99	9212312.11	9212312.23	0.0274	0.0158
Mercury	20510-08-06 04:19 G	9212400.54	9212400.68	9212400.83	0.0274	0.0059
Mercury	20510-11-02 18:28 G	9212489.12	9212489.27	9212489.42	0.0274	0.0044
Mercury	20511-01-30 08:38 G	9212577.74	9212577.86	9212578.00	0.0275	0.0150
Mercury	20511-04-28 23:16 G	9212666.43	9212666.47	9212666.53	0.0275	0.0258
Venus	20521-10-04 02:09 G	9216477.56	9216477.59	9216477.65	0.0288	0.0280
Venus	20522-05-21 21:07 G	9216707.18	9216707.38	9216707.59	0.0287	0.0054
Venus	20523-01-06 15:36 G	9216936.98	9216937.15	9216937.32	0.0287	0.0171
Moon	20524-06-05 07:40 G	9217452.57	9217452.82	9217453.07	0.0285	0.0054
Earth	20524-06-05 09:21 G	9217452.65	9217452.89	9217453.14	0.0285	0.0041 *
Mercury	20524-09-18 03:07 G	9217557.50	9217557.63	9217557.75	0.0285	0.0170
Mercury	20524-12-15 20:24 G	9217646.20	9217646.35	9217646.51	0.0285	0.0046
Mercury	20525-03-14 13:26 G	9217734.91	9217735.06	9217735.22	0.0284	0.0076
Mercury	20525-06-11 06:14 G	9217823.64	9217823.76	9217823.87	0.0284	0.0193
Venus	20536-10-31 14:09 G	9221983.94	9221984.09	9221984.25	0.0272	0.0185
Venus	20537-06-17 19:12 G	9222213.09	9222213.30	9222213.52	0.0272	0.0006
Venus	20538-02-02 00:28 G	9222442.38	9222442.52	9222442.68	0.0272	0.0194
Moon	20538-11-28 00:57 G	9222741.37	9222741.54	9222741.73	0.0273	0.0193
Earth	20538-11-28 00:57 G	9222741.39	9222741.54	9222741.70	0.0273	0.0206 *
Mercury	20539-09-26 15:07 G	9223044.03	9223044.13	9223044.24	0.0274	0.0196
Moon	20539-12-10 06:14 G	9223118.61	9223118.76	9223118.94	0.0274	0.0203
Earth	20539-12-10 10:04 G	9223118.76	9223118.92	9223119.09	0.0274	0.0200 *
Mercury	20539-12-24 04:48 G	9223132.56	9223132.70	9223132.84	0.0274	0.0097
Mercury	20540-03-21 18:43 G	9223221.13	9223221.28	9223221.43	0.0275	0.0007
Mercury	20540-06-18 08:52 G	9223309.73	9223309.87	9223310.01	0.0275	0.0109
Mercury	20540-09-14 23:16 G	9223398.38	9223398.47	9223398.57	0.0275	0.0215
Mars	20544-12-27 19:12 G	9224963.08	9224963.30	9224963.55	0.0282	0.0196
Venus	20551-04-16 03:50 G	9227263.57	9227263.66	9227263.75	0.0287	0.0259
Venus	20551-12-01 23:02 G	9227493.25	9227493.46	9227493.67	0.0287	0.0033
Venus	20552-07-18 17:31 G	9227723.08	9227723.23	9227723.39	0.0287	0.0193

Earth	20553-05-30 09:07 G	9228038.70	9228038.88	9228039.09	0.0286	0.0176
Moon	20553-05-30 11:45 G	9228038.79	9228038.99	9228039.18	0.0286	0.0162 *
Mercury	20554-02-05 02:09 G	9228289.49	9228289.59	9228289.70	0.0285	0.0216
Mercury	20554-05-04 19:55 G	9228378.18	9228378.33	9228378.48	0.0285	0.0090
Mercury	20554-08-01 13:12 G	9228466.89	9228467.05	9228467.21	0.0285	0.0033
Mercury	20554-10-29 06:00 G	9228555.62	9228555.75	9228555.88	0.0285	0.0153
Mercury	20555-01-25 22:19 G	9228644.39	9228644.43	9228644.48	0.0284	0.0268
Mars	20559-01-24 08:24 G	9230103.59	9230103.85	9230104.11	0.0278	0.0057
Venus	20566-05-13 22:19 G	9232770.26	9232770.43	9232770.60	0.0272	0.0155
Venus	20566-12-29 03:36 G	9232999.44	9232999.65	9232999.86	0.0272	0.0035
Venus	20567-08-15 09:21 G	9233228.78	9233228.89	9233229.01	0.0272	0.0226
Earth	20568-12-04 15:21 G	9233705.90	9233706.14	9233706.38	0.0273	0.0032
Moon	20568-12-04 18:43 G	9233706.04	9233706.28	9233706.52	0.0273	0.0042 *
Mercury	20569-02-12 18:28 G	9233776.18	9233776.27	9233776.36	0.0274	0.0213
Mercury	20569-05-12 07:55 G	9233864.70	9233864.83	9233864.97	0.0274	0.0115
Mercury	20569-08-08 21:50 G	9233953.26	9233953.41	9233953.56	0.0274	0.0014
Mercury	20569-11-05 12:00 G	9234041.86	9234042.00	9234042.14	0.0275	0.0089
Mercury	20570-02-02 02:24 G	9234130.50	9234130.60	9234130.71	0.0275	0.0195
Venus	20580-10-26 13:26 G	9238049.94	9238050.06	9238050.20	0.0288	0.0223
Venus	20581-06-13 08:24 G	9238279.64	9238279.85	9238280.06	0.0287	0.0003
Venus	20582-01-29 02:38 G	9238509.49	9238509.61	9238509.74	0.0287	0.0228
Moon	20583-06-07 12:43 G	9239003.81	9239004.03	9239004.26	0.0285	0.0112
Earth	20583-06-07 16:33 G	9239003.96	9239004.19	9239004.42	0.0285	0.0097 *
Mercury	20583-06-25 03:21 G	9239021.57	9239021.64	9239021.73	0.0285	0.0247
Mercury	20583-09-21 21:21 G	9239110.24	9239110.39	9239110.54	0.0285	0.0120
Mercury	20583-12-19 14:38 G	9239198.95	9239199.11	9239199.27	0.0285	0.0004
Mercury	20584-03-17 07:26 G	9239287.67	9239287.81	9239287.96	0.0284	0.0124
Mercury	20584-06-14 00:00 G	9239376.42	9239376.50	9239376.58	0.0284	0.0240
Venus	20595-11-24 00:14 G	9243556.34	9243556.51	9243556.70	0.0272	0.0134
Venus	20596-07-10 05:31 G	9243785.53	9243785.73	9243785.94	0.0272	0.0056

Venus	20597-02-24 10:48 G	9244014.87	9244014.95	9244015.05	0.0272	0.0246
Moon	20597-11-29 05:16 G	9244292.51	9244292.72	9244292.94	0.0273	0.0139
Earth	20597-11-29 08:38 G	9244292.67	9244292.86	9244293.07	0.0273	0.0153 *
Mercury	20598-07-02 19:12 G	9244508.25	9244508.30	9244508.36	0.0274	0.0248
Mercury	20598-09-29 08:38 G	9244596.74	9244596.86	9244596.99	0.0274	0.0151
Moon	20598-12-11 16:19 G	9244670.10	9244670.18	9244670.27	0.0274	0.0257
Earth	20598-12-11 17:45 G	9244670.16	9244670.24	9244670.34	0.0274	0.0254 *
Mercury	20598-12-26 22:19 G	9244685.29	9244685.43	9244685.58	0.0274	0.0052
Mercury	20599-03-25 12:28 G	9244773.87	9244774.02	9244774.16	0.0275	0.0052
Mercury	20599-06-22 02:38 G	9244862.49	9244862.61	9244862.74	0.0275	0.0156
Mercury	20599-09-18 17:16 G	9244951.18	9244951.22	9244951.27	0.0275	0.0264
Venus	20610-05-09 15:21 G	9248836.00	9248836.14	9248836.30	0.0287	0.0202
Venus	20610-12-25 10:33 G	9249065.73	9249065.94	9249066.15	0.0287	0.0025
Venus	20611-08-12 04:48 G	9249295.61	9249295.70	9249295.81	0.0287	0.0250
Earth	20612-06-01 16:48 G	9249589.98	9249590.20	9249590.43	0.0286	0.0119
Moon	20612-06-01 20:24 G	9249590.12	9249590.35	9249590.59	0.0286	0.0103 *
Mercury	20613-02-08 20:38 G	9249842.23	9249842.36	9249842.49	0.0285	0.0165
Mercury	20613-05-08 14:09 G	9249930.94	9249931.09	9249931.25	0.0285	0.0040
Mercury	20613-08-05 07:12 G	9250019.65	9250019.80	9250019.96	0.0285	0.0083
Mercury	20613-11-02 00:00 G	9250108.39	9250108.50	9250108.61	0.0284	0.0201
Venus	20625-06-06 08:09 G	9254342.65	9254342.84	9254343.04	0.0272	0.0103
Venus	20626-01-21 13:40 G	9254571.87	9254572.07	9254572.27	0.0272	0.0087
Mercury	20627-11-20 22:33 G	9255240.41	9255240.44	9255240.48	0.0274	0.0266
Earth	20627-12-07 23:16 G	9255257.24	9255257.47	9255257.70	0.0274	0.0086
Moon	20627-12-08 01:26 G	9255257.33	9255257.56	9255257.80	0.0274	0.0095 *
Mercury	20628-02-17 12:00 G	9255328.89	9255329.00	9255329.12	0.0274	0.0169
Mercury	20628-05-16 01:40 G	9255417.42	9255417.57	9255417.71	0.0274	0.0070
Mercury	20628-08-12 15:36 G	9255506.00	9255506.15	9255506.30	0.0274	0.0033
Mercury	20628-11-09 05:45 G	9255594.61	9255594.74	9255594.88	0.0275	0.0138
Mercury	20629-02-05 20:24 G	9255683.29	9255683.35	9255683.42	0.0275	0.0244

Venus	20639-11-20 02:24 G	9259622.43	9259622.60	9259622.78	0.0287	0.0162
Venus	20640-07-06 21:07 G	9259852.18	9259852.38	9259852.59	0.0287	0.0064
Venus	20641-02-21 15:36 G	9260082.15	9260082.15	9260082.15	0.0287	0.0287
Earth	20642-06-10 02:09 G	9260555.38	9260555.59	9260555.80	0.0285	0.0156
Moon	20642-06-10 01:55 G	9260555.40	9260555.58	9260555.78	0.0285	0.0172 *
Mercury	20642-06-28 22:33 G	9260574.32	9260574.44	9260574.56	0.0285	0.0192
Mercury	20642-09-25 16:04 G	9260663.02	9260663.17	9260663.33	0.0285	0.0066
Mercury	20642-12-23 09:21 G	9260751.73	9260751.89	9260752.04	0.0285	0.0056
Mercury	20643-03-22 01:55 G	9260840.46	9260840.58	9260840.71	0.0284	0.0175
Mars	20647-06-21 09:07 G	9262392.65	9262392.88	9262393.13	0.0277	0.0117
Venus	20654-05-02 06:28 G	9264899.74	9264899.77	9264899.80	0.0272	0.0268
Venus	20654-12-17 11:31 G	9265128.78	9265128.98	9265129.18	0.0272	0.0080
Venus	20655-08-03 16:48 G	9265358.01	9265358.20	9265358.39	0.0272	0.0110
Moon	20656-12-01 15:50 G	9265843.94	9265844.16	9265844.40	0.0273	0.0086
Earth	20656-12-01 18:00 G	9265844.03	9265844.25	9265844.49	0.0273	0.0097 *
Mercury	20657-07-06 13:12 G	9266060.95	9266061.05	9266061.14	0.0274	0.0202
Mercury	20657-10-03 02:38 G	9266149.47	9266149.61	9266149.75	0.0274	0.0104
Mercury	20657-12-30 16:19 G	9266238.03	9266238.18	9266238.33	0.0274	0.0008
Mercury	20658-03-29 06:28 G	9266326.63	9266326.77	9266326.91	0.0275	0.0101
Mercury	20658-06-25 20:52 G	9266415.28	9266415.37	9266415.48	0.0275	0.0207
Venus	20669-06-01 04:48 G	9270408.52	9270408.70	9270408.88	0.0287	0.0140
Venus	20670-01-16 23:31 G	9270638.28	9270638.48	9270638.68	0.0287	0.0086
Moon	20671-06-04 01:55 G	9271141.33	9271141.58	9271141.83	0.0286	0.0044
Earth	20671-06-04 02:38 G	9271141.37	9271141.61	9271141.85	0.0286	0.0060 *
Mercury	20671-11-15 21:36 G	9271306.32	9271306.40	9271306.49	0.0285	0.0237
Mercury	20672-02-12 15:36 G	9271395.00	9271395.15	9271395.30	0.0285	0.0110
Mercury	20672-05-11 08:52 G	9271483.71	9271483.87	9271484.03	0.0285	0.0014
Mercury	20672-08-08 01:40 G	9271572.44	9271572.57	9271572.71	0.0284	0.0134
Mercury	20672-11-04 18:14 G	9271661.19	9271661.26	9271661.33	0.0284	0.0251
Venus	20683-11-12 13:26 G	9275685.96	9275686.06	9275686.16	0.0272	0.0239

Venus	20684-06-28 18:43 G	9275915.08	9275915.28	9275915.49	0.0272	0.0050
Venus	20685-02-13 00:28 G	9276144.34	9276144.52	9276144.70	0.0272	0.0141
Earth	20685-11-26 22:33 G	9276431.40	9276431.44	9276431.52	0.0273	0.0264
Moon	20685-11-27 00:57 G	9276431.45	9276431.54	9276431.65	0.0273	0.0249 *
Mercury	20686-11-23 16:04 G	9276793.09	9276793.17	9276793.26	0.0274	0.0221
Moon	20686-12-09 05:45 G	9276808.53	9276808.74	9276808.96	0.0274	0.0146
Earth	20686-12-09 08:09 G	9276808.63	9276808.84	9276809.05	0.0274	0.0141 *
Mercury	20687-02-20 05:45 G	9276881.61	9276881.74	9276881.87	0.0274	0.0123
Mercury	20687-05-19 19:26 G	9276970.16	9276970.31	9276970.46	0.0274	0.0023
Mercury	20687-08-16 09:36 G	9277058.76	9277058.90	9277059.04	0.0275	0.0082
Mercury	20687-11-13 00:00 G	9277147.39	9277147.50	9277147.61	0.0275	0.0187
Venus	20698-12-12 16:48 G	9281195.00	9281195.20	9281195.40	0.0287	0.0100
Venus	20699-07-30 11:16 G	9281424.78	9281424.97	9281425.16	0.0287	0.0126
Earth	20700-05-29 17:02 G	9281728.12	9281728.21	9281728.34	0.0286	0.0256
Moon	20700-05-29 18:00 G	9281728.14	9281728.25	9281728.39	0.0286	0.0242 *
Mercury	20701-04-05 00:00 G	9282038.44	9282038.50	9282038.57	0.0285	0.0261
Earth	20701-06-12 13:40 G	9282106.92	9282107.07	9282107.23	0.0285	0.0217
Moon	20701-06-12 17:16 G	9282107.09	9282107.22	9282107.37	0.0285	0.0235 *
Mercury	20701-07-02 18:00 G	9282127.11	9282127.25	9282127.39	0.0285	0.0133
Mercury	20701-09-29 11:31 G	9282215.82	9282215.98	9282216.14	0.0285	0.0010
Mercury	20701-12-27 04:19 G	9282304.54	9282304.68	9282304.83	0.0284	0.0112
Mercury	20702-03-25 20:52 G	9282393.28	9282393.37	9282393.46	0.0284	0.0229
Venus	20713-05-25 17:31 G	9286472.12	9286472.23	9286472.37	0.0272	0.0215
Venus	20714-01-09 23:02 G	9286701.25	9286701.46	9286701.67	0.0272	0.0026
Venus	20714-08-27 04:19 G	9286930.52	9286930.68	9286930.86	0.0272	0.0165
Earth	20715-12-05 04:19 G	9287395.44	9287395.68	9287395.92	0.0273	0.0039
Moon	20715-12-05 06:43 G	9287395.54	9287395.78	9287396.02	0.0273	0.0031 *
Mercury	20716-04-12 17:45 G	9287525.18	9287525.24	9287525.29	0.0274	0.0251
Mercury	20716-07-10 06:57 G	9287613.67	9287613.79	9287613.92	0.0274	0.0154
Mercury	20716-10-06 20:38 G	9287702.22	9287702.36	9287702.51	0.0274	0.0055

Mercury	20717-01-03 10:33 G	9287790.80	9287790.94	9287791.09	0.0275	0.0049
Mercury	20717-04-02 00:57 G	9287879.41	9287879.54	9287879.67	0.0275	0.0153
Mercury	20717-06-29 15:21 G	9287968.10	9287968.14	9287968.20	0.0275	0.0261
Venus	20728-06-24 19:12 G	9291981.10	9291981.30	9291981.51	0.0287	0.0077
Venus	20729-02-09 13:55 G	9292210.90	9292211.08	9292211.26	0.0287	0.0149
Moon	20730-06-06 11:02 G	9292692.72	9292692.96	9292693.21	0.0286	0.0019
Earth	20730-06-06 14:52 G	9292692.87	9292693.12	9292693.36	0.0286	0.0004 *
Mercury	20730-11-19 17:16 G	9292859.09	9292859.22	9292859.34	0.0285	0.0178
Mercury	20731-02-16 10:48 G	9292947.80	9292947.95	9292948.11	0.0285	0.0053
Mercury	20731-05-16 04:04 G	9293036.51	9293036.67	9293036.82	0.0285	0.0070
Mercury	20731-08-12 20:38 G	9293125.25	9293125.36	9293125.48	0.0284	0.0189
Mars	20735-11-16 07:26 G	9294681.61	9294681.81	9294682.01	0.0278	0.0182
Venus	20742-12-06 00:14 G	9297258.35	9297258.51	9297258.66	0.0272	0.0187
Venus	20743-07-23 05:45 G	9297487.53	9297487.74	9297487.95	0.0272	0.0005
Venus	20744-03-08 11:31 G	9297716.83	9297716.98	9297717.13	0.0273	0.0195
Moon	20744-11-29 05:16 G	9297982.56	9297982.72	9297982.91	0.0273	0.0199
Earth	20744-11-29 07:40 G	9297982.68	9297982.82	9297982.99	0.0273	0.0210 *
Mercury	20745-08-30 20:38 G	9298257.35	9298257.36	9298257.38	0.0274	0.0271
Mercury	20745-11-27 10:04 G	9298345.81	9298345.92	9298346.03	0.0274	0.0174
Moon	20745-12-11 13:55 G	9298359.93	9298360.08	9298360.25	0.0274	0.0199
Earth	20745-12-11 17:31 G	9298360.07	9298360.23	9298360.41	0.0274	0.0197 *
Mercury	20746-02-23 23:31 G	9298434.34	9298434.48	9298434.63	0.0274	0.0075
Mercury	20746-05-23 13:40 G	9298522.92	9298523.07	9298523.22	0.0275	0.0028
Mercury	20746-08-20 03:50 G	9298611.53	9298611.66	9298611.79	0.0275	0.0132
Mercury	20746-11-16 18:28 G	9298700.20	9298700.27	9298700.34	0.0275	0.0239
Venus	20757-05-20 12:57 G	9302537.96	9302538.04	9302538.13	0.0288	0.0261
Venus	20758-01-05 07:40 G	9302767.61	9302767.82	9302768.03	0.0287	0.0036
Venus	20758-08-23 02:09 G	9302997.43	9302997.59	9302997.75	0.0287	0.0189
Earth	20759-06-01 06:28 G	9303279.60	9303279.77	9303279.96	0.0286	0.0191
Moon	20759-06-01 10:19 G	9303279.73	9303279.93	9303280.12	0.0286	0.0176 *

Mercury	20760-04-07 19:55 G	9303591.22	9303591.33	9303591.45	0.0285	0.0199
Earth	20760-06-14 02:24 G	9303658.57	9303658.60	9303658.65	0.0285	0.0280
Mercury	20760-07-05 13:40 G	9303679.91	9303680.07	9303680.22	0.0285	0.0073
Mercury	20760-10-02 06:57 G	9303768.63	9303768.79	9303768.94	0.0285	0.0050
Mercury	20760-12-29 23:45 G	9303857.36	9303857.49	9303857.61	0.0284	0.0169
Mercury	20761-03-28 16:04 G	9303946.17	9303946.17	9303946.17	0.0284	0.0284
Venus	20772-06-17 05:16 G	9308044.55	9308044.72	9308044.89	0.0272	0.0161
Venus	20773-02-01 10:33 G	9308273.73	9308273.94	9308274.15	0.0272	0.0029
Venus	20773-09-18 16:19 G	9308503.06	9308503.18	9308503.30	0.0272	0.0220
Earth	20774-12-06 14:38 G	9308946.87	9308947.11	9308947.35	0.0273	0.0018
Moon	20774-12-06 18:00 G	9308947.00	9308947.25	9308947.50	0.0273	0.0024 *
Mercury	20775-04-16 11:31 G	9309077.89	9309077.98	9309078.08	0.0274	0.0204
Mercury	20775-07-14 01:12 G	9309166.41	9309166.55	9309166.69	0.0274	0.0105
Mercury	20775-10-10 14:52 G	9309254.97	9309255.12	9309255.27	0.0274	0.0007
Mercury	20776-01-07 05:02 G	9309343.57	9309343.71	9309343.85	0.0275	0.0099
Mercury	20776-04-04 19:26 G	9309432.21	9309432.31	9309432.41	0.0275	0.0206
Mars	20780-01-22 08:38 G	9310819.78	9310819.86	9310819.98	0.0281	0.0267
Venus	20786-11-30 15:36 G	9313324.04	9313324.15	9313324.27	0.0287	0.0237
Venus	20787-07-18 10:33 G	9313553.72	9313553.94	9313554.15	0.0287	0.0013
Venus	20788-03-04 04:48 G	9313783.57	9313783.70	9313783.85	0.0286	0.0212
Moon	20789-06-08 02:09 G	9314244.37	9314244.59	9314244.83	0.0285	0.0081
Earth	20789-06-08 03:50 G	9314244.43	9314244.66	9314244.91	0.0285	0.0067 *
Mercury	20789-08-25 18:57 G	9314323.22	9314323.29	9314323.38	0.0285	0.0245
Mercury	20789-11-22 12:57 G	9314411.89	9314412.04	9314412.19	0.0285	0.0118
Mercury	20790-02-19 06:28 G	9314500.61	9314500.77	9314500.93	0.0285	0.0009
Mercury	20790-05-18 23:16 G	9314589.33	9314589.47	9314589.61	0.0284	0.0127
Mercury	20790-08-15 15:50 G	9314678.08	9314678.16	9314678.24	0.0284	0.0244
Venus	20801-12-28 10:48 G	9318830.77	9318830.95	9318831.13	0.0272	0.0134
Venus	20802-08-14 16:19 G	9319059.98	9319060.18	9319060.39	0.0273	0.0058
Venus	20803-03-31 22:19 G	9319289.35	9319289.43	9319289.52	0.0273	0.0248

Moon	20803-12-01 13:12 G	9319533.85	9319534.05	9319534.26	0.0273	0.0145
Earth	20803-12-01 16:33 G	9319533.99	9319534.19	9319534.39	0.0273	0.0155 *
Mercury	20804-09-02 14:09 G	9319810.02	9319810.09	9319810.18	0.0274	0.0226
Mercury	20804-11-30 03:36 G	9319898.53	9319898.65	9319898.79	0.0274	0.0128
Earth	20804-12-13 02:24 G	9319911.51	9319911.60	9319911.70	0.0274	0.0252
Moon	20804-12-13 02:52 G	9319911.54	9319911.62	9319911.73	0.0274	0.0251 *
Mercury	20805-02-26 17:31 G	9319987.08	9319987.23	9319987.38	0.0274	0.0027
Mercury	20805-05-26 07:26 G	9320075.67	9320075.81	9320075.96	0.0275	0.0077
Mercury	20805-08-22 22:04 G	9320164.30	9320164.42	9320164.53	0.0275	0.0183
Venus	20816-06-12 04:19 G	9324110.53	9324110.68	9324110.84	0.0288	0.0197
Venus	20817-01-27 23:16 G	9324340.26	9324340.47	9324340.68	0.0287	0.0030
Venus	20817-09-14 17:31 G	9324570.13	9324570.23	9324570.33	0.0287	0.0253
Earth	20818-06-02 20:52 G	9324831.15	9324831.37	9324831.59	0.0286	0.0124
Moon	20818-06-02 23:02 G	9324831.22	9324831.46	9324831.69	0.0286	0.0110 *
Mercury	20819-01-12 21:50 G	9325055.36	9325055.41	9325055.48	0.0285	0.0266
Mercury	20819-04-11 16:04 G	9325144.03	9325144.17	9325144.31	0.0285	0.0137
Mercury	20819-07-09 09:21 G	9325232.74	9325232.89	9325233.05	0.0285	0.0015
Mercury	20819-10-06 02:24 G	9325321.46	9325321.60	9325321.75	0.0284	0.0109
Mercury	20820-01-02 18:57 G	9325410.20	9325410.29	9325410.39	0.0284	0.0226
Mars	20824-04-11 21:36 G	9326971.33	9326971.40	9326971.49	0.0277	0.0264
Venus	20831-07-10 16:33 G	9329617.00	9329617.19	9329617.38	0.0272	0.0107
Venus	20832-02-24 21:50 G	9329846.21	9329846.41	9329846.62	0.0272	0.0083
Moon	20833-12-07 23:45 G	9330498.25	9330498.49	9330498.74	0.0274	0.0077
Earth	20833-12-08 00:28 G	9330498.28	9330498.52	9330498.75	0.0274	0.0074 *
Mercury	20834-01-20 16:04 G	9330542.12	9330542.17	9330542.23	0.0274	0.0254
Mercury	20834-04-19 05:31 G	9330630.61	9330630.73	9330630.85	0.0274	0.0157
Mercury	20834-07-16 19:12 G	9330719.15	9330719.30	9330719.44	0.0274	0.0057
Mercury	20834-10-13 09:07 G	9330807.73	9330807.88	9330808.03	0.0275	0.0046
Mercury	20835-01-09 23:16 G	9330896.35	9330896.47	9330896.60	0.0275	0.0151
Mercury	20835-04-08 13:55 G	9330985.03	9330985.08	9330985.13	0.0275	0.0258

Venus	20845-12-23 07:12 G	9334896.63	9334896.80	9334896.97	0.0287	0.0173
Venus	20846-08-10 01:55 G	9335126.37	9335126.58	9335126.79	0.0287	0.0053
Venus	20847-03-27 19:55 G	9335356.29	9335356.33	9335356.40	0.0286	0.0276
Earth	20848-06-09 17:31 G	9335796.02	9335796.23	9335796.45	0.0285	0.0131
Moon	20848-06-09 19:40 G	9335796.12	9335796.32	9335796.53	0.0285	0.0146 *
Mercury	20848-08-28 15:07 G	9335876.01	9335876.13	9335876.25	0.0285	0.0182
Mercury	20848-11-25 08:38 G	9335964.71	9335964.86	9335965.02	0.0285	0.0058
Mercury	20849-02-22 01:55 G	9336053.43	9336053.58	9336053.74	0.0284	0.0066
Mercury	20849-05-21 18:43 G	9336142.16	9336142.28	9336142.40	0.0284	0.0184
Venus	20860-06-04 15:21 G	9340174.13	9340174.14	9340174.17	0.0272	0.0271
Venus	20861-01-19 20:52 G	9340403.17	9340403.37	9340403.57	0.0272	0.0082
Venus	20861-09-06 02:38 G	9340632.42	9340632.61	9340632.81	0.0273	0.0109
Earth	20862-12-03 00:00 G	9341085.28	9341085.50	9341085.73	0.0273	0.0101
Moon	20862-12-03 00:00 G	9341085.28	9341085.50	9341085.72	0.0273	0.0094 *
Mercury	20863-09-06 07:40 G	9341362.71	9341362.82	9341362.93	0.0274	0.0182
Mercury	20863-12-03 21:21 G	9341451.25	9341451.39	9341451.53	0.0274	0.0083
Mercury	20864-03-01 11:16 G	9341539.82	9341539.97	9341540.12	0.0275	0.0021
Mercury	20864-05-29 01:26 G	9341628.42	9341628.56	9341628.69	0.0275	0.0124
Mercury	20864-08-25 15:50 G	9341717.08	9341717.16	9341717.25	0.0275	0.0231
Mars	20868-06-18 10:04 G	9343109.66	9343109.92	9343110.20	0.0281	0.0157
Venus	20875-07-05 19:12 G	9345683.11	9345683.30	9345683.49	0.0288	0.0134
Venus	20876-02-20 14:09 G	9345912.89	9345913.09	9345913.29	0.0287	0.0093
Moon	20877-06-04 07:55 G	9346382.58	9346382.83	9346383.08	0.0286	0.0043
Earth	20877-06-04 10:19 G	9346382.69	9346382.93	9346383.17	0.0286	0.0059 *
Mercury	20878-01-15 18:00 G	9346608.14	9346608.25	9346608.36	0.0285	0.0204
Mercury	20878-04-14 11:45 G	9346696.84	9346696.99	9346697.14	0.0285	0.0077
Mercury	20878-07-12 05:02 G	9346785.55	9346785.71	9346785.87	0.0285	0.0046
Mercury	20878-10-08 21:50 G	9346874.28	9346874.41	9346874.54	0.0284	0.0166
Mercury	20879-01-05 14:09 G	9346963.08	9346963.09	9346963.11	0.0284	0.0281
Mars	20882-07-21 21:07 G	9348256.22	9348256.38	9348256.57	0.0278	0.0208

Venus	20889-12-15 21:50 G	9350960.33	9350960.41	9350960.51	0.0272	0.0244
Venus	20890-08-02 03:21 G	9351189.43	9351189.64	9351189.84	0.0272	0.0055
Venus	20891-03-19 08:38 G	9351418.68	9351418.86	9351419.05	0.0272	0.0136
Moon	20891-11-28 00:43 G	9351672.46	9351672.53	9351672.61	0.0273	0.0259
Earth	20891-11-28 00:00 G	9351672.50	9351672.50	9351672.53	0.0273	0.0273 *
Moon	20892-12-09 05:16 G	9352049.51	9352049.72	9352049.94	0.0274	0.0130
Earth	20892-12-09 08:52 G	9352049.66	9352049.87	9352050.09	0.0274	0.0129 *
Mercury	20893-01-23 09:50 G	9352094.81	9352094.91	9352095.00	0.0274	0.0209
Mercury	20893-04-21 23:02 G	9352183.33	9352183.46	9352183.60	0.0274	0.0111
Mercury	20893-07-19 12:57 G	9352271.89	9352272.04	9352272.19	0.0274	0.0010
Mercury	20893-10-16 03:07 G	9352360.48	9352360.63	9352360.77	0.0275	0.0094
Mercury	20894-01-12 17:16 G	9352449.12	9352449.22	9352449.33	0.0275	0.0200
Venus	20905-01-15 22:04 G	9356469.23	9356469.42	9356469.62	0.0287	0.0110
Venus	20905-09-02 16:33 G	9356699.00	9356699.19	9356699.39	0.0287	0.0116
Earth	20906-05-30 10:04 G	9356968.86	9356968.92	9356969.00	0.0286	0.0275
Moon	20906-05-30 12:57 G	9356968.95	9356969.04	9356969.15	0.0286	0.0259 *
Mercury	20907-06-05 17:02 G	9357340.13	9357340.21	9357340.29	0.0285	0.0249
Earth	20907-06-13 06:28 G	9357347.60	9357347.77	9357347.96	0.0285	0.0195
Moon	20907-06-13 10:19 G	9357347.77	9357347.93	9357348.10	0.0285	0.0211 *
Mercury	20907-09-02 11:02 G	9357428.81	9357428.96	9357429.10	0.0285	0.0122
Mercury	20907-11-30 04:19 G	9357517.52	9357517.68	9357517.84	0.0284	0.0003
Mercury	20908-02-26 21:21 G	9357606.25	9357606.39	9357606.53	0.0284	0.0123
Mercury	20908-05-25 13:55 G	9357695.00	9357695.08	9357695.16	0.0284	0.0240
Venus	20919-06-29 00:57 G	9361746.42	9361746.54	9361746.66	0.0272	0.0221
Venus	20920-02-13 06:14 G	9361975.55	9361975.76	9361975.97	0.0272	0.0032
Venus	20920-09-29 12:00 G	9362204.83	9362205.00	9362205.17	0.0273	0.0160
Earth	20921-12-05 06:00 G	9362636.51	9362636.75	9362636.99	0.0274	0.0050
Moon	20921-12-05 09:21 G	9362636.66	9362636.89	9362637.13	0.0274	0.0042 *
Mercury	20922-06-13 11:16 G	9362826.91	9362826.97	9362827.05	0.0274	0.0238
Mercury	20922-09-10 00:43 G	9362915.41	9362915.53	9362915.66	0.0274	0.0140

Mercury	20922-12-07 14:38 G	9363003.96	9363004.11	9363004.25	0.0275	0.0040
Mercury	20923-03-06 04:33 G	9363092.54	9363092.69	9363092.84	0.0275	0.0064
Mercury	20923-06-02 18:43 G	9363181.17	9363181.28	9363181.41	0.0275	0.0170
Venus	20934-07-29 09:21 G	9367255.68	9367255.89	9367256.09	0.0288	0.0072
Venus	20935-03-16 04:04 G	9367485.50	9367485.67	9367485.85	0.0287	0.0154
Moon	20936-06-06 18:57 G	9367934.05	9367934.29	9367934.53	0.0286	0.0022
Earth	20936-06-06 22:33 G	9367934.19	9367934.44	9367934.68	0.0286	0.0005 *
Mercury	20936-10-22 19:26 G	9368072.27	9368072.31	9368072.36	0.0286	0.0273
Mercury	20937-01-19 13:40 G	9368160.93	9368161.07	9368161.21	0.0285	0.0144
Mercury	20937-04-18 07:12 G	9368249.64	9368249.80	9368249.96	0.0285	0.0019
Mercury	20937-07-16 00:14 G	9368338.36	9368338.51	9368338.66	0.0285	0.0103
Mercury	20937-10-12 16:48 G	9368427.11	9368427.20	9368427.30	0.0284	0.0221
Venus	20949-01-08 07:40 G	9372532.68	9372532.82	9372532.97	0.0271	0.0194
Venus	20949-08-25 12:57 G	9372761.83	9372762.04	9372762.25	0.0272	0.0004
Venus	20950-04-11 18:14 G	9372991.11	9372991.26	9372991.42	0.0272	0.0186
Moon	20950-11-30 03:07 G	9373223.48	9373223.63	9373223.80	0.0273	0.0209
Earth	20950-11-30 06:43 G	9373223.65	9373223.78	9373223.93	0.0273	0.0220 *
Mercury	20951-10-31 13:40 G	9373559.04	9373559.07	9373559.11	0.0274	0.0263
Moon	20951-12-12 13:26 G	9373600.90	9373601.06	9373601.25	0.0274	0.0183
Earth	20951-12-12 15:36 G	9373600.97	9373601.15	9373601.33	0.0274	0.0182 *
Mercury	20952-01-28 02:52 G	9373647.51	9373647.62	9373647.74	0.0274	0.0167
Mercury	20952-04-25 16:33 G	9373736.04	9373736.19	9373736.33	0.0274	0.0067
Mercury	20952-07-23 06:28 G	9373824.62	9373824.77	9373824.92	0.0274	0.0036
Mercury	20952-10-19 20:38 G	9373913.23	9373913.36	9373913.49	0.0275	0.0140
Mercury	20953-01-16 11:02 G	9374001.90	9374001.96	9374002.03	0.0275	0.0247
Mars	20956-11-13 07:40 G	9375398.51	9375398.82	9375399.14	0.0281	0.0081
Venus	20963-06-23 16:33 G	9377812.14	9377812.19	9377812.26	0.0287	0.0276
Venus	20964-02-08 11:45 G	9378041.78	9378041.99	9378042.20	0.0287	0.0050
Venus	20964-09-25 06:14 G	9378271.60	9378271.76	9378271.93	0.0287	0.0177
Earth	20965-05-31 21:36 G	9378520.24	9378520.40	9378520.57	0.0286	0.0212

Moon	20965-06-01 00:43 G	9378520.36	9378520.53	9378520.72	0.0286	0.0195 *
Mercury	20966-06-08 12:28 G	9378892.90	9378893.02	9378893.14	0.0285	0.0191
Earth	20966-06-14 18:14 G	9378899.16	9378899.26	9378899.36	0.0285	0.0256
Moon	20966-06-14 18:14 G	9378899.18	9378899.26	9378899.34	0.0285	0.0270 *
Mercury	20966-09-05 06:14 G	9378981.60	9378981.76	9378981.92	0.0285	0.0065
Mercury	20966-12-02 23:31 G	9379070.32	9379070.48	9379070.63	0.0284	0.0058
Mercury	20967-03-01 16:04 G	9379159.06	9379159.17	9379159.30	0.0284	0.0178
Mars	20970-12-16 13:40 G	9380544.86	9380545.07	9380545.29	0.0278	0.0159
Venus	20978-07-21 09:36 G	9383318.74	9383318.90	9383319.07	0.0272	0.0173
Venus	20979-03-07 14:52 G	9383547.91	9383548.12	9383548.33	0.0272	0.0017
Venus	20979-10-22 20:38 G	9383777.22	9383777.36	9383777.49	0.0273	0.0208
Earth	20980-12-06 10:33 G	9384187.69	9384187.94	9384188.18	0.0274	0.0001
Moon	20980-12-06 12:43 G	9384187.78	9384188.03	9384188.28	0.0274	0.0005 *
Mercury	20981-06-16 04:04 G	9384379.58	9384379.67	9384379.77	0.0274	0.0199
Mercury	20981-09-12 17:31 G	9384468.10	9384468.23	9384468.37	0.0274	0.0101
Mercury	20981-12-10 07:26 G	9384556.66	9384556.81	9384556.96	0.0275	0.0002
Mercury	20982-03-08 21:36 G	9384645.26	9384645.40	9384645.54	0.0275	0.0106
Mercury	20982-06-05 11:45 G	9384733.91	9384733.99	9384734.10	0.0275	0.0214
Venus	20993-01-03 02:38 G	9388598.50	9388598.61	9388598.72	0.0288	0.0241
Venus	20993-08-20 21:50 G	9388828.20	9388828.41	9388828.62	0.0288	0.0014
Venus	20994-04-07 16:33 G	9389058.05	9389058.19	9389058.34	0.0287	0.0212
Earth	20995-06-09 08:09 G	9389485.60	9389485.84	9389486.08	0.0286	0.0066
Moon	20995-06-09 08:38 G	9389485.64	9389485.86	9389486.09	0.0286	0.0081 *
Mercury	20995-10-26 14:38 G	9389625.01	9389625.11	9389625.22	0.0286	0.0217
Mercury	20996-01-23 08:38 G	9389713.71	9389713.86	9389714.01	0.0285	0.0089
Mercury	20996-04-21 01:55 G	9389802.43	9389802.58	9389802.74	0.0285	0.0035
Mercury	20996-07-18 18:43 G	9389891.16	9389891.28	9389891.42	0.0285	0.0156
Mercury	20996-10-15 11:16 G	9389979.93	9389979.97	9389980.02	0.0284	0.0272

22ND MILLENNIUM CE

This is a list of transits visible from Saturn in the 22nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	21008-02-01 16:19	G	9394105.00	9394105.18	9394105.36	0.0271	0.0146	
Venus	21008-09-17 21:21	G	9394334.19	9394334.39	9394334.60	0.0272	0.0044	
Venus	21009-05-05 02:38	G	9394563.52	9394563.61	9394563.73	0.0272	0.0234	
Moon	21009-12-02 09:21	G	9394774.71	9394774.89	9394775.09	0.0273	0.0163	
Earth	21009-12-02 11:16	G	9394774.79	9394774.97	9394775.17	0.0273	0.0170	*
Mercury	21010-11-04 06:14	G	9395111.69	9395111.76	9395111.85	0.0274	0.0225	
Earth	21010-12-14 19:55	G	9395152.21	9395152.33	9395152.46	0.0274	0.0232	
Moon	21010-12-14 22:19	G	9395152.31	9395152.43	9395152.56	0.0274	0.0229	*
Mercury	21011-01-31 19:40	G	9395200.19	9395200.32	9395200.45	0.0274	0.0127	
Mercury	21011-04-30 09:21	G	9395288.74	9395288.89	9395289.04	0.0274	0.0027	
Mercury	21011-07-27 23:16	G	9395377.33	9395377.47	9395377.62	0.0274	0.0078	
Mercury	21011-10-24 13:40	G	9395465.96	9395466.07	9395466.19	0.0275	0.0183	
Venus	21022-07-17 05:16	G	9399384.58	9399384.72	9399384.86	0.0287	0.0217	
Venus	21023-03-04 00:28	G	9399614.31	9399614.52	9399614.73	0.0287	0.0009	
Venus	21023-10-19 18:43	G	9399844.17	9399844.28	9399844.42	0.0287	0.0235	
Moon	21024-06-03 06:14	G	9400071.54	9400071.76	9400071.99	0.0286	0.0136	
Earth	21024-06-03 07:40	G	9400071.61	9400071.82	9400072.03	0.0286	0.0151	*
Mercury	21025-03-15 13:26	G	9400357.01	9400357.06	9400357.13	0.0285	0.0264	
Mercury	21025-06-12 07:26	G	9400445.67	9400445.81	9400445.96	0.0285	0.0136	
Mercury	21025-09-09 01:12	G	9400534.39	9400534.55	9400534.71	0.0284	0.0012	

Mercury	21025-12-06 18:14 G	9400623.11	9400623.26	9400623.40	0.0284	0.0111
Mercury	21026-03-05 10:48 G	9400711.86	9400711.95	9400712.04	0.0284	0.0229
Venus	21037-08-13 17:02 G	9404891.03	9404891.21	9404891.41	0.0272	0.0127
Venus	21038-03-30 22:19 G	9405120.23	9405120.43	9405120.64	0.0272	0.0064
Venus	21038-11-15 03:50 G	9405349.59	9405349.66	9405349.74	0.0273	0.0254
Moon	21039-12-09 10:19 G	9405738.68	9405738.93	9405739.18	0.0273	0.0047
Earth	21039-12-09 12:57 G	9405738.81	9405739.04	9405739.29	0.0273	0.0049 *
Mercury	21040-03-23 07:12 G	9405843.76	9405843.80	9405843.85	0.0274	0.0260
Mercury	21040-06-19 20:38 G	9405932.24	9405932.36	9405932.47	0.0274	0.0163
Mercury	21040-09-16 10:04 G	9406020.78	9406020.92	9406021.07	0.0274	0.0063
Mercury	21040-12-14 00:00 G	9406109.35	9406109.50	9406109.65	0.0275	0.0040
Mercury	21041-03-12 14:09 G	9406197.96	9406198.09	9406198.22	0.0275	0.0145
Mercury	21041-06-09 04:48 G	9406286.64	9406286.70	9406286.76	0.0275	0.0253
Mars	21045-04-09 23:45 G	9407687.16	9407687.49	9407687.81	0.0281	0.0022
Venus	21052-01-27 13:12 G	9410170.90	9410171.05	9410171.22	0.0288	0.0187
Venus	21052-09-13 08:38 G	9410400.65	9410400.86	9410401.07	0.0288	0.0041
Venus	21053-05-01 03:07 G	9410630.57	9410630.63	9410630.72	0.0287	0.0268
Earth	21054-06-11 15:21 G	9411036.92	9411037.14	9411037.36	0.0286	0.0123
Moon	21054-06-11 18:57 G	9411037.08	9411037.29	9411037.51	0.0286	0.0137 *
Mercury	21054-10-30 09:07 G	9411177.75	9411177.88	9411178.02	0.0286	0.0166
Mercury	21055-01-27 02:52 G	9411266.46	9411266.62	9411266.78	0.0285	0.0039
Mercury	21055-04-25 20:09 G	9411355.19	9411355.34	9411355.49	0.0285	0.0084
Mercury	21055-07-23 12:57 G	9411443.93	9411444.04	9411444.15	0.0285	0.0203
Mars	21059-05-13 23:31 G	9412834.23	9412834.48	9412834.74	0.0278	0.0079
Venus	21067-02-24 00:00 G	9415677.31	9415677.50	9415677.70	0.0271	0.0099
Venus	21067-10-11 05:02 G	9415906.51	9415906.71	9415906.91	0.0271	0.0090
Earth	21068-12-03 14:09 G	9416325.88	9416326.09	9416326.32	0.0272	0.0122
Moon	21068-12-03 17:02 G	9416326.00	9416326.21	9416326.43	0.0272	0.0119 *
Mercury	21069-11-06 22:48 G	9416664.35	9416664.45	9416664.56	0.0273	0.0188
Moon	21069-12-16 01:55 G	9416703.58	9416703.58	9416703.61	0.0274	0.0273

Mercury	21070-02-03 12:14 G	9416752.87	9416753.01	9416753.15	0.0274	0.0089
Mercury	21070-05-03 02:09 G	9416841.44	9416841.59	9416841.74	0.0274	0.0014
Mercury	21070-07-30 16:04 G	9416930.04	9416930.17	9416930.31	0.0274	0.0116
Mercury	21070-10-27 06:28 G	9417018.69	9417018.77	9417018.86	0.0275	0.0223
Venus	21081-08-08 15:36 G	9420956.99	9420957.15	9420957.34	0.0288	0.0164
Venus	21082-03-26 11:02 G	9421186.76	9421186.96	9421187.17	0.0287	0.0064
Moon	21083-06-05 10:48 G	9421622.72	9421622.95	9421623.19	0.0286	0.0081
Earth	21083-06-05 14:24 G	9421622.87	9421623.10	9421623.33	0.0286	0.0095 *
Mercury	21084-03-18 07:55 G	9421909.73	9421909.83	9421909.94	0.0285	0.0213
Mercury	21084-06-15 01:55 G	9421998.42	9421998.58	9421998.73	0.0285	0.0086
Mercury	21084-09-11 19:12 G	9422087.15	9422087.30	9422087.46	0.0284	0.0039
Mercury	21084-12-09 12:00 G	9422175.88	9422176.00	9422176.14	0.0284	0.0160
Mercury	21085-03-08 04:33 G	9422264.66	9422264.69	9422264.73	0.0284	0.0276
Venus	21096-01-19 18:57 G	9426234.27	9426234.29	9426234.32	0.0271	0.0269
Venus	21096-09-05 00:00 G	9426463.30	9426463.50	9426463.70	0.0272	0.0082
Venus	21097-04-22 04:48 G	9426692.51	9426692.70	9426692.90	0.0272	0.0108
Moon	21098-12-10 11:02 G	9427289.73	9427289.96	9427290.18	0.0273	0.0088
Earth	21098-12-10 13:55 G	9427289.85	9427290.08	9427290.31	0.0273	0.0093 *
Mercury	21099-03-26 23:16 G	9427396.39	9427396.47	9427396.55	0.0274	0.0226
Mercury	21099-06-23 12:28 G	9427484.89	9427485.02	9427485.15	0.0274	0.0128
Mercury	21099-09-20 02:09 G	9427573.44	9427573.59	9427573.74	0.0274	0.0028
Mercury	21099-12-17 16:04 G	9427662.03	9427662.17	9427662.32	0.0275	0.0076
Mercury	21100-03-16 06:14 G	9427750.66	9427750.76	9427750.88	0.0275	0.0182
Venus	21111-02-19 22:48 G	9431743.26	9431743.45	9431743.64	0.0288	0.0134
Venus	21111-10-07 18:14 G	9431973.06	9431973.26	9431973.46	0.0288	0.0094
Moon	21112-05-31 01:12 G	9432209.51	9432209.55	9432209.61	0.0287	0.0280
Earth	21113-06-13 20:09 G	9432588.16	9432588.34	9432588.55	0.0286	0.0178
Moon	21113-06-13 21:50 G	9432588.22	9432588.41	9432588.60	0.0286	0.0188 *
Mercury	21113-08-06 09:07 G	9432641.80	9432641.88	9432641.96	0.0286	0.0247
Mercury	21113-11-03 03:07 G	9432730.49	9432730.63	9432730.78	0.0286	0.0118

Mercury	21114-01-30 20:38 G	9432819.20	9432819.36	9432819.52	0.0285	0.0010
Mercury	21114-04-29 13:40 G	9432907.94	9432908.07	9432908.22	0.0285	0.0130
Mercury	21114-07-27 06:28 G	9432996.70	9432996.77	9432996.85	0.0285	0.0248
Venus	21125-08-02 01:55 G	9437020.50	9437020.58	9437020.69	0.0271	0.0242
Venus	21126-03-19 06:43 G	9437249.58	9437249.78	9437249.99	0.0271	0.0055
Venus	21126-11-03 11:31 G	9437478.80	9437478.98	9437479.17	0.0271	0.0135
Earth	21127-12-06 15:36 G	9437876.92	9437877.15	9437877.39	0.0272	0.0075
Moon	21127-12-06 18:28 G	9437877.04	9437877.27	9437877.52	0.0272	0.0075 *
Mercury	21128-08-14 01:40 G	9438128.51	9438128.57	9438128.63	0.0273	0.0250
Mercury	21128-11-10 14:52 G	9438217.00	9438217.12	9438217.24	0.0273	0.0153
Mercury	21129-02-07 04:33 G	9438305.54	9438305.69	9438305.83	0.0274	0.0054
Mercury	21129-05-06 18:14 G	9438394.11	9438394.26	9438394.41	0.0274	0.0049
Mercury	21129-08-03 08:24 G	9438482.73	9438482.85	9438482.98	0.0274	0.0153
Mercury	21129-10-30 22:48 G	9438571.41	9438571.45	9438571.50	0.0275	0.0261
Mars	21133-09-04 05:45 G	9439975.42	9439975.74	9439976.07	0.0281	0.0035
Venus	21140-09-01 01:12 G	9442529.36	9442529.55	9442529.75	0.0288	0.0111
Venus	21141-04-18 20:24 G	9442759.16	9442759.35	9442759.55	0.0287	0.0117
Moon	21142-06-07 18:00 G	9443174.01	9443174.25	9443174.49	0.0286	0.0029
Earth	21142-06-07 18:57 G	9443174.05	9443174.29	9443174.54	0.0286	0.0041 *
Mercury	21143-03-23 01:55 G	9443462.45	9443462.58	9443462.71	0.0285	0.0166
Mercury	21143-06-19 19:40 G	9443551.16	9443551.32	9443551.48	0.0285	0.0039
Mercury	21143-09-16 12:57 G	9443639.89	9443640.04	9443640.19	0.0285	0.0084
Mercury	21143-12-14 05:45 G	9443728.63	9443728.74	9443728.85	0.0284	0.0203
Mars	21147-10-08 04:48 G	9445122.44	9445122.70	9445122.96	0.0278	0.0050
Venus	21155-02-12 00:57 G	9447806.44	9447806.54	9447806.67	0.0271	0.0227
Venus	21155-09-29 06:00 G	9448035.54	9448035.75	9448035.96	0.0272	0.0038
Venus	21156-05-15 11:02 G	9448264.78	9448264.96	9448265.13	0.0272	0.0151
Moon	21156-11-30 03:36 G	9448463.57	9448463.65	9448463.73	0.0272	0.0256
Earth	21156-11-30 06:28 G	9448463.70	9448463.77	9448463.85	0.0272	0.0259 *
Earth	21157-12-12 13:40 G	9448840.87	9448841.07	9448841.29	0.0273	0.0138

Moon	21157-12-12 15:21 G	9448840.94	9448841.14	9448841.35	0.0273	0.0129 *
Mercury	21158-03-30 14:52 G	9448949.03	9448949.12	9448949.23	0.0274	0.0194
Mercury	21158-06-27 04:33 G	9449037.55	9449037.69	9449037.82	0.0274	0.0095
Mercury	21158-09-23 18:14 G	9449126.11	9449126.26	9449126.41	0.0274	0.0008
Mercury	21158-12-21 08:09 G	9449214.70	9449214.84	9449214.98	0.0275	0.0110
Mercury	21159-03-19 22:33 G	9449303.35	9449303.44	9449303.53	0.0275	0.0217
Venus	21170-03-14 06:28 G	9453315.57	9453315.77	9453315.98	0.0288	0.0085
Venus	21170-10-30 01:55 G	9453545.40	9453545.58	9453545.77	0.0288	0.0144
Earth	21171-06-01 23:16 G	9453760.36	9453760.47	9453760.61	0.0287	0.0247
Moon	21171-06-02 00:14 G	9453760.37	9453760.51	9453760.67	0.0287	0.0232 *
Moon	21172-06-14 19:55 G	9454139.19	9454139.33	9454139.47	0.0286	0.0235
Earth	21172-06-14 22:48 G	9454139.30	9454139.45	9454139.60	0.0286	0.0227 *
Mercury	21172-08-09 02:24 G	9454194.49	9454194.60	9454194.72	0.0286	0.0204
Mercury	21172-11-05 20:24 G	9454283.20	9454283.35	9454283.51	0.0286	0.0076
Mercury	21173-02-02 13:55 G	9454371.92	9454372.08	9454372.23	0.0286	0.0050
Mercury	21173-05-02 06:43 G	9454460.66	9454460.78	9454460.91	0.0285	0.0171
Venus	21184-08-24 08:24 G	9458592.71	9458592.85	9458592.99	0.0271	0.0198
Venus	21185-04-10 12:57 G	9458821.83	9458822.04	9458822.25	0.0271	0.0011
Venus	21185-11-25 17:31 G	9459051.08	9459051.23	9459051.40	0.0271	0.0178
Moon	21186-12-07 14:38 G	9459427.86	9459428.11	9459428.36	0.0272	0.0035
Earth	21186-12-07 15:50 G	9459427.92	9459428.16	9459428.41	0.0272	0.0031 *
Mercury	21187-08-17 17:31 G	9459681.14	9459681.23	9459681.32	0.0273	0.0217
Mercury	21187-11-14 06:43 G	9459769.65	9459769.78	9459769.92	0.0273	0.0120
Mercury	21188-02-10 20:24 G	9459858.20	9459858.35	9459858.50	0.0274	0.0020
Mercury	21188-05-09 10:19 G	9459946.79	9459946.93	9459947.07	0.0274	0.0083
Mercury	21188-08-06 00:28 G	9460035.42	9460035.52	9460035.63	0.0274	0.0189
Venus	21199-02-06 14:09 G	9463872.08	9463872.09	9463872.10	0.0288	0.0287
Venus	21199-09-24 09:50 G	9464101.70	9464101.91	9464102.12	0.0288	0.0060
Venus	21200-05-11 04:48 G	9464331.54	9464331.70	9464331.88	0.0288	0.0168
Earth	21201-06-08 22:19 G	9464725.18	9464725.43	9464725.67	0.0286	0.0011

Moon	21201-06-09 01:12 G	9464725.31	9464725.55	9464725.79	0.0286	0.0023 *
Mercury	21201-12-27 01:12 G	9464926.48	9464926.55	9464926.63	0.0286	0.0251
Mercury	21202-03-25 19:26 G	9465015.16	9465015.31	9465015.46	0.0285	0.0122
Mercury	21202-06-22 12:57 G	9465103.88	9465104.04	9465104.20	0.0285	0.0008
Mercury	21202-09-19 06:14 G	9465192.62	9465192.76	9465192.90	0.0285	0.0127
Mercury	21202-12-16 22:48 G	9465281.38	9465281.45	9465281.53	0.0284	0.0245
Venus	21214-03-06 06:57 G	9469378.65	9469378.79	9469378.96	0.0271	0.0183
Venus	21214-10-21 11:45 G	9469607.78	9469607.99	9469608.20	0.0271	0.0005
Venus	21215-06-07 16:19 G	9469837.04	9469837.18	9469837.33	0.0272	0.0194
Earth	21215-12-02 06:00 G	9470014.61	9470014.75	9470014.91	0.0272	0.0216
Moon	21215-12-02 06:57 G	9470014.66	9470014.79	9470014.94	0.0272	0.0215 *
Earth	21216-12-13 12:57 G	9470391.86	9470392.04	9470392.22	0.0273	0.0181
Moon	21216-12-13 16:19 G	9470392.00	9470392.18	9470392.38	0.0273	0.0169 *
Mercury	21217-01-03 17:31 G	9470413.19	9470413.23	9470413.28	0.0273	0.0258
Mercury	21217-04-02 06:43 G	9470501.67	9470501.78	9470501.90	0.0273	0.0162
Mercury	21217-06-29 20:09 G	9470590.20	9470590.34	9470590.49	0.0274	0.0063
Mercury	21217-09-26 10:04 G	9470678.77	9470678.92	9470679.07	0.0274	0.0040
Mercury	21217-12-24 00:00 G	9470767.38	9470767.50	9470767.63	0.0274	0.0144
Mercury	21218-03-22 14:24 G	9470856.05	9470856.10	9470856.16	0.0275	0.0251
Mars	21222-01-27 14:38 G	9472262.79	9472263.11	9472263.44	0.0281	0.0050
Venus	21228-08-18 17:16 G	9474658.15	9474658.22	9474658.31	0.0288	0.0265
Venus	21229-04-05 13:26 G	9474887.85	9474888.06	9474888.28	0.0288	0.0037
Venus	21229-11-21 08:52 G	9475117.72	9475117.87	9475118.04	0.0288	0.0192
Moon	21230-06-02 20:38 G	9475311.18	9475311.36	9475311.56	0.0288	0.0185
Earth	21230-06-03 00:00 G	9475311.34	9475311.50	9475311.69	0.0288	0.0200 *
Moon	21231-06-16 20:24 G	9475690.33	9475690.35	9475690.40	0.0286	0.0284
Earth	21231-06-16 23:31 G	9475690.42	9475690.48	9475690.56	0.0286	0.0275
Mercury	21231-08-12 19:26 G	9475747.18	9475747.31	9475747.45	0.0286	0.0163
Mercury	21231-11-09 13:12 G	9475835.90	9475836.05	9475836.21	0.0286	0.0036
Mercury	21232-02-06 06:43 G	9475924.63	9475924.78	9475924.93	0.0286	0.0089

Mercury	21232-05-04 23:31 G	9476013.38	9476013.48	9476013.59	0.0285	0.0210
Mars	21236-03-03 01:26 G	9477411.30	9477411.56	9477411.83	0.0278	0.0013
Venus	21243-09-16 14:24 G	9480164.93	9480165.10	9480165.27	0.0271	0.0155
Venus	21244-05-02 18:43 G	9480394.07	9480394.28	9480394.49	0.0271	0.0033
Venus	21244-12-17 23:16 G	9480623.36	9480623.47	9480623.60	0.0271	0.0221
Moon	21245-12-08 12:28 G	9480978.78	9480979.02	9480979.27	0.0272	0.0008
Earth	21245-12-08 16:04 G	9480978.93	9480979.17	9480979.41	0.0272	0.0014 *
Mercury	21246-08-20 09:21 G	9481233.78	9481233.89	9481234.00	0.0273	0.0185
Mercury	21246-11-16 22:48 G	9481322.31	9481322.45	9481322.59	0.0273	0.0086
Mercury	21247-02-13 12:28 G	9481410.87	9481411.02	9481411.17	0.0273	0.0016
Mercury	21247-05-13 02:24 G	9481499.46	9481499.60	9481499.73	0.0274	0.0118
Mercury	21247-08-09 16:33 G	9481588.11	9481588.19	9481588.28	0.0274	0.0224
Venus	21258-02-28 21:36 G	9485444.29	9485444.40	9485444.53	0.0288	0.0239
Venus	21258-10-16 17:31 G	9485674.02	9485674.23	9485674.44	0.0288	0.0011
Venus	21259-06-03 12:28 G	9485903.89	9485904.02	9485904.17	0.0288	0.0217
Earth	21260-06-10 00:00 G	9486276.26	9486276.50	9486276.74	0.0287	0.0060
Moon	21260-06-10 02:38 G	9486276.37	9486276.61	9486276.86	0.0287	0.0071 *
Mercury	21260-12-29 18:43 G	9486479.17	9486479.28	9486479.39	0.0286	0.0208
Mercury	21261-03-28 12:28 G	9486567.87	9486568.02	9486568.18	0.0286	0.0080
Mercury	21261-06-25 06:00 G	9486656.60	9486656.75	9486656.91	0.0285	0.0046
Mercury	21261-09-21 23:02 G	9486745.34	9486745.46	9486745.59	0.0285	0.0167
Venus	21273-03-28 13:12 G	9490950.87	9490951.05	9490951.23	0.0271	0.0139
Venus	21273-11-12 17:31 G	9491180.02	9491180.23	9491180.44	0.0271	0.0049
Venus	21274-06-29 22:04 G	9491409.32	9491409.42	9491409.53	0.0272	0.0237
Earth	21274-12-03 06:14 G	9491565.57	9491565.76	9491565.95	0.0272	0.0171
Moon	21274-12-03 09:50 G	9491565.73	9491565.91	9491566.10	0.0272	0.0173 *
Moon	21275-12-15 12:43 G	9491942.87	9491943.03	9491943.19	0.0273	0.0211
Earth	21275-12-15 12:43 G	9491942.89	9491943.03	9491943.17	0.0273	0.0224 *
Mercury	21276-01-07 09:21 G	9491965.81	9491965.89	9491965.97	0.0273	0.0226
Mercury	21276-04-04 22:33 G	9492054.31	9492054.44	9492054.57	0.0273	0.0129

Mercury	21276-07-02 12:00 G	9492142.85	9492143.00	9492143.15	0.0274	0.0029
Mercury	21276-09-29 01:55 G	9492231.43	9492231.58	9492231.72	0.0274	0.0073
Mercury	21276-12-26 16:04 G	9492320.05	9492320.17	9492320.28	0.0274	0.0178
Venus	21287-09-11 00:00 G	9496230.37	9496230.50	9496230.65	0.0289	0.0218
Venus	21288-04-27 20:09 G	9496460.13	9496460.34	9496460.55	0.0288	0.0012
Venus	21288-12-13 15:36 G	9496690.05	9496690.15	9496690.28	0.0288	0.0240
Moon	21289-06-03 22:19 G	9496862.22	9496862.43	9496862.64	0.0288	0.0143
Earth	21289-06-04 00:14 G	9496862.31	9496862.51	9496862.73	0.0288	0.0153 *
Mercury	21290-05-18 18:00 G	9497211.18	9497211.25	9497211.33	0.0287	0.0253
Mercury	21290-08-15 12:14 G	9497299.87	9497300.01	9497300.16	0.0286	0.0123
Mercury	21290-11-12 06:00 G	9497388.59	9497388.75	9497388.91	0.0286	0.0009
Mercury	21291-02-08 23:16 G	9497477.33	9497477.47	9497477.61	0.0286	0.0129
Mercury	21291-05-08 16:04 G	9497566.10	9497566.17	9497566.25	0.0285	0.0248
Venus	21302-10-09 20:24 G	9501737.16	9501737.35	9501737.54	0.0271	0.0111
Venus	21303-05-27 00:43 G	9501966.33	9501966.53	9501966.73	0.0271	0.0077
Jupiter	21303-12-18 14:38 G	9502171.80	9502172.11	9502172.47	0.0271	0.0187
Venus	21304-01-11 05:16 G	9502195.68	9502195.72	9502195.77	0.0271	0.0264
Moon	21304-12-10 15:36 G	9502529.92	9502530.15	9502530.38	0.0272	0.0050
Earth	21304-12-10 16:19 G	9502529.94	9502530.18	9502530.42	0.0272	0.0058 *
Mercury	21305-05-27 12:00 G	9502697.95	9502698.00	9502698.06	0.0272	0.0248
Mercury	21305-08-24 01:12 G	9502786.43	9502786.55	9502786.67	0.0273	0.0151
Mercury	21305-11-20 14:38 G	9502874.97	9502875.11	9502875.26	0.0273	0.0052
Mercury	21306-02-17 04:19 G	9502963.54	9502963.68	9502963.83	0.0273	0.0050
Mercury	21306-05-16 18:28 G	9503052.15	9503052.27	9503052.40	0.0274	0.0153
Mercury	21306-08-13 08:38 G	9503140.83	9503140.86	9503140.92	0.0274	0.0260
Mars	21310-06-23 21:21 G	9504551.10	9504551.39	9504551.70	0.0281	0.0108
Venus	21317-03-24 05:31 G	9507016.57	9507016.73	9507016.89	0.0288	0.0189
Venus	21317-11-09 01:12 G	9507246.34	9507246.55	9507246.76	0.0288	0.0040
Venus	21318-06-26 20:09 G	9507476.28	9507476.34	9507476.43	0.0288	0.0267
Moon	21319-06-12 23:45 G	9507827.26	9507827.49	9507827.73	0.0287	0.0114

Earth	21319-06-13 01:55 G	9507827.36	9507827.58	9507827.81	0.0287	0.0109	*
Mercury	21320-01-03 11:45 G	9508031.86	9508031.99	9508032.13	0.0286	0.0165	
Mercury	21320-04-01 05:45 G	9508120.58	9508120.74	9508120.90	0.0286	0.0037	
Mercury	21320-06-28 23:02 G	9508209.31	9508209.46	9508209.62	0.0285	0.0088	
Mercury	21320-09-25 16:04 G	9508298.06	9508298.17	9508298.28	0.0285	0.0208	
Mars	21324-07-28 05:45 G	9509699.48	9509699.74	9509700.01	0.0278	0.0039	
Venus	21332-04-20 19:26 G	9512523.12	9512523.31	9512523.52	0.0271	0.0095	
Venus	21332-12-05 23:45 G	9512752.30	9512752.49	9512752.69	0.0271	0.0093	
Earth	21333-12-05 07:12 G	9513116.59	9513116.80	9513117.02	0.0272	0.0126	
Moon	21333-12-05 07:55 G	9513116.61	9513116.83	9513117.05	0.0272	0.0132	*
Moon	21334-12-17 09:50 G	9513493.83	9513493.91	9513494.01	0.0273	0.0254	
Earth	21334-12-17 13:12 G	9513494.02	9513494.05	9513494.10	0.0273	0.0269	
Mercury	21335-01-11 01:12 G	9513518.45	9513518.55	9513518.66	0.0273	0.0192	
Mercury	21335-04-09 14:38 G	9513606.97	9513607.11	9513607.25	0.0273	0.0094	
Mercury	21335-07-07 04:04 G	9513695.53	9513695.67	9513695.82	0.0274	0.0011	
Mercury	21335-10-03 18:00 G	9513784.12	9513784.25	9513784.39	0.0274	0.0109	
Mercury	21335-12-31 08:24 G	9513872.75	9513872.85	9513872.94	0.0274	0.0215	
Venus	21346-10-04 07:12 G	9517802.63	9517802.80	9517802.97	0.0289	0.0169	
Venus	21347-05-22 03:07 G	9518032.43	9518032.63	9518032.84	0.0288	0.0061	
Venus	21348-01-06 22:48 G	9518262.45	9518262.45	9518262.46	0.0288	0.0288	
Earth	21348-06-06 00:43 G	9518413.31	9518413.53	9518413.77	0.0288	0.0106	
Moon	21348-06-06 03:36 G	9518413.43	9518413.65	9518413.88	0.0288	0.0100	*
Mercury	21349-05-22 11:02 G	9518763.85	9518763.96	9518764.07	0.0287	0.0212	
Mercury	21349-08-19 05:02 G	9518852.56	9518852.71	9518852.87	0.0286	0.0083	
Mercury	21349-11-15 22:48 G	9518941.29	9518941.45	9518941.61	0.0286	0.0045	
Mercury	21350-02-12 15:50 G	9519030.04	9519030.16	9519030.29	0.0286	0.0168	
Venus	21361-03-16 22:33 G	9523080.37	9523080.44	9523080.52	0.0271	0.0252	
Venus	21361-11-01 02:52 G	9523309.42	9523309.62	9523309.83	0.0271	0.0066	
Venus	21362-06-18 07:12 G	9523538.62	9523538.80	9523538.99	0.0271	0.0122	
Earth	21363-12-12 17:45 G	9524081.01	9524081.24	9524081.47	0.0272	0.0104	

Moon	21363-12-12 21:07 G	9524081.15	9524081.38	9524081.61	0.0272	0.0092 *
Mercury	21364-05-30 04:19 G	9524250.59	9524250.68	9524250.77	0.0272	0.0213
Mercury	21364-08-26 17:31 G	9524339.09	9524339.23	9524339.36	0.0273	0.0116
Mercury	21364-11-23 06:57 G	9524427.64	9524427.79	9524427.94	0.0273	0.0016
Mercury	21365-02-19 20:38 G	9524516.22	9524516.36	9524516.51	0.0273	0.0087
Mercury	21365-05-19 10:48 G	9524604.85	9524604.95	9524605.06	0.0274	0.0191
Venus	21376-04-15 13:40 G	9528588.89	9528589.07	9528589.26	0.0289	0.0138
Venus	21376-12-01 09:21 G	9528818.69	9528818.89	9528819.09	0.0288	0.0091
Moon	21378-06-14 00:57 G	9529378.34	9529378.54	9529378.74	0.0287	0.0159
Earth	21378-06-14 04:33 G	9529378.49	9529378.69	9529378.89	0.0287	0.0159 *
Mercury	21378-10-09 11:02 G	9529495.88	9529495.96	9529496.03	0.0287	0.0252
Mercury	21379-01-06 05:16 G	9529584.57	9529584.72	9529584.86	0.0286	0.0121
Mercury	21379-04-04 23:02 G	9529673.30	9529673.46	9529673.62	0.0286	0.0007
Mercury	21379-07-02 16:19 G	9529762.04	9529762.18	9529762.32	0.0285	0.0130
Mercury	21379-09-29 09:07 G	9529850.81	9529850.88	9529850.95	0.0285	0.0249
Venus	21390-09-26 22:48 G	9533866.35	9533866.45	9533866.56	0.0271	0.0234
Venus	21391-05-14 02:52 G	9534095.41	9534095.62	9534095.83	0.0271	0.0048
Venus	21391-12-29 06:57 G	9534324.62	9534324.79	9534324.98	0.0271	0.0139
Moon	21392-12-06 06:00 G	9534667.52	9534667.75	9534667.99	0.0272	0.0091
Earth	21392-12-06 09:50 G	9534667.68	9534667.91	9534668.14	0.0272	0.0079 *
Mercury	21393-10-17 04:33 G	9534982.64	9534982.69	9534982.74	0.0273	0.0251
Mercury	21394-01-13 17:31 G	9535071.12	9535071.23	9535071.35	0.0273	0.0156
Mercury	21394-04-12 06:57 G	9535159.65	9535159.79	9535159.94	0.0273	0.0057
Mercury	21394-07-09 20:38 G	9535248.21	9535248.36	9535248.51	0.0273	0.0044
Mercury	21394-10-06 10:33 G	9535336.82	9535336.94	9535337.07	0.0274	0.0148
Mercury	21395-01-03 00:43 G	9535425.48	9535425.53	9535425.59	0.0274	0.0254
Mars	21398-11-16 06:00 G	9536838.48	9536838.75	9536839.06	0.0281	0.0127
Venus	21405-10-27 15:07 G	9539374.94	9539375.13	9539375.33	0.0289	0.0118
Venus	21406-06-14 11:16 G	9539604.77	9539604.97	9539605.16	0.0288	0.0112
Earth	21407-06-09 02:38 G	9539964.37	9539964.61	9539964.86	0.0288	0.0057

Moon	21407-06-09 05:45 G	9539964.50	9539964.74	9539964.99	0.0288	0.0056 *
Mercury	21408-05-26 04:19 G	9540316.55	9540316.68	9540316.81	0.0287	0.0168
Mercury	21408-08-22 22:19 G	9540405.27	9540405.43	9540405.59	0.0286	0.0039
Mercury	21408-11-19 15:50 G	9540494.01	9540494.16	9540494.31	0.0286	0.0087
Mercury	21409-02-16 08:52 G	9540582.77	9540582.87	9540582.98	0.0286	0.0208
Mars	21412-12-22 20:38 G	9541988.11	9541988.36	9541988.61	0.0279	0.0095
Venus	21420-04-09 06:00 G	9544652.62	9544652.75	9544652.89	0.0271	0.0205
Venus	21420-11-24 10:19 G	9544881.72	9544881.93	9544882.14	0.0271	0.0019
Venus	21421-07-11 14:38 G	9545110.95	9545111.11	9545111.28	0.0271	0.0169
Earth	21421-12-02 15:36 G	9545255.04	9545255.15	9545255.27	0.0271	0.0240
Moon	21421-12-02 18:57 G	9545255.20	9545255.29	9545255.39	0.0271	0.0248 *
Earth	21422-12-14 20:52 G	9545632.17	9545632.37	9545632.58	0.0272	0.0151
Moon	21422-12-14 23:16 G	9545632.25	9545632.47	9545632.69	0.0272	0.0136 *
Mercury	21423-03-07 07:40 G	9545714.81	9545714.82	9545714.83	0.0272	0.0270
Mercury	21423-06-03 20:38 G	9545803.25	9545803.36	9545803.47	0.0272	0.0175
Mercury	21423-08-31 09:50 G	9545891.77	9545891.91	9545892.06	0.0273	0.0078
Mercury	21423-11-27 23:31 G	9545980.33	9545980.48	9545980.63	0.0273	0.0024
Mercury	21424-02-24 13:26 G	9546068.93	9546069.06	9546069.20	0.0273	0.0126
Mercury	21424-05-23 03:36 G	9546157.58	9546157.65	9546157.73	0.0274	0.0232
Venus	21435-05-09 23:16 G	9550161.26	9550161.47	9550161.67	0.0289	0.0084
Venus	21435-12-25 18:43 G	9550391.10	9550391.28	9550391.47	0.0288	0.0145
Moon	21436-06-02 05:45 G	9550550.64	9550550.74	9550550.84	0.0288	0.0260
Earth	21436-06-02 08:24 G	9550550.76	9550550.85	9550550.95	0.0288	0.0264 *
Earth	21437-06-16 08:38 G	9550929.70	9550929.86	9550930.03	0.0287	0.0211
Moon	21437-06-16 09:21 G	9550929.73	9550929.89	9550930.06	0.0287	0.0208 *
Mercury	21437-10-13 04:48 G	9551048.59	9551048.70	9551048.82	0.0287	0.0205
Mercury	21438-01-09 23:02 G	9551137.30	9551137.46	9551137.61	0.0286	0.0075
Mercury	21438-04-08 16:33 G	9551226.04	9551226.19	9551226.35	0.0286	0.0052
Mercury	21438-07-06 09:36 G	9551314.78	9551314.90	9551315.03	0.0286	0.0175
Venus	21449-10-20 07:12 G	9555438.65	9555438.80	9555438.95	0.0271	0.0186

Venus	21450-06-06 11:16 G	9555667.76	9555667.97	9555668.18	0.0271	0.0002
Venus	21451-01-21 15:21 G	9555897.00	9555897.14	9555897.30	0.0271	0.0188
Moon	21451-12-09 12:28 G	9556218.79	9556219.02	9556219.26	0.0272	0.0043
Earth	21451-12-09 14:24 G	9556218.86	9556219.10	9556219.34	0.0272	0.0030 *
Mercury	21452-10-20 21:07 G	9556535.30	9556535.38	9556535.48	0.0272	0.0213
Mercury	21453-01-17 10:19 G	9556623.80	9556623.93	9556624.07	0.0273	0.0116
Mercury	21453-04-16 00:00 G	9556712.35	9556712.50	9556712.64	0.0273	0.0018
Mercury	21453-07-13 13:40 G	9556800.93	9556801.07	9556801.21	0.0273	0.0086
Mercury	21453-10-10 03:36 G	9556889.55	9556889.65	9556889.76	0.0274	0.0190
Venus	21464-11-19 00:28 G	9560947.31	9560947.52	9560947.73	0.0288	0.0064
Venus	21465-07-06 20:24 G	9561177.18	9561177.35	9561177.52	0.0288	0.0165
Moon	21466-06-10 05:16 G	9561515.46	9561515.72	9561515.97	0.0288	0.0009
Earth	21466-06-10 06:28 G	9561515.52	9561515.77	9561516.02	0.0288	0.0006 *
Mercury	21467-03-02 03:36 G	9561780.58	9561780.65	9561780.73	0.0287	0.0253
Mercury	21467-05-29 22:04 G	9561869.27	9561869.42	9561869.56	0.0287	0.0122
Mercury	21467-08-26 15:50 G	9561958.00	9561958.16	9561958.32	0.0286	0.0007
Mercury	21467-11-23 09:07 G	9562046.75	9562046.88	9562047.03	0.0286	0.0131
Mercury	21468-02-20 01:55 G	9562135.52	9562135.58	9562135.66	0.0286	0.0252
Venus	21479-05-02 14:24 G	9566224.93	9566225.10	9566225.28	0.0271	0.0157
Venus	21479-12-17 18:43 G	9566454.07	9566454.28	9566454.50	0.0271	0.0031
Venus	21480-08-02 23:16 G	9566683.35	9566683.47	9566683.60	0.0271	0.0218
Earth	21480-12-03 20:24 G	9566806.19	9566806.35	9566806.54	0.0271	0.0192
Moon	21480-12-03 22:48 G	9566806.29	9566806.45	9566806.63	0.0271	0.0199 *
Moon	21481-12-15 23:16 G	9567183.30	9567183.47	9567183.67	0.0272	0.0184
Earth	21481-12-16 02:09 G	9567183.43	9567183.59	9567183.76	0.0272	0.0200 *
Mercury	21482-03-10 00:28 G	9567267.45	9567267.52	9567267.60	0.0272	0.0231
Mercury	21482-06-06 13:40 G	9567355.94	9567356.07	9567356.19	0.0272	0.0135
Mercury	21482-09-03 02:52 G	9567444.48	9567444.62	9567444.77	0.0273	0.0037
Mercury	21482-11-30 16:48 G	9567533.05	9567533.20	9567533.34	0.0273	0.0066
Mercury	21483-02-27 06:43 G	9567621.66	9567621.78	9567621.90	0.0273	0.0170

Mars	21487-04-13 14:24 G	9569127.91	9569128.10	9569128.32	0.0281	0.0220
Venus	21493-10-14 13:55 G	9571503.99	9571504.08	9571504.19	0.0289	0.0256
Venus	21494-06-01 10:04 G	9571733.71	9571733.92	9571734.13	0.0289	0.0027
Venus	21495-01-17 05:16 G	9571963.58	9571963.72	9571963.89	0.0288	0.0202
Earth	21495-06-04 15:07 G	9572101.96	9572102.13	9572102.30	0.0288	0.0210
Moon	21495-06-04 16:04 G	9572102.01	9572102.17	9572102.34	0.0288	0.0208 *
Earth	21496-06-17 15:07 G	9572481.05	9572481.13	9572481.23	0.0287	0.0266
Moon	21496-06-17 18:43 G	9572481.19	9572481.28	9572481.40	0.0287	0.0259 *
Mercury	21496-07-19 04:48 G	9572512.69	9572512.70	9572512.71	0.0287	0.0285
Mercury	21496-10-15 23:02 G	9572601.33	9572601.46	9572601.61	0.0287	0.0154
Mercury	21497-01-12 17:16 G	9572690.06	9572690.22	9572690.38	0.0286	0.0026
Mercury	21497-04-11 10:33 G	9572778.79	9572778.94	9572779.09	0.0286	0.0101
Mercury	21497-07-09 03:36 G	9572867.55	9572867.65	9572867.75	0.0286	0.0222
Mars	21501-05-19 14:24 G	9574276.88	9574277.10	9574277.33	0.0278	0.0143
Venus	21508-11-12 16:33 G	9577011.01	9577011.19	9577011.38	0.0271	0.0136
Venus	21509-06-29 20:38 G	9577240.16	9577240.36	9577240.57	0.0271	0.0051
Venus	21510-02-14 00:57 G	9577469.45	9577469.54	9577469.64	0.0271	0.0238
Earth	21510-12-11 20:52 G	9577770.13	9577770.37	9577770.62	0.0272	0.0022
Moon	21510-12-11 23:31 G	9577770.24	9577770.48	9577770.72	0.0272	0.0008 *
Mercury	21511-07-29 01:26 G	9577999.53	9577999.56	9577999.59	0.0272	0.0265
Mercury	21511-10-25 14:24 G	9578087.99	9578088.10	9578088.22	0.0273	0.0170
Mercury	21512-01-22 03:36 G	9578176.51	9578176.65	9578176.80	0.0273	0.0073
Mercury	21512-04-19 17:16 G	9578265.07	9578265.22	9578265.37	0.0273	0.0028
Mercury	21512-07-17 06:57 G	9578353.67	9578353.79	9578353.93	0.0273	0.0132
Mercury	21512-10-13 21:07 G	9578442.31	9578442.38	9578442.46	0.0274	0.0237
Venus	21523-04-27 15:36 G	9582290.04	9582290.15	9582290.28	0.0288	0.0234
Venus	21523-12-13 11:45 G	9582519.78	9582519.99	9582520.20	0.0288	0.0006
Venus	21524-07-30 07:26 G	9582749.68	9582749.81	9582749.95	0.0288	0.0222
Moon	21525-06-12 09:50 G	9583066.67	9583066.91	9583067.15	0.0288	0.0044
Earth	21525-06-12 13:26 G	9583066.82	9583067.06	9583067.30	0.0288	0.0049 *

Mercury	21526-03-05 22:04 G	9583333.31	9583333.42	9583333.54	0.0287	0.0201
Mercury	21526-06-02 16:19 G	9583422.02	9583422.18	9583422.33	0.0287	0.0071
Mercury	21526-08-30 09:50 G	9583510.76	9583510.91	9583511.07	0.0286	0.0057
Mercury	21526-11-27 03:07 G	9583599.51	9583599.63	9583599.75	0.0286	0.0179
Venus	21538-05-25 23:45 G	9587797.30	9587797.49	9587797.69	0.0271	0.0106
Venus	21539-01-10 04:19 G	9588026.48	9588026.68	9588026.88	0.0271	0.0081
Venus	21539-08-27 09:07 G	9588255.86	9588255.88	9588255.90	0.0271	0.0269
Moon	21539-12-07 01:12 G	9588357.35	9588357.55	9588357.77	0.0271	0.0151
Earth	21539-12-07 03:21 G	9588357.43	9588357.64	9588357.85	0.0271	0.0141 *
Moon	21540-12-18 06:00 G	9588734.64	9588734.75	9588734.87	0.0272	0.0236
Earth	21540-12-18 09:07 G	9588734.79	9588734.88	9588734.97	0.0272	0.0251 *
Mercury	21541-03-13 17:31 G	9588820.13	9588820.23	9588820.34	0.0272	0.0189
Mercury	21541-06-10 06:57 G	9588908.65	9588908.79	9588908.93	0.0273	0.0091
Mercury	21541-09-06 20:24 G	9588997.20	9588997.35	9588997.50	0.0273	0.0010
Mercury	21541-12-04 10:19 G	9589085.79	9589085.93	9589086.06	0.0273	0.0112
Mercury	21542-03-03 00:14 G	9589174.43	9589174.51	9589174.61	0.0273	0.0217
Venus	21552-11-07 02:24 G	9593076.45	9593076.60	9593076.76	0.0289	0.0197
Venus	21553-06-24 22:19 G	9593306.22	9593306.43	9593306.64	0.0289	0.0032
Venus	21554-02-09 17:45 G	9593536.16	9593536.24	9593536.34	0.0288	0.0259
Earth	21554-06-07 00:00 G	9593653.29	9593653.50	9593653.71	0.0288	0.0151
Moon	21554-06-07 03:36 G	9593653.44	9593653.65	9593653.86	0.0288	0.0150 *
Mercury	21555-07-23 23:45 G	9594065.40	9594065.49	9594065.59	0.0287	0.0230
Mercury	21555-10-20 18:00 G	9594154.10	9594154.25	9594154.40	0.0287	0.0099
Mercury	21556-01-17 11:45 G	9594242.83	9594242.99	9594243.15	0.0286	0.0029
Mercury	21556-04-15 05:02 G	9594331.58	9594331.71	9594331.85	0.0286	0.0153
Mercury	21556-07-12 21:50 G	9594420.37	9594420.41	9594420.46	0.0286	0.0273
Venus	21567-04-20 23:02 G	9598354.45	9598354.46	9598354.49	0.0271	0.0269
Venus	21567-12-06 03:07 G	9598583.43	9598583.63	9598583.84	0.0271	0.0084
Venus	21568-07-22 07:26 G	9598812.62	9598812.81	9598813.01	0.0271	0.0104
Earth	21569-12-13 05:45 G	9599321.50	9599321.74	9599321.97	0.0272	0.0076

Moon	21569-12-13 08:52 G	9599321.63	9599321.87	9599322.12	0.0272	0.0062 *
Mercury	21570-07-31 18:57 G	9599552.21	9599552.29	9599552.37	0.0272	0.0220
Mercury	21570-10-28 08:09 G	9599640.71	9599640.84	9599640.97	0.0273	0.0124
Mercury	21571-01-24 21:21 G	9599729.25	9599729.39	9599729.54	0.0273	0.0026
Mercury	21571-04-23 11:02 G	9599817.82	9599817.96	9599818.11	0.0273	0.0077
Mercury	21571-07-21 01:12 G	9599906.43	9599906.55	9599906.66	0.0273	0.0181
Mars	21575-09-08 01:26 G	9601416.54	9601416.56	9601416.60	0.0281	0.0279
Venus	21582-05-20 04:33 G	9603862.53	9603862.69	9603862.86	0.0288	0.0174
Venus	21583-01-05 00:28 G	9604092.31	9604092.52	9604092.73	0.0288	0.0055
Venus	21583-08-22 20:09 G	9604322.30	9604322.34	9604322.38	0.0288	0.0281
Moon	21584-06-13 21:21 G	9604618.17	9604618.39	9604618.61	0.0287	0.0102
Earth	21584-06-13 22:33 G	9604618.22	9604618.44	9604618.67	0.0287	0.0107 *
Mercury	21584-12-09 22:33 G	9604797.40	9604797.44	9604797.48	0.0287	0.0278
Mercury	21585-03-08 17:02 G	9604886.07	9604886.21	9604886.35	0.0287	0.0146
Mercury	21585-06-05 11:02 G	9604974.80	9604974.96	9604975.12	0.0286	0.0017
Mercury	21585-09-02 04:33 G	9605063.54	9605063.69	9605063.84	0.0286	0.0109
Mercury	21585-11-29 21:36 G	9605152.31	9605152.40	9605152.49	0.0286	0.0231
Mars	21589-10-13 09:07 G	9606565.71	9606565.88	9606566.07	0.0279	0.0205
Venus	21596-10-31 05:31 G	9609140.64	9609140.73	9609140.83	0.0271	0.0241
Venus	21597-06-17 10:04 G	9609369.71	9609369.92	9609370.13	0.0271	0.0054
Venus	21598-02-01 14:24 G	9609598.93	9609599.10	9609599.29	0.0271	0.0134
Moon	21598-12-08 07:55 G	9609908.60	9609908.83	9609909.05	0.0271	0.0100
Earth	21598-12-08 11:16 G	9609908.74	9609908.97	9609909.21	0.0271	0.0088 *
Mercury	21599-12-18 22:04 G	9610284.36	9610284.42	9610284.49	0.0272	0.0239
Mercury	21600-03-16 11:16 G	9610372.84	9610372.97	9610373.09	0.0272	0.0143
Mercury	21600-06-13 00:28 G	9610461.38	9610461.52	9610461.67	0.0273	0.0044
Mercury	21600-09-09 14:09 G	9610549.95	9610550.09	9610550.24	0.0273	0.0058
Mercury	21600-12-07 04:04 G	9610638.55	9610638.67	9610638.80	0.0273	0.0161
Mercury	21601-03-05 18:14 G	9610727.24	9610727.26	9610727.30	0.0274	0.0268
Venus	21611-11-30 16:33 G	9614649.01	9614649.19	9614649.38	0.0289	0.0134

Venus	21612-07-17 12:28 G	9614878.82	9614879.02	9614879.22	0.0289	0.0095
Earth	21613-06-08 11:45 G	9615204.76	9615204.99	9615205.23	0.0288	0.0089
Moon	21613-06-08 13:12 G	9615204.81	9615205.05	9615205.29	0.0288	0.0091 *
Mercury	21614-07-26 19:26 G	9615618.18	9615618.31	9615618.44	0.0287	0.0170
Mercury	21614-10-23 13:26 G	9615706.90	9615707.06	9615707.22	0.0287	0.0040
Mercury	21615-01-20 06:57 G	9615795.64	9615795.79	9615795.94	0.0286	0.0086
Mercury	21615-04-19 00:14 G	9615884.40	9615884.51	9615884.61	0.0286	0.0208
Venus	21626-05-13 10:19 G	9619926.80	9619926.93	9619927.06	0.0271	0.0216
Venus	21626-12-28 14:24 G	9620155.89	9620156.10	9620156.31	0.0271	0.0030
Venus	21627-08-14 18:57 G	9620385.12	9620385.29	9620385.46	0.0271	0.0158
Earth	21627-12-03 10:33 G	9620495.88	9620495.94	9620496.02	0.0271	0.0258
Moon	21627-12-03 14:24 G	9620496.07	9620496.10	9620496.15	0.0271	0.0266
Moon	21628-12-14 15:21 G	9620872.92	9620873.14	9620873.37	0.0272	0.0118
Earth	21628-12-14 15:36 G	9620872.94	9620873.15	9620873.37	0.0272	0.0132 *
Mercury	21629-05-06 23:45 G	9621016.47	9621016.49	9621016.52	0.0272	0.0268
Mercury	21629-08-03 12:43 G	9621104.92	9621105.03	9621105.15	0.0272	0.0173
Mercury	21629-10-31 01:55 G	9621193.44	9621193.58	9621193.73	0.0273	0.0076
Mercury	21630-01-27 15:36 G	9621282.00	9621282.15	9621282.30	0.0273	0.0025
Mercury	21630-04-26 05:16 G	9621370.59	9621370.72	9621370.86	0.0273	0.0128
Mercury	21630-07-23 19:26 G	9621459.24	9621459.31	9621459.39	0.0274	0.0233
Venus	21641-06-11 18:57 G	9625435.10	9625435.29	9625435.49	0.0288	0.0111
Venus	21642-01-27 14:38 G	9625664.93	9625665.11	9625665.31	0.0288	0.0118
Jupiter	21642-05-24 17:02 G	9625781.79	9625782.21	9625782.66	0.0288	0.0094
Earth	21643-06-16 10:04 G	9626169.73	9626169.92	9626170.13	0.0287	0.0168
Moon	21643-06-16 12:57 G	9626169.85	9626170.04	9626170.25	0.0287	0.0160 *
Mercury	21643-12-13 18:00 G	9626350.15	9626350.25	9626350.36	0.0287	0.0218
Mercury	21644-03-11 12:28 G	9626438.87	9626439.02	9626439.17	0.0286	0.0087
Mercury	21644-06-08 06:14 G	9626527.60	9626527.76	9626527.92	0.0286	0.0041
Mercury	21644-09-04 23:31 G	9626616.35	9626616.48	9626616.61	0.0286	0.0165
Mercury	21644-12-02 16:19 G	9626705.18	9626705.18	9626705.19	0.0286	0.0285

Venus	21655-11-23 16:19 G	9630713.03	9630713.18	9630713.34	0.0271	0.0188
Venus	21656-07-09 20:52 G	9630942.16	9630942.37	9630942.58	0.0271	0.0001
Venus	21657-02-24 01:26 G	9631171.41	9631171.56	9631171.72	0.0271	0.0187
Moon	21657-12-09 19:55 G	9631460.10	9631460.33	9631460.57	0.0272	0.0048
Earth	21657-12-09 20:24 G	9631460.11	9631460.35	9631460.59	0.0272	0.0034 *
Mercury	21658-12-21 15:50 G	9631837.06	9631837.16	9631837.26	0.0272	0.0193
Mercury	21659-03-20 05:02 G	9631925.57	9631925.71	9631925.85	0.0273	0.0095
Mercury	21659-06-16 18:28 G	9632014.12	9632014.27	9632014.42	0.0273	0.0006
Mercury	21659-09-13 08:24 G	9632102.71	9632102.85	9632102.98	0.0273	0.0108
Mercury	21659-12-10 22:19 G	9632191.34	9632191.43	9632191.53	0.0274	0.0213
Venus	21670-12-23 07:40 G	9636221.61	9636221.82	9636222.03	0.0289	0.0069
Venus	21671-08-10 03:07 G	9636451.46	9636451.63	9636451.82	0.0288	0.0160
Moon	21672-06-09 21:50 G	9636756.16	9636756.41	9636756.66	0.0288	0.0032
Earth	21672-06-10 01:12 G	9636756.30	9636756.55	9636756.79	0.0288	0.0025 *
Mercury	21673-05-01 20:52 G	9637082.28	9637082.37	9637082.46	0.0287	0.0239
Mercury	21673-07-29 15:07 G	9637170.99	9637171.13	9637171.28	0.0287	0.0108
Mercury	21673-10-26 09:07 G	9637259.72	9637259.88	9637260.04	0.0286	0.0020
Mercury	21674-01-23 02:24 G	9637348.47	9637348.60	9637348.74	0.0286	0.0145
Mercury	21674-04-21 19:26 G	9637437.25	9637437.31	9637437.36	0.0286	0.0265
Venus	21685-06-04 21:50 G	9641499.24	9641499.41	9641499.58	0.0271	0.0162
Venus	21686-01-20 02:09 G	9641728.38	9641728.59	9641728.80	0.0271	0.0025
Venus	21686-09-06 06:43 G	9641957.65	9641957.78	9641957.91	0.0271	0.0212
Earth	21686-12-04 20:38 G	9642047.21	9642047.36	9642047.54	0.0271	0.0203
Moon	21686-12-04 21:07 G	9642047.23	9642047.38	9642047.54	0.0271	0.0213 *
Moon	21687-12-16 22:33 G	9642424.26	9642424.44	9642424.64	0.0272	0.0172
Earth	21687-12-17 01:55 G	9642424.42	9642424.58	9642424.77	0.0272	0.0188 *
Mercury	21688-05-09 17:31 G	9642569.16	9642569.23	9642569.32	0.0272	0.0221
Mercury	21688-08-06 06:43 G	9642657.65	9642657.78	9642657.91	0.0273	0.0124
Mercury	21688-11-02 20:09 G	9642746.19	9642746.34	9642746.49	0.0273	0.0025
Mercury	21689-01-30 09:50 G	9642834.76	9642834.91	9642835.05	0.0273	0.0076

Mercury	21689-04-28 23:45 G	9642923.38	9642923.49	9642923.60	0.0273	0.0180
Venus	21699-11-17 14:38 G	9646778.06	9646778.11	9646778.19	0.0288	0.0273
Venus	21700-07-05 10:48 G	9647007.74	9647007.95	9647008.16	0.0288	0.0045
Venus	21701-02-20 06:28 G	9647237.61	9647237.77	9647237.93	0.0288	0.0183
Earth	21701-06-04 23:31 G	9647342.36	9647342.48	9647342.62	0.0288	0.0242
Moon	21701-06-05 03:07 G	9647342.52	9647342.63	9647342.76	0.0288	0.0248 *
Earth	21702-06-19 00:14 G	9647721.38	9647721.51	9647721.66	0.0287	0.0232
Moon	21702-06-19 03:21 G	9647721.50	9647721.64	9647721.81	0.0287	0.0222 *
Mercury	21702-09-19 19:55 G	9647814.32	9647814.33	9647814.33	0.0287	0.0286
Mercury	21702-12-17 14:24 G	9647902.96	9647903.10	9647903.24	0.0286	0.0154
Mercury	21703-03-16 08:24 G	9647991.69	9647991.85	9647992.01	0.0286	0.0024
Mercury	21703-06-13 01:55 G	9648080.43	9648080.58	9648080.73	0.0286	0.0102
Mercury	21703-09-09 18:57 G	9648169.20	9648169.29	9648169.39	0.0286	0.0224
Venus	21714-12-17 02:52 G	9652285.45	9652285.62	9652285.81	0.0271	0.0136
Venus	21715-08-03 07:40 G	9652514.61	9652514.82	9652515.03	0.0271	0.0052
Venus	21716-03-19 12:14 G	9652743.93	9652744.01	9652744.12	0.0271	0.0241
Earth	21716-12-12 05:16 G	9653011.47	9653011.72	9653011.96	0.0272	0.0020
Moon	21716-12-12 08:52 G	9653011.63	9653011.87	9653012.11	0.0272	0.0005 *
Mercury	21717-09-27 20:24 G	9653301.29	9653301.35	9653301.41	0.0272	0.0243
Mercury	21717-12-25 09:21 G	9653389.77	9653389.89	9653390.02	0.0273	0.0147
Mercury	21718-03-23 22:48 G	9653478.30	9653478.45	9653478.60	0.0273	0.0047
Mercury	21718-06-20 12:28 G	9653566.87	9653567.02	9653567.16	0.0273	0.0054
Mercury	21718-09-17 02:24 G	9653655.48	9653655.60	9653655.72	0.0273	0.0158
Mercury	21718-12-14 16:33 G	9653744.16	9653744.19	9653744.23	0.0274	0.0264
Mars	21722-05-08 05:45 G	9654984.60	9654984.74	9654984.92	0.0279	0.0241
Venus	21729-05-31 03:21 G	9657564.52	9657564.64	9657564.77	0.0289	0.0233
Venus	21730-01-15 23:16 G	9657794.26	9657794.47	9657794.69	0.0289	0.0007
Venus	21730-09-02 18:57 G	9658024.16	9658024.29	9658024.42	0.0288	0.0224
Moon	21731-06-13 12:43 G	9658307.79	9658308.03	9658308.27	0.0288	0.0032
Earth	21731-06-13 15:36 G	9658307.90	9658308.15	9658308.39	0.0288	0.0041 *

Mercury	21732-05-05 17:02 G	9658635.09	9658635.21	9658635.34	0.0287	0.0175
Mercury	21732-08-02 11:16 G	9658723.81	9658723.97	9658724.13	0.0287	0.0045
Mercury	21732-10-30 04:48 G	9658812.55	9658812.70	9658812.86	0.0286	0.0082
Mercury	21733-01-26 22:04 G	9658901.31	9658901.42	9658901.53	0.0286	0.0204
Mars	21736-06-18 17:31 G	9660140.06	9660140.23	9660140.43	0.0280	0.0197
Venus	21744-06-28 09:07 G	9663071.69	9663071.88	9663072.08	0.0271	0.0109
Venus	21745-02-12 13:40 G	9663300.86	9663301.07	9663301.27	0.0271	0.0079
Venus	21745-09-29 18:14 G	9663530.23	9663530.26	9663530.30	0.0271	0.0266
Moon	21745-12-07 03:07 G	9663598.44	9663598.63	9663598.84	0.0271	0.0162
Earth	21745-12-07 06:43 G	9663598.59	9663598.78	9663599.00	0.0271	0.0148 *
Moon	21746-12-19 10:19 G	9663975.81	9663975.93	9663976.06	0.0272	0.0229
Earth	21746-12-19 12:28 G	9663975.92	9663976.02	9663976.13	0.0272	0.0243 *
Mercury	21747-02-14 22:33 G	9664033.42	9664033.44	9664033.46	0.0272	0.0269
Mercury	21747-05-14 11:31 G	9664121.87	9664121.98	9664122.09	0.0272	0.0173
Mercury	21747-08-11 00:43 G	9664210.39	9664210.53	9664210.68	0.0273	0.0075
Mercury	21747-11-07 14:24 G	9664298.95	9664299.10	9664299.24	0.0273	0.0026
Mercury	21748-02-04 04:04 G	9664387.54	9664387.67	9664387.80	0.0273	0.0128
Mercury	21748-05-02 18:00 G	9664476.18	9664476.25	9664476.34	0.0274	0.0234
Venus	21758-12-11 06:28 G	9668350.63	9668350.77	9668350.92	0.0288	0.0208
Venus	21759-07-29 02:38 G	9668580.39	9668580.61	9668580.82	0.0288	0.0021
Venus	21760-03-14 22:04 G	9668810.32	9668810.42	9668810.53	0.0288	0.0248
Earth	21760-06-06 14:09 G	9668893.91	9668894.09	9668894.30	0.0288	0.0176
Moon	21760-06-06 16:33 G	9668894.01	9668894.19	9668894.40	0.0288	0.0182 *
Moon	21761-06-20 13:12 G	9669273.02	9669273.05	9669273.10	0.0287	0.0283
Mercury	21761-09-22 16:04 G	9669367.07	9669367.17	9669367.28	0.0286	0.0221
Mercury	21761-12-20 10:19 G	9669455.78	9669455.93	9669456.09	0.0286	0.0091
Mercury	21762-03-19 04:19 G	9669544.52	9669544.68	9669544.84	0.0286	0.0038
Mercury	21762-06-15 21:36 G	9669633.27	9669633.40	9669633.53	0.0286	0.0162
Mercury	21762-09-12 14:24 G	9669722.08	9669722.10	9669722.12	0.0285	0.0282
Venus	21773-05-24 08:52 G	9673628.87	9673628.87	9673628.89	0.0271	0.0271

Venus	21774-01-08 13:26 G	9673857.86	9673858.06	9673858.26	0.0271	0.0084
Venus	21774-08-25 18:14 G	9674087.06	9674087.26	9674087.45	0.0271	0.0105
Earth	21775-12-14 13:12 G	9674562.82	9674563.05	9674563.29	0.0272	0.0074
Moon	21775-12-14 15:21 G	9674562.90	9674563.14	9674563.39	0.0272	0.0058 *
Mercury	21776-09-30 13:40 G	9674853.98	9674854.07	9674854.18	0.0273	0.0199
Mercury	21776-12-28 03:07 G	9674942.49	9674942.63	9674942.76	0.0273	0.0101
Mercury	21777-03-26 16:33 G	9675031.04	9675031.19	9675031.34	0.0273	0.0005
Mercury	21777-06-23 06:14 G	9675119.62	9675119.76	9675119.90	0.0273	0.0102
Mercury	21777-09-19 20:09 G	9675208.25	9675208.34	9675208.45	0.0274	0.0208
Venus	21788-06-22 18:57 G	9679137.13	9679137.29	9679137.47	0.0289	0.0169
Venus	21789-02-07 15:07 G	9679366.92	9679367.13	9679367.34	0.0289	0.0061
Venus	21789-09-25 10:33 G	9679596.94	9679596.94	9679596.95	0.0288	0.0288
Earth	21790-06-15 06:00 G	9679859.53	9679859.75	9679859.98	0.0288	0.0108
Moon	21790-06-15 07:12 G	9679859.59	9679859.80	9679860.03	0.0288	0.0099 *
Mercury	21791-02-09 18:57 G	9680099.21	9680099.29	9680099.38	0.0287	0.0243
Mercury	21791-05-09 13:26 G	9680187.91	9680188.06	9680188.21	0.0287	0.0111
Mercury	21791-08-06 07:12 G	9680276.64	9680276.80	9680276.96	0.0286	0.0018
Mercury	21791-11-03 00:28 G	9680365.39	9680365.52	9680365.66	0.0286	0.0143
Mercury	21792-01-30 17:31 G	9680454.18	9680454.23	9680454.29	0.0286	0.0264
Venus	21802-12-05 15:50 G	9684415.07	9684415.16	9684415.25	0.0271	0.0243
Venus	21803-07-22 19:55 G	9684644.13	9684644.33	9684644.54	0.0271	0.0057
Venus	21804-03-08 00:28 G	9684873.33	9684873.52	9684873.70	0.0271	0.0131
Moon	21804-12-09 13:40 G	9685149.86	9685150.07	9685150.29	0.0271	0.0107
Earth	21804-12-09 15:36 G	9685149.93	9685150.15	9685150.39	0.0271	0.0093 *
Mercury	21806-02-18 16:04 G	9685586.09	9685586.17	9685586.26	0.0272	0.0224
Mercury	21806-05-18 05:16 G	9685674.59	9685674.72	9685674.85	0.0273	0.0127
Mercury	21806-08-14 18:28 G	9685763.13	9685763.27	9685763.42	0.0273	0.0029
Mercury	21806-11-11 08:09 G	9685851.70	9685851.84	9685851.99	0.0273	0.0074
Mercury	21807-02-07 22:04 G	9685940.31	9685940.42	9685940.54	0.0273	0.0178
Mars	21810-10-03 11:16 G	9687273.71	9687273.97	9687274.26	0.0280	0.0153

Venus	21818-01-03 22:19 G	9689923.25	9689923.43	9689923.62	0.0288	0.0144
Venus	21818-08-21 18:14 G	9690153.06	9690153.26	9690153.46	0.0288	0.0085
Moon	21819-06-10 03:21 G	9690445.41	9690445.64	9690445.88	0.0288	0.0117
Earth	21819-06-10 05:02 G	9690445.48	9690445.71	9690445.94	0.0288	0.0109 *
Mercury	21820-09-26 12:14 G	9690919.88	9690920.01	9690920.15	0.0286	0.0157
Mercury	21820-12-24 06:28 G	9691008.61	9691008.77	9691008.93	0.0286	0.0027
Mercury	21821-03-23 00:00 G	9691097.35	9691097.50	9691097.65	0.0286	0.0099
Mercury	21821-06-19 17:02 G	9691186.12	9691186.21	9691186.31	0.0285	0.0221
Mars	21824-11-13 13:26 G	9692428.84	9692429.06	9692429.30	0.0280	0.0141
Venus	21832-06-16 18:43 G	9695201.16	9695201.28	9695201.40	0.0271	0.0221
Venus	21833-01-31 23:02 G	9695430.25	9695430.46	9695430.67	0.0271	0.0034
Venus	21833-09-18 03:36 G	9695659.49	9695659.65	9695659.84	0.0271	0.0156
Earth	21833-12-04 13:55 G	9695737.05	9695737.08	9695737.15	0.0271	0.0265
Moon	21834-12-16 17:31 G	9696114.00	9696114.23	9696114.46	0.0272	0.0111
Earth	21834-12-16 20:09 G	9696114.13	9696114.34	9696114.56	0.0272	0.0125 *
Mercury	21835-07-08 18:00 G	9696318.20	9696318.25	9696318.30	0.0273	0.0252
Mercury	21835-10-05 06:57 G	9696406.67	9696406.79	9696406.91	0.0273	0.0156
Mercury	21836-01-01 20:24 G	9696495.20	9696495.35	9696495.49	0.0273	0.0057
Mercury	21836-03-30 09:50 G	9696583.77	9696583.91	9696584.06	0.0273	0.0045
Mercury	21836-06-26 23:45 G	9696672.37	9696672.49	9696672.62	0.0274	0.0149
Mercury	21836-09-23 13:55 G	9696761.03	9696761.08	9696761.14	0.0274	0.0255
Venus	21847-07-17 09:50 G	9700709.71	9700709.91	9700710.11	0.0289	0.0106
Venus	21848-03-03 05:45 G	9700939.55	9700939.74	9700939.94	0.0289	0.0124
Earth	21849-06-17 18:57 G	9701411.10	9701411.29	9701411.49	0.0288	0.0173
Moon	21849-06-17 22:33 G	9701411.24	9701411.44	9701411.65	0.0288	0.0162 *
Mercury	21850-02-13 14:52 G	9701652.00	9701652.12	9701652.25	0.0287	0.0181
Mercury	21850-05-13 09:07 G	9701740.72	9701740.88	9701741.04	0.0287	0.0050
Mercury	21850-08-10 02:52 G	9701829.47	9701829.62	9701829.77	0.0286	0.0077
Mercury	21850-11-06 19:55 G	9701918.23	9701918.33	9701918.45	0.0286	0.0201
Venus	21861-12-28 01:26 G	9705987.42	9705987.56	9705987.72	0.0270	0.0193

Venus	21862-08-14 06:00 G	9706216.54	9706216.75	9706216.96	0.0271	0.0006
Venus	21863-03-31 10:19 G	9706445.78	9706445.93	9706446.09	0.0271	0.0182
Earth	21863-12-11 22:48 G	9706701.21	9706701.45	9706701.69	0.0271	0.0040
Moon	21863-12-12 00:57 G	9706701.30	9706701.54	9706701.77	0.0271	0.0053 *
Mercury	21865-02-21 09:21 G	9707138.78	9707138.89	9707139.00	0.0272	0.0181
Mercury	21865-05-20 22:33 G	9707227.30	9707227.44	9707227.58	0.0273	0.0083
Mercury	21865-08-17 12:00 G	9707315.85	9707316.00	9707316.15	0.0273	0.0017
Mercury	21865-11-14 01:40 G	9707404.44	9707404.57	9707404.71	0.0273	0.0120
Mercury	21866-02-10 15:50 G	9707493.08	9707493.16	9707493.24	0.0274	0.0225
Venus	21877-01-26 12:57 G	9711495.84	9711496.04	9711496.25	0.0288	0.0081
Venus	21877-09-13 08:38 G	9711725.69	9711725.86	9711726.05	0.0288	0.0148
Moon	21878-06-11 14:24 G	9711996.86	9711997.10	9711997.34	0.0288	0.0053
Earth	21878-06-11 18:00 G	9711997.01	9711997.25	9711997.50	0.0288	0.0044 *
Mercury	21879-07-03 13:55 G	9712383.98	9712384.08	9712384.18	0.0286	0.0227
Mercury	21879-09-30 08:09 G	9712472.69	9712472.84	9712473.00	0.0286	0.0096
Mercury	21879-12-28 02:09 G	9712561.43	9712561.59	9712561.75	0.0286	0.0033
Mercury	21880-03-25 19:26 G	9712650.18	9712650.31	9712650.44	0.0286	0.0157
Mercury	21880-06-22 12:28 G	9712738.99	9712739.02	9712739.05	0.0285	0.0278
Venus	21891-07-10 03:36 G	9716773.49	9716773.65	9716773.81	0.0271	0.0172
Venus	21892-02-24 07:55 G	9717002.62	9717002.83	9717003.04	0.0271	0.0015
Venus	21892-10-10 12:28 G	9717231.89	9717232.02	9717232.16	0.0271	0.0203
Moon	21892-12-05 17:16 G	9717288.10	9717288.22	9717288.37	0.0271	0.0227
Earth	21892-12-05 19:12 G	9717288.16	9717288.30	9717288.46	0.0271	0.0215 *
Moon	21893-12-17 22:04 G	9717665.23	9717665.42	9717665.61	0.0272	0.0162
Earth	21893-12-18 00:57 G	9717665.36	9717665.54	9717665.73	0.0272	0.0175 *
Mercury	21894-07-11 10:33 G	9717870.86	9717870.94	9717871.04	0.0273	0.0213
Mercury	21894-10-07 23:45 G	9717959.36	9717959.49	9717959.63	0.0273	0.0115
Mercury	21895-01-04 13:12 G	9718047.90	9718048.05	9718048.20	0.0273	0.0016
Mercury	21895-04-03 02:52 G	9718136.48	9718136.62	9718136.76	0.0273	0.0087
Mercury	21895-06-30 16:48 G	9718225.10	9718225.20	9718225.31	0.0274	0.0192

Mars	21899-02-27 17:16 G	9719562.90	9719563.22	9719563.53	0.0280	0.0073
Venus	21905-12-23 02:52 G	9722052.56	9722052.62	9722052.69	0.0289	0.0275
Venus	21906-08-09 23:16 G	9722282.26	9722282.47	9722282.68	0.0289	0.0046
Venus	21907-03-27 19:26 G	9722512.15	9722512.31	9722512.47	0.0289	0.0184
Earth	21907-06-07 04:33 G	9722583.57	9722583.69	9722583.84	0.0289	0.0240
Moon	21907-06-07 08:38 G	9722583.74	9722583.86	9722584.00	0.0289	0.0245 *
Earth	21908-06-20 06:14 G	9722962.62	9722962.76	9722962.90	0.0288	0.0235
Moon	21908-06-20 07:40 G	9722962.67	9722962.82	9722962.99	0.0288	0.0224 *
Mercury	21908-11-20 15:50 G	9723116.10	9723116.16	9723116.24	0.0287	0.0255
Mercury	21909-02-17 10:19 G	9723204.79	9723204.93	9723205.08	0.0287	0.0122
Mercury	21909-05-17 04:33 G	9723293.53	9723293.69	9723293.85	0.0287	0.0010
Mercury	21909-08-13 21:50 G	9723382.28	9723382.41	9723382.56	0.0286	0.0134
Mercury	21909-11-10 15:07 G	9723471.06	9723471.13	9723471.19	0.0286	0.0255
Mars	21913-04-11 05:02 G	9724718.45	9724718.71	9724718.97	0.0280	0.0050
Venus	21921-01-20 10:33 G	9727559.76	9727559.94	9727560.12	0.0270	0.0145
Venus	21921-09-06 14:52 G	9727788.91	9727789.12	9727789.33	0.0270	0.0043
Venus	21922-04-23 18:57 G	9728018.19	9728018.29	9728018.41	0.0271	0.0230
Earth	21922-12-14 03:50 G	9728252.42	9728252.66	9728252.91	0.0271	0.0011
Moon	21922-12-14 07:26 G	9728252.56	9728252.81	9728253.05	0.0271	0.0006 *
Mercury	21923-11-29 13:12 G	9728602.98	9728603.05	9728603.12	0.0272	0.0237
Mercury	21924-02-26 02:09 G	9728691.47	9728691.59	9728691.72	0.0272	0.0140
Mercury	21924-05-24 15:36 G	9728780.00	9728780.15	9728780.29	0.0273	0.0042
Mercury	21924-08-21 05:02 G	9728868.57	9728868.71	9728868.86	0.0273	0.0060
Mercury	21924-11-17 18:43 G	9728957.17	9728957.28	9728957.41	0.0273	0.0165
Mercury	21925-02-14 09:07 G	9729045.86	9729045.88	9729045.90	0.0274	0.0270
Venus	21935-07-05 06:00 G	9732838.66	9732838.75	9732838.86	0.0289	0.0251
Venus	21936-02-20 02:24 G	9733068.39	9733068.60	9733068.81	0.0288	0.0021
Venus	21936-10-06 22:04 G	9733298.28	9733298.42	9733298.57	0.0288	0.0208
Moon	21937-06-14 03:50 G	9733548.42	9733548.66	9733548.90	0.0288	0.0008
Earth	21937-06-14 04:48 G	9733548.46	9733548.70	9733548.95	0.0288	0.0019 *

Mercury	21938-07-07 09:21 G	9733936.76	9733936.89	9733937.02	0.0286	0.0168
Mercury	21938-10-04 03:21 G	9734025.49	9734025.64	9734025.81	0.0286	0.0039
Mercury	21938-12-31 21:07 G	9734114.23	9734114.38	9734114.53	0.0286	0.0089
Mercury	21939-03-30 14:24 G	9734202.99	9734203.10	9734203.20	0.0285	0.0212
Venus	21950-08-02 11:16 G	9738345.79	9738345.97	9738346.16	0.0271	0.0126
Venus	21951-03-19 15:36 G	9738574.95	9738575.15	9738575.36	0.0271	0.0062
Venus	21951-11-03 19:55 G	9738804.26	9738804.33	9738804.42	0.0271	0.0249
Moon	21951-12-08 19:12 G	9738839.12	9738839.30	9738839.48	0.0271	0.0180
Earth	21951-12-08 22:48 G	9738839.26	9738839.45	9738839.64	0.0271	0.0166 *
Earth	21952-12-20 04:04 G	9739216.53	9739216.67	9739216.81	0.0272	0.0222
Moon	21952-12-20 04:33 G	9739216.56	9739216.69	9739216.85	0.0272	0.0212 *
Mercury	21953-04-17 14:09 G	9739335.09	9739335.09	9739335.10	0.0272	0.0271
Mercury	21953-07-15 03:07 G	9739423.52	9739423.63	9739423.74	0.0273	0.0176
Mercury	21953-10-11 16:19 G	9739512.04	9739512.18	9739512.32	0.0273	0.0077
Mercury	21954-01-08 05:45 G	9739600.59	9739600.74	9739600.89	0.0273	0.0024
Mercury	21954-04-06 19:26 G	9739689.18	9739689.31	9739689.45	0.0273	0.0127
Mercury	21954-07-04 09:21 G	9739777.82	9739777.89	9739777.98	0.0274	0.0233
Venus	21965-01-14 14:24 G	9743624.97	9743625.10	9743625.24	0.0289	0.0219
Venus	21965-09-01 10:48 G	9743854.74	9743854.95	9743855.16	0.0289	0.0012
Venus	21966-04-19 06:57 G	9744084.68	9744084.79	9744084.91	0.0289	0.0241
Earth	21966-06-08 12:57 G	9744134.86	9744135.04	9744135.24	0.0289	0.0181
Moon	21966-06-08 13:40 G	9744134.88	9744135.07	9744135.26	0.0289	0.0190 *
Moon	21967-06-22 12:00 G	9744513.94	9744514.00	9744514.06	0.0288	0.0278
Mercury	21967-11-24 10:48 G	9744668.84	9744668.95	9744669.07	0.0287	0.0200
Mercury	21968-02-21 05:16 G	9744757.56	9744757.72	9744757.88	0.0287	0.0067
Mercury	21968-05-19 23:02 G	9744846.31	9744846.46	9744846.62	0.0287	0.0061
Mercury	21968-08-16 16:19 G	9744935.07	9744935.18	9744935.30	0.0286	0.0186
Venus	21980-02-12 18:14 G	9749132.07	9749132.26	9749132.46	0.0270	0.0099
Venus	21980-09-28 22:33 G	9749361.24	9749361.44	9749361.64	0.0270	0.0089
Moon	21981-12-15 06:57 G	9749803.54	9749803.79	9749804.04	0.0271	0.0044

Earth	21981-12-15 06:57 G	9749803.56	9749803.79	9749804.03	0.0271	0.0059	*
Mercury	21982-12-02 05:31 G	9750155.64	9750155.73	9750155.83	0.0272	0.0200	
Mercury	21983-02-28 18:43 G	9750244.14	9750244.28	9750244.41	0.0272	0.0103	
Mercury	21983-05-28 07:55 G	9750332.69	9750332.83	9750332.98	0.0273	0.0008	
Mercury	21983-08-24 21:36 G	9750421.26	9750421.40	9750421.54	0.0273	0.0100	
Mercury	21983-11-21 11:31 G	9750509.89	9750509.98	9750510.08	0.0273	0.0204	
Mars	21987-07-25 06:28 G	9751851.44	9751851.77	9751852.09	0.0280	0.0007	
Venus	21994-07-27 17:45 G	9754411.09	9754411.24	9754411.40	0.0289	0.0194	
Venus	21995-03-14 14:09 G	9754640.88	9754641.09	9754641.30	0.0289	0.0036	
Venus	21995-10-30 09:50 G	9754870.84	9754870.91	9754871.00	0.0288	0.0264	
Earth	21996-06-15 12:57 G	9755099.81	9755100.04	9755100.28	0.0288	0.0077	
Moon	21996-06-15 16:19 G	9755099.95	9755100.18	9755100.42	0.0288	0.0063	*
Mercury	21997-04-12 09:36 G	9755400.82	9755400.90	9755400.99	0.0287	0.0247	
Mercury	21997-07-10 04:04 G	9755489.53	9755489.67	9755489.82	0.0286	0.0115	
Mercury	21997-10-06 22:04 G	9755578.26	9755578.42	9755578.58	0.0286	0.0016	
Mercury	21998-01-03 15:36 G	9755667.02	9755667.15	9755667.29	0.0286	0.0141	
Mercury	21998-04-02 08:38 G	9755755.81	9755755.86	9755755.92	0.0285	0.0262	

23RD MILLENNIUM CE

This is a list of transits visible from Saturn in the 23rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	22001-09-04 15:36 G		9757006.89	9757007.15	9757007.42	0.0279	0.0012	
Venus	22009-01-07 14:09 G		9759689.07	9759689.09	9759689.13	0.0271	0.0267	

Venus	22009-08-24 18:14 G	9759918.06	9759918.26	9759918.47	0.0271	0.0081
Venus	22010-04-10 22:19 G	9760147.24	9760147.43	9760147.63	0.0271	0.0106
Earth	22010-12-10 00:28 G	9760390.30	9760390.52	9760390.74	0.0271	0.0120
Moon	22010-12-10 00:28 G	9760390.32	9760390.52	9760390.73	0.0271	0.0135 *
Earth	22011-12-22 05:16 G	9760767.68	9760767.72	9760767.76	0.0272	0.0267
Moon	22011-12-22 08:38 G	9760767.79	9760767.86	9760767.95	0.0272	0.0257
Mercury	22012-04-20 06:00 G	9760887.69	9760887.75	9760887.83	0.0272	0.0238
Mercury	22012-07-17 19:12 G	9760976.17	9760976.30	9760976.42	0.0273	0.0141
Mercury	22012-10-14 08:24 G	9761064.71	9761064.85	9761065.00	0.0273	0.0042
Mercury	22013-01-10 21:50 G	9761153.27	9761153.41	9761153.56	0.0273	0.0060
Mercury	22013-04-09 11:45 G	9761241.87	9761241.99	9761242.11	0.0273	0.0164
Mercury	22013-07-07 01:55 G	9761330.56	9761330.58	9761330.60	0.0274	0.0270
Venus	22024-02-07 00:14 G	9765197.35	9765197.51	9765197.69	0.0289	0.0166
Venus	22024-09-23 20:52 G	9765427.17	9765427.37	9765427.58	0.0289	0.0065
Moon	22025-06-09 14:52 G	9765685.91	9765686.12	9765686.34	0.0289	0.0140
Earth	22025-06-09 18:43 G	9765686.06	9765686.28	9765686.50	0.0289	0.0126 *
Mercury	22026-08-30 10:19 G	9766132.92	9766132.93	9766132.97	0.0288	0.0284
Mercury	22026-11-27 05:02 G	9766221.58	9766221.71	9766221.86	0.0287	0.0150
Mercury	22027-02-23 23:16 G	9766310.31	9766310.47	9766310.64	0.0287	0.0020
Mercury	22027-05-23 17:02 G	9766399.07	9766399.21	9766399.36	0.0287	0.0109
Mercury	22027-08-20 10:19 G	9766487.84	9766487.93	9766488.02	0.0286	0.0233
Venus	22038-07-20 21:21 G	9770475.30	9770475.39	9770475.49	0.0270	0.0239
Venus	22039-03-07 01:12 G	9770704.34	9770704.55	9770704.76	0.0270	0.0054
Venus	22039-10-22 05:02 G	9770933.53	9770933.71	9770933.90	0.0270	0.0133
Moon	22040-12-16 04:48 G	9771354.48	9771354.70	9771354.94	0.0271	0.0090
Earth	22040-12-16 08:38 G	9771354.64	9771354.86	9771355.09	0.0271	0.0105 *
Mercury	22041-09-07 08:38 G	9771619.83	9771619.86	9771619.91	0.0272	0.0261
Mercury	22041-12-04 21:36 G	9771708.29	9771708.40	9771708.52	0.0272	0.0165
Mercury	22042-03-03 10:48 G	9771796.81	9771796.95	9771797.09	0.0272	0.0067
Mercury	22042-05-31 00:14 G	9771885.36	9771885.51	9771885.66	0.0272	0.0033

Mercury	22042-08-27 13:55 G	9771973.95	9771974.08	9771974.21	0.0273	0.0136
Mercury	22042-11-24 04:04 G	9772062.60	9772062.67	9772062.74	0.0273	0.0242
Venus	22053-08-19 03:36 G	9775983.46	9775983.65	9775983.83	0.0289	0.0141
Venus	22054-04-05 23:45 G	9776213.30	9776213.49	9776213.70	0.0289	0.0090
Earth	22055-06-17 18:14 G	9776651.05	9776651.26	9776651.48	0.0288	0.0131
Moon	22055-06-17 20:52 G	9776651.14	9776651.37	9776651.61	0.0288	0.0115 *
Mercury	22056-04-15 03:50 G	9776953.55	9776953.66	9776953.78	0.0287	0.0198
Mercury	22056-07-12 22:19 G	9777042.27	9777042.43	9777042.59	0.0287	0.0065
Mercury	22056-10-09 16:04 G	9777131.02	9777131.17	9777131.33	0.0286	0.0063
Mercury	22057-01-06 09:21 G	9777219.78	9777219.89	9777220.01	0.0286	0.0188
Venus	22068-01-30 20:38 G	9781261.25	9781261.36	9781261.49	0.0270	0.0223
Venus	22068-09-16 00:43 G	9781490.32	9781490.53	9781490.74	0.0270	0.0037
Venus	22069-05-03 04:33 G	9781719.52	9781719.69	9781719.87	0.0271	0.0149
Earth	22069-12-11 00:57 G	9781941.31	9781941.54	9781941.78	0.0271	0.0075
Moon	22069-12-11 04:48 G	9781941.47	9781941.70	9781941.93	0.0271	0.0090 *
Mercury	22071-04-23 22:04 G	9782440.32	9782440.42	9782440.51	0.0272	0.0204
Mercury	22071-07-21 11:02 G	9782528.83	9782528.96	9782529.10	0.0272	0.0107
Mercury	22071-10-18 00:14 G	9782617.37	9782617.51	9782617.66	0.0273	0.0011
Mercury	22072-01-14 13:55 G	9782705.94	9782706.08	9782706.22	0.0273	0.0094
Mercury	22072-04-12 03:50 G	9782794.56	9782794.66	9782794.76	0.0273	0.0199
Mars	22075-12-17 22:48 G	9784139.12	9784139.45	9784139.77	0.0280	0.0020
Venus	22083-03-01 08:38 G	9786769.67	9786769.86	9786770.06	0.0289	0.0115
Venus	22083-10-17 05:16 G	9786999.53	9786999.72	9786999.92	0.0289	0.0116
Moon	22084-06-10 19:26 G	9787237.09	9787237.31	9787237.54	0.0289	0.0090
Earth	22084-06-10 21:21 G	9787237.15	9787237.39	9787237.63	0.0289	0.0075 *
Mercury	22085-09-02 04:19 G	9787685.59	9787685.68	9787685.77	0.0288	0.0237
Mercury	22085-11-29 22:48 G	9787774.30	9787774.45	9787774.60	0.0287	0.0103
Mercury	22086-02-26 16:48 G	9787863.04	9787863.20	9787863.36	0.0287	0.0027
Mercury	22086-05-26 10:19 G	9787951.80	9787951.93	9787952.07	0.0287	0.0154
Mercury	22086-08-23 03:36 G	9788040.61	9788040.65	9788040.69	0.0286	0.0276

Mars	22090-01-29 16:33 G	9789295.94	9789296.19	9789296.45	0.0280	0.0061
Venus	22097-08-12 03:50 G	9792047.52	9792047.66	9792047.81	0.0270	0.0195
Venus	22098-03-29 07:26 G	9792276.60	9792276.81	9792277.02	0.0270	0.0010
Venus	22098-11-13 11:16 G	9792505.81	9792505.97	9792506.13	0.0270	0.0176
Moon	22098-12-06 01:55 G	9792528.50	9792528.58	9792528.69	0.0270	0.0249
Earth	22098-12-06 05:31 G	9792528.63	9792528.73	9792528.87	0.0270	0.0234 *
Moon	22099-12-18 07:40 G	9792905.63	9792905.82	9792906.04	0.0271	0.0138
Earth	22099-12-18 08:52 G	9792905.68	9792905.87	9792906.09	0.0271	0.0149 *
Mercury	22100-09-11 00:28 G	9793172.45	9793172.52	9793172.60	0.0271	0.0228
Mercury	22100-12-08 13:26 G	9793260.94	9793261.06	9793261.19	0.0272	0.0132
Mercury	22101-03-07 02:38 G	9793349.47	9793349.61	9793349.76	0.0272	0.0034
Mercury	22101-06-03 16:19 G	9793438.03	9793438.18	9793438.32	0.0272	0.0068
Mercury	22101-08-31 06:00 G	9793526.64	9793526.75	9793526.87	0.0273	0.0172
Venus	22112-09-11 12:14 G	9797555.81	9797556.01	9797556.22	0.0289	0.0090
Venus	22113-04-29 08:52 G	9797785.68	9797785.87	9797786.05	0.0289	0.0141
Moon	22114-06-19 19:40 G	9798202.12	9798202.32	9798202.53	0.0288	0.0167
Earth	22114-06-19 22:04 G	9798202.23	9798202.42	9798202.61	0.0288	0.0183 *
Mercury	22115-01-21 02:52 G	9798417.61	9798417.62	9798417.64	0.0287	0.0285
Mercury	22115-04-19 21:36 G	9798506.27	9798506.40	9798506.54	0.0287	0.0151
Mercury	22115-07-17 15:50 G	9798595.00	9798595.16	9798595.32	0.0287	0.0020
Mercury	22115-10-14 09:36 G	9798683.75	9798683.90	9798684.05	0.0286	0.0108
Mercury	22116-01-11 02:52 G	9798772.53	9798772.62	9798772.71	0.0286	0.0232
Venus	22127-02-23 02:52 G	9802833.46	9802833.62	9802833.78	0.0270	0.0179
Venus	22127-10-10 06:28 G	9803062.56	9803062.77	9803062.98	0.0270	0.0006
Venus	22128-05-26 10:04 G	9803291.78	9803291.92	9803292.07	0.0270	0.0192
Earth	22128-12-13 00:57 G	9803492.30	9803492.54	9803492.79	0.0271	0.0032
Moon	22128-12-13 01:55 G	9803492.33	9803492.58	9803492.83	0.0271	0.0044 *
Mercury	22130-01-29 00:57 G	9803904.52	9803904.54	9803904.56	0.0272	0.0267
Mercury	22130-04-27 13:40 G	9803992.96	9803993.07	9803993.18	0.0272	0.0172
Mercury	22130-07-25 02:38 G	9804081.47	9804081.61	9804081.76	0.0272	0.0075

Mercury	22130-10-21 16:04 G	9804170.02	9804170.17	9804170.32	0.0273	0.0026
Mercury	22131-01-18 05:45 G	9804258.61	9804258.74	9804258.87	0.0273	0.0128
Mercury	22131-04-16 19:40 G	9804347.25	9804347.32	9804347.40	0.0273	0.0233
Venus	22142-03-24 15:36 G	9808341.95	9808342.15	9808342.36	0.0290	0.0067
Venus	22142-11-09 12:14 G	9808571.85	9808572.01	9808572.20	0.0289	0.0166
Earth	22143-06-13 21:50 G	9808788.16	9808788.41	9808788.65	0.0289	0.0028
Moon	22143-06-14 00:28 G	9808788.28	9808788.52	9808788.75	0.0289	0.0043 *
Mercury	22144-09-05 21:21 G	9809238.27	9809238.39	9809238.51	0.0288	0.0195
Mercury	22144-12-03 15:50 G	9809327.00	9809327.16	9809327.32	0.0288	0.0061
Mercury	22145-03-02 09:50 G	9809415.75	9809415.91	9809416.06	0.0287	0.0068
Mercury	22145-05-30 03:07 G	9809504.52	9809504.63	9809504.75	0.0287	0.0194
Venus	22156-09-04 09:50 G	9813619.74	9813619.91	9813620.09	0.0270	0.0151
Venus	22157-04-21 13:26 G	9813848.85	9813849.06	9813849.27	0.0270	0.0034
Venus	22157-12-06 17:02 G	9814078.09	9814078.21	9814078.33	0.0270	0.0219
Moon	22157-12-08 05:02 G	9814079.56	9814079.71	9814079.87	0.0270	0.0204
Earth	22157-12-08 06:14 G	9814079.60	9814079.76	9814079.94	0.0270	0.0190 *
Earth	22158-12-20 09:07 G	9814456.72	9814456.88	9814457.06	0.0271	0.0192
Moon	22158-12-20 12:28 G	9814456.86	9814457.02	9814457.21	0.0271	0.0185 *
Mercury	22159-09-14 16:19 G	9814725.08	9814725.18	9814725.28	0.0271	0.0195
Mercury	22159-12-12 05:16 G	9814813.59	9814813.72	9814813.86	0.0272	0.0098
Mercury	22160-03-09 18:43 G	9814902.13	9814902.28	9814902.42	0.0272	0.0007
Mercury	22160-06-06 08:09 G	9814990.70	9814990.84	9814990.98	0.0272	0.0103
Mercury	22160-09-02 22:04 G	9815079.32	9815079.42	9815079.52	0.0273	0.0207
Mars	22164-05-13 02:38 G	9816427.31	9816427.61	9816427.94	0.0280	0.0075
Venus	22171-02-16 23:02 G	9818898.40	9818898.46	9818898.55	0.0289	0.0271
Venus	22171-10-04 20:09 G	9819128.13	9819128.34	9819128.55	0.0289	0.0040
Venus	22172-05-21 16:33 G	9819358.03	9819358.19	9819358.35	0.0289	0.0191
Moon	22172-06-06 18:00 G	9819374.14	9819374.25	9819374.36	0.0289	0.0259
Earth	22172-06-06 20:38 G	9819374.24	9819374.36	9819374.50	0.0289	0.0244 *
Moon	22173-06-20 20:38 G	9819753.20	9819753.36	9819753.52	0.0288	0.0217

Earth	22173-06-20 23:45 G	9819753.36	9819753.49	9819753.64	0.0288	0.0233 *
Mercury	22174-01-23 20:24 G	9819970.26	9819970.35	9819970.44	0.0288	0.0241
Mercury	22174-04-22 14:52 G	9820058.97	9820059.12	9820059.28	0.0287	0.0107
Mercury	22174-07-20 09:07 G	9820147.72	9820147.88	9820148.04	0.0287	0.0024
Mercury	22174-10-17 02:38 G	9820236.48	9820236.61	9820236.75	0.0287	0.0151
Mercury	22175-01-13 19:55 G	9820325.29	9820325.33	9820325.37	0.0286	0.0273
Mars	22178-06-25 20:38 G	9821584.11	9821584.36	9821584.61	0.0279	0.0086
Venus	22186-03-17 08:38 G	9824405.69	9824405.86	9824406.05	0.0270	0.0136
Venus	22186-11-01 12:14 G	9824634.80	9824635.01	9824635.22	0.0270	0.0050
Venus	22187-06-18 15:50 G	9824864.06	9824864.16	9824864.26	0.0270	0.0234
Moon	22187-12-14 21:50 G	9825043.16	9825043.41	9825043.66	0.0270	0.0003
Earth	22187-12-15 01:12 G	9825043.31	9825043.55	9825043.79	0.0270	0.0012 *
Mercury	22189-01-31 16:33 G	9825457.12	9825457.19	9825457.26	0.0272	0.0235
Mercury	22189-04-30 05:16 G	9825545.60	9825545.72	9825545.85	0.0272	0.0140
Mercury	22189-07-27 18:28 G	9825634.13	9825634.27	9825634.42	0.0272	0.0042
Mercury	22189-10-24 07:55 G	9825722.69	9825722.83	9825722.98	0.0272	0.0059
Mercury	22190-01-20 21:36 G	9825811.28	9825811.40	9825811.52	0.0273	0.0162
Mercury	22190-04-19 11:45 G	9825899.96	9825899.99	9825900.01	0.0273	0.0267
Venus	22200-08-30 01:12 G	9829684.45	9829684.55	9829684.66	0.0290	0.0250
Venus	22201-04-16 22:33 G	9829914.23	9829914.44	9829914.65	0.0290	0.0018
Venus	22201-12-02 19:26 G	9830144.17	9830144.31	9830144.45	0.0289	0.0214
Earth	22202-06-15 21:50 G	9830339.17	9830339.41	9830339.66	0.0289	0.0020
Moon	22202-06-16 01:12 G	9830339.30	9830339.55	9830339.80	0.0289	0.0003 *
Mercury	22203-09-10 14:24 G	9830790.96	9830791.10	9830791.24	0.0288	0.0153
Mercury	22203-12-08 08:38 G	9830879.70	9830879.86	9830880.02	0.0288	0.0021
Mercury	22204-03-06 02:24 G	9830968.46	9830968.60	9830968.75	0.0287	0.0110
Mercury	22204-06-02 19:40 G	9831057.24	9831057.32	9831057.42	0.0287	0.0234
Venus	22215-09-28 15:50 G	9835191.96	9835192.16	9835192.35	0.0270	0.0108
Venus	22216-05-14 19:12 G	9835421.10	9835421.30	9835421.51	0.0270	0.0077
Earth	22216-12-10 06:43 G	9835630.58	9835630.78	9835630.99	0.0270	0.0147

Moon	22216-12-10 09:36 G	9835630.71	9835630.90	9835631.09	0.0270	0.0160 *
Venus	22216-12-29 22:48 G	9835650.41	9835650.45	9835650.50	0.0270	0.0262
Earth	22217-12-22 09:21 G	9836007.78	9836007.89	9836008.02	0.0270	0.0235
Moon	22217-12-22 11:45 G	9836007.87	9836007.99	9836008.13	0.0270	0.0230 *
Mercury	22218-06-21 19:26 G	9836189.27	9836189.31	9836189.35	0.0271	0.0256
Mercury	22218-09-18 08:09 G	9836277.73	9836277.84	9836277.96	0.0271	0.0162
Mercury	22218-12-15 21:21 G	9836366.24	9836366.39	9836366.53	0.0271	0.0065
Mercury	22219-03-14 10:33 G	9836454.79	9836454.94	9836455.09	0.0272	0.0036
Mercury	22219-06-11 00:14 G	9836543.38	9836543.51	9836543.64	0.0272	0.0138
Mercury	22219-09-07 14:09 G	9836632.02	9836632.09	9836632.16	0.0272	0.0242
Venus	22230-03-12 06:43 G	9840470.65	9840470.78	9840470.92	0.0290	0.0221
Venus	22230-10-28 03:36 G	9840700.44	9840700.65	9840700.86	0.0290	0.0011
Moon	22231-06-09 18:28 G	9840925.12	9840925.27	9840925.44	0.0289	0.0213
Earth	22231-06-09 21:21 G	9840925.23	9840925.39	9840925.59	0.0289	0.0198 *
Venus	22231-06-15 00:00 G	9840930.39	9840930.50	9840930.62	0.0289	0.0241
Moon	22232-06-23 01:26 G	9841304.48	9841304.56	9841304.66	0.0288	0.0267
Earth	22232-06-23 00:57 G	9841304.49	9841304.54	9841304.61	0.0288	0.0280 *
Mercury	22233-01-27 13:26 G	9841522.95	9841523.06	9841523.18	0.0288	0.0198
Mercury	22233-04-26 08:09 G	9841611.68	9841611.84	9841611.99	0.0287	0.0065
Mercury	22233-07-24 01:55 G	9841700.43	9841700.58	9841700.74	0.0287	0.0066
Mercury	22233-10-20 19:26 G	9841789.20	9841789.31	9841789.43	0.0287	0.0192
Venus	22245-04-09 15:07 G	9845977.93	9845978.13	9845978.33	0.0270	0.0091
Venus	22245-11-24 18:28 G	9846207.07	9846207.27	9846207.47	0.0270	0.0094
Moon	22246-12-16 23:45 G	9846594.26	9846594.49	9846594.73	0.0270	0.0050
Earth	22246-12-17 02:09 G	9846594.35	9846594.59	9846594.83	0.0270	0.0056 *
Mercury	22248-02-05 08:24 G	9847009.76	9847009.85	9847009.95	0.0271	0.0202
Mercury	22248-05-03 21:21 G	9847098.26	9847098.39	9847098.53	0.0272	0.0105
Mercury	22248-07-31 10:33 G	9847186.79	9847186.94	9847187.09	0.0272	0.0007
Mercury	22248-10-28 00:00 G	9847275.36	9847275.50	9847275.64	0.0272	0.0095
Mercury	22249-01-24 13:40 G	9847363.97	9847364.07	9847364.18	0.0273	0.0198

Mars	22252-10-06 06:57 G	9848714.49	9848714.79	9848715.11	0.0279	0.0087
Venus	22259-09-22 07:40 G	9851256.68	9851256.82	9851256.98	0.0290	0.0202
Venus	22260-05-09 05:02 G	9851486.50	9851486.71	9851486.92	0.0290	0.0031
Venus	22260-12-25 01:55 G	9851716.50	9851716.58	9851716.67	0.0290	0.0262
Moon	22261-06-16 20:38 G	9851890.11	9851890.36	9851890.61	0.0289	0.0049
Earth	22261-06-16 21:36 G	9851890.16	9851890.40	9851890.64	0.0289	0.0064 *
Mercury	22262-06-16 12:14 G	9852254.94	9852255.01	9852255.10	0.0288	0.0248
Mercury	22262-09-13 07:12 G	9852343.65	9852343.80	9852343.95	0.0288	0.0112
Mercury	22262-12-11 01:26 G	9852432.40	9852432.56	9852432.72	0.0288	0.0020
Mercury	22263-03-09 18:57 G	9852521.16	9852521.29	9852521.43	0.0288	0.0149
Mercury	22263-06-06 12:14 G	9852609.97	9852610.01	9852610.07	0.0287	0.0272
Mars	22266-11-20 08:52 G	9853872.64	9853872.87	9853873.10	0.0280	0.0139
Venus	22274-03-05 18:28 G	9856535.19	9856535.27	9856535.36	0.0270	0.0247
Venus	22274-10-20 21:50 G	9856764.21	9856764.41	9856764.62	0.0270	0.0064
Venus	22275-06-07 01:26 G	9856993.37	9856993.56	9856993.75	0.0270	0.0122
Earth	22275-12-12 08:09 G	9857181.61	9857181.84	9857182.06	0.0270	0.0103
Moon	22275-12-12 11:02 G	9857181.74	9857181.96	9857182.19	0.0270	0.0116 *
Mercury	22277-06-24 11:16 G	9857741.89	9857741.97	9857742.06	0.0271	0.0222
Mercury	22277-09-21 00:14 G	9857830.38	9857830.51	9857830.64	0.0271	0.0127
Mercury	22277-12-18 13:12 G	9857918.91	9857919.05	9857919.20	0.0271	0.0030
Mercury	22278-03-17 02:38 G	9858007.47	9858007.61	9858007.76	0.0272	0.0072
Mercury	22278-06-13 16:19 G	9858096.07	9858096.18	9858096.30	0.0272	0.0175
Venus	22289-04-03 14:38 G	9862042.95	9862043.11	9862043.29	0.0290	0.0170
Venus	22289-11-19 11:31 G	9862272.78	9862272.98	9862273.19	0.0290	0.0062
Earth	22290-06-10 23:31 G	9862476.28	9862476.48	9862476.70	0.0289	0.0149
Moon	22290-06-11 00:57 G	9862476.34	9862476.54	9862476.73	0.0289	0.0165 *
Mercury	22292-01-31 06:57 G	9863075.65	9863075.79	9863075.93	0.0288	0.0153
Mercury	22292-04-29 01:26 G	9863164.40	9863164.56	9863164.72	0.0288	0.0020
Mercury	22292-07-26 19:12 G	9863253.16	9863253.30	9863253.45	0.0287	0.0109
Mercury	22292-10-23 12:28 G	9863341.94	9863342.02	9863342.12	0.0287	0.0234

Venus	22303-09-16 18:43 G	9867321.18	9867321.28	9867321.39	0.0270	0.0229
Venus	22304-05-02 22:04 G	9867550.21	9867550.42	9867550.63	0.0270	0.0046
Venus	22304-12-18 01:12 G	9867779.37	9867779.55	9867779.74	0.0270	0.0139
Earth	22305-12-19 04:04 G	9868145.45	9868145.67	9868145.90	0.0270	0.0101
Moon	22305-12-19 05:45 G	9868145.53	9868145.74	9868145.97	0.0270	0.0098 *
Mercury	22306-11-12 11:45 G	9868473.96	9868473.99	9868474.03	0.0271	0.0260
Mercury	22307-02-09 00:28 G	9868562.41	9868562.52	9868562.64	0.0271	0.0166
Mercury	22307-05-08 13:26 G	9868650.92	9868651.06	9868651.21	0.0272	0.0069
Mercury	22307-08-05 02:52 G	9868739.47	9868739.62	9868739.76	0.0272	0.0031
Mercury	22307-11-01 16:19 G	9868828.05	9868828.18	9868828.31	0.0272	0.0132
Mercury	22308-01-29 06:14 G	9868916.69	9868916.76	9868916.83	0.0272	0.0236
Venus	22318-10-15 15:36 G	9872828.97	9872829.15	9872829.33	0.0290	0.0150
Venus	22319-06-02 12:43 G	9873058.82	9873059.03	9873059.23	0.0290	0.0082
Moon	22320-06-18 18:43 G	9873441.05	9873441.28	9873441.52	0.0289	0.0095
Earth	22320-06-18 22:33 G	9873441.21	9873441.44	9873441.67	0.0289	0.0110 *
Mercury	22321-06-20 05:31 G	9873807.62	9873807.73	9873807.85	0.0288	0.0204
Mercury	22321-09-17 00:14 G	9873896.35	9873896.51	9873896.66	0.0288	0.0070
Mercury	22321-12-14 18:14 G	9873985.11	9873985.26	9873985.42	0.0288	0.0062
Mercury	22322-03-13 12:00 G	9874073.88	9874074.00	9874074.12	0.0288	0.0189
Venus	22333-03-29 01:12 G	9878107.42	9878107.55	9878107.70	0.0270	0.0202
Venus	22333-11-13 04:48 G	9878336.49	9878336.70	9878336.92	0.0270	0.0018
Venus	22334-06-30 08:24 G	9878565.68	9878565.85	9878566.01	0.0270	0.0168
Moon	22334-12-14 09:07 G	9878732.64	9878732.88	9878733.13	0.0270	0.0068
Earth	22334-12-14 10:33 G	9878732.70	9878732.94	9878733.18	0.0270	0.0058 *
Mercury	22336-06-28 03:36 G	9879294.55	9879294.65	9879294.76	0.0271	0.0186
Mercury	22336-09-24 16:33 G	9879383.05	9879383.19	9879383.33	0.0271	0.0089
Mercury	22336-12-22 05:45 G	9879471.59	9879471.74	9879471.89	0.0271	0.0010
Mercury	22337-03-20 19:12 G	9879560.17	9879560.30	9879560.44	0.0272	0.0111
Mercury	22337-06-17 09:07 G	9879648.78	9879648.88	9879648.97	0.0272	0.0214
Mars	22341-03-03 03:21 G	9881003.39	9881003.64	9881003.92	0.0279	0.0161

Venus	22348-04-26 23:31 G	9883615.29	9883615.48	9883615.67	0.0290	0.0117
Venus	22348-12-12 20:09 G	9883845.15	9883845.34	9883845.54	0.0290	0.0115
Earth	22349-06-13 02:38 G	9884027.38	9884027.61	9884027.84	0.0290	0.0099
Moon	22349-06-13 06:28 G	9884027.54	9884027.77	9884028.00	0.0290	0.0115 *
Mercury	22350-11-07 05:45 G	9884539.66	9884539.74	9884539.83	0.0288	0.0242
Mercury	22351-02-04 00:28 G	9884628.37	9884628.52	9884628.67	0.0288	0.0107
Mercury	22351-05-03 18:43 G	9884717.12	9884717.28	9884717.44	0.0288	0.0026
Mercury	22351-07-31 12:28 G	9884805.89	9884806.02	9884806.16	0.0287	0.0153
Mercury	22351-10-28 05:45 G	9884894.71	9884894.74	9884894.78	0.0287	0.0277
Mars	22355-04-16 18:43 G	9886161.09	9886161.28	9886161.50	0.0280	0.0174
Venus	22362-10-09 02:24 G	9888893.45	9888893.60	9888893.76	0.0270	0.0183
Venus	22363-05-26 05:45 G	9889122.53	9889122.74	9889122.95	0.0270	0.0002
Earth	22363-12-09 05:45 G	9889319.63	9889319.74	9889319.88	0.0270	0.0232
Moon	22363-12-09 07:26 G	9889319.72	9889319.81	9889319.92	0.0270	0.0245 *
Venus	22364-01-10 08:52 G	9889351.72	9889351.87	9889352.03	0.0270	0.0186
Earth	22364-12-20 07:26 G	9889696.62	9889696.81	9889697.03	0.0270	0.0149
Moon	22364-12-20 11:16 G	9889696.77	9889696.97	9889697.18	0.0270	0.0144 *
Mercury	22365-11-15 04:04 G	9890026.60	9890026.67	9890026.76	0.0271	0.0223
Mercury	22366-02-11 17:02 G	9890115.09	9890115.21	9890115.34	0.0271	0.0127
Mercury	22366-05-11 06:14 G	9890203.61	9890203.76	9890203.90	0.0271	0.0030
Mercury	22366-08-07 19:26 G	9890292.17	9890292.31	9890292.46	0.0272	0.0071
Mercury	22366-11-04 09:07 G	9890380.77	9890380.88	9890381.00	0.0272	0.0173
Venus	22377-11-07 00:43 G	9894401.33	9894401.53	9894401.73	0.0290	0.0097
Venus	22378-06-24 21:36 G	9894631.21	9894631.40	9894631.59	0.0290	0.0135
Moon	22379-06-21 00:43 G	9894992.33	9894992.53	9894992.74	0.0289	0.0148
Earth	22379-06-21 01:26 G	9894992.37	9894992.56	9894992.78	0.0289	0.0159 *
Mercury	22380-06-22 23:02 G	9895360.33	9895360.46	9895360.60	0.0288	0.0157
Mercury	22380-09-19 17:31 G	9895449.07	9895449.23	9895449.40	0.0288	0.0025
Mercury	22380-12-17 11:31 G	9895537.84	9895537.98	9895538.13	0.0288	0.0107
Mercury	22381-03-16 05:02 G	9895626.62	9895626.71	9895626.81	0.0287	0.0233

Venus	22392-04-20 08:52 G	9899679.71	9899679.87	9899680.06	0.0270	0.0155
Venus	22392-12-05 12:43 G	9899908.82	9899909.03	9899909.24	0.0270	0.0031
Venus	22393-07-22 15:50 G	9900138.05	9900138.16	9900138.30	0.0270	0.0216
Moon	22393-12-15 10:48 G	9900283.71	9900283.95	9900284.19	0.0270	0.0019
Earth	22393-12-15 14:24 G	9900283.86	9900284.10	9900284.35	0.0270	0.0013 *
Mercury	22395-04-04 07:26 G	9900758.75	9900758.81	9900758.88	0.0271	0.0241
Mercury	22395-07-01 20:09 G	9900847.22	9900847.34	9900847.47	0.0271	0.0147
Mercury	22395-09-28 09:21 G	9900935.74	9900935.89	9900936.03	0.0271	0.0050
Mercury	22395-12-25 22:33 G	9901024.29	9901024.44	9901024.58	0.0271	0.0051
Mercury	22396-03-23 12:00 G	9901112.88	9901113.00	9901113.13	0.0272	0.0153
Mercury	22396-06-20 01:55 G	9901201.54	9901201.58	9901201.63	0.0272	0.0257
Venus	22407-05-20 09:50 G	9905187.71	9905187.91	9905188.12	0.0290	0.0061
Venus	22408-01-05 06:28 G	9905417.61	9905417.77	9905417.95	0.0290	0.0171
Earth	22408-06-14 08:24 G	9905578.61	9905578.85	9905579.09	0.0290	0.0045
Moon	22408-06-14 08:24 G	9905578.61	9905578.85	9905579.11	0.0290	0.0058 *
Mercury	22409-11-10 00:00 G	9906092.38	9906092.50	9906092.63	0.0288	0.0191
Mercury	22410-02-06 18:43 G	9906181.12	9906181.28	9906181.44	0.0288	0.0057
Mercury	22410-05-06 12:43 G	9906269.88	9906270.03	9906270.19	0.0288	0.0074
Mercury	22410-08-03 06:14 G	9906358.65	9906358.76	9906358.88	0.0287	0.0201
Venus	22421-10-31 11:02 G	9910465.78	9910465.96	9910466.15	0.0270	0.0134
Venus	22422-06-17 14:24 G	9910694.89	9910695.10	9910695.31	0.0270	0.0051
Earth	22422-12-10 11:16 G	9910870.80	9910870.97	9910871.16	0.0270	0.0183
Moon	22422-12-10 15:07 G	9910870.97	9910871.13	9910871.31	0.0270	0.0193 *
Venus	22423-02-01 17:31 G	9910924.14	9910924.23	9910924.35	0.0270	0.0236
Earth	22423-12-22 13:12 G	9911247.89	9911248.05	9911248.23	0.0270	0.0197
Moon	22423-12-22 13:12 G	9911247.89	9911248.05	9911248.23	0.0270	0.0197 *
Mercury	22424-11-17 21:07 G	9911579.28	9911579.38	9911579.49	0.0271	0.0181
Mercury	22425-02-14 10:04 G	9911667.78	9911667.92	9911668.06	0.0271	0.0085
Mercury	22425-05-13 23:16 G	9911756.32	9911756.47	9911756.62	0.0272	0.0014
Mercury	22425-08-10 12:43 G	9911844.89	9911845.03	9911845.16	0.0272	0.0115

Mercury	22425-11-07 02:24 G	9911933.51	9911933.60	9911933.69	0.0272	0.0218
Mars	22429-07-27 02:52 G	9913291.40	9913291.62	9913291.84	0.0279	0.0202
Venus	22436-04-13 14:09 G	9915744.03	9915744.09	9915744.17	0.0289	0.0271
Venus	22436-11-29 11:16 G	9915973.76	9915973.97	9915974.18	0.0289	0.0040
Earth	22437-06-08 02:24 G	9916164.52	9916164.60	9916164.70	0.0289	0.0268
Moon	22437-06-08 03:21 G	9916164.59	9916164.64	9916164.70	0.0289	0.0280 *
Venus	22437-07-17 07:55 G	9916203.68	9916203.83	9916204.00	0.0289	0.0192
Earth	22438-06-22 07:12 G	9916543.63	9916543.80	9916543.97	0.0289	0.0211
Moon	22438-06-22 10:33 G	9916543.78	9916543.94	9916544.12	0.0289	0.0203 *
Mercury	22439-03-29 22:19 G	9916824.35	9916824.43	9916824.52	0.0288	0.0243
Mercury	22439-06-26 17:16 G	9916913.07	9916913.22	9916913.37	0.0288	0.0107
Mercury	22439-09-23 11:31 G	9917001.82	9917001.98	9917002.14	0.0288	0.0026
Mercury	22439-12-21 05:31 G	9917090.59	9917090.73	9917090.86	0.0288	0.0155
Mercury	22440-03-18 22:48 G	9917179.42	9917179.45	9917179.48	0.0287	0.0279
Mars	22443-09-10 08:24 G	9918449.70	9918449.85	9918450.02	0.0281	0.0224
Venus	22451-05-13 17:31 G	9921252.04	9921252.23	9921252.43	0.0270	0.0106
Venus	22451-12-28 21:07 G	9921481.18	9921481.38	9921481.59	0.0270	0.0080
Venus	22452-08-14 00:43 G	9921710.50	9921710.53	9921710.58	0.0270	0.0265
Earth	22452-12-16 19:55 G	9921835.09	9921835.33	9921835.57	0.0270	0.0037
Moon	22452-12-16 19:40 G	9921835.09	9921835.32	9921835.56	0.0270	0.0034 *
Mercury	22454-04-07 00:14 G	9922311.42	9922311.51	9922311.61	0.0271	0.0201
Mercury	22454-07-04 13:12 G	9922399.92	9922400.05	9922400.19	0.0271	0.0104
Mercury	22454-10-01 02:24 G	9922488.45	9922488.60	9922488.74	0.0271	0.0008
Mercury	22454-12-28 15:36 G	9922577.02	9922577.15	9922577.29	0.0272	0.0095
Mercury	22455-03-27 05:16 G	9922665.62	9922665.72	9922665.83	0.0272	0.0198
Venus	22465-10-25 00:57 G	9926530.42	9926530.54	9926530.67	0.0290	0.0233
Venus	22466-06-11 21:50 G	9926760.20	9926760.41	9926760.63	0.0290	0.0006
Venus	22467-01-27 18:28 G	9926990.15	9926990.27	9926990.40	0.0290	0.0229
Moon	22467-06-16 12:57 G	9927129.79	9927130.04	9927130.29	0.0290	0.0003
Earth	22467-06-16 16:48 G	9927129.95	9927130.20	9927130.44	0.0290	0.0012 *

Mercury	22468-08-15 23:45 G	9927556.45	9927556.49	9927556.55	0.0289	0.0273
Mercury	22468-11-12 18:57 G	9927645.15	9927645.29	9927645.43	0.0288	0.0136
Mercury	22469-02-09 13:12 G	9927733.89	9927734.05	9927734.22	0.0288	0.0009
Mercury	22469-05-09 07:12 G	9927822.66	9927822.80	9927822.94	0.0288	0.0127
Mercury	22469-08-06 00:28 G	9927911.45	9927911.52	9927911.60	0.0287	0.0253
Venus	22480-04-07 17:16 G	9931809.21	9931809.22	9931809.27	0.0270	0.0267
Venus	22480-11-22 20:52 G	9932038.17	9932038.37	9932038.57	0.0270	0.0083
Venus	22481-07-10 00:00 G	9932267.31	9932267.50	9932267.71	0.0270	0.0103
Earth	22481-12-11 18:43 G	9932422.07	9932422.28	9932422.50	0.0270	0.0132
Moon	22481-12-11 18:57 G	9932422.07	9932422.29	9932422.50	0.0270	0.0138 *
Moon	22482-12-23 16:48 G	9932799.13	9932799.20	9932799.30	0.0270	0.0253
Earth	22482-12-23 20:38 G	9932799.27	9932799.36	9932799.46	0.0270	0.0248 *
Mercury	22483-08-25 01:40 G	9933043.50	9933043.57	9933043.65	0.0271	0.0232
Mercury	22483-11-21 14:24 G	9933131.98	9933132.10	9933132.23	0.0271	0.0137
Mercury	22484-02-18 03:21 G	9933220.50	9933220.64	9933220.79	0.0271	0.0041
Mercury	22484-05-16 16:48 G	9933309.05	9933309.20	9933309.34	0.0272	0.0060
Mercury	22484-08-13 06:14 G	9933397.64	9933397.76	9933397.88	0.0272	0.0163
Mercury	22484-11-09 19:55 G	9933486.32	9933486.33	9933486.37	0.0272	0.0268
Venus	22495-05-07 03:07 G	9937316.49	9937316.63	9937316.78	0.0289	0.0210
Venus	22495-12-23 00:00 G	9937546.29	9937546.50	9937546.71	0.0289	0.0021
Jupiter	22496-04-19 06:14 G	9937664.46	9937664.76	9937665.05	0.0289	0.0224
Earth	22496-06-09 11:45 G	9937715.83	9937715.99	9937716.17	0.0289	0.0210
Moon	22496-06-09 15:21 G	9937715.99	9937716.14	9937716.31	0.0289	0.0220 *
Venus	22496-08-08 20:38 G	9937776.26	9937776.36	9937776.47	0.0289	0.0251
Earth	22497-06-23 15:50 G	9938095.09	9938095.16	9938095.26	0.0289	0.0268
Moon	22497-06-23 18:14 G	9938095.17	9938095.26	9938095.38	0.0289	0.0262 *
Mercury	22498-04-01 17:31 G	9938377.10	9938377.23	9938377.35	0.0288	0.0186
Mercury	22498-06-29 12:00 G	9938465.84	9938466.00	9938466.16	0.0288	0.0051
Mercury	22498-09-26 06:14 G	9938554.61	9938554.76	9938554.91	0.0288	0.0080
Mercury	22498-12-23 23:45 G	9938643.39	9938643.49	9938643.60	0.0287	0.0208

Mars	22501-12-19 16:04 G	9939734.16	9939734.17	9939734.18	0.0282	0.0282
Venus	22509-10-19 23:31 G	9942595.38	9942595.48	9942595.57	0.0270	0.0240
Venus	22510-06-06 03:07 G	9942824.42	9942824.63	9942824.84	0.0270	0.0055
Venus	22511-01-21 06:43 G	9943053.60	9943053.78	9943053.97	0.0270	0.0131
Earth	22511-12-20 02:38 G	9943386.38	9943386.61	9943386.84	0.0270	0.0088
Moon	22511-12-20 06:14 G	9943386.54	9943386.76	9943386.99	0.0270	0.0088 *
Mercury	22513-01-12 04:48 G	9943775.65	9943775.70	9943775.76	0.0271	0.0252
Mercury	22513-04-10 17:31 G	9943864.12	9943864.23	9943864.35	0.0271	0.0157
Mercury	22513-07-08 06:28 G	9943952.63	9943952.77	9943952.92	0.0271	0.0060
Mercury	22513-10-04 19:40 G	9944041.18	9944041.32	9944041.47	0.0272	0.0041
Mercury	22514-01-01 09:21 G	9944129.76	9944129.89	9944130.02	0.0272	0.0142
Mercury	22514-03-30 23:02 G	9944218.40	9944218.46	9944218.53	0.0272	0.0247
Venus	22524-11-17 14:52 G	9948102.95	9948103.12	9948103.29	0.0290	0.0171
Venus	22525-07-05 11:31 G	9948332.78	9948332.98	9948333.19	0.0290	0.0061
Moon	22526-06-19 01:40 G	9948681.34	9948681.57	9948681.80	0.0289	0.0065
Earth	22526-06-19 03:36 G	9948681.41	9948681.65	9948681.89	0.0289	0.0072 *
Mercury	22527-08-20 19:40 G	9949109.21	9949109.32	9949109.43	0.0288	0.0212
Mercury	22527-11-17 14:09 G	9949197.94	9949198.09	9949198.25	0.0288	0.0077
Mercury	22528-02-14 08:24 G	9949286.70	9949286.85	9949287.01	0.0288	0.0056
Mercury	22528-05-13 02:09 G	9949375.47	9949375.59	9949375.71	0.0288	0.0183
Venus	22539-05-02 04:04 G	9953381.55	9953381.67	9953381.80	0.0270	0.0215
Venus	22539-12-17 07:26 G	9953610.60	9953610.81	9953611.02	0.0270	0.0031
Venus	22540-08-02 10:48 G	9953839.78	9953839.95	9953840.13	0.0270	0.0155
Moon	22540-12-14 00:00 G	9953973.27	9953973.50	9953973.74	0.0270	0.0083
Earth	22540-12-14 03:36 G	9953973.41	9953973.65	9953973.88	0.0270	0.0079 *
Mercury	22542-08-28 19:12 G	9954596.20	9954596.30	9954596.41	0.0271	0.0187
Mercury	22542-11-25 08:09 G	9954684.70	9954684.84	9954684.98	0.0271	0.0090
Mercury	22543-02-21 21:21 G	9954773.24	9954773.39	9954773.53	0.0271	0.0011
Mercury	22543-05-21 10:33 G	9954861.81	9954861.94	9954862.08	0.0272	0.0110
Mercury	22543-08-18 00:14 G	9954950.42	9954950.51	9954950.61	0.0272	0.0213

Venus	22554-05-30 17:16 G	9958889.04	9958889.22	9958889.41	0.0289	0.0148
Venus	22555-01-15 13:55 G	9959118.89	9959119.08	9959119.29	0.0289	0.0085
Earth	22555-06-12 23:45 G	9959267.29	9959267.49	9959267.71	0.0289	0.0148
Moon	22555-06-13 01:40 G	9959267.36	9959267.57	9959267.79	0.0289	0.0157 *
Mercury	22557-01-06 18:00 G	9959841.19	9959841.25	9959841.32	0.0288	0.0262
Mercury	22557-04-05 12:57 G	9959929.90	9959930.04	9959930.19	0.0288	0.0125
Mercury	22557-07-03 07:26 G	9960018.65	9960018.81	9960018.97	0.0288	0.0009
Mercury	22557-09-30 01:12 G	9960107.42	9960107.55	9960107.70	0.0288	0.0139
Mercury	22557-12-27 18:57 G	9960196.23	9960196.29	9960196.35	0.0287	0.0264
Venus	22568-11-11 09:36 G	9964167.75	9964167.90	9964168.06	0.0270	0.0188
Venus	22569-06-28 13:26 G	9964396.84	9964397.06	9964397.27	0.0270	0.0005
Earth	22569-12-09 07:55 G	9964560.73	9964560.83	9964560.95	0.0270	0.0240
Moon	22569-12-09 11:02 G	9964560.88	9964560.96	9964561.05	0.0270	0.0252 *
Venus	22570-02-12 16:48 G	9964626.06	9964626.20	9964626.37	0.0270	0.0184
Earth	22570-12-21 10:48 G	9964937.74	9964937.95	9964938.16	0.0270	0.0140
Moon	22570-12-21 12:43 G	9964937.82	9964938.03	9964938.25	0.0270	0.0142 *
Mercury	22572-01-15 22:04 G	9965328.34	9965328.42	9965328.52	0.0271	0.0207
Mercury	22572-04-13 11:02 G	9965416.83	9965416.96	9965417.09	0.0271	0.0111
Mercury	22572-07-11 00:14 G	9965505.36	9965505.51	9965505.65	0.0271	0.0014
Mercury	22572-10-07 13:26 G	9965593.92	9965594.06	9965594.20	0.0272	0.0089
Mercury	22573-01-04 03:07 G	9965682.53	9965682.63	9965682.74	0.0272	0.0192
Venus	22583-12-11 06:00 G	9969675.55	9969675.75	9969675.95	0.0290	0.0107
Venus	22584-07-28 02:52 G	9969905.43	9969905.62	9969905.81	0.0290	0.0125
Earth	22585-06-20 16:48 G	9970232.99	9970233.20	9970233.42	0.0289	0.0137
Moon	22585-06-20 18:43 G	9970233.08	9970233.28	9970233.50	0.0289	0.0131 *
Mercury	22586-05-26 20:38 G	9970573.34	9970573.36	9970573.39	0.0289	0.0285
Mercury	22586-08-23 15:36 G	9970662.01	9970662.15	9970662.29	0.0288	0.0148
Mercury	22586-11-20 10:04 G	9970750.76	9970750.92	9970751.09	0.0288	0.0015
Mercury	22587-02-17 04:04 G	9970839.53	9970839.67	9970839.82	0.0288	0.0117
Mercury	22587-05-16 21:36 G	9970928.32	9970928.40	9970928.49	0.0287	0.0243

Mars	22590-05-16 05:16 G	9972023.54	9972023.72	9972023.91	0.0282	0.0199
Venus	22598-05-24 15:07 G	9974953.97	9974954.13	9974954.30	0.0270	0.0162
Venus	22599-01-08 18:43 G	9975183.07	9975183.28	9975183.49	0.0270	0.0023
Venus	22599-08-25 22:04 G	9975412.30	9975412.42	9975412.56	0.0270	0.0208
Moon	22599-12-16 10:48 G	9975524.71	9975524.95	9975525.18	0.0270	0.0029
Earth	22599-12-16 12:57 G	9975524.80	9975525.04	9975525.29	0.0270	0.0025 *
Mercury	22601-06-05 00:14 G	9976060.44	9976060.51	9976060.59	0.0271	0.0234
Mercury	22601-09-01 12:57 G	9976148.92	9976149.04	9976149.17	0.0271	0.0139
Mercury	22601-11-29 01:55 G	9976237.44	9976237.58	9976237.73	0.0271	0.0042
Mercury	22602-02-25 15:07 G	9976325.99	9976326.13	9976326.28	0.0272	0.0060
Mercury	22602-05-25 04:48 G	9976414.58	9976414.70	9976414.82	0.0272	0.0161
Mercury	22602-08-21 18:43 G	9976503.25	9976503.28	9976503.31	0.0272	0.0266
Venus	22613-06-23 09:07 G	9980461.68	9980461.88	9980462.09	0.0289	0.0082
Venus	22614-02-08 06:00 G	9980691.57	9980691.75	9980691.93	0.0289	0.0150
Moon	22614-06-15 12:00 G	9980818.76	9980819.00	9980819.24	0.0289	0.0090
Earth	22614-06-15 14:24 G	9980818.87	9980819.10	9980819.34	0.0289	0.0082 *
Mercury	22616-01-11 14:24 G	9981393.99	9981394.10	9981394.22	0.0288	0.0195
Mercury	22616-04-09 09:07 G	9981482.72	9981482.88	9981483.04	0.0288	0.0060
Mercury	22616-07-07 03:21 G	9981571.48	9981571.64	9981571.80	0.0288	0.0071
Mercury	22616-10-03 20:52 G	9981660.26	9981660.37	9981660.49	0.0287	0.0199
Venus	22627-12-05 20:09 G	9985740.16	9985740.34	9985740.52	0.0270	0.0137
Venus	22628-07-22 00:00 G	9985969.29	9985969.50	9985969.70	0.0270	0.0050
Earth	22628-12-11 16:19 G	9986112.01	9986112.18	9986112.36	0.0270	0.0188
Moon	22628-12-11 19:12 G	9986112.13	9986112.30	9986112.47	0.0270	0.0197 *
Venus	22629-03-08 03:21 G	9986198.55	9986198.64	9986198.76	0.0270	0.0236
Moon	22629-12-23 17:02 G	9986489.04	9986489.21	9986489.38	0.0271	0.0198
Earth	22629-12-23 19:12 G	9986489.14	9986489.30	9986489.48	0.0271	0.0193 *
Mercury	22630-10-23 03:07 G	9986792.59	9986792.63	9986792.67	0.0271	0.0256
Mercury	22631-01-19 15:36 G	9986881.04	9986881.15	9986881.27	0.0271	0.0162
Mercury	22631-04-18 04:33 G	9986969.55	9986969.69	9986969.84	0.0271	0.0065

Mercury	22631-07-15 18:00 G	9987058.10	9987058.25	9987058.39	0.0272	0.0037
Mercury	22631-10-12 07:26 G	9987146.68	9987146.81	9987146.94	0.0272	0.0138
Mercury	22632-01-08 21:07 G	9987235.32	9987235.38	9987235.45	0.0272	0.0243
Venus	22642-05-19 00:57 G	9991018.47	9991018.54	9991018.61	0.0290	0.0272
Venus	22643-01-03 21:36 G	9991248.20	9991248.40	9991248.62	0.0290	0.0042
Earth	22643-06-10 03:07 G	9991405.57	9991405.63	9991405.72	0.0290	0.0275
Moon	22643-06-10 06:00 G	9991405.72	9991405.75	9991405.78	0.0290	0.0287 *
Venus	22643-08-21 18:14 G	9991478.11	9991478.26	9991478.43	0.0290	0.0191
Earth	22644-06-23 07:12 G	9991784.64	9991784.80	9991784.99	0.0289	0.0203
Moon	22644-06-23 10:48 G	9991784.78	9991784.95	9991785.15	0.0289	0.0196 *
Mercury	22645-05-30 17:16 G	9992126.11	9992126.22	9992126.33	0.0289	0.0218
Mercury	22645-08-27 12:00 G	9992214.84	9992215.00	9992215.16	0.0288	0.0082
Mercury	22645-11-24 06:14 G	9992303.60	9992303.76	9992303.92	0.0288	0.0051
Mercury	22646-02-21 00:00 G	9992392.38	9992392.50	9992392.62	0.0288	0.0179
Venus	22657-06-17 02:24 G	9996526.41	9996526.60	9996526.80	0.0270	0.0110
Venus	22658-02-01 06:00 G	9996755.55	9996755.75	9996755.96	0.0270	0.0076
Venus	22658-09-18 09:36 G	9996984.86	9996984.90	9996984.96	0.0270	0.0261
Earth	22658-12-18 22:48 G	9997076.21	9997076.45	9997076.69	0.0270	0.0031
Moon	22658-12-19 00:28 G	9997076.28	9997076.52	9997076.76	0.0270	0.0029 *
Mercury	22660-06-07 18:00 G	9997613.15	9997613.25	9997613.36	0.0271	0.0187
Mercury	22660-09-04 06:57 G	9997701.65	9997701.79	9997701.93	0.0271	0.0090
Mercury	22660-12-01 19:55 G	9997790.19	9997790.33	9997790.48	0.0271	0.0011
Mercury	22661-02-28 09:21 G	9997878.76	9997878.89	9997879.03	0.0272	0.0110
Mercury	22661-05-27 23:02 G	9997967.37	9997967.46	9997967.55	0.0272	0.0213
Mars	22664-08-21 12:28 G	9999148.83	9999149.02	9999149.20	0.0278	0.0227
Venus	22671-11-29 04:33 G	10001804.58	10001804.69	10001804.80	0.0289	0.0246
Venus	22672-07-16 01:26 G	10002034.35	10002034.56	10002034.77	0.0289	0.0015
Venus	22673-03-02 21:50 G	10002264.29	10002264.41	10002264.56	0.0289	0.0217
Moon	22673-06-17 02:09 G	10002370.35	10002370.59	10002370.83	0.0289	0.0023
Earth	22673-06-17 05:45 G	10002370.49	10002370.74	10002370.98	0.0289	0.0015 *

Mercury	22674-10-17 15:50 G	10002858.11	10002858.16	10002858.23	0.0288	0.0265
Mercury	22675-01-14 11:02 G	10002946.81	10002946.96	10002947.11	0.0288	0.0128
Mercury	22675-04-13 05:31 G	10003035.57	10003035.73	10003035.89	0.0288	0.0007
Mercury	22675-07-10 23:16 G	10003124.33	10003124.47	10003124.62	0.0287	0.0136
Mercury	22675-10-07 16:48 G	10003213.14	10003213.20	10003213.27	0.0287	0.0261
Mars	22678-10-11 03:21 G	10004312.42	10004312.64	10004312.88	0.0282	0.0140
Venus	22686-05-13 02:52 G	10007083.62	10007083.62	10007083.63	0.0271	0.0270
Venus	22686-12-28 06:28 G	10007312.58	10007312.77	10007312.98	0.0270	0.0086
Venus	22687-08-14 10:19 G	10007541.74	10007541.93	10007542.13	0.0270	0.0101
Moon	22687-12-13 22:33 G	10007663.24	10007663.44	10007663.67	0.0270	0.0141
Earth	22687-12-14 00:28 G	10007663.31	10007663.52	10007663.74	0.0270	0.0135 *
Moon	22688-12-25 00:00 G	10008040.43	10008040.50	10008040.61	0.0271	0.0252
Earth	22688-12-25 03:36 G	10008040.56	10008040.65	10008040.76	0.0271	0.0246 *
Mercury	22689-10-25 20:24 G	10008345.26	10008345.35	10008345.44	0.0271	0.0212
Mercury	22690-01-22 09:07 G	10008433.75	10008433.88	10008434.02	0.0271	0.0116
Mercury	22690-04-20 22:19 G	10008522.28	10008522.43	10008522.58	0.0272	0.0017
Mercury	22690-07-18 11:31 G	10008610.84	10008610.98	10008611.13	0.0272	0.0085
Mercury	22690-10-15 01:12 G	10008699.45	10008699.55	10008699.66	0.0272	0.0188
Venus	22701-06-11 17:02 G	10012591.07	10012591.21	10012591.36	0.0290	0.0207
Venus	22702-01-27 13:55 G	10012820.87	10012821.08	10012821.30	0.0290	0.0026
Earth	22702-06-12 18:43 G	10012957.11	10012957.28	10012957.46	0.0290	0.0207
Moon	22702-06-12 22:04 G	10012957.27	10012957.42	10012957.60	0.0290	0.0217 *
Venus	22702-09-14 10:48 G	10013050.85	10013050.95	10013051.05	0.0290	0.0256
Earth	22703-06-26 22:48 G	10013336.37	10013336.45	10013336.54	0.0289	0.0270
Moon	22703-06-26 23:31 G	10013336.39	10013336.48	10013336.59	0.0289	0.0264 *
Mercury	22704-03-06 18:43 G	10013590.27	10013590.28	10013590.29	0.0289	0.0288
Mercury	22704-06-03 13:40 G	10013678.94	10013679.07	10013679.22	0.0288	0.0150
Mercury	22704-08-31 08:24 G	10013767.69	10013767.85	10013768.01	0.0288	0.0016
Mercury	22704-11-28 02:24 G	10013856.45	10013856.60	10013856.75	0.0288	0.0115
Mercury	22705-02-24 19:55 G	10013945.25	10013945.33	10013945.42	0.0287	0.0242

Venus	22715-11-24 09:50 G	10017869.83	10017869.91	10017870.01	0.0270	0.0242
Venus	22716-07-10 13:26 G	10018098.86	10018099.06	10018099.27	0.0270	0.0057
Venus	22717-02-24 17:02 G	10018328.03	10018328.21	10018328.40	0.0270	0.0129
Earth	22717-12-21 07:55 G	10018627.60	10018627.83	10018628.06	0.0270	0.0085
Moon	22717-12-21 11:31 G	10018627.75	10018627.98	10018628.22	0.0270	0.0085 *
Mercury	22719-03-15 23:02 G	10019077.39	10019077.46	10019077.53	0.0271	0.0235
Mercury	22719-06-12 11:45 G	10019165.86	10019165.99	10019166.11	0.0271	0.0140
Mercury	22719-09-09 00:43 G	10019254.38	10019254.53	10019254.67	0.0271	0.0043
Mercury	22719-12-06 13:55 G	10019342.93	10019343.08	10019343.22	0.0272	0.0058
Mercury	22720-03-04 03:21 G	10019431.52	10019431.64	10019431.76	0.0272	0.0160
Mercury	22720-05-31 17:02 G	10019520.19	10019520.21	10019520.25	0.0272	0.0265
Venus	22730-12-22 20:24 G	10023377.20	10023377.35	10023377.52	0.0289	0.0182
Venus	22731-08-09 17:31 G	10023607.02	10023607.23	10023607.44	0.0289	0.0051
Venus	22732-03-26 13:55 G	10023837.05	10023837.08	10023837.14	0.0289	0.0281
Earth	22732-06-19 20:38 G	10023922.12	10023922.36	10023922.60	0.0289	0.0053
Moon	22732-06-19 20:52 G	10023922.13	10023922.37	10023922.60	0.0289	0.0048 *
Mercury	22733-10-21 12:43 G	10024410.91	10024411.03	10024411.15	0.0288	0.0197
Mercury	22734-01-18 07:26 G	10024499.65	10024499.81	10024499.97	0.0288	0.0062
Mercury	22734-04-17 01:40 G	10024588.41	10024588.57	10024588.72	0.0287	0.0070
Mercury	22734-07-14 19:12 G	10024677.19	10024677.30	10024677.42	0.0287	0.0198
Venus	22745-06-05 12:57 G	10028655.93	10028656.04	10028656.17	0.0270	0.0220
Venus	22746-01-20 16:48 G	10028884.99	10028885.20	10028885.41	0.0270	0.0034
Venus	22746-09-06 20:24 G	10029114.19	10029114.35	10029114.53	0.0270	0.0153
Moon	22746-12-16 04:19 G	10029214.46	10029214.68	10029214.92	0.0270	0.0084
Earth	22746-12-16 08:09 G	10029214.61	10029214.84	10029215.07	0.0270	0.0082 *
Mercury	22748-08-02 00:57 G	10029809.51	10029809.54	10029809.58	0.0271	0.0263
Mercury	22748-10-29 13:40 G	10029897.96	10029898.07	10029898.18	0.0271	0.0168
Mercury	22749-01-26 02:38 G	10029986.47	10029986.61	10029986.75	0.0272	0.0071
Mercury	22749-04-24 15:36 G	10030075.01	10030075.15	10030075.30	0.0272	0.0031
Mercury	22749-07-22 05:16 G	10030163.59	10030163.72	10030163.85	0.0272	0.0132

Mercury	22749-10-18 18:57 G	10030252.22	10030252.29	10030252.36	0.0272	0.0236
Mars	22753-01-17 07:12 G	10031438.51	10031438.80	10031439.09	0.0278	0.0130
Venus	22760-07-04 08:09 G	10034163.66	10034163.84	10034164.03	0.0290	0.0144
Venus	22761-02-19 05:16 G	10034393.52	10034393.72	10034393.93	0.0290	0.0089
Moon	22761-06-14 07:55 G	10034508.61	10034508.83	10034509.05	0.0290	0.0146
Earth	22761-06-14 08:24 G	10034508.64	10034508.85	10034509.07	0.0290	0.0141 *
Mercury	22763-03-10 15:07 G	10035143.03	10035143.13	10035143.24	0.0289	0.0222
Mercury	22763-06-07 10:04 G	10035231.76	10035231.92	10035232.08	0.0288	0.0085
Mercury	22763-09-04 04:19 G	10035320.52	10035320.68	10035320.84	0.0288	0.0048
Mercury	22763-12-01 22:19 G	10035409.30	10035409.43	10035409.55	0.0288	0.0177
Mars	22767-03-09 00:14 G	10036602.25	10036602.51	10036602.78	0.0282	0.0040
Venus	22774-12-16 20:09 G	10039442.21	10039442.34	10039442.50	0.0270	0.0192
Venus	22775-08-02 23:45 G	10039671.28	10039671.49	10039671.71	0.0270	0.0009
Earth	22775-12-11 13:12 G	10039801.95	10039802.05	10039802.18	0.0270	0.0239
Moon	22775-12-11 16:48 G	10039802.12	10039802.20	10039802.31	0.0270	0.0246 *
Venus	22776-03-19 03:07 G	10039900.48	10039900.63	10039900.80	0.0270	0.0180
Earth	22776-12-22 15:50 G	10040178.95	10040179.16	10040179.37	0.0270	0.0138
Moon	22776-12-22 15:50 G	10040178.95	10040179.16	10040179.38	0.0270	0.0142 *
Mercury	22778-03-18 16:04 G	10040630.08	10040630.17	10040630.28	0.0271	0.0192
Mercury	22778-06-15 05:02 G	10040718.58	10040718.71	10040718.85	0.0271	0.0095
Mercury	22778-09-11 18:14 G	10040807.11	10040807.26	10040807.40	0.0271	0.0008
Mercury	22778-12-09 07:26 G	10040895.67	10040895.81	10040895.95	0.0272	0.0105
Mercury	22779-03-07 21:07 G	10040984.29	10040984.38	10040984.48	0.0272	0.0208
Venus	22790-01-14 12:00 G	10044949.82	10044950.00	10044950.20	0.0289	0.0118
Venus	22790-09-01 08:52 G	10045179.68	10045179.87	10045180.07	0.0289	0.0116
Earth	22791-06-22 11:02 G	10045473.74	10045473.96	10045474.18	0.0289	0.0119
Moon	22791-06-22 14:38 G	10045473.89	10045474.11	10045474.34	0.0289	0.0118 *
Mercury	22792-07-27 14:09 G	10045875.03	10045875.09	10045875.15	0.0288	0.0268
Mercury	22792-10-24 09:07 G	10045963.73	10045963.88	10045964.03	0.0288	0.0131
Mercury	22793-01-21 03:36 G	10046052.49	10046052.65	10046052.81	0.0288	0.0003

Mercury	22793-04-19 21:36 G	10046141.26	10046141.40	10046141.54	0.0287	0.0133
Mercury	22793-07-17 15:07 G	10046230.06	10046230.13	10046230.20	0.0287	0.0259
Venus	22804-06-27 22:19 G	10050228.27	10050228.43	10050228.60	0.0270	0.0171
Venus	22805-02-12 01:55 G	10050457.37	10050457.58	10050457.80	0.0270	0.0016
Venus	22805-09-29 05:31 G	10050686.60	10050686.73	10050686.88	0.0270	0.0201
Earth	22805-12-17 13:55 G	10050765.84	10050766.08	10050766.33	0.0270	0.0031
Moon	22805-12-17 14:09 G	10050765.85	10050766.09	10050766.33	0.0270	0.0030 *
Mercury	22807-08-05 17:45 G	10051362.17	10051362.24	10051362.33	0.0271	0.0223
Mercury	22807-11-02 06:28 G	10051450.65	10051450.77	10051450.90	0.0271	0.0127
Mercury	22808-01-29 19:40 G	10051539.17	10051539.32	10051539.46	0.0272	0.0029
Mercury	22808-04-27 08:52 G	10051627.73	10051627.87	10051628.01	0.0272	0.0073
Mercury	22808-07-24 22:19 G	10051716.32	10051716.43	10051716.55	0.0272	0.0176
Venus	22819-07-27 22:19 G	10055736.23	10055736.43	10055736.64	0.0290	0.0082
Venus	22820-03-13 19:26 G	10055966.13	10055966.31	10055966.49	0.0290	0.0151
Moon	22820-06-15 16:48 G	10056059.96	10056060.20	10056060.44	0.0290	0.0080
Earth	22820-06-15 20:24 G	10056060.12	10056060.35	10056060.59	0.0290	0.0077 *
Mercury	22822-03-13 11:02 G	10056695.83	10056695.96	10056696.10	0.0289	0.0159
Mercury	22822-06-10 05:45 G	10056784.58	10056784.74	10056784.90	0.0288	0.0024
Mercury	22822-09-06 23:45 G	10056873.35	10056873.49	10056873.64	0.0288	0.0108
Mercury	22822-12-04 17:31 G	10056962.14	10056962.23	10056962.32	0.0288	0.0235
Venus	22834-01-08 05:45 G	10061014.57	10061014.74	10061014.93	0.0269	0.0142
Venus	22834-08-25 09:21 G	10061243.68	10061243.89	10061244.10	0.0269	0.0043
Earth	22834-12-12 19:55 G	10061353.15	10061353.33	10061353.50	0.0269	0.0187
Moon	22834-12-12 19:55 G	10061353.17	10061353.33	10061353.52	0.0269	0.0192 *
Venus	22835-04-11 12:43 G	10061472.92	10061473.03	10061473.14	0.0270	0.0228
Moon	22835-12-24 18:14 G	10061730.10	10061730.26	10061730.43	0.0270	0.0198
Earth	22835-12-24 21:50 G	10061730.25	10061730.41	10061730.59	0.0270	0.0189 *
Mercury	22836-12-22 20:38 G	10062094.30	10062094.36	10062094.42	0.0271	0.0245
Mercury	22837-03-21 09:07 G	10062182.77	10062182.88	10062183.01	0.0271	0.0150
Mercury	22837-06-17 22:04 G	10062271.28	10062271.42	10062271.57	0.0271	0.0053

Mercury	22837-09-14 11:16 G	10062359.83	10062359.97	10062360.12	0.0271	0.0048
Mercury	22837-12-12 00:43 G	10062448.41	10062448.53	10062448.65	0.0272	0.0150
Mercury	22838-03-10 14:24 G	10062537.05	10062537.10	10062537.16	0.0272	0.0254
Mars	22841-06-13 08:24 G	10063727.53	10063727.85	10063728.17	0.0278	0.0048
Venus	22848-06-21 04:48 G	10066292.69	10066292.70	10066292.74	0.0289	0.0288
Venus	22849-02-06 02:09 G	10066522.38	10066522.59	10066522.80	0.0290	0.0056
Venus	22849-09-23 22:48 G	10066752.29	10066752.45	10066752.63	0.0290	0.0177
Earth	22850-06-23 22:33 G	10067025.26	10067025.44	10067025.64	0.0289	0.0182
Moon	22850-06-24 00:43 G	10067025.33	10067025.53	10067025.72	0.0289	0.0183 *
Mercury	22851-07-31 10:04 G	10067427.80	10067427.92	10067428.03	0.0288	0.0207
Mercury	22851-10-28 04:48 G	10067516.54	10067516.70	10067516.86	0.0288	0.0070
Mercury	22852-01-24 23:02 G	10067605.30	10067605.46	10067605.62	0.0288	0.0062
Mercury	22852-04-22 16:48 G	10067694.09	10067694.20	10067694.32	0.0287	0.0191
Mars	22855-08-02 18:00 G	10068890.99	10068891.25	10068891.52	0.0281	0.0010
Venus	22863-07-21 06:43 G	10071800.60	10071800.78	10071800.98	0.0270	0.0123
Venus	22864-03-06 10:19 G	10072029.72	10072029.93	10072030.14	0.0270	0.0062
Venus	22864-10-21 13:40 G	10072259.00	10072259.07	10072259.16	0.0270	0.0248
Earth	22864-12-18 18:14 G	10072317.01	10072317.26	10072317.50	0.0270	0.0018
Moon	22864-12-18 21:50 G	10072317.16	10072317.41	10072317.65	0.0270	0.0023 *
Mercury	22866-08-08 10:19 G	10072914.83	10072914.93	10072915.04	0.0271	0.0184
Mercury	22866-11-04 23:02 G	10073003.33	10073003.46	10073003.60	0.0271	0.0088
Mercury	22867-02-01 12:14 G	10073091.86	10073092.01	10073092.16	0.0272	0.0012
Mercury	22867-05-01 01:26 G	10073180.43	10073180.56	10073180.70	0.0272	0.0114
Mercury	22867-07-28 15:07 G	10073269.05	10073269.13	10073269.22	0.0272	0.0218
Venus	22878-01-01 13:12 G	10077078.96	10077079.05	10077079.16	0.0290	0.0256
Venus	22878-08-19 10:48 G	10077308.74	10077308.95	10077309.16	0.0290	0.0023
Venus	22879-04-06 08:09 G	10077538.70	10077538.84	10077538.99	0.0290	0.0210
Moon	22879-06-18 04:04 G	10077611.43	10077611.67	10077611.91	0.0290	0.0020
Earth	22879-06-18 05:45 G	10077611.50	10077611.74	10077611.99	0.0290	0.0017 *
Mercury	22880-12-17 11:16 G	10078159.89	10078159.97	10078160.07	0.0289	0.0239

Mercury	22881-03-16 06:28 G	10078248.61	10078248.77	10078248.92	0.0289	0.0101
Mercury	22881-06-13 00:57 G	10078337.38	10078337.54	10078337.70	0.0288	0.0034
Mercury	22881-09-09 18:43 G	10078426.15	10078426.28	10078426.42	0.0288	0.0164
Venus	22893-01-30 13:55 G	10082586.89	10082587.08	10082587.29	0.0269	0.0095
Venus	22893-09-16 17:16 G	10082816.03	10082816.22	10082816.43	0.0269	0.0090
Moon	22893-12-13 20:38 G	10082904.16	10082904.36	10082904.58	0.0269	0.0140
Earth	22893-12-14 00:00 G	10082904.29	10082904.50	10082904.71	0.0269	0.0138 *
Moon	22894-12-26 00:28 G	10083281.43	10083281.52	10083281.61	0.0270	0.0248
Earth	22894-12-26 01:40 G	10083281.47	10083281.57	10083281.70	0.0270	0.0237 *
Mercury	22895-12-26 12:57 G	10083646.95	10083647.04	10083647.14	0.0271	0.0207
Mercury	22896-03-24 01:40 G	10083735.44	10083735.57	10083735.71	0.0271	0.0111
Mercury	22896-06-20 14:38 G	10083823.97	10083824.11	10083824.26	0.0271	0.0014
Mercury	22896-09-17 03:50 G	10083912.53	10083912.66	10083912.81	0.0271	0.0089
Mercury	22896-12-14 17:31 G	10084001.12	10084001.23	10084001.34	0.0272	0.0191
Venus	22907-07-15 17:16 G	10087865.10	10087865.22	10087865.35	0.0290	0.0230
Venus	22908-03-01 14:24 G	10088094.89	10088095.10	10088095.32	0.0290	0.0007
Earth	22908-06-12 02:52 G	10088197.49	10088197.62	10088197.77	0.0290	0.0234
Moon	22908-06-12 04:33 G	10088197.55	10088197.69	10088197.84	0.0290	0.0239 *
Venus	22908-10-17 11:16 G	10088324.86	10088324.97	10088325.10	0.0290	0.0235
Moon	22909-06-26 05:16 G	10088576.60	10088576.72	10088576.86	0.0289	0.0246
Earth	22909-06-26 07:40 G	10088576.70	10088576.82	10088576.96	0.0289	0.0242 *
Mercury	22910-05-07 10:04 G	10088891.91	10088891.92	10088891.93	0.0288	0.0288
Mercury	22910-08-04 05:02 G	10088980.58	10088980.71	10088980.86	0.0288	0.0149
Mercury	22910-10-31 23:45 G	10089069.33	10089069.49	10089069.65	0.0288	0.0014
Mercury	22911-01-28 17:45 G	10089158.10	10089158.24	10089158.39	0.0288	0.0118
Mercury	22911-04-27 11:31 G	10089246.90	10089246.98	10089247.06	0.0287	0.0245
Venus	22921-12-27 10:48 G	10093143.91	10093143.95	10093144.01	0.0270	0.0262
Venus	22922-08-13 14:09 G	10093372.89	10093373.09	10093373.30	0.0270	0.0078
Venus	22923-03-30 17:31 G	10093602.04	10093602.23	10093602.42	0.0270	0.0108
Earth	22923-12-21 20:38 G	10093868.13	10093868.36	10093868.60	0.0270	0.0065

Moon	22923-12-21 22:33 G	10093868.20	10093868.44	10093868.69	0.0270	0.0070	*
Mercury	22925-05-15 13:55 G	10094379.02	10094379.08	10094379.14	0.0271	0.0243	
Mercury	22925-08-12 02:24 G	10094467.48	10094467.60	10094467.73	0.0271	0.0148	
Mercury	22925-11-08 15:21 G	10094556.00	10094556.14	10094556.28	0.0271	0.0051	
Mercury	22926-02-05 04:33 G	10094644.54	10094644.69	10094644.83	0.0272	0.0049	
Mercury	22926-05-04 18:00 G	10094733.13	10094733.25	10094733.37	0.0272	0.0152	
Mercury	22926-08-01 07:40 G	10094821.77	10094821.82	10094821.87	0.0272	0.0256	
Mars	22929-11-07 15:07 G	10096015.80	10096016.13	10096016.46	0.0278	0.0002	
Venus	22937-01-24 23:31 G	10098651.34	10098651.48	10098651.64	0.0290	0.0202	
Venus	22937-09-11 21:07 G	10098881.17	10098881.38	10098881.60	0.0290	0.0032	
Venus	22938-04-29 18:28 G	10099111.19	10099111.27	10099111.36	0.0290	0.0265	
Earth	22938-06-20 11:45 G	10099162.74	10099162.99	10099163.23	0.0290	0.0039	
Moon	22938-06-20 13:55 G	10099162.85	10099163.08	10099163.32	0.0290	0.0039	*
Mercury	22939-12-22 05:45 G	10099712.62	10099712.74	10099712.87	0.0289	0.0186	
Mercury	22940-03-20 00:43 G	10099801.37	10099801.53	10099801.69	0.0289	0.0049	
Mercury	22940-06-16 18:57 G	10099890.14	10099890.29	10099890.45	0.0288	0.0085	
Mercury	22940-09-13 12:57 G	10099978.93	10099979.04	10099979.14	0.0288	0.0213	
Mars	22943-12-29 00:43 G	10101180.28	10101180.53	10101180.78	0.0282	0.0092	
Venus	22951-07-09 18:00 G	10103930.15	10103930.25	10103930.36	0.0269	0.0233	
Venus	22952-02-23 21:07 G	10104159.17	10104159.38	10104159.59	0.0269	0.0050	
Jupiter	22952-06-15 20:52 G	10104271.91	10104272.37	10104272.83	0.0269	0.0006	
Venus	22952-10-10 00:14 G	10104388.33	10104388.51	10104388.70	0.0269	0.0135	
Moon	22952-12-16 00:00 G	10104455.28	10104455.50	10104455.72	0.0269	0.0093	
Earth	22952-12-16 02:24 G	10104455.37	10104455.60	10104455.83	0.0269	0.0092	*
Mercury	22954-10-02 16:33 G	10105111.17	10105111.19	10105111.22	0.0270	0.0266	
Mercury	22954-12-30 05:02 G	10105199.60	10105199.71	10105199.83	0.0270	0.0172	
Mercury	22955-03-28 18:00 G	10105288.11	10105288.25	10105288.39	0.0271	0.0075	
Mercury	22955-06-25 06:57 G	10105376.64	10105376.79	10105376.94	0.0271	0.0024	
Mercury	22955-09-21 20:09 G	10105465.21	10105465.34	10105465.48	0.0271	0.0126	
Mercury	22955-12-19 09:50 G	10105553.84	10105553.91	10105553.99	0.0272	0.0229	

Venus	22966-08-07 03:36 G	10109437.49	10109437.65	10109437.82	0.0290	0.0175
Venus	22967-03-25 00:57 G	10109667.34	10109667.54	10109667.75	0.0290	0.0058
Moon	22967-06-14 06:00 G	10109748.56	10109748.75	10109748.95	0.0290	0.0180
Earth	22967-06-14 08:52 G	10109748.68	10109748.87	10109749.07	0.0290	0.0179 *
Venus	22967-11-09 22:04 G	10109897.42	10109897.42	10109897.43	0.0290	0.0290
Mercury	22969-05-10 04:33 G	10110444.60	10110444.69	10110444.79	0.0289	0.0235
Mercury	22969-08-06 23:31 G	10110533.33	10110533.48	10110533.64	0.0288	0.0097
Mercury	22969-11-03 18:00 G	10110622.09	10110622.25	10110622.41	0.0288	0.0038
Mercury	22970-01-31 12:00 G	10110710.87	10110711.00	10110711.13	0.0288	0.0168
Venus	22981-01-18 17:16 G	10114716.11	10114716.22	10114716.35	0.0270	0.0218
Venus	22981-09-04 20:38 G	10114945.15	10114945.36	10114945.57	0.0269	0.0033
Earth	22981-12-10 19:55 G	10115042.31	10115042.33	10115042.39	0.0269	0.0266
Moon	22981-12-10 22:48 G	10115042.44	10115042.45	10115042.47	0.0269	0.0269
Venus	22982-04-21 23:45 G	10115174.31	10115174.49	10115174.66	0.0269	0.0151
Moon	22982-12-22 19:12 G	10115419.07	10115419.30	10115419.52	0.0270	0.0118
Earth	22982-12-22 21:36 G	10115419.18	10115419.40	10115419.63	0.0270	0.0109 *
Mercury	22984-05-18 05:31 G	10115931.65	10115931.73	10115931.83	0.0271	0.0211
Mercury	22984-08-14 18:14 G	10116020.13	10116020.26	10116020.40	0.0271	0.0115
Mercury	22984-11-11 07:12 G	10116108.66	10116108.80	10116108.95	0.0271	0.0017
Mercury	22985-02-07 20:24 G	10116197.21	10116197.35	10116197.49	0.0272	0.0084
Mercury	22985-05-07 09:50 G	10116285.81	10116285.91	10116286.02	0.0272	0.0187
Venus	22996-02-17 08:24 G	10120223.67	10120223.85	10120224.04	0.0290	0.0150
Venus	22996-10-04 06:14 G	10120453.55	10120453.76	10120453.96	0.0290	0.0085
Earth	22997-06-21 15:07 G	10120713.89	10120714.13	10120714.36	0.0290	0.0090
Moon	22997-06-21 18:28 G	10120714.04	10120714.27	10120714.51	0.0290	0.0091 *
Mercury	22998-09-27 04:33 G	10121176.65	10121176.69	10121176.74	0.0289	0.0277
Mercury	22998-12-24 23:45 G	10121265.35	10121265.49	10121265.64	0.0289	0.0137
Mercury	22999-03-23 18:28 G	10121354.11	10121354.27	10121354.43	0.0289	0.0002
Mercury	22999-06-20 12:43 G	10121442.89	10121443.03	10121443.17	0.0288	0.0131
Mercury	22999-09-17 06:14 G	10121531.70	10121531.76	10121531.83	0.0288	0.0259

24TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 24th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	23010-08-02 00:00	G	10125502.36	10125502.50	10125502.66	0.0269	0.0191	
Venus	23011-03-19 03:21	G	10125731.42	10125731.64	10125731.85	0.0269	0.0007	
Venus	23011-11-03 06:14	G	10125960.61	10125960.76	10125960.92	0.0269	0.0178	
Earth	23011-12-19 03:21	G	10126006.40	10126006.64	10126006.88	0.0269	0.0048	
Moon	23011-12-19 05:31	G	10126006.49	10126006.73	10126006.96	0.0269	0.0044	*
Mercury	23013-10-06 08:09	G	10126663.78	10126663.84	10126663.92	0.0270	0.0233	
Mercury	23014-01-02 20:52	G	10126752.25	10126752.37	10126752.50	0.0270	0.0138	
Mercury	23014-04-01 09:50	G	10126840.76	10126840.91	10126841.05	0.0271	0.0041	
Mercury	23014-06-28 22:48	G	10126929.31	10126929.45	10126929.60	0.0271	0.0059	
Mercury	23014-09-25 12:14	G	10127017.89	10127018.01	10127018.13	0.0271	0.0161	
Mercury	23014-12-23 01:55	G	10127106.55	10127106.58	10127106.61	0.0272	0.0265	
Mars	23018-04-03 22:19	G	10128304.12	10128304.43	10128304.76	0.0278	0.0056	
Venus	23025-08-30 12:28	G	10131009.83	10131010.02	10131010.21	0.0290	0.0123	
Venus	23026-04-17 10:04	G	10131239.72	10131239.92	10131240.11	0.0290	0.0110	
Moon	23026-06-16 09:07	G	10131299.67	10131299.88	10131300.11	0.0290	0.0126	
Earth	23026-06-16 12:14	G	10131299.79	10131300.01	10131300.23	0.0290	0.0128	*
Mercury	23028-05-13 22:33	G	10131997.31	10131997.44	10131997.56	0.0289	0.0186	
Mercury	23028-08-10 17:16	G	10132086.06	10132086.22	10132086.39	0.0288	0.0050	
Mercury	23028-11-07 11:45	G	10132174.84	10132174.99	10132175.14	0.0288	0.0084	

Mercury	23029-02-04 05:31 G	10132263.63	10132263.73	10132263.84	0.0288	0.0214
Mars	23032-05-24 06:43 G	10133468.54	10133468.78	10133469.03	0.0281	0.0121
Venus	23040-02-11 23:16 G	10136288.31	10136288.47	10136288.64	0.0269	0.0174
Venus	23040-09-28 02:24 G	10136517.39	10136517.60	10136517.81	0.0269	0.0010
Moon	23040-12-12 18:00 G	10136593.11	10136593.25	10136593.40	0.0269	0.0220
Earth	23040-12-12 20:24 G	10136593.23	10136593.35	10136593.50	0.0269	0.0223 *
Venus	23041-05-15 05:02 G	10136746.57	10136746.71	10136746.87	0.0269	0.0194
Moon	23041-12-24 18:14 G	10136970.07	10136970.26	10136970.46	0.0269	0.0162
Earth	23041-12-24 21:21 G	10136970.19	10136970.39	10136970.60	0.0269	0.0151 *
Mercury	23043-05-22 21:07 G	10137484.28	10137484.38	10137484.49	0.0271	0.0179
Mercury	23043-08-19 09:50 G	10137572.78	10137572.91	10137573.05	0.0271	0.0082
Mercury	23043-11-15 22:48 G	10137661.31	10137661.45	10137661.60	0.0271	0.0019
Mercury	23044-02-12 12:00 G	10137749.87	10137750.00	10137750.14	0.0271	0.0118
Mercury	23044-05-11 01:40 G	10137838.49	10137838.57	10137838.66	0.0272	0.0221
Venus	23055-03-12 15:36 G	10141795.96	10141796.15	10141796.36	0.0290	0.0101
Venus	23055-10-28 13:26 G	10142025.88	10142026.06	10142026.25	0.0291	0.0134
Moon	23056-06-23 14:38 G	10142264.90	10142265.11	10142265.34	0.0290	0.0145
Earth	23056-06-23 15:50 G	10142264.95	10142265.16	10142265.38	0.0290	0.0137 *
Mercury	23057-09-30 21:50 G	10142729.32	10142729.41	10142729.51	0.0290	0.0233
Mercury	23057-12-28 17:02 G	10142818.06	10142818.21	10142818.37	0.0289	0.0093
Mercury	23058-03-27 11:31 G	10142906.83	10142906.98	10142907.15	0.0289	0.0043
Mercury	23058-06-24 05:45 G	10142995.61	10142995.74	10142995.87	0.0289	0.0174
Venus	23069-08-24 05:45 G	10147074.58	10147074.74	10147074.93	0.0269	0.0147
Venus	23070-04-10 08:52 G	10147303.66	10147303.87	10147304.08	0.0269	0.0037
Venus	23070-11-25 11:45 G	10147532.87	10147532.99	10147533.11	0.0269	0.0220
Earth	23070-12-20 03:21 G	10147557.39	10147557.64	10147557.88	0.0269	0.0006
Moon	23070-12-20 06:43 G	10147557.54	10147557.78	10147558.03	0.0269	0.0006 *
Mercury	23072-10-08 23:45 G	10148216.40	10148216.49	10148216.59	0.0270	0.0201
Mercury	23073-01-05 12:28 G	10148304.89	10148305.02	10148305.16	0.0270	0.0106
Mercury	23073-04-04 01:26 G	10148393.41	10148393.56	10148393.71	0.0270	0.0008

Mercury	23073-07-01 14:38 G	10148481.97	10148482.11	10148482.25	0.0271	0.0093
Mercury	23073-09-28 04:04 G	10148570.57	10148570.67	10148570.77	0.0271	0.0195
Venus	23084-09-21 20:24 G	10152582.15	10152582.35	10152582.56	0.0290	0.0073
Venus	23085-05-09 18:00 G	10152812.07	10152812.25	10152812.43	0.0290	0.0161
Earth	23085-06-17 13:55 G	10152850.84	10152851.08	10152851.32	0.0290	0.0080
Moon	23085-06-17 15:36 G	10152850.93	10152851.15	10152851.39	0.0290	0.0073 *
Mercury	23087-02-17 20:52 G	10153461.33	10153461.37	10153461.40	0.0289	0.0281
Mercury	23087-05-17 15:50 G	10153550.02	10153550.16	10153550.31	0.0289	0.0141
Mercury	23087-08-14 10:48 G	10153638.79	10153638.95	10153639.11	0.0289	0.0006
Mercury	23087-11-11 05:02 G	10153727.56	10153727.71	10153727.85	0.0288	0.0129
Mercury	23088-02-07 22:33 G	10153816.38	10153816.44	10153816.52	0.0288	0.0257
Venus	23099-03-06 04:48 G	10157860.52	10157860.70	10157860.89	0.0269	0.0132
Venus	23099-10-21 07:40 G	10158089.62	10158089.82	10158090.03	0.0269	0.0052
Moon	23099-12-14 17:16 G	10158144.05	10158144.22	10158144.42	0.0269	0.0174
Earth	23099-12-14 20:38 G	10158144.18	10158144.36	10158144.54	0.0269	0.0180 *
Venus	23100-06-07 10:19 G	10158318.84	10158318.93	10158319.04	0.0269	0.0235
Earth	23100-12-26 20:52 G	10158521.20	10158521.37	10158521.54	0.0269	0.0192
Moon	23100-12-26 21:50 G	10158521.27	10158521.41	10158521.57	0.0269	0.0207 *
Mercury	23102-02-27 00:14 G	10158948.45	10158948.51	10158948.58	0.0270	0.0241
Mercury	23102-05-26 12:43 G	10159036.91	10159037.03	10159037.16	0.0270	0.0147
Mercury	23102-08-23 01:40 G	10159125.42	10159125.57	10159125.71	0.0271	0.0050
Mercury	23102-11-19 14:38 G	10159213.96	10159214.11	10159214.25	0.0271	0.0050
Mercury	23103-02-16 03:50 G	10159302.54	10159302.66	10159302.79	0.0271	0.0151
Mercury	23103-05-15 17:16 G	10159391.18	10159391.22	10159391.28	0.0272	0.0256
Mars	23106-08-28 01:55 G	10160591.27	10160591.58	10160591.90	0.0278	0.0066
Venus	23113-08-18 00:28 G	10163138.48	10163138.52	10163138.56	0.0290	0.0285
Venus	23114-04-04 22:19 G	10163368.23	10163368.43	10163368.64	0.0291	0.0052
Moon	23114-06-12 05:16 G	10163436.71	10163436.72	10163436.75	0.0291	0.0290
Venus	23114-11-20 20:09 G	10163598.18	10163598.34	10163598.51	0.0291	0.0183
Moon	23115-06-26 11:16 G	10163815.80	10163815.97	10163816.16	0.0291	0.0195

Earth	23115-06-26 15:21 G	10163815.95	10163816.14	10163816.33	0.0291	0.0181	*
Mercury	23116-10-04 14:52 G	10164282.00	10164282.12	10164282.24	0.0290	0.0190	
Mercury	23117-01-01 09:50 G	10164370.75	10164370.91	10164371.07	0.0289	0.0052	
Mercury	23117-03-31 04:19 G	10164459.53	10164459.68	10164459.84	0.0289	0.0083	
Mercury	23117-06-27 22:19 G	10164548.33	10164548.43	10164548.54	0.0289	0.0214	
Mars	23120-10-18 19:55 G	10165757.13	10165757.33	10165757.55	0.0282	0.0175	
Venus	23128-09-16 11:31 G	10168646.78	10168646.98	10168647.18	0.0269	0.0104	
Venus	23129-05-03 14:09 G	10168875.89	10168876.09	10168876.30	0.0269	0.0080	
Venus	23129-12-18 16:48 G	10169105.17	10169105.20	10169105.25	0.0269	0.0262	
Moon	23129-12-22 01:55 G	10169108.33	10169108.58	10169108.83	0.0269	0.0048	
Earth	23129-12-22 03:07 G	10169108.39	10169108.63	10169108.87	0.0269	0.0036	*
Mercury	23131-07-17 02:52 G	10169680.60	10169680.62	10169680.66	0.0270	0.0263	
Mercury	23131-10-13 15:21 G	10169769.04	10169769.14	10169769.26	0.0270	0.0169	
Mercury	23132-01-10 04:04 G	10169857.54	10169857.67	10169857.82	0.0270	0.0073	
Mercury	23132-04-07 17:16 G	10169946.07	10169946.22	10169946.36	0.0270	0.0027	
Mercury	23132-07-05 06:28 G	10170034.64	10170034.77	10170034.90	0.0271	0.0127	
Mercury	23132-10-01 19:55 G	10170123.25	10170123.33	10170123.41	0.0271	0.0230	
Venus	23143-02-28 05:45 G	10173924.65	10173924.74	10173924.85	0.0290	0.0256	
Venus	23143-10-16 03:36 G	10174154.44	10174154.65	10174154.86	0.0291	0.0023	
Venus	23144-06-02 01:12 G	10174384.41	10174384.55	10174384.70	0.0291	0.0211	
Earth	23144-06-19 14:24 G	10174401.85	10174402.10	10174402.34	0.0291	0.0034	
Moon	23144-06-19 18:00 G	10174402.00	10174402.25	10174402.50	0.0291	0.0021	*
Mercury	23146-02-21 13:55 G	10175013.99	10175014.08	10175014.18	0.0289	0.0237	
Mercury	23146-05-21 09:07 G	10175102.73	10175102.88	10175103.04	0.0289	0.0097	
Mercury	23146-08-18 03:50 G	10175191.50	10175191.66	10175191.82	0.0289	0.0039	
Mercury	23146-11-14 21:50 G	10175280.28	10175280.41	10175280.54	0.0288	0.0171	
Venus	23158-03-29 10:48 G	10179432.75	10179432.95	10179433.15	0.0269	0.0088	
Venus	23158-11-13 13:26 G	10179661.86	10179662.06	10179662.26	0.0269	0.0096	
Earth	23158-12-16 20:52 G	10179695.17	10179695.37	10179695.59	0.0269	0.0138	
Moon	23158-12-16 22:19 G	10179695.23	10179695.43	10179695.64	0.0269	0.0128	*

Earth	23159-12-28 20:52 G	10180072.26	10180072.37	10180072.50	0.0269	0.0234
Moon	23159-12-29 00:43 G	10180072.45	10180072.53	10180072.63	0.0269	0.0250 *
Mercury	23161-03-01 15:50 G	10180501.07	10180501.16	10180501.25	0.0270	0.0208
Mercury	23161-05-29 04:33 G	10180589.56	10180589.69	10180589.82	0.0270	0.0113
Mercury	23161-08-25 17:16 G	10180678.07	10180678.22	10180678.37	0.0270	0.0016
Mercury	23161-11-22 06:14 G	10180766.62	10180766.76	10180766.90	0.0271	0.0084
Mercury	23162-02-18 19:40 G	10180855.21	10180855.32	10180855.43	0.0271	0.0186
Venus	23172-09-09 06:57 G	10184710.67	10184710.79	10184710.91	0.0290	0.0237
Venus	23173-04-27 04:48 G	10184940.49	10184940.70	10184940.92	0.0291	0.0007
Moon	23173-06-13 04:04 G	10184987.55	10184987.67	10184987.81	0.0291	0.0245
Earth	23173-06-13 07:12 G	10184987.69	10184987.80	10184987.92	0.0291	0.0256 *
Venus	23173-12-13 02:38 G	10185170.49	10185170.61	10185170.74	0.0291	0.0232
Earth	23174-06-27 14:24 G	10185366.96	10185367.10	10185367.27	0.0291	0.0226
Moon	23174-06-27 14:24 G	10185366.97	10185367.10	10185367.24	0.0291	0.0241 *
Mercury	23175-07-11 12:14 G	10185746.01	10185746.01	10185746.02	0.0290	0.0290
Mercury	23175-10-08 07:40 G	10185834.68	10185834.82	10185834.97	0.0290	0.0148
Mercury	23176-01-05 02:38 G	10185923.45	10185923.61	10185923.77	0.0289	0.0010
Mercury	23176-04-02 20:52 G	10186012.23	10186012.37	10186012.52	0.0289	0.0125
Mercury	23176-06-30 14:52 G	10186101.05	10186101.12	10186101.20	0.0289	0.0254
Venus	23187-02-22 13:55 G	10189990.01	10189990.08	10189990.18	0.0269	0.0244
Venus	23187-10-09 17:02 G	10190219.01	10190219.21	10190219.42	0.0269	0.0060
Venus	23188-05-25 19:55 G	10190448.14	10190448.33	10190448.52	0.0269	0.0123
Moon	23188-12-22 23:31 G	10190659.26	10190659.48	10190659.72	0.0269	0.0093
Earth	23188-12-23 03:21 G	10190659.41	10190659.64	10190659.88	0.0269	0.0077 *
Mercury	23190-07-19 18:43 G	10191233.21	10191233.28	10191233.36	0.0269	0.0229
Mercury	23190-10-16 07:12 G	10191321.68	10191321.80	10191321.93	0.0270	0.0135
Mercury	23191-01-12 19:55 G	10191410.19	10191410.33	10191410.48	0.0270	0.0039
Mercury	23191-04-11 09:07 G	10191498.73	10191498.88	10191499.02	0.0270	0.0061
Mercury	23191-07-08 22:19 G	10191587.31	10191587.43	10191587.55	0.0271	0.0162
Mercury	23191-10-05 11:45 G	10191675.97	10191675.99	10191676.02	0.0271	0.0266

Mars	23195-01-21 11:45 G	10192879.71	10192879.99	10192880.29	0.0277	0.0124
Venus	23202-03-22 13:40 G	10195496.92	10195497.07	10195497.22	0.0291	0.0206
Venus	23202-11-07 11:16 G	10195726.76	10195726.97	10195727.18	0.0291	0.0028
Moon	23203-06-21 14:52 G	10195952.87	10195953.12	10195953.38	0.0291	0.0027
Earth	23203-06-21 15:21 G	10195952.90	10195953.14	10195953.39	0.0291	0.0014 *
Venus	23203-06-25 08:38 G	10195956.78	10195956.86	10195956.96	0.0291	0.0262
Mercury	23205-02-24 07:12 G	10196566.68	10196566.80	10196566.93	0.0290	0.0192
Mercury	23205-05-24 02:24 G	10196655.44	10196655.60	10196655.76	0.0289	0.0053
Mercury	23205-08-20 20:52 G	10196744.22	10196744.37	10196744.52	0.0289	0.0082
Mercury	23205-11-17 14:52 G	10196833.02	10196833.12	10196833.23	0.0289	0.0213
Mars	23209-03-14 01:40 G	10198045.39	10198045.57	10198045.76	0.0282	0.0202
Venus	23216-09-03 14:24 G	10200776.00	10200776.10	10200776.22	0.0269	0.0225
Venus	23217-04-20 17:16 G	10201005.01	10201005.22	10201005.43	0.0269	0.0043
Venus	23217-12-05 19:40 G	10201234.14	10201234.32	10201234.50	0.0269	0.0140
Earth	23217-12-17 22:33 G	10201246.21	10201246.44	10201246.67	0.0269	0.0094
Moon	23217-12-18 02:09 G	10201246.36	10201246.59	10201246.82	0.0269	0.0082 *
Mercury	23219-12-06 19:26 G	10201965.30	10201965.31	10201965.33	0.0270	0.0267
Mercury	23220-03-04 07:40 G	10202053.72	10202053.82	10202053.94	0.0270	0.0174
Mercury	23220-05-31 20:24 G	10202142.21	10202142.35	10202142.49	0.0270	0.0078
Mercury	23220-08-28 09:21 G	10202230.74	10202230.89	10202231.03	0.0270	0.0020
Mercury	23220-11-24 22:19 G	10202319.30	10202319.43	10202319.57	0.0271	0.0121
Mercury	23221-02-21 11:45 G	10202407.91	10202407.99	10202408.08	0.0271	0.0223
Venus	23231-10-02 13:40 G	10206282.92	10206283.07	10206283.24	0.0290	0.0187
Venus	23232-05-19 11:45 G	10206512.78	10206512.99	10206513.20	0.0291	0.0048
Earth	23232-06-14 06:57 G	10206538.63	10206538.79	10206538.97	0.0291	0.0211
Moon	23232-06-14 07:55 G	10206538.67	10206538.83	10206539.01	0.0291	0.0200 *
Venus	23233-01-04 09:50 G	10206742.86	10206742.91	10206742.96	0.0291	0.0281
Earth	23233-06-28 14:24 G	10206918.02	10206918.10	10206918.19	0.0291	0.0270
Moon	23233-06-28 18:00 G	10206918.22	10206918.25	10206918.29	0.0291	0.0287
Mercury	23234-07-14 05:16 G	10207298.64	10207298.72	10207298.81	0.0290	0.0246

Mercury	23234-10-11 00:43 G	10207387.38	10207387.53	10207387.68	0.0290	0.0106
Mercury	23235-01-07 19:26 G	10207476.15	10207476.31	10207476.47	0.0289	0.0032
Mercury	23235-04-06 13:40 G	10207564.94	10207565.07	10207565.20	0.0289	0.0165
Venus	23246-03-16 20:38 G	10211562.22	10211562.36	10211562.51	0.0269	0.0198
Venus	23246-10-31 23:31 G	10211791.27	10211791.48	10211791.69	0.0269	0.0015
Moon	23246-12-13 00:57 G	10211833.46	10211833.54	10211833.66	0.0269	0.0245
Earth	23246-12-13 05:02 G	10211833.62	10211833.71	10211833.80	0.0269	0.0250 *
Venus	23247-06-18 02:09 G	10212020.43	10212020.59	10212020.76	0.0269	0.0168
Moon	23247-12-25 04:48 G	10212210.50	10212210.70	10212210.91	0.0269	0.0135
Earth	23247-12-25 05:02 G	10212210.50	10212210.71	10212210.93	0.0269	0.0121 *
Mercury	23249-07-22 10:48 G	10212785.85	10212785.95	10212786.05	0.0269	0.0194
Mercury	23249-10-18 23:16 G	10212874.34	10212874.47	10212874.61	0.0270	0.0099
Mercury	23250-01-15 12:14 G	10212962.86	10212963.01	10212963.16	0.0270	0.0002
Mercury	23250-04-14 01:12 G	10213051.42	10213051.55	10213051.69	0.0270	0.0099
Mercury	23250-07-11 14:38 G	10213140.01	10213140.11	10213140.21	0.0270	0.0201
Venus	23261-04-13 21:50 G	10217069.23	10217069.41	10217069.59	0.0291	0.0154
Venus	23261-11-29 19:26 G	10217299.11	10217299.31	10217299.52	0.0291	0.0081
Moon	23262-06-22 13:55 G	10217503.85	10217504.08	10217504.32	0.0291	0.0077
Earth	23262-06-22 17:31 G	10217503.99	10217504.23	10217504.47	0.0291	0.0062 *
Mercury	23263-12-01 05:31 G	10218030.71	10218030.73	10218030.75	0.0290	0.0286
Mercury	23264-02-28 00:43 G	10218119.39	10218119.53	10218119.68	0.0290	0.0145
Mercury	23264-05-26 19:40 G	10218208.16	10218208.32	10218208.49	0.0289	0.0009
Mercury	23264-08-23 14:09 G	10218296.95	10218297.09	10218297.23	0.0289	0.0128
Mercury	23264-11-20 07:55 G	10218385.77	10218385.83	10218385.91	0.0289	0.0258
Venus	23275-09-26 21:50 G	10222348.26	10222348.41	10222348.57	0.0269	0.0179
Venus	23276-05-13 00:28 G	10222577.31	10222577.52	10222577.73	0.0269	0.0004
Earth	23276-12-19 01:26 G	10222797.33	10222797.56	10222797.81	0.0269	0.0050
Moon	23276-12-19 02:24 G	10222797.35	10222797.60	10222797.86	0.0269	0.0038 *
Venus	23276-12-28 02:52 G	10222806.47	10222806.62	10222806.77	0.0269	0.0186
Mercury	23278-12-09 11:31 G	10223517.92	10223517.98	10223518.06	0.0270	0.0231

Mercury	23279-03-08 00:14 G	10223606.38	10223606.51	10223606.63	0.0270	0.0136
Mercury	23279-06-04 12:43 G	10223694.89	10223695.03	10223695.18	0.0270	0.0040
Mercury	23279-09-01 01:40 G	10223783.43	10223783.57	10223783.72	0.0270	0.0059
Mercury	23279-11-28 14:52 G	10223872.00	10223872.12	10223872.24	0.0271	0.0160
Mercury	23280-02-25 04:19 G	10223960.66	10223960.68	10223960.72	0.0271	0.0264
Mars	23283-06-15 23:31 G	10225167.22	10225167.48	10225167.77	0.0277	0.0149
Venus	23290-10-24 22:33 G	10227855.26	10227855.44	10227855.63	0.0290	0.0134
Venus	23291-06-11 20:24 G	10228085.15	10228085.35	10228085.55	0.0291	0.0101
Earth	23291-06-16 09:36 G	10228089.70	10228089.90	10228090.11	0.0291	0.0163
Moon	23291-06-16 13:12 G	10228089.85	10228090.05	10228090.27	0.0291	0.0149 *
Mercury	23293-07-16 22:48 G	10228851.34	10228851.45	10228851.58	0.0290	0.0199
Mercury	23293-10-13 18:00 G	10228940.09	10228940.25	10228940.41	0.0290	0.0059
Mercury	23294-01-10 12:43 G	10229028.88	10229029.03	10229029.19	0.0289	0.0077
Mercury	23294-04-09 06:57 G	10229117.68	10229117.79	10229117.90	0.0289	0.0209
Mars	23297-08-07 11:02 G	10230333.85	10230333.96	10230334.11	0.0283	0.0246
Venus	23305-04-09 04:04 G	10233134.49	10233134.67	10233134.84	0.0269	0.0152
Venus	23305-11-24 06:43 G	10233363.57	10233363.78	10233363.99	0.0269	0.0032
Moon	23305-12-15 06:28 G	10233384.61	10233384.77	10233384.93	0.0269	0.0198
Earth	23305-12-15 07:40 G	10233384.68	10233384.82	10233384.99	0.0269	0.0206 *
Venus	23306-07-11 09:21 G	10233592.77	10233592.89	10233593.02	0.0269	0.0215
Earth	23306-12-27 07:55 G	10233761.65	10233761.83	10233762.04	0.0269	0.0166
Moon	23306-12-27 11:31 G	10233761.80	10233761.98	10233762.16	0.0269	0.0180 *
Mercury	23308-04-28 14:38 G	10234250.07	10234250.11	10234250.17	0.0269	0.0250
Mercury	23308-07-26 03:07 G	10234338.52	10234338.63	10234338.75	0.0269	0.0156
Mercury	23308-10-22 15:50 G	10234427.02	10234427.16	10234427.30	0.0270	0.0059
Mercury	23309-01-19 04:48 G	10234515.55	10234515.70	10234515.84	0.0270	0.0039
Mercury	23309-04-17 18:00 G	10234604.12	10234604.25	10234604.37	0.0270	0.0140
Mercury	23309-07-15 07:12 G	10234692.74	10234692.80	10234692.87	0.0270	0.0242
Venus	23320-05-07 07:26 G	10238641.61	10238641.81	10238642.01	0.0291	0.0099
Venus	23320-12-23 05:02 G	10238871.53	10238871.71	10238871.91	0.0291	0.0136

Moon	23321-06-24 20:09 G	10239055.13	10239055.34	10239055.56	0.0291	0.0127
Earth	23321-06-24 21:50 G	10239055.19	10239055.41	10239055.64	0.0291	0.0112 *
Mercury	23322-12-04 23:31 G	10239583.39	10239583.48	10239583.58	0.0290	0.0235
Mercury	23323-03-03 18:43 G	10239672.13	10239672.28	10239672.44	0.0290	0.0095
Mercury	23323-05-31 13:40 G	10239760.91	10239761.07	10239761.23	0.0289	0.0043
Mercury	23323-08-28 07:55 G	10239849.70	10239849.83	10239849.95	0.0289	0.0175
Venus	23334-10-20 06:00 G	10243920.58	10243920.75	10243920.95	0.0269	0.0131
Venus	23335-06-06 08:52 G	10244149.66	10244149.87	10244150.08	0.0269	0.0052
Moon	23335-12-22 03:36 G	10244348.40	10244348.65	10244348.90	0.0269	0.0013
Earth	23335-12-22 06:43 G	10244348.54	10244348.78	10244349.03	0.0269	0.0003 *
Venus	23336-01-21 11:02 G	10244378.87	10244378.96	10244379.07	0.0269	0.0235
Mercury	23337-12-13 04:19 G	10245070.58	10245070.68	10245070.78	0.0270	0.0190
Mercury	23338-03-11 16:48 G	10245159.07	10245159.20	10245159.34	0.0270	0.0095
Mercury	23338-06-08 05:31 G	10245247.59	10245247.73	10245247.88	0.0270	0.0009
Mercury	23338-09-04 18:43 G	10245336.14	10245336.28	10245336.41	0.0270	0.0102
Mercury	23338-12-02 07:55 G	10245424.74	10245424.83	10245424.93	0.0271	0.0204
Venus	23349-11-17 08:38 G	10249427.66	10249427.86	10249428.07	0.0290	0.0078
Earth	23350-06-18 14:24 G	10249640.88	10249641.10	10249641.34	0.0291	0.0113
Moon	23350-06-18 15:50 G	10249640.92	10249641.16	10249641.40	0.0291	0.0097 *
Venus	23350-07-05 06:28 G	10249657.59	10249657.77	10249657.95	0.0291	0.0157
Mercury	23352-04-22 21:36 G	10250315.40	10250315.40	10250315.40	0.0290	0.0290
Mercury	23352-07-20 17:02 G	10250404.07	10250404.21	10250404.35	0.0290	0.0148
Mercury	23352-10-17 12:00 G	10250492.84	10250493.00	10250493.16	0.0290	0.0009
Mercury	23353-01-14 06:28 G	10250581.63	10250581.77	10250581.92	0.0289	0.0126
Mercury	23353-04-13 00:28 G	10250670.45	10250670.52	10250670.59	0.0289	0.0257
Mars	23355-11-16 06:57 G	10251617.76	10251617.79	10251617.84	0.0284	0.0281
Venus	23364-05-01 12:14 G	10254706.82	10254707.01	10254707.21	0.0269	0.0103
Earth	23364-12-16 12:28 G	10254935.83	10254936.02	10254936.23	0.0269	0.0159
Venus	23364-12-16 14:52 G	10254935.93	10254936.12	10254936.33	0.0269	0.0081 *
Moon	23364-12-16 15:50 G	10254935.96	10254936.16	10254936.36	0.0269	0.0147 *

Venus	23365-08-02 17:31 G	10255165.20	10255165.23	10255165.29	0.0269	0.0263
Earth	23365-12-28 13:12 G	10255312.90	10255313.05	10255313.20	0.0269	0.0212
Moon	23365-12-28 15:36 G	10255313.02	10255313.15	10255313.29	0.0269	0.0226 *
Mercury	23367-05-02 07:26 G	10255802.72	10255802.81	10255802.90	0.0269	0.0209
Mercury	23367-07-29 19:55 G	10255891.20	10255891.33	10255891.46	0.0270	0.0114
Mercury	23367-10-26 08:38 G	10255979.72	10255979.86	10255980.01	0.0270	0.0018
Mercury	23368-01-22 21:36 G	10256068.26	10256068.40	10256068.55	0.0270	0.0083
Mercury	23368-04-20 11:02 G	10256156.85	10256156.96	10256157.07	0.0270	0.0184
Mars	23371-11-11 10:48 G	10257456.81	10257456.95	10257457.14	0.0277	0.0239
Venus	23378-10-12 21:36 G	10259984.33	10259984.40	10259984.47	0.0290	0.0273
Venus	23379-05-30 19:12 G	10260214.09	10260214.30	10260214.51	0.0291	0.0040
Venus	23380-01-15 17:02 G	10260444.05	10260444.21	10260444.36	0.0291	0.0194
Earth	23380-06-26 05:31 G	10260606.53	10260606.73	10260606.93	0.0291	0.0168
Moon	23380-06-26 07:55 G	10260606.65	10260606.83	10260607.02	0.0291	0.0185 *
Mercury	23381-12-07 18:14 G	10261136.14	10261136.26	10261136.40	0.0290	0.0179
Mercury	23382-03-06 13:26 G	10261224.90	10261225.06	10261225.23	0.0290	0.0040
Mercury	23382-06-03 08:09 G	10261313.69	10261313.84	10261313.99	0.0289	0.0097
Mercury	23382-08-31 02:09 G	10261402.50	10261402.59	10261402.69	0.0289	0.0228
Venus	23393-03-27 12:43 G	10265263.99	10265264.03	10265264.08	0.0269	0.0263
Venus	23393-11-11 15:36 G	10265492.95	10265493.15	10265493.35	0.0269	0.0080
Venus	23394-06-28 18:14 G	10265722.06	10265722.26	10265722.46	0.0269	0.0103
Moon	23394-12-23 10:48 G	10265899.72	10265899.95	10265900.19	0.0269	0.0063
Earth	23394-12-23 13:26 G	10265899.82	10265900.06	10265900.31	0.0269	0.0049 *
Mercury	23396-09-18 09:07 G	10266534.82	10266534.88	10266534.94	0.0269	0.0240
Mercury	23396-12-15 21:21 G	10266623.27	10266623.39	10266623.52	0.0270	0.0146
Mercury	23397-03-14 10:04 G	10266711.78	10266711.92	10266712.06	0.0270	0.0050
Mercury	23397-06-10 23:02 G	10266800.31	10266800.46	10266800.60	0.0270	0.0049
Mercury	23397-09-07 12:00 G	10266888.88	10266889.00	10266889.13	0.0270	0.0150
Mercury	23397-12-05 01:40 G	10266977.51	10266977.57	10266977.62	0.0271	0.0252
Venus	23408-04-24 23:02 G	10270770.37	10270770.46	10270770.58	0.0290	0.0251

Venus	23408-12-10 20:52 G	10271000.16	10271000.37	10271000.59	0.0290	0.0018
Moon	23409-06-20 19:40 G	10271192.08	10271192.32	10271192.57	0.0290	0.0039
Earth	23409-06-20 23:02 G	10271192.22	10271192.46	10271192.70	0.0290	0.0056 *
Venus	23409-07-28 18:28 G	10271230.14	10271230.27	10271230.42	0.0291	0.0216
Mercury	23411-04-27 16:33 G	10271868.09	10271868.19	10271868.29	0.0290	0.0232
Mercury	23411-07-25 11:45 G	10271956.84	10271956.99	10271957.15	0.0290	0.0091
Mercury	23411-10-22 06:28 G	10272045.61	10272045.77	10272045.93	0.0289	0.0047
Mercury	23412-01-19 00:57 G	10272134.41	10272134.54	10272134.66	0.0289	0.0180
Venus	23422-10-08 18:14 G	10276050.17	10276050.26	10276050.37	0.0270	0.0237
Venus	23423-05-25 21:21 G	10276279.19	10276279.39	10276279.60	0.0269	0.0054
Earth	23423-12-19 18:57 G	10276487.08	10276487.29	10276487.52	0.0269	0.0110
Moon	23423-12-19 21:50 G	10276487.18	10276487.41	10276487.65	0.0269	0.0096 *
Venus	23424-01-10 00:14 G	10276508.33	10276508.51	10276508.70	0.0269	0.0131
Earth	23424-12-30 19:40 G	10276864.28	10276864.32	10276864.39	0.0269	0.0262
Mercury	23426-02-06 12:14 G	10277266.98	10277267.01	10277267.05	0.0269	0.0259
Mercury	23426-05-06 00:28 G	10277355.41	10277355.52	10277355.64	0.0270	0.0166
Mercury	23426-08-02 13:12 G	10277443.91	10277444.05	10277444.19	0.0270	0.0070
Mercury	23426-10-30 01:55 G	10277532.44	10277532.58	10277532.73	0.0270	0.0030
Mercury	23427-01-26 15:07 G	10277621.00	10277621.13	10277621.26	0.0270	0.0129
Mercury	23427-04-25 04:33 G	10277709.61	10277709.69	10277709.76	0.0271	0.0232
Venus	23437-11-05 10:48 G	10281556.81	10281556.95	10281557.10	0.0290	0.0212
Earth	23438-06-15 08:52 G	10281778.76	10281778.87	10281779.00	0.0291	0.0253
Moon	23438-06-15 12:28 G	10281778.89	10281779.02	10281779.17	0.0291	0.0236 *
Venus	23438-06-23 08:24 G	10281786.64	10281786.85	10281787.07	0.0291	0.0023
Venus	23439-02-08 06:14 G	10282016.66	10282016.76	10282016.86	0.0291	0.0255
Earth	23439-06-29 15:36 G	10282158.00	10282158.15	10282158.31	0.0291	0.0227
Moon	23439-06-29 18:57 G	10282158.17	10282158.29	10282158.44	0.0291	0.0244 *
Mercury	23440-09-13 18:14 G	10282600.20	10282600.26	10282600.34	0.0290	0.0261
Mercury	23440-12-11 13:40 G	10282688.93	10282689.07	10282689.23	0.0290	0.0119
Mercury	23441-03-10 08:38 G	10282777.70	10282777.86	10282778.02	0.0290	0.0020

Mercury	23441-06-07 02:52 G	10282866.49	10282866.62	10282866.76	0.0289	0.0155
Mercury	23441-09-03 20:52 G	10282955.35	10282955.37	10282955.40	0.0289	0.0284
Mars	23444-04-12 12:14 G	10283906.84	10283907.01	10283907.19	0.0284	0.0211
Venus	23452-04-19 23:02 G	10286836.34	10286836.46	10286836.59	0.0269	0.0212
Venus	23452-12-05 01:55 G	10287065.37	10287065.58	10287065.79	0.0269	0.0029
Moon	23452-12-13 18:28 G	10287074.23	10287074.27	10287074.35	0.0269	0.0260
Venus	23453-07-22 04:33 G	10287294.52	10287294.69	10287294.86	0.0269	0.0155
Earth	23453-12-25 21:50 G	10287451.19	10287451.41	10287451.64	0.0269	0.0100
Moon	23453-12-25 23:45 G	10287451.28	10287451.49	10287451.71	0.0269	0.0116 *
Mercury	23455-09-23 02:24 G	10288087.51	10288087.60	10288087.70	0.0269	0.0195
Mercury	23455-12-20 14:52 G	10288175.99	10288176.12	10288176.26	0.0270	0.0100
Mercury	23456-03-18 03:36 G	10288264.51	10288264.65	10288264.80	0.0270	0.0005
Mercury	23456-06-14 16:33 G	10288353.06	10288353.19	10288353.33	0.0270	0.0098
Mercury	23456-09-11 05:45 G	10288441.65	10288441.74	10288441.85	0.0270	0.0200
Venus	23467-05-18 13:26 G	10292342.91	10292343.06	10292343.23	0.0290	0.0188
Venus	23468-01-03 11:16 G	10292572.76	10292572.97	10292573.18	0.0290	0.0046
Moon	23468-06-22 08:24 G	10292743.61	10292743.85	10292744.09	0.0290	0.0023
Earth	23468-06-22 11:02 G	10292743.72	10292743.96	10292744.21	0.0290	0.0007 *
Venus	23468-08-20 08:38 G	10292802.82	10292802.86	10292802.93	0.0290	0.0280
Mercury	23470-04-30 12:14 G	10293420.88	10293421.01	10293421.15	0.0290	0.0169
Mercury	23470-07-28 07:26 G	10293509.65	10293509.81	10293509.97	0.0289	0.0029
Mercury	23470-10-25 01:55 G	10293598.43	10293598.58	10293598.73	0.0289	0.0107
Mercury	23471-01-21 19:55 G	10293687.25	10293687.33	10293687.43	0.0289	0.0238
Venus	23481-10-31 04:19 G	10297622.53	10297622.68	10297622.83	0.0270	0.0186
Venus	23482-06-17 07:26 G	10297851.60	10297851.81	10297852.02	0.0269	0.0002
Moon	23482-12-21 00:43 G	10298038.29	10298038.53	10298038.79	0.0269	0.0045
Earth	23482-12-21 02:38 G	10298038.38	10298038.61	10298038.86	0.0269	0.0060 *
Venus	23483-02-01 10:04 G	10298080.78	10298080.92	10298081.09	0.0269	0.0183
Mercury	23485-02-09 05:16 G	10298819.64	10298819.72	10298819.81	0.0270	0.0216
Mercury	23485-05-08 17:45 G	10298908.12	10298908.24	10298908.37	0.0270	0.0121

Mercury	23485-08-05 06:28 G	10298996.63	10298996.77	10298996.92	0.0270	0.0025
Mercury	23485-11-01 19:26 G	10299085.17	10299085.31	10299085.46	0.0270	0.0077
Mercury	23486-01-29 08:38 G	10299173.76	10299173.86	10299173.98	0.0270	0.0179
Venus	23496-11-28 01:55 G	10303129.40	10303129.58	10303129.77	0.0290	0.0148
Earth	23497-06-16 22:19 G	10303330.25	10303330.43	10303330.62	0.0291	0.0189
Moon	23497-06-17 00:43 G	10303330.34	10303330.53	10303330.74	0.0291	0.0172 *
Venus	23497-07-15 23:31 G	10303359.28	10303359.48	10303359.69	0.0291	0.0087
Earth	23498-07-01 04:48 G	10303709.70	10303709.70	10303709.72	0.0291	0.0291
Mercury	23499-09-17 14:38 G	10304152.99	10304153.11	10304153.23	0.0290	0.0194
Mercury	23499-12-15 09:50 G	10304241.75	10304241.91	10304242.07	0.0290	0.0054
Mercury	23500-03-14 04:33 G	10304330.53	10304330.69	10304330.84	0.0290	0.0083
Mercury	23500-06-10 22:33 G	10304419.34	10304419.44	10304419.55	0.0289	0.0215
Venus	23511-05-14 09:50 G	10308408.75	10308408.91	10308409.09	0.0269	0.0160
Earth	23511-12-17 06:28 G	10308625.63	10308625.77	10308625.92	0.0269	0.0217
Moon	23511-12-17 07:55 G	10308625.68	10308625.83	10308625.99	0.0269	0.0206 *
Venus	23511-12-29 12:57 G	10308637.83	10308638.04	10308638.25	0.0269	0.0024
Venus	23512-08-14 15:36 G	10308867.02	10308867.15	10308867.29	0.0269	0.0207
Earth	23512-12-28 06:57 G	10309002.60	10309002.79	10309003.00	0.0269	0.0154
Moon	23512-12-28 10:48 G	10309002.77	10309002.95	10309003.15	0.0269	0.0169 *
Mercury	23514-06-30 07:40 G	10309551.76	10309551.82	10309551.88	0.0269	0.0241
Mercury	23514-09-26 19:55 G	10309640.22	10309640.33	10309640.46	0.0270	0.0148
Mercury	23514-12-24 08:38 G	10309728.72	10309728.86	10309729.01	0.0270	0.0051
Mercury	23515-03-22 21:36 G	10309817.25	10309817.40	10309817.54	0.0270	0.0048
Mercury	23515-06-19 10:33 G	10309905.82	10309905.94	10309906.07	0.0270	0.0149
Mercury	23515-09-16 00:00 G	10309994.45	10309994.50	10309994.56	0.0271	0.0252
Venus	23526-06-11 05:16 G	10313915.53	10313915.72	10313915.91	0.0290	0.0122
Venus	23527-01-27 02:38 G	10314145.42	10314145.61	10314145.81	0.0290	0.0112
Earth	23527-06-26 01:12 G	10314295.31	10314295.55	10314295.79	0.0290	0.0071
Moon	23527-06-26 02:52 G	10314295.39	10314295.62	10314295.85	0.0290	0.0086 *
Mercury	23529-02-04 13:12 G	10314884.96	10314885.05	10314885.14	0.0290	0.0244

Mercury	23529-05-04 08:38 G	10314973.70	10314973.86	10314974.01	0.0289	0.0102
Mercury	23529-08-01 03:21 G	10315062.48	10315062.64	10315062.80	0.0289	0.0036
Mercury	23529-10-28 21:50 G	10315151.28	10315151.41	10315151.54	0.0289	0.0169
Mars	23532-09-07 07:12 G	10316195.59	10316195.80	10316196.03	0.0284	0.0157
Venus	23540-11-23 14:38 G	10319194.93	10319195.11	10319195.30	0.0270	0.0135
Venus	23541-07-10 17:45 G	10319424.03	10319424.24	10319424.45	0.0269	0.0050
Moon	23541-12-23 07:40 G	10319589.58	10319589.82	10319590.06	0.0269	0.0009
Earth	23541-12-23 11:02 G	10319589.72	10319589.96	10319590.21	0.0269	0.0008 *
Venus	23542-02-24 20:38 G	10319653.27	10319653.36	10319653.47	0.0269	0.0234
Mercury	23543-11-17 10:33 G	10320283.91	10320283.94	10320283.96	0.0270	0.0264
Mercury	23544-02-13 22:48 G	10320372.34	10320372.45	10320372.56	0.0270	0.0170
Mercury	23544-05-12 11:16 G	10320460.84	10320460.97	10320461.12	0.0270	0.0074
Mercury	23544-08-09 00:14 G	10320549.36	10320549.51	10320549.66	0.0270	0.0025
Mercury	23544-11-05 13:12 G	10320637.92	10320638.05	10320638.19	0.0271	0.0126
Mercury	23545-02-02 02:38 G	10320726.54	10320726.61	10320726.69	0.0271	0.0229
Venus	23555-12-22 18:00 G	10324702.05	10324702.25	10324702.46	0.0291	0.0082
Moon	23556-06-19 11:31 G	10324881.75	10324881.98	10324882.22	0.0291	0.0107
Earth	23556-06-19 13:26 G	10324881.84	10324882.06	10324882.29	0.0291	0.0121 *
Venus	23556-08-08 15:50 G	10324931.98	10324932.16	10324932.34	0.0291	0.0153
Mercury	23558-06-24 15:50 G	10325617.10	10325617.16	10325617.22	0.0290	0.0267
Mercury	23558-09-21 11:16 G	10325705.82	10325705.97	10325706.12	0.0290	0.0125
Mercury	23558-12-19 06:14 G	10325794.60	10325794.76	10325794.92	0.0290	0.0014
Mercury	23559-03-18 00:43 G	10325883.39	10325883.53	10325883.67	0.0289	0.0149
Mercury	23559-06-14 18:28 G	10325972.24	10325972.27	10325972.31	0.0289	0.0279
Venus	23570-06-05 21:07 G	10329981.19	10329981.38	10329981.58	0.0269	0.0107
Earth	23570-12-18 16:04 G	10330176.98	10330177.17	10330177.37	0.0269	0.0163
Moon	23570-12-18 19:40 G	10330177.12	10330177.32	10330177.53	0.0269	0.0150 *
Venus	23571-01-21 00:00 G	10330210.30	10330210.50	10330210.71	0.0269	0.0077
Venus	23571-09-07 02:52 G	10330439.57	10330439.62	10330439.68	0.0269	0.0260
Moon	23571-12-30 16:48 G	10330554.05	10330554.20	10330554.34	0.0269	0.0219

Earth	23571-12-30 16:33 G	10330554.05	10330554.19	10330554.36	0.0269	0.0208	*
Mercury	23573-07-03 01:12 G	10331104.46	10331104.55	10331104.66	0.0270	0.0195	
Mercury	23573-09-29 13:55 G	10331192.94	10331193.08	10331193.21	0.0270	0.0099	
Mercury	23573-12-27 02:38 G	10331281.46	10331281.61	10331281.75	0.0270	0.0008	
Mercury	23574-03-25 15:36 G	10331370.01	10331370.15	10331370.28	0.0270	0.0099	
Mercury	23574-06-22 04:48 G	10331458.60	10331458.70	10331458.80	0.0271	0.0201	
Venus	23584-11-16 00:28 G	10335258.50	10335258.52	10335258.55	0.0290	0.0287	
Venus	23585-07-03 22:04 G	10335488.21	10335488.42	10335488.63	0.0290	0.0055	
Venus	23586-02-18 19:26 G	10335718.15	10335718.31	10335718.48	0.0290	0.0180	
Earth	23586-06-27 17:02 G	10335847.00	10335847.21	10335847.43	0.0290	0.0140	
Moon	23586-06-27 20:38 G	10335847.16	10335847.36	10335847.58	0.0290	0.0154	*
Mercury	23588-02-08 10:04 G	10336437.79	10336437.92	10336438.05	0.0289	0.0173	
Mercury	23588-05-07 05:16 G	10336526.56	10336526.72	10336526.88	0.0289	0.0033	
Mercury	23588-08-03 23:45 G	10336615.34	10336615.49	10336615.65	0.0289	0.0103	
Mercury	23588-10-31 18:00 G	10336704.16	10336704.25	10336704.34	0.0289	0.0235	
Venus	23599-05-01 21:36 G	10340538.39	10340538.40	10340538.44	0.0270	0.0268	
Venus	23599-12-17 00:57 G	10340767.35	10340767.54	10340767.75	0.0270	0.0084	
Venus	23600-08-02 04:04 G	10340996.48	10340996.67	10340996.87	0.0269	0.0102	
Moon	23600-12-24 18:57 G	10341141.06	10341141.29	10341141.52	0.0269	0.0060	
Earth	23600-12-24 19:26 G	10341141.07	10341141.31	10341141.55	0.0269	0.0047	*
Mercury	23602-11-20 03:50 G	10341836.58	10341836.66	10341836.74	0.0270	0.0219	
Mercury	23603-02-16 16:19 G	10341925.05	10341925.18	10341925.30	0.0270	0.0124	
Mercury	23603-05-16 04:48 G	10342013.56	10342013.70	10342013.85	0.0270	0.0028	
Mercury	23603-08-12 17:45 G	10342102.10	10342102.24	10342102.39	0.0271	0.0073	
Mercury	23603-11-09 06:57 G	10342190.68	10342190.79	10342190.91	0.0271	0.0175	
Mars	23606-12-07 02:09 G	10343314.37	10343314.59	10343314.85	0.0275	0.0183	
Venus	23614-05-29 12:57 G	10346044.94	10346045.04	10346045.15	0.0290	0.0248	
Venus	23615-01-14 10:33 G	10346274.73	10346274.94	10346275.15	0.0291	0.0015	
Moon	23615-06-22 01:40 G	10346433.33	10346433.57	10346433.81	0.0291	0.0037	
Earth	23615-06-22 05:16 G	10346433.48	10346433.72	10346433.96	0.0291	0.0053	*

Venus	23615-09-01 08:09 G	10346504.71	10346504.84	10346504.98	0.0291	0.0220
Mercury	23617-06-27 12:43 G	10347169.91	10347170.03	10347170.15	0.0290	0.0196
Mercury	23617-09-24 07:55 G	10347258.67	10347258.83	10347258.99	0.0290	0.0056
Mercury	23617-12-22 02:38 G	10347347.46	10347347.61	10347347.77	0.0290	0.0081
Mercury	23618-03-20 20:52 G	10347436.27	10347436.37	10347436.48	0.0289	0.0214
Mars	23621-02-02 04:33 G	10348485.43	10348485.69	10348485.95	0.0284	0.0055
Venus	23628-11-11 04:48 G	10351324.62	10351324.70	10351324.81	0.0269	0.0240
Venus	23629-06-28 08:09 G	10351553.63	10351553.84	10351554.05	0.0269	0.0055
Earth	23629-12-20 01:12 G	10351728.34	10351728.55	10351728.78	0.0269	0.0109
Moon	23629-12-20 02:38 G	10351728.37	10351728.61	10351728.85	0.0269	0.0095 *
Venus	23630-02-12 11:02 G	10351782.77	10351782.96	10351783.14	0.0269	0.0129
Earth	23631-01-01 01:55 G	10352105.53	10352105.58	10352105.64	0.0269	0.0261
Mercury	23632-04-08 06:28 G	10352568.71	10352568.77	10352568.83	0.0269	0.0242
Mercury	23632-07-05 18:43 G	10352657.17	10352657.28	10352657.41	0.0270	0.0148
Mercury	23632-10-02 07:26 G	10352745.67	10352745.81	10352745.95	0.0270	0.0051
Mercury	23632-12-29 20:09 G	10352834.20	10352834.34	10352834.49	0.0270	0.0049
Mercury	23633-03-28 09:21 G	10352922.77	10352922.89	10352923.02	0.0270	0.0149
Mercury	23633-06-24 22:48 G	10353011.40	10353011.45	10353011.50	0.0271	0.0252
Venus	23643-12-09 17:16 G	10356831.09	10356831.22	10356831.36	0.0290	0.0221
Earth	23644-06-15 02:52 G	10357019.54	10357019.62	10357019.72	0.0290	0.0268
Moon	23644-06-15 06:43 G	10357019.66	10357019.78	10357019.91	0.0290	0.0251 *
Venus	23644-07-26 14:52 G	10357060.91	10357061.12	10357061.33	0.0290	0.0013
Venus	23645-03-13 12:14 G	10357290.91	10357291.01	10357291.13	0.0290	0.0247
Earth	23645-06-29 09:07 G	10357398.72	10357398.88	10357399.06	0.0290	0.0208
Moon	23645-06-29 10:19 G	10357398.77	10357398.93	10357399.10	0.0290	0.0221 *
Mercury	23646-11-14 11:31 G	10357901.90	10357901.98	10357902.08	0.0290	0.0244
Mercury	23647-02-11 06:57 G	10357990.64	10357990.79	10357990.95	0.0289	0.0102
Mercury	23647-05-11 01:55 G	10358079.42	10358079.58	10358079.74	0.0289	0.0036
Mercury	23647-08-07 20:24 G	10358168.22	10358168.35	10358168.48	0.0289	0.0170
Venus	23658-05-24 08:09 G	10362110.72	10362110.84	10362110.97	0.0270	0.0217

Moon	23658-12-15 00:00 G	10362315.46	10362315.50	10362315.57	0.0270	0.0262
Venus	23659-01-08 11:16 G	10362339.76	10362339.97	10362340.18	0.0270	0.0033
Venus	23659-08-25 14:24 G	10362568.93	10362569.10	10362569.27	0.0269	0.0152
Earth	23659-12-27 02:52 G	10362692.40	10362692.62	10362692.85	0.0269	0.0099
Moon	23659-12-27 06:14 G	10362692.54	10362692.76	10362692.98	0.0269	0.0114 *
Mercury	23661-08-26 08:38 G	10363300.86	10363300.86	10363300.86	0.0270	0.0270
Mercury	23661-11-22 20:52 G	10363389.26	10363389.37	10363389.48	0.0270	0.0176
Mercury	23662-02-19 09:21 G	10363477.76	10363477.89	10363478.03	0.0270	0.0080
Mercury	23662-05-18 22:19 G	10363566.28	10363566.43	10363566.57	0.0270	0.0020
Mercury	23662-08-15 11:16 G	10363654.84	10363654.97	10363655.10	0.0271	0.0120
Mercury	23662-11-12 00:43 G	10363743.45	10363743.53	10363743.61	0.0271	0.0223
Venus	23673-06-21 05:02 G	10367617.55	10367617.71	10367617.88	0.0290	0.0183
Venus	23674-02-06 02:38 G	10367847.41	10367847.61	10367847.83	0.0291	0.0052
Moon	23674-06-23 19:12 G	10367985.07	10367985.30	10367985.54	0.0291	0.0030
Earth	23674-06-23 20:24 G	10367985.11	10367985.35	10367985.60	0.0291	0.0015 *
Venus	23674-09-24 00:28 G	10368077.49	10368077.52	10368077.56	0.0291	0.0285
Mercury	23676-04-02 13:55 G	10368634.03	10368634.08	10368634.15	0.0290	0.0270
Mercury	23676-06-30 09:36 G	10368722.75	10368722.90	10368723.05	0.0290	0.0126
Mercury	23676-09-27 04:33 G	10368811.53	10368811.69	10368811.85	0.0290	0.0013
Mercury	23676-12-24 23:02 G	10368900.32	10368900.46	10368900.60	0.0289	0.0148
Mercury	23677-03-23 16:48 G	10368989.17	10368989.20	10368989.25	0.0289	0.0279
Venus	23687-12-04 15:36 G	10372897.01	10372897.15	10372897.31	0.0269	0.0188
Venus	23688-07-20 18:28 G	10373126.06	10373126.27	10373126.49	0.0269	0.0006
Moon	23688-12-21 06:28 G	10373279.53	10373279.77	10373280.02	0.0269	0.0040
Earth	23688-12-21 09:50 G	10373279.67	10373279.91	10373280.15	0.0269	0.0055 *
Venus	23689-03-06 21:07 G	10373355.23	10373355.38	10373355.55	0.0269	0.0180
Mercury	23691-04-11 23:45 G	10374121.39	10374121.49	10374121.59	0.0270	0.0198
Mercury	23691-07-09 12:14 G	10374209.87	10374210.01	10374210.14	0.0270	0.0102
Mercury	23691-10-06 00:57 G	10374298.39	10374298.54	10374298.68	0.0270	0.0007
Mercury	23692-01-02 13:55 G	10374386.94	10374387.08	10374387.22	0.0270	0.0095

Mercury	23692-03-31 03:07 G	10374475.53	10374475.63	10374475.73	0.0271	0.0197
Mars	23695-05-03 10:33 G	10375603.64	10375603.94	10375604.25	0.0276	0.0092
Venus	23703-01-02 09:21 G	10378403.71	10378403.89	10378404.07	0.0290	0.0156
Earth	23703-06-18 18:14 G	10378571.09	10378571.26	10378571.45	0.0290	0.0201
Moon	23703-06-18 18:57 G	10378571.10	10378571.29	10378571.49	0.0290	0.0184 *
Venus	23703-08-20 06:57 G	10378633.59	10378633.79	10378634.00	0.0290	0.0079
Moon	23704-07-01 21:50 G	10378950.38	10378950.41	10378950.44	0.0290	0.0288
Earth	23704-07-02 00:28 G	10378950.45	10378950.52	10378950.60	0.0290	0.0276
Mercury	23705-11-18 08:24 G	10379454.72	10379454.85	10379454.99	0.0289	0.0174
Mercury	23706-02-15 03:36 G	10379543.49	10379543.65	10379543.81	0.0289	0.0034
Mercury	23706-05-14 22:19 G	10379632.28	10379632.43	10379632.58	0.0289	0.0103
Mercury	23706-08-11 16:19 G	10379721.10	10379721.18	10379721.28	0.0289	0.0235
Mars	23709-06-30 03:21 G	10380774.37	10380774.64	10380774.90	0.0283	0.0006
Venus	23717-06-16 17:45 G	10383683.08	10383683.24	10383683.41	0.0270	0.0168
Earth	23717-12-17 08:24 G	10383866.71	10383866.85	10383866.99	0.0269	0.0221
Moon	23717-12-17 11:31 G	10383866.83	10383866.98	10383867.14	0.0269	0.0206 *
Venus	23718-01-31 20:52 G	10383912.16	10383912.37	10383912.58	0.0269	0.0017
Venus	23718-09-17 23:31 G	10384141.35	10384141.48	10384141.63	0.0269	0.0202
Earth	23718-12-29 09:21 G	10384243.69	10384243.89	10384244.10	0.0269	0.0150
Moon	23718-12-29 12:00 G	10384243.81	10384244.00	10384244.20	0.0269	0.0164 *
Mercury	23720-08-30 01:26 G	10384853.49	10384853.56	10384853.64	0.0270	0.0229
Mercury	23720-11-26 13:40 G	10384941.95	10384942.07	10384942.20	0.0270	0.0134
Mercury	23721-02-23 02:24 G	10385030.46	10385030.60	10385030.75	0.0270	0.0037
Mercury	23721-05-22 15:21 G	10385119.00	10385119.14	10385119.28	0.0271	0.0063
Mercury	23721-08-19 04:33 G	10385207.57	10385207.69	10385207.81	0.0271	0.0165
Mercury	23721-11-15 18:00 G	10385296.24	10385296.25	10385296.26	0.0271	0.0269
Venus	23732-07-14 19:40 G	10389190.13	10389190.32	10389190.51	0.0291	0.0121
Venus	23733-03-01 17:31 G	10389420.04	10389420.23	10389420.43	0.0291	0.0115
Earth	23733-06-26 09:07 G	10389536.65	10389536.88	10389537.12	0.0291	0.0080
Moon	23733-06-26 12:14 G	10389536.78	10389537.01	10389537.23	0.0291	0.0096 *

Mercury	23735-04-07 10:33 G	10390186.82	10390186.94	10390187.05	0.0290	0.0202
Mercury	23735-07-05 05:45 G	10390275.58	10390275.74	10390275.90	0.0290	0.0061
Mercury	23735-10-02 00:28 G	10390364.37	10390364.52	10390364.68	0.0290	0.0077
Mercury	23735-12-29 18:43 G	10390453.18	10390453.28	10390453.39	0.0289	0.0211
Venus	23746-12-28 01:26 G	10394469.38	10394469.56	10394469.75	0.0269	0.0139
Venus	23747-08-14 04:04 G	10394698.47	10394698.67	10394698.89	0.0269	0.0046
Moon	23747-12-24 13:55 G	10394830.84	10394831.08	10394831.32	0.0269	0.0012
Earth	23747-12-24 16:33 G	10394830.95	10394831.19	10394831.44	0.0269	0.0004 *
Venus	23748-03-30 06:43 G	10394927.68	10394927.78	10394927.90	0.0269	0.0228
Mercury	23750-01-17 04:19 G	10395585.63	10395585.68	10395585.73	0.0269	0.0250
Mercury	23750-04-15 16:33 G	10395674.08	10395674.19	10395674.31	0.0269	0.0156
Mercury	23750-07-13 05:16 G	10395762.57	10395762.72	10395762.86	0.0270	0.0060
Mercury	23750-10-09 18:00 G	10395851.10	10395851.25	10395851.39	0.0270	0.0039
Mercury	23751-01-06 06:57 G	10395939.67	10395939.79	10395939.92	0.0270	0.0140
Mercury	23751-04-04 20:09 G	10396028.29	10396028.34	10396028.41	0.0271	0.0244
Venus	23762-01-25 00:00 G	10399976.31	10399976.50	10399976.71	0.0290	0.0094
Moon	23762-06-20 03:50 G	10400122.43	10400122.66	10400122.89	0.0291	0.0120
Earth	23762-06-20 07:26 G	10400122.59	10400122.81	10400123.03	0.0291	0.0136 *
Venus	23762-09-11 21:50 G	10400206.23	10400206.41	10400206.60	0.0291	0.0142
Mercury	23764-08-24 09:21 G	10400918.81	10400918.89	10400918.97	0.0290	0.0250
Mercury	23764-11-21 04:48 G	10401007.55	10401007.70	10401007.85	0.0289	0.0108
Mercury	23765-02-17 23:45 G	10401096.33	10401096.49	10401096.65	0.0289	0.0031
Mercury	23765-05-17 18:14 G	10401185.13	10401185.26	10401185.39	0.0289	0.0166
Venus	23776-07-09 02:38 G	10405255.42	10405255.61	10405255.80	0.0269	0.0119
Earth	23776-12-18 13:26 G	10405417.89	10405418.06	10405418.26	0.0269	0.0171
Moon	23776-12-18 16:04 G	10405417.98	10405418.17	10405418.39	0.0269	0.0156 *
Venus	23777-02-23 05:16 G	10405484.52	10405484.72	10405484.93	0.0269	0.0065
Venus	23777-10-10 08:24 G	10405713.77	10405713.85	10405713.93	0.0269	0.0248
Moon	23777-12-30 12:00 G	10405794.86	10405795.00	10405795.17	0.0269	0.0211
Earth	23777-12-30 14:09 G	10405794.94	10405795.09	10405795.26	0.0269	0.0199 *

Mercury	23779-09-02 17:45 G	10406406.15	10406406.24	10406406.35	0.0270	0.0190
Mercury	23779-11-30 06:28 G	10406494.63	10406494.77	10406494.90	0.0270	0.0094
Mercury	23780-02-26 19:12 G	10406583.15	10406583.30	10406583.44	0.0270	0.0008
Mercury	23780-05-25 07:55 G	10406671.70	10406671.83	10406671.97	0.0271	0.0106
Mercury	23780-08-21 21:21 G	10406760.30	10406760.39	10406760.48	0.0271	0.0208
Mars	23783-09-28 06:43 G	10407892.46	10407892.78	10407893.10	0.0276	0.0026
Venus	23791-08-07 08:52 G	10410762.66	10410762.87	10410763.08	0.0291	0.0060
Venus	23792-03-24 06:57 G	10410992.63	10410992.79	10410992.97	0.0291	0.0176
Earth	23792-06-27 19:40 G	10411088.11	10411088.32	10411088.54	0.0291	0.0142
Moon	23792-06-27 22:48 G	10411088.24	10411088.45	10411088.67	0.0291	0.0156 *
Mercury	23794-01-11 10:33 G	10411650.91	10411650.94	10411650.98	0.0290	0.0284
Mercury	23794-04-10 06:14 G	10411739.62	10411739.76	10411739.91	0.0290	0.0140
Mercury	23794-07-08 01:26 G	10411828.39	10411828.56	10411828.72	0.0290	0.0005
Mercury	23794-10-04 19:55 G	10411917.19	10411917.33	10411917.47	0.0290	0.0137
Mercury	23795-01-01 13:55 G	10412006.03	10412006.08	10412006.14	0.0289	0.0269
Mars	23797-11-24 18:00 G	10413064.00	10413064.25	10413064.50	0.0284	0.0103
Venus	23806-01-20 10:04 G	10416041.72	10416041.92	10416042.12	0.0269	0.0091
Venus	23806-09-06 12:43 G	10416270.83	10416271.03	10416271.23	0.0268	0.0093
Earth	23806-12-26 21:21 G	10416382.15	10416382.39	10416382.64	0.0268	0.0046
Moon	23806-12-26 23:16 G	10416382.24	10416382.47	10416382.71	0.0268	0.0061 *
Mercury	23809-01-20 20:52 G	10417138.28	10417138.37	10417138.46	0.0269	0.0211
Mercury	23809-04-19 09:07 G	10417226.75	10417226.88	10417227.01	0.0269	0.0116
Mercury	23809-07-16 21:50 G	10417315.26	10417315.41	10417315.56	0.0270	0.0019
Mercury	23809-10-13 10:48 G	10417403.81	10417403.95	10417404.09	0.0270	0.0081
Mercury	23810-01-09 23:45 G	10417492.39	10417492.49	10417492.60	0.0270	0.0183
Venus	23820-07-02 15:07 G	10421319.06	10421319.13	10421319.22	0.0290	0.0268
Venus	23821-02-17 12:57 G	10421548.83	10421549.04	10421549.25	0.0291	0.0034
Moon	23821-06-22 14:38 G	10421673.88	10421674.11	10421674.35	0.0291	0.0063
Earth	23821-06-22 16:48 G	10421673.97	10421674.20	10421674.45	0.0291	0.0076 *
Venus	23821-10-05 10:48 G	10421778.81	10421778.95	10421779.11	0.0291	0.0202

Mercury	23823-08-29 04:48 G	10422471.58	10422471.70	10422471.83	0.0290	0.0189
Mercury	23823-11-26 00:14 G	10422560.35	10422560.51	10422560.67	0.0290	0.0047
Mercury	23824-02-22 18:57 G	10422649.14	10422649.29	10422649.45	0.0289	0.0090
Mercury	23824-05-21 13:12 G	10422737.95	10422738.05	10422738.15	0.0289	0.0224
Venus	23834-12-16 07:55 G	10426598.77	10426598.83	10426598.89	0.0269	0.0256
Venus	23835-08-02 10:33 G	10426827.74	10426827.94	10426828.15	0.0269	0.0073
Moon	23835-12-21 15:36 G	10426968.93	10426969.15	10426969.39	0.0269	0.0109
Earth	23835-12-21 17:45 G	10426969.03	10426969.24	10426969.46	0.0269	0.0123 *
Venus	23836-03-18 12:57 G	10427056.86	10427057.04	10427057.24	0.0269	0.0111
Moon	23837-01-01 14:09 G	10427346.02	10427346.09	10427346.17	0.0269	0.0255
Earth	23837-01-01 17:31 G	10427346.15	10427346.23	10427346.34	0.0269	0.0246 *
Mercury	23838-06-09 21:50 G	10427870.36	10427870.41	10427870.47	0.0270	0.0247
Mercury	23838-09-06 10:04 G	10427958.81	10427958.92	10427959.04	0.0270	0.0153
Mercury	23838-12-03 22:48 G	10428047.30	10428047.45	10428047.59	0.0270	0.0056
Mercury	23839-03-02 11:31 G	10428135.83	10428135.98	10428136.12	0.0270	0.0043
Mercury	23839-05-30 00:28 G	10428224.40	10428224.52	10428224.65	0.0270	0.0144
Mercury	23839-08-26 13:40 G	10428313.02	10428313.07	10428313.14	0.0271	0.0248
Venus	23850-01-12 21:36 G	10432105.29	10432105.40	10432105.52	0.0291	0.0239
Earth	23850-06-16 18:57 G	10432260.24	10432260.29	10432260.35	0.0291	0.0281
Moon	23850-06-16 20:38 G	10432260.27	10432260.36	10432260.47	0.0291	0.0267 *
Venus	23850-08-30 19:55 G	10432335.12	10432335.33	10432335.54	0.0291	0.0004
Venus	23851-04-17 18:14 G	10432565.14	10432565.26	10432565.39	0.0291	0.0233
Moon	23851-07-01 00:43 G	10432639.36	10432639.53	10432639.72	0.0291	0.0208
Earth	23851-07-01 02:24 G	10432639.43	10432639.60	10432639.79	0.0291	0.0199 *
Mercury	23853-01-15 05:31 G	10433203.63	10433203.73	10433203.84	0.0291	0.0227
Mercury	23853-04-14 00:57 G	10433292.39	10433292.54	10433292.70	0.0290	0.0084
Mercury	23853-07-11 20:09 G	10433381.18	10433381.34	10433381.50	0.0290	0.0056
Mercury	23853-10-08 14:24 G	10433469.99	10433470.10	10433470.22	0.0290	0.0191
Venus	23864-06-27 15:07 G	10437385.02	10437385.13	10437385.24	0.0269	0.0227
Moon	23864-12-16 01:40 G	10437556.53	10437556.57	10437556.63	0.0268	0.0263

Venus	23865-02-11 17:45 G	10437614.03	10437614.24	10437614.44	0.0268	0.0045
Venus	23865-09-28 20:09 G	10437843.16	10437843.34	10437843.52	0.0268	0.0138
Earth	23865-12-28 00:43 G	10437933.30	10437933.53	10437933.76	0.0268	0.0093
Moon	23865-12-28 04:04 G	10437933.44	10437933.67	10437933.90	0.0268	0.0105 *
Mercury	23867-10-28 00:43 G	10438602.53	10438602.53	10438602.54	0.0269	0.0268
Mercury	23868-01-24 12:57 G	10438690.93	10438691.04	10438691.15	0.0269	0.0175
Mercury	23868-04-22 01:26 G	10438779.42	10438779.56	10438779.70	0.0269	0.0079
Mercury	23868-07-19 14:09 G	10438867.94	10438868.09	10438868.23	0.0270	0.0019
Mercury	23868-10-16 02:52 G	10438956.50	10438956.62	10438956.76	0.0270	0.0120
Mercury	23869-01-12 16:04 G	10439045.10	10439045.17	10439045.26	0.0270	0.0222
Mars	23872-02-22 21:36 G	10440181.08	10440181.40	10440181.72	0.0276	0.0042
Venus	23879-07-26 02:09 G	10442891.46	10442891.59	10442891.74	0.0291	0.0212
Venus	23880-03-12 00:28 G	10443121.31	10443121.52	10443121.73	0.0291	0.0024
Earth	23880-06-24 00:00 G	10443225.25	10443225.50	10443225.74	0.0291	0.0019
Moon	23880-06-24 02:09 G	10443225.35	10443225.59	10443225.83	0.0291	0.0010 *
Venus	23880-10-27 22:19 G	10443351.34	10443351.43	10443351.53	0.0291	0.0259
Mercury	23882-06-04 04:04 G	10443935.63	10443935.67	10443935.72	0.0290	0.0277
Mercury	23882-08-31 23:45 G	10444024.35	10444024.49	10444024.64	0.0290	0.0133
Mercury	23882-11-28 18:57 G	10444113.13	10444113.29	10444113.46	0.0290	0.0009
Mercury	23883-02-25 13:40 G	10444201.93	10444202.07	10444202.21	0.0289	0.0145
Mercury	23883-05-25 07:40 G	10444290.78	10444290.82	10444290.87	0.0289	0.0277
Mars	23886-04-21 06:14 G	10445352.53	10445352.76	10445352.99	0.0283	0.0144
Venus	23894-01-07 14:38 G	10448170.99	10448171.11	10448171.25	0.0269	0.0211
Venus	23894-08-24 17:31 G	10448400.02	10448400.23	10448400.44	0.0269	0.0028
Moon	23894-12-22 16:48 G	10448519.96	10448520.20	10448520.43	0.0269	0.0064
Earth	23894-12-22 19:55 G	10448520.10	10448520.33	10448520.57	0.0269	0.0078 *
Venus	23895-04-10 19:55 G	10448629.16	10448629.33	10448629.50	0.0269	0.0155
Mercury	23897-06-12 13:40 G	10449422.99	10449423.07	10449423.16	0.0269	0.0212
Mercury	23897-09-09 02:09 G	10449511.46	10449511.59	10449511.72	0.0270	0.0117
Mercury	23897-12-06 14:38 G	10449599.97	10449600.11	10449600.26	0.0270	0.0020

Mercury	23898-03-05 03:21 G	10449688.50	10449688.64	10449688.79	0.0270	0.0080
Mercury	23898-06-01 16:33 G	10449777.08	10449777.19	10449777.30	0.0270	0.0181
Venus	23909-02-05 06:28 G	10453677.62	10453677.77	10453677.94	0.0291	0.0187
Moon	23909-06-18 19:40 G	10453811.16	10453811.32	10453811.49	0.0291	0.0220
Earth	23909-06-18 22:19 G	10453811.28	10453811.43	10453811.58	0.0291	0.0231 *
Venus	23909-09-23 05:02 G	10453907.50	10453907.71	10453907.92	0.0291	0.0050
Venus	23910-05-11 03:21 G	10454137.61	10454137.64	10454137.69	0.0291	0.0286
Moon	23910-07-03 02:24 G	10454190.50	10454190.60	10454190.73	0.0291	0.0256
Earth	23910-07-03 06:00 G	10454190.64	10454190.75	10454190.89	0.0291	0.0250 *
Mercury	23912-01-19 23:45 G	10454756.36	10454756.49	10454756.62	0.0291	0.0176
Mercury	23912-04-17 18:57 G	10454845.13	10454845.29	10454845.46	0.0290	0.0034
Mercury	23912-07-15 13:55 G	10454933.93	10454934.08	10454934.23	0.0290	0.0105
Mercury	23912-10-12 08:09 G	10455022.76	10455022.84	10455022.93	0.0290	0.0239
Venus	23923-07-21 21:36 G	10458957.26	10458957.40	10458957.56	0.0269	0.0183
Earth	23923-12-19 02:38 G	10459107.50	10459107.61	10459107.75	0.0268	0.0230
Moon	23923-12-19 06:14 G	10459107.63	10459107.76	10459107.92	0.0268	0.0216 *
Venus	23924-03-07 00:14 G	10459186.30	10459186.51	10459186.72	0.0268	0.0000
Venus	23924-10-22 02:38 G	10459415.46	10459415.61	10459415.77	0.0268	0.0182
Moon	23924-12-30 01:55 G	10459484.37	10459484.58	10459484.80	0.0268	0.0145
Earth	23924-12-30 02:09 G	10459484.39	10459484.59	10459484.81	0.0268	0.0137 *
Mercury	23926-10-31 16:33 G	10460155.13	10460155.19	10460155.26	0.0269	0.0234
Mercury	23927-01-28 04:48 G	10460243.58	10460243.70	10460243.83	0.0269	0.0140
Mercury	23927-04-26 17:16 G	10460332.08	10460332.22	10460332.37	0.0269	0.0044
Mercury	23927-07-24 06:00 G	10460420.61	10460420.75	10460420.90	0.0269	0.0056
Mercury	23927-10-20 19:12 G	10460509.18	10460509.30	10460509.42	0.0270	0.0156
Mercury	23928-01-17 08:09 G	10460597.81	10460597.84	10460597.89	0.0270	0.0259
Venus	23938-08-18 11:16 G	10464463.80	10464463.97	10464464.15	0.0291	0.0159
Venus	23939-04-05 09:36 G	10464693.70	10464693.90	10464694.11	0.0291	0.0077
Earth	23939-06-27 03:21 G	10464776.40	10464776.64	10464776.89	0.0291	0.0032
Moon	23939-06-27 06:43 G	10464776.54	10464776.78	10464777.03	0.0291	0.0041 *

Mercury	23941-06-07 22:19 G	10465488.33	10465488.43	10465488.54	0.0290	0.0226
Mercury	23941-09-04 18:00 G	10465577.09	10465577.25	10465577.40	0.0290	0.0082
Mercury	23941-12-02 12:57 G	10465665.88	10465666.04	10465666.20	0.0290	0.0058
Mercury	23942-03-01 07:12 G	10465754.69	10465754.80	10465754.93	0.0290	0.0194
Venus	23953-01-30 21:07 G	10469743.22	10469743.38	10469743.55	0.0269	0.0167
Venus	23953-09-16 23:31 G	10469972.27	10469972.48	10469972.70	0.0268	0.0017
Earth	23953-12-24 21:07 G	10470071.13	10470071.38	10470071.62	0.0268	0.0034
Moon	23953-12-24 21:07 G	10470071.14	10470071.38	10470071.61	0.0268	0.0022 *
Venus	23954-05-04 01:26 G	10470201.43	10470201.56	10470201.72	0.0268	0.0199
Mercury	23956-06-16 05:16 G	10470975.62	10470975.72	10470975.83	0.0269	0.0180
Mercury	23956-09-12 17:45 G	10471064.10	10471064.24	10471064.38	0.0269	0.0084
Mercury	23956-12-10 06:28 G	10471152.62	10471152.77	10471152.91	0.0270	0.0015
Mercury	23957-03-08 19:12 G	10471241.17	10471241.30	10471241.44	0.0270	0.0114
Mercury	23957-06-05 08:24 G	10471329.76	10471329.85	10471329.94	0.0270	0.0216
Mars	23960-07-18 08:38 G	10472468.55	10472468.86	10472469.18	0.0276	0.0064
Venus	23968-02-28 14:24 G	10475249.91	10475250.10	10475250.29	0.0291	0.0136
Moon	23968-06-19 20:09 G	10475362.15	10475362.34	10475362.53	0.0291	0.0175
Earth	23968-06-19 23:02 G	10475362.28	10475362.46	10475362.66	0.0291	0.0185 *
Venus	23968-10-15 12:57 G	10475479.84	10475480.04	10475480.24	0.0291	0.0101
Mercury	23970-10-25 21:21 G	10476220.34	10476220.39	10476220.45	0.0291	0.0274
Mercury	23971-01-22 17:16 G	10476309.07	10476309.22	10476309.37	0.0291	0.0129
Mercury	23971-04-21 12:28 G	10476397.86	10476398.02	10476398.18	0.0291	0.0013
Mercury	23971-07-19 07:12 G	10476486.66	10476486.80	10476486.94	0.0290	0.0151
Mercury	23971-10-16 01:26 G	10476575.53	10476575.56	10476575.59	0.0290	0.0284
Mars	23974-09-16 00:14 G	10477641.33	10477641.51	10477641.70	0.0284	0.0207
Venus	23982-08-13 03:36 G	10480529.47	10480529.65	10480529.83	0.0268	0.0139
Earth	23982-12-20 03:21 G	10480658.48	10480658.64	10480658.82	0.0268	0.0188
Moon	23982-12-20 04:19 G	10480658.48	10480658.68	10480658.87	0.0268	0.0173 *
Venus	23983-03-30 06:00 G	10480758.54	10480758.75	10480758.96	0.0268	0.0043
Venus	23983-11-14 07:55 G	10480987.73	10480987.83	10480987.96	0.0268	0.0225

Moon	23983-12-31 23:16 G	10481035.30	10481035.47	10481035.65	0.0268	0.0184
Earth	23984-01-01 02:38 G	10481035.44	10481035.61	10481035.80	0.0268	0.0179 *
Mercury	23985-11-03 08:09 G	10481707.75	10481707.84	10481707.94	0.0269	0.0201
Mercury	23986-01-30 20:24 G	10481796.22	10481796.35	10481796.49	0.0269	0.0107
Mercury	23986-04-29 09:07 G	10481884.73	10481884.88	10481885.02	0.0269	0.0010
Mercury	23986-07-26 21:50 G	10481973.27	10481973.41	10481973.55	0.0269	0.0090
Mercury	23986-10-23 11:02 G	10482061.85	10482061.96	10482062.06	0.0270	0.0191
Venus	23997-09-09 19:12 G	10486036.10	10486036.30	10486036.50	0.0291	0.0108
Venus	23998-04-27 17:31 G	10486266.04	10486266.23	10486266.42	0.0291	0.0129
Moon	23998-06-28 04:33 G	10486327.45	10486327.69	10486327.94	0.0291	0.0085
Earth	23998-06-28 04:48 G	10486327.47	10486327.70	10486327.94	0.0291	0.0080 *
Mercury	24000-06-10 15:50 G	10487041.03	10487041.16	10487041.29	0.0291	0.0179
Mercury	24000-09-07 11:16 G	10487129.81	10487129.97	10487130.14	0.0290	0.0036
Mercury	24000-12-05 06:14 G	10487218.61	10487218.76	10487218.91	0.0290	0.0103

25TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 25th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	24001-03-04 00:28 G		10487307.44	10487307.52	10487307.61	0.0290	0.0238	
Venus	24012-02-23 02:52 G		10491315.44	10491315.62	10491315.81	0.0268	0.0123	
Venus	24012-10-09 05:16 G		10491544.51	10491544.72	10491544.92	0.0268	0.0059	
Earth	24012-12-25 21:21 G		10491622.14	10491622.39	10491622.64	0.0268	0.0008	
Moon	24012-12-26 00:43 G		10491622.29	10491622.53	10491622.78	0.0268	0.0021 *	

Venus	24013-05-26 07:12 G	10491773.71	10491773.80	10491773.89	0.0268	0.0240
Mercury	24015-03-23 08:52 G	10492439.81	10492439.87	10492439.93	0.0269	0.0240
Mercury	24015-06-19 20:52 G	10492528.25	10492528.37	10492528.49	0.0269	0.0147
Mercury	24015-09-16 09:21 G	10492616.75	10492616.89	10492617.03	0.0269	0.0051
Mercury	24015-12-13 22:04 G	10492705.27	10492705.42	10492705.56	0.0269	0.0048
Mercury	24016-03-11 11:02 G	10492793.83	10492793.96	10492794.08	0.0270	0.0148
Mercury	24016-06-08 00:14 G	10492882.46	10492882.51	10492882.56	0.0270	0.0250
Venus	24027-03-22 20:52 G	10496822.17	10496822.37	10496822.57	0.0291	0.0087
Earth	24027-06-21 21:50 G	10496913.20	10496913.41	10496913.63	0.0291	0.0142
Moon	24027-06-21 22:48 G	10496913.24	10496913.45	10496913.66	0.0291	0.0136 *
Venus	24027-11-07 19:12 G	10497052.13	10497052.30	10497052.49	0.0292	0.0151
Mercury	24029-10-28 14:24 G	10497773.00	10497773.10	10497773.20	0.0291	0.0231
Mercury	24030-01-25 10:04 G	10497861.76	10497861.92	10497862.08	0.0291	0.0086
Mercury	24030-04-24 05:16 G	10497950.56	10497950.72	10497950.88	0.0291	0.0055
Mercury	24030-07-21 23:45 G	10498039.38	10498039.49	10498039.61	0.0290	0.0192
Venus	24041-09-04 09:07 G	10502101.68	10502101.88	10502102.08	0.0268	0.0096
Moon	24041-12-20 23:45 G	10502209.28	10502209.49	10502209.71	0.0268	0.0132
Earth	24041-12-21 03:21 G	10502209.44	10502209.64	10502209.85	0.0268	0.0147 *
Venus	24042-04-21 11:16 G	10502330.77	10502330.97	10502331.17	0.0268	0.0086
Venus	24042-12-06 13:12 G	10502560.04	10502560.05	10502560.07	0.0268	0.0267
Moon	24043-01-02 00:43 G	10502586.41	10502586.53	10502586.67	0.0268	0.0224
Earth	24043-01-02 02:24 G	10502586.47	10502586.60	10502586.75	0.0268	0.0219 *
Mercury	24044-08-09 11:31 G	10503171.96	10503171.98	10503172.02	0.0268	0.0262
Mercury	24044-11-05 23:45 G	10503260.38	10503260.49	10503260.60	0.0268	0.0169
Mercury	24045-02-02 12:00 G	10503348.87	10503349.00	10503349.14	0.0269	0.0074
Mercury	24045-05-02 00:43 G	10503437.38	10503437.53	10503437.67	0.0269	0.0024
Mercury	24045-07-29 13:26 G	10503525.93	10503526.06	10503526.19	0.0269	0.0124
Mercury	24045-10-26 02:38 G	10503614.53	10503614.61	10503614.69	0.0269	0.0225
Mars	24048-12-11 15:36 G	10504756.86	10504757.15	10504757.45	0.0275	0.0116
Venus	24056-10-02 02:24 G	10507608.39	10507608.60	10507608.81	0.0291	0.0058

Venus	24057-05-20 00:57 G	10507838.37	10507838.54	10507838.70	0.0292	0.0179
Moon	24057-06-29 01:40 G	10507878.35	10507878.57	10507878.79	0.0292	0.0128
Earth	24057-06-29 05:16 G	10507878.50	10507878.72	10507878.94	0.0292	0.0126 *
Mercury	24059-03-17 13:12 G	10508505.01	10508505.05	10508505.10	0.0291	0.0279
Mercury	24059-06-14 09:07 G	10508593.74	10508593.88	10508594.03	0.0291	0.0133
Mercury	24059-09-11 04:33 G	10508682.52	10508682.69	10508682.85	0.0290	0.0010
Mercury	24059-12-08 23:16 G	10508771.33	10508771.47	10508771.61	0.0290	0.0147
Mercury	24060-03-06 17:31 G	10508860.20	10508860.23	10508860.27	0.0290	0.0281
Mars	24063-02-09 03:07 G	10509929.48	10509929.63	10509929.79	0.0284	0.0230
Venus	24070-07-31 06:14 G	10512658.72	10512658.76	10512658.81	0.0269	0.0261
Venus	24071-03-17 08:24 G	10512887.65	10512887.85	10512888.06	0.0268	0.0080
Venus	24071-11-01 10:33 G	10513116.75	10513116.94	10513117.14	0.0268	0.0102
Earth	24071-12-27 21:21 G	10513173.16	10513173.39	10513173.64	0.0268	0.0050
Moon	24071-12-27 23:16 G	10513173.22	10513173.47	10513173.72	0.0268	0.0058 *
Mercury	24074-03-26 00:14 G	10513992.42	10513992.51	10513992.60	0.0269	0.0208
Mercury	24074-06-22 12:28 G	10514080.89	10514081.02	10514081.15	0.0269	0.0114
Mercury	24074-09-19 00:57 G	10514169.40	10514169.54	10514169.69	0.0269	0.0017
Mercury	24074-12-16 13:40 G	10514257.93	10514258.07	10514258.21	0.0269	0.0081
Mercury	24075-03-15 02:38 G	10514346.50	10514346.61	10514346.72	0.0270	0.0182
Venus	24085-08-27 04:33 G	10518164.62	10518164.69	10518164.76	0.0291	0.0273
Venus	24086-04-14 03:07 G	10518394.42	10518394.63	10518394.84	0.0291	0.0038
Earth	24086-06-22 20:24 G	10518464.12	10518464.35	10518464.59	0.0291	0.0099
Moon	24086-06-23 00:14 G	10518464.28	10518464.51	10518464.75	0.0291	0.0096 *
Venus	24086-11-30 01:55 G	10518624.42	10518624.58	10518624.73	0.0292	0.0199
Mercury	24088-10-31 07:12 G	10519325.68	10519325.80	10519325.93	0.0291	0.0189
Mercury	24089-01-28 02:52 G	10519414.45	10519414.62	10519414.78	0.0291	0.0045
Mercury	24089-04-26 21:50 G	10519503.26	10519503.41	10519503.56	0.0291	0.0096
Mercury	24089-07-24 16:19 G	10519592.09	10519592.18	10519592.28	0.0290	0.0232
Venus	24100-02-10 11:45 G	10523444.89	10523444.99	10523445.10	0.0269	0.0235
Venus	24100-09-27 14:09 G	10523673.89	10523674.09	10523674.31	0.0268	0.0054

Moon	24100-12-23 01:40 G	10523760.35	10523760.57	10523760.79	0.0268	0.0095
Earth	24100-12-23 03:21 G	10523760.42	10523760.64	10523760.87	0.0268	0.0106 *
Venus	24101-05-14 16:33 G	10523903.00	10523903.19	10523903.37	0.0268	0.0129
Earth	24102-01-04 01:55 G	10524137.53	10524137.58	10524137.65	0.0268	0.0259
Moon	24102-01-04 05:02 G	10524137.66	10524137.71	10524137.76	0.0268	0.0260
Mercury	24103-08-14 03:07 G	10524724.56	10524724.63	10524724.71	0.0268	0.0229
Mercury	24103-11-10 15:21 G	10524813.02	10524813.14	10524813.26	0.0268	0.0135
Mercury	24104-02-07 03:50 G	10524901.51	10524901.66	10524901.80	0.0269	0.0040
Mercury	24104-05-05 16:19 G	10524990.04	10524990.18	10524990.33	0.0269	0.0059
Mercury	24104-08-02 05:16 G	10525078.60	10525078.72	10525078.84	0.0269	0.0159
Mercury	24104-10-29 18:28 G	10525167.24	10525167.27	10525167.31	0.0269	0.0261
Venus	24115-03-10 11:02 G	10528950.85	10528950.96	10528951.08	0.0291	0.0243
Venus	24115-10-26 09:21 G	10529180.68	10529180.89	10529181.11	0.0292	0.0010
Venus	24116-06-12 07:55 G	10529410.70	10529410.83	10529410.96	0.0292	0.0229
Moon	24116-07-01 03:36 G	10529429.46	10529429.65	10529429.85	0.0292	0.0169
Earth	24116-07-01 05:02 G	10529429.52	10529429.71	10529429.92	0.0292	0.0171 *
Mercury	24118-03-21 06:28 G	10530057.68	10530057.77	10530057.87	0.0291	0.0234
Mercury	24118-06-18 02:09 G	10530146.44	10530146.59	10530146.75	0.0291	0.0089
Mercury	24118-09-14 21:21 G	10530235.23	10530235.39	10530235.55	0.0291	0.0052
Mercury	24118-12-12 16:04 G	10530324.05	10530324.17	10530324.29	0.0290	0.0189
Venus	24129-08-23 12:00 G	10534230.88	10534231.00	10534231.13	0.0269	0.0217
Moon	24129-12-18 00:28 G	10534347.48	10534347.52	10534347.59	0.0268	0.0261
Venus	24130-04-09 14:09 G	10534459.88	10534460.09	10534460.30	0.0268	0.0036
Venus	24130-11-24 16:04 G	10534689.00	10534689.17	10534689.35	0.0268	0.0146
Moon	24130-12-29 18:57 G	10534724.06	10534724.29	10534724.53	0.0268	0.0094
Earth	24130-12-29 22:04 G	10534724.19	10534724.42	10534724.65	0.0268	0.0091 *
Mercury	24132-12-31 03:50 G	10535456.65	10535456.66	10535456.68	0.0268	0.0267
Mercury	24133-03-29 15:50 G	10535545.06	10535545.16	10535545.27	0.0268	0.0175
Mercury	24133-06-26 04:19 G	10535633.54	10535633.68	10535633.82	0.0269	0.0080
Mercury	24133-09-22 16:48 G	10535722.05	10535722.20	10535722.34	0.0269	0.0018

Mercury	24133-12-20 05:31 G	10535810.60	10535810.73	10535810.86	0.0269	0.0117
Mercury	24134-03-18 18:28 G	10535899.19	10535899.27	10535899.36	0.0269	0.0218
Mars	24137-05-06 20:24 G	10537044.07	10537044.35	10537044.64	0.0275	0.0130
Venus	24144-09-19 11:16 G	10539736.84	10539736.97	10539737.10	0.0291	0.0224
Venus	24145-05-07 09:50 G	10539966.70	10539966.91	10539967.12	0.0291	0.0012
Earth	24145-06-24 19:40 G	10540015.08	10540015.32	10540015.56	0.0291	0.0056
Moon	24145-06-24 20:09 G	10540015.09	10540015.34	10540015.59	0.0291	0.0059 *
Venus	24145-12-23 08:24 G	10540196.75	10540196.85	10540196.96	0.0292	0.0249
Mercury	24147-11-05 00:00 G	10540878.36	10540878.50	10540878.65	0.0291	0.0145
Mercury	24148-02-01 19:26 G	10540967.15	10540967.31	10540967.48	0.0291	0.0007
Mercury	24148-04-30 14:24 G	10541055.96	10541056.10	10541056.25	0.0291	0.0138
Mercury	24148-07-28 08:52 G	10541144.82	10541144.87	10541144.92	0.0291	0.0273
Mars	24151-07-06 08:09 G	10542217.75	10542217.84	10542217.93	0.0285	0.0266
Venus	24159-03-05 17:16 G	10545017.08	10545017.22	10545017.38	0.0269	0.0192
Venus	24159-10-20 19:55 G	10545246.12	10545246.33	10545246.54	0.0268	0.0009
Earth	24159-12-25 03:50 G	10545311.42	10545311.66	10545311.90	0.0268	0.0065
Moon	24159-12-25 06:43 G	10545311.55	10545311.78	10545312.02	0.0268	0.0058 *
Venus	24160-06-05 21:50 G	10545475.26	10545475.41	10545475.58	0.0268	0.0173
Mercury	24162-08-16 18:57 G	10546277.19	10546277.29	10546277.39	0.0268	0.0195
Mercury	24162-11-13 06:57 G	10546365.66	10546365.79	10546365.93	0.0268	0.0102
Mercury	24163-02-09 19:40 G	10546454.17	10546454.32	10546454.46	0.0268	0.0009
Mercury	24163-05-09 08:09 G	10546542.71	10546542.84	10546542.98	0.0269	0.0095
Mercury	24163-08-05 21:07 G	10546631.29	10546631.38	10546631.49	0.0269	0.0195
Venus	24174-04-01 18:43 G	10550523.13	10550523.28	10550523.45	0.0291	0.0193
Earth	24174-06-18 22:19 G	10550601.34	10550601.43	10550601.54	0.0291	0.0264
Moon	24174-06-18 23:02 G	10550601.36	10550601.46	10550601.55	0.0291	0.0267 *
Venus	24174-11-17 17:16 G	10550753.01	10550753.22	10550753.43	0.0292	0.0045
Earth	24175-07-03 06:28 G	10550980.61	10550980.77	10550980.93	0.0292	0.0217
Moon	24175-07-03 09:21 G	10550980.74	10550980.89	10550981.07	0.0292	0.0211 *
Venus	24175-07-05 15:50 G	10550983.11	10550983.16	10550983.22	0.0292	0.0280

Mercury	24177-03-24 00:00 G	10551610.37	10551610.50	10551610.63	0.0291	0.0187
Mercury	24177-06-20 19:26 G	10551699.15	10551699.31	10551699.48	0.0291	0.0043
Mercury	24177-09-17 14:38 G	10551787.95	10551788.11	10551788.26	0.0291	0.0098
Mercury	24177-12-15 09:07 G	10551876.79	10551876.88	10551876.97	0.0290	0.0234
Venus	24188-09-14 18:28 G	10555803.11	10555803.27	10555803.43	0.0268	0.0172
Moon	24188-12-18 21:50 G	10555898.28	10555898.41	10555898.56	0.0268	0.0222
Earth	24188-12-19 00:28 G	10555898.42	10555898.52	10555898.66	0.0268	0.0233 *
Venus	24189-05-01 20:38 G	10556032.15	10556032.36	10556032.57	0.0268	0.0010
Venus	24189-12-16 22:19 G	10556261.29	10556261.43	10556261.59	0.0268	0.0191
Moon	24189-12-30 20:52 G	10556275.17	10556275.37	10556275.59	0.0268	0.0133
Earth	24189-12-30 23:45 G	10556275.28	10556275.49	10556275.71	0.0268	0.0134 *
Mercury	24192-01-03 19:55 G	10557009.26	10557009.33	10557009.40	0.0268	0.0232
Mercury	24192-04-01 07:55 G	10557097.71	10557097.83	10557097.95	0.0268	0.0138
Mercury	24192-06-28 20:09 G	10557186.20	10557186.34	10557186.49	0.0269	0.0043
Mercury	24192-09-25 08:52 G	10557274.73	10557274.87	10557275.01	0.0269	0.0055
Mercury	24192-12-22 21:36 G	10557363.28	10557363.40	10557363.52	0.0269	0.0155
Mercury	24193-03-21 10:33 G	10557451.91	10557451.94	10557451.99	0.0269	0.0258
Venus	24203-10-13 18:57 G	10561309.13	10561309.29	10561309.47	0.0291	0.0173
Venus	24204-05-30 17:31 G	10561539.03	10561539.23	10561539.44	0.0291	0.0064
Moon	24204-06-26 17:02 G	10561565.97	10561566.21	10561566.46	0.0291	0.0020
Earth	24204-06-26 20:52 G	10561566.13	10561566.37	10561566.62	0.0291	0.0010 *
Mercury	24206-08-11 21:21 G	10562342.31	10562342.39	10562342.48	0.0291	0.0246
Mercury	24206-11-08 17:16 G	10562431.07	10562431.22	10562431.38	0.0291	0.0100
Mercury	24207-02-05 12:28 G	10562519.86	10562520.02	10562520.19	0.0291	0.0044
Mercury	24207-05-05 07:12 G	10562608.68	10562608.80	10562608.93	0.0291	0.0182
Mars	24209-10-13 13:55 G	10563501.07	10563501.08	10563501.12	0.0287	0.0285
Venus	24218-03-28 23:45 G	10566589.32	10566589.49	10566589.67	0.0269	0.0147
Venus	24218-11-13 02:09 G	10566818.38	10566818.59	10566818.80	0.0268	0.0036
Earth	24218-12-27 05:31 G	10566862.48	10566862.73	10566862.97	0.0268	0.0023
Moon	24218-12-27 08:24 G	10566862.60	10566862.85	10566863.10	0.0268	0.0018 *

Venus	24219-06-30 04:19 G	10567047.56	10567047.68	10567047.80	0.0268	0.0217
Mercury	24221-05-23 22:48 G	10567741.41	10567741.45	10567741.50	0.0268	0.0252
Mercury	24221-08-20 10:48 G	10567829.84	10567829.95	10567830.07	0.0268	0.0159
Mercury	24221-11-16 23:02 G	10567918.33	10567918.46	10567918.61	0.0268	0.0065
Mercury	24222-02-13 11:45 G	10568006.84	10568006.99	10568007.13	0.0269	0.0034
Mercury	24222-05-13 00:28 G	10568095.39	10568095.52	10568095.65	0.0269	0.0133
Mercury	24222-08-09 13:26 G	10568184.00	10568184.06	10568184.14	0.0269	0.0235
Mars	24225-10-01 17:45 G	10569333.03	10569333.24	10569333.48	0.0275	0.0198
Venus	24233-04-25 03:50 G	10572095.48	10572095.66	10572095.85	0.0291	0.0138
Earth	24233-06-21 01:12 G	10572152.39	10572152.55	10572152.72	0.0291	0.0215
Moon	24233-06-21 05:02 G	10572152.55	10572152.71	10572152.87	0.0291	0.0222 *
Venus	24233-12-11 02:09 G	10572325.40	10572325.59	10572325.80	0.0292	0.0099
Earth	24234-07-05 09:07 G	10572531.79	10572531.88	10572531.99	0.0292	0.0266
Moon	24234-07-05 12:14 G	10572531.89	10572532.01	10572532.13	0.0292	0.0254 *
Mercury	24235-12-29 21:50 G	10573074.38	10573074.41	10573074.45	0.0292	0.0284
Mercury	24236-03-27 17:45 G	10573163.10	10573163.24	10573163.39	0.0291	0.0137
Mercury	24236-06-24 13:12 G	10573251.89	10573252.05	10573252.22	0.0291	0.0006
Mercury	24236-09-21 08:09 G	10573340.70	10573340.84	10573340.98	0.0291	0.0146
Mercury	24236-12-19 02:38 G	10573429.57	10573429.61	10573429.64	0.0291	0.0281
Venus	24247-10-09 01:55 G	10577375.40	10577375.58	10577375.77	0.0268	0.0126
Moon	24247-12-22 01:12 G	10577449.38	10577449.55	10577449.74	0.0268	0.0178
Earth	24247-12-22 04:04 G	10577449.51	10577449.67	10577449.86	0.0268	0.0188 *
Venus	24248-05-25 04:04 G	10577604.46	10577604.67	10577604.88	0.0268	0.0056
Earth	24249-01-02 02:52 G	10577826.45	10577826.62	10577826.82	0.0268	0.0179
Moon	24249-01-02 05:02 G	10577826.54	10577826.71	10577826.90	0.0268	0.0174 *
Venus	24249-01-09 05:45 G	10577833.65	10577833.74	10577833.85	0.0268	0.0237
Mercury	24251-01-07 12:00 G	10578561.91	10578562.00	10578562.10	0.0268	0.0193
Mercury	24251-04-06 00:14 G	10578650.38	10578650.51	10578650.65	0.0268	0.0099
Mercury	24251-07-03 12:43 G	10578738.88	10578739.03	10578739.18	0.0269	0.0003
Mercury	24251-09-30 01:26 G	10578827.42	10578827.56	10578827.70	0.0269	0.0096

Mercury	24251-12-27 14:09 G	10578916.00	10578916.09	10578916.20	0.0269	0.0197
Venus	24262-11-05 04:48 G	10582881.51	10582881.70	10582881.89	0.0291	0.0117
Venus	24263-06-23 03:07 G	10583111.44	10583111.63	10583111.83	0.0291	0.0120
Moon	24263-06-28 23:16 G	10583117.23	10583117.47	10583117.71	0.0291	0.0029
Earth	24263-06-29 00:57 G	10583117.29	10583117.54	10583117.78	0.0291	0.0040 *
Mercury	24265-08-14 15:21 G	10583895.02	10583895.14	10583895.27	0.0291	0.0194
Mercury	24265-11-11 11:02 G	10583983.80	10583983.96	10583984.13	0.0291	0.0050
Mercury	24266-02-08 06:14 G	10584072.61	10584072.76	10584072.92	0.0291	0.0093
Mercury	24266-05-08 00:57 G	10584161.44	10584161.54	10584161.64	0.0291	0.0230
Venus	24277-04-20 07:12 G	10588161.60	10588161.80	10588162.00	0.0269	0.0100
Venus	24277-12-05 09:21 G	10588390.70	10588390.89	10588391.10	0.0268	0.0084
Moon	24277-12-28 07:12 G	10588413.55	10588413.80	10588414.06	0.0268	0.0024
Earth	24277-12-28 08:52 G	10588413.62	10588413.87	10588414.11	0.0268	0.0023 *
Venus	24278-07-22 11:31 G	10588619.95	10588619.98	10588620.02	0.0268	0.0264
Mercury	24280-05-26 15:07 G	10589294.05	10589294.13	10589294.22	0.0268	0.0214
Mercury	24280-08-23 03:21 G	10589382.51	10589382.64	10589382.77	0.0268	0.0120
Mercury	24280-11-19 15:36 G	10589471.01	10589471.15	10589471.30	0.0268	0.0024
Mercury	24281-02-16 04:19 G	10589559.54	10589559.68	10589559.82	0.0269	0.0075
Mercury	24281-05-15 17:16 G	10589648.11	10589648.22	10589648.33	0.0269	0.0175
Venus	24292-05-17 14:52 G	10593667.91	10593668.12	10593668.32	0.0291	0.0081
Earth	24292-06-22 07:26 G	10593703.61	10593703.81	10593704.02	0.0291	0.0162
Moon	24292-06-22 09:07 G	10593703.68	10593703.88	10593704.09	0.0291	0.0168 *
Venus	24293-01-02 13:12 G	10593897.87	10593898.05	10593898.23	0.0292	0.0156
Mercury	24295-01-01 16:19 G	10594627.09	10594627.18	10594627.29	0.0292	0.0229
Mercury	24295-03-31 12:14 G	10594715.85	10594716.01	10594716.17	0.0291	0.0082
Mercury	24295-06-28 07:26 G	10594804.65	10594804.81	10594804.97	0.0291	0.0061
Mercury	24295-09-25 02:09 G	10594893.48	10594893.59	10594893.71	0.0291	0.0198
Mars	24298-03-09 10:04 G	10595789.77	10595789.92	10595790.08	0.0286	0.0232
Venus	24306-03-17 07:40 G	10598718.78	10598718.82	10598718.88	0.0269	0.0260
Venus	24306-11-01 10:19 G	10598947.73	10598947.93	10598948.14	0.0268	0.0078

Earth	24306-12-24 09:36 G	10599000.69	10599000.90	10599001.11	0.0268	0.0140
Moon	24306-12-24 10:19 G	10599000.73	10599000.93	10599001.14	0.0268	0.0133 *
Venus	24307-06-18 12:28 G	10599176.83	10599177.02	10599177.22	0.0268	0.0105
Earth	24308-01-05 08:24 G	10599377.73	10599377.85	10599377.99	0.0268	0.0226
Moon	24308-01-05 12:00 G	10599377.86	10599378.00	10599378.15	0.0268	0.0218 *
Mercury	24309-10-14 16:48 G	10600026.15	10600026.20	10600026.26	0.0268	0.0244
Mercury	24310-01-11 04:48 G	10600114.59	10600114.70	10600114.82	0.0268	0.0152
Mercury	24310-04-09 17:02 G	10600203.07	10600203.21	10600203.36	0.0268	0.0057
Mercury	24310-07-07 05:31 G	10600291.59	10600291.73	10600291.88	0.0269	0.0042
Mercury	24310-10-03 18:14 G	10600380.14	10600380.26	10600380.39	0.0269	0.0141
Mercury	24310-12-31 07:26 G	10600468.75	10600468.81	10600468.87	0.0269	0.0242
Mars	24314-02-25 23:16 G	10601621.35	10601621.47	10601621.63	0.0275	0.0247
Venus	24321-11-28 16:19 G	10604453.97	10604454.18	10604454.39	0.0291	0.0059
Earth	24322-07-01 07:55 G	10604668.60	10604668.83	10604669.06	0.0291	0.0094
Moon	24322-07-01 10:33 G	10604668.71	10604668.94	10604669.17	0.0291	0.0082 *
Venus	24322-07-16 14:38 G	10604683.95	10604684.11	10604684.28	0.0291	0.0178
Mercury	24324-05-21 13:55 G	10605359.06	10605359.08	10605359.12	0.0291	0.0286
Mercury	24324-08-18 10:04 G	10605447.78	10605447.92	10605448.07	0.0291	0.0138
Mercury	24324-11-15 05:45 G	10605536.57	10605536.74	10605536.90	0.0291	0.0008
Mercury	24325-02-12 00:28 G	10605625.39	10605625.52	10605625.67	0.0291	0.0147
Mercury	24325-05-11 18:57 G	10605714.26	10605714.29	10605714.33	0.0291	0.0283
Venus	24335-09-27 12:57 G	10609504.95	10609505.04	10609505.15	0.0269	0.0234
Venus	24336-05-13 15:50 G	10609733.95	10609734.16	10609734.37	0.0269	0.0051
Venus	24336-12-28 18:00 G	10609963.07	10609963.25	10609963.44	0.0268	0.0132
Moon	24336-12-30 10:33 G	10609964.71	10609964.94	10609965.18	0.0268	0.0069
Earth	24336-12-30 14:09 G	10609964.86	10609965.09	10609965.33	0.0268	0.0070 *
Mercury	24339-03-03 19:40 G	10610758.31	10610758.32	10610758.35	0.0268	0.0265
Mercury	24339-05-31 07:40 G	10610846.72	10610846.82	10610846.94	0.0268	0.0173
Mercury	24339-08-27 20:09 G	10610935.20	10610935.34	10610935.48	0.0268	0.0077
Mercury	24339-11-24 08:38 G	10611023.71	10611023.86	10611024.00	0.0269	0.0021

Mercury	24340-02-20 21:21 G	10611112.26	10611112.39	10611112.52	0.0269	0.0120
Mercury	24340-05-19 10:19 G	10611200.85	10611200.93	10611201.01	0.0269	0.0221
Venus	24350-10-24 05:16 G	10615010.63	10615010.72	10615010.83	0.0291	0.0255
Venus	24351-06-11 03:36 G	10615240.44	10615240.65	10615240.86	0.0291	0.0020
Moon	24351-06-25 14:24 G	10615254.87	10615255.10	10615255.33	0.0292	0.0114
Earth	24351-06-25 16:48 G	10615254.98	10615255.20	10615255.44	0.0292	0.0104 *
Venus	24352-01-27 01:55 G	10615470.44	10615470.58	10615470.72	0.0292	0.0217
Mercury	24354-01-05 12:00 G	10616179.86	10616180.00	10616180.13	0.0292	0.0167
Mercury	24354-04-04 07:26 G	10616268.65	10616268.81	10616268.98	0.0291	0.0023
Mercury	24354-07-02 02:38 G	10616357.46	10616357.61	10616357.76	0.0291	0.0119
Mercury	24354-09-28 21:07 G	10616446.31	10616446.38	10616446.46	0.0291	0.0256
Venus	24365-04-08 17:31 G	10620291.11	10620291.23	10620291.37	0.0269	0.0210
Venus	24365-11-23 20:09 G	10620520.13	10620520.34	10620520.55	0.0268	0.0026
Earth	24365-12-25 16:48 G	10620551.97	10620552.20	10620552.43	0.0268	0.0089
Moon	24365-12-25 20:38 G	10620552.13	10620552.36	10620552.59	0.0268	0.0083 *
Venus	24366-07-10 22:04 G	10620749.26	10620749.42	10620749.60	0.0268	0.0156
Moon	24367-01-06 15:50 G	10620929.16	10620929.16	10620929.20	0.0268	0.0267
Mercury	24368-10-17 09:50 G	10621578.82	10621578.91	10621579.01	0.0268	0.0201
Mercury	24369-01-13 22:04 G	10621667.29	10621667.42	10621667.55	0.0268	0.0106
Mercury	24369-04-12 10:19 G	10621755.79	10621755.93	10621756.08	0.0269	0.0011
Mercury	24369-07-09 23:02 G	10621844.32	10621844.46	10621844.60	0.0269	0.0089
Mercury	24369-10-06 11:45 G	10621932.89	10621932.99	10621933.10	0.0269	0.0189
Venus	24380-05-05 07:40 G	10625796.71	10625796.82	10625796.96	0.0290	0.0232
Venus	24380-12-21 06:14 G	10626026.54	10626026.76	10626026.97	0.0291	0.0007
Earth	24381-07-02 18:57 G	10626220.09	10626220.29	10626220.50	0.0291	0.0155
Moon	24381-07-02 22:04 G	10626220.21	10626220.42	10626220.65	0.0291	0.0143 *
Venus	24381-08-08 04:33 G	10626256.57	10626256.69	10626256.81	0.0291	0.0241
Mercury	24383-05-25 10:04 G	10626911.81	10626911.92	10626912.03	0.0291	0.0220
Mercury	24383-08-22 05:45 G	10627000.58	10627000.74	10627000.90	0.0291	0.0075
Mercury	24383-11-19 00:57 G	10627089.39	10627089.54	10627089.70	0.0291	0.0069

Mercury	24384-02-15 19:40 G	10627178.22	10627178.32	10627178.44	0.0291	0.0207
Mars	24386-08-04 00:00 G	10628078.30	10628078.50	10628078.71	0.0287	0.0188
Venus	24394-10-19 22:33 G	10631077.29	10631077.44	10631077.60	0.0269	0.0185
Moon	24394-12-20 16:33 G	10631139.08	10631139.19	10631139.30	0.0269	0.0240
Earth	24394-12-20 20:09 G	10631139.26	10631139.34	10631139.44	0.0269	0.0248 *
Venus	24395-06-06 01:12 G	10631306.34	10631306.55	10631306.77	0.0269	0.0005
Moon	24396-01-01 20:09 G	10631516.13	10631516.34	10631516.55	0.0269	0.0118
Earth	24396-01-01 21:07 G	10631516.16	10631516.38	10631516.60	0.0269	0.0120 *
Venus	24396-01-21 03:36 G	10631535.50	10631535.65	10631535.81	0.0268	0.0182
Mercury	24398-03-06 12:43 G	10632310.96	10632311.03	10632311.11	0.0268	0.0222
Mercury	24398-06-03 00:57 G	10632399.41	10632399.54	10632399.67	0.0269	0.0128
Mercury	24398-08-30 13:12 G	10632487.91	10632488.05	10632488.20	0.0269	0.0032
Mercury	24398-11-27 01:55 G	10632576.44	10632576.58	10632576.72	0.0269	0.0067
Mercury	24399-02-23 14:38 G	10632665.00	10632665.11	10632665.23	0.0269	0.0168
Venus	24409-11-15 19:55 G	10636583.17	10636583.33	10636583.49	0.0291	0.0192
Moon	24410-06-27 01:40 G	10636806.33	10636806.57	10636806.81	0.0292	0.0052
Earth	24410-06-27 05:02 G	10636806.47	10636806.71	10636806.96	0.0292	0.0041 *
Venus	24410-07-03 18:00 G	10636813.04	10636813.25	10636813.46	0.0292	0.0044
Venus	24411-02-18 16:33 G	10637043.13	10637043.19	10637043.24	0.0292	0.0280
Mercury	24412-10-11 12:00 G	10637643.92	10637644.00	10637644.09	0.0292	0.0248
Mercury	24413-01-08 07:55 G	10637732.68	10637732.83	10637732.99	0.0291	0.0101
Mercury	24413-04-07 03:21 G	10637821.48	10637821.64	10637821.80	0.0291	0.0042
Mercury	24413-07-04 22:04 G	10637910.30	10637910.42	10637910.55	0.0291	0.0182
Venus	24424-05-01 04:19 G	10641863.52	10641863.68	10641863.86	0.0269	0.0158
Venus	24424-12-16 06:57 G	10642092.58	10642092.79	10642093.00	0.0268	0.0026
Earth	24424-12-27 01:40 G	10642103.33	10642103.57	10642103.82	0.0268	0.0036
Moon	24424-12-27 02:52 G	10642103.37	10642103.62	10642103.87	0.0268	0.0034 *
Venus	24425-08-02 08:52 G	10642321.74	10642321.87	10642322.01	0.0268	0.0208
Mercury	24427-07-24 15:07 G	10643043.09	10643043.13	10643043.19	0.0268	0.0247
Mercury	24427-10-21 03:21 G	10643131.52	10643131.64	10643131.76	0.0268	0.0154

Mercury	24428-01-17 15:36 G	10643220.01	10643220.15	10643220.29	0.0268	0.0058
Mercury	24428-04-15 04:04 G	10643308.53	10643308.67	10643308.81	0.0269	0.0039
Mercury	24428-07-12 16:48 G	10643397.08	10643397.20	10643397.33	0.0269	0.0139
Mercury	24428-10-09 05:45 G	10643485.68	10643485.74	10643485.81	0.0269	0.0241
Venus	24439-05-28 23:02 G	10647369.30	10647369.46	10647369.64	0.0291	0.0167
Earth	24439-06-21 01:12 G	10647392.45	10647392.55	10647392.68	0.0291	0.0258
Moon	24439-06-21 04:33 G	10647392.60	10647392.69	10647392.79	0.0291	0.0268 *
Venus	24440-01-13 21:21 G	10647599.19	10647599.39	10647599.60	0.0291	0.0070
Moon	24440-07-04 08:38 G	10647771.69	10647771.86	10647772.05	0.0291	0.0205
Earth	24440-07-04 08:38 G	10647771.71	10647771.86	10647772.03	0.0291	0.0219 *
Mercury	24442-05-28 06:28 G	10648464.63	10648464.77	10648464.91	0.0291	0.0151
Mercury	24442-08-25 02:09 G	10648553.42	10648553.59	10648553.75	0.0291	0.0010
Mercury	24442-11-21 21:07 G	10648642.24	10648642.38	10648642.52	0.0291	0.0134
Mercury	24443-02-18 15:36 G	10648731.10	10648731.15	10648731.21	0.0290	0.0270
Venus	24453-11-11 08:52 G	10652649.69	10652649.87	10652650.06	0.0269	0.0133
Moon	24453-12-22 03:21 G	10652690.49	10652690.64	10652690.82	0.0269	0.0191
Earth	24453-12-22 04:19 G	10652690.52	10652690.68	10652690.86	0.0269	0.0196 *
Venus	24454-06-28 11:31 G	10652878.77	10652878.98	10652879.19	0.0269	0.0051
Earth	24455-01-03 05:16 G	10653067.53	10653067.72	10653067.90	0.0269	0.0172
Moon	24455-01-03 08:24 G	10653067.66	10653067.85	10653068.04	0.0269	0.0167 *
Venus	24455-02-12 13:55 G	10653107.98	10653108.08	10653108.18	0.0269	0.0233
Mercury	24457-03-09 06:00 G	10653863.65	10653863.75	10653863.86	0.0269	0.0177
Mercury	24457-06-05 18:14 G	10653952.13	10653952.26	10653952.40	0.0269	0.0081
Mercury	24457-09-02 06:43 G	10654040.64	10654040.78	10654040.93	0.0269	0.0017
Mercury	24457-11-29 19:26 G	10654129.18	10654129.31	10654129.44	0.0269	0.0116
Mercury	24458-02-26 08:24 G	10654217.77	10654217.85	10654217.94	0.0269	0.0217
Mars	24460-10-26 03:07 G	10655190.47	10655190.63	10655190.81	0.0273	0.0231
Venus	24468-12-08 12:00 G	10658155.82	10658156.00	10658156.20	0.0291	0.0126
Earth	24469-06-28 20:09 G	10658358.10	10658358.34	10658358.59	0.0292	0.0027
Moon	24469-06-28 20:38 G	10658358.12	10658358.36	10658358.59	0.0292	0.0015 *

Venus	24469-07-26 10:19 G	10658385.74	10658385.93	10658386.13	0.0292	0.0111
Mercury	24471-10-15 09:07 G	10659196.75	10659196.88	10659197.01	0.0292	0.0176
Mercury	24472-01-12 04:48 G	10659285.53	10659285.70	10659285.86	0.0291	0.0031
Mercury	24472-04-09 23:45 G	10659374.34	10659374.49	10659374.64	0.0291	0.0111
Mercury	24472-07-07 18:14 G	10659463.19	10659463.26	10659463.35	0.0291	0.0249
Mars	24474-12-29 18:28 G	10660368.02	10660368.27	10660368.53	0.0286	0.0090
Venus	24483-05-24 15:36 G	10663435.96	10663436.15	10663436.35	0.0269	0.0105
Moon	24483-12-29 07:55 G	10663654.59	10663654.83	10663655.09	0.0268	0.0016
Earth	24483-12-29 11:31 G	10663654.73	10663654.98	10663655.22	0.0268	0.0018 *
Venus	24484-01-08 18:00 G	10663665.05	10663665.25	10663665.46	0.0268	0.0078
Venus	24484-08-24 19:55 G	10663894.30	10663894.33	10663894.39	0.0268	0.0260
Mercury	24486-07-27 08:38 G	10664595.77	10664595.86	10664595.96	0.0268	0.0200
Mercury	24486-10-23 20:52 G	10664684.24	10664684.37	10664684.50	0.0268	0.0105
Mercury	24487-01-20 09:21 G	10664772.74	10664772.89	10664773.03	0.0269	0.0010
Mercury	24487-04-18 21:50 G	10664861.27	10664861.41	10664861.55	0.0269	0.0090
Mercury	24487-07-16 10:48 G	10664949.85	10664949.95	10664950.05	0.0269	0.0191
Venus	24498-06-20 16:04 G	10668941.97	10668942.17	10668942.37	0.0291	0.0099
Moon	24498-06-22 15:50 G	10668943.99	10668944.16	10668944.35	0.0291	0.0203
Earth	24498-06-22 17:16 G	10668944.04	10668944.22	10668944.41	0.0291	0.0190 *
Venus	24499-02-05 14:09 G	10669171.91	10669172.09	10669172.28	0.0291	0.0138
Moon	24499-07-06 20:52 G	10669323.29	10669323.37	10669323.47	0.0291	0.0271
Earth	24499-07-07 00:43 G	10669323.49	10669323.53	10669323.57	0.0291	0.0287
Mercury	24501-03-04 07:26 G	10669928.71	10669928.81	10669928.92	0.0291	0.0226
Mercury	24501-06-01 03:21 G	10670017.48	10670017.64	10670017.80	0.0291	0.0080
Mercury	24501-08-28 22:48 G	10670106.29	10670106.45	10670106.61	0.0291	0.0064
Mercury	24501-11-25 17:31 G	10670195.12	10670195.23	10670195.35	0.0290	0.0202
Venus	24512-04-19 16:48 G	10673993.17	10673993.20	10673993.24	0.0270	0.0265
Venus	24512-12-04 19:40 G	10674222.12	10674222.32	10674222.52	0.0269	0.0081
Earth	24512-12-24 13:12 G	10674241.86	10674242.05	10674242.27	0.0269	0.0143
Moon	24512-12-24 16:19 G	10674241.99	10674242.18	10674242.40	0.0269	0.0141 *

Venus	24513-07-21 22:19 G	10674451.23	10674451.43	10674451.62	0.0269	0.0103
Earth	24514-01-05 13:55 G	10674618.96	10674619.08	10674619.22	0.0269	0.0226
Moon	24514-01-05 16:48 G	10674619.05	10674619.20	10674619.35	0.0269	0.0216 *
Mercury	24515-12-15 11:16 G	10675327.90	10675327.97	10675328.05	0.0269	0.0225
Mercury	24516-03-12 23:16 G	10675416.35	10675416.47	10675416.60	0.0269	0.0131
Mercury	24516-06-09 11:45 G	10675504.85	10675504.99	10675505.14	0.0269	0.0034
Mercury	24516-09-06 00:28 G	10675593.37	10675593.52	10675593.66	0.0269	0.0066
Mercury	24516-12-03 13:12 G	10675681.94	10675682.05	10675682.17	0.0269	0.0166
Mercury	24517-03-02 02:09 G	10675770.59	10675770.59	10675770.60	0.0270	0.0269
Venus	24528-01-02 04:33 G	10679728.49	10679728.69	10679728.90	0.0291	0.0059
Earth	24528-07-01 11:45 G	10679909.76	10679909.99	10679910.23	0.0292	0.0095
Moon	24528-07-01 15:36 G	10679909.92	10679910.15	10679910.39	0.0292	0.0080 *
Venus	24528-08-19 02:52 G	10679958.46	10679958.62	10679958.80	0.0292	0.0179
Mercury	24530-07-22 10:04 G	10680660.84	10680660.92	10680661.01	0.0292	0.0251
Mercury	24530-10-19 06:00 G	10680749.60	10680749.75	10680749.91	0.0291	0.0103
Mercury	24531-01-16 01:26 G	10680838.40	10680838.56	10680838.72	0.0291	0.0041
Mercury	24531-04-14 20:24 G	10680927.22	10680927.35	10680927.48	0.0291	0.0180
Venus	24541-10-31 00:14 G	10684779.42	10684779.51	10684779.62	0.0269	0.0236
Venus	24542-06-17 03:07 G	10685008.42	10685008.63	10685008.84	0.0268	0.0052
Moon	24542-12-31 18:43 G	10685206.05	10685206.28	10685206.52	0.0268	0.0068
Earth	24542-12-31 21:21 G	10685206.15	10685206.39	10685206.63	0.0268	0.0073 *
Venus	24543-02-01 05:16 G	10685237.54	10685237.72	10685237.91	0.0268	0.0131
Mercury	24545-05-03 14:09 G	10686060.04	10686060.09	10686060.15	0.0268	0.0246
Mercury	24545-07-31 02:24 G	10686148.48	10686148.60	10686148.72	0.0268	0.0152
Mercury	24545-10-27 14:38 G	10686236.97	10686237.11	10686237.25	0.0268	0.0057
Mercury	24546-01-24 03:07 G	10686325.48	10686325.63	10686325.77	0.0269	0.0041
Mercury	24546-04-22 15:50 G	10686414.03	10686414.16	10686414.28	0.0269	0.0141
Mercury	24546-07-20 04:48 G	10686502.64	10686502.70	10686502.76	0.0269	0.0243
Mars	24549-03-23 16:19 G	10687479.91	10687480.18	10687480.47	0.0273	0.0136
Venus	24556-11-26 11:16 G	10690284.90	10690284.97	10690285.07	0.0290	0.0266

Moon	24557-06-25 06:28 G	10690495.56	10690495.77	10690495.99	0.0291	0.0136
Earth	24557-06-25 10:19 G	10690495.71	10690495.93	10690496.16	0.0291	0.0120 *
Venus	24557-07-14 09:36 G	10690514.69	10690514.90	10690515.11	0.0291	0.0031
Venus	24558-03-01 07:40 G	10690744.68	10690744.82	10690744.97	0.0291	0.0207
Mercury	24560-03-07 05:02 G	10691481.57	10691481.71	10691481.85	0.0291	0.0150
Mercury	24560-06-04 00:43 G	10691570.36	10691570.53	10691570.69	0.0291	0.0009
Mercury	24560-08-31 19:40 G	10691659.18	10691659.32	10691659.46	0.0290	0.0135
Mercury	24560-11-28 14:09 G	10691748.04	10691748.09	10691748.15	0.0290	0.0272
Mars	24563-05-26 19:40 G	10692657.05	10692657.32	10692657.59	0.0286	0.0026
Venus	24571-05-13 03:36 G	10695565.52	10695565.65	10695565.78	0.0270	0.0214
Earth	24571-12-26 22:04 G	10695793.19	10695793.42	10695793.65	0.0269	0.0088
Moon	24571-12-27 00:57 G	10695793.31	10695793.54	10695793.78	0.0269	0.0086 *
Venus	24571-12-28 06:14 G	10695794.56	10695794.76	10695794.98	0.0269	0.0031
Venus	24572-08-13 08:38 G	10696023.69	10696023.86	10696024.04	0.0269	0.0154
Moon	24573-01-06 20:24 G	10696170.32	10696170.35	10696170.39	0.0269	0.0265
Mercury	24574-12-18 04:33 G	10696880.59	10696880.69	10696880.80	0.0269	0.0180
Mercury	24575-03-16 16:48 G	10696969.06	10696969.20	10696969.34	0.0269	0.0084
Mercury	24575-06-13 05:16 G	10697057.57	10697057.72	10697057.86	0.0269	0.0014
Mercury	24575-09-09 18:00 G	10697146.11	10697146.25	10697146.38	0.0269	0.0114
Mercury	24575-12-07 06:43 G	10697234.70	10697234.78	10697234.87	0.0269	0.0215
Venus	24586-06-08 23:02 G	10701071.34	10701071.46	10701071.60	0.0291	0.0227
Venus	24587-01-24 21:21 G	10701301.18	10701301.39	10701301.60	0.0291	0.0009
Earth	24587-07-04 03:50 G	10701461.46	10701461.66	10701461.86	0.0292	0.0164
Moon	24587-07-04 05:31 G	10701461.52	10701461.73	10701461.95	0.0292	0.0148 *
Venus	24587-09-11 19:40 G	10701531.22	10701531.32	10701531.44	0.0292	0.0246
Mercury	24589-07-25 07:12 G	10702213.67	10702213.80	10702213.94	0.0292	0.0177
Mercury	24589-10-22 02:52 G	10702302.46	10702302.62	10702302.79	0.0291	0.0032
Mercury	24590-01-18 22:04 G	10702391.27	10702391.42	10702391.58	0.0291	0.0112
Mercury	24590-04-17 16:48 G	10702480.12	10702480.20	10702480.28	0.0291	0.0249
Venus	24600-11-23 11:16 G	10706351.82	10706351.97	10706352.13	0.0269	0.0184

Jupiter	24600-12-09 22:19 G	10706367.98	10706368.43	10706368.89	0.0269	0.0018
Moon	24600-12-22 02:24 G	10706380.48	10706380.60	10706380.73	0.0269	0.0231
Earth	24600-12-22 05:31 G	10706380.63	10706380.73	10706380.85	0.0269	0.0239 *
Venus	24601-07-10 13:55 G	10706580.87	10706581.08	10706581.29	0.0268	0.0001
Earth	24602-01-03 06:14 G	10706757.55	10706757.76	10706757.98	0.0268	0.0127
Moon	24602-01-03 07:40 G	10706757.62	10706757.82	10706758.04	0.0268	0.0121 *
Venus	24602-02-24 16:04 G	10706810.02	10706810.17	10706810.33	0.0268	0.0182
Mercury	24604-05-07 07:40 G	10707612.73	10707612.82	10707612.91	0.0268	0.0200
Mercury	24604-08-03 19:40 G	10707701.19	10707701.32	10707701.46	0.0268	0.0106
Mercury	24604-10-31 08:09 G	10707789.69	10707789.84	10707789.98	0.0269	0.0010
Mercury	24605-01-27 20:38 G	10707878.22	10707878.36	10707878.50	0.0269	0.0090
Mercury	24605-04-26 09:36 G	10707966.80	10707966.90	10707967.00	0.0269	0.0191
Venus	24615-12-21 03:50 G	10711857.52	10711857.66	10711857.83	0.0291	0.0200
Moon	24616-06-28 00:57 G	10712047.31	10712047.54	10712047.78	0.0291	0.0066
Earth	24616-06-28 02:09 G	10712047.35	10712047.59	10712047.83	0.0291	0.0051 *
Venus	24616-08-07 02:09 G	10712087.38	10712087.59	10712087.81	0.0291	0.0038
Venus	24617-03-25 00:43 G	10712317.46	10712317.53	10712317.60	0.0291	0.0274
Mercury	24618-12-13 06:00 G	10712945.65	10712945.75	10712945.86	0.0291	0.0225
Mercury	24619-03-12 02:09 G	10713034.43	10713034.59	10713034.75	0.0291	0.0078
Mercury	24619-06-08 21:21 G	10713123.23	10713123.39	10713123.55	0.0291	0.0066
Mercury	24619-09-05 16:19 G	10713212.07	10713212.18	10713212.29	0.0290	0.0205
Venus	24630-06-05 13:40 G	10717137.91	10717138.07	10717138.24	0.0269	0.0164
Moon	24630-12-29 04:48 G	10717344.45	10717344.70	10717344.95	0.0269	0.0037
Earth	24630-12-29 05:45 G	10717344.50	10717344.74	10717344.99	0.0269	0.0036 *
Venus	24631-01-20 16:19 G	10717366.97	10717367.18	10717367.39	0.0269	0.0021
Venus	24631-09-06 18:28 G	10717596.14	10717596.27	10717596.42	0.0269	0.0204
Mercury	24633-09-24 09:21 G	10718344.83	10718344.89	10718344.97	0.0269	0.0231
Mercury	24633-12-21 21:36 G	10718433.28	10718433.40	10718433.52	0.0269	0.0136
Mercury	24634-03-20 09:50 G	10718521.77	10718521.91	10718522.05	0.0269	0.0040
Mercury	24634-06-16 22:19 G	10718610.29	10718610.43	10718610.57	0.0269	0.0059

Mercury	24634-09-13 11:02 G	10718698.85	10718698.96	10718699.08	0.0269	0.0160
Mercury	24634-12-11 00:00 G	10718787.48	10718787.50	10718787.54	0.0270	0.0263
Mars	24637-08-19 03:21 G	10719769.32	10719769.64	10719769.96	0.0274	0.0051
Earth	24645-06-22 10:19 G	10722633.82	10722633.93	10722634.07	0.0291	0.0247
Moon	24645-06-22 11:45 G	10722633.88	10722633.99	10722634.12	0.0291	0.0257 *
Venus	24645-07-02 14:38 G	10722643.94	10722644.11	10722644.29	0.0291	0.0163
Venus	24646-02-17 12:57 G	10722873.84	10722874.04	10722874.25	0.0292	0.0075
Moon	24646-07-06 15:36 G	10723012.98	10723013.15	10723013.32	0.0292	0.0214
Earth	24646-07-06 18:00 G	10723013.11	10723013.25	10723013.41	0.0292	0.0231 *
Mercury	24648-05-01 08:09 G	10723677.76	10723677.84	10723677.92	0.0292	0.0254
Mercury	24648-07-29 04:04 G	10723766.52	10723766.67	10723766.83	0.0292	0.0106
Mercury	24648-10-25 23:45 G	10723855.32	10723855.49	10723855.65	0.0291	0.0040
Mercury	24649-01-22 18:43 G	10723944.15	10723944.28	10723944.40	0.0291	0.0179
Mars	24651-10-22 17:31 G	10724946.97	10724947.23	10724947.49	0.0286	0.0084
Venus	24659-12-16 21:36 G	10727924.22	10727924.40	10727924.59	0.0269	0.0133
Earth	24659-12-24 13:40 G	10727931.90	10727932.07	10727932.25	0.0269	0.0186
Moon	24659-12-24 14:09 G	10727931.92	10727932.09	10727932.27	0.0269	0.0181 *
Venus	24660-08-02 00:00 G	10728153.29	10728153.50	10728153.71	0.0268	0.0050
Earth	24661-01-04 13:55 G	10728308.90	10728309.08	10728309.26	0.0268	0.0179
Moon	24661-01-04 17:31 G	10728309.04	10728309.23	10728309.42	0.0268	0.0171 *
Venus	24661-03-19 01:55 G	10728382.48	10728382.58	10728382.69	0.0268	0.0232
Mercury	24663-02-11 12:28 G	10729076.98	10729077.02	10729077.07	0.0268	0.0251
Mercury	24663-05-11 00:28 G	10729165.41	10729165.52	10729165.64	0.0268	0.0157
Mercury	24663-08-07 12:43 G	10729253.89	10729254.03	10729254.17	0.0268	0.0062
Mercury	24663-11-04 01:12 G	10729342.41	10729342.55	10729342.70	0.0269	0.0037
Mercury	24664-01-31 13:55 G	10729430.96	10729431.08	10729431.21	0.0269	0.0136
Mercury	24664-04-29 02:52 G	10729519.56	10729519.62	10729519.69	0.0269	0.0238
Venus	24675-01-12 19:40 G	10733430.14	10733430.32	10733430.51	0.0291	0.0134
Earth	24675-06-30 16:33 G	10733598.94	10733599.19	10733599.43	0.0291	0.0016
Moon	24675-06-30 18:57 G	10733599.06	10733599.29	10733599.53	0.0291	0.0006 *

Venus	24675-08-30 18:00 G	10733660.05	10733660.25	10733660.45	0.0291	0.0103
Mercury	24677-12-16 02:52 G	10734498.49	10734498.62	10734498.77	0.0291	0.0154
Mercury	24678-03-14 22:48 G	10734587.28	10734587.45	10734587.61	0.0291	0.0011
Mercury	24678-06-11 17:45 G	10734676.10	10734676.24	10734676.39	0.0291	0.0134
Mercury	24678-09-08 12:28 G	10734764.96	10734765.02	10734765.07	0.0290	0.0271
Venus	24689-06-27 23:02 G	10738710.27	10738710.46	10738710.65	0.0269	0.0114
Moon	24689-12-30 08:24 G	10738895.61	10738895.85	10738896.10	0.0269	0.0012
Earth	24689-12-30 12:00 G	10738895.76	10738896.00	10738896.25	0.0269	0.0016 *
Venus	24690-02-12 01:26 G	10738939.35	10738939.56	10738939.76	0.0269	0.0069
Venus	24690-09-29 03:36 G	10739168.58	10739168.65	10739168.73	0.0268	0.0251
Mercury	24692-09-27 02:09 G	10739897.49	10739897.59	10739897.69	0.0269	0.0190
Mercury	24692-12-24 14:09 G	10739985.96	10739986.09	10739986.23	0.0269	0.0095
Mercury	24693-03-23 02:38 G	10740074.46	10740074.61	10740074.76	0.0269	0.0003
Mercury	24693-06-19 15:07 G	10740163.00	10740163.13	10740163.27	0.0269	0.0103
Mercury	24693-09-16 04:04 G	10740251.58	10740251.67	10740251.77	0.0269	0.0204
Moon	24704-06-24 18:28 G	10744185.10	10744185.27	10744185.46	0.0291	0.0200
Earth	24704-06-24 21:21 G	10744185.21	10744185.39	10744185.58	0.0291	0.0186 *
Venus	24704-07-26 04:33 G	10744216.49	10744216.69	10744216.89	0.0291	0.0101
Venus	24705-03-13 03:07 G	10744446.44	10744446.63	10744446.82	0.0292	0.0137
Moon	24705-07-09 01:55 G	10744564.52	10744564.58	10744564.67	0.0292	0.0277
Mercury	24707-05-06 04:19 G	10745230.55	10745230.68	10745230.81	0.0292	0.0188
Mercury	24707-08-03 00:00 G	10745319.34	10745319.50	10745319.67	0.0292	0.0042
Mercury	24707-10-30 19:26 G	10745408.16	10745408.31	10745408.46	0.0291	0.0103
Mercury	24708-01-27 13:55 G	10745497.00	10745497.08	10745497.18	0.0291	0.0242
Venus	24718-05-25 03:50 G	10749267.66	10749267.66	10749267.69	0.0269	0.0268
Earth	24718-12-26 19:26 G	10749483.11	10749483.31	10749483.53	0.0268	0.0137
Moon	24718-12-26 23:31 G	10749483.27	10749483.48	10749483.69	0.0268	0.0134 *
Venus	24719-01-09 06:28 G	10749496.58	10749496.77	10749496.98	0.0268	0.0085
Venus	24719-08-26 08:38 G	10749725.67	10749725.86	10749726.06	0.0268	0.0098
Earth	24720-01-07 19:26 G	10749860.19	10749860.31	10749860.44	0.0268	0.0228

Moon	24720-01-07 20:09 G	10749860.21	10749860.34	10749860.50	0.0268	0.0219 *
Mercury	24722-02-15 05:02 G	10750629.63	10750629.71	10750629.80	0.0268	0.0211
Mercury	24722-05-14 17:16 G	10750718.09	10750718.22	10750718.35	0.0268	0.0116
Mercury	24722-08-11 05:31 G	10750806.58	10750806.73	10750806.87	0.0268	0.0020
Mercury	24722-11-07 18:00 G	10750895.11	10750895.25	10750895.39	0.0269	0.0079
Mercury	24723-02-04 06:43 G	10750983.68	10750983.78	10750983.89	0.0269	0.0180
Mars	24726-01-14 05:16 G	10752058.40	10752058.72	10752059.05	0.0274	0.0031
Venus	24734-02-05 09:21 G	10755002.69	10755002.89	10755003.10	0.0291	0.0073
Earth	24734-07-03 03:21 G	10755150.41	10755150.64	10755150.88	0.0291	0.0078
Moon	24734-07-03 06:43 G	10755150.54	10755150.78	10755151.03	0.0291	0.0063 *
Venus	24734-09-23 07:55 G	10755232.66	10755232.83	10755233.00	0.0292	0.0165
Mercury	24736-09-22 03:07 G	10755962.53	10755962.63	10755962.73	0.0291	0.0237
Mercury	24736-12-19 23:02 G	10756051.30	10756051.46	10756051.62	0.0291	0.0088
Mercury	24737-03-18 18:28 G	10756140.11	10756140.27	10756140.43	0.0291	0.0056
Mercury	24737-06-15 13:26 G	10756228.94	10756229.06	10756229.18	0.0291	0.0196
Mars	24740-03-18 12:57 G	10757235.81	10757236.04	10757236.28	0.0285	0.0137
Venus	24747-12-05 04:48 G	10760053.63	10760053.70	10760053.78	0.0269	0.0250
Venus	24748-07-21 07:12 G	10760282.60	10760282.80	10760283.01	0.0269	0.0067
Moon	24749-01-01 15:50 G	10760446.93	10760447.16	10760447.39	0.0268	0.0057
Earth	24749-01-01 16:33 G	10760446.96	10760447.19	10760447.43	0.0268	0.0063 *
Venus	24749-03-07 09:21 G	10760511.70	10760511.89	10760512.08	0.0268	0.0116
Mercury	24751-07-05 06:28 G	10761361.71	10761361.77	10761361.82	0.0268	0.0246
Mercury	24751-10-01 18:14 G	10761450.15	10761450.26	10761450.38	0.0268	0.0152
Mercury	24751-12-29 06:28 G	10761538.63	10761538.77	10761538.91	0.0269	0.0056
Mercury	24752-03-26 18:57 G	10761627.15	10761627.29	10761627.43	0.0269	0.0042
Mercury	24752-06-23 07:40 G	10761715.70	10761715.82	10761715.94	0.0269	0.0142
Mercury	24752-09-19 20:24 G	10761804.30	10761804.35	10761804.42	0.0269	0.0245
Venus	24762-12-31 17:31 G	10765559.19	10765559.23	10765559.30	0.0291	0.0279
Moon	24763-06-27 01:55 G	10765736.38	10765736.58	10765736.80	0.0291	0.0146
Earth	24763-06-27 05:02 G	10765736.50	10765736.71	10765736.94	0.0291	0.0130 *

Venus	24763-08-18 16:19 G	10765788.97	10765789.18	10765789.39	0.0291	0.0043
Venus	24764-04-04 15:21 G	10766018.98	10766019.14	10766019.30	0.0292	0.0196
Mercury	24766-02-09 03:21 G	10766694.60	10766694.64	10766694.70	0.0292	0.0276
Mercury	24766-05-08 23:31 G	10766783.34	10766783.48	10766783.64	0.0292	0.0127
Mercury	24766-08-05 19:26 G	10766872.14	10766872.31	10766872.47	0.0292	0.0020
Mercury	24766-11-02 14:24 G	10766960.97	10766961.10	10766961.24	0.0291	0.0162
Venus	24777-06-16 12:00 G	10770839.88	10770840.00	10770840.12	0.0269	0.0221
Earth	24777-12-27 23:45 G	10771034.26	10771034.49	10771034.72	0.0268	0.0089
Moon	24777-12-28 00:43 G	10771034.29	10771034.53	10771034.77	0.0268	0.0091 *
Venus	24778-01-31 14:24 G	10771068.89	10771069.10	10771069.31	0.0268	0.0038
Venus	24778-09-17 16:19 G	10771298.01	10771298.18	10771298.36	0.0268	0.0144
Moon	24779-01-08 19:40 G	10771411.28	10771411.32	10771411.38	0.0268	0.0261
Mercury	24780-11-21 09:21 G	10772093.88	10772093.89	10772093.90	0.0268	0.0266
Mercury	24781-02-17 21:07 G	10772182.28	10772182.38	10772182.50	0.0268	0.0174
Mercury	24781-05-17 09:21 G	10772270.75	10772270.89	10772271.03	0.0268	0.0078
Mercury	24781-08-13 21:50 G	10772359.26	10772359.41	10772359.55	0.0268	0.0020
Mercury	24781-11-10 10:19 G	10772447.80	10772447.93	10772448.06	0.0268	0.0118
Mercury	24782-02-06 23:02 G	10772536.38	10772536.46	10772536.55	0.0269	0.0220
Venus	24792-07-12 22:48 G	10776345.35	10776345.45	10776345.56	0.0291	0.0251
Venus	24793-02-27 21:21 G	10776575.17	10776575.39	10776575.60	0.0291	0.0015
Moon	24793-07-04 10:33 G	10776701.71	10776701.94	10776702.18	0.0292	0.0118
Earth	24793-07-04 11:02 G	10776701.75	10776701.96	10776702.19	0.0292	0.0135 *
Venus	24793-10-15 19:55 G	10776805.20	10776805.33	10776805.47	0.0292	0.0223
Mercury	24795-09-25 22:19 G	10777515.30	10777515.43	10777515.57	0.0291	0.0176
Mercury	24795-12-23 18:14 G	10777604.09	10777604.26	10777604.42	0.0291	0.0029
Mercury	24796-03-21 13:26 G	10777692.91	10777693.06	10777693.21	0.0291	0.0114
Mercury	24796-06-18 08:09 G	10777781.77	10777781.84	10777781.92	0.0291	0.0253
Moon	24806-12-22 18:14 G	10781621.20	10781621.26	10781621.33	0.0269	0.0257
Earth	24806-12-22 18:57 G	10781621.23	10781621.29	10781621.37	0.0269	0.0257 *
Venus	24806-12-27 12:00 G	10781625.87	10781626.00	10781626.14	0.0269	0.0204

Venus	24807-08-13 14:24 G	10781854.89	10781855.10	10781855.31	0.0268	0.0022
Earth	24808-01-03 19:12 G	10781998.08	10781998.30	10781998.53	0.0268	0.0108
Moon	24808-01-03 22:33 G	10781998.22	10781998.44	10781998.67	0.0268	0.0098 *
Venus	24808-03-29 16:04 G	10782084.01	10782084.17	10782084.35	0.0268	0.0161
Mercury	24810-07-07 22:04 G	10782914.34	10782914.42	10782914.51	0.0268	0.0211
Mercury	24810-10-04 10:19 G	10783002.80	10783002.93	10783003.06	0.0268	0.0117
Mercury	24810-12-31 22:33 G	10783091.29	10783091.44	10783091.58	0.0268	0.0021
Mercury	24811-03-30 11:02 G	10783179.82	10783179.96	10783180.10	0.0269	0.0079
Mercury	24811-06-26 23:45 G	10783268.38	10783268.49	10783268.60	0.0269	0.0179
Mars	24814-06-09 04:04 G	10784346.36	10784346.67	10784346.99	0.0274	0.0068
Venus	24822-01-23 03:07 G	10787131.50	10787131.63	10787131.77	0.0291	0.0225
Earth	24822-06-28 09:07 G	10787287.65	10787287.88	10787288.12	0.0292	0.0078
Moon	24822-06-28 10:33 G	10787287.72	10787287.94	10787288.17	0.0292	0.0095 *
Venus	24822-09-10 01:55 G	10787361.37	10787361.58	10787361.80	0.0292	0.0013
Venus	24823-04-28 00:57 G	10787591.45	10787591.54	10787591.66	0.0292	0.0251
Mercury	24825-02-11 22:04 G	10788247.31	10788247.42	10788247.53	0.0292	0.0221
Mercury	24825-05-11 18:00 G	10788336.09	10788336.25	10788336.42	0.0292	0.0073
Mercury	24825-08-08 13:40 G	10788424.91	10788425.07	10788425.23	0.0292	0.0073
Mercury	24825-11-05 08:38 G	10788513.75	10788513.86	10788513.97	0.0291	0.0214
Mars	24828-08-12 15:50 G	10789525.00	10789525.16	10789525.35	0.0286	0.0216
Venus	24836-07-08 18:43 G	10792412.13	10792412.28	10792412.45	0.0268	0.0176
Moon	24836-12-28 22:48 G	10792585.21	10792585.45	10792585.70	0.0268	0.0052
Earth	24836-12-29 02:09 G	10792585.35	10792585.59	10792585.84	0.0268	0.0044 *
Venus	24837-02-22 21:07 G	10792641.16	10792641.38	10792641.59	0.0268	0.0009
Venus	24837-10-09 22:48 G	10792870.31	10792870.45	10792870.61	0.0267	0.0189
Mercury	24839-11-25 01:12 G	10793646.48	10793646.55	10793646.62	0.0267	0.0232
Mercury	24840-02-21 12:57 G	10793734.92	10793735.04	10793735.17	0.0268	0.0139
Mercury	24840-05-20 01:12 G	10793823.41	10793823.55	10793823.70	0.0268	0.0043
Mercury	24840-08-16 13:40 G	10793911.93	10793912.07	10793912.21	0.0268	0.0055
Mercury	24840-11-13 02:09 G	10794000.48	10794000.59	10794000.72	0.0268	0.0156

Mercury	24841-02-09 15:07 G	10794089.10	10794089.13	10794089.18	0.0269	0.0257
Earth	24851-06-22 08:09 G	10797873.84	10797873.84	10797873.87	0.0291	0.0290
Venus	24851-08-05 08:24 G	10797917.70	10797917.85	10797918.01	0.0291	0.0197
Venus	24852-03-22 07:12 G	10798147.59	10798147.80	10798148.01	0.0292	0.0041
Moon	24852-07-05 11:31 G	10798252.79	10798252.98	10798253.19	0.0292	0.0170
Earth	24852-07-05 15:36 G	10798252.97	10798253.15	10798253.34	0.0292	0.0187 *
Venus	24852-11-07 05:45 G	10798377.69	10798377.74	10798377.81	0.0292	0.0279
Mercury	24854-07-01 20:38 G	10798979.30	10798979.36	10798979.42	0.0292	0.0272
Mercury	24854-09-28 16:48 G	10799068.05	10799068.20	10799068.35	0.0292	0.0122
Mercury	24854-12-26 12:28 G	10799156.86	10799157.02	10799157.19	0.0291	0.0025
Mercury	24855-03-25 07:40 G	10799245.69	10799245.82	10799245.95	0.0291	0.0166
Earth	24865-12-23 20:38 G	10803172.22	10803172.36	10803172.52	0.0269	0.0214
Moon	24865-12-23 23:45 G	10803172.36	10803172.49	10803172.64	0.0269	0.0217 *
Venus	24866-01-18 18:28 G	10803198.10	10803198.27	10803198.44	0.0268	0.0159
Venus	24866-09-04 20:24 G	10803427.14	10803427.35	10803427.57	0.0268	0.0024
Earth	24867-01-04 20:24 G	10803549.15	10803549.35	10803549.55	0.0268	0.0151
Moon	24867-01-04 22:19 G	10803549.22	10803549.43	10803549.66	0.0268	0.0138 *
Venus	24867-04-21 22:04 G	10803656.29	10803656.42	10803656.56	0.0268	0.0204
Mercury	24869-07-10 13:55 G	10804466.97	10804467.08	10804467.18	0.0268	0.0177
Mercury	24869-10-07 01:55 G	10804555.44	10804555.58	10804555.72	0.0268	0.0082
Mercury	24870-01-03 14:09 G	10804643.95	10804644.09	10804644.24	0.0268	0.0015
Mercury	24870-04-02 02:38 G	10804732.48	10804732.61	10804732.75	0.0269	0.0114
Mercury	24870-06-29 15:21 G	10804821.06	10804821.14	10804821.23	0.0269	0.0215
Venus	24881-02-14 11:02 G	10808703.80	10808703.96	10808704.14	0.0291	0.0174
Earth	24881-06-29 10:33 G	10808838.69	10808838.94	10808839.18	0.0292	0.0032
Moon	24881-06-29 14:09 G	10808838.85	10808839.09	10808839.34	0.0292	0.0049 *
Venus	24881-10-02 10:04 G	10808933.71	10808933.92	10808934.13	0.0292	0.0064
Mercury	24884-02-15 15:50 G	10809800.02	10809800.16	10809800.29	0.0292	0.0172
Mercury	24884-05-14 11:45 G	10809888.82	10809888.99	10809889.15	0.0292	0.0023
Mercury	24884-08-11 07:12 G	10809977.65	10809977.80	10809977.94	0.0292	0.0121

Mercury	24884-11-08 01:55 G	10810066.51	10810066.58	10810066.65	0.0292	0.0261
Venus	24895-08-01 00:43 G	10813984.35	10813984.53	10813984.72	0.0268	0.0132
Moon	24895-12-31 00:57 G	10814136.30	10814136.54	10814136.78	0.0268	0.0012
Earth	24895-12-31 03:07 G	10814136.38	10814136.63	10814136.87	0.0268	0.0003 *
Venus	24896-03-17 02:38 G	10814213.41	10814213.61	10814213.82	0.0268	0.0051
Venus	24896-11-01 04:19 G	10814442.59	10814442.68	10814442.79	0.0267	0.0231
Mercury	24898-11-27 16:48 G	10815199.10	10815199.20	10815199.29	0.0267	0.0199
Mercury	24899-02-24 04:48 G	10815287.56	10815287.70	10815287.83	0.0267	0.0105
Mercury	24899-05-23 17:02 G	10815376.06	10815376.21	10815376.35	0.0268	0.0012
Mercury	24899-08-20 05:16 G	10815464.59	10815464.72	10815464.86	0.0268	0.0090
Mercury	24899-11-16 18:00 G	10815553.15	10815553.25	10815553.36	0.0268	0.0190
Mars	24902-11-03 12:57 G	10816634.76	10816635.04	10816635.34	0.0273	0.0122
Moon	24910-06-24 05:45 G	10819424.65	10819424.74	10819424.86	0.0291	0.0262
Earth	24910-06-24 09:21 G	10819424.76	10819424.89	10819425.02	0.0291	0.0244 *
Venus	24910-08-28 16:19 G	10819489.99	10819490.18	10819490.36	0.0292	0.0146
Venus	24911-04-15 15:07 G	10819719.93	10819720.13	10819720.33	0.0292	0.0093
Moon	24911-07-08 16:04 G	10819804.02	10819804.17	10819804.33	0.0292	0.0220
Earth	24911-07-08 16:48 G	10819804.06	10819804.20	10819804.35	0.0292	0.0234 *
Mercury	24913-07-05 14:09 G	10820531.99	10820532.09	10820532.21	0.0292	0.0223
Mercury	24913-10-02 10:33 G	10820620.78	10820620.94	10820621.10	0.0292	0.0073
Mercury	24913-12-30 06:00 G	10820709.59	10820709.75	10820709.91	0.0292	0.0073
Mercury	24914-03-29 01:12 G	10820798.44	10820798.55	10820798.65	0.0291	0.0214
Mars	24917-01-06 21:21 G	10821813.27	10821813.39	10821813.54	0.0286	0.0245
Earth	24924-12-25 21:50 G	10824723.23	10824723.41	10824723.61	0.0268	0.0171
Moon	24924-12-26 00:28 G	10824723.34	10824723.52	10824723.72	0.0268	0.0174 *
Venus	24925-02-11 00:14 G	10824770.33	10824770.51	10824770.71	0.0268	0.0115
Venus	24925-09-28 02:09 G	10824999.39	10824999.59	10824999.80	0.0268	0.0067
Moon	24926-01-06 18:00 G	10825100.07	10825100.25	10825100.44	0.0267	0.0178
Earth	24926-01-06 20:52 G	10825100.20	10825100.37	10825100.54	0.0267	0.0193 *
Venus	24926-05-15 03:36 G	10825228.58	10825228.65	10825228.74	0.0267	0.0247

Mercury	24928-04-16 17:16 G	10825931.17	10825931.22	10825931.29	0.0268	0.0238
Mercury	24928-07-14 05:16 G	10826019.60	10826019.72	10826019.84	0.0268	0.0144
Mercury	24928-10-10 17:16 G	10826108.08	10826108.22	10826108.37	0.0268	0.0050
Mercury	24929-01-07 05:45 G	10826196.60	10826196.74	10826196.88	0.0268	0.0048
Mercury	24929-04-05 18:14 G	10826285.14	10826285.26	10826285.38	0.0268	0.0148
Mercury	24929-07-03 06:57 G	10826373.75	10826373.79	10826373.85	0.0269	0.0250
Venus	24940-03-09 17:45 G	10830276.05	10830276.24	10830276.43	0.0291	0.0124
Moon	24940-07-01 09:07 G	10830389.63	10830389.88	10830390.14	0.0292	0.0002
Earth	24940-07-01 09:21 G	10830389.65	10830389.89	10830390.14	0.0292	0.0012 *
Venus	24940-10-25 16:48 G	10830506.01	10830506.20	10830506.40	0.0292	0.0114
Mercury	24942-11-22 12:28 G	10831263.98	10831264.02	10831264.07	0.0293	0.0278
Mercury	24943-02-19 08:52 G	10831352.72	10831352.87	10831353.02	0.0292	0.0126
Mercury	24943-05-19 04:48 G	10831441.53	10831441.70	10831441.86	0.0292	0.0022
Mercury	24943-08-16 00:00 G	10831530.37	10831530.50	10831530.64	0.0292	0.0165
Venus	24954-08-24 06:14 G	10835556.56	10835556.76	10835556.96	0.0268	0.0088
Earth	24955-01-02 02:52 G	10835687.38	10835687.62	10835687.87	0.0268	0.0039
Moon	24955-01-02 05:02 G	10835687.47	10835687.71	10835687.95	0.0268	0.0027 *
Venus	24955-04-10 07:55 G	10835785.63	10835785.83	10835786.03	0.0267	0.0093
Mercury	24957-09-03 20:09 G	10836663.32	10836663.34	10836663.38	0.0267	0.0259
Mercury	24957-12-01 08:09 G	10836751.73	10836751.84	10836751.95	0.0267	0.0166
Mercury	24958-02-27 20:09 G	10836840.20	10836840.34	10836840.48	0.0267	0.0072
Mercury	24958-05-27 08:24 G	10836928.71	10836928.85	10836929.00	0.0268	0.0025
Mercury	24958-08-23 20:52 G	10837017.24	10837017.37	10837017.50	0.0268	0.0124
Mercury	24958-11-20 09:36 G	10837105.83	10837105.90	10837105.98	0.0268	0.0225
Earth	24969-06-25 09:07 G	10840975.71	10840975.88	10840976.06	0.0291	0.0201
Moon	24969-06-25 09:50 G	10840975.76	10840975.91	10840976.07	0.0291	0.0214 *
Venus	24969-09-19 23:16 G	10841062.28	10841062.47	10841062.68	0.0292	0.0096
Venus	24970-05-07 22:33 G	10841292.26	10841292.44	10841292.62	0.0292	0.0144
Earth	24970-07-09 17:02 G	10841355.15	10841355.21	10841355.29	0.0292	0.0280
Moon	24970-07-09 20:38 G	10841355.28	10841355.36	10841355.46	0.0292	0.0269 *

Mercury	24972-07-08 07:40 G	10842084.69	10842084.82	10842084.96	0.0292	0.0176
Mercury	24972-10-05 03:50 G	10842173.49	10842173.66	10842173.82	0.0292	0.0027
Mercury	24973-01-01 23:16 G	10842262.32	10842262.47	10842262.62	0.0292	0.0118
Mercury	24973-03-31 18:00 G	10842351.19	10842351.25	10842351.33	0.0292	0.0259
Venus	24983-07-20 03:50 G	10846113.59	10846113.66	10846113.73	0.0269	0.0253
Moon	24983-12-27 20:24 G	10846274.15	10846274.35	10846274.58	0.0268	0.0138
Earth	24983-12-27 22:19 G	10846274.23	10846274.43	10846274.66	0.0268	0.0130 *
Venus	24984-03-05 05:45 G	10846342.54	10846342.74	10846342.95	0.0268	0.0072
Venus	24984-10-20 07:40 G	10846571.63	10846571.82	10846572.01	0.0267	0.0110
Moon	24985-01-07 18:00 G	10846651.12	10846651.25	10846651.39	0.0267	0.0218
Earth	24985-01-07 20:52 G	10846651.26	10846651.37	10846651.50	0.0267	0.0233 *
Mercury	24987-04-20 08:52 G	10847483.78	10847483.87	10847483.96	0.0267	0.0205
Mercury	24987-07-17 20:38 G	10847572.24	10847572.36	10847572.50	0.0267	0.0112
Mercury	24987-10-14 08:52 G	10847660.73	10847660.87	10847661.02	0.0268	0.0016
Mercury	24988-01-10 21:21 G	10847749.25	10847749.39	10847749.53	0.0268	0.0082
Mercury	24988-04-08 09:50 G	10847837.81	10847837.91	10847838.02	0.0268	0.0182
Mars	24991-03-28 17:31 G	10848921.96	10848922.23	10848922.52	0.0273	0.0134
Venus	24999-04-01 23:45 G	10851848.28	10851848.49	10851848.69	0.0292	0.0076
Moon	24999-07-03 03:36 G	10851940.41	10851940.65	10851940.90	0.0292	0.0043
Earth	24999-07-03 07:12 G	10851940.56	10851940.80	10851941.05	0.0292	0.0053 *
Venus	24999-11-17 22:48 G	10852078.28	10852078.45	10852078.63	0.0292	0.0163

26TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 26th millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Mercury	25001-11-26 05:16 G	10852816.63	10852816.72	10852816.82	0.0293	0.0235
Mercury	25002-02-23 01:40 G	10852905.41	10852905.57	10852905.73	0.0293	0.0084
Mercury	25002-05-22 21:21 G	10852994.23	10852994.39	10852994.55	0.0292	0.0064
Mercury	25002-08-19 16:33 G	10853083.08	10853083.19	10853083.30	0.0292	0.0206
Mars	25005-06-03 03:07 G	10854101.61	10854101.63	10854101.69	0.0287	0.0284
Venus	25013-01-30 09:21 G	10856899.78	10856899.89	10856900.00	0.0269	0.0227
Venus	25013-09-16 11:31 G	10857128.77	10857128.98	10857129.19	0.0268	0.0045
Earth	25014-01-04 02:52 G	10857238.39	10857238.62	10857238.86	0.0268	0.0079
Moon	25014-01-04 06:14 G	10857238.53	10857238.76	10857239.01	0.0268	0.0067 *
Venus	25014-05-03 13:12 G	10857357.87	10857358.05	10857358.23	0.0267	0.0137
Mercury	25016-09-07 11:45 G	10858215.92	10858215.99	10858216.07	0.0267	0.0226
Mercury	25016-12-04 23:31 G	10858304.36	10858304.48	10858304.61	0.0267	0.0134
Mercury	25017-03-03 11:45 G	10858392.85	10858392.99	10858393.13	0.0267	0.0038
Mercury	25017-05-31 00:00 G	10858481.36	10858481.50	10858481.64	0.0267	0.0060
Mercury	25017-08-27 12:28 G	10858569.91	10858570.02	10858570.14	0.0268	0.0159
Mercury	25017-11-24 01:26 G	10858658.53	10858658.56	10858658.59	0.0268	0.0260
Venus	25028-02-26 07:26 G	10862404.76	10862404.81	10862404.86	0.0291	0.0282
Earth	25028-06-27 07:40 G	10862526.63	10862526.82	10862527.04	0.0292	0.0159
Moon	25028-06-27 11:31 G	10862526.78	10862526.98	10862527.18	0.0292	0.0171 *
Venus	25028-10-13 06:00 G	10862634.54	10862634.75	10862634.96	0.0292	0.0046
Venus	25029-05-31 05:02 G	10862864.56	10862864.71	10862864.87	0.0293	0.0194
Mercury	25031-04-15 04:19 G	10863548.65	10863548.68	10863548.73	0.0293	0.0282
Mercury	25031-07-13 00:43 G	10863637.39	10863637.53	10863637.69	0.0292	0.0131
Mercury	25031-10-09 20:38 G	10863726.20	10863726.36	10863726.53	0.0292	0.0020
Mercury	25032-01-06 16:04 G	10863815.04	10863815.17	10863815.31	0.0292	0.0162
Venus	25042-08-12 09:36 G	10867685.78	10867685.90	10867686.04	0.0268	0.0209
Moon	25042-12-29 19:40 G	10867825.10	10867825.32	10867825.55	0.0268	0.0100
Earth	25042-12-29 23:16 G	10867825.24	10867825.47	10867825.71	0.0268	0.0089 *

Venus	25043-03-29 11:31 G	10867914.77	10867914.98	10867915.20	0.0268	0.0028
Venus	25043-11-13 13:12 G	10868143.88	10868144.05	10868144.22	0.0267	0.0153
Moon	25044-01-10 22:33 G	10868202.39	10868202.44	10868202.49	0.0267	0.0261
Mercury	25046-01-25 12:43 G	10868948.01	10868948.03	10868948.05	0.0267	0.0263
Mercury	25046-04-24 00:28 G	10869036.41	10869036.52	10869036.63	0.0267	0.0171
Mercury	25046-07-21 12:28 G	10869124.88	10869125.02	10869125.15	0.0267	0.0077
Mercury	25046-10-18 00:28 G	10869213.38	10869213.52	10869213.67	0.0268	0.0021
Mercury	25047-01-14 12:57 G	10869301.91	10869302.04	10869302.17	0.0268	0.0118
Mercury	25047-04-13 01:40 G	10869390.49	10869390.57	10869390.66	0.0268	0.0218
Venus	25057-09-07 07:26 G	10873190.72	10873190.81	10873190.90	0.0291	0.0262
Venus	25058-04-25 06:14 G	10873420.55	10873420.76	10873420.98	0.0292	0.0027
Moon	25058-07-05 04:48 G	10873491.48	10873491.70	10873491.93	0.0292	0.0088
Earth	25058-07-05 06:14 G	10873491.53	10873491.76	10873491.99	0.0292	0.0095 *
Venus	25058-12-11 05:31 G	10873650.59	10873650.73	10873650.88	0.0292	0.0213
Mercury	25060-11-28 22:19 G	10874369.30	10874369.43	10874369.56	0.0293	0.0190
Mercury	25061-02-25 18:28 G	10874458.10	10874458.27	10874458.43	0.0293	0.0040
Mercury	25061-05-25 13:55 G	10874546.93	10874547.08	10874547.24	0.0292	0.0107
Mercury	25061-08-22 09:07 G	10874635.80	10874635.88	10874635.96	0.0292	0.0249
Mars	25063-09-09 22:19 G	10875384.41	10875384.43	10875384.46	0.0289	0.0287
Earth	25071-12-25 03:07 G	10878412.54	10878412.63	10878412.73	0.0269	0.0246
Moon	25071-12-25 06:43 G	10878412.71	10878412.78	10878412.87	0.0269	0.0254 *
Venus	25072-02-22 14:38 G	10878471.97	10878472.11	10878472.27	0.0269	0.0184
Venus	25072-10-08 17:02 G	10878701.00	10878701.21	10878701.42	0.0268	0.0001
Moon	25073-01-05 02:52 G	10878789.39	10878789.62	10878789.85	0.0268	0.0105
Earth	25073-01-05 03:07 G	10878789.42	10878789.63	10878789.85	0.0268	0.0119 *
Venus	25073-05-25 18:28 G	10878930.12	10878930.27	10878930.43	0.0267	0.0180
Mercury	25075-09-11 03:21 G	10879768.54	10879768.64	10879768.74	0.0267	0.0192
Mercury	25075-12-08 15:21 G	10879857.01	10879857.14	10879857.27	0.0267	0.0099
Mercury	25076-03-06 03:21 G	10879945.50	10879945.64	10879945.79	0.0267	0.0007
Mercury	25076-06-02 15:50 G	10880034.02	10880034.16	10880034.29	0.0267	0.0095

Mercury	25076-08-30 04:19 G	10880122.59	10880122.68	10880122.78	0.0268	0.0195
Mars	25079-08-23 07:12 G	10881210.58	10881210.80	10881211.04	0.0272	0.0190
Venus	25087-03-20 14:38 G	10883976.98	10883977.11	10883977.24	0.0291	0.0231
Earth	25087-06-29 07:55 G	10884077.60	10884077.83	10884078.06	0.0292	0.0114
Moon	25087-06-29 09:07 G	10884077.65	10884077.88	10884078.11	0.0292	0.0124 *
Venus	25087-11-05 13:26 G	10884206.84	10884207.06	10884207.27	0.0292	0.0007
Venus	25088-06-22 12:14 G	10884436.91	10884437.01	10884437.13	0.0293	0.0245
Mercury	25090-04-17 21:36 G	10885101.31	10885101.40	10885101.51	0.0293	0.0236
Mercury	25090-07-15 18:00 G	10885190.09	10885190.25	10885190.41	0.0293	0.0084
Mercury	25090-10-12 13:40 G	10885278.91	10885279.07	10885279.24	0.0292	0.0064
Mercury	25091-01-09 08:52 G	10885367.76	10885367.87	10885367.99	0.0292	0.0207
Venus	25101-09-04 15:50 G	10889258.00	10889258.16	10889258.34	0.0268	0.0164
Earth	25102-01-01 00:57 G	10889376.30	10889376.54	10889376.78	0.0268	0.0046
Moon	25102-01-01 01:26 G	10889376.33	10889376.56	10889376.79	0.0268	0.0060 *
Venus	25102-04-21 18:00 G	10889487.04	10889487.25	10889487.46	0.0268	0.0018
Venus	25102-12-06 19:12 G	10889716.17	10889716.30	10889716.45	0.0267	0.0198
Mercury	25105-01-29 04:19 G	10890500.62	10890500.68	10890500.76	0.0267	0.0228
Mercury	25105-04-27 16:19 G	10890589.06	10890589.18	10890589.30	0.0267	0.0135
Mercury	25105-07-25 04:19 G	10890677.54	10890677.68	10890677.82	0.0267	0.0040
Mercury	25105-10-21 16:33 G	10890766.05	10890766.19	10890766.33	0.0267	0.0057
Mercury	25106-01-18 05:02 G	10890854.59	10890854.71	10890854.83	0.0268	0.0156
Mercury	25106-04-16 17:45 G	10890943.21	10890943.24	10890943.28	0.0268	0.0257
Venus	25116-09-30 14:38 G	10894762.97	10894763.11	10894763.25	0.0291	0.0212
Venus	25117-05-18 13:26 G	10894992.85	10894993.06	10894993.28	0.0292	0.0026
Earth	25117-07-07 06:00 G	10895042.54	10895042.75	10895042.97	0.0292	0.0139
Moon	25117-07-07 08:52 G	10895042.66	10895042.87	10895043.08	0.0292	0.0135 *
Venus	25118-01-03 12:28 G	10895222.94	10895223.02	10895223.12	0.0292	0.0265
Mercury	25119-12-03 15:21 G	10895922.00	10895922.14	10895922.29	0.0293	0.0144
Mercury	25120-03-01 11:16 G	10896010.81	10896010.97	10896011.14	0.0293	0.0010
Mercury	25120-05-29 06:43 G	10896099.65	10896099.78	10896099.93	0.0292	0.0151

Mercury	25120-08-26 01:55 G	10896188.58	10896188.58	10896188.58	0.0292	0.0292
Moon	25130-12-27 04:04 G	10899963.52	10899963.67	10899963.83	0.0269	0.0215
Earth	25130-12-27 04:33 G	10899963.54	10899963.69	10899963.86	0.0269	0.0204 *
Venus	25131-03-17 20:52 G	10900044.19	10900044.37	10900044.56	0.0269	0.0139
Venus	25131-11-01 23:02 G	10900273.25	10900273.46	10900273.67	0.0268	0.0044
Moon	25132-01-08 00:57 G	10900340.33	10900340.54	10900340.74	0.0268	0.0145
Earth	25132-01-08 04:33 G	10900340.50	10900340.69	10900340.89	0.0268	0.0161 *
Venus	25132-06-18 00:28 G	10900502.42	10900502.52	10900502.64	0.0267	0.0225
Mercury	25134-06-18 07:26 G	10901232.76	10901232.81	10901232.86	0.0267	0.0249
Mercury	25134-09-14 19:12 G	10901321.19	10901321.30	10901321.42	0.0267	0.0156
Mercury	25134-12-12 07:12 G	10901409.66	10901409.80	10901409.94	0.0267	0.0062
Mercury	25135-03-10 19:26 G	10901498.17	10901498.31	10901498.45	0.0267	0.0035
Mercury	25135-06-07 07:55 G	10901586.70	10901586.83	10901586.95	0.0267	0.0134
Mercury	25135-09-03 20:24 G	10901675.29	10901675.35	10901675.43	0.0268	0.0235
Venus	25146-04-12 23:16 G	10905549.31	10905549.47	10905549.64	0.0292	0.0179
Moon	25146-07-01 06:57 G	10905628.56	10905628.79	10905629.04	0.0292	0.0074
Earth	25146-07-01 10:19 G	10905628.69	10905628.93	10905629.17	0.0292	0.0066 *
Venus	25146-11-28 22:04 G	10905779.21	10905779.42	10905779.63	0.0292	0.0059
Mercury	25149-04-21 15:36 G	10906654.02	10906654.15	10906654.28	0.0293	0.0184
Mercury	25149-07-19 11:45 G	10906742.83	10906742.99	10906743.16	0.0293	0.0034
Mercury	25149-10-16 07:26 G	10906831.66	10906831.81	10906831.96	0.0292	0.0113
Mercury	25150-01-13 02:24 G	10906920.53	10906920.60	10906920.68	0.0292	0.0255
Mars	25152-02-04 08:38 G	10907672.73	10907672.86	10907673.00	0.0289	0.0250
Venus	25160-09-26 23:02 G	10910830.28	10910830.46	10910830.66	0.0268	0.0118
Earth	25161-01-02 03:50 G	10910927.41	10910927.66	10910927.91	0.0268	0.0002
Moon	25161-01-02 07:40 G	10910927.58	10910927.82	10910928.06	0.0268	0.0017 *
Venus	25161-05-14 00:57 G	10911059.34	10911059.54	10911059.75	0.0267	0.0064
Venus	25161-12-29 02:09 G	10911288.52	10911288.59	10911288.68	0.0267	0.0244
Mercury	25164-02-01 20:38 G	10912053.26	10912053.36	10912053.46	0.0267	0.0190
Mercury	25164-04-30 08:38 G	10912141.72	10912141.86	10912141.99	0.0267	0.0097

Mercury	25164-07-27 20:38 G	10912230.21	10912230.36	10912230.50	0.0267	0.0001
Mercury	25164-10-24 08:52 G	10912318.74	10912318.87	10912319.01	0.0267	0.0098
Mercury	25165-01-20 21:21 G	10912407.30	10912407.39	10912407.50	0.0268	0.0197
Mars	25168-01-17 02:38 G	10913498.45	10913498.61	10913498.81	0.0272	0.0223
Earth	25175-06-25 01:55 G	10916214.56	10916214.58	10916214.61	0.0291	0.0289
Venus	25175-10-23 23:31 G	10916335.31	10916335.48	10916335.67	0.0291	0.0159
Venus	25176-06-09 22:33 G	10916565.24	10916565.44	10916565.64	0.0292	0.0080
Earth	25176-07-08 09:07 G	10916593.70	10916593.88	10916594.07	0.0292	0.0187
Moon	25176-07-08 12:14 G	10916593.82	10916594.01	10916594.21	0.0292	0.0184 *
Mercury	25178-09-08 12:43 G	10917385.94	10917386.03	10917386.12	0.0293	0.0246
Mercury	25178-12-06 09:07 G	10917474.72	10917474.88	10917475.04	0.0293	0.0094
Mercury	25179-03-05 05:02 G	10917563.54	10917563.71	10917563.87	0.0292	0.0055
Mercury	25179-06-02 00:14 G	10917652.40	10917652.51	10917652.63	0.0292	0.0199
Moon	25189-12-28 03:50 G	10921514.47	10921514.66	10921514.84	0.0269	0.0174
Earth	25189-12-28 07:26 G	10921514.61	10921514.81	10921515.01	0.0269	0.0160 *
Venus	25190-04-09 03:50 G	10921616.47	10921616.66	10921616.86	0.0269	0.0093
Venus	25190-11-24 06:00 G	10921845.55	10921845.75	10921845.95	0.0268	0.0090
Moon	25191-01-09 06:28 G	10921891.60	10921891.77	10921891.93	0.0268	0.0191
Earth	25191-01-09 07:12 G	10921891.65	10921891.80	10921891.97	0.0268	0.0205 *
Mercury	25193-06-20 23:31 G	10922785.40	10922785.48	10922785.57	0.0267	0.0211
Mercury	25193-09-17 11:31 G	10922873.85	10922873.98	10922874.11	0.0267	0.0118
Mercury	25193-12-14 23:31 G	10922962.34	10922962.48	10922962.62	0.0267	0.0022
Mercury	25194-03-13 11:45 G	10923050.85	10923050.99	10923051.13	0.0267	0.0076
Mercury	25194-06-10 00:14 G	10923139.41	10923139.51	10923139.63	0.0268	0.0175
Venus	25205-05-05 09:21 G	10927121.70	10927121.89	10927122.08	0.0292	0.0123
Moon	25205-07-02 12:14 G	10927179.77	10927180.01	10927180.25	0.0292	0.0019
Earth	25205-07-02 15:07 G	10927179.88	10927180.13	10927180.37	0.0292	0.0015 *
Venus	25205-12-21 08:09 G	10927351.65	10927351.84	10927352.04	0.0292	0.0116
Mercury	25208-01-26 13:12 G	10928118.02	10928118.05	10928118.10	0.0293	0.0283
Mercury	25208-04-24 09:50 G	10928206.77	10928206.91	10928207.07	0.0293	0.0130

Mercury	25208-07-22 06:00 G	10928295.58	10928295.75	10928295.91	0.0293	0.0021
Mercury	25208-10-19 01:12 G	10928384.42	10928384.55	10928384.69	0.0292	0.0166
Venus	25219-03-05 04:33 G	10932173.63	10932173.69	10932173.77	0.0269	0.0253
Venus	25219-10-20 07:12 G	10932402.60	10932402.80	10932403.01	0.0268	0.0070
Earth	25220-01-04 08:24 G	10932478.61	10932478.85	10932479.09	0.0268	0.0045
Moon	25220-01-04 09:21 G	10932478.64	10932478.89	10932479.15	0.0268	0.0030 *
Venus	25220-06-05 08:52 G	10932631.69	10932631.87	10932632.07	0.0267	0.0112
Mercury	25222-11-08 01:12 G	10933517.50	10933517.55	10933517.62	0.0267	0.0242
Mercury	25223-02-04 13:12 G	10933605.93	10933606.05	10933606.17	0.0267	0.0149
Mercury	25223-05-04 00:57 G	10933694.41	10933694.54	10933694.69	0.0267	0.0055
Mercury	25223-07-31 13:12 G	10933782.91	10933783.05	10933783.20	0.0267	0.0043
Mercury	25223-10-28 01:40 G	10933871.45	10933871.57	10933871.69	0.0267	0.0141
Mercury	25224-01-24 14:09 G	10933960.04	10933960.09	10933960.16	0.0268	0.0242
Earth	25234-06-26 08:09 G	10937765.71	10937765.84	10937765.99	0.0291	0.0236
Moon	25234-06-26 10:04 G	10937765.78	10937765.92	10937766.07	0.0291	0.0238 *
Venus	25234-11-15 10:48 G	10937907.75	10937907.95	10937908.15	0.0291	0.0100
Venus	25235-07-03 09:36 G	10938137.72	10938137.90	10938138.09	0.0292	0.0139
Moon	25235-07-10 14:09 G	10938144.96	10938145.09	10938145.24	0.0292	0.0242
Earth	25235-07-10 15:21 G	10938145.02	10938145.14	10938145.29	0.0292	0.0241 *
Mercury	25237-09-11 07:26 G	10938938.69	10938938.81	10938938.94	0.0293	0.0188
Mercury	25237-12-09 03:36 G	10939027.49	10939027.65	10939027.82	0.0292	0.0038
Mercury	25238-03-07 23:16 G	10939116.32	10939116.47	10939116.63	0.0292	0.0111
Mercury	25238-06-04 18:28 G	10939205.20	10939205.27	10939205.35	0.0292	0.0253
Mars	25240-06-29 12:57 G	10939960.88	10939961.04	10939961.22	0.0289	0.0222
Venus	25248-09-14 09:21 G	10942959.78	10942959.89	10942960.00	0.0269	0.0228
Moon	25248-12-29 10:04 G	10943065.72	10943065.92	10943066.14	0.0269	0.0127
Earth	25248-12-29 11:31 G	10943065.76	10943065.98	10943066.21	0.0269	0.0114 *
Venus	25249-05-01 12:00 G	10943188.79	10943189.00	10943189.21	0.0269	0.0045
Venus	25249-12-16 13:55 G	10943417.90	10943418.08	10943418.26	0.0268	0.0138
Earth	25250-01-10 11:31 G	10943442.91	10943442.98	10943443.08	0.0268	0.0251

Moon	25250-01-10 15:07 G	10943443.03	10943443.13	10943443.24	0.0268	0.0239 *
Mercury	25252-03-27 04:19 G	10944249.66	10944249.68	10944249.70	0.0267	0.0263
Mercury	25252-06-23 16:04 G	10944338.06	10944338.17	10944338.28	0.0267	0.0171
Mercury	25252-09-20 04:04 G	10944426.53	10944426.67	10944426.81	0.0267	0.0076
Mercury	25252-12-17 16:04 G	10944515.03	10944515.17	10944515.32	0.0267	0.0022
Mercury	25253-03-16 04:33 G	10944603.56	10944603.69	10944603.82	0.0268	0.0119
Mercury	25253-06-12 17:16 G	10944692.14	10944692.22	10944692.30	0.0268	0.0220
Venus	25264-05-27 21:50 G	10948694.20	10948694.41	10948694.62	0.0292	0.0063
Earth	25264-07-03 23:31 G	10948731.24	10948731.48	10948731.73	0.0292	0.0043
Moon	25264-07-04 01:40 G	10948731.33	10948731.57	10948731.80	0.0292	0.0044 *
Venus	25265-01-12 20:38 G	10948924.19	10948924.36	10948924.53	0.0292	0.0177
Mercury	25267-01-29 08:52 G	10949670.76	10949670.87	10949670.98	0.0293	0.0220
Mercury	25267-04-28 05:02 G	10949759.55	10949759.71	10949759.88	0.0293	0.0069
Mercury	25267-07-26 00:57 G	10949848.38	10949848.54	10949848.70	0.0293	0.0080
Mercury	25267-10-22 20:09 G	10949937.24	10949937.34	10949937.45	0.0292	0.0223
Venus	25278-03-27 13:40 G	10953745.94	10953746.07	10953746.21	0.0269	0.0204
Venus	25278-11-11 16:19 G	10953974.97	10953975.18	10953975.39	0.0268	0.0021
Moon	25279-01-05 11:31 G	10954029.74	10954029.98	10954030.22	0.0268	0.0080
Earth	25279-01-05 14:38 G	10954029.88	10954030.11	10954030.34	0.0268	0.0094 *
Venus	25279-06-28 18:00 G	10954204.09	10954204.25	10954204.42	0.0267	0.0161
Mercury	25281-11-10 18:00 G	10955070.17	10955070.25	10955070.35	0.0267	0.0199
Mercury	25282-02-07 06:00 G	10955158.62	10955158.75	10955158.88	0.0267	0.0105
Mercury	25282-05-06 18:14 G	10955247.11	10955247.26	10955247.40	0.0267	0.0012
Mercury	25282-08-03 06:28 G	10955335.63	10955335.77	10955335.91	0.0267	0.0089
Mercury	25282-10-30 18:57 G	10955424.19	10955424.29	10955424.39	0.0268	0.0188
Venus	25293-04-22 01:26 G	10959250.51	10959250.56	10959250.64	0.0290	0.0275
Moon	25293-06-27 15:21 G	10959316.95	10959317.14	10959317.35	0.0291	0.0175
Earth	25293-06-27 18:28 G	10959317.07	10959317.27	10959317.46	0.0291	0.0177 *
Venus	25293-12-08 00:00 G	10959480.29	10959480.50	10959480.72	0.0291	0.0039
Venus	25294-07-25 23:02 G	10959710.30	10959710.46	10959710.61	0.0292	0.0200

Mercury	25296-06-17 06:28 G	10960402.72	10960402.77	10960402.83	0.0293	0.0277
Mercury	25296-09-14 03:07 G	10960491.48	10960491.63	10960491.78	0.0292	0.0124
Mercury	25296-12-11 23:02 G	10960580.30	10960580.46	10960580.63	0.0292	0.0026
Mercury	25297-03-10 18:28 G	10960669.14	10960669.27	10960669.40	0.0292	0.0171
Venus	25307-10-08 18:14 G	10964532.11	10964532.26	10964532.42	0.0269	0.0180
Earth	25308-01-01 17:31 G	10964616.99	10964617.23	10964617.47	0.0269	0.0064
Moon	25308-01-01 20:09 G	10964617.11	10964617.34	10964617.57	0.0269	0.0079 *
Venus	25308-05-24 20:52 G	10964761.16	10964761.37	10964761.58	0.0269	0.0005
Venus	25309-01-08 22:48 G	10964990.30	10964990.45	10964990.61	0.0268	0.0187
Mercury	25311-03-31 21:07 G	10965802.30	10965802.38	10965802.46	0.0267	0.0221
Mercury	25311-06-28 08:52 G	10965890.75	10965890.87	10965891.00	0.0267	0.0128
Mercury	25311-09-24 20:52 G	10965979.23	10965979.37	10965979.52	0.0267	0.0032
Mercury	25311-12-22 09:07 G	10966067.74	10966067.88	10966068.03	0.0268	0.0067
Mercury	25312-03-19 21:36 G	10966156.29	10966156.40	10966156.52	0.0268	0.0166
Mercury	25312-06-16 10:33 G	10966244.93	10966244.94	10966244.94	0.0268	0.0267
Mars	25314-09-17 05:16 G	10967067.63	10967067.72	10967067.86	0.0271	0.0253
Venus	25322-11-03 13:26 G	10970036.94	10970037.06	10970037.19	0.0291	0.0236
Venus	25323-06-21 12:00 G	10970266.79	10970267.00	10970267.21	0.0292	0.0002
Earth	25323-07-07 11:02 G	10970282.74	10970282.96	10970283.20	0.0292	0.0105
Moon	25323-07-07 14:38 G	10970282.89	10970283.11	10970283.35	0.0292	0.0109 *
Venus	25324-02-06 10:33 G	10970496.83	10970496.94	10970497.07	0.0293	0.0241
Mercury	25326-02-02 05:02 G	10971223.57	10971223.71	10971223.85	0.0293	0.0152
Mercury	25326-05-02 01:12 G	10971312.38	10971312.55	10971312.71	0.0293	0.0006
Mercury	25326-07-29 20:38 G	10971401.22	10971401.36	10971401.50	0.0293	0.0145
Mercury	25326-10-26 15:36 G	10971490.13	10971490.15	10971490.18	0.0292	0.0287
Mars	25328-11-24 22:04 G	10972250.20	10972250.42	10972250.67	0.0289	0.0139
Moon	25336-12-26 18:57 G	10975204.17	10975204.29	10975204.42	0.0269	0.0233
Earth	25336-12-26 21:21 G	10975204.26	10975204.39	10975204.54	0.0269	0.0220 *
Venus	25337-04-20 00:00 G	10975318.33	10975318.50	10975318.68	0.0269	0.0153
Venus	25337-12-05 02:24 G	10975547.39	10975547.60	10975547.81	0.0268	0.0031

Moon	25338-01-07 19:55 G	10975581.13	10975581.33	10975581.54	0.0268	0.0133
Earth	25338-01-07 22:33 G	10975581.24	10975581.44	10975581.65	0.0268	0.0146 *
Venus	25338-07-22 03:50 G	10975776.55	10975776.66	10975776.80	0.0267	0.0213
Mercury	25340-08-17 23:31 G	10976534.43	10976534.48	10976534.54	0.0267	0.0246
Mercury	25340-11-14 11:16 G	10976622.86	10976622.97	10976623.09	0.0267	0.0153
Mercury	25341-02-10 23:16 G	10976711.33	10976711.47	10976711.61	0.0267	0.0058
Mercury	25341-05-10 11:31 G	10976799.84	10976799.98	10976800.12	0.0267	0.0039
Mercury	25341-08-07 00:00 G	10976888.37	10976888.50	10976888.62	0.0268	0.0138
Mercury	25341-11-03 12:28 G	10976976.96	10976977.02	10976977.09	0.0268	0.0238
Venus	25352-05-15 17:02 G	10980823.07	10980823.21	10980823.36	0.0291	0.0210
Moon	25352-06-30 04:33 G	10980868.47	10980868.69	10980868.91	0.0291	0.0110
Earth	25352-06-30 07:40 G	10980868.60	10980868.82	10980869.05	0.0291	0.0113 *
Venus	25352-12-31 15:21 G	10981052.93	10981053.14	10981053.36	0.0291	0.0028
Venus	25353-08-18 14:09 G	10981283.01	10981283.09	10981283.18	0.0292	0.0266
Mercury	25355-06-22 03:07 G	10981955.52	10981955.63	10981955.75	0.0292	0.0205
Mercury	25355-09-18 23:31 G	10982044.32	10982044.48	10982044.64	0.0292	0.0054
Mercury	25355-12-16 19:12 G	10982133.15	10982133.30	10982133.46	0.0292	0.0094
Mercury	25356-03-14 14:24 G	10982222.01	10982222.10	10982222.20	0.0292	0.0237
Venus	25366-10-31 04:04 G	10986104.49	10986104.67	10986104.86	0.0269	0.0130
Earth	25367-01-03 00:57 G	10986168.29	10986168.54	10986168.78	0.0269	0.0013
Moon	25367-01-03 04:04 G	10986168.43	10986168.67	10986168.92	0.0269	0.0028 *
Venus	25367-06-17 06:43 G	10986333.57	10986333.78	10986333.99	0.0269	0.0055
Venus	25368-02-01 08:24 G	10986562.76	10986562.85	10986562.96	0.0268	0.0237
Mercury	25370-04-03 14:09 G	10987354.98	10987355.09	10987355.19	0.0267	0.0177
Mercury	25370-07-01 01:55 G	10987443.45	10987443.58	10987443.72	0.0268	0.0082
Mercury	25370-09-27 14:09 G	10987531.95	10987532.09	10987532.23	0.0268	0.0015
Mercury	25370-12-25 02:38 G	10987620.47	10987620.61	10987620.74	0.0268	0.0114
Mercury	25371-03-23 15:07 G	10987709.05	10987709.13	10987709.22	0.0268	0.0215
Venus	25381-11-26 05:31 G	10991609.56	10991609.73	10991609.90	0.0291	0.0170
Earth	25382-07-09 01:26 G	10991834.37	10991834.56	10991834.77	0.0292	0.0171

Moon	25382-07-09 01:40 G	10991834.38	10991834.57	10991834.79	0.0292	0.0176 *
Venus	25382-07-14 03:50 G	10991839.46	10991839.66	10991839.87	0.0292	0.0068
Mercury	25384-11-08 05:16 G	10992687.63	10992687.72	10992687.83	0.0293	0.0233
Mercury	25385-02-05 01:55 G	10992776.42	10992776.58	10992776.74	0.0293	0.0080
Mercury	25385-05-04 21:36 G	10992865.24	10992865.40	10992865.56	0.0293	0.0069
Mercury	25385-08-01 17:02 G	10992954.10	10992954.21	10992954.32	0.0292	0.0213
Moon	25395-12-29 03:21 G	10996755.46	10996755.64	10996755.82	0.0269	0.0181
Earth	25395-12-29 06:28 G	10996755.59	10996755.77	10996755.97	0.0269	0.0166 *
Venus	25396-05-12 11:02 G	10996890.76	10996890.96	10996891.15	0.0269	0.0101
Venus	25396-12-27 12:57 G	10997119.84	10997120.04	10997120.25	0.0268	0.0083
Earth	25397-01-09 07:26 G	10997132.66	10997132.81	10997132.99	0.0268	0.0199
Moon	25397-01-09 08:38 G	10997132.70	10997132.86	10997133.04	0.0268	0.0188 *
Venus	25397-08-13 14:38 G	10997349.09	10997349.11	10997349.15	0.0267	0.0264
Mercury	25399-08-21 16:48 G	10998087.11	10998087.20	10998087.30	0.0267	0.0200
Mercury	25399-11-18 04:48 G	10998175.57	10998175.70	10998175.83	0.0267	0.0106
Mercury	25400-02-14 16:48 G	10998264.06	10998264.20	10998264.34	0.0267	0.0010
Mercury	25400-05-14 05:02 G	10998352.57	10998352.71	10998352.85	0.0267	0.0089
Mercury	25400-08-10 17:31 G	10998441.13	10998441.23	10998441.34	0.0268	0.0189
Mars	25403-02-12 13:26 G	10999356.82	10999357.06	10999357.32	0.0271	0.0167
Venus	25411-06-09 09:36 G	11002395.72	11002395.90	11002396.08	0.0291	0.0143
Earth	25411-07-03 23:16 G	11002420.23	11002420.47	11002420.71	0.0291	0.0045
Moon	25411-07-03 23:16 G	11002420.24	11002420.47	11002420.71	0.0291	0.0042 *
Venus	25412-01-25 07:55 G	11002625.64	11002625.83	11002626.04	0.0292	0.0096
Mercury	25414-03-29 03:50 G	11003419.63	11003419.66	11003419.70	0.0292	0.0284
Mercury	25414-06-26 00:28 G	11003508.37	11003508.52	11003508.67	0.0292	0.0130
Mercury	25414-09-22 20:24 G	11003597.19	11003597.35	11003597.52	0.0292	0.0021
Mercury	25414-12-20 15:50 G	11003686.03	11003686.16	11003686.30	0.0292	0.0166
Mars	25417-04-21 19:40 G	11004539.07	11004539.32	11004539.59	0.0288	0.0081
Venus	25425-04-08 11:31 G	11007447.95	11007447.98	11007448.04	0.0270	0.0263
Venus	25425-11-23 14:38 G	11007676.91	11007677.11	11007677.32	0.0269	0.0078

Moon	25426-01-05 08:52 G	11007719.61	11007719.87	11007720.12	0.0269	0.0026
Earth	25426-01-05 09:36 G	11007719.66	11007719.90	11007720.15	0.0269	0.0041 *
Venus	25426-07-10 17:02 G	11007906.02	11007906.21	11007906.41	0.0268	0.0106
Mercury	25429-01-08 19:26 G	11008819.24	11008819.31	11008819.39	0.0268	0.0225
Mercury	25429-04-07 07:12 G	11008907.68	11008907.80	11008907.93	0.0268	0.0131
Mercury	25429-07-04 19:12 G	11008996.16	11008996.30	11008996.45	0.0268	0.0036
Mercury	25429-10-01 07:26 G	11009084.67	11009084.81	11009084.96	0.0268	0.0064
Mercury	25429-12-28 20:09 G	11009173.22	11009173.34	11009173.45	0.0268	0.0163
Mercury	25430-03-27 08:38 G	11009261.85	11009261.86	11009261.89	0.0268	0.0265
Earth	25440-06-27 11:16 G	11013006.83	11013006.97	11013007.12	0.0291	0.0235
Moon	25440-06-27 11:02 G	11013006.83	11013006.96	11013007.12	0.0291	0.0236 *
Venus	25440-12-19 22:04 G	11013182.23	11013182.42	11013182.63	0.0291	0.0103
Moon	25441-07-11 14:24 G	11013385.98	11013386.10	11013386.24	0.0292	0.0247
Earth	25441-07-11 17:45 G	11013386.11	11013386.24	11013386.38	0.0292	0.0239 *
Venus	25441-08-06 20:52 G	11013412.19	11013412.37	11013412.56	0.0292	0.0136
Mercury	25443-11-13 02:52 G	11014240.48	11014240.62	11014240.76	0.0293	0.0156
Mercury	25444-02-09 23:02 G	11014329.29	11014329.46	11014329.63	0.0293	0.0005
Mercury	25444-05-08 18:28 G	11014418.13	11014418.27	11014418.42	0.0293	0.0143
Mercury	25444-08-05 13:40 G	11014507.04	11014507.07	11014507.11	0.0292	0.0285
Venus	25454-10-19 19:40 G	11018234.21	11018234.32	11018234.42	0.0269	0.0233
Earth	25454-12-31 16:33 G	11018306.96	11018307.19	11018307.41	0.0269	0.0111
Moon	25454-12-31 17:02 G	11018307.01	11018307.21	11018307.43	0.0269	0.0127 *
Venus	25455-06-05 22:04 G	11018463.21	11018463.42	11018463.63	0.0268	0.0049
Earth	25456-01-12 17:02 G	11018684.14	11018684.21	11018684.30	0.0268	0.0253
Moon	25456-01-12 20:52 G	11018684.27	11018684.37	11018684.48	0.0268	0.0240 *
Venus	25456-01-21 00:00 G	11018692.33	11018692.50	11018692.69	0.0268	0.0135
Mercury	25458-05-28 22:33 G	11019551.39	11019551.44	11019551.49	0.0267	0.0246
Mercury	25458-08-25 10:19 G	11019639.81	11019639.93	11019640.05	0.0267	0.0153
Mercury	25458-11-21 22:19 G	11019728.29	11019728.43	11019728.57	0.0267	0.0057
Mercury	25459-02-18 10:19 G	11019816.79	11019816.93	11019817.08	0.0267	0.0041

Mercury	25459-05-17 22:48 G	11019905.33	11019905.45	11019905.57	0.0268	0.0139
Mercury	25459-08-14 11:16 G	11019993.92	11019993.97	11019994.04	0.0268	0.0241
Venus	25470-07-02 03:07 G	11023968.43	11023968.63	11023968.84	0.0291	0.0074
Earth	25470-07-05 16:33 G	11023971.94	11023972.19	11023972.43	0.0291	0.0025
Moon	25470-07-05 19:55 G	11023972.09	11023972.33	11023972.57	0.0291	0.0029 *
Venus	25471-02-17 01:40 G	11024198.40	11024198.57	11024198.75	0.0292	0.0165
Mercury	25473-04-01 01:40 G	11024972.45	11024972.57	11024972.69	0.0292	0.0204
Mercury	25473-06-28 21:50 G	11025061.25	11025061.41	11025061.58	0.0292	0.0054
Mercury	25473-09-25 17:45 G	11025150.08	11025150.24	11025150.40	0.0292	0.0096
Mercury	25473-12-23 12:57 G	11025238.95	11025239.04	11025239.13	0.0292	0.0239
Venus	25484-04-30 22:33 G	11029020.32	11029020.44	11029020.58	0.0270	0.0211
Venus	25484-12-16 01:26 G	11029249.35	11029249.56	11029249.77	0.0269	0.0026
Moon	25485-01-06 14:38 G	11029270.88	11029271.11	11029271.34	0.0269	0.0080
Earth	25485-01-06 18:14 G	11029271.04	11029271.26	11029271.50	0.0269	0.0095 *
Venus	25485-08-02 03:36 G	11029478.48	11029478.65	11029478.82	0.0268	0.0158
Mercury	25488-01-12 12:43 G	11030371.92	11030372.03	11030372.13	0.0268	0.0180
Mercury	25488-04-10 00:28 G	11030460.39	11030460.52	11030460.66	0.0268	0.0085
Mercury	25488-07-07 12:43 G	11030548.88	11030549.03	11030549.17	0.0268	0.0014
Mercury	25488-10-04 00:57 G	11030637.41	11030637.54	11030637.67	0.0268	0.0111
Mercury	25488-12-31 13:40 G	11030725.98	11030726.07	11030726.15	0.0268	0.0213
Mars	25491-07-10 06:14 G	11031646.46	11031646.76	11031647.08	0.0271	0.0075
Venus	25499-05-27 16:19 G	11034525.12	11034525.18	11034525.27	0.0291	0.0272
Moon	25499-06-29 23:02 G	11034558.26	11034558.46	11034558.67	0.0291	0.0166
Earth	25499-06-30 02:38 G	11034558.42	11034558.61	11034558.82	0.0291	0.0168 *
Venus	25500-01-12 14:52 G	11034754.91	11034755.12	11034755.33	0.0292	0.0036
Venus	25500-08-30 13:40 G	11034984.93	11034985.07	11034985.23	0.0292	0.0205
Mercury	25502-08-20 03:50 G	11035704.56	11035704.66	11035704.76	0.0293	0.0232
Mercury	25502-11-17 00:14 G	11035793.35	11035793.51	11035793.67	0.0293	0.0079
Mercury	25503-02-13 20:09 G	11035882.18	11035882.34	11035882.50	0.0293	0.0070
Mercury	25503-05-13 15:21 G	11035971.04	11035971.14	11035971.26	0.0292	0.0216

Mars	25505-09-17 21:21 G	11036829.12	11036829.39	11036829.66	0.0289	0.0037
Venus	25513-11-12 06:43 G	11039806.63	11039806.78	11039806.95	0.0269	0.0180
Earth	25514-01-03 02:24 G	11039858.36	11039858.60	11039858.84	0.0269	0.0056
Moon	25514-01-03 06:14 G	11039858.52	11039858.76	11039858.99	0.0269	0.0071 *
Venus	25514-06-29 09:21 G	11040035.68	11040035.89	11040036.10	0.0268	0.0004
Venus	25515-02-13 11:02 G	11040264.82	11040264.96	11040265.12	0.0268	0.0187
Mercury	25517-06-01 15:36 G	11041104.07	11041104.15	11041104.25	0.0267	0.0201
Mercury	25517-08-29 03:36 G	11041192.52	11041192.65	11041192.78	0.0267	0.0106
Mercury	25517-11-25 15:36 G	11041281.01	11041281.15	11041281.30	0.0267	0.0011
Mercury	25518-02-22 03:50 G	11041369.53	11041369.66	11041369.80	0.0267	0.0089
Mercury	25518-05-21 16:19 G	11041458.08	11041458.18	11041458.29	0.0268	0.0190
Venus	25528-12-07 22:04 G	11045311.31	11045311.42	11045311.54	0.0291	0.0242
Earth	25529-07-08 09:07 G	11045523.64	11045523.88	11045524.11	0.0291	0.0095
Moon	25529-07-08 11:45 G	11045523.75	11045523.99	11045524.23	0.0291	0.0100 *
Venus	25529-07-25 20:24 G	11045541.14	11045541.35	11045541.57	0.0291	0.0007
Venus	25530-03-12 18:57 G	11045771.18	11045771.29	11045771.43	0.0292	0.0234
Mercury	25532-01-07 02:38 G	11046436.57	11046436.61	11046436.66	0.0292	0.0281
Mercury	25532-04-04 23:16 G	11046525.32	11046525.47	11046525.62	0.0292	0.0127
Mercury	25532-07-02 19:26 G	11046614.14	11046614.31	11046614.47	0.0292	0.0024
Mercury	25532-09-29 14:52 G	11046702.99	11046703.12	11046703.25	0.0292	0.0170
Moon	25542-12-28 20:52 G	11050445.27	11050445.37	11050445.51	0.0270	0.0235
Earth	25542-12-29 00:43 G	11050445.39	11050445.53	11050445.67	0.0270	0.0220 *
Venus	25543-05-25 09:21 G	11050592.73	11050592.89	11050593.07	0.0269	0.0159
Venus	25544-01-09 12:00 G	11050821.79	11050822.00	11050822.21	0.0269	0.0026
Moon	25544-01-10 01:55 G	11050822.39	11050822.58	11050822.80	0.0269	0.0137
Earth	25544-01-10 02:38 G	11050822.42	11050822.61	11050822.83	0.0269	0.0148 *
Venus	25544-08-25 13:40 G	11051050.95	11051051.07	11051051.21	0.0268	0.0208
Mercury	25546-10-19 17:45 G	11051836.17	11051836.24	11051836.32	0.0268	0.0230
Mercury	25547-01-16 05:31 G	11051924.61	11051924.73	11051924.86	0.0268	0.0136
Mercury	25547-04-14 17:31 G	11052013.09	11052013.23	11052013.38	0.0268	0.0040

Mercury	25547-07-12 05:45 G	11052101.60	11052101.74	11052101.88	0.0268	0.0059
Mercury	25547-10-08 18:14 G	11052190.14	11052190.26	11052190.38	0.0268	0.0159
Mercury	25548-01-05 06:57 G	11052278.76	11052278.79	11052278.82	0.0268	0.0261
Venus	25558-06-20 08:38 G	11056097.72	11056097.86	11056098.01	0.0291	0.0206
Moon	25558-07-02 15:21 G	11056109.92	11056110.14	11056110.37	0.0291	0.0097
Earth	25558-07-02 17:31 G	11056110.01	11056110.23	11056110.47	0.0291	0.0101 *
Venus	25559-02-05 07:12 G	11056327.60	11056327.80	11056328.02	0.0292	0.0033
Venus	25559-09-23 06:28 G	11056557.70	11056557.77	11056557.85	0.0293	0.0272
Mercury	25561-08-23 01:12 G	11057257.41	11057257.55	11057257.69	0.0293	0.0156
Mercury	25561-11-19 21:21 G	11057346.23	11057346.39	11057346.56	0.0293	0.0006
Mercury	25562-02-16 17:02 G	11057435.07	11057435.21	11057435.36	0.0293	0.0143
Mercury	25562-05-16 12:00 G	11057523.98	11057524.00	11057524.04	0.0292	0.0287
Venus	25572-12-04 17:31 G	11061379.05	11061379.23	11061379.42	0.0269	0.0128
Earth	25573-01-04 11:16 G	11061409.72	11061409.97	11061410.22	0.0268	0.0002
Moon	25573-01-04 12:28 G	11061409.77	11061410.02	11061410.28	0.0268	0.0016 *
Venus	25573-07-21 19:40 G	11061608.12	11061608.32	11061608.53	0.0268	0.0056
Venus	25574-03-07 21:36 G	11061837.30	11061837.40	11061837.49	0.0267	0.0237
Mercury	25576-03-07 20:52 G	11062568.33	11062568.37	11062568.43	0.0267	0.0249
Mercury	25576-06-04 08:52 G	11062656.75	11062656.87	11062656.98	0.0267	0.0155
Mercury	25576-08-31 20:38 G	11062745.23	11062745.36	11062745.51	0.0267	0.0061
Mercury	25576-11-28 08:52 G	11062833.73	11062833.87	11062834.01	0.0267	0.0037
Mercury	25577-02-24 21:21 G	11062922.26	11062922.39	11062922.51	0.0267	0.0137
Mercury	25577-05-24 09:50 G	11063010.85	11063010.91	11063010.98	0.0268	0.0238
Mars	25579-12-05 17:02 G	11063935.89	11063936.21	11063936.52	0.0271	0.0018
Venus	25587-12-31 14:09 G	11066883.92	11066884.09	11066884.26	0.0291	0.0177
Moon	25588-07-09 21:50 G	11067075.21	11067075.41	11067075.62	0.0292	0.0171
Earth	25588-07-09 23:45 G	11067075.29	11067075.49	11067075.70	0.0292	0.0162 *
Venus	25588-08-17 12:28 G	11067113.82	11067114.02	11067114.24	0.0292	0.0062
Mercury	25591-01-10 00:00 G	11067989.38	11067989.50	11067989.62	0.0292	0.0205
Mercury	25591-04-08 20:24 G	11068078.18	11068078.35	11068078.51	0.0292	0.0053

Mercury	25591-07-06 16:04 G	11068167.02	11068167.17	11068167.33	0.0292	0.0097
Mercury	25591-10-03 11:16 G	11068255.89	11068255.97	11068256.07	0.0292	0.0241
Mars	25594-02-11 23:16 G	11069118.22	11069118.47	11069118.72	0.0288	0.0104
Moon	25601-12-30 07:12 G	11071996.63	11071996.80	11071996.98	0.0270	0.0182
Earth	25601-12-30 08:38 G	11071996.68	11071996.86	11071997.07	0.0270	0.0168 *
Venus	25602-06-16 19:26 G	11072165.12	11072165.31	11072165.51	0.0269	0.0108
Earth	25603-01-11 10:19 G	11072373.77	11072373.93	11072374.10	0.0268	0.0199
Moon	25603-01-11 13:26 G	11072373.90	11072374.06	11072374.24	0.0268	0.0191 *
Venus	25603-01-31 21:50 G	11072394.20	11072394.41	11072394.61	0.0268	0.0076
Venus	25603-09-17 23:16 G	11072623.42	11072623.47	11072623.54	0.0268	0.0257
Mercury	25605-10-22 10:33 G	11073388.84	11073388.94	11073389.04	0.0267	0.0187
Mercury	25606-01-18 22:19 G	11073477.30	11073477.43	11073477.57	0.0268	0.0093
Mercury	25606-04-17 10:33 G	11073565.79	11073565.94	11073566.08	0.0268	0.0006
Mercury	25606-07-14 22:48 G	11073654.32	11073654.45	11073654.58	0.0268	0.0104
Mercury	25606-10-11 11:16 G	11073742.88	11073742.97	11073743.06	0.0268	0.0204
Earth	25617-07-04 05:16 G	11077661.47	11077661.72	11077661.96	0.0291	0.0040
Moon	25617-07-04 07:40 G	11077661.58	11077661.82	11077662.06	0.0291	0.0031 *
Venus	25617-07-12 22:48 G	11077670.27	11077670.45	11077670.64	0.0291	0.0144
Venus	25618-02-27 21:50 G	11077900.21	11077900.41	11077900.61	0.0292	0.0096
Mercury	25620-05-29 00:57 G	11078721.46	11078721.54	11078721.65	0.0293	0.0240
Mercury	25620-08-25 21:36 G	11078810.25	11078810.40	11078810.57	0.0293	0.0086
Mercury	25620-11-22 17:45 G	11078899.08	11078899.24	11078899.40	0.0293	0.0065
Mercury	25621-02-19 13:12 G	11078987.94	11078988.05	11078988.16	0.0293	0.0211
Venus	25631-05-13 00:43 G	11082722.49	11082722.53	11082722.58	0.0269	0.0262
Venus	25631-12-28 03:21 G	11082951.44	11082951.64	11082951.84	0.0268	0.0078
Moon	25632-01-06 15:50 G	11082960.91	11082961.16	11082961.41	0.0268	0.0037
Earth	25632-01-06 18:43 G	11082961.04	11082961.28	11082961.52	0.0268	0.0049 *
Venus	25632-08-13 05:02 G	11083180.53	11083180.71	11083180.92	0.0268	0.0106
Mercury	25635-03-11 13:40 G	11084120.99	11084121.07	11084121.16	0.0267	0.0207
Mercury	25635-06-08 01:26 G	11084209.44	11084209.56	11084209.69	0.0267	0.0113

Mercury	25635-09-04 13:26 G	11084297.92	11084298.06	11084298.21	0.0267	0.0018
Mercury	25635-12-02 01:40 G	11084386.43	11084386.57	11084386.71	0.0267	0.0082
Mercury	25636-02-28 14:09 G	11084474.98	11084475.09	11084475.20	0.0267	0.0181
Moon	25646-06-28 03:36 G	11088247.52	11088247.65	11088247.80	0.0290	0.0240
Earth	25646-06-28 06:28 G	11088247.65	11088247.77	11088247.90	0.0290	0.0247 *
Venus	25647-01-23 04:48 G	11088456.50	11088456.70	11088456.89	0.0291	0.0113
Moon	25647-07-12 08:38 G	11088626.73	11088626.86	11088627.01	0.0292	0.0238
Earth	25647-07-12 12:14 G	11088626.87	11088627.01	11088627.17	0.0292	0.0226 *
Venus	25647-09-10 03:21 G	11088686.46	11088686.64	11088686.84	0.0292	0.0126
Mercury	25649-10-16 00:00 G	11089453.48	11089453.50	11089453.52	0.0293	0.0289
Mercury	25650-01-12 20:38 G	11089542.21	11089542.36	11089542.51	0.0293	0.0134
Mercury	25650-04-11 16:48 G	11089631.04	11089631.20	11089631.37	0.0292	0.0018
Mercury	25650-07-09 12:28 G	11089719.89	11089720.02	11089720.16	0.0292	0.0165
Venus	25660-11-22 01:55 G	11093508.50	11093508.58	11093508.68	0.0269	0.0243
Earth	25660-12-31 15:21 G	11093547.92	11093548.14	11093548.36	0.0269	0.0117
Moon	25660-12-31 17:45 G	11093548.04	11093548.24	11093548.45	0.0269	0.0132 *
Venus	25661-07-09 04:33 G	11093737.48	11093737.69	11093737.89	0.0269	0.0059
Earth	25662-01-12 16:04 G	11093925.08	11093925.17	11093925.27	0.0268	0.0247
Moon	25662-01-12 18:43 G	11093925.17	11093925.28	11093925.39	0.0268	0.0240 *
Venus	25662-02-23 06:14 G	11093966.58	11093966.76	11093966.95	0.0268	0.0124
Mercury	25664-07-28 15:21 G	11094853.08	11094853.14	11094853.20	0.0267	0.0241
Mercury	25664-10-25 02:52 G	11094941.51	11094941.62	11094941.74	0.0267	0.0147
Mercury	25665-01-21 14:52 G	11095029.98	11095030.12	11095030.26	0.0267	0.0052
Mercury	25665-04-20 02:52 G	11095118.48	11095118.62	11095118.77	0.0268	0.0047
Mercury	25665-07-17 15:21 G	11095207.02	11095207.14	11095207.26	0.0268	0.0145
Mercury	25665-10-14 03:50 G	11095295.61	11095295.66	11095295.72	0.0268	0.0247
Mars	25668-04-30 06:57 G	11096224.48	11096224.79	11096225.10	0.0272	0.0077
Earth	25676-07-05 13:40 G	11099212.83	11099213.07	11099213.31	0.0291	0.0018
Moon	25676-07-05 17:02 G	11099212.96	11099213.21	11099213.46	0.0291	0.0028 *
Venus	25676-08-04 11:16 G	11099242.77	11099242.97	11099243.18	0.0292	0.0083

Venus	25677-03-22 10:19 G	11099472.76	11099472.93	11099473.12	0.0292	0.0158
Mercury	25679-06-01 20:52 G	11100274.24	11100274.37	11100274.51	0.0293	0.0175
Mercury	25679-08-29 17:16 G	11100363.06	11100363.22	11100363.39	0.0293	0.0023
Mercury	25679-11-26 13:12 G	11100451.90	11100452.05	11100452.20	0.0293	0.0127
Mercury	25680-02-23 08:24 G	11100540.80	11100540.85	11100540.91	0.0293	0.0272
Mars	25682-07-09 12:00 G	11101407.82	11101408.00	11101408.20	0.0289	0.0202
Venus	25690-06-04 09:21 G	11104294.77	11104294.89	11104295.03	0.0269	0.0213
Moon	25691-01-07 20:52 G	11104512.15	11104512.37	11104512.60	0.0268	0.0085
Earth	25691-01-08 00:00 G	11104512.27	11104512.50	11104512.73	0.0268	0.0097 *
Venus	25691-01-19 11:45 G	11104523.78	11104523.99	11104524.20	0.0268	0.0030
Venus	25691-09-05 13:40 G	11104752.89	11104753.07	11104753.24	0.0267	0.0153
Mercury	25693-12-15 18:14 G	11105585.24	11105585.26	11105585.30	0.0267	0.0261
Mercury	25694-03-14 06:00 G	11105673.65	11105673.75	11105673.86	0.0267	0.0168
Mercury	25694-06-10 18:00 G	11105762.11	11105762.25	11105762.38	0.0267	0.0073
Mercury	25694-09-07 06:00 G	11105850.60	11105850.75	11105850.89	0.0267	0.0024
Mercury	25694-12-04 18:14 G	11105939.13	11105939.26	11105939.39	0.0267	0.0123
Mercury	25695-03-03 06:43 G	11106027.70	11106027.78	11106027.86	0.0267	0.0224
Moon	25705-06-30 11:16 G	11109798.79	11109798.97	11109799.16	0.0291	0.0185
Earth	25705-06-30 14:24 G	11109798.92	11109799.10	11109799.28	0.0291	0.0192 *
Venus	25705-06-30 18:28 G	11109799.26	11109799.27	11109799.29	0.0291	0.0290 *
Venus	25706-02-15 16:48 G	11110028.99	11110029.20	11110029.41	0.0292	0.0054
Earth	25706-07-14 20:24 G	11110178.31	11110178.35	11110178.43	0.0292	0.0284
Venus	25706-10-03 15:50 G	11110259.00	11110259.16	11110259.32	0.0292	0.0186
Mercury	25708-10-19 19:40 G	11111006.21	11111006.32	11111006.43	0.0293	0.0225
Mercury	25709-01-16 16:04 G	11111095.01	11111095.17	11111095.34	0.0293	0.0072
Mercury	25709-04-15 12:14 G	11111183.85	11111184.01	11111184.17	0.0293	0.0079
Mercury	25709-07-13 07:26 G	11111272.72	11111272.81	11111272.92	0.0292	0.0226
Venus	25719-12-16 09:50 G	11115080.78	11115080.91	11115081.07	0.0269	0.0195
Earth	25720-01-03 19:55 G	11115099.09	11115099.33	11115099.57	0.0269	0.0070
Moon	25720-01-03 23:02 G	11115099.23	11115099.46	11115099.71	0.0269	0.0085 *

Venus	25720-08-01 12:14 G	11115309.80	11115310.01	11115310.22	0.0268	0.0011
Venus	25721-03-18 13:40 G	11115538.92	11115539.07	11115539.24	0.0268	0.0170
Mercury	25723-08-02 07:12 G	11116405.71	11116405.80	11116405.89	0.0267	0.0204
Mercury	25723-10-29 18:57 G	11116494.16	11116494.29	11116494.42	0.0267	0.0110
Mercury	25724-01-26 06:57 G	11116582.65	11116582.79	11116582.93	0.0267	0.0013
Mercury	25724-04-23 19:12 G	11116671.16	11116671.30	11116671.43	0.0267	0.0085
Mercury	25724-07-21 07:26 G	11116759.71	11116759.81	11116759.92	0.0268	0.0185
Venus	25735-01-10 22:48 G	11120585.37	11120585.45	11120585.55	0.0291	0.0264
Moon	25735-07-08 18:28 G	11120764.03	11120764.27	11120764.52	0.0292	0.0081
Earth	25735-07-08 18:57 G	11120764.05	11120764.29	11120764.53	0.0292	0.0070 *
Venus	25735-08-28 21:50 G	11120815.20	11120815.41	11120815.62	0.0292	0.0026
Venus	25736-04-14 21:07 G	11121045.25	11121045.38	11121045.53	0.0293	0.0215
Mercury	25738-03-08 19:12 G	11121738.24	11121738.30	11121738.36	0.0293	0.0272
Mercury	25738-06-05 15:50 G	11121827.01	11121827.16	11121827.32	0.0293	0.0116
Mercury	25738-09-02 12:14 G	11121915.84	11121916.01	11121916.17	0.0293	0.0037
Mercury	25738-11-30 07:40 G	11122004.70	11122004.82	11122004.95	0.0293	0.0185
Moon	25748-12-28 22:19 G	11125686.33	11125686.43	11125686.54	0.0269	0.0240
Earth	25748-12-29 01:26 G	11125686.44	11125686.56	11125686.70	0.0269	0.0224 *
Venus	25749-06-27 16:48 G	11125867.04	11125867.20	11125867.37	0.0269	0.0166
Earth	25750-01-10 02:52 G	11126063.42	11126063.62	11126063.84	0.0268	0.0142
Moon	25750-01-10 04:04 G	11126063.47	11126063.67	11126063.88	0.0268	0.0132 *
Venus	25750-02-11 18:57 G	11126096.08	11126096.29	11126096.50	0.0268	0.0017
Venus	25750-09-28 20:24 G	11126325.22	11126325.35	11126325.50	0.0267	0.0198
Mercury	25752-12-19 10:19 G	11127137.86	11127137.93	11127138.01	0.0266	0.0224
Mercury	25753-03-17 22:04 G	11127226.29	11127226.42	11127226.54	0.0266	0.0131
Mercury	25753-06-14 09:50 G	11127314.77	11127314.91	11127315.05	0.0267	0.0036
Mercury	25753-09-10 21:50 G	11127403.28	11127403.41	11127403.56	0.0267	0.0063
Mercury	25753-12-08 10:19 G	11127491.81	11127491.93	11127492.05	0.0267	0.0161
Mercury	25754-03-06 22:48 G	11127580.43	11127580.45	11127580.48	0.0267	0.0262
Mars	25756-09-24 23:45 G	11128513.23	11128513.49	11128513.77	0.0271	0.0141

Earth	25764-07-01 18:57 G	11131350.08	11131350.29	11131350.50	0.0291	0.0141
Moon	25764-07-01 19:26 G	11131350.11	11131350.31	11131350.53	0.0291	0.0132 *
Venus	25764-07-23 04:33 G	11131371.57	11131371.69	11131371.81	0.0291	0.0235
Venus	25765-03-10 03:07 G	11131601.42	11131601.63	11131601.84	0.0292	0.0003
Venus	25765-10-26 02:09 G	11131831.48	11131831.59	11131831.72	0.0293	0.0243
Mercury	25767-10-23 14:24 G	11132558.97	11132559.10	11132559.24	0.0293	0.0167
Mercury	25768-01-20 10:48 G	11132647.78	11132647.95	11132648.12	0.0293	0.0014
Mercury	25768-04-18 06:28 G	11132736.63	11132736.77	11132736.92	0.0293	0.0136
Mercury	25768-07-16 01:55 G	11132825.54	11132825.58	11132825.63	0.0292	0.0280
Mars	25770-12-03 23:02 G	11133696.33	11133696.46	11133696.61	0.0288	0.0242
Moon	25779-01-04 20:52 G	11136650.12	11136650.37	11136650.63	0.0269	0.0038
Earth	25779-01-04 22:19 G	11136650.19	11136650.43	11136650.68	0.0269	0.0026 *
Venus	25779-01-07 17:02 G	11136653.03	11136653.21	11136653.38	0.0269	0.0149
Venus	25779-08-24 18:43 G	11136882.07	11136882.28	11136882.49	0.0268	0.0034
Venus	25780-04-09 20:09 G	11137111.22	11137111.34	11137111.47	0.0267	0.0214
Mercury	25782-05-08 11:16 G	11137869.95	11137869.97	11137870.00	0.0267	0.0262
Mercury	25782-08-04 22:48 G	11137958.35	11137958.45	11137958.57	0.0267	0.0169
Mercury	25782-11-01 10:48 G	11138046.81	11138046.95	11138047.08	0.0267	0.0074
Mercury	25783-01-28 22:48 G	11138135.30	11138135.45	11138135.59	0.0267	0.0023
Mercury	25783-04-27 10:48 G	11138223.83	11138223.95	11138224.08	0.0267	0.0121
Mercury	25783-07-24 23:16 G	11138312.39	11138312.47	11138312.55	0.0267	0.0221
Venus	25794-02-02 06:57 G	11142157.65	11142157.79	11142157.94	0.0291	0.0212
Moon	25794-07-09 16:48 G	11142314.99	11142315.20	11142315.43	0.0292	0.0131
Earth	25794-07-09 20:24 G	11142315.13	11142315.35	11142315.58	0.0292	0.0117 *
Venus	25794-09-20 06:00 G	11142387.54	11142387.75	11142387.96	0.0292	0.0027
Venus	25795-05-08 05:31 G	11142617.66	11142617.73	11142617.82	0.0293	0.0268
Mercury	25797-03-11 12:57 G	11143290.94	11143291.04	11143291.16	0.0294	0.0220
Mercury	25797-06-08 09:36 G	11143379.74	11143379.90	11143380.07	0.0293	0.0065
Mercury	25797-09-05 05:45 G	11143468.58	11143468.74	11143468.90	0.0293	0.0087
Mercury	25797-12-03 01:12 G	11143557.46	11143557.55	11143557.65	0.0293	0.0235

Earth	25808-01-01 03:07 G	11147237.46	11147237.63	11147237.82	0.0269	0.0182
Moon	25808-01-01 04:33 G	11147237.53	11147237.69	11147237.85	0.0269	0.0196 *
Venus	25808-07-20 22:48 G	11147439.27	11147439.45	11147439.65	0.0268	0.0122
Earth	25809-01-12 04:05 G	11147614.50	11147614.67	11147614.85	0.0268	0.0184
Moon	25809-01-12 07:55 G	11147614.65	11147614.83	11147615.02	0.0268	0.0176 *
Venus	25809-03-07 00:43 G	11147668.33	11147668.53	11147668.74	0.0267	0.0062
Venus	25809-10-22 02:09 G	11147897.51	11147897.59	11147897.69	0.0267	0.0242
Mercury	25811-12-24 01:55 G	11148690.48	11148690.58	11148690.68	0.0266	0.0190
Mercury	25812-03-21 13:26 G	11148778.93	11148779.06	11148779.20	0.0266	0.0097
Mercury	25812-06-18 01:26 G	11148867.42	11148867.56	11148867.71	0.0266	0.0002
Mercury	25812-09-14 13:41 G	11148955.93	11148956.07	11148956.20	0.0267	0.0097
Mercury	25812-12-12 01:55 G	11149044.49	11149044.58	11149044.68	0.0267	0.0197
Earth	25823-07-04 20:09 G	11152901.11	11152901.34	11152901.57	0.0291	0.0095
Moon	25823-07-05 00:00 G	11152901.26	11152901.50	11152901.73	0.0291	0.0082 *
Venus	25823-08-16 12:29 G	11152943.86	11152944.02	11152944.19	0.0291	0.0184
Venus	25824-04-02 11:31 G	11153173.77	11153173.98	11153174.19	0.0292	0.0056
Mercury	25826-07-30 11:31 G	11154022.93	11154022.98	11154023.05	0.0293	0.0272
Mercury	25826-10-27 08:24 G	11154111.70	11154111.85	11154112.01	0.0293	0.0115
Mercury	25827-01-24 04:48 G	11154200.53	11154200.70	11154200.86	0.0293	0.0038
Mercury	25827-04-23 00:14 G	11154289.39	11154289.51	11154289.64	0.0293	0.0186
Moon	25838-01-06 19:55 G	11158201.08	11158201.33	11158201.57	0.0268	0.0008
Earth	25838-01-06 23:31 G	11158201.24	11158201.48	11158201.73	0.0268	0.0016 *
Venus	25838-01-30 22:48 G	11158225.26	11158225.45	11158225.65	0.0268	0.0104
Venus	25838-09-17 00:29 G	11158454.32	11158454.52	11158454.72	0.0267	0.0078
Venus	25839-05-04 01:26 G	11158683.52	11158683.56	11158683.62	0.0267	0.0257
Mercury	25841-05-12 02:38 G	11159422.54	11159422.61	11159422.68	0.0266	0.0229
Mercury	25841-08-08 14:24 G	11159510.98	11159511.10	11159511.22	0.0267	0.0136
Mercury	25841-11-05 02:09 G	11159599.45	11159599.59	11159599.73	0.0267	0.0040
Mercury	25842-02-01 14:09 G	11159687.95	11159688.09	11159688.23	0.0267	0.0057
Mercury	25842-05-01 02:24 G	11159776.48	11159776.60	11159776.72	0.0267	0.0155

Mercury	25842-07-28 14:53 G	11159865.08	11159865.12	11159865.16	0.0267	0.0256
Mars	25845-02-18 08:53 G	11160800.62	11160800.87	11160801.14	0.0271	0.0160
Venus	25853-02-25 13:41 G	11163729.90	11163730.07	11163730.25	0.0291	0.0162
Moon	25853-07-11 18:00 G	11163866.08	11163866.25	11163866.45	0.0292	0.0175
Earth	25853-07-11 19:41 G	11163866.12	11163866.32	11163866.53	0.0292	0.0160 *
Venus	25853-10-13 12:57 G	11163959.83	11163960.04	11163960.24	0.0292	0.0077
Mercury	25856-03-15 06:29 G	11164843.63	11164843.77	11164843.90	0.0294	0.0172
Mercury	25856-06-12 02:53 G	11164932.45	11164932.62	11164932.79	0.0294	0.0017
Mercury	25856-09-08 22:48 G	11165021.31	11165021.45	11165021.60	0.0293	0.0133
Mercury	25856-12-06 18:14 G	11165110.22	11165110.26	11165110.31	0.0293	0.0280
Mars	25859-04-30 08:38 G	11165984.85	11165984.86	11165984.88	0.0289	0.0288
Venus	25866-12-27 01:41 G	11168782.54	11168782.57	11168782.63	0.0269	0.0262
Earth	25867-01-02 03:07 G	11168788.43	11168788.63	11168788.85	0.0269	0.0141
Moon	25867-01-02 06:43 G	11168788.59	11168788.78	11168788.99	0.0269	0.0154 *
Venus	25867-08-13 04:05 G	11169011.47	11169011.67	11169011.88	0.0268	0.0078
Moon	25868-01-14 04:19 G	11169165.53	11169165.68	11169165.82	0.0268	0.0220
Earth	25868-01-14 04:05 G	11169165.54	11169165.67	11169165.80	0.0268	0.0223 *
Venus	25868-03-29 05:45 G	11169240.55	11169240.74	11169240.94	0.0267	0.0104
Mercury	25870-09-29 05:45 G	11170154.69	11170154.74	11170154.78	0.0266	0.0250
Mercury	25870-12-26 17:02 G	11170243.10	11170243.21	11170243.33	0.0266	0.0158
Mercury	25871-03-25 05:02 G	11170331.57	11170331.71	11170331.85	0.0266	0.0064
Mercury	25871-06-21 16:48 G	11170420.06	11170420.20	11170420.35	0.0266	0.0034
Mercury	25871-09-18 05:02 G	11170508.59	11170508.71	11170508.84	0.0266	0.0132
Mercury	25871-12-15 17:31 G	11170597.16	11170597.23	11170597.30	0.0267	0.0231
Earth	25882-07-05 19:26 G	11174452.08	11174452.31	11174452.56	0.0291	0.0052
Moon	25882-07-05 20:24 G	11174452.10	11174452.35	11174452.61	0.0291	0.0037 *
Venus	25882-09-07 19:12 G	11174516.12	11174516.30	11174516.50	0.0292	0.0134
Venus	25883-04-25 18:29 G	11174746.08	11174746.27	11174746.47	0.0293	0.0107
Mercury	25885-08-02 05:02 G	11175575.60	11175575.71	11175575.82	0.0294	0.0224
Mercury	25885-10-30 01:41 G	11175664.41	11175664.57	11175664.73	0.0293	0.0068

Mercury	25886-01-26 21:50 G	11175753.25	11175753.41	11175753.57	0.0293	0.0084
Mercury	25886-04-25 17:31 G	11175842.13	11175842.23	11175842.32	0.0293	0.0232
Venus	25896-07-08 01:41 G	11179568.50	11179568.57	11179568.67	0.0269	0.0244
Earth	25897-01-07 23:31 G	11179752.24	11179752.48	11179752.72	0.0268	0.0056
Moon	25897-01-07 23:31 G	11179752.25	11179752.48	11179752.72	0.0268	0.0052 *
Venus	25897-02-22 04:05 G	11179797.46	11179797.67	11179797.87	0.0268	0.0061
Venus	25897-10-09 05:17 G	11180026.54	11180026.72	11180026.92	0.0267	0.0121
Mercury	25900-05-15 18:00 G	11180975.16	11180975.25	11180975.35	0.0266	0.0196
Mercury	25900-08-12 05:31 G	11181063.61	11181063.73	11181063.87	0.0266	0.0104
Mercury	25900-11-08 17:31 G	11181152.09	11181152.23	11181152.37	0.0266	0.0007
Mercury	25901-02-05 05:31 G	11181240.60	11181240.73	11181240.87	0.0267	0.0090
Mercury	25901-05-04 17:45 G	11181329.14	11181329.24	11181329.35	0.0267	0.0190
Moon	25911-06-30 11:17 G	11185037.88	11185037.97	11185038.09	0.0290	0.0259
Earth	25911-06-30 11:17 G	11185037.89	11185037.97	11185038.05	0.0290	0.0274 *
Venus	25912-03-20 19:26 G	11185302.12	11185302.31	11185302.51	0.0292	0.0114
Earth	25912-07-13 17:02 G	11185417.05	11185417.21	11185417.40	0.0292	0.0201
Moon	25912-07-13 20:24 G	11185417.19	11185417.35	11185417.51	0.0292	0.0217 *
Venus	25912-11-05 18:43 G	11185532.09	11185532.28	11185532.48	0.0293	0.0127
Mercury	25914-12-21 01:55 G	11186307.56	11186307.58	11186307.63	0.0294	0.0286
Mercury	25915-03-19 23:02 G	11186396.31	11186396.46	11186396.61	0.0294	0.0128
Mercury	25915-06-16 19:26 G	11186485.15	11186485.31	11186485.48	0.0294	0.0027
Mercury	25915-09-13 15:21 G	11186574.01	11186574.14	11186574.27	0.0294	0.0176
Earth	25926-01-04 02:38 G	11190339.39	11190339.61	11190339.84	0.0269	0.0102
Moon	25926-01-04 03:07 G	11190339.40	11190339.63	11190339.87	0.0269	0.0111 *
Venus	25926-01-19 06:57 G	11190354.67	11190354.79	11190354.91	0.0269	0.0218
Venus	25926-09-05 08:53 G	11190583.67	11190583.87	11190584.09	0.0268	0.0036
Moon	25927-01-15 23:31 G	11190716.45	11190716.48	11190716.51	0.0267	0.0265
Earth	25927-01-16 02:53 G	11190716.59	11190716.62	11190716.69	0.0267	0.0262
Venus	25927-04-22 10:33 G	11190812.76	11190812.94	11190813.12	0.0267	0.0146
Mercury	25929-10-02 20:53 G	11191707.29	11191707.37	11191707.45	0.0266	0.0219

Mercury	25929-12-30 08:24 G	11191795.73	11191795.85	11191795.98	0.0266	0.0126
Mercury	25930-03-28 20:09 G	11191884.20	11191884.34	11191884.49	0.0266	0.0031
Mercury	25930-06-25 08:09 G	11191972.71	11191972.84	11191972.98	0.0266	0.0067
Mercury	25930-09-21 20:24 G	11192061.24	11192061.35	11192061.47	0.0266	0.0165
Mercury	25930-12-19 08:53 G	11192149.87	11192149.87	11192149.88	0.0267	0.0266
Mars	25933-07-15 16:19 G	11193088.99	11193089.18	11193089.40	0.0270	0.0205
Moon	25941-07-07 14:24 G	11196002.86	11196003.10	11196003.35	0.0292	0.0009
Earth	25941-07-07 18:14 G	11196003.01	11196003.26	11196003.50	0.0292	0.0010 *
Venus	25941-10-01 01:41 G	11196088.37	11196088.57	11196088.78	0.0292	0.0084
Venus	25942-05-19 00:57 G	11196318.37	11196318.54	11196318.73	0.0293	0.0157
Mercury	25944-08-05 22:05 G	11197128.29	11197128.42	11197128.56	0.0294	0.0177
Mercury	25944-11-02 18:43 G	11197217.11	11197217.28	11197217.45	0.0294	0.0022
Mercury	25945-01-30 14:38 G	11197305.97	11197306.11	11197306.26	0.0293	0.0129
Mercury	25945-04-29 10:05 G	11197394.88	11197394.92	11197394.98	0.0293	0.0276
Venus	25955-08-01 06:57 G	11201140.66	11201140.79	11201140.94	0.0268	0.0201
Earth	25956-01-10 23:17 G	11201303.24	11201303.47	11201303.70	0.0268	0.0096
Moon	25956-01-11 02:38 G	11201303.39	11201303.61	11201303.84	0.0268	0.0095 *
Venus	25956-03-17 09:07 G	11201369.66	11201369.88	11201370.09	0.0268	0.0018
Venus	25956-11-01 10:33 G	11201598.77	11201598.94	11201599.10	0.0267	0.0163
Mercury	25959-02-19 21:50 G	11202439.38	11202439.41	11202439.45	0.0266	0.0256
Mercury	25959-05-19 09:21 G	11202527.78	11202527.89	11202528.00	0.0266	0.0164
Mercury	25959-08-15 20:53 G	11202616.24	11202616.37	11202616.51	0.0266	0.0070
Mercury	25959-11-12 08:53 G	11202704.73	11202704.87	11202705.01	0.0266	0.0027
Mercury	25960-02-08 20:53 G	11202793.25	11202793.37	11202793.50	0.0266	0.0125
Mercury	25960-05-07 09:21 G	11202881.81	11202881.89	11202881.97	0.0267	0.0224
Earth	25970-07-01 08:53 G	11206588.73	11206588.87	11206589.02	0.0290	0.0234
Moon	25970-07-01 12:43 G	11206588.87	11206589.03	11206589.19	0.0290	0.0216 *
Venus	25971-04-13 01:26 G	11206874.36	11206874.56	11206874.77	0.0292	0.0065
Earth	25971-07-15 14:53 G	11206967.99	11206968.12	11206968.27	0.0292	0.0241
Moon	25971-07-15 17:31 G	11206968.13	11206968.23	11206968.36	0.0292	0.0257 *

Venus	25971-11-29 00:43 G	11207104.37	11207104.53	11207104.71	0.0293	0.0176
Mercury	25973-12-23 18:43 G	11207860.20	11207860.28	11207860.39	0.0294	0.0242
Mercury	25974-03-22 15:50 G	11207949.00	11207949.16	11207949.32	0.0294	0.0084
Mercury	25974-06-19 12:00 G	11208037.84	11208038.00	11208038.17	0.0294	0.0070
Mercury	25974-09-16 07:41 G	11208126.72	11208126.82	11208126.94	0.0294	0.0219
Moon	25985-01-04 22:48 G	11211890.21	11211890.45	11211890.69	0.0269	0.0070
Earth	25985-01-05 02:09 G	11211890.35	11211890.59	11211890.83	0.0269	0.0062 *
Venus	25985-02-10 11:31 G	11211926.83	11211926.98	11211927.15	0.0269	0.0176
Venus	25985-09-27 13:55 G	11212155.86	11212156.08	11212156.29	0.0268	0.0009
Venus	25986-05-14 15:07 G	11212384.99	11212385.13	11212385.29	0.0267	0.0189
Mercury	25988-10-05 12:14 G	11213259.91	11213260.01	11213260.11	0.0266	0.0186
Mercury	25989-01-01 23:45 G	11213348.36	11213348.49	11213348.63	0.0266	0.0092
Mercury	25989-03-31 11:45 G	11213436.84	11213436.99	11213437.13	0.0266	0.0008
Mercury	25989-06-27 23:45 G	11213525.36	11213525.49	11213525.62	0.0266	0.0101
Mercury	25989-09-24 12:00 G	11213613.91	11213614.00	11213614.10	0.0266	0.0200
Venus	26000-03-07 09:36 G	11217430.82	11217430.90	11217430.97	0.0291	0.0272
Moon	26000-07-08 14:53 G	11217553.88	11217554.12	11217554.35	0.0292	0.0048
Earth	26000-07-08 16:33 G	11217553.95	11217554.19	11217554.44	0.0292	0.0032 *
Venus	26000-10-23 08:09 G	11217660.63	11217660.84	11217661.05	0.0292	0.0035

27TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 27th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Venus	26001-06-10 07:26 G	11217890.67	11217890.81	11217890.97	0.0293	0.0207
Mercury	26003-05-12 18:14 G	11218592.23	11218592.26	11218592.29	0.0294	0.0289
Mercury	26003-08-09 15:07 G	11218680.98	11218681.13	11218681.28	0.0294	0.0131
Mercury	26003-11-06 11:31 G	11218769.82	11218769.98	11218770.15	0.0294	0.0025
Mercury	26004-02-03 07:26 G	11218858.68	11218858.81	11218858.95	0.0294	0.0174
Mars	26005-12-30 18:14 G	11219555.19	11219555.26	11219555.35	0.0291	0.0277
Earth	26013-12-30 21:50 G	11222477.30	11222477.41	11222477.55	0.0269	0.0230
Moon	26013-12-31 01:26 G	11222477.46	11222477.56	11222477.67	0.0269	0.0242 *
Venus	26014-08-23 12:43 G	11222712.86	11222713.03	11222713.21	0.0268	0.0156
Earth	26015-01-11 23:45 G	11222854.29	11222854.49	11222854.71	0.0268	0.0137
Moon	26015-01-12 01:41 G	11222854.35	11222854.57	11222854.79	0.0268	0.0137 *
Venus	26015-04-09 14:38 G	11222941.90	11222942.11	11222942.32	0.0267	0.0026
Venus	26015-11-24 15:50 G	11223171.03	11223171.16	11223171.30	0.0267	0.0207
Mercury	26018-02-22 13:12 G	11223991.98	11223992.05	11223992.13	0.0266	0.0222
Mercury	26018-05-22 00:57 G	11224080.41	11224080.54	11224080.66	0.0266	0.0129
Mercury	26018-08-18 12:43 G	11224168.89	11224169.03	11224169.17	0.0266	0.0035
Mercury	26018-11-15 00:29 G	11224257.38	11224257.52	11224257.67	0.0266	0.0063
Mercury	26019-02-11 12:43 G	11224345.92	11224346.03	11224346.15	0.0266	0.0161
Mercury	26019-05-11 01:12 G	11224434.52	11224434.55	11224434.58	0.0267	0.0261
Mars	26021-12-08 02:09 G	11225376.42	11225376.59	11225376.78	0.0270	0.0223
Earth	26029-07-02 07:41 G	11228139.64	11228139.82	11228140.01	0.0290	0.0192
Moon	26029-07-02 08:38 G	11228139.66	11228139.86	11228140.06	0.0290	0.0176 *
Venus	26029-09-17 08:53 G	11228216.78	11228216.87	11228216.99	0.0291	0.0253
Venus	26030-05-05 08:09 G	11228446.63	11228446.84	11228447.05	0.0292	0.0015
Earth	26030-07-16 13:55 G	11228519.03	11228519.08	11228519.15	0.0292	0.0283
Venus	26030-12-21 07:41 G	11228676.69	11228676.82	11228676.95	0.0293	0.0226
Mercury	26032-12-26 12:00 G	11229412.87	11229413.00	11229413.13	0.0294	0.0195
Mercury	26033-03-25 08:38 G	11229501.70	11229501.86	11229502.03	0.0294	0.0039
Mercury	26033-06-22 04:48 G	11229590.55	11229590.70	11229590.86	0.0294	0.0114
Mercury	26033-09-19 00:29 G	11229679.45	11229679.52	11229679.59	0.0294	0.0262

Moon	26044-01-07 00:14 G	11233441.27	11233441.51	11233441.75	0.0269	0.0027
Earth	26044-01-07 02:24 G	11233441.36	11233441.60	11233441.85	0.0269	0.0021 *
Venus	26044-03-04 17:02 G	11233499.03	11233499.21	11233499.40	0.0269	0.0132
Venus	26044-10-19 19:12 G	11233728.09	11233728.30	11233728.51	0.0268	0.0052
Venus	26045-06-05 20:24 G	11233957.26	11233957.35	11233957.46	0.0267	0.0232
Mercury	26047-07-12 16:19 G	11234724.12	11234724.18	11234724.23	0.0266	0.0244
Mercury	26047-10-09 03:36 G	11234812.54	11234812.65	11234812.77	0.0266	0.0152
Mercury	26048-01-05 15:21 G	11234901.00	11234901.14	11234901.28	0.0266	0.0058
Mercury	26048-04-03 03:21 G	11234989.50	11234989.64	11234989.78	0.0266	0.0039
Mercury	26048-06-30 15:21 G	11235078.02	11235078.14	11235078.27	0.0266	0.0138
Mercury	26048-09-27 03:50 G	11235166.60	11235166.66	11235166.72	0.0266	0.0237
Venus	26059-03-30 17:02 G	11239003.08	11239003.21	11239003.36	0.0291	0.0221
Earth	26059-07-10 17:17 G	11239104.99	11239105.22	11239105.46	0.0292	0.0078
Moon	26059-07-10 19:55 G	11239105.11	11239105.33	11239105.57	0.0292	0.0092 *
Venus	26059-11-15 16:05 G	11239232.96	11239233.17	11239233.38	0.0292	0.0018
Venus	26060-07-02 15:21 G	11239463.05	11239463.14	11239463.24	0.0293	0.0260
Mercury	26062-05-15 11:45 G	11240144.90	11240144.99	11240145.09	0.0294	0.0239
Mercury	26062-08-12 08:38 G	11240233.70	11240233.86	11240234.02	0.0294	0.0081
Mercury	26062-11-09 05:02 G	11240322.55	11240322.71	11240322.87	0.0294	0.0073
Mercury	26063-02-06 00:43 G	11240411.43	11240411.53	11240411.64	0.0294	0.0222
Earth	26072-12-31 23:45 G	11244028.32	11244028.49	11244028.68	0.0269	0.0187
Moon	26073-01-01 01:55 G	11244028.42	11244028.58	11244028.77	0.0269	0.0196 *
Venus	26073-09-14 19:12 G	11244285.11	11244285.30	11244285.49	0.0268	0.0111
Moon	26074-01-12 22:48 G	11244405.28	11244405.45	11244405.65	0.0268	0.0184
Earth	26074-01-13 01:41 G	11244405.39	11244405.57	11244405.75	0.0268	0.0179 *
Venus	26074-05-01 20:53 G	11244514.17	11244514.37	11244514.58	0.0267	0.0072
Venus	26074-12-16 21:50 G	11244743.36	11244743.41	11244743.49	0.0267	0.0252
Mercury	26077-02-25 05:17 G	11245544.62	11245544.72	11245544.82	0.0266	0.0185
Mercury	26077-05-24 16:48 G	11245633.07	11245633.20	11245633.33	0.0266	0.0092
Mercury	26077-08-21 04:33 G	11245721.55	11245721.69	11245721.83	0.0266	0.0005

Mercury	26077-11-17 16:33 G	11245810.06	11245810.19	11245810.33	0.0266	0.0101
Mercury	26078-02-14 04:48 G	11245898.61	11245898.70	11245898.80	0.0266	0.0200
Moon	26088-07-03 05:31 G	11249690.52	11249690.73	11249690.96	0.0290	0.0134
Earth	26088-07-03 08:38 G	11249690.66	11249690.86	11249691.08	0.0290	0.0147 *
Venus	26088-10-09 17:02 G	11249789.06	11249789.21	11249789.37	0.0291	0.0201
Venus	26089-05-27 16:05 G	11250018.96	11250019.17	11250019.38	0.0292	0.0038
Venus	26090-01-12 15:36 G	11250249.09	11250249.15	11250249.22	0.0293	0.0279
Mercury	26091-12-30 05:31 G	11250965.58	11250965.73	11250965.88	0.0294	0.0145
Mercury	26092-03-28 02:09 G	11251054.42	11251054.59	11251054.75	0.0294	0.0012
Mercury	26092-06-24 22:05 G	11251143.29	11251143.42	11251143.56	0.0294	0.0162
Mars	26094-05-25 13:55 G	11251842.98	11251843.08	11251843.21	0.0291	0.0264
Earth	26103-01-09 04:19 G	11254992.43	11254992.68	11254992.92	0.0269	0.0022
Moon	26103-01-09 06:43 G	11254992.54	11254992.78	11254993.02	0.0269	0.0021 *
Venus	26103-03-28 23:31 G	11255071.28	11255071.48	11255071.68	0.0269	0.0087
Venus	26103-11-13 01:41 G	11255300.37	11255300.57	11255300.77	0.0268	0.0097
Mercury	26106-07-16 07:55 G	11256276.75	11256276.83	11256276.92	0.0266	0.0208
Mercury	26106-10-12 19:41 G	11256365.19	11256365.32	11256365.45	0.0266	0.0114
Mercury	26107-01-09 07:26 G	11256453.67	11256453.81	11256453.95	0.0266	0.0019
Mercury	26107-04-07 19:26 G	11256542.17	11256542.31	11256542.45	0.0266	0.0078
Mercury	26107-07-05 07:41 G	11256630.71	11256630.82	11256630.92	0.0266	0.0177
Venus	26118-04-23 02:24 G	11260575.43	11260575.60	11260575.78	0.0291	0.0166
Earth	26118-07-12 20:24 G	11260656.14	11260656.35	11260656.58	0.0292	0.0128
Moon	26118-07-12 23:31 G	11260656.27	11260656.48	11260656.70	0.0292	0.0139 *
Venus	26118-12-09 01:12 G	11260805.35	11260805.55	11260805.76	0.0293	0.0074
Mercury	26121-05-19 06:00 G	11261697.62	11261697.75	11261697.89	0.0294	0.0184
Mercury	26121-08-16 02:53 G	11261786.45	11261786.62	11261786.78	0.0294	0.0028
Mercury	26121-11-12 22:48 G	11261875.31	11261875.45	11261875.61	0.0294	0.0126
Mercury	26122-02-09 18:29 G	11261964.22	11261964.27	11261964.33	0.0294	0.0274
Moon	26132-01-04 00:43 G	11265579.33	11265579.53	11265579.76	0.0269	0.0145
Earth	26132-01-04 03:36 G	11265579.45	11265579.65	11265579.87	0.0269	0.0141 *

Venus	26132-02-22 00:00 G	11265628.43	11265628.50	11265628.59	0.0269	0.0249
Venus	26132-10-08 02:38 G	11265857.41	11265857.61	11265857.82	0.0268	0.0064
Moon	26133-01-15 02:09 G	11265956.47	11265956.59	11265956.71	0.0268	0.0231
Earth	26133-01-15 05:02 G	11265956.59	11265956.71	11265956.86	0.0268	0.0225 *
Venus	26133-05-25 04:33 G	11266086.50	11266086.69	11266086.88	0.0267	0.0119
Mercury	26135-12-03 09:50 G	11267008.86	11267008.91	11267008.98	0.0266	0.0238
Mercury	26136-02-29 21:21 G	11267097.28	11267097.39	11267097.51	0.0266	0.0146
Mercury	26136-05-28 09:07 G	11267185.74	11267185.88	11267186.02	0.0266	0.0051
Mercury	26136-08-24 20:53 G	11267274.23	11267274.37	11267274.52	0.0266	0.0046
Mercury	26136-11-21 09:07 G	11267362.76	11267362.88	11267363.00	0.0266	0.0144
Mercury	26137-02-17 21:21 G	11267451.34	11267451.39	11267451.45	0.0266	0.0243
Moon	26147-07-06 11:17 G	11271241.74	11271241.97	11271242.20	0.0290	0.0082
Earth	26147-07-06 13:55 G	11271241.85	11271242.08	11271242.32	0.0290	0.0095 *
Venus	26147-11-03 03:36 G	11271361.47	11271361.65	11271361.83	0.0291	0.0144
Venus	26148-06-20 02:38 G	11271591.41	11271591.61	11271591.81	0.0292	0.0096
Mercury	26150-10-06 03:07 G	11272429.54	11272429.63	11272429.72	0.0294	0.0246
Mercury	26151-01-03 00:00 G	11272518.34	11272518.50	11272518.66	0.0294	0.0088
Mercury	26151-04-01 20:24 G	11272607.19	11272607.35	11272607.51	0.0294	0.0067
Mercury	26151-06-29 16:19 G	11272696.07	11272696.18	11272696.29	0.0294	0.0217
Venus	26161-09-03 04:19 G	11276414.57	11276414.68	11276414.80	0.0270	0.0225
Earth	26162-01-10 07:41 G	11276543.59	11276543.82	11276544.06	0.0269	0.0068
Moon	26162-01-10 11:17 G	11276543.73	11276543.97	11276544.21	0.0269	0.0070 *
Venus	26162-04-20 06:57 G	11276643.59	11276643.79	11276644.00	0.0269	0.0040
Venus	26162-12-05 08:53 G	11276872.70	11276872.87	11276873.06	0.0268	0.0144
Mercury	26165-04-21 12:43 G	11277741.01	11277741.03	11277741.06	0.0266	0.0261
Mercury	26165-07-19 00:14 G	11277829.41	11277829.51	11277829.62	0.0266	0.0168
Mercury	26165-10-15 12:00 G	11277917.86	11277918.00	11277918.14	0.0266	0.0073
Mercury	26166-01-11 23:45 G	11278006.35	11278006.49	11278006.64	0.0266	0.0024
Mercury	26166-04-10 11:45 G	11278094.87	11278094.99	11278095.13	0.0266	0.0122
Mercury	26166-07-08 00:14 G	11278183.43	11278183.51	11278183.59	0.0266	0.0221

Mars	26168-08-08 02:24 G	11278945.52	11278945.60	11278945.71	0.0269	0.0256
Earth	26176-06-29 23:02 G	11281828.44	11281828.46	11281828.50	0.0290	0.0288
Moon	26176-06-30 01:55 G	11281828.51	11281828.58	11281828.67	0.0290	0.0272
Venus	26177-05-15 13:41 G	11282147.88	11282148.07	11282148.27	0.0292	0.0109
Moon	26177-07-14 02:09 G	11282207.41	11282207.59	11282207.79	0.0292	0.0190
Earth	26177-07-14 03:21 G	11282207.45	11282207.64	11282207.83	0.0292	0.0182 *
Venus	26177-12-31 12:43 G	11282377.84	11282378.03	11282378.22	0.0293	0.0132
Mercury	26180-02-23 04:05 G	11283161.62	11283161.67	11283161.71	0.0294	0.0283
Mercury	26180-05-22 00:57 G	11283250.39	11283250.54	11283250.70	0.0294	0.0124
Mercury	26180-08-18 21:36 G	11283339.23	11283339.40	11283339.56	0.0294	0.0032
Mercury	26180-11-15 17:31 G	11283428.10	11283428.23	11283428.36	0.0294	0.0184
Mars	26182-10-20 12:29 G	11284131.83	11284132.02	11284132.23	0.0291	0.0200
Moon	26191-01-05 06:29 G	11287130.55	11287130.77	11287131.00	0.0269	0.0092
Earth	26191-01-05 09:36 G	11287130.67	11287130.90	11287131.14	0.0269	0.0091 *
Venus	26191-03-16 09:07 G	11287200.74	11287200.88	11287201.02	0.0269	0.0199
Venus	26191-10-31 11:31 G	11287429.77	11287429.98	11287430.20	0.0268	0.0016
Venus	26192-06-16 13:26 G	11287658.89	11287659.06	11287659.22	0.0267	0.0168
Mercury	26194-12-06 02:38 G	11288561.52	11288561.61	11288561.70	0.0266	0.0195
Mercury	26195-03-04 14:09 G	11288649.96	11288650.09	11288650.22	0.0266	0.0102
Mercury	26195-06-01 01:55 G	11288738.44	11288738.58	11288738.72	0.0266	0.0007
Mercury	26195-08-28 13:55 G	11288826.94	11288827.08	11288827.22	0.0266	0.0091
Mercury	26195-11-25 01:55 G	11288915.49	11288915.58	11288915.69	0.0266	0.0191
Earth	26206-07-08 22:19 G	11292793.19	11292793.43	11292793.68	0.0291	0.0037
Moon	26206-07-08 23:45 G	11292793.25	11292793.49	11292793.72	0.0291	0.0027 *
Venus	26206-11-26 16:05 G	11292933.97	11292934.17	11292934.37	0.0291	0.0084
Venus	26207-07-14 14:53 G	11293163.95	11293164.12	11293164.31	0.0292	0.0157
Mercury	26209-10-09 22:33 G	11293982.31	11293982.44	11293982.58	0.0294	0.0182
Mercury	26210-01-06 19:26 G	11294071.14	11294071.31	11294071.47	0.0294	0.0025
Mercury	26210-04-05 15:21 G	11294160.00	11294160.14	11294160.30	0.0294	0.0129
Mercury	26210-07-03 11:17 G	11294248.92	11294248.97	11294249.02	0.0293	0.0277

Earth	26220-01-01 09:07 G	11297717.80	11297717.88	11297717.96	0.0271	0.0255
Moon	26220-01-01 12:14 G	11297717.95	11297718.01	11297718.08	0.0271	0.0261 *
Venus	26220-09-26 13:12 G	11297986.90	11297987.05	11297987.22	0.0270	0.0176
Moon	26221-01-12 12:00 G	11298094.78	11298095.00	11298095.24	0.0269	0.0124
Earth	26221-01-12 13:12 G	11298094.84	11298095.05	11298095.28	0.0269	0.0117 *
Venus	26221-05-13 15:50 G	11298215.95	11298216.16	11298216.37	0.0269	0.0010
Venus	26221-12-28 17:31 G	11298445.09	11298445.23	11298445.39	0.0268	0.0193
Mercury	26224-04-25 05:31 G	11299293.65	11299293.73	11299293.81	0.0266	0.0219
Mercury	26224-07-22 17:02 G	11299382.09	11299382.21	11299382.33	0.0266	0.0125
Mercury	26224-10-19 04:48 G	11299470.56	11299470.70	11299470.84	0.0266	0.0029
Mercury	26225-01-15 16:33 G	11299559.06	11299559.19	11299559.34	0.0266	0.0069
Mercury	26225-04-14 04:48 G	11299647.59	11299647.70	11299647.82	0.0266	0.0167
Moon	26235-07-03 08:09 G	11303379.67	11303379.84	11303380.01	0.0290	0.0214
Earth	26235-07-03 09:50 G	11303379.77	11303379.91	11303380.07	0.0290	0.0228 *
Venus	26235-10-22 05:17 G	11303490.68	11303490.72	11303490.77	0.0290	0.0282
Venus	26236-06-08 03:36 G	11303720.45	11303720.65	11303720.87	0.0292	0.0046
Moon	26236-07-16 10:48 G	11303758.83	11303758.95	11303759.08	0.0292	0.0251
Earth	26236-07-16 14:24 G	11303758.97	11303759.10	11303759.24	0.0292	0.0243 *
Venus	26237-01-24 02:38 G	11303950.46	11303950.61	11303950.77	0.0293	0.0196
Mercury	26239-02-27 00:14 G	11304714.40	11304714.51	11304714.63	0.0294	0.0213
Mercury	26239-05-26 21:07 G	11304803.22	11304803.38	11304803.55	0.0294	0.0055
Mercury	26239-08-23 17:31 G	11304892.07	11304892.23	11304892.38	0.0294	0.0099
Mercury	26239-11-20 13:12 G	11304980.97	11304981.05	11304981.14	0.0294	0.0249
Jupiter	26249-05-23 22:05 G	11308453.28	11308453.42	11308453.61	0.0271	0.0251
Earth	26250-01-07 17:17 G	11308681.98	11308682.22	11308682.46	0.0269	0.0040
Moon	26250-01-07 18:14 G	11308682.02	11308682.26	11308682.49	0.0269	0.0037 *
Venus	26250-04-08 18:57 G	11308773.12	11308773.29	11308773.47	0.0269	0.0149
Venus	26250-11-23 21:21 G	11309002.19	11309002.39	11309002.61	0.0268	0.0037
Venus	26251-07-10 22:48 G	11309231.34	11309231.45	11309231.59	0.0267	0.0218
Mercury	26253-09-12 08:09 G	11310025.79	11310025.84	11310025.89	0.0266	0.0243

Mercury	26253-12-09 19:41 G	11310114.20	11310114.32	11310114.43	0.0266	0.0150
Mercury	26254-03-08 07:12 G	11310202.66	11310202.80	11310202.94	0.0266	0.0055
Mercury	26254-06-04 19:12 G	11310291.16	11310291.30	11310291.44	0.0266	0.0042
Mercury	26254-09-01 07:12 G	11310379.68	11310379.80	11310379.92	0.0266	0.0140
Mercury	26254-11-28 19:26 G	11310468.25	11310468.31	11310468.37	0.0266	0.0240
Mars	26257-01-03 03:21 G	11311234.43	11311234.64	11311234.89	0.0269	0.0183
Venus	26265-05-03 08:38 G	11314276.77	11314276.86	11314276.96	0.0290	0.0256
Earth	26265-07-10 10:48 G	11314344.71	11314344.95	11314345.20	0.0291	0.0026
Moon	26265-07-10 14:38 G	11314344.87	11314345.11	11314345.36	0.0291	0.0036 *
Venus	26265-12-19 06:57 G	11314506.58	11314506.79	11314507.00	0.0291	0.0019
Venus	26266-08-06 05:45 G	11314736.61	11314736.74	11314736.89	0.0292	0.0222
Mercury	26268-07-15 22:05 G	11315446.36	11315446.42	11315446.49	0.0294	0.0269
Mercury	26268-10-12 18:57 G	11315535.14	11315535.29	11315535.45	0.0294	0.0111
Mercury	26269-01-09 15:36 G	11315623.99	11315624.15	11315624.32	0.0294	0.0045
Mercury	26269-04-08 11:31 G	11315712.86	11315712.98	11315713.10	0.0293	0.0196
Mars	26271-03-17 02:53 G	11316420.40	11316420.62	11316420.86	0.0291	0.0154
Moon	26279-01-02 16:19 G	11319269.01	11319269.18	11319269.34	0.0271	0.0205
Earth	26279-01-02 16:19 G	11319269.03	11319269.18	11319269.36	0.0271	0.0203 *
Venus	26279-10-19 23:17 G	11319559.28	11319559.47	11319559.66	0.0270	0.0125
Moon	26280-01-14 17:02 G	11319646.04	11319646.21	11319646.40	0.0269	0.0179
Earth	26280-01-14 20:38 G	11319646.18	11319646.36	11319646.56	0.0269	0.0169 *
Venus	26280-06-05 01:41 G	11319788.37	11319788.57	11319788.78	0.0269	0.0060
Venus	26281-01-20 03:36 G	11320017.56	11320017.65	11320017.74	0.0268	0.0242
Mercury	26283-04-28 22:19 G	11320846.33	11320846.43	11320846.54	0.0266	0.0174
Mercury	26283-07-26 10:05 G	11320934.78	11320934.92	11320935.05	0.0266	0.0079
Mercury	26283-10-22 21:50 G	11321023.27	11321023.41	11321023.56	0.0267	0.0018
Mercury	26284-01-19 09:50 G	11321111.78	11321111.91	11321112.04	0.0267	0.0116
Mercury	26284-04-16 22:19 G	11321200.34	11321200.43	11321200.51	0.0267	0.0216
Moon	26294-07-04 19:26 G	11324931.11	11324931.31	11324931.52	0.0290	0.0153
Earth	26294-07-04 23:02 G	11324931.27	11324931.46	11324931.67	0.0290	0.0164 *

Venus	26294-11-13 20:38 G	11325063.23	11325063.36	11325063.51	0.0291	0.0217
Venus	26295-07-01 19:12 G	11325293.09	11325293.30	11325293.51	0.0292	0.0021
Venus	26296-02-16 18:14 G	11325523.18	11325523.26	11325523.36	0.0293	0.0262
Mercury	26298-03-01 21:07 G	11326267.23	11326267.38	11326267.53	0.0294	0.0139
Mercury	26298-05-29 17:45 G	11326356.07	11326356.24	11326356.41	0.0294	0.0018
Mercury	26298-08-26 13:55 G	11326444.94	11326445.08	11326445.21	0.0294	0.0170
Earth	26309-01-10 02:24 G	11330233.36	11330233.60	11330233.85	0.0269	0.0015
Moon	26309-01-10 06:00 G	11330233.50	11330233.75	11330233.99	0.0269	0.0019 *
Venus	26309-05-02 06:00 G	11330345.55	11330345.75	11330345.95	0.0269	0.0096
Venus	26309-12-17 08:09 G	11330574.64	11330574.84	11330575.04	0.0268	0.0088
Mercury	26312-09-16 01:26 G	11331578.46	11331578.56	11331578.65	0.0266	0.0196
Mercury	26312-12-13 12:57 G	11331666.91	11331667.04	11331667.17	0.0266	0.0102
Mercury	26313-03-12 00:43 G	11331755.39	11331755.53	11331755.67	0.0266	0.0007
Mercury	26313-06-08 12:43 G	11331843.89	11331844.03	11331844.16	0.0266	0.0092
Mercury	26313-09-05 00:43 G	11331932.44	11331932.53	11331932.64	0.0266	0.0191
Venus	26324-05-27 01:12 G	11335849.40	11335849.55	11335849.72	0.0291	0.0190
Earth	26324-07-13 02:38 G	11335896.38	11335896.61	11335896.84	0.0291	0.0094
Moon	26324-07-13 03:21 G	11335896.41	11335896.64	11335896.88	0.0291	0.0100 *
Venus	26325-01-11 23:45 G	11336079.28	11336079.49	11336079.70	0.0292	0.0049
Venus	26325-08-29 22:48 G	11336309.43	11336309.45	11336309.48	0.0293	0.0290
Mercury	26327-07-20 19:41 G	11336999.19	11336999.32	11336999.45	0.0294	0.0190
Mercury	26327-10-17 16:19 G	11337088.02	11337088.18	11337088.35	0.0293	0.0034
Mercury	26328-01-14 12:43 G	11337176.88	11337177.03	11337177.18	0.0293	0.0121
Mercury	26328-04-12 08:24 G	11337265.79	11337265.85	11337265.91	0.0293	0.0270
Moon	26338-01-04 22:05 G	11340820.22	11340820.42	11340820.63	0.0271	0.0150
Earth	26338-01-05 01:41 G	11340820.37	11340820.57	11340820.78	0.0271	0.0148 *
Venus	26338-03-28 06:29 G	11340902.72	11340902.77	11340902.83	0.0270	0.0260
Venus	26338-11-12 09:50 G	11341131.71	11341131.91	11341132.12	0.0269	0.0073
Moon	26339-01-17 04:33 G	11341197.58	11341197.69	11341197.82	0.0269	0.0232
Earth	26339-01-17 05:31 G	11341197.60	11341197.73	11341197.87	0.0269	0.0221 *

Venus	26339-06-29 12:14 G	11341360.82	11341361.01	11341361.20	0.0268	0.0112
Mercury	26342-02-03 04:05 G	11342310.59	11342310.67	11342310.74	0.0267	0.0222
Mercury	26342-05-02 15:36 G	11342399.03	11342399.15	11342399.27	0.0267	0.0128
Mercury	26342-07-30 03:21 G	11342487.50	11342487.64	11342487.78	0.0267	0.0032
Mercury	26342-10-26 15:07 G	11342575.99	11342576.13	11342576.27	0.0267	0.0067
Mercury	26343-01-23 03:21 G	11342664.53	11342664.64	11342664.75	0.0267	0.0166
Mercury	26343-04-21 15:50 G	11342753.16	11342753.16	11342753.16	0.0267	0.0267
Mars	26345-05-31 23:17 G	11343524.17	11343524.47	11343524.77	0.0269	0.0089
Earth	26353-07-07 14:53 G	11346482.89	11346483.12	11346483.35	0.0290	0.0096
Moon	26353-07-07 14:38 G	11346482.89	11346483.11	11346483.34	0.0290	0.0088 *
Venus	26353-12-07 13:26 G	11346635.89	11346636.06	11346636.25	0.0291	0.0150
Venus	26354-07-25 12:14 G	11346865.81	11346866.01	11346866.21	0.0292	0.0090
Mercury	26356-12-06 21:36 G	11347731.30	11347731.40	11347731.52	0.0294	0.0219
Mercury	26357-03-05 18:43 G	11347820.11	11347820.28	11347820.44	0.0294	0.0060
Mercury	26357-06-02 14:53 G	11347908.97	11347909.12	11347909.28	0.0294	0.0095
Mercury	26357-08-30 10:48 G	11347997.86	11347997.95	11347998.04	0.0294	0.0245
Mars	26359-08-13 03:36 G	11348710.38	11348710.65	11348710.92	0.0291	0.0039
Venus	26367-10-08 14:24 G	11351689.00	11351689.10	11351689.22	0.0270	0.0229
Earth	26368-01-12 12:14 G	11351784.78	11351785.01	11351785.25	0.0269	0.0070
Moon	26368-01-12 13:55 G	11351784.84	11351785.08	11351785.33	0.0269	0.0074 *
Venus	26368-05-24 17:17 G	11351918.02	11351918.22	11351918.43	0.0269	0.0043
Venus	26369-01-08 19:26 G	11352147.13	11352147.31	11352147.49	0.0268	0.0141
Mercury	26371-06-23 07:12 G	11353042.75	11353042.80	11353042.86	0.0266	0.0242
Mercury	26371-09-19 18:43 G	11353131.16	11353131.28	11353131.40	0.0266	0.0148
Mercury	26371-12-17 06:29 G	11353219.63	11353219.77	11353219.90	0.0266	0.0054
Mercury	26372-03-14 18:14 G	11353308.12	11353308.26	11353308.40	0.0266	0.0044
Mercury	26372-06-11 06:14 G	11353396.64	11353396.76	11353396.88	0.0266	0.0143
Mercury	26372-09-07 18:29 G	11353485.22	11353485.27	11353485.33	0.0267	0.0243
Venus	26383-06-19 18:57 G	11357422.10	11357422.29	11357422.48	0.0291	0.0120
Moon	26383-07-15 16:33 G	11357447.98	11357448.19	11357448.39	0.0291	0.0166

Earth	26383-07-15 19:55 G	11357448.13	11357448.33	11357448.53	0.0291	0.0164	*
Venus	26384-02-04 17:31 G	11357652.04	11357652.23	11357652.42	0.0292	0.0119	
Mercury	26386-04-25 20:24 G	11358463.29	11358463.35	11358463.42	0.0294	0.0268	
Mercury	26386-07-23 17:31 G	11358552.07	11358552.23	11358552.39	0.0293	0.0109	
Mercury	26386-10-20 13:55 G	11358640.92	11358641.08	11358641.25	0.0293	0.0047	
Mercury	26387-01-17 09:50 G	11358729.80	11358729.91	11358730.04	0.0293	0.0198	
Moon	26397-01-06 09:21 G	11362371.67	11362371.89	11362372.11	0.0271	0.0093	
Earth	26397-01-06 11:02 G	11362371.74	11362371.96	11362372.20	0.0271	0.0094	*
Venus	26397-04-19 17:31 G	11362475.11	11362475.23	11362475.38	0.0270	0.0208	
Venus	26397-12-04 20:38 G	11362704.15	11362704.36	11362704.58	0.0269	0.0021	
Venus	26398-07-21 22:48 G	11362933.29	11362933.45	11362933.62	0.0268	0.0164	
Mercury	26401-02-05 21:07 G	11363863.28	11363863.38	11363863.49	0.0267	0.0176	
Mercury	26401-05-05 08:38 G	11363951.73	11363951.86	11363952.00	0.0267	0.0081	
Mercury	26401-08-01 20:38 G	11364040.21	11364040.36	11364040.50	0.0267	0.0018	
Mercury	26401-10-29 08:38 G	11364128.73	11364128.86	11364128.99	0.0267	0.0115	
Mercury	26402-01-25 20:38 G	11364217.28	11364217.36	11364217.45	0.0267	0.0216	
Earth	26412-07-09 06:57 G	11368034.55	11368034.79	11368035.04	0.0290	0.0028	
Moon	26412-07-09 10:19 G	11368034.69	11368034.93	11368035.17	0.0290	0.0022	*
Venus	26412-12-30 06:43 G	11368208.58	11368208.78	11368208.99	0.0291	0.0082	
Venus	26413-08-17 05:45 G	11368438.56	11368438.74	11368438.92	0.0292	0.0160	
Mercury	26415-12-10 19:41 G	11369284.17	11369284.32	11369284.47	0.0294	0.0137	
Mercury	26416-03-08 16:19 G	11369373.01	11369373.18	11369373.35	0.0294	0.0020	
Mercury	26416-06-05 12:29 G	11369461.89	11369462.02	11369462.15	0.0294	0.0173	
Earth	26426-01-01 17:17 G	11372959.13	11372959.22	11372959.33	0.0271	0.0246	
Moon	26426-01-01 19:26 G	11372959.22	11372959.31	11372959.41	0.0271	0.0249	*
Venus	26426-10-31 02:09 G	11373261.43	11373261.59	11373261.75	0.0269	0.0175	
Moon	26427-01-13 19:41 G	11373336.11	11373336.32	11373336.55	0.0269	0.0133	
Earth	26427-01-13 22:33 G	11373336.22	11373336.44	11373336.66	0.0269	0.0125	*
Venus	26427-06-17 04:48 G	11373490.49	11373490.70	11373490.91	0.0268	0.0010	
Venus	26428-02-01 06:29 G	11373719.63	11373719.77	11373719.92	0.0267	0.0193	

Mercury	26430-06-26 00:14 G	11374595.42	11374595.51	11374595.61	0.0266	0.0195
Mercury	26430-09-22 12:00 G	11374683.87	11374684.00	11374684.13	0.0266	0.0101
Mercury	26430-12-19 23:45 G	11374772.35	11374772.49	11374772.63	0.0266	0.0005
Mercury	26431-03-18 11:31 G	11374860.85	11374860.98	11374861.12	0.0266	0.0095
Mercury	26431-06-14 23:45 G	11374949.40	11374949.49	11374949.59	0.0266	0.0194
Mars	26433-10-26 14:09 G	11375813.78	11375814.09	11375814.41	0.0269	0.0007
Moon	26441-07-03 06:57 G	11378620.64	11378620.79	11378620.96	0.0289	0.0223
Earth	26441-07-03 10:33 G	11378620.79	11378620.94	11378621.08	0.0289	0.0231 *
Venus	26441-11-24 14:53 G	11378765.09	11378765.12	11378765.15	0.0290	0.0286
Venus	26442-07-12 12:57 G	11378994.83	11378995.04	11378995.25	0.0291	0.0051
Moon	26442-07-17 10:33 G	11378999.82	11378999.94	11379000.09	0.0291	0.0237
Earth	26442-07-17 13:26 G	11378999.92	11379000.06	11379000.21	0.0291	0.0235 *
Venus	26443-02-27 11:31 G	11379224.83	11379224.98	11379225.15	0.0292	0.0190
Mercury	26445-04-28 18:29 G	11380016.15	11380016.27	11380016.41	0.0294	0.0185
Mercury	26445-07-26 15:21 G	11380104.98	11380105.14	11380105.31	0.0293	0.0028
Mercury	26445-10-23 11:45 G	11380193.84	11380193.99	11380194.14	0.0293	0.0126
Mercury	26446-01-20 07:26 G	11380282.76	11380282.81	11380282.86	0.0293	0.0276
Mars	26448-01-07 09:07 G	11380999.61	11380999.88	11381000.16	0.0290	0.0036
Earth	26456-01-08 20:24 G	11383923.11	11383923.35	11383923.60	0.0270	0.0039
Moon	26456-01-08 23:17 G	11383923.23	11383923.47	11383923.71	0.0270	0.0034 *
Venus	26456-05-12 04:48 G	11384047.53	11384047.70	11384047.87	0.0270	0.0154
Venus	26456-12-27 07:26 G	11384276.60	11384276.81	11384277.02	0.0269	0.0032
Venus	26457-08-13 09:07 G	11384505.76	11384505.88	11384506.01	0.0268	0.0215
Mercury	26459-11-13 02:24 G	11385327.54	11385327.60	11385327.68	0.0267	0.0225
Mercury	26460-02-09 14:09 G	11385415.97	11385416.09	11385416.21	0.0267	0.0130
Mercury	26460-05-08 01:55 G	11385504.43	11385504.58	11385504.72	0.0267	0.0035
Mercury	26460-08-04 13:41 G	11385592.93	11385593.07	11385593.21	0.0267	0.0064
Mercury	26460-11-01 01:41 G	11385681.46	11385681.57	11385681.69	0.0267	0.0164
Mercury	26461-01-28 14:09 G	11385770.08	11385770.09	11385770.11	0.0267	0.0265
Venus	26471-06-07 00:57 G	11389551.45	11389551.54	11389551.66	0.0290	0.0251

Earth	26471-07-11 22:19 G	11389586.19	11389586.43	11389586.67	0.0291	0.0039
Moon	26471-07-12 01:12 G	11389586.30	11389586.55	11389586.80	0.0291	0.0047 *
Venus	26472-01-22 23:31 G	11389781.27	11389781.48	11389781.70	0.0292	0.0013
Venus	26472-09-08 22:33 G	11390011.32	11390011.44	11390011.58	0.0293	0.0229
Mercury	26474-09-15 20:24 G	11390748.23	11390748.35	11390748.46	0.0294	0.0216
Mercury	26474-12-13 17:17 G	11390837.05	11390837.22	11390837.38	0.0294	0.0057
Mercury	26475-03-12 13:41 G	11390925.91	11390926.07	11390926.23	0.0294	0.0098
Mercury	26475-06-09 09:21 G	11391014.81	11391014.89	11391014.98	0.0294	0.0249
Moon	26485-01-03 00:43 G	11394510.35	11394510.53	11394510.71	0.0271	0.0190
Earth	26485-01-03 03:07 G	11394510.47	11394510.63	11394510.82	0.0271	0.0192 *
Venus	26485-11-22 12:57 G	11394833.86	11394834.04	11394834.24	0.0269	0.0123
Moon	26486-01-15 04:19 G	11394887.52	11394887.68	11394887.86	0.0269	0.0190
Earth	26486-01-15 07:41 G	11394887.65	11394887.82	11394888.01	0.0269	0.0179 *
Venus	26486-07-09 15:21 G	11395062.94	11395063.14	11395063.35	0.0268	0.0063
Venus	26487-02-23 17:02 G	11395292.13	11395292.21	11395292.30	0.0267	0.0244
Mercury	26489-04-01 06:00 G	11396059.70	11396059.75	11396059.81	0.0266	0.0243
Mercury	26489-06-28 17:31 G	11396148.11	11396148.23	11396148.34	0.0266	0.0149
Mercury	26489-09-25 05:02 G	11396236.57	11396236.71	11396236.85	0.0266	0.0054
Mercury	26489-12-22 16:48 G	11396325.06	11396325.20	11396325.35	0.0266	0.0044
Mercury	26490-03-21 04:48 G	11396413.59	11396413.70	11396413.83	0.0266	0.0143
Mercury	26490-06-17 17:17 G	11396502.16	11396502.22	11396502.28	0.0266	0.0243
Moon	26500-07-05 22:33 G	11400172.25	11400172.44	11400172.65	0.0290	0.0158
Earth	26500-07-06 01:26 G	11400172.36	11400172.56	11400172.76	0.0290	0.0166 *
Venus	26500-12-18 07:12 G	11400337.67	11400337.80	11400337.95	0.0290	0.0221
Venus	26501-08-05 05:45 G	11400567.53	11400567.74	11400567.95	0.0292	0.0018
Venus	26502-03-23 04:48 G	11400797.60	11400797.70	11400797.80	0.0293	0.0259
Mercury	26504-02-03 19:12 G	11401480.23	11401480.30	11401480.37	0.0294	0.0265
Mercury	26504-05-02 16:19 G	11401569.02	11401569.18	11401569.34	0.0294	0.0105
Mercury	26504-07-30 12:57 G	11401657.87	11401658.04	11401658.20	0.0294	0.0051
Mercury	26504-10-27 08:53 G	11401746.75	11401746.87	11401746.99	0.0293	0.0203

Earth	26515-01-11 05:17 G	11405474.48	11405474.72	11405474.97	0.0270	0.0016
Moon	26515-01-11 08:38 G	11405474.61	11405474.86	11405475.11	0.0270	0.0023 *
Venus	26515-06-05 15:21 G	11405619.95	11405620.14	11405620.34	0.0269	0.0102
Venus	26516-01-20 17:31 G	11405849.03	11405849.23	11405849.44	0.0268	0.0083
Venus	26516-09-05 18:57 G	11406078.27	11406078.29	11406078.33	0.0268	0.0265
Mercury	26518-11-16 19:26 G	11406880.20	11406880.31	11406880.41	0.0267	0.0181
Mercury	26519-02-13 06:57 G	11406968.65	11406968.79	11406968.92	0.0267	0.0086
Mercury	26519-05-12 18:43 G	11407057.14	11407057.28	11407057.42	0.0267	0.0011
Mercury	26519-08-09 06:43 G	11407145.65	11407145.78	11407145.91	0.0267	0.0110
Mercury	26519-11-05 18:43 G	11407234.20	11407234.28	11407234.38	0.0267	0.0210
Mars	26522-03-23 16:48 G	11408102.90	11408103.20	11408103.50	0.0270	0.0081
Venus	26530-06-30 16:05 G	11411124.02	11411124.17	11411124.34	0.0291	0.0186
Moon	26530-07-14 10:05 G	11411137.69	11411137.92	11411138.16	0.0291	0.0107
Earth	26530-07-14 11:17 G	11411137.75	11411137.97	11411138.20	0.0291	0.0103 *
Venus	26531-02-15 14:53 G	11411353.92	11411354.12	11411354.33	0.0292	0.0054
Mercury	26533-09-19 17:31 G	11412301.08	11412301.23	11412301.38	0.0294	0.0140
Mercury	26533-12-17 14:09 G	11412389.93	11412390.09	11412390.26	0.0294	0.0020
Mercury	26534-03-16 10:19 G	11412478.80	11412478.93	11412479.07	0.0294	0.0172
Mars	26536-06-04 08:24 G	11413289.63	11413289.85	11413290.10	0.0291	0.0152
Moon	26544-01-06 08:38 G	11416061.66	11416061.86	11416062.08	0.0270	0.0136
Earth	26544-01-06 11:45 G	11416061.79	11416061.99	11416062.21	0.0270	0.0139 *
Venus	26544-04-30 20:09 G	11416177.29	11416177.34	11416177.41	0.0270	0.0257
Venus	26544-12-15 23:17 G	11416406.26	11416406.47	11416406.67	0.0269	0.0071
Earth	26545-01-17 15:50 G	11416439.03	11416439.16	11416439.28	0.0268	0.0230
Moon	26545-01-17 16:33 G	11416439.11	11416439.19	11416439.30	0.0268	0.0244 *
Venus	26545-08-02 01:12 G	11416635.36	11416635.55	11416635.75	0.0268	0.0113
Mercury	26548-04-04 22:33 G	11417612.35	11417612.44	11417612.54	0.0266	0.0200
Mercury	26548-07-02 10:05 G	11417700.79	11417700.92	11417701.05	0.0266	0.0106
Mercury	26548-09-28 21:50 G	11417789.27	11417789.41	11417789.55	0.0266	0.0010
Mercury	26548-12-26 09:50 G	11417877.77	11417877.91	11417878.04	0.0266	0.0088

Mercury	26549-03-24 21:50 G	11417966.31	11417966.41	11417966.51	0.0266	0.0188
Earth	26559-07-08 14:09 G	11421723.86	11421724.09	11421724.32	0.0290	0.0103
Moon	26559-07-08 15:36 G	11421723.93	11421724.15	11421724.38	0.0290	0.0097 *
Venus	26560-01-10 22:33 G	11421910.26	11421910.44	11421910.62	0.0291	0.0155
Venus	26560-08-27 21:07 G	11422140.18	11422140.38	11422140.59	0.0292	0.0084
Mercury	26563-02-06 16:19 G	11423033.06	11423033.18	11423033.31	0.0294	0.0189
Mercury	26563-05-06 13:12 G	11423121.89	11423122.05	11423122.22	0.0294	0.0031
Mercury	26563-08-03 09:36 G	11423210.75	11423210.90	11423211.05	0.0294	0.0124
Mercury	26563-10-31 05:17 G	11423299.67	11423299.72	11423299.78	0.0293	0.0275
Venus	26573-11-10 22:05 G	11426963.32	11426963.42	11426963.52	0.0270	0.0237
Moon	26574-01-12 11:17 G	11427025.73	11427025.97	11427026.22	0.0269	0.0076
Earth	26574-01-12 12:43 G	11427025.79	11427026.03	11427026.26	0.0269	0.0066 *
Venus	26574-06-28 00:43 G	11427192.33	11427192.53	11427192.74	0.0269	0.0052
Venus	26575-02-12 02:38 G	11427421.43	11427421.61	11427421.80	0.0268	0.0132
Mercury	26577-08-23 00:14 G	11428344.45	11428344.51	11428344.58	0.0266	0.0233
Mercury	26577-11-19 11:45 G	11428432.87	11428432.99	11428433.11	0.0266	0.0140
Mercury	26578-02-15 23:17 G	11428521.33	11428521.47	11428521.61	0.0266	0.0045
Mercury	26578-05-15 11:17 G	11428609.83	11428609.97	11428610.11	0.0267	0.0054
Mercury	26578-08-11 23:17 G	11428698.35	11428698.47	11428698.59	0.0267	0.0153
Mercury	26578-11-08 11:31 G	11428786.94	11428786.98	11428787.02	0.0267	0.0253
Moon	26589-07-15 16:48 G	11432689.01	11432689.20	11432689.41	0.0291	0.0163
Earth	26589-07-15 20:38 G	11432689.16	11432689.36	11432689.57	0.0291	0.0161 *
Venus	26589-07-23 05:02 G	11432696.53	11432696.71	11432696.91	0.0291	0.0125
Venus	26590-03-10 04:05 G	11432926.48	11432926.67	11432926.87	0.0292	0.0116
Mercury	26592-06-25 16:33 G	11433765.09	11433765.19	11433765.30	0.0294	0.0230
Mercury	26592-09-22 13:41 G	11433853.91	11433854.07	11433854.24	0.0294	0.0070
Mercury	26592-12-20 10:19 G	11433942.77	11433942.93	11433943.09	0.0294	0.0087
Mercury	26593-03-19 06:14 G	11434031.67	11434031.76	11434031.86	0.0294	0.0239
Earth	26603-01-08 18:43 G	11437613.05	11437613.28	11437613.52	0.0270	0.0088
Moon	26603-01-08 19:12 G	11437613.08	11437613.30	11437613.53	0.0270	0.0084 *

Venus	26603-05-25 05:45 G	11437749.61	11437749.74	11437749.88	0.0269	0.0206
Venus	26604-01-09 08:09 G	11437978.63	11437978.84	11437979.06	0.0268	0.0022
Venus	26604-08-25 09:50 G	11438207.75	11438207.91	11438208.09	0.0267	0.0162
Mercury	26607-01-11 03:21 G	11439076.61	11439076.64	11439076.69	0.0266	0.0253
Mercury	26607-04-09 14:53 G	11439165.01	11439165.12	11439165.24	0.0266	0.0160
Mercury	26607-07-07 02:38 G	11439253.47	11439253.61	11439253.74	0.0266	0.0065
Mercury	26607-10-03 14:24 G	11439341.95	11439342.10	11439342.24	0.0266	0.0033
Mercury	26607-12-31 02:09 G	11439430.47	11439430.59	11439430.72	0.0266	0.0131
Mercury	26608-03-28 14:24 G	11439519.03	11439519.10	11439519.17	0.0266	0.0231
Mars	26610-08-18 18:43 G	11440392.04	11440392.28	11440392.55	0.0269	0.0157
Earth	26618-07-10 23:02 G	11443275.22	11443275.46	11443275.70	0.0290	0.0046
Moon	26618-07-11 02:53 G	11443275.38	11443275.62	11443275.87	0.0290	0.0042 *
Venus	26619-02-03 11:17 G	11443482.77	11443482.97	11443483.18	0.0291	0.0095
Venus	26619-09-21 10:19 G	11443712.75	11443712.93	11443713.11	0.0293	0.0146
Mercury	26621-11-13 15:21 G	11444497.10	11444497.14	11444497.19	0.0294	0.0281
Mercury	26622-02-10 12:29 G	11444585.87	11444586.02	11444586.18	0.0294	0.0120
Mercury	26622-05-10 09:21 G	11444674.72	11444674.89	11444675.06	0.0294	0.0038
Mercury	26622-08-07 05:31 G	11444763.60	11444763.73	11444763.85	0.0294	0.0191
Mars	26624-10-30 06:00 G	11445578.57	11445578.75	11445578.94	0.0290	0.0211
Moon	26632-01-03 12:57 G	11448199.97	11448200.04	11448200.11	0.0271	0.0258
Earth	26632-01-03 13:12 G	11448199.98	11448200.05	11448200.12	0.0271	0.0258 *
Venus	26632-12-04 06:43 G	11448535.63	11448535.78	11448535.93	0.0269	0.0187
Moon	26633-01-14 14:24 G	11448576.89	11448577.10	11448577.33	0.0269	0.0126
Earth	26633-01-14 18:00 G	11448577.03	11448577.25	11448577.48	0.0269	0.0114 *
Venus	26633-07-21 09:07 G	11448764.67	11448764.88	11448765.09	0.0268	0.0003
Venus	26634-03-07 10:48 G	11448993.79	11448993.95	11448994.10	0.0267	0.0180
Mercury	26636-08-26 16:19 G	11449897.09	11449897.18	11449897.28	0.0266	0.0195
Mercury	26636-11-23 03:50 G	11449985.53	11449985.66	11449985.79	0.0266	0.0101
Mercury	26637-02-19 15:36 G	11450074.00	11450074.15	11450074.29	0.0266	0.0007
Mercury	26637-05-19 03:21 G	11450162.51	11450162.64	11450162.78	0.0266	0.0094

Mercury	26637-08-15 15:21 G	11450251.05	11450251.14	11450251.25	0.0266	0.0193
Moon	26647-07-04 19:55 G	11453861.23	11453861.33	11453861.46	0.0289	0.0252
Earth	26647-07-04 23:17 G	11453861.37	11453861.47	11453861.60	0.0289	0.0254 *
Moon	26648-07-18 01:55 G	11454240.43	11454240.58	11454240.75	0.0291	0.0213
Earth	26648-07-18 02:53 G	11454240.46	11454240.62	11454240.79	0.0291	0.0214 *
Venus	26648-08-15 16:19 G	11454268.97	11454269.18	11454269.38	0.0292	0.0067
Venus	26649-04-02 15:21 G	11454498.98	11454499.14	11454499.32	0.0293	0.0176
Mercury	26651-06-30 12:00 G	11455317.86	11455318.00	11455318.14	0.0294	0.0167
Mercury	26651-09-27 08:53 G	11455406.71	11455406.87	11455407.04	0.0294	0.0011
Mercury	26651-12-25 05:17 G	11455495.58	11455495.72	11455495.87	0.0294	0.0149
Earth	26662-01-09 23:17 G	11459164.23	11459164.47	11459164.72	0.0270	0.0042
Moon	26662-01-10 02:53 G	11459164.38	11459164.62	11459164.87	0.0270	0.0035 *
Venus	26662-06-16 13:41 G	11459321.91	11459322.07	11459322.25	0.0269	0.0158
Venus	26663-01-31 15:50 G	11459550.95	11459551.16	11459551.38	0.0268	0.0027
Venus	26663-09-17 17:17 G	11459780.10	11459780.22	11459780.36	0.0267	0.0208
Mercury	26666-01-13 19:26 G	11460629.23	11460629.31	11460629.40	0.0266	0.0215
Mercury	26666-04-12 06:57 G	11460717.67	11460717.79	11460717.92	0.0266	0.0121
Mercury	26666-07-09 18:29 G	11460806.13	11460806.27	11460806.42	0.0266	0.0027
Mercury	26666-10-06 06:14 G	11460894.63	11460894.76	11460894.90	0.0266	0.0072
Mercury	26667-01-02 18:14 G	11460983.16	11460983.26	11460983.38	0.0266	0.0171
Venus	26677-07-10 23:17 G	11464825.41	11464825.47	11464825.55	0.0291	0.0275
Moon	26677-07-12 03:50 G	11464826.41	11464826.66	11464826.91	0.0291	0.0003
Earth	26677-07-12 03:50 G	11464826.42	11464826.66	11464826.91	0.0291	0.0007 *
Venus	26678-02-25 21:50 G	11465055.20	11465055.41	11465055.62	0.0292	0.0037
Venus	26678-10-13 21:07 G	11465285.23	11465285.38	11465285.53	0.0293	0.0204
Mercury	26680-11-16 10:33 G	11466049.83	11466049.94	11466050.05	0.0294	0.0219
Mercury	26681-02-13 07:41 G	11466138.65	11466138.82	11466138.99	0.0294	0.0059
Mercury	26681-05-13 04:05 G	11466227.52	11466227.67	11466227.83	0.0294	0.0099
Mercury	26681-08-10 00:14 G	11466316.43	11466316.51	11466316.60	0.0294	0.0250
Moon	26691-01-04 13:41 G	11469750.93	11469751.07	11469751.24	0.0271	0.0209

Earth	26691-01-04 17:31 G	11469751.09	11469751.23	11469751.39	0.0271	0.0212	*
Venus	26691-12-27 14:24 G	11470107.92	11470108.10	11470108.28	0.0269	0.0139	
Moon	26692-01-16 20:53 G	11470128.19	11470128.37	11470128.56	0.0269	0.0171	
Earth	26692-01-16 21:50 G	11470128.22	11470128.41	11470128.61	0.0269	0.0159	*
Venus	26692-08-12 16:19 G	11470336.97	11470337.18	11470337.39	0.0268	0.0045	
Venus	26693-03-29 17:31 G	11470566.13	11470566.23	11470566.35	0.0267	0.0226	
Mercury	26695-06-02 20:53 G	11471361.32	11471361.37	11471361.41	0.0266	0.0251	
Mercury	26695-08-30 08:09 G	11471449.73	11471449.84	11471449.95	0.0266	0.0158	
Mercury	26695-11-26 19:41 G	11471538.18	11471538.32	11471538.46	0.0266	0.0064	
Mercury	26696-02-23 07:26 G	11471626.66	11471626.81	11471626.95	0.0266	0.0034	
Mercury	26696-05-21 19:12 G	11471715.18	11471715.30	11471715.43	0.0266	0.0131	
Mercury	26696-08-18 07:26 G	11471803.74	11471803.81	11471803.88	0.0266	0.0231	
Mars	26699-01-11 15:36 G	11472679.94	11472680.15	11472680.39	0.0269	0.0192	
Earth	26706-07-07 01:12 G	11475412.38	11475412.55	11475412.72	0.0289	0.0208	
Moon	26706-07-07 01:55 G	11475412.43	11475412.58	11475412.75	0.0289	0.0210	*
Venus	26707-01-22 01:55 G	11475611.49	11475611.58	11475611.70	0.0291	0.0251	
Earth	26707-07-21 05:02 G	11475791.61	11475791.71	11475791.82	0.0292	0.0261	
Moon	26707-07-21 08:24 G	11475791.74	11475791.85	11475791.98	0.0292	0.0255	*
Venus	26707-09-09 00:57 G	11475841.32	11475841.54	11475841.75	0.0292	0.0013	
Venus	26708-04-26 00:29 G	11476071.40	11476071.52	11476071.65	0.0293	0.0230	
Mercury	26710-04-06 09:07 G	11476781.82	11476781.88	11476781.94	0.0295	0.0273	
Mercury	26710-07-04 06:14 G	11476870.61	11476870.76	11476870.92	0.0295	0.0111	
Mercury	26710-10-01 03:07 G	11476959.47	11476959.63	11476959.80	0.0295	0.0048	
Mercury	26710-12-28 23:31 G	11477048.36	11477048.48	11477048.60	0.0294	0.0203	
Mars	26713-03-27 01:41 G	11477867.50	11477867.57	11477867.67	0.0291	0.0276	
Earth	26721-01-12 02:24 G	11480715.35	11480715.60	11480715.84	0.0270	0.0003	
Moon	26721-01-12 04:05 G	11480715.41	11480715.67	11480715.92	0.0270	0.0012	*
Venus	26721-07-09 20:24 G	11480894.17	11480894.35	11480894.55	0.0269	0.0112	
Venus	26722-02-23 22:19 G	11481123.23	11481123.43	11481123.64	0.0268	0.0073	
Venus	26722-10-10 23:45 G	11481352.43	11481352.49	11481352.56	0.0267	0.0253	

Mercury	26725-01-17 11:02 G	11482181.86	11482181.96	11482182.07	0.0265	0.0180
Mercury	26725-04-15 22:33 G	11482270.31	11482270.44	11482270.58	0.0265	0.0085
Mercury	26725-07-13 10:19 G	11482358.78	11482358.93	11482359.07	0.0265	0.0012
Mercury	26725-10-09 22:05 G	11482447.29	11482447.42	11482447.55	0.0265	0.0108
Mercury	26726-01-06 10:05 G	11482535.84	11482535.92	11482536.01	0.0266	0.0208
Moon	26736-07-14 02:24 G	11486377.36	11486377.60	11486377.85	0.0291	0.0044
Earth	26736-07-14 06:14 G	11486377.52	11486377.76	11486378.00	0.0291	0.0052 *
Venus	26736-08-03 07:55 G	11486397.70	11486397.83	11486397.97	0.0291	0.0222
Venus	26737-03-21 06:43 G	11486627.57	11486627.78	11486627.99	0.0292	0.0017
Venus	26737-11-06 06:00 G	11486857.66	11486857.75	11486857.86	0.0293	0.0260
Mercury	26739-11-21 05:02 G	11487602.57	11487602.71	11487602.85	0.0295	0.0163
Mercury	26740-02-18 01:55 G	11487691.41	11487691.58	11487691.75	0.0294	0.0004
Mercury	26740-05-16 22:19 G	11487780.29	11487780.43	11487780.57	0.0294	0.0153
Moon	26750-01-06 18:43 G	11491302.09	11491302.28	11491302.47	0.0270	0.0161
Earth	26750-01-06 19:55 G	11491302.15	11491302.33	11491302.53	0.0270	0.0168 *
Earth	26751-01-18 23:45 G	11491679.33	11491679.49	11491679.65	0.0268	0.0201
Moon	26751-01-19 02:38 G	11491679.47	11491679.61	11491679.76	0.0268	0.0216 *
Venus	26751-01-19 20:53 G	11491680.17	11491680.37	11491680.57	0.0268	0.0093
Venus	26751-09-05 22:33 G	11491909.24	11491909.44	11491909.64	0.0267	0.0090
Mercury	26754-06-06 12:14 G	11492913.93	11492914.01	11492914.09	0.0266	0.0217
Mercury	26754-09-02 23:31 G	11493002.36	11493002.48	11493002.61	0.0266	0.0124
Mercury	26754-11-30 11:02 G	11493090.82	11493090.96	11493091.11	0.0266	0.0030
Mercury	26755-02-26 23:02 G	11493179.32	11493179.46	11493179.59	0.0266	0.0069
Mercury	26755-05-26 10:48 G	11493267.84	11493267.95	11493268.07	0.0266	0.0168
Earth	26765-07-08 00:14 G	11496963.31	11496963.51	11496963.71	0.0289	0.0167
Moon	26765-07-08 03:50 G	11496963.47	11496963.66	11496963.86	0.0289	0.0171 *
Venus	26766-02-13 08:53 G	11497183.72	11497183.87	11497184.02	0.0291	0.0200
Venus	26766-10-01 07:41 G	11497413.61	11497413.82	11497414.04	0.0292	0.0040
Venus	26767-05-19 07:26 G	11497643.77	11497643.81	11497643.88	0.0293	0.0282
Mercury	26769-04-09 02:24 G	11498334.49	11498334.60	11498334.71	0.0295	0.0223

Mercury	26769-07-06 23:45 G	11498423.32	11498423.49	11498423.65	0.0295	0.0061
Mercury	26769-10-03 20:24 G	11498512.19	11498512.35	11498512.51	0.0295	0.0097
Mercury	26769-12-31 16:19 G	11498601.11	11498601.18	11498601.28	0.0295	0.0251
Venus	26779-12-15 23:45 G	11502237.42	11502237.49	11502237.57	0.0270	0.0252
Moon	26780-01-14 00:14 G	11502266.27	11502266.51	11502266.76	0.0269	0.0058
Earth	26780-01-14 03:21 G	11502266.40	11502266.64	11502266.89	0.0269	0.0045 *
Venus	26780-08-01 02:24 G	11502466.39	11502466.60	11502466.80	0.0268	0.0066
Venus	26781-03-18 04:05 G	11502695.48	11502695.67	11502695.86	0.0267	0.0117
Mercury	26783-10-24 15:07 G	11503646.08	11503646.13	11503646.20	0.0265	0.0238
Mercury	26784-01-21 02:38 G	11503734.49	11503734.61	11503734.73	0.0265	0.0145
Mercury	26784-04-18 14:09 G	11503822.95	11503823.09	11503823.23	0.0265	0.0051
Mercury	26784-07-16 01:41 G	11503911.43	11503911.57	11503911.71	0.0265	0.0046
Mercury	26784-10-12 13:41 G	11503999.95	11504000.07	11504000.19	0.0265	0.0144
Mercury	26785-01-09 01:41 G	11504088.52	11504088.57	11504088.63	0.0265	0.0244
Mars	26787-06-08 03:07 G	11504968.50	11504968.63	11504968.78	0.0268	0.0240
Moon	26795-07-16 03:36 G	11507928.43	11507928.65	11507928.89	0.0291	0.0087
Earth	26795-07-16 05:02 G	11507928.49	11507928.71	11507928.95	0.0291	0.0095 *
Venus	26795-08-26 14:24 G	11507969.94	11507970.10	11507970.28	0.0291	0.0173
Venus	26796-04-12 13:41 G	11508199.86	11508200.07	11508200.28	0.0293	0.0069
Mercury	26798-08-27 00:57 G	11509066.49	11509066.54	11509066.60	0.0295	0.0276
Mercury	26798-11-23 22:19 G	11509155.28	11509155.43	11509155.59	0.0295	0.0113
Mercury	26799-02-20 19:12 G	11509244.14	11509244.30	11509244.47	0.0295	0.0047
Mercury	26799-05-20 15:36 G	11509333.03	11509333.15	11509333.27	0.0295	0.0201
Earth	26809-01-07 21:07 G	11512853.17	11512853.38	11512853.61	0.0270	0.0126
Moon	26809-01-08 00:29 G	11512853.31	11512853.52	11512853.74	0.0270	0.0115 *
Venus	26809-06-27 00:14 G	11513023.41	11513023.51	11513023.62	0.0269	0.0233
Earth	26810-01-20 00:14 G	11513230.42	11513230.51	11513230.63	0.0268	0.0242
Moon	26810-01-20 02:53 G	11513230.56	11513230.62	11513230.71	0.0268	0.0256 *
Venus	26810-02-11 02:24 G	11513252.40	11513252.60	11513252.81	0.0268	0.0049
Venus	26810-09-28 03:50 G	11513481.49	11513481.66	11513481.85	0.0267	0.0134

Mercury	26813-06-09 03:36 G	11514466.55	11514466.65	11514466.75	0.0265	0.0183
Mercury	26813-09-05 14:53 G	11514554.99	11514555.12	11514555.26	0.0265	0.0090
Mercury	26813-12-03 02:38 G	11514643.46	11514643.61	11514643.75	0.0265	0.0008
Mercury	26814-03-01 14:24 G	11514731.97	11514732.10	11514732.23	0.0265	0.0104
Mercury	26814-05-29 02:09 G	11514820.51	11514820.59	11514820.69	0.0266	0.0203
Earth	26824-07-08 22:05 G	11518514.20	11518514.42	11518514.64	0.0290	0.0127
Moon	26824-07-08 23:02 G	11518514.24	11518514.46	11518514.69	0.0290	0.0133 *
Venus	26825-03-07 14:53 G	11518755.94	11518756.12	11518756.30	0.0291	0.0151
Venus	26825-10-23 13:55 G	11518985.88	11518986.08	11518986.29	0.0292	0.0089
Mercury	26828-04-11 19:26 G	11519887.18	11519887.31	11519887.45	0.0295	0.0176
Mercury	26828-07-09 16:33 G	11519976.03	11519976.19	11519976.36	0.0295	0.0016
Mercury	26828-10-06 13:12 G	11520064.91	11520065.05	11520065.20	0.0295	0.0143
Venus	26839-01-07 05:02 G	11523809.58	11523809.71	11523809.85	0.0269	0.0208
Moon	26839-01-15 00:43 G	11523817.31	11523817.53	11523817.75	0.0269	0.0100
Earth	26839-01-15 03:07 G	11523817.40	11523817.63	11523817.87	0.0269	0.0085 *
Venus	26839-08-24 07:26 G	11524038.60	11524038.81	11524039.02	0.0268	0.0023
Venus	26840-04-09 08:53 G	11524267.70	11524267.87	11524268.04	0.0267	0.0160
Mercury	26842-10-27 06:29 G	11525198.68	11525198.77	11525198.86	0.0265	0.0206
Mercury	26843-01-23 17:45 G	11525287.12	11525287.24	11525287.37	0.0265	0.0112
Mercury	26843-04-22 05:17 G	11525375.58	11525375.72	11525375.87	0.0265	0.0018
Mercury	26843-07-19 17:02 G	11525464.08	11525464.21	11525464.35	0.0265	0.0080
Mercury	26843-10-16 05:02 G	11525552.61	11525552.71	11525552.82	0.0265	0.0179
Earth	26854-07-17 03:07 G	11529479.42	11529479.63	11529479.85	0.0291	0.0136
Moon	26854-07-17 06:00 G	11529479.54	11529479.75	11529479.97	0.0291	0.0124 *
Venus	26854-09-17 20:38 G	11529542.17	11529542.36	11529542.56	0.0292	0.0123
Venus	26855-05-05 19:55 G	11529772.14	11529772.33	11529772.53	0.0293	0.0119
Mercury	26857-08-29 18:00 G	11530619.15	11530619.25	11530619.36	0.0295	0.0229
Mercury	26857-11-26 15:21 G	11530707.98	11530708.14	11530708.31	0.0295	0.0066
Mercury	26858-02-23 12:00 G	11530796.85	11530797.00	11530797.17	0.0295	0.0093
Mercury	26858-05-23 08:24 G	11530885.76	11530885.85	11530885.94	0.0295	0.0247

Earth	26868-01-09 21:36 G	11534404.17	11534404.40	11534404.63	0.0270	0.0085
Moon	26868-01-10 00:00 G	11534404.26	11534404.50	11534404.75	0.0270	0.0072 *
Venus	26868-07-19 05:31 G	11534595.59	11534595.73	11534595.88	0.0269	0.0189
Venus	26869-03-05 07:41 G	11534824.61	11534824.82	11534825.03	0.0268	0.0006
Venus	26869-10-20 09:07 G	11535053.73	11535053.88	11535054.04	0.0267	0.0177
Mercury	26872-03-15 07:26 G	11535930.77	11535930.81	11535930.87	0.0265	0.0243
Mercury	26872-06-11 18:57 G	11536019.17	11536019.29	11536019.40	0.0265	0.0149
Mercury	26872-09-08 06:14 G	11536107.63	11536107.76	11536107.90	0.0265	0.0056
Mercury	26872-12-05 18:00 G	11536196.11	11536196.25	11536196.39	0.0265	0.0041
Mercury	26873-03-04 05:45 G	11536284.62	11536284.74	11536284.87	0.0265	0.0139
Mercury	26873-05-31 17:45 G	11536373.18	11536373.24	11536373.31	0.0265	0.0238
Mars	26875-10-31 12:14 G	11537255.93	11537256.01	11537256.12	0.0268	0.0256
Moon	26883-07-10 15:36 G	11540064.93	11540065.15	11540065.39	0.0290	0.0100
Earth	26883-07-10 18:57 G	11540065.06	11540065.29	11540065.53	0.0290	0.0088 *
Venus	26884-03-29 20:24 G	11540328.15	11540328.35	11540328.55	0.0291	0.0103
Venus	26884-11-14 19:41 G	11540558.13	11540558.32	11540558.50	0.0293	0.0138
Mercury	26887-04-15 12:00 G	11541439.85	11541440.00	11541440.16	0.0295	0.0132
Mercury	26887-07-13 09:07 G	11541528.71	11541528.88	11541529.05	0.0295	0.0029
Mercury	26887-10-10 05:31 G	11541617.61	11541617.73	11541617.86	0.0295	0.0186
Moon	26897-01-03 17:45 G	11544991.15	11544991.24	11544991.36	0.0272	0.0242
Earth	26897-01-03 20:09 G	11544991.27	11544991.34	11544991.45	0.0272	0.0251 *
Earth	26898-01-16 02:24 G	11545368.38	11545368.60	11545368.82	0.0269	0.0124
Moon	26898-01-16 04:33 G	11545368.49	11545368.69	11545368.90	0.0269	0.0139 *
Venus	26898-01-29 09:50 G	11545381.75	11545381.91	11545382.08	0.0269	0.0165
Venus	26898-09-15 12:00 G	11545610.79	11545611.00	11545611.22	0.0268	0.0021
Venus	26899-05-02 13:26 G	11545839.93	11545840.06	11545840.20	0.0267	0.0202
Mercury	26901-08-03 10:33 G	11546662.94	11546662.94	11546662.94	0.0265	0.0265
Mercury	26901-10-30 21:36 G	11546751.30	11546751.40	11546751.51	0.0265	0.0173
Mercury	26902-01-27 09:07 G	11546839.75	11546839.88	11546840.02	0.0265	0.0079
Mercury	26902-04-25 20:38 G	11546928.22	11546928.36	11546928.51	0.0265	0.0018

Mercury	26902-07-23 08:24 G	11547016.72	11547016.85	11547016.98	0.0265	0.0115
Mercury	26902-10-19 20:24 G	11547105.27	11547105.35	11547105.44	0.0265	0.0214
Earth	26912-07-04 23:45 G	11550651.47	11550651.49	11550651.52	0.0289	0.0287
Earth	26913-07-19 01:26 G	11551030.37	11551030.56	11551030.76	0.0291	0.0178
Moon	26913-07-19 04:19 G	11551030.48	11551030.68	11551030.90	0.0291	0.0165 *
Venus	26913-10-11 02:53 G	11551114.42	11551114.62	11551114.83	0.0292	0.0073
Venus	26914-05-29 02:09 G	11551344.43	11551344.59	11551344.77	0.0293	0.0169
Mercury	26916-09-02 11:17 G	11552171.84	11552171.97	11552172.10	0.0295	0.0181
Mercury	26916-11-30 08:24 G	11552260.68	11552260.85	11552261.02	0.0295	0.0019
Mercury	26917-02-27 05:02 G	11552349.56	11552349.71	11552349.86	0.0295	0.0139
Mercury	26917-05-27 01:12 G	11552438.53	11552438.55	11552438.57	0.0295	0.0292
Moon	26927-01-11 19:41 G	11555955.07	11555955.32	11555955.57	0.0270	0.0030
Earth	26927-01-11 22:05 G	11555955.17	11555955.42	11555955.66	0.0270	0.0044 *
Venus	26927-08-12 11:02 G	11556167.78	11556167.96	11556168.14	0.0269	0.0145
Venus	26928-03-28 12:57 G	11556396.83	11556397.04	11556397.25	0.0268	0.0039
Venus	26928-11-12 14:09 G	11556625.98	11556626.09	11556626.22	0.0267	0.0221
Mercury	26931-03-19 23:02 G	11557483.38	11557483.46	11557483.55	0.0265	0.0208
Mercury	26931-06-16 10:19 G	11557571.80	11557571.93	11557572.06	0.0265	0.0115
Mercury	26931-09-12 21:50 G	11557660.27	11557660.41	11557660.55	0.0265	0.0020
Mercury	26931-12-10 09:21 G	11557748.76	11557748.89	11557749.03	0.0265	0.0077
Mercury	26932-03-07 21:21 G	11557837.28	11557837.39	11557837.50	0.0265	0.0175
Moon	26942-07-12 14:38 G	11561615.88	11561616.11	11561616.35	0.0290	0.0061
Earth	26942-07-12 17:02 G	11561615.98	11561616.21	11561616.46	0.0290	0.0047 *
Venus	26943-04-23 02:38 G	11561900.40	11561900.61	11561900.82	0.0291	0.0054
Venus	26943-12-09 01:41 G	11562130.42	11562130.57	11562130.75	0.0293	0.0189
Mercury	26946-01-20 07:26 G	11562903.72	11562903.81	11562903.90	0.0295	0.0250
Mercury	26946-04-19 04:48 G	11562992.54	11562992.70	11562992.87	0.0295	0.0086
Mercury	26946-07-17 01:55 G	11563081.41	11563081.58	11563081.74	0.0295	0.0074
Mercury	26946-10-13 22:05 G	11563170.32	11563170.42	11563170.53	0.0295	0.0230
Earth	26956-01-06 19:55 G	11566542.18	11566542.33	11566542.49	0.0272	0.0210

Moon	26956-01-06 21:36 G	11566542.24	11566542.40	11566542.56	0.0272	0.0199	*
Earth	26957-01-18 01:41 G	11566919.39	11566919.57	11566919.77	0.0269	0.0164	
Moon	26957-01-18 05:17 G	11566919.53	11566919.72	11566919.90	0.0269	0.0178	*
Venus	26957-02-21 14:38 G	11566953.93	11566954.11	11566954.31	0.0269	0.0122	
Venus	26957-10-08 17:02 G	11567183.01	11567183.21	11567183.42	0.0268	0.0063	
Venus	26958-05-25 18:29 G	11567412.19	11567412.27	11567412.35	0.0267	0.0244	
Mercury	26960-08-06 01:41 G	11568215.51	11568215.57	11568215.64	0.0265	0.0232	
Mercury	26960-11-02 12:57 G	11568303.93	11568304.04	11568304.17	0.0265	0.0139	
Mercury	26961-01-30 00:29 G	11568392.38	11568392.52	11568392.66	0.0265	0.0044	
Mercury	26961-04-28 12:14 G	11568480.87	11568481.01	11568481.15	0.0265	0.0053	
Mercury	26961-07-26 00:00 G	11568569.38	11568569.50	11568569.62	0.0265	0.0151	
Mercury	26961-10-22 12:00 G	11568657.96	11568658.00	11568658.05	0.0265	0.0250	
Earth	26971-07-06 22:48 G	11572202.34	11572202.45	11572202.60	0.0289	0.0245	
Moon	26971-07-07 01:12 G	11572202.44	11572202.55	11572202.66	0.0289	0.0257	*
Venus	26972-03-17 11:17 G	11572456.89	11572456.97	11572457.07	0.0291	0.0261	
Moon	26972-07-19 23:17 G	11572581.30	11572581.47	11572581.66	0.0291	0.0205	
Earth	26972-07-20 00:43 G	11572581.38	11572581.53	11572581.70	0.0291	0.0221	*
Venus	26972-11-02 09:50 G	11572686.70	11572686.91	11572687.12	0.0292	0.0023	
Venus	26973-06-20 09:07 G	11572916.75	11572916.88	11572917.03	0.0293	0.0221	
Mercury	26975-09-06 04:33 G	11573724.54	11573724.69	11573724.84	0.0295	0.0132	
Mercury	26975-12-04 01:26 G	11573813.40	11573813.56	11573813.73	0.0295	0.0030	
Mercury	26976-03-01 22:05 G	11573902.29	11573902.42	11573902.55	0.0295	0.0186	
Moon	26986-01-12 19:26 G	11577506.07	11577506.31	11577506.55	0.0270	0.0012	
Earth	26986-01-12 22:48 G	11577506.20	11577506.45	11577506.69	0.0270	0.0003	*
Venus	26986-09-03 16:48 G	11577740.00	11577740.20	11577740.39	0.0269	0.0101	
Venus	26987-04-20 18:43 G	11577969.08	11577969.28	11577969.48	0.0267	0.0083	
Venus	26987-12-05 19:55 G	11578198.31	11578198.33	11578198.36	0.0267	0.0264	
Mercury	26989-12-24 03:21 G	11578947.64	11578947.64	11578947.65	0.0265	0.0265	
Mercury	26990-03-22 14:24 G	11579036.00	11579036.10	11579036.21	0.0265	0.0173	
Mercury	26990-06-19 01:55 G	11579124.45	11579124.58	11579124.72	0.0265	0.0079	

Mercury	26990-09-15 13:26 G	11579212.92	11579213.06	11579213.21	0.0265	0.0018
Mercury	26990-12-13 01:12 G	11579301.42	11579301.55	11579301.68	0.0265	0.0114
Mercury	26991-03-11 13:12 G	11579389.97	11579390.05	11579390.13	0.0265	0.0213

28TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 28th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	27001-07-14 17:17 G		11583166.97	11583167.22	11583167.46	0.0290	0.0005	
Moon	27001-07-14 19:26 G		11583167.08	11583167.31	11583167.55	0.0290	0.0019	*
Venus	27001-09-28 11:17 G		11583242.86	11583242.97	11583243.09	0.0290	0.0241	
Venus	27002-05-16 10:05 G		11583472.70	11583472.92	11583473.13	0.0292	0.0004	
Venus	27003-01-01 09:21 G		11583702.78	11583702.89	11583703.01	0.0293	0.0240	
Mercury	27005-01-24 00:57 G		11584456.42	11584456.54	11584456.67	0.0295	0.0199	
Mercury	27005-04-22 22:19 G		11584545.26	11584545.43	11584545.60	0.0295	0.0037	
Mercury	27005-07-20 18:57 G		11584634.14	11584634.29	11584634.44	0.0295	0.0123	
Mercury	27005-10-17 15:07 G		11584723.08	11584723.13	11584723.19	0.0295	0.0277	
Earth	27015-01-08 20:24 G		11588093.17	11588093.35	11588093.55	0.0272	0.0168	
Moon	27015-01-09 00:14 G		11588093.31	11588093.51	11588093.71	0.0272	0.0154	*
Venus	27015-07-31 17:17 G		11588297.19	11588297.22	11588297.27	0.0271	0.0265	
Moon	27016-01-21 01:26 G		11588470.43	11588470.56	11588470.73	0.0269	0.0217	
Earth	27016-01-21 02:24 G		11588470.45	11588470.60	11588470.77	0.0269	0.0206	*
Venus	27016-03-16 20:38 G		11588526.15	11588526.36	11588526.56	0.0269	0.0077	
Venus	27016-10-31 22:33 G		11588755.26	11588755.44	11588755.64	0.0268	0.0108	

Mercury	27019-08-10 17:31 G	11589768.13	11589768.23	11589768.32	0.0265	0.0197
Mercury	27019-11-07 04:33 G	11589856.57	11589856.69	11589856.83	0.0265	0.0103
Mercury	27020-02-03 16:19 G	11589945.03	11589945.18	11589945.32	0.0265	0.0009
Mercury	27020-05-02 04:05 G	11590033.53	11590033.67	11590033.80	0.0265	0.0091
Mercury	27020-07-29 15:50 G	11590122.06	11590122.16	11590122.26	0.0265	0.0189
Mars	27022-07-02 11:02 G	11590824.80	11590824.96	11590825.14	0.0267	0.0225
Moon	27030-07-08 22:19 G	11593753.26	11593753.43	11593753.60	0.0289	0.0213
Earth	27030-07-09 01:12 G	11593753.38	11593753.55	11593753.73	0.0289	0.0197 *
Venus	27031-04-10 19:55 G	11594029.19	11594029.33	11594029.49	0.0291	0.0208
Moon	27031-07-22 23:17 G	11594132.36	11594132.47	11594132.60	0.0291	0.0252
Earth	27031-07-23 02:53 G	11594132.54	11594132.62	11594132.73	0.0291	0.0269 *
Venus	27031-11-26 18:43 G	11594259.07	11594259.28	11594259.49	0.0292	0.0032
Venus	27032-07-13 18:00 G	11594489.18	11594489.25	11594489.33	0.0293	0.0274
Mercury	27034-06-13 00:57 G	11595188.45	11595188.54	11595188.64	0.0295	0.0242
Mercury	27034-09-09 22:33 G	11595277.27	11595277.44	11595277.60	0.0295	0.0078
Mercury	27034-12-07 19:26 G	11595366.15	11595366.31	11595366.47	0.0295	0.0082
Mercury	27035-03-06 15:36 G	11595455.06	11595455.15	11595455.25	0.0295	0.0238
Mars	27036-09-14 23:31 G	11596013.37	11596013.48	11596013.63	0.0294	0.0260
Earth	27045-01-15 00:57 G	11599057.29	11599057.54	11599057.78	0.0270	0.0042
Moon	27045-01-15 00:57 G	11599057.31	11599057.54	11599057.78	0.0270	0.0056 *
Venus	27045-02-09 20:24 G	11599083.27	11599083.35	11599083.45	0.0270	0.0242
Venus	27045-09-26 23:17 G	11599312.27	11599312.47	11599312.68	0.0268	0.0055
Venus	27046-05-14 01:12 G	11599541.37	11599541.55	11599541.74	0.0267	0.0129
Mercury	27048-12-27 19:12 G	11600500.24	11600500.30	11600500.37	0.0265	0.0227
Mercury	27049-03-26 06:29 G	11600588.65	11600588.77	11600588.89	0.0265	0.0134
Mercury	27049-06-22 18:00 G	11600677.11	11600677.25	11600677.39	0.0265	0.0039
Mercury	27049-09-19 05:31 G	11600765.59	11600765.73	11600765.87	0.0265	0.0057
Mercury	27049-12-16 17:17 G	11600854.11	11600854.22	11600854.34	0.0265	0.0155
Mercury	27050-03-15 05:31 G	11600942.69	11600942.73	11600942.77	0.0265	0.0255
Earth	27060-07-15 20:38 G	11604718.12	11604718.36	11604718.60	0.0290	0.0047

Moon	27060-07-16 00:00 G	11604718.25	11604718.50	11604718.75	0.0290	0.0031	*
Venus	27060-10-20 20:38 G	11604815.20	11604815.36	11604815.52	0.0290	0.0187	
Venus	27061-06-07 19:26 G	11605045.10	11605045.31	11605045.52	0.0292	0.0053	
Mercury	27064-01-27 19:12 G	11606009.15	11606009.30	11606009.45	0.0295	0.0143	
Mercury	27064-04-25 16:19 G	11606098.01	11606098.18	11606098.35	0.0295	0.0019	
Mercury	27064-07-23 12:43 G	11606186.91	11606187.03	11606187.17	0.0295	0.0177	
Moon	27074-01-09 22:33 G	11609644.21	11609644.44	11609644.68	0.0272	0.0108	
Earth	27074-01-09 22:33 G	11609644.23	11609644.44	11609644.66	0.0272	0.0123	*
Venus	27074-08-23 00:00 G	11609869.39	11609869.50	11609869.63	0.0270	0.0219	
Moon	27075-01-22 00:57 G	11610021.49	11610021.54	11610021.61	0.0270	0.0260	
Earth	27075-01-22 04:33 G	11610021.61	11610021.69	11610021.79	0.0270	0.0250	*
Venus	27075-04-09 03:07 G	11610098.42	11610098.63	11610098.84	0.0269	0.0032	
Venus	27075-11-24 05:02 G	11610327.55	11610327.71	11610327.89	0.0268	0.0153	
Mercury	27078-05-16 22:05 G	11611232.38	11611232.42	11611232.46	0.0265	0.0252	
Mercury	27078-08-13 09:21 G	11611320.78	11611320.89	11611321.00	0.0265	0.0158	
Mercury	27078-11-09 20:38 G	11611409.23	11611409.36	11611409.50	0.0265	0.0064	
Mercury	27079-02-06 08:24 G	11611497.71	11611497.85	11611497.99	0.0265	0.0033	
Mercury	27079-05-05 19:55 G	11611586.21	11611586.33	11611586.46	0.0265	0.0131	
Mercury	27079-08-02 07:55 G	11611674.77	11611674.83	11611674.91	0.0265	0.0231	
Moon	27089-07-10 03:21 G	11615304.45	11615304.64	11615304.84	0.0289	0.0162	
Earth	27089-07-10 06:14 G	11615304.55	11615304.76	11615304.98	0.0289	0.0145	*
Venus	27090-05-03 06:14 G	11615601.59	11615601.76	11615601.95	0.0291	0.0152	
Venus	27090-12-19 05:02 G	11615831.51	11615831.71	11615831.92	0.0292	0.0089	
Mercury	27093-06-15 19:55 G	11616741.20	11616741.33	11616741.46	0.0295	0.0181	
Mercury	27093-09-12 17:02 G	11616830.05	11616830.21	11616830.38	0.0295	0.0020	
Mercury	27093-12-10 13:55 G	11616918.93	11616919.08	11616919.22	0.0295	0.0141	
Mercury	27094-03-09 10:05 G	11617007.92	11617007.92	11617007.92	0.0295	0.0295	
Earth	27104-01-18 05:17 G	11620608.49	11620608.72	11620608.95	0.0270	0.0090	
Moon	27104-01-18 08:38 G	11620608.65	11620608.86	11620609.09	0.0270	0.0105	*
Venus	27104-03-05 04:33 G	11620655.55	11620655.69	11620655.84	0.0270	0.0194	

Venus	27104-10-20 07:26 G	11620884.60	11620884.81	11620885.02	0.0268	0.0008
Venus	27105-06-06 09:07 G	11621113.73	11621113.88	11621114.04	0.0267	0.0177
Mercury	27108-01-01 11:31 G	11622052.89	11622052.98	11622053.08	0.0265	0.0187
Mercury	27108-03-29 22:48 G	11622141.32	11622141.45	11622141.59	0.0265	0.0093
Mercury	27108-06-26 10:19 G	11622229.79	11622229.93	11622230.08	0.0265	0.0007
Mercury	27108-09-22 22:05 G	11622318.29	11622318.42	11622318.55	0.0265	0.0100
Mercury	27108-12-20 09:50 G	11622406.82	11622406.91	11622407.01	0.0265	0.0200
Mars	27110-11-26 22:05 G	11623113.19	11623113.42	11623113.66	0.0267	0.0173
Moon	27119-07-19 02:38 G	11626269.37	11626269.61	11626269.86	0.0290	0.0088
Earth	27119-07-19 03:50 G	11626269.43	11626269.66	11626269.89	0.0290	0.0103 *
Venus	27119-11-14 08:24 G	11626387.66	11626387.85	11626388.04	0.0291	0.0128
Venus	27120-07-01 07:12 G	11626617.61	11626617.80	11626618.00	0.0292	0.0113
Mercury	27122-11-03 17:02 G	11627473.12	11627473.21	11627473.31	0.0295	0.0243
Mercury	27123-01-31 14:24 G	11627561.94	11627562.10	11627562.27	0.0295	0.0079
Mercury	27123-04-30 11:31 G	11627650.82	11627650.98	11627651.14	0.0295	0.0082
Mercury	27123-07-28 07:41 G	11627739.73	11627739.82	11627739.92	0.0295	0.0238
Mars	27125-02-09 01:41 G	11628301.42	11628301.57	11628301.75	0.0293	0.0235
Moon	27133-01-11 23:02 G	11631195.22	11631195.46	11631195.71	0.0272	0.0059
Earth	27133-01-12 02:53 G	11631195.39	11631195.62	11631195.86	0.0272	0.0075 *
Venus	27133-09-15 08:09 G	11631441.68	11631441.84	11631442.00	0.0270	0.0171
Venus	27134-05-02 11:02 G	11631670.75	11631670.96	11631671.17	0.0269	0.0016
Venus	27134-12-17 12:57 G	11631899.91	11631900.04	11631900.18	0.0268	0.0200
Mercury	27137-05-20 14:09 G	11632785.01	11632785.09	11632785.18	0.0266	0.0212
Mercury	27137-08-17 01:41 G	11632873.44	11632873.57	11632873.69	0.0265	0.0117
Mercury	27137-11-13 13:12 G	11632961.91	11632962.05	11632962.19	0.0265	0.0022
Mercury	27138-02-10 00:43 G	11633050.40	11633050.53	11633050.67	0.0265	0.0076
Mercury	27138-05-09 12:43 G	11633138.92	11633139.03	11633139.14	0.0265	0.0175
Earth	27148-07-12 15:07 G	11636855.90	11636856.13	11636856.37	0.0289	0.0088
Moon	27148-07-12 16:33 G	11636855.97	11636856.19	11636856.41	0.0289	0.0102 *
Venus	27149-05-26 19:12 G	11637174.11	11637174.30	11637174.51	0.0291	0.0091

Venus	27150-01-11 18:14 G	11637404.08	11637404.26	11637404.44	0.0293	0.0151
Mercury	27152-03-22 18:14 G	11638205.21	11638205.26	11638205.31	0.0295	0.0278
Mercury	27152-06-19 15:50 G	11638294.00	11638294.16	11638294.32	0.0295	0.0113
Mercury	27152-09-16 12:43 G	11638382.87	11638383.03	11638383.20	0.0295	0.0049
Mercury	27152-12-14 09:07 G	11638471.77	11638471.88	11638472.01	0.0295	0.0206
Earth	27162-01-07 03:21 G	11641782.53	11641782.64	11641782.77	0.0272	0.0236
Moon	27162-01-07 07:12 G	11641782.67	11641782.80	11641782.95	0.0272	0.0220 *
Earth	27163-01-19 11:45 G	11642159.78	11642159.99	11642160.20	0.0270	0.0140
Moon	27163-01-19 13:12 G	11642159.85	11642160.05	11642160.27	0.0270	0.0153 *
Venus	27163-03-28 13:26 G	11642227.89	11642228.06	11642228.25	0.0269	0.0145
Venus	27163-11-12 16:19 G	11642456.98	11642457.18	11642457.40	0.0268	0.0043
Venus	27164-06-28 18:14 G	11642686.15	11642686.26	11642686.37	0.0267	0.0225
Mercury	27166-10-07 16:48 G	11643517.15	11643517.20	11643517.27	0.0265	0.0237
Mercury	27167-01-04 04:05 G	11643605.56	11643605.67	11643605.80	0.0265	0.0143
Mercury	27167-04-02 15:36 G	11643694.01	11643694.15	11643694.29	0.0265	0.0048
Mercury	27167-06-30 03:07 G	11643782.49	11643782.63	11643782.78	0.0265	0.0050
Mercury	27167-09-26 15:07 G	11643871.01	11643871.13	11643871.25	0.0265	0.0147
Mercury	27167-12-24 02:53 G	11643959.58	11643959.62	11643959.68	0.0265	0.0247
Moon	27178-07-20 10:48 G	11647820.75	11647820.95	11647821.17	0.0290	0.0151
Earth	27178-07-20 14:24 G	11647820.91	11647821.10	11647821.31	0.0290	0.0164 *
Venus	27178-12-06 22:19 G	11647960.22	11647960.43	11647960.64	0.0291	0.0065
Venus	27179-07-24 21:07 G	11648190.21	11648190.38	11648190.55	0.0292	0.0177
Mercury	27181-11-06 13:26 G	11649025.92	11649026.06	11649026.20	0.0295	0.0171
Mercury	27182-02-03 10:48 G	11649114.78	11649114.95	11649115.11	0.0295	0.0011
Mercury	27182-05-03 07:12 G	11649203.67	11649203.80	11649203.95	0.0295	0.0151
Moon	27192-01-14 08:24 G	11652746.61	11652746.85	11652747.09	0.0272	0.0009
Earth	27192-01-14 09:50 G	11652746.66	11652746.91	11652747.15	0.0272	0.0023 *
Venus	27192-10-07 17:31 G	11653014.04	11653014.23	11653014.42	0.0270	0.0121
Venus	27193-05-24 20:24 G	11653243.14	11653243.35	11653243.55	0.0269	0.0066
Venus	27194-01-08 22:19 G	11653472.35	11653472.43	11653472.50	0.0268	0.0249

Mercury	27196-02-24 19:41 G	11654249.30	11654249.32	11654249.35	0.0266	0.0261
Mercury	27196-05-23 06:57 G	11654337.68	11654337.79	11654337.90	0.0266	0.0168
Mercury	27196-08-19 18:29 G	11654426.13	11654426.27	11654426.40	0.0266	0.0073
Mercury	27196-11-16 06:00 G	11654514.61	11654514.75	11654514.89	0.0266	0.0024
Mercury	27197-02-12 17:45 G	11654603.11	11654603.24	11654603.37	0.0266	0.0122
Mercury	27197-05-12 05:31 G	11654691.66	11654691.73	11654691.81	0.0266	0.0223
Mars	27199-04-23 09:50 G	11655402.62	11655402.91	11655403.21	0.0267	0.0093
Earth	27207-07-15 03:21 G	11658407.40	11658407.64	11658407.89	0.0289	0.0025
Moon	27207-07-15 06:57 G	11658407.55	11658407.79	11658408.03	0.0289	0.0040 *
Venus	27207-11-01 12:00 G	11658516.92	11658517.00	11658517.10	0.0290	0.0263
Venus	27208-06-18 10:19 G	11658746.72	11658746.93	11658747.14	0.0291	0.0026
Venus	27209-02-03 09:07 G	11658976.75	11658976.88	11658977.03	0.0293	0.0217
Mercury	27211-03-26 15:07 G	11659758.01	11659758.13	11659758.26	0.0295	0.0202
Mercury	27211-06-23 12:29 G	11659846.86	11659847.02	11659847.19	0.0295	0.0039
Mercury	27211-09-20 09:21 G	11659935.74	11659935.89	11659936.04	0.0295	0.0122
Mercury	27211-12-18 05:31 G	11660024.68	11660024.73	11660024.79	0.0295	0.0277
Mars	27213-07-06 17:31 G	11660590.99	11660591.23	11660591.48	0.0294	0.0133
Earth	27221-01-08 12:14 G	11663333.83	11663334.01	11663334.20	0.0272	0.0182
Moon	27221-01-08 13:41 G	11663333.88	11663334.07	11663334.28	0.0272	0.0168 *
Moon	27222-01-20 17:02 G	11663711.05	11663711.21	11663711.38	0.0270	0.0203
Earth	27222-01-20 19:55 G	11663711.18	11663711.33	11663711.52	0.0270	0.0194 *
Venus	27222-04-20 00:14 G	11663800.31	11663800.51	11663800.71	0.0269	0.0092
Venus	27222-12-05 02:38 G	11664029.42	11664029.61	11664029.81	0.0268	0.0095
Mercury	27225-10-10 09:50 G	11665069.82	11665069.91	11665070.01	0.0265	0.0190
Mercury	27226-01-06 21:21 G	11665158.26	11665158.39	11665158.52	0.0265	0.0096
Mercury	27226-04-05 08:53 G	11665246.72	11665246.87	11665247.01	0.0265	0.0006
Mercury	27226-07-02 20:24 G	11665335.22	11665335.35	11665335.49	0.0265	0.0098
Mercury	27226-09-29 08:24 G	11665423.75	11665423.85	11665423.94	0.0265	0.0197
Moon	27236-07-08 02:24 G	11668993.49	11668993.60	11668993.74	0.0288	0.0246
Earth	27236-07-08 06:14 G	11668993.62	11668993.76	11668993.91	0.0288	0.0229 *

Venus	27237-05-13 16:48 G	11669303.08	11669303.20	11669303.32	0.0290	0.0235
Moon	27237-07-22 04:05 G	11669372.52	11669372.67	11669372.83	0.0290	0.0218
Earth	27237-07-22 05:31 G	11669372.59	11669372.73	11669372.88	0.0290	0.0230 *
Venus	27237-12-29 14:38 G	11669532.90	11669533.11	11669533.33	0.0291	0.0007
Venus	27238-08-16 13:41 G	11669762.96	11669763.07	11669763.19	0.0293	0.0245
Mercury	27240-08-12 13:12 G	11670489.98	11670490.05	11670490.14	0.0295	0.0257
Mercury	27240-11-09 10:48 G	11670578.79	11670578.95	11670579.12	0.0295	0.0092
Mercury	27241-02-06 07:55 G	11670667.67	11670667.83	11670667.99	0.0295	0.0069
Mercury	27241-05-06 04:19 G	11670756.58	11670756.68	11670756.79	0.0295	0.0226
Earth	27251-01-15 18:14 G	11674298.02	11674298.26	11674298.51	0.0272	0.0031
Moon	27251-01-15 21:21 G	11674298.15	11674298.39	11674298.62	0.0272	0.0043 *
Venus	27251-03-16 00:14 G	11674357.45	11674357.51	11674357.58	0.0271	0.0258
Venus	27251-10-31 04:05 G	11674586.46	11674586.67	11674586.87	0.0270	0.0069
Venus	27252-06-16 06:29 G	11674815.58	11674815.77	11674815.96	0.0269	0.0118
Mercury	27255-02-27 12:43 G	11675801.95	11675802.03	11675802.11	0.0266	0.0216
Mercury	27255-05-27 00:00 G	11675890.37	11675890.50	11675890.62	0.0266	0.0122
Mercury	27255-08-23 11:31 G	11675978.83	11675978.98	11675979.12	0.0266	0.0027
Mercury	27255-11-19 23:02 G	11676067.32	11676067.46	11676067.60	0.0266	0.0072
Mercury	27256-02-16 10:48 G	11676155.85	11676155.95	11676156.06	0.0266	0.0172
Earth	27266-07-16 17:45 G	11679959.00	11679959.24	11679959.49	0.0289	0.0042
Moon	27266-07-16 19:41 G	11679959.07	11679959.32	11679959.57	0.0289	0.0026 *
Venus	27266-11-24 04:19 G	11680089.53	11680089.68	11680089.84	0.0290	0.0197
Venus	27267-07-12 02:38 G	11680319.40	11680319.61	11680319.82	0.0292	0.0043
Venus	27268-02-27 01:41 G	11680549.53	11680549.57	11680549.63	0.0293	0.0285
Mercury	27269-12-30 15:07 G	11681222.10	11681222.13	11681222.17	0.0295	0.0287
Mercury	27270-03-29 12:43 G	11681310.88	11681311.03	11681311.19	0.0295	0.0122
Mercury	27270-06-26 09:50 G	11681399.75	11681399.91	11681400.08	0.0295	0.0041
Mercury	27270-09-23 06:29 G	11681488.65	11681488.77	11681488.89	0.0295	0.0199
Moon	27280-01-10 20:09 G	11684885.12	11684885.34	11684885.58	0.0272	0.0112
Earth	27280-01-10 22:48 G	11684885.24	11684885.45	11684885.67	0.0272	0.0126 *

Venus	27280-09-25 08:24 G	11685143.74	11685143.85	11685143.97	0.0270	0.0227
Moon	27281-01-22 03:07 G	11685262.57	11685262.63	11685262.72	0.0270	0.0256
Earth	27281-01-22 06:14 G	11685262.68	11685262.76	11685262.86	0.0270	0.0249 *
Venus	27281-05-12 11:45 G	11685372.78	11685372.99	11685373.20	0.0269	0.0038
Venus	27281-12-27 13:55 G	11685601.91	11685602.08	11685602.26	0.0268	0.0147
Mercury	27284-07-16 15:50 G	11686534.10	11686534.16	11686534.23	0.0265	0.0236
Mercury	27284-10-13 03:07 G	11686622.52	11686622.63	11686622.75	0.0265	0.0142
Mercury	27285-01-09 14:38 G	11686710.97	11686711.11	11686711.25	0.0265	0.0047
Mercury	27285-04-08 02:09 G	11686799.45	11686799.59	11686799.73	0.0265	0.0051
Mercury	27285-07-05 13:55 G	11686887.96	11686888.08	11686888.20	0.0265	0.0149
Mercury	27285-10-02 01:55 G	11686976.54	11686976.58	11686976.63	0.0265	0.0249
Mars	27287-09-17 21:50 G	11687692.10	11687692.41	11687692.72	0.0267	0.0003
Moon	27295-07-10 21:07 G	11690545.20	11690545.38	11690545.57	0.0288	0.0178
Earth	27295-07-10 22:05 G	11690545.23	11690545.42	11690545.63	0.0288	0.0162 *
Venus	27296-06-05 09:50 G	11690875.75	11690875.91	11690876.09	0.0290	0.0167
Moon	27296-07-24 00:29 G	11690924.50	11690924.52	11690924.56	0.0291	0.0288
Venus	27297-01-21 08:09 G	11691105.64	11691105.84	11691106.05	0.0292	0.0073
Mercury	27299-08-16 11:31 G	11692042.84	11692042.98	11692043.12	0.0295	0.0172
Mercury	27299-11-13 08:53 G	11692131.70	11692131.87	11692132.04	0.0295	0.0010
Mercury	27300-02-10 05:31 G	11692220.59	11692220.73	11692220.88	0.0295	0.0151
Mars	27301-12-01 20:09 G	11692880.07	11692880.34	11692880.61	0.0293	0.0062
Earth	27310-01-18 04:33 G	11695849.46	11695849.69	11695849.92	0.0271	0.0087
Moon	27310-01-18 07:26 G	11695849.58	11695849.81	11695850.05	0.0271	0.0098 *
Venus	27310-04-08 11:31 G	11695929.85	11695929.98	11695930.13	0.0271	0.0205
Venus	27310-11-23 15:07 G	11696158.92	11696159.13	11696159.34	0.0270	0.0016
Venus	27311-07-10 17:31 G	11696388.07	11696388.23	11696388.40	0.0268	0.0170
Mercury	27313-12-04 18:29 G	11697266.25	11697266.27	11697266.29	0.0266	0.0263
Mercury	27314-03-03 05:45 G	11697354.63	11697354.74	11697354.84	0.0266	0.0169
Mercury	27314-05-30 17:02 G	11697443.08	11697443.21	11697443.35	0.0266	0.0074
Mercury	27314-08-27 04:33 G	11697531.55	11697531.69	11697531.84	0.0266	0.0024

Mercury	27314-11-23 16:19 G	11697620.06	11697620.18	11697620.31	0.0266	0.0122
Mercury	27315-02-20 04:19 G	11697708.60	11697708.68	11697708.76	0.0266	0.0222
Moon	27325-07-19 07:41 G	11701510.58	11701510.82	11701511.06	0.0290	0.0094
Earth	27325-07-19 10:05 G	11701510.70	11701510.92	11701511.16	0.0290	0.0110 *
Venus	27325-12-17 21:36 G	11701662.22	11701662.40	11701662.60	0.0291	0.0128
Venus	27326-08-04 20:09 G	11701892.15	11701892.34	11701892.54	0.0292	0.0114
Mercury	27329-01-03 13:26 G	11702774.94	11702775.06	11702775.19	0.0295	0.0201
Mercury	27329-04-02 10:48 G	11702863.79	11702863.95	11702864.12	0.0295	0.0038
Mercury	27329-06-30 07:41 G	11702952.67	11702952.82	11702952.98	0.0295	0.0124
Mercury	27329-09-27 04:05 G	11703041.62	11703041.67	11703041.72	0.0295	0.0280
Moon	27339-01-13 06:43 G	11706436.55	11706436.78	11706437.03	0.0272	0.0055
Earth	27339-01-13 10:05 G	11706436.69	11706436.92	11706437.16	0.0272	0.0069 *
Venus	27339-10-19 20:09 G	11706716.19	11706716.34	11706716.51	0.0270	0.0172
Venus	27340-06-04 23:17 G	11706945.26	11706945.47	11706945.69	0.0269	0.0017
Venus	27341-01-20 01:12 G	11707174.42	11707174.55	11707174.70	0.0268	0.0201
Mercury	27343-07-21 09:07 G	11708086.79	11708086.88	11708086.98	0.0265	0.0188
Mercury	27343-10-17 20:24 G	11708175.22	11708175.35	11708175.49	0.0265	0.0093
Mercury	27344-01-14 07:55 G	11708263.69	11708263.83	11708263.97	0.0265	0.0006
Mercury	27344-04-11 19:41 G	11708352.19	11708352.32	11708352.45	0.0265	0.0101
Mercury	27344-07-09 07:26 G	11708440.72	11708440.81	11708440.91	0.0265	0.0201
Earth	27354-07-13 15:07 G	11712096.90	11712097.13	11712097.36	0.0288	0.0093
Moon	27354-07-13 18:14 G	11712097.04	11712097.26	11712097.48	0.0288	0.0109 *
Venus	27355-06-30 03:50 G	11712448.46	11712448.66	11712448.86	0.0291	0.0097
Venus	27356-02-15 02:09 G	11712678.41	11712678.59	11712678.78	0.0292	0.0144
Mercury	27358-05-23 12:14 G	11713506.92	11713507.01	11713507.10	0.0295	0.0252
Mercury	27358-08-20 09:50 G	11713595.74	11713595.91	11713596.07	0.0295	0.0087
Mercury	27358-11-17 06:43 G	11713684.62	11713684.78	11713684.95	0.0295	0.0075
Mercury	27359-02-14 03:07 G	11713773.54	11713773.63	11713773.74	0.0295	0.0233
Earth	27368-01-08 05:17 G	11717023.60	11717023.72	11717023.84	0.0273	0.0239
Moon	27368-01-08 08:53 G	11717023.73	11717023.87	11717024.02	0.0273	0.0223 *

Moon	27369-01-19 14:09 G	11717400.88	11717401.09	11717401.31	0.0271	0.0150
Earth	27369-01-19 15:07 G	11717400.92	11717401.13	11717401.34	0.0271	0.0142 *
Venus	27369-04-30 23:31 G	11717502.30	11717502.48	11717502.66	0.0270	0.0150
Venus	27369-12-16 02:24 G	11717731.40	11717731.60	11717731.82	0.0269	0.0039
Venus	27370-08-02 04:19 G	11717960.58	11717960.68	11717960.81	0.0268	0.0223
Mercury	27372-12-07 11:31 G	11718818.90	11718818.98	11718819.06	0.0266	0.0216
Mercury	27373-03-05 22:48 G	11718907.33	11718907.45	11718907.58	0.0266	0.0122
Mercury	27373-06-02 10:19 G	11718995.79	11718995.93	11718996.07	0.0266	0.0026
Mercury	27373-08-29 21:50 G	11719084.28	11719084.41	11719084.55	0.0266	0.0073
Mercury	27373-11-26 09:36 G	11719172.80	11719172.90	11719173.01	0.0266	0.0172
Mars	27376-02-13 09:36 G	11719981.60	11719981.90	11719982.20	0.0268	0.0084
Earth	27383-07-08 03:21 G	11722683.60	11722683.64	11722683.70	0.0287	0.0281
Moon	27384-07-20 22:19 G	11723062.24	11723062.43	11723062.63	0.0290	0.0162
Earth	27384-07-21 01:41 G	11723062.38	11723062.57	11723062.77	0.0290	0.0176 *
Venus	27385-01-09 14:38 G	11723234.90	11723235.11	11723235.32	0.0291	0.0059
Venus	27385-08-27 13:26 G	11723464.90	11723465.06	11723465.23	0.0292	0.0183
Mercury	27387-10-10 13:55 G	11724239.04	11724239.08	11724239.12	0.0295	0.0284
Mercury	27388-01-07 11:31 G	11724327.83	11724327.98	11724328.14	0.0295	0.0117
Mercury	27388-04-05 08:38 G	11724416.70	11724416.86	11724417.03	0.0295	0.0046
Mercury	27388-07-03 05:17 G	11724505.60	11724505.72	11724505.84	0.0295	0.0204
Mars	27390-04-29 01:12 G	11725170.28	11725170.55	11725170.82	0.0293	0.0066
Earth	27398-01-14 21:21 G	11727988.15	11727988.39	11727988.64	0.0272	0.0012
Moon	27398-01-14 21:36 G	11727988.16	11727988.40	11727988.64	0.0272	0.0001 *
Venus	27398-11-11 08:09 G	11728288.65	11728288.84	11728289.03	0.0270	0.0117
Venus	27399-06-28 10:48 G	11728517.75	11728517.95	11728518.16	0.0268	0.0070
Venus	27400-02-12 12:29 G	11728746.97	11728747.02	11728747.10	0.0267	0.0253
Mercury	27402-04-27 14:53 G	11729551.07	11729551.12	11729551.19	0.0265	0.0235
Mercury	27402-07-25 02:09 G	11729639.48	11729639.59	11729639.71	0.0265	0.0140
Mercury	27402-10-21 13:41 G	11729727.93	11729728.07	11729728.21	0.0265	0.0045
Mercury	27403-01-18 01:12 G	11729816.41	11729816.55	11729816.69	0.0265	0.0053

Mercury	27403-04-16 12:57 G	11729904.93	11729905.04	11729905.16	0.0265	0.0152
Mercury	27403-07-14 00:57 G	11729993.50	11729993.54	11729993.58	0.0265	0.0252
Earth	27413-07-16 07:26 G	11733648.57	11733648.81	11733649.05	0.0289	0.0026
Moon	27413-07-16 10:19 G	11733648.69	11733648.93	11733649.18	0.0289	0.0041 *
Venus	27413-12-05 23:31 G	11733791.41	11733791.48	11733791.58	0.0290	0.0264
Venus	27414-07-23 21:36 G	11734021.18	11734021.40	11734021.61	0.0291	0.0027
Venus	27415-03-10 20:09 G	11734251.20	11734251.34	11734251.49	0.0292	0.0215
Mercury	27417-05-27 10:33 G	11735059.80	11735059.94	11735060.09	0.0295	0.0165
Mercury	27417-08-24 07:55 G	11735148.66	11735148.83	11735149.00	0.0295	0.0004
Mercury	27417-11-21 04:33 G	11735237.56	11735237.69	11735237.84	0.0295	0.0159
Moon	27427-01-10 15:36 G	11738574.96	11738575.15	11738575.37	0.0273	0.0167
Earth	27427-01-10 16:19 G	11738575.00	11738575.18	11738575.36	0.0273	0.0182 *
Moon	27428-01-22 21:21 G	11738952.24	11738952.39	11738952.56	0.0270	0.0205
Earth	27428-01-23 00:57 G	11738952.38	11738952.54	11738952.72	0.0270	0.0197 *
Venus	27428-05-24 10:48 G	11739074.75	11739074.95	11739075.15	0.0270	0.0095
Venus	27429-01-08 13:26 G	11739303.86	11739304.06	11739304.26	0.0269	0.0092
Mercury	27431-09-14 17:02 G	11740283.21	11740283.21	11740283.23	0.0266	0.0265
Mercury	27431-12-12 04:19 G	11740371.58	11740371.68	11740371.79	0.0266	0.0171
Mercury	27432-03-09 15:36 G	11740460.02	11740460.15	11740460.29	0.0266	0.0076
Mercury	27432-06-06 03:07 G	11740548.49	11740548.63	11740548.78	0.0266	0.0023
Mercury	27432-09-02 14:53 G	11740636.99	11740637.12	11740637.25	0.0266	0.0120
Mercury	27432-11-30 02:53 G	11740725.54	11740725.62	11740725.70	0.0266	0.0220
Moon	27442-07-10 13:55 G	11744234.95	11744235.08	11744235.23	0.0287	0.0235
Earth	27442-07-10 16:33 G	11744235.04	11744235.19	11744235.36	0.0287	0.0219 *
Venus	27443-06-18 08:24 G	11744577.73	11744577.85	11744577.98	0.0290	0.0229
Earth	27443-07-24 15:36 G	11744614.03	11744614.15	11744614.30	0.0290	0.0241
Moon	27443-07-24 16:19 G	11744614.05	11744614.18	11744614.34	0.0290	0.0230 *
Venus	27444-02-03 06:43 G	11744807.56	11744807.78	11744807.99	0.0291	0.0011
Venus	27444-09-20 05:45 G	11745037.64	11745037.74	11745037.85	0.0293	0.0252
Mercury	27446-10-14 11:31 G	11745791.86	11745791.98	11745792.11	0.0295	0.0202

Mercury	27447-01-11 09:07 G	11745880.71	11745880.88	11745881.05	0.0295	0.0037
Mercury	27447-04-10 06:00 G	11745969.60	11745969.75	11745969.90	0.0295	0.0125
Mercury	27447-07-08 02:24 G	11746058.56	11746058.60	11746058.65	0.0295	0.0281
Earth	27457-01-17 07:12 G	11749539.56	11749539.80	11749540.04	0.0271	0.0042
Moon	27457-01-17 10:48 G	11749539.71	11749539.95	11749540.19	0.0271	0.0056 *
Venus	27457-04-19 15:36 G	11749632.08	11749632.15	11749632.23	0.0271	0.0252
Venus	27457-12-04 18:57 G	11749861.09	11749861.29	11749861.50	0.0269	0.0064
Venus	27458-07-21 21:21 G	11750090.21	11750090.39	11750090.58	0.0268	0.0123
Mercury	27461-04-30 07:41 G	11751103.73	11751103.82	11751103.92	0.0265	0.0189
Mercury	27461-07-27 19:12 G	11751192.17	11751192.30	11751192.43	0.0265	0.0094
Mercury	27461-10-24 06:29 G	11751280.63	11751280.77	11751280.92	0.0265	0.0009
Mercury	27462-01-20 18:14 G	11751369.13	11751369.26	11751369.39	0.0265	0.0100
Mercury	27462-04-19 06:00 G	11751457.66	11751457.75	11751457.85	0.0265	0.0200
Mars	27464-07-10 21:36 G	11752271.17	11752271.40	11752271.65	0.0267	0.0173
Moon	27472-07-17 19:41 G	11755200.06	11755200.32	11755200.57	0.0289	0.0026
Earth	27472-07-17 20:53 G	11755200.13	11755200.37	11755200.61	0.0289	0.0038 *
Venus	27472-12-28 15:07 G	11755363.98	11755364.13	11755364.29	0.0290	0.0198
Venus	27473-08-15 13:26 G	11755593.85	11755594.06	11755594.27	0.0292	0.0041
Venus	27474-04-02 12:29 G	11755823.97	11755824.02	11755824.07	0.0293	0.0283
Mercury	27476-03-02 10:33 G	11756523.85	11756523.94	11756524.03	0.0295	0.0251
Mercury	27476-05-30 08:09 G	11756612.68	11756612.84	11756613.00	0.0295	0.0085
Mercury	27476-08-27 05:17 G	11756701.56	11756701.72	11756701.88	0.0295	0.0077
Mercury	27476-11-24 01:41 G	11756790.48	11756790.57	11756790.67	0.0295	0.0235
Mars	27478-09-24 07:12 G	11757459.56	11757459.80	11757460.05	0.0293	0.0142
Moon	27486-01-11 21:50 G	11760126.20	11760126.41	11760126.64	0.0272	0.0115
Earth	27486-01-12 01:41 G	11760126.36	11760126.57	11760126.80	0.0272	0.0129 *
Venus	27486-10-30 17:45 G	11760418.14	11760418.24	11760418.36	0.0271	0.0231
Moon	27487-01-24 07:41 G	11760503.76	11760503.82	11760503.91	0.0270	0.0255
Earth	27487-01-24 09:21 G	11760503.81	11760503.89	11760504.00	0.0270	0.0248 *
Venus	27487-06-16 21:07 G	11760647.17	11760647.38	11760647.59	0.0269	0.0043

Venus	27488-01-31 23:17 G	11760876.30	11760876.47	11760876.65	0.0268	0.0143
Mercury	27490-09-17 09:36 G	11761835.83	11761835.90	11761835.98	0.0266	0.0222
Mercury	27490-12-14 20:53 G	11761924.25	11761924.37	11761924.50	0.0266	0.0127
Mercury	27491-03-13 08:24 G	11762012.71	11762012.85	11762012.99	0.0266	0.0031
Mercury	27491-06-09 19:55 G	11762101.19	11762101.33	11762101.47	0.0266	0.0066
Mercury	27491-09-06 07:41 G	11762189.71	11762189.82	11762189.93	0.0266	0.0165
Earth	27501-07-13 02:24 G	11765786.41	11765786.60	11765786.82	0.0288	0.0163
Moon	27501-07-13 03:50 G	11765786.48	11765786.66	11765786.85	0.0288	0.0176 *
Venus	27502-07-11 22:05 G	11766150.25	11766150.42	11766150.60	0.0290	0.0166
Venus	27503-02-26 20:38 G	11766380.16	11766380.36	11766380.57	0.0292	0.0074
Mercury	27505-07-21 10:33 G	11767255.93	11767255.94	11767255.97	0.0295	0.0293
Mercury	27505-10-18 08:38 G	11767344.70	11767344.86	11767345.01	0.0295	0.0126
Mercury	27506-01-15 05:45 G	11767433.57	11767433.74	11767433.91	0.0295	0.0039
Mercury	27506-04-14 02:24 G	11767522.48	11767522.60	11767522.73	0.0295	0.0198
Earth	27516-01-20 15:07 G	11771090.90	11771091.13	11771091.37	0.0271	0.0094
Moon	27516-01-20 16:48 G	11771090.97	11771091.20	11771091.44	0.0271	0.0104 *
Venus	27516-05-13 01:41 G	11771204.43	11771204.57	11771204.72	0.0270	0.0199
Venus	27516-12-28 04:48 G	11771433.49	11771433.70	11771433.91	0.0269	0.0011
Venus	27517-08-14 06:43 G	11771662.62	11771662.78	11771662.95	0.0268	0.0173
Mercury	27520-02-05 12:57 G	11772567.99	11772568.04	11772568.11	0.0265	0.0240
Mercury	27520-05-04 00:14 G	11772656.40	11772656.51	11772656.63	0.0265	0.0146
Mercury	27520-07-31 11:31 G	11772744.85	11772744.98	11772745.12	0.0265	0.0052
Mercury	27520-10-27 23:02 G	11772833.33	11772833.46	11772833.61	0.0265	0.0047
Mercury	27521-01-24 10:48 G	11772921.83	11772921.95	11772922.07	0.0265	0.0145
Mercury	27521-04-22 22:48 G	11773010.40	11773010.45	11773010.50	0.0265	0.0245
Moon	27531-07-21 03:36 G	11776751.42	11776751.65	11776751.89	0.0289	0.0085
Earth	27531-07-21 07:12 G	11776751.57	11776751.80	11776752.03	0.0289	0.0096 *
Venus	27532-01-22 04:48 G	11776936.52	11776936.70	11776936.89	0.0291	0.0136
Venus	27532-09-08 03:21 G	11777166.44	11777166.64	11777166.84	0.0292	0.0105
Mercury	27535-03-07 07:26 G	11778076.67	11778076.81	11778076.94	0.0295	0.0176

Mercury	27535-06-04 04:48 G	11778165.53	11778165.70	11778165.87	0.0295	0.0012
Mercury	27535-09-01 01:26 G	11778254.42	11778254.56	11778254.71	0.0295	0.0150
Moon	27545-01-14 07:41 G	11781677.60	11781677.82	11781678.06	0.0272	0.0067
Earth	27545-01-14 08:53 G	11781677.64	11781677.87	11781678.12	0.0272	0.0078 *
Venus	27545-11-23 03:21 G	11781990.48	11781990.64	11781990.80	0.0270	0.0179
Venus	27546-07-10 06:00 G	11782219.54	11782219.75	11782219.97	0.0269	0.0009
Venus	27547-02-24 07:55 G	11782448.69	11782448.83	11782448.98	0.0268	0.0192
Mercury	27549-09-21 01:41 G	11783388.48	11783388.57	11783388.68	0.0265	0.0182
Mercury	27549-12-18 13:12 G	11783476.92	11783477.05	11783477.18	0.0265	0.0086
Mercury	27550-03-17 00:29 G	11783565.38	11783565.52	11783565.67	0.0265	0.0013
Mercury	27550-06-13 12:14 G	11783653.88	11783654.01	11783654.14	0.0265	0.0108
Mercury	27550-09-10 00:00 G	11783742.41	11783742.50	11783742.59	0.0265	0.0208
Mars	27552-12-05 07:55 G	11784559.67	11784559.83	11784560.00	0.0267	0.0226
Earth	27560-07-14 08:53 G	11787337.66	11787337.87	11787338.11	0.0288	0.0111
Moon	27560-07-14 12:29 G	11787337.81	11787338.02	11787338.25	0.0288	0.0125 *
Venus	27561-08-03 09:36 G	11787722.71	11787722.90	11787723.10	0.0291	0.0107
Venus	27562-03-21 08:24 G	11787952.67	11787952.85	11787953.04	0.0292	0.0135
Mercury	27564-07-24 06:29 G	11788808.66	11788808.77	11788808.88	0.0295	0.0225
Mercury	27564-10-21 04:05 G	11788897.51	11788897.67	11788897.84	0.0295	0.0059
Mercury	27565-01-18 01:12 G	11788986.40	11788986.55	11788986.71	0.0295	0.0105
Mercury	27565-04-16 21:50 G	11789075.34	11789075.41	11789075.49	0.0295	0.0263
Mars	27567-02-19 14:09 G	11789748.94	11789749.09	11789749.28	0.0293	0.0230
Earth	27574-01-09 11:02 G	11792264.85	11792264.96	11792265.09	0.0273	0.0240
Moon	27574-01-09 12:57 G	11792264.90	11792265.04	11792265.19	0.0273	0.0225 *
Moon	27575-01-21 17:17 G	11792642.02	11792642.22	11792642.44	0.0271	0.0147
Earth	27575-01-21 20:38 G	11792642.15	11792642.36	11792642.57	0.0271	0.0142 *
Venus	27575-06-05 10:19 G	11792776.76	11792776.93	11792777.11	0.0270	0.0149
Venus	27576-01-20 12:57 G	11793005.83	11793006.04	11793006.25	0.0268	0.0038
Venus	27576-09-05 14:24 G	11793234.99	11793235.10	11793235.23	0.0267	0.0221
Mercury	27579-02-08 05:02 G	11794120.62	11794120.71	11794120.80	0.0265	0.0201

Mercury	27579-05-07 16:19 G	11794209.05	11794209.18	11794209.31	0.0265	0.0107
Mercury	27579-08-04 03:36 G	11794297.51	11794297.65	11794297.80	0.0265	0.0013
Mercury	27579-10-31 15:07 G	11794386.00	11794386.13	11794386.27	0.0265	0.0087
Mercury	27580-01-28 02:53 G	11794474.52	11794474.62	11794474.73	0.0265	0.0186
Moon	27590-07-22 11:45 G	11798302.79	11798302.99	11798303.20	0.0290	0.0140
Earth	27590-07-22 12:57 G	11798302.84	11798303.04	11798303.26	0.0290	0.0149 *
Venus	27591-02-13 15:50 G	11798508.96	11798509.16	11798509.37	0.0291	0.0077
Venus	27591-10-01 14:38 G	11798738.94	11798739.11	11798739.29	0.0293	0.0165
Mercury	27593-12-11 05:02 G	11799540.66	11799540.71	11799540.77	0.0295	0.0278
Mercury	27594-03-10 02:53 G	11799629.47	11799629.62	11799629.78	0.0295	0.0110
Mercury	27594-06-07 00:14 G	11799718.34	11799718.51	11799718.68	0.0295	0.0054
Mercury	27594-09-03 20:53 G	11799807.26	11799807.37	11799807.49	0.0295	0.0214
Earth	27604-01-16 14:24 G	11803228.85	11803229.10	11803229.34	0.0272	0.0030
Moon	27604-01-16 17:17 G	11803228.98	11803229.22	11803229.46	0.0272	0.0021 *
Venus	27604-12-15 11:17 G	11803562.79	11803562.97	11803563.16	0.0269	0.0130
Venus	27605-08-01 13:41 G	11803791.87	11803792.07	11803792.28	0.0268	0.0057
Venus	27606-03-18 15:07 G	11804021.04	11804021.13	11804021.23	0.0267	0.0239
Mercury	27608-06-27 06:29 G	11804852.71	11804852.77	11804852.83	0.0265	0.0237
Mercury	27608-09-23 17:31 G	11804941.12	11804941.23	11804941.35	0.0265	0.0144
Mercury	27608-12-21 05:02 G	11805029.57	11805029.71	11805029.85	0.0265	0.0048
Mercury	27609-03-19 16:19 G	11805118.04	11805118.18	11805118.32	0.0265	0.0050
Mercury	27609-06-16 04:05 G	11805206.55	11805206.67	11805206.79	0.0265	0.0147
Mercury	27609-09-12 15:50 G	11805295.12	11805295.16	11805295.22	0.0265	0.0248
Earth	27619-07-16 12:00 G	11808888.76	11808889.00	11808889.24	0.0288	0.0064
Moon	27619-07-16 12:57 G	11808888.79	11808889.04	11808889.28	0.0288	0.0075 *
Venus	27620-01-08 20:53 G	11809065.36	11809065.37	11809065.40	0.0290	0.0288
Venus	27620-08-25 18:57 G	11809295.09	11809295.29	11809295.50	0.0291	0.0051
Venus	27621-04-12 18:00 G	11809525.10	11809525.25	11809525.42	0.0293	0.0192
Mercury	27623-07-28 01:12 G	11810361.42	11810361.55	11810361.70	0.0296	0.0165
Mercury	27623-10-24 22:48 G	11810450.28	11810450.45	11810450.62	0.0296	0.0004

Mercury	27624-01-21 19:55 G	11810539.19	11810539.33	11810539.47	0.0296	0.0164
Moon	27633-01-10 12:29 G	11813815.83	11813816.02	11813816.21	0.0273	0.0181
Earth	27633-01-10 14:53 G	11813815.96	11813816.12	11813816.30	0.0273	0.0194 *
Moon	27634-01-22 20:53 G	11814193.21	11814193.37	11814193.55	0.0270	0.0188
Earth	27634-01-22 23:45 G	11814193.32	11814193.49	11814193.67	0.0270	0.0186 *
Venus	27634-06-27 17:17 G	11814349.03	11814349.22	11814349.42	0.0269	0.0102
Venus	27635-02-11 19:41 G	11814578.12	11814578.32	11814578.52	0.0268	0.0084
Venus	27635-09-28 20:53 G	11814807.37	11814807.37	11814807.39	0.0267	0.0266
Mercury	27637-11-14 09:36 G	11815584.87	11815584.90	11815584.93	0.0265	0.0258
Mercury	27638-02-10 20:38 G	11815673.26	11815673.36	11815673.47	0.0265	0.0165
Mercury	27638-05-10 07:55 G	11815761.70	11815761.83	11815761.97	0.0265	0.0070
Mercury	27638-08-06 19:26 G	11815850.17	11815850.31	11815850.45	0.0265	0.0027
Mercury	27638-11-03 06:57 G	11815938.67	11815938.79	11815938.92	0.0265	0.0124
Mercury	27639-01-30 18:43 G	11816027.21	11816027.28	11816027.36	0.0265	0.0224
Earth	27648-07-09 17:31 G	11819475.14	11819475.23	11819475.34	0.0287	0.0262
Moon	27648-07-09 17:17 G	11819475.17	11819475.22	11819475.30	0.0287	0.0275 *
Venus	27649-07-21 02:38 G	11819851.53	11819851.61	11819851.71	0.0290	0.0260
Earth	27649-07-23 15:21 G	11819853.96	11819854.14	11819854.32	0.0290	0.0195
Moon	27649-07-23 18:14 G	11819854.09	11819854.26	11819854.45	0.0290	0.0189 *
Venus	27650-03-08 00:43 G	11820081.32	11820081.53	11820081.75	0.0292	0.0023
Venus	27650-10-23 23:45 G	11820311.36	11820311.49	11820311.64	0.0293	0.0221
Mercury	27652-12-13 23:45 G	11821093.38	11821093.49	11821093.61	0.0295	0.0218
Mercury	27653-03-12 21:21 G	11821182.23	11821182.39	11821182.56	0.0295	0.0052
Mercury	27653-06-09 18:29 G	11821271.12	11821271.27	11821271.43	0.0295	0.0112
Mercury	27653-09-06 15:07 G	11821360.07	11821360.13	11821360.20	0.0295	0.0271
Mars	27655-07-16 01:41 G	11822037.48	11822037.57	11822037.69	0.0293	0.0270
Earth	27663-01-17 17:02 G	11824779.97	11824780.21	11824780.46	0.0271	0.0014
Moon	27663-01-17 19:55 G	11824780.08	11824780.33	11824780.59	0.0271	0.0023 *
Venus	27664-01-07 17:45 G	11825135.05	11825135.24	11825135.45	0.0269	0.0083
Venus	27664-08-23 19:55 G	11825364.14	11825364.33	11825364.53	0.0268	0.0103

Mercury	27667-06-30 21:50 G	11826405.33	11826405.41	11826405.51	0.0265	0.0202
Mercury	27667-09-27 09:07 G	11826493.75	11826493.88	11826494.01	0.0265	0.0108
Mercury	27667-12-24 20:24 G	11826582.21	11826582.35	11826582.49	0.0265	0.0013
Mercury	27668-03-22 07:55 G	11826670.70	11826670.83	11826670.97	0.0265	0.0085
Mercury	27668-06-18 19:41 G	11826759.22	11826759.32	11826759.42	0.0265	0.0184
Moon	27678-07-17 07:41 G	11830439.58	11830439.82	11830440.07	0.0288	0.0029
Earth	27678-07-17 11:17 G	11830439.73	11830439.97	11830440.22	0.0288	0.0022 *
Venus	27679-01-31 03:36 G	11830637.54	11830637.65	11830637.78	0.0290	0.0238
Venus	27679-09-18 02:09 G	11830867.38	11830867.59	11830867.80	0.0292	0.0001
Venus	27680-05-05 01:41 G	11831097.45	11831097.57	11831097.68	0.0293	0.0244
Mercury	27682-05-02 20:53 G	11831825.33	11831825.37	11831825.43	0.0296	0.0281
Mercury	27682-07-30 18:57 G	11831914.13	11831914.29	11831914.45	0.0296	0.0111
Mercury	27682-10-27 16:19 G	11832003.02	11832003.18	11832003.35	0.0296	0.0054
Mercury	27683-01-24 13:12 G	11832091.94	11832092.05	11832092.17	0.0296	0.0215
Moon	27692-01-12 13:26 G	11835366.86	11835367.06	11835367.28	0.0273	0.0139
Earth	27692-01-12 16:48 G	11835367.00	11835367.20	11835367.41	0.0273	0.0151 *
Venus	27692-12-02 19:55 G	11835692.26	11835692.33	11835692.44	0.0271	0.0245
Earth	27693-01-24 00:57 G	11835744.42	11835744.54	11835744.68	0.0270	0.0227
Moon	27693-01-24 02:38 G	11835744.48	11835744.61	11835744.74	0.0270	0.0226 *
Venus	27693-07-19 23:17 G	11835921.26	11835921.47	11835921.68	0.0269	0.0056
Venus	27694-03-06 01:26 G	11836150.37	11836150.56	11836150.74	0.0268	0.0129
Mercury	27696-11-17 00:57 G	11837137.47	11837137.54	11837137.61	0.0265	0.0224
Mercury	27697-02-13 12:00 G	11837225.88	11837226.00	11837226.12	0.0264	0.0130
Mercury	27697-05-12 23:17 G	11837314.33	11837314.47	11837314.61	0.0264	0.0035
Mercury	27697-08-09 10:48 G	11837402.81	11837402.95	11837403.09	0.0264	0.0062
Mercury	27697-11-05 22:19 G	11837491.32	11837491.43	11837491.55	0.0264	0.0160
Mercury	27698-02-02 10:19 G	11837579.90	11837579.93	11837579.95	0.0264	0.0260
Mars	27699-08-05 15:07 G	11838129.01	11838129.13	11838129.28	0.0266	0.0238
Earth	27707-07-12 16:19 G	11841026.04	11841026.18	11841026.34	0.0287	0.0221
Moon	27707-07-12 20:09 G	11841026.20	11841026.34	11841026.49	0.0287	0.0229 *

Earth	27708-07-25 14:38 G	11841404.98	11841405.11	11841405.26	0.0290	0.0238
Moon	27708-07-25 17:31 G	11841405.09	11841405.23	11841405.38	0.0290	0.0235 *
Venus	27708-08-13 09:36 G	11841423.76	11841423.90	11841424.05	0.0290	0.0209
Venus	27709-03-31 07:55 G	11841653.62	11841653.83	11841654.04	0.0292	0.0030
Venus	27709-11-16 07:26 G	11841883.74	11841883.81	11841883.88	0.0293	0.0274
Mercury	27711-12-18 17:31 G	11842646.09	11842646.23	11842646.38	0.0296	0.0165
Mercury	27712-03-16 15:07 G	11842734.96	11842735.13	11842735.30	0.0296	0.0003
Mercury	27712-06-13 12:00 G	11842823.87	11842824.00	11842824.15	0.0296	0.0165
Moon	27722-01-19 16:48 G	11846330.96	11846331.20	11846331.45	0.0271	0.0060
Earth	27722-01-19 18:14 G	11846331.02	11846331.26	11846331.50	0.0271	0.0056 *
Venus	27722-06-15 20:38 G	11846478.25	11846478.36	11846478.48	0.0270	0.0225
Venus	27723-01-30 23:31 G	11846707.27	11846707.48	11846707.69	0.0269	0.0038
Venus	27723-09-17 01:26 G	11846936.38	11846936.56	11846936.73	0.0267	0.0147
Mercury	27726-04-07 02:09 G	11847869.57	11847869.59	11847869.61	0.0265	0.0261
Mercury	27726-07-04 13:12 G	11847957.94	11847958.05	11847958.16	0.0265	0.0168
Mercury	27726-10-01 00:29 G	11848046.38	11848046.52	11848046.65	0.0265	0.0074
Mercury	27726-12-28 11:45 G	11848134.85	11848134.99	11848135.13	0.0265	0.0023
Mercury	27727-03-26 23:17 G	11848223.34	11848223.47	11848223.60	0.0265	0.0120
Mercury	27727-06-23 10:48 G	11848311.88	11848311.95	11848312.04	0.0265	0.0220
Moon	27737-07-19 06:57 G	11851990.56	11851990.79	11851991.03	0.0289	0.0017
Earth	27737-07-19 08:53 G	11851990.63	11851990.87	11851991.11	0.0289	0.0018 *
Venus	27738-02-23 09:36 G	11852209.74	11852209.90	11852210.06	0.0290	0.0189
Venus	27738-10-11 08:09 G	11852439.63	11852439.84	11852440.05	0.0292	0.0051
Mercury	27741-05-06 14:09 G	11853377.99	11853378.09	11853378.20	0.0296	0.0232
Mercury	27741-08-03 12:00 G	11853466.84	11853467.00	11853467.17	0.0296	0.0063
Mercury	27741-10-31 09:21 G	11853555.73	11853555.89	11853556.05	0.0296	0.0102
Mercury	27742-01-28 06:00 G	11853644.68	11853644.75	11853644.83	0.0296	0.0262
Mars	27743-12-10 00:14 G	11854325.51	11854325.51	11854325.51	0.0294	0.0294
Earth	27751-01-14 16:33 G	11856917.97	11856918.19	11856918.42	0.0273	0.0110
Moon	27751-01-14 17:31 G	11856918.02	11856918.23	11856918.46	0.0273	0.0102 *

Venus	27751-12-27 01:12 G	11857264.42	11857264.55	11857264.70	0.0270	0.0200
Earth	27752-01-27 00:29 G	11857295.50	11857295.52	11857295.56	0.0270	0.0267
Moon	27752-01-27 04:05 G	11857295.63	11857295.67	11857295.72	0.0270	0.0264
Venus	27752-08-12 04:05 G	11857493.46	11857493.67	11857493.89	0.0269	0.0014
Venus	27753-03-29 05:45 G	11857722.59	11857722.74	11857722.91	0.0268	0.0173
Mercury	27755-11-21 15:50 G	11858690.07	11858690.16	11858690.26	0.0264	0.0192
Mercury	27756-02-18 03:07 G	11858778.50	11858778.63	11858778.76	0.0264	0.0097
Mercury	27756-05-16 14:24 G	11858866.96	11858867.10	11858867.25	0.0264	0.0008
Mercury	27756-08-13 01:55 G	11858955.45	11858955.58	11858955.72	0.0264	0.0096
Mercury	27756-11-09 13:41 G	11859043.97	11859044.07	11859044.17	0.0264	0.0194
Earth	27766-07-13 13:26 G	11862576.88	11862577.06	11862577.25	0.0287	0.0182
Moon	27766-07-13 14:38 G	11862576.92	11862577.11	11862577.31	0.0287	0.0185 *
Moon	27767-07-27 09:36 G	11862955.85	11862955.90	11862955.97	0.0290	0.0282
Earth	27767-07-27 12:14 G	11862955.94	11862956.01	11862956.08	0.0290	0.0278 *
Venus	27767-09-05 15:07 G	11862995.96	11862996.13	11862996.31	0.0291	0.0161
Venus	27768-04-22 13:55 G	11863225.87	11863226.08	11863226.28	0.0292	0.0080
Mercury	27770-09-23 12:43 G	11864109.99	11864110.03	11864110.07	0.0296	0.0286
Mercury	27770-12-21 10:33 G	11864198.79	11864198.94	11864199.10	0.0296	0.0117
Mercury	27771-03-20 08:09 G	11864287.67	11864287.84	11864288.00	0.0296	0.0050
Mercury	27771-06-17 05:02 G	11864376.59	11864376.71	11864376.82	0.0296	0.0211
Moon	27781-01-20 14:53 G	11867881.89	11867882.12	11867882.35	0.0271	0.0098
Earth	27781-01-20 18:29 G	11867882.05	11867882.27	11867882.51	0.0271	0.0098 *
Venus	27781-07-08 02:09 G	11868050.44	11868050.59	11868050.75	0.0270	0.0181
Venus	27782-02-22 04:48 G	11868279.49	11868279.70	11868279.91	0.0268	0.0007
Venus	27782-10-09 06:29 G	11868508.62	11868508.77	11868508.92	0.0267	0.0190
Mercury	27785-04-09 17:17 G	11869422.16	11869422.22	11869422.29	0.0264	0.0228
Mercury	27785-07-07 04:19 G	11869510.56	11869510.68	11869510.80	0.0264	0.0134
Mercury	27785-10-03 15:36 G	11869599.01	11869599.15	11869599.29	0.0264	0.0039
Mercury	27785-12-31 03:07 G	11869687.49	11869687.63	11869687.76	0.0264	0.0057
Mercury	27786-03-29 14:24 G	11869775.99	11869776.10	11869776.22	0.0264	0.0156

Mercury	27786-06-26 02:09 G	11869864.56	11869864.59	11869864.64	0.0264	0.0255
Mars	27787-12-30 03:50 G	11870416.49	11870416.66	11870416.83	0.0266	0.0219
Earth	27796-07-20 05:02 G	11873541.47	11873541.71	11873541.95	0.0289	0.0056
Moon	27796-07-20 07:55 G	11873541.60	11873541.83	11873542.07	0.0289	0.0061 *
Venus	27797-03-17 14:38 G	11873781.93	11873782.11	11873782.30	0.0291	0.0142
Venus	27797-11-02 13:26 G	11874011.86	11874012.06	11874012.26	0.0292	0.0099
Mercury	27800-05-10 06:57 G	11874930.66	11874930.79	11874930.92	0.0296	0.0186
Mercury	27800-08-07 04:33 G	11875019.52	11875019.69	11875019.86	0.0296	0.0019
Mercury	27800-11-04 01:41 G	11875108.43	11875108.57	11875108.72	0.0296	0.0147
Earth	27810-01-16 15:50 G	11878468.92	11878469.16	11878469.40	0.0273	0.0069
Moon	27810-01-16 19:41 G	11878469.08	11878469.32	11878469.56	0.0273	0.0064 *
Venus	27811-01-19 06:14 G	11878836.59	11878836.76	11878836.93	0.0270	0.0156
Venus	27811-09-05 08:53 G	11879065.66	11879065.87	11879066.08	0.0269	0.0031
Venus	27812-04-21 10:33 G	11879294.82	11879294.94	11879295.06	0.0267	0.0215
Mercury	27814-08-28 20:09 G	11880154.30	11880154.34	11880154.38	0.0264	0.0251
Mercury	27814-11-25 07:12 G	11880242.69	11880242.80	11880242.91	0.0264	0.0158
Mercury	27815-02-21 18:14 G	11880331.13	11880331.26	11880331.40	0.0264	0.0064
Mercury	27815-05-21 05:45 G	11880419.60	11880419.74	11880419.88	0.0264	0.0033
Mercury	27815-08-17 17:17 G	11880508.09	11880508.22	11880508.34	0.0264	0.0130
Mercury	27815-11-14 04:48 G	11880596.64	11880596.70	11880596.78	0.0264	0.0229
Moon	27825-07-15 07:41 G	11884127.60	11884127.82	11884128.04	0.0287	0.0138
Earth	27825-07-15 10:48 G	11884127.74	11884127.95	11884128.17	0.0287	0.0142 *
Venus	27826-09-28 20:53 G	11884568.18	11884568.37	11884568.57	0.0291	0.0113
Venus	27827-05-16 19:41 G	11884798.14	11884798.32	11884798.52	0.0293	0.0130
Mercury	27829-09-27 05:45 G	11885662.64	11885662.74	11885662.84	0.0296	0.0238
Mercury	27829-12-25 03:36 G	11885751.49	11885751.65	11885751.82	0.0296	0.0069
Mercury	27830-03-24 00:57 G	11885840.38	11885840.54	11885840.70	0.0296	0.0097
Mercury	27830-06-20 21:36 G	11885929.33	11885929.40	11885929.49	0.0296	0.0258
Moon	27839-01-11 04:05 G	11889055.56	11889055.67	11889055.80	0.0274	0.0239
Earth	27839-01-11 07:55 G	11889055.72	11889055.83	11889055.94	0.0274	0.0244 *

Earth	27840-01-23 18:14 G	11889433.06	11889433.26	11889433.48	0.0271	0.0139
Moon	27840-01-23 18:14 G	11889433.06	11889433.26	11889433.47	0.0271	0.0135 *
Venus	27840-07-31 07:26 G	11889622.63	11889622.81	11889622.99	0.0269	0.0136
Venus	27841-03-17 09:50 G	11889851.70	11889851.91	11889852.12	0.0268	0.0051
Venus	27841-11-01 11:31 G	11890080.88	11890080.98	11890081.08	0.0267	0.0233
Mercury	27844-04-13 08:38 G	11890974.77	11890974.86	11890974.95	0.0264	0.0194
Mercury	27844-07-10 19:41 G	11891063.19	11891063.32	11891063.45	0.0264	0.0100
Mercury	27844-10-07 06:57 G	11891151.65	11891151.79	11891151.93	0.0264	0.0004
Mercury	27845-01-03 18:14 G	11891240.13	11891240.26	11891240.40	0.0264	0.0093
Mercury	27845-04-02 05:45 G	11891328.65	11891328.74	11891328.85	0.0264	0.0192
Earth	27855-07-23 01:41 G	11895092.34	11895092.57	11895092.81	0.0289	0.0095
Moon	27855-07-23 04:19 G	11895092.45	11895092.68	11895092.92	0.0289	0.0104 *
Venus	27856-04-09 19:55 G	11895354.13	11895354.33	11895354.54	0.0291	0.0094
Venus	27856-11-25 18:43 G	11895584.11	11895584.28	11895584.47	0.0292	0.0149
Mercury	27859-05-13 23:31 G	11896483.33	11896483.48	11896483.64	0.0296	0.0140
Mercury	27859-08-10 21:07 G	11896572.22	11896572.38	11896572.55	0.0296	0.0028
Mercury	27859-11-07 18:14 G	11896661.14	11896661.26	11896661.39	0.0296	0.0191
Moon	27869-01-17 15:07 G	11900019.88	11900020.13	11900020.39	0.0273	0.0030
Earth	27869-01-17 15:21 G	11900019.89	11900020.14	11900020.38	0.0273	0.0028 *
Venus	27870-02-10 11:17 G	11900408.78	11900408.97	11900409.16	0.0270	0.0113
Venus	27870-09-27 13:41 G	11900637.87	11900638.07	11900638.28	0.0269	0.0075
Venus	27871-05-14 15:07 G	11900867.09	11900867.13	11900867.20	0.0267	0.0257
Mercury	27873-08-31 11:17 G	11901706.90	11901706.97	11901707.05	0.0264	0.0218
Mercury	27873-11-27 22:19 G	11901795.31	11901795.43	11901795.56	0.0264	0.0125
Mercury	27874-02-24 09:36 G	11901883.76	11901883.90	11901884.04	0.0264	0.0029
Mercury	27874-05-23 21:07 G	11901972.24	11901972.38	11901972.51	0.0264	0.0068
Mercury	27874-08-20 08:38 G	11902060.75	11902060.86	11902060.97	0.0264	0.0166
Mars	27876-05-25 16:19 G	11902704.96	11902705.18	11902705.42	0.0265	0.0175
Moon	27884-07-16 06:14 G	11905678.54	11905678.76	11905678.99	0.0287	0.0097
Earth	27884-07-16 08:38 G	11905678.64	11905678.86	11905679.10	0.0287	0.0102 *

Venus	27885-10-21 02:53 G	11906140.42	11906140.62	11906140.83	0.0291	0.0064
Venus	27886-06-08 02:09 G	11906370.42	11906370.59	11906370.75	0.0293	0.0179
Mercury	27888-09-29 22:48 G	11907215.32	11907215.45	11907215.59	0.0296	0.0189
Mercury	27888-12-27 20:38 G	11907304.19	11907304.36	11907304.53	0.0296	0.0021
Mercury	27889-03-26 17:45 G	11907393.10	11907393.24	11907393.39	0.0296	0.0145
Earth	27898-01-12 08:24 G	11910606.69	11910606.85	11910607.02	0.0274	0.0201
Moon	27898-01-12 08:24 G	11910606.70	11910606.85	11910607.03	0.0274	0.0200 *
Earth	27899-01-24 18:57 G	11910984.12	11910984.29	11910984.48	0.0271	0.0181
Moon	27899-01-24 22:48 G	11910984.27	11910984.45	11910984.64	0.0271	0.0172 *
Venus	27899-08-23 13:12 G	11911194.85	11911195.05	11911195.25	0.0269	0.0092
Venus	27900-04-09 15:21 G	11911423.95	11911424.14	11911424.34	0.0268	0.0095
Mercury	27903-01-19 12:57 G	11912439.01	11912439.04	11912439.09	0.0264	0.0251
Mercury	27903-04-18 00:00 G	11912527.39	11912527.50	11912527.61	0.0264	0.0158
Mercury	27903-07-15 11:02 G	11912615.83	11912615.96	11912616.10	0.0264	0.0065
Mercury	27903-10-11 22:33 G	11912704.30	11912704.44	11912704.58	0.0264	0.0033
Mercury	27904-01-08 09:50 G	11912792.79	11912792.91	11912793.04	0.0264	0.0131
Mercury	27904-04-05 21:36 G	11912881.33	11912881.40	11912881.47	0.0264	0.0229
Moon	27914-07-24 23:02 G	11916643.26	11916643.46	11916643.69	0.0289	0.0151
Earth	27914-07-25 01:12 G	11916643.34	11916643.55	11916643.77	0.0289	0.0139 *
Venus	27914-09-16 05:02 G	11916696.67	11916696.71	11916696.76	0.0289	0.0280
Venus	27915-05-04 02:53 G	11916926.42	11916926.62	11916926.83	0.0291	0.0044
Venus	27915-12-20 01:55 G	11917156.43	11917156.58	11917156.74	0.0293	0.0200
Mercury	27918-02-17 18:57 G	11917947.21	11917947.29	11917947.37	0.0296	0.0260
Mercury	27918-05-17 16:48 G	11918036.04	11918036.20	11918036.37	0.0296	0.0090
Mercury	27918-08-14 14:24 G	11918124.94	11918125.10	11918125.26	0.0296	0.0077
Mercury	27918-11-11 11:17 G	11918213.88	11918213.97	11918214.07	0.0296	0.0239
Moon	27928-01-20 11:45 G	11921570.74	11921570.99	11921571.24	0.0273	0.0007
Earth	27928-01-20 15:36 G	11921570.90	11921571.15	11921571.39	0.0273	0.0015 *
Venus	27928-07-19 12:43 G	11921751.99	11921752.03	11921752.11	0.0271	0.0260
Venus	27929-03-05 16:33 G	11921980.99	11921981.19	11921981.40	0.0270	0.0069

Venus	27929-10-20 19:12 G	11922210.11	11922210.30	11922210.49	0.0268	0.0118
Mercury	27932-09-04 02:53 G	11923259.52	11923259.62	11923259.72	0.0265	0.0183
Mercury	27932-12-01 13:55 G	11923347.95	11923348.08	11923348.21	0.0264	0.0088
Mercury	27933-02-28 01:12 G	11923436.41	11923436.55	11923436.69	0.0264	0.0008
Mercury	27933-05-27 12:43 G	11923524.90	11923525.03	11923525.16	0.0264	0.0105
Mercury	27933-08-24 00:14 G	11923613.42	11923613.51	11923613.60	0.0264	0.0204
Earth	27943-07-19 09:21 G	11927229.65	11927229.89	11927230.14	0.0287	0.0056
Moon	27943-07-19 11:17 G	11927229.73	11927229.97	11927230.20	0.0287	0.0048 *
Venus	27944-03-28 12:57 G	11927482.93	11927483.04	11927483.15	0.0290	0.0249
Venus	27944-11-13 10:48 G	11927712.74	11927712.95	11927713.16	0.0291	0.0012
Venus	27945-07-01 09:50 G	11927942.79	11927942.91	11927943.04	0.0293	0.0232
Mercury	27947-10-04 16:33 G	11928768.04	11928768.19	11928768.34	0.0296	0.0136
Mercury	27948-01-01 14:09 G	11928856.92	11928857.09	11928857.26	0.0296	0.0032
Mercury	27948-03-30 11:17 G	11928945.85	11928945.97	11928946.10	0.0296	0.0196
Earth	27957-01-14 10:05 G	11932157.73	11932157.92	11932158.13	0.0274	0.0156
Moon	27957-01-14 13:41 G	11932157.87	11932158.07	11932158.27	0.0274	0.0157 *
Earth	27958-01-26 20:53 G	11932535.24	11932535.37	11932535.51	0.0271	0.0225
Moon	27958-01-26 22:19 G	11932535.28	11932535.43	11932535.60	0.0271	0.0213 *
Venus	27958-01-29 16:05 G	11932538.08	11932538.17	11932538.28	0.0271	0.0236
Venus	27958-09-15 19:41 G	11932767.11	11932767.32	11932767.53	0.0269	0.0046
Venus	27959-05-02 21:50 G	11932996.23	11932996.41	11932996.59	0.0268	0.0141
Mercury	27962-01-22 04:48 G	11933991.62	11933991.70	11933991.78	0.0264	0.0213
Mercury	27962-04-20 15:50 G	11934080.04	11934080.16	11934080.29	0.0264	0.0120
Mercury	27962-07-18 03:07 G	11934168.49	11934168.63	11934168.77	0.0264	0.0024
Mercury	27962-10-14 14:24 G	11934256.97	11934257.10	11934257.24	0.0264	0.0073
Mercury	27963-01-11 01:55 G	11934345.48	11934345.58	11934345.69	0.0264	0.0171
Mars	27964-10-19 18:29 G	11934993.02	11934993.27	11934993.55	0.0265	0.0137
Moon	27972-07-12 05:31 G	11937815.63	11937815.73	11937815.84	0.0286	0.0256
Earth	27972-07-12 07:55 G	11937815.74	11937815.83	11937815.92	0.0286	0.0264 *
Moon	27973-07-25 23:31 G	11938194.31	11938194.48	11938194.66	0.0289	0.0200

Earth	27973-07-26 03:07 G	11938194.45	11938194.63	11938194.82	0.0289	0.0186	*
Venus	27973-10-08 13:12 G	11938268.93	11938269.05	11938269.19	0.0289	0.0229	
Venus	27974-05-26 11:31 G	11938498.76	11938498.98	11938499.19	0.0291	0.0011	
Venus	27975-01-11 10:19 G	11938728.84	11938728.93	11938729.05	0.0293	0.0254	
Mercury	27977-02-20 12:57 G	11939499.92	11939500.04	11939500.17	0.0296	0.0204	
Mercury	27977-05-20 10:48 G	11939588.78	11939588.95	11939589.12	0.0296	0.0035	
Mercury	27977-08-17 08:09 G	11939677.69	11939677.84	11939677.99	0.0296	0.0131	
Mercury	27977-11-14 04:48 G	11939766.68	11939766.70	11939766.73	0.0296	0.0292	
Moon	27987-01-21 15:50 G	11943121.93	11943122.16	11943122.40	0.0273	0.0052	
Earth	27987-01-21 17:17 G	11943121.98	11943122.22	11943122.46	0.0273	0.0059	*
Venus	27987-08-11 19:26 G	11943324.19	11943324.31	11943324.45	0.0271	0.0214	
Venus	27988-03-27 23:02 G	11943553.25	11943553.46	11943553.67	0.0270	0.0023	
Venus	27988-11-12 01:41 G	11943782.40	11943782.57	11943782.74	0.0268	0.0164	
Mercury	27991-06-11 07:26 G	11944723.76	11944723.81	11944723.88	0.0265	0.0239	
Mercury	27991-09-07 18:43 G	11944812.16	11944812.28	11944812.39	0.0265	0.0145	
Mercury	27991-12-05 05:45 G	11944900.60	11944900.74	11944900.88	0.0265	0.0050	
Mercury	27992-03-02 17:02 G	11944989.07	11944989.21	11944989.35	0.0264	0.0048	
Mercury	27992-05-30 04:33 G	11945077.58	11945077.69	11945077.81	0.0264	0.0146	
Mercury	27992-08-26 16:19 G	11945166.13	11945166.18	11945166.23	0.0264	0.0245	

29TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 29th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Earth	28002-07-20 13:41 G	11948780.82	11948781.07	11948781.31	0.0288	0.0005
Moon	28002-07-20 17:17 G	11948780.97	11948781.22	11948781.47	0.0288	0.0006 *
Venus	28003-04-20 22:48 G	11949055.29	11949055.45	11949055.61	0.0290	0.0194
Venus	28003-12-06 20:38 G	11949285.16	11949285.36	11949285.58	0.0292	0.0046
Venus	28004-07-23 19:55 G	11949515.30	11949515.33	11949515.37	0.0293	0.0289
Mercury	28006-07-10 13:12 G	11950231.96	11950232.05	11950232.15	0.0296	0.0246
Mercury	28006-10-07 11:17 G	11950320.81	11950320.97	11950321.14	0.0296	0.0075
Mercury	28007-01-04 08:53 G	11950409.71	11950409.87	11950410.03	0.0296	0.0092
Mercury	28007-04-03 05:31 G	11950498.65	11950498.73	11950498.82	0.0296	0.0254
Earth	28016-01-16 14:09 G	11953708.87	11953709.09	11953709.32	0.0274	0.0108
Moon	28016-01-16 16:05 G	11953708.94	11953709.17	11953709.41	0.0274	0.0110 *
Moon	28017-01-27 21:36 G	11954086.33	11954086.40	11954086.49	0.0271	0.0257
Venus	28017-02-21 00:00 G	11954110.35	11954110.50	11954110.65	0.0271	0.0188
Venus	28017-10-08 03:21 G	11954339.42	11954339.64	11954339.85	0.0269	0.0005
Venus	28018-05-25 05:17 G	11954568.58	11954568.72	11954568.88	0.0268	0.0188
Mercury	28021-01-24 20:53 G	11955544.27	11955544.37	11955544.48	0.0264	0.0173
Mercury	28021-04-23 08:09 G	11955632.70	11955632.84	11955632.97	0.0264	0.0078
Mercury	28021-07-20 19:26 G	11955721.17	11955721.31	11955721.45	0.0264	0.0019
Mercury	28021-10-17 06:43 G	11955809.66	11955809.78	11955809.91	0.0264	0.0116
Mercury	28022-01-13 18:29 G	11955898.19	11955898.27	11955898.35	0.0264	0.0214
Moon	28031-07-14 10:33 G	11959366.77	11959366.94	11959367.11	0.0286	0.0201
Earth	28031-07-14 13:55 G	11959366.93	11959367.08	11959367.25	0.0286	0.0211 *
Earth	28032-07-27 09:07 G	11959745.76	11959745.88	11959746.03	0.0289	0.0240
Moon	28032-07-27 09:07 G	11959745.77	11959745.88	11959745.99	0.0289	0.0254 *
Venus	28032-10-31 00:14 G	11959841.35	11959841.51	11959841.69	0.0290	0.0172
Venus	28033-06-17 22:33 G	11960071.23	11960071.44	11960071.64	0.0291	0.0069
Mercury	28036-02-24 08:09 G	11961052.69	11961052.84	11961052.99	0.0296	0.0140
Mercury	28036-05-23 05:45 G	11961141.57	11961141.74	11961141.91	0.0296	0.0028
Mercury	28036-08-20 02:53 G	11961230.50	11961230.62	11961230.75	0.0296	0.0192
Earth	28046-01-22 20:38 G	11964673.14	11964673.36	11964673.59	0.0273	0.0107

Moon	28046-01-22 23:17 G	11964673.25	11964673.47	11964673.70	0.0273	0.0097 *
Venus	28046-09-03 02:53 G	11964896.47	11964896.62	11964896.80	0.0271	0.0167
Venus	28047-04-20 06:43 G	11965125.56	11965125.78	11965125.99	0.0270	0.0025
Venus	28047-12-05 09:07 G	11965354.75	11965354.88	11965355.01	0.0268	0.0211
Mercury	28050-06-13 23:45 G	11966276.40	11966276.49	11966276.58	0.0265	0.0198
Mercury	28050-09-10 10:48 G	11966364.82	11966364.95	11966365.08	0.0265	0.0104
Mercury	28050-12-07 22:05 G	11966453.28	11966453.42	11966453.56	0.0265	0.0008
Mercury	28051-03-06 09:21 G	11966541.76	11966541.89	11966542.03	0.0265	0.0091
Mercury	28051-06-02 21:07 G	11966630.28	11966630.38	11966630.48	0.0265	0.0189
Mars	28053-03-15 23:02 G	11967282.17	11967282.46	11967282.76	0.0265	0.0069
Earth	28061-07-21 21:21 G	11970332.15	11970332.39	11970332.63	0.0288	0.0051
Moon	28061-07-21 21:21 G	11970332.15	11970332.39	11970332.64	0.0288	0.0065 *
Venus	28062-05-13 10:48 G	11970627.76	11970627.95	11970628.14	0.0290	0.0135
Venus	28062-12-29 08:53 G	11970857.67	11970857.87	11970858.07	0.0292	0.0106
Mercury	28065-07-13 08:53 G	11971784.74	11971784.87	11971785.01	0.0296	0.0178
Mercury	28065-10-10 06:43 G	11971873.61	11971873.78	11971873.95	0.0296	0.0011
Mercury	28066-01-07 03:50 G	11971962.53	11971962.66	11971962.81	0.0296	0.0158
Mars	28067-05-30 15:50 G	11972471.00	11972471.16	11972471.33	0.0296	0.0238
Moon	28075-01-17 17:31 G	11975259.99	11975260.23	11975260.48	0.0274	0.0064
Earth	28075-01-17 19:55 G	11975260.09	11975260.33	11975260.58	0.0274	0.0058 *
Venus	28076-03-15 08:38 G	11975682.69	11975682.86	11975683.05	0.0270	0.0138
Venus	28076-10-30 12:00 G	11975911.79	11975912.00	11975912.21	0.0269	0.0052
Venus	28077-06-16 13:55 G	11976140.99	11976141.08	11976141.19	0.0268	0.0237
Mercury	28079-11-01 02:24 G	11977008.53	11977008.60	11977008.67	0.0265	0.0223
Mercury	28080-01-28 13:26 G	11977096.94	11977097.06	11977097.18	0.0264	0.0129
Mercury	28080-04-26 00:43 G	11977185.39	11977185.53	11977185.67	0.0264	0.0034
Mercury	28080-07-23 12:00 G	11977273.86	11977274.00	11977274.14	0.0264	0.0064
Mercury	28080-10-19 23:31 G	11977362.37	11977362.48	11977362.59	0.0264	0.0162
Mercury	28081-01-16 11:17 G	11977450.95	11977450.97	11977450.99	0.0264	0.0262
Earth	28090-07-15 23:45 G	11980918.29	11980918.49	11980918.70	0.0286	0.0153

Moon	28090-07-16 00:43 G	11980918.32	11980918.53	11980918.73	0.0286	0.0140 *
Venus	28091-11-23 13:41 G	11981413.88	11981414.07	11981414.27	0.0290	0.0110
Venus	28092-07-10 12:00 G	11981643.82	11981644.00	11981644.19	0.0292	0.0132
Mercury	28094-11-30 06:29 G	11982516.67	11982516.77	11982516.87	0.0295	0.0238
Mercury	28095-02-27 04:33 G	11982605.52	11982605.69	11982605.85	0.0296	0.0068
Mercury	28095-05-27 01:55 G	11982694.42	11982694.58	11982694.74	0.0296	0.0099
Mercury	28095-08-23 22:33 G	11982783.38	11982783.44	11982783.53	0.0296	0.0262
Earth	28104-01-13 12:00 G	11985846.88	11985847.00	11985847.14	0.0276	0.0233
Moon	28104-01-13 14:38 G	11985847.00	11985847.11	11985847.24	0.0276	0.0236 *
Earth	28105-01-25 02:38 G	11986224.42	11986224.61	11986224.82	0.0273	0.0158
Moon	28105-01-25 06:00 G	11986224.54	11986224.75	11986224.96	0.0273	0.0147 *
Venus	28105-09-26 12:00 G	11986468.82	11986469.00	11986469.20	0.0271	0.0116
Venus	28106-05-13 15:21 G	11986697.94	11986698.14	11986698.35	0.0270	0.0075
Venus	28106-12-28 17:45 G	11986927.20	11986927.24	11986927.30	0.0268	0.0260
Mercury	28109-03-21 05:02 G	11987740.67	11987740.71	11987740.76	0.0265	0.0250
Mercury	28109-06-17 16:05 G	11987829.06	11987829.17	11987829.29	0.0265	0.0155
Mercury	28109-09-14 03:21 G	11987917.50	11987917.64	11987917.78	0.0265	0.0059
Mercury	28109-12-11 14:38 G	11988005.97	11988006.11	11988006.25	0.0265	0.0038
Mercury	28110-03-10 02:09 G	11988094.47	11988094.59	11988094.71	0.0265	0.0136
Mercury	28110-06-06 13:55 G	11988183.02	11988183.08	11988183.14	0.0265	0.0236
Moon	28120-07-24 05:02 G	11991883.50	11991883.71	11991883.94	0.0288	0.0129
Earth	28120-07-24 08:53 G	11991883.65	11991883.87	11991884.10	0.0288	0.0112 *
Venus	28121-06-06 01:12 G	11992200.35	11992200.55	11992200.76	0.0290	0.0071
Venus	28122-01-21 23:31 G	11992430.31	11992430.48	11992430.66	0.0292	0.0171
Mercury	28124-04-19 07:41 G	11993248.76	11993248.82	11993248.89	0.0296	0.0273
Mercury	28124-07-17 06:00 G	11993337.58	11993337.75	11993337.91	0.0296	0.0101
Mercury	28124-10-14 03:21 G	11993426.48	11993426.64	11993426.81	0.0296	0.0067
Mercury	28125-01-11 00:14 G	11993515.42	11993515.51	11993515.62	0.0296	0.0231
Moon	28134-01-20 00:29 G	11996811.28	11996811.52	11996811.76	0.0274	0.0013
Earth	28134-01-20 03:50 G	11996811.41	11996811.66	11996811.91	0.0274	0.0004 *

Venus	28135-04-08 18:43 G	11997255.08	11997255.28	11997255.48	0.0270	0.0086
Venus	28135-11-23 21:50 G	11997484.22	11997484.41	11997484.61	0.0269	0.0103
Mercury	28138-11-04 19:12 G	11998561.20	11998561.30	11998561.40	0.0265	0.0178
Mercury	28139-02-01 06:14 G	11998649.63	11998649.76	11998649.90	0.0265	0.0083
Mercury	28139-04-30 17:31 G	11998738.09	11998738.23	11998738.37	0.0264	0.0015
Mercury	28139-07-28 05:02 G	11998826.58	11998826.71	11998826.84	0.0264	0.0112
Mercury	28139-10-24 16:33 G	11998915.11	11998915.19	11998915.28	0.0264	0.0211
Mars	28141-08-11 03:21 G	11999571.33	11999571.64	11999571.95	0.0265	0.0007
Earth	28149-07-18 13:12 G	12002469.82	12002470.05	12002470.29	0.0286	0.0090
Moon	28149-07-18 17:02 G	12002469.98	12002470.21	12002470.45	0.0286	0.0074 *
Venus	28150-05-01 08:24 G	12002756.81	12002756.85	12002756.91	0.0289	0.0279
Venus	28150-12-17 05:31 G	12002986.52	12002986.73	12002986.94	0.0290	0.0043
Venus	28151-08-04 03:50 G	12003216.51	12003216.66	12003216.82	0.0292	0.0199
Mercury	28153-12-04 03:50 G	12004069.52	12004069.66	12004069.81	0.0295	0.0157
Mercury	28154-03-03 01:41 G	12004158.40	12004158.57	12004158.74	0.0296	0.0012
Mercury	28154-05-30 22:48 G	12004247.32	12004247.45	12004247.59	0.0296	0.0176
Mars	28155-10-25 09:36 G	12004759.69	12004759.90	12004760.13	0.0295	0.0182
Earth	28163-01-14 20:38 G	12007398.18	12007398.36	12007398.55	0.0276	0.0178
Moon	28163-01-15 00:00 G	12007398.32	12007398.50	12007398.69	0.0276	0.0184 *
Moon	28164-01-27 10:05 G	12007775.74	12007775.92	12007776.09	0.0273	0.0197
Earth	28164-01-27 10:48 G	12007775.80	12007775.95	12007776.11	0.0273	0.0211 *
Venus	28164-03-03 18:00 G	12007812.18	12007812.25	12007812.32	0.0272	0.0257
Venus	28164-10-18 22:19 G	12008041.22	12008041.43	12008041.64	0.0271	0.0064
Venus	28165-06-05 01:26 G	12008270.37	12008270.56	12008270.75	0.0269	0.0126
Mercury	28168-03-23 21:50 G	12009293.33	12009293.41	12009293.50	0.0265	0.0204
Mercury	28168-06-20 08:53 G	12009381.75	12009381.87	12009382.00	0.0265	0.0109
Mercury	28168-09-16 20:09 G	12009470.20	12009470.34	12009470.48	0.0265	0.0013
Mercury	28168-12-14 07:26 G	12009558.68	12009558.81	12009558.95	0.0265	0.0086
Mercury	28169-03-12 19:12 G	12009647.20	12009647.30	12009647.40	0.0265	0.0185
Moon	28178-07-13 02:09 G	12013056.50	12013056.59	12013056.70	0.0285	0.0256

Earth	28178-07-13 05:45 G	12013056.67	12013056.74	12013056.83	0.0285	0.0269	*
Moon	28179-07-26 20:38 G	12013435.20	12013435.36	12013435.55	0.0288	0.0194	
Earth	28179-07-26 22:48 G	12013435.26	12013435.45	12013435.65	0.0288	0.0177	*
Venus	28179-11-11 19:41 G	12013543.21	12013543.32	12013543.44	0.0289	0.0241	
Venus	28180-06-28 17:17 G	12013773.01	12013773.22	12013773.43	0.0291	0.0004	
Venus	28181-02-13 15:50 G	12014003.05	12014003.16	12014003.29	0.0292	0.0240	
Mercury	28183-04-23 05:31 G	12014801.60	12014801.73	12014801.87	0.0296	0.0189	
Mercury	28183-07-21 03:36 G	12014890.48	12014890.65	12014890.82	0.0296	0.0020	
Mercury	28183-10-18 00:43 G	12014979.39	12014979.53	12014979.68	0.0296	0.0147	
Earth	28193-01-21 13:41 G	12018362.83	12018363.07	12018363.32	0.0273	0.0052	
Moon	28193-01-21 14:38 G	12018362.87	12018363.11	12018363.34	0.0273	0.0041	*
Venus	28193-09-14 01:41 G	12018598.46	12018598.57	12018598.70	0.0272	0.0225	
Venus	28194-05-01 05:45 G	12018827.54	12018827.74	12018827.96	0.0270	0.0033	
Venus	28194-12-16 08:53 G	12019056.70	12019056.87	12019057.04	0.0268	0.0156	
Mercury	28197-08-11 00:57 G	12020025.48	12020025.54	12020025.62	0.0265	0.0225	
Mercury	28197-11-07 12:14 G	12020113.89	12020114.01	12020114.13	0.0265	0.0130	
Mercury	28198-02-03 23:31 G	12020202.34	12020202.48	12020202.62	0.0265	0.0035	
Mercury	28198-05-03 10:48 G	12020290.81	12020290.95	12020291.09	0.0264	0.0064	
Mercury	28198-07-30 22:19 G	12020379.32	12020379.43	12020379.54	0.0264	0.0163	
Mercury	28198-10-27 10:05 G	12020467.91	12020467.92	12020467.93	0.0264	0.0263	
Earth	28208-07-21 05:17 G	12024021.48	12024021.72	12024021.97	0.0286	0.0022	
Moon	28208-07-21 06:57 G	12024021.54	12024021.79	12024022.04	0.0286	0.0008	*
Venus	28209-05-25 01:41 G	12024329.43	12024329.57	12024329.72	0.0289	0.0211	
Venus	28210-01-09 23:02 G	12024559.25	12024559.46	12024559.67	0.0291	0.0027	
Venus	28210-08-27 21:21 G	12024789.33	12024789.39	12024789.48	0.0292	0.0271	
Mercury	28212-09-10 04:05 G	12025533.58	12025533.67	12025533.77	0.0295	0.0241	
Mercury	28212-12-08 02:09 G	12025622.42	12025622.59	12025622.76	0.0295	0.0070	
Mercury	28213-03-06 23:31 G	12025711.32	12025711.48	12025711.64	0.0296	0.0097	
Mercury	28213-06-03 20:24 G	12025800.28	12025800.35	12025800.44	0.0296	0.0260	
Moon	28222-01-17 05:45 G	12028949.52	12028949.74	12028949.97	0.0275	0.0131	

Earth	28222-01-17 06:57 G	12028949.58	12028949.79	12028950.02	0.0275	0.0121	*
Moon	28223-01-29 16:48 G	12029327.10	12029327.20	12029327.29	0.0272	0.0250	
Earth	28223-01-29 20:24 G	12029327.31	12029327.35	12029327.41	0.0272	0.0266	
Venus	28223-03-28 05:02 G	12029384.58	12029384.71	12029384.86	0.0272	0.0202	
Venus	28223-11-12 09:21 G	12029613.68	12029613.89	12029614.10	0.0270	0.0010	
Venus	28224-06-28 12:14 G	12029842.85	12029843.01	12029843.17	0.0269	0.0178	
Mercury	28226-12-30 03:36 G	12030757.62	12030757.65	12030757.70	0.0266	0.0253	
Mercury	28227-03-28 14:38 G	12030846.00	12030846.11	12030846.23	0.0265	0.0158	
Mercury	28227-06-25 01:55 G	12030934.44	12030934.58	12030934.72	0.0265	0.0062	
Mercury	28227-09-21 13:12 G	12031022.91	12031023.05	12031023.19	0.0265	0.0036	
Mercury	28227-12-19 00:43 G	12031111.41	12031111.53	12031111.65	0.0265	0.0135	
Mercury	28228-03-16 12:29 G	12031199.96	12031200.02	12031200.08	0.0265	0.0235	
Mars	28230-01-06 15:36 G	12031860.87	12031861.15	12031861.45	0.0266	0.0093	
Moon	28237-07-15 18:57 G	12034608.13	12034608.29	12034608.47	0.0285	0.0194	
Earth	28237-07-15 20:53 G	12034608.21	12034608.37	12034608.55	0.0285	0.0205	*
Earth	28238-07-29 14:24 G	12034986.98	12034987.10	12034987.24	0.0288	0.0245	
Moon	28238-07-29 16:48 G	12034987.11	12034987.20	12034987.31	0.0288	0.0260	*
Venus	28238-12-05 12:43 G	12035115.87	12035116.03	12035116.21	0.0289	0.0173	
Venus	28239-07-23 10:33 G	12035345.74	12035345.94	12035346.15	0.0291	0.0068	
Mercury	28242-01-28 05:45 G	12036265.68	12036265.74	12036265.81	0.0296	0.0273	
Mercury	28242-04-27 03:50 G	12036354.50	12036354.66	12036354.83	0.0296	0.0101	
Mercury	28242-07-25 01:26 G	12036443.40	12036443.56	12036443.73	0.0296	0.0067	
Mercury	28242-10-21 22:33 G	12036532.34	12036532.44	12036532.55	0.0296	0.0231	
Mars	28244-03-22 15:07 G	12037049.86	12037050.13	12037050.41	0.0295	0.0054	
Earth	28252-01-25 00:43 G	12039914.31	12039914.53	12039914.76	0.0273	0.0109	
Moon	28252-01-25 04:33 G	12039914.46	12039914.69	12039914.92	0.0273	0.0095	*
Venus	28252-10-07 13:41 G	12040170.91	12040171.07	12040171.24	0.0271	0.0169	
Venus	28253-05-24 17:31 G	12040400.02	12040400.23	12040400.44	0.0270	0.0022	
Venus	28254-01-08 19:55 G	12040629.21	12040629.33	12040629.47	0.0268	0.0210	
Mercury	28256-08-14 18:14 G	12041578.16	12041578.26	12041578.36	0.0265	0.0176	

Mercury	28256-11-11 05:17 G	12041666.59	12041666.72	12041666.86	0.0265	0.0081
Mercury	28257-02-07 16:33 G	12041755.05	12041755.19	12041755.33	0.0265	0.0017
Mercury	28257-05-07 04:05 G	12041843.54	12041843.67	12041843.80	0.0265	0.0114
Mercury	28257-08-03 15:36 G	12041932.07	12041932.15	12041932.24	0.0264	0.0214
Moon	28267-07-23 19:41 G	12045573.07	12045573.32	12045573.56	0.0287	0.0060
Earth	28267-07-23 21:50 G	12045573.18	12045573.41	12045573.66	0.0287	0.0046 *
Venus	28268-06-16 19:12 G	12045902.13	12045902.30	12045902.50	0.0290	0.0142
Venus	28269-02-01 17:02 G	12046132.02	12046132.21	12046132.41	0.0291	0.0099
Mercury	28271-09-14 02:38 G	12047086.47	12047086.61	12047086.77	0.0295	0.0152
Mercury	28271-12-12 00:29 G	12047175.35	12047175.52	12047175.69	0.0296	0.0020
Mercury	28272-03-09 21:36 G	12047264.28	12047264.40	12047264.54	0.0296	0.0184
Moon	28281-01-18 15:21 G	12050500.90	12050501.14	12050501.37	0.0275	0.0075
Earth	28281-01-18 18:57 G	12050501.05	12050501.29	12050501.53	0.0275	0.0063 *
Venus	28282-04-19 17:02 G	12050957.04	12050957.21	12050957.39	0.0271	0.0146
Venus	28282-12-04 20:53 G	12051186.16	12051186.37	12051186.58	0.0270	0.0045
Venus	28283-07-21 23:17 G	12051415.37	12051415.47	12051415.58	0.0269	0.0232
Mercury	28286-01-01 20:38 G	12052310.28	12052310.36	12052310.45	0.0265	0.0205
Mercury	28286-03-31 07:41 G	12052398.70	12052398.82	12052398.95	0.0265	0.0110
Mercury	28286-06-27 18:57 G	12052487.15	12052487.29	12052487.43	0.0265	0.0013
Mercury	28286-09-24 06:14 G	12052575.63	12052575.76	12052575.90	0.0265	0.0086
Mercury	28286-12-21 18:00 G	12052664.15	12052664.25	12052664.35	0.0265	0.0185
Earth	28296-07-17 11:45 G	12056159.78	12056159.99	12056160.21	0.0285	0.0141
Moon	28296-07-17 13:55 G	12056159.87	12056160.08	12056160.30	0.0285	0.0128 *
Venus	28297-12-28 06:00 G	12056688.55	12056688.75	12056688.95	0.0290	0.0103
Venus	28298-08-15 04:05 G	12056918.49	12056918.67	12056918.86	0.0292	0.0139
Mercury	28301-02-01 04:19 G	12057818.55	12057818.68	12057818.82	0.0296	0.0183
Mercury	28301-05-01 02:24 G	12057907.43	12057907.60	12057907.77	0.0296	0.0013
Mercury	28301-07-28 23:31 G	12057996.34	12057996.48	12057996.63	0.0296	0.0154
Earth	28310-01-14 21:07 G	12061088.25	12061088.38	12061088.52	0.0276	0.0226
Moon	28310-01-15 00:29 G	12061088.40	12061088.52	12061088.66	0.0276	0.0231 *

Earth	28311-01-27 12:14 G	12061465.82	12061466.01	12061466.21	0.0273	0.0166
Moon	28311-01-27 13:26 G	12061465.85	12061466.06	12061466.28	0.0273	0.0152 *
Venus	28311-11-01 01:41 G	12061743.39	12061743.57	12061743.77	0.0271	0.0113
Venus	28312-06-17 05:02 G	12061972.51	12061972.71	12061972.92	0.0269	0.0078
Venus	28313-02-01 07:12 G	12062201.77	12062201.80	12062201.85	0.0268	0.0263
Mercury	28315-05-23 00:14 G	12063042.44	12063042.51	12063042.58	0.0265	0.0223
Mercury	28315-08-19 11:17 G	12063130.85	12063130.97	12063131.09	0.0265	0.0128
Mercury	28315-11-15 22:33 G	12063219.30	12063219.44	12063219.58	0.0265	0.0033
Mercury	28316-02-12 09:50 G	12063307.77	12063307.91	12063308.05	0.0265	0.0066
Mercury	28316-05-10 21:07 G	12063396.28	12063396.38	12063396.50	0.0264	0.0166
Mars	28318-06-04 07:55 G	12064150.62	12064150.83	12064151.07	0.0266	0.0185
Moon	28326-07-26 10:48 G	12067124.74	12067124.95	12067125.17	0.0287	0.0129
Earth	28326-07-26 14:24 G	12067124.88	12067125.10	12067125.33	0.0287	0.0113 *
Venus	28327-07-11 13:12 G	12067474.84	12067475.05	12067475.25	0.0290	0.0070
Venus	28328-02-26 11:17 G	12067704.80	12067704.97	12067705.14	0.0292	0.0171
Mercury	28330-06-21 03:21 G	12068550.54	12068550.64	12068550.75	0.0295	0.0233
Mercury	28330-09-18 01:26 G	12068639.39	12068639.56	12068639.73	0.0296	0.0061
Mercury	28330-12-15 22:48 G	12068728.30	12068728.45	12068728.62	0.0296	0.0107
Mercury	28331-03-14 19:41 G	12068817.27	12068817.32	12068817.40	0.0296	0.0270
Mars	28332-08-18 04:33 G	12069339.41	12069339.69	12069339.97	0.0295	0.0035
Moon	28340-01-22 05:02 G	12072052.48	12072052.71	12072052.95	0.0274	0.0018
Earth	28340-01-22 06:29 G	12072052.52	12072052.77	12072053.02	0.0274	0.0006 *
Venus	28341-05-13 04:48 G	12072529.50	12072529.70	12072529.90	0.0271	0.0090
Venus	28341-12-28 08:09 G	12072758.64	12072758.84	12072759.04	0.0269	0.0100
Mercury	28344-10-09 02:24 G	12073774.57	12073774.60	12073774.65	0.0265	0.0253
Mercury	28345-01-05 13:26 G	12073862.95	12073863.06	12073863.17	0.0265	0.0158
Mercury	28345-04-04 00:43 G	12073951.39	12073951.53	12073951.66	0.0265	0.0063
Mercury	28345-07-01 12:00 G	12074039.86	12074040.00	12074040.14	0.0265	0.0035
Mercury	28345-09-27 23:31 G	12074128.35	12074128.48	12074128.60	0.0265	0.0134
Mercury	28345-12-25 11:02 G	12074216.90	12074216.96	12074217.03	0.0265	0.0235

Earth	28355-07-21 01:12 G	12077711.31	12077711.55	12077711.78	0.0286	0.0080
Moon	28355-07-21 04:48 G	12077711.46	12077711.70	12077711.94	0.0286	0.0065 *
Venus	28356-06-05 00:43 G	12078031.47	12078031.53	12078031.61	0.0289	0.0271
Venus	28357-01-20 22:05 G	12078261.21	12078261.42	12078261.63	0.0290	0.0035
Venus	28357-09-07 20:38 G	12078491.21	12078491.36	12078491.51	0.0292	0.0208
Mercury	28359-11-08 04:05 G	12079282.61	12079282.67	12079282.75	0.0296	0.0270
Mercury	28360-02-05 02:24 G	12079371.44	12079371.60	12079371.77	0.0296	0.0097
Mercury	28360-05-04 00:14 G	12079460.34	12079460.51	12079460.67	0.0296	0.0072
Mercury	28360-07-31 21:21 G	12079549.29	12079549.39	12079549.49	0.0296	0.0237
Earth	28369-01-16 09:07 G	12082639.69	12082639.88	12082640.08	0.0275	0.0168
Moon	28369-01-16 11:17 G	12082639.78	12082639.97	12082640.17	0.0275	0.0173 *
Moon	28370-01-28 20:24 G	12083017.20	12083017.35	12083017.52	0.0272	0.0207
Earth	28370-01-28 23:17 G	12083017.34	12083017.47	12083017.62	0.0272	0.0222 *
Venus	28370-04-08 09:07 G	12083086.81	12083086.88	12083086.97	0.0272	0.0249
Venus	28370-11-23 13:26 G	12083315.86	12083316.06	12083316.27	0.0270	0.0057
Venus	28371-07-10 16:33 G	12083545.00	12083545.19	12083545.37	0.0269	0.0132
Mercury	28374-05-25 17:02 G	12084595.11	12084595.21	12084595.32	0.0265	0.0176
Mercury	28374-08-22 04:19 G	12084683.54	12084683.68	12084683.81	0.0265	0.0081
Mercury	28374-11-18 15:21 G	12084772.00	12084772.14	12084772.28	0.0264	0.0018
Mercury	28375-02-15 02:53 G	12084860.49	12084860.62	12084860.75	0.0264	0.0115
Mercury	28375-05-14 14:24 G	12084949.02	12084949.10	12084949.18	0.0264	0.0215
Moon	28384-07-14 09:07 G	12088297.79	12088297.88	12088298.00	0.0284	0.0255
Earth	28384-07-14 12:29 G	12088297.96	12088298.02	12088298.11	0.0284	0.0269 *
Earth	28385-07-28 04:05 G	12088676.49	12088676.67	12088676.87	0.0288	0.0177
Moon	28385-07-28 04:05 G	12088676.50	12088676.67	12088676.84	0.0288	0.0193 *
Venus	28385-12-16 08:09 G	12088817.73	12088817.84	12088817.96	0.0289	0.0239
Venus	28386-08-03 05:31 G	12089047.51	12089047.73	12089047.94	0.0291	0.0004
Venus	28387-03-21 03:50 G	12089277.55	12089277.66	12089277.78	0.0292	0.0241
Mercury	28389-06-24 01:41 G	12090103.42	12090103.57	12090103.72	0.0296	0.0146
Mercury	28389-09-20 23:31 G	12090192.31	12090192.48	12090192.65	0.0296	0.0025

Mercury	28389-12-18 20:38 G	12090281.24	12090281.36	12090281.49	0.0296	0.0190
Earth	28399-01-23 17:31 G	12093603.99	12093604.23	12093604.47	0.0274	0.0050
Moon	28399-01-23 19:55 G	12093604.10	12093604.33	12093604.57	0.0274	0.0038 *
Venus	28399-10-19 12:00 G	12093872.89	12093873.00	12093873.12	0.0272	0.0227
Venus	28400-06-04 16:05 G	12094101.96	12094102.17	12094102.38	0.0270	0.0035
Venus	28401-01-19 18:43 G	12094331.11	12094331.28	12094331.46	0.0269	0.0154
Mercury	28403-10-12 18:57 G	12095327.22	12095327.29	12095327.38	0.0265	0.0209
Mercury	28404-01-09 06:14 G	12095415.63	12095415.76	12095415.88	0.0265	0.0113
Mercury	28404-04-06 17:17 G	12095504.08	12095504.22	12095504.36	0.0265	0.0018
Mercury	28404-07-04 04:48 G	12095592.56	12095592.70	12095592.83	0.0265	0.0082
Mercury	28404-09-30 16:05 G	12095681.07	12095681.17	12095681.28	0.0265	0.0182
Mars	28406-10-29 06:29 G	12096439.69	12096439.77	12096439.87	0.0266	0.0254
Moon	28414-07-22 12:00 G	12099262.74	12099263.00	12099263.25	0.0286	0.0005
Earth	28414-07-22 12:14 G	12099262.77	12099263.01	12099263.26	0.0286	0.0022 *
Venus	28415-06-28 15:07 G	12099603.99	12099604.13	12099604.28	0.0289	0.0206
Venus	28416-02-13 12:57 G	12099833.83	12099834.04	12099834.25	0.0291	0.0032
Venus	28416-09-30 11:45 G	12100063.93	12100063.99	12100064.07	0.0293	0.0276
Mercury	28418-11-11 01:55 G	12100835.45	12100835.58	12100835.71	0.0296	0.0187
Mercury	28419-02-07 23:45 G	12100924.32	12100924.49	12100924.67	0.0296	0.0018
Mercury	28419-05-07 21:21 G	12101013.24	12101013.39	12101013.53	0.0296	0.0152
Mars	28421-01-13 01:41 G	12101629.33	12101629.57	12101629.81	0.0295	0.0149
Moon	28428-01-18 17:02 G	12104190.99	12104191.21	12104191.44	0.0275	0.0123
Earth	28428-01-18 19:41 G	12104191.09	12104191.32	12104191.54	0.0275	0.0113 *
Moon	28429-01-30 05:31 G	12104568.68	12104568.73	12104568.81	0.0272	0.0260
Venus	28429-04-30 20:09 G	12104659.20	12104659.34	12104659.49	0.0271	0.0194
Venus	28429-12-16 00:00 G	12104888.29	12104888.50	12104888.71	0.0270	0.0004
Venus	28430-08-02 02:38 G	12105117.46	12105117.61	12105117.76	0.0268	0.0184
Mercury	28433-02-28 22:48 G	12106059.38	12106059.45	12106059.52	0.0265	0.0226
Mercury	28433-05-28 09:36 G	12106147.78	12106147.90	12106148.02	0.0264	0.0131
Mercury	28433-08-24 20:53 G	12106236.23	12106236.37	12106236.51	0.0264	0.0036

Mercury	28433-11-21 08:09 G	12106324.70	12106324.84	12106324.97	0.0264	0.0063
Mercury	28434-02-17 19:26 G	12106413.20	12106413.31	12106413.43	0.0264	0.0161
Mercury	28434-05-17 07:12 G	12106501.78	12106501.80	12106501.82	0.0264	0.0261
Earth	28443-07-16 22:19 G	12109849.27	12109849.43	12109849.60	0.0285	0.0213
Moon	28443-07-16 23:02 G	12109849.31	12109849.46	12109849.64	0.0285	0.0199 *
Earth	28444-07-29 14:38 G	12110227.98	12110228.11	12110228.26	0.0288	0.0236
Moon	28444-07-29 18:14 G	12110228.16	12110228.26	12110228.39	0.0288	0.0253 *
Venus	28445-01-07 22:05 G	12110390.25	12110390.42	12110390.59	0.0290	0.0176
Venus	28445-08-25 19:41 G	12110620.12	12110620.32	12110620.53	0.0291	0.0064
Mercury	28448-03-30 00:43 G	12111567.43	12111567.53	12111567.63	0.0296	0.0239
Mercury	28448-06-26 22:48 G	12111656.28	12111656.45	12111656.62	0.0296	0.0067
Mercury	28448-09-23 20:24 G	12111745.19	12111745.35	12111745.51	0.0296	0.0102
Mercury	28448-12-21 17:31 G	12111834.16	12111834.23	12111834.30	0.0296	0.0266
Earth	28458-01-25 02:38 G	12115155.39	12115155.61	12115155.84	0.0273	0.0103
Moon	28458-01-25 06:00 G	12115155.52	12115155.75	12115155.99	0.0273	0.0090 *
Venus	28458-11-10 22:33 G	12115445.29	12115445.44	12115445.61	0.0271	0.0172
Venus	28459-06-28 02:09 G	12115674.38	12115674.59	12115674.80	0.0270	0.0019
Venus	28460-02-12 04:19 G	12115903.56	12115903.68	12115903.83	0.0268	0.0205
Mercury	28462-07-19 00:29 G	12116791.50	12116791.52	12116791.55	0.0265	0.0259
Mercury	28462-10-15 11:31 G	12116879.87	12116879.98	12116880.09	0.0265	0.0165
Mercury	28463-01-11 22:33 G	12116968.31	12116968.44	12116968.58	0.0265	0.0069
Mercury	28463-04-10 09:50 G	12117056.77	12117056.91	12117057.05	0.0265	0.0028
Mercury	28463-07-07 21:07 G	12117145.26	12117145.38	12117145.51	0.0265	0.0127
Mercury	28463-10-04 08:38 G	12117233.79	12117233.86	12117233.94	0.0265	0.0227
Mars	28465-02-03 00:43 G	12117721.37	12117721.53	12117721.69	0.0265	0.0225
Moon	28473-07-23 15:36 G	12120813.91	12120814.15	12120814.39	0.0287	0.0048
Earth	28473-07-23 19:26 G	12120814.07	12120814.31	12120814.55	0.0287	0.0031 *
Venus	28474-07-21 03:07 G	12121176.45	12121176.63	12121176.81	0.0290	0.0146
Venus	28475-03-08 01:12 G	12121406.35	12121406.55	12121406.75	0.0291	0.0095
Mercury	28477-08-16 23:45 G	12122299.46	12122299.49	12122299.53	0.0296	0.0288

Mercury	28477-11-13 22:05 G	12122388.27	12122388.42	12122388.58	0.0296	0.0114
Mercury	28478-02-10 19:55 G	12122477.17	12122477.33	12122477.50	0.0296	0.0057
Mercury	28478-05-10 17:17 G	12122566.11	12122566.22	12122566.33	0.0296	0.0223
Moon	28487-01-20 00:43 G	12125742.30	12125742.53	12125742.76	0.0275	0.0074
Earth	28487-01-20 04:05 G	12125742.43	12125742.67	12125742.91	0.0275	0.0061 *
Venus	28488-05-23 06:00 G	12126231.57	12126231.75	12126231.93	0.0271	0.0141
Venus	28489-01-07 09:21 G	12126460.68	12126460.89	12126461.10	0.0269	0.0049
Venus	28489-08-24 11:17 G	12126689.88	12126689.97	12126690.08	0.0268	0.0235
Mercury	28492-03-03 14:38 G	12127612.02	12127612.11	12127612.22	0.0264	0.0185
Mercury	28492-05-31 01:55 G	12127700.45	12127700.58	12127700.71	0.0264	0.0089
Mercury	28492-08-27 12:57 G	12127788.90	12127789.04	12127789.18	0.0264	0.0010
Mercury	28492-11-24 00:14 G	12127877.39	12127877.51	12127877.65	0.0264	0.0106
Mercury	28493-02-20 11:45 G	12127965.91	12127965.99	12127966.09	0.0264	0.0205
Earth	28502-07-19 04:33 G	12131400.50	12131400.69	12131400.90	0.0285	0.0163
Moon	28502-07-19 08:09 G	12131400.64	12131400.84	12131401.06	0.0285	0.0147 *
Venus	28504-02-01 09:50 G	12131962.72	12131962.91	12131963.11	0.0290	0.0115
Venus	28504-09-18 07:55 G	12132192.64	12132192.83	12132193.03	0.0292	0.0126
Mercury	28507-04-03 20:53 G	12133120.23	12133120.37	12133120.52	0.0296	0.0166
Mercury	28507-07-01 18:57 G	12133209.12	12133209.29	12133209.46	0.0296	0.0006
Mercury	28507-09-28 16:19 G	12133298.05	12133298.18	12133298.32	0.0296	0.0173
Mars	28509-06-10 00:43 G	12133918.35	12133918.53	12133918.74	0.0295	0.0212
Earth	28516-01-15 17:45 G	12136329.14	12136329.24	12136329.37	0.0276	0.0241
Moon	28516-01-15 20:53 G	12136329.28	12136329.37	12136329.49	0.0276	0.0251 *
Moon	28517-01-27 08:24 G	12136706.64	12136706.85	12136707.08	0.0273	0.0137
Earth	28517-01-27 09:21 G	12136706.70	12136706.89	12136707.11	0.0273	0.0153 *
Venus	28517-12-04 07:41 G	12137017.64	12137017.82	12137018.02	0.0270	0.0120
Venus	28518-07-21 10:48 G	12137246.75	12137246.95	12137247.16	0.0269	0.0070
Venus	28519-03-07 12:43 G	12137475.97	12137476.03	12137476.10	0.0268	0.0254
Mercury	28521-07-22 16:33 G	12138344.11	12138344.19	12138344.27	0.0265	0.0219
Mercury	28521-10-19 03:21 G	12138432.52	12138432.64	12138432.77	0.0265	0.0124

Mercury	28522-01-15 14:38 G	12138520.97	12138521.11	12138521.25	0.0264	0.0028
Mercury	28522-04-14 01:55 G	12138609.44	12138609.58	12138609.71	0.0264	0.0070
Mercury	28522-07-11 13:12 G	12138697.94	12138698.05	12138698.16	0.0264	0.0168
Moon	28532-07-25 21:50 G	12142365.19	12142365.41	12142365.64	0.0287	0.0094
Earth	28532-07-25 23:02 G	12142365.23	12142365.46	12142365.70	0.0287	0.0079 *
Venus	28533-08-13 12:57 G	12142748.84	12142749.04	12142749.24	0.0290	0.0089
Venus	28534-03-31 11:17 G	12142978.79	12142978.97	12142979.15	0.0292	0.0153
Mercury	28536-08-20 18:57 G	12143852.18	12143852.29	12143852.41	0.0296	0.0223
Mercury	28536-11-17 17:17 G	12143941.05	12143941.22	12143941.39	0.0296	0.0050
Mercury	28537-02-14 14:53 G	12144029.97	12144030.12	12144030.28	0.0297	0.0120
Mercury	28537-05-14 11:45 G	12144118.96	12144118.99	12144119.05	0.0297	0.0286
Earth	28546-01-22 09:21 G	12147293.64	12147293.89	12147294.13	0.0274	0.0014
Moon	28546-01-22 10:19 G	12147293.70	12147293.93	12147294.17	0.0274	0.0028 *
Venus	28547-06-16 14:09 G	12147803.89	12147804.09	12147804.29	0.0270	0.0091
Venus	28548-01-31 17:02 G	12148033.01	12148033.21	12148033.41	0.0269	0.0098
Mercury	28550-12-09 19:41 G	12149076.27	12149076.32	12149076.38	0.0264	0.0239
Mercury	28551-03-08 06:43 G	12149164.66	12149164.78	12149164.89	0.0264	0.0145
Mercury	28551-06-04 17:45 G	12149253.10	12149253.24	12149253.38	0.0264	0.0049
Mercury	28551-09-01 05:02 G	12149341.57	12149341.71	12149341.84	0.0264	0.0048
Mercury	28551-11-28 16:19 G	12149430.06	12149430.18	12149430.30	0.0264	0.0146
Mercury	28552-02-25 03:50 G	12149518.61	12149518.66	12149518.71	0.0264	0.0246
Mars	28553-06-30 22:48 G	12150010.22	12150010.45	12150010.70	0.0264	0.0165
Earth	28561-07-20 06:57 G	12152951.57	12152951.79	12152952.02	0.0286	0.0116
Moon	28561-07-20 08:09 G	12152951.60	12152951.84	12152952.08	0.0286	0.0101 *
Venus	28563-02-23 18:57 G	12153535.09	12153535.29	12153535.50	0.0291	0.0060
Venus	28563-10-11 17:17 G	12153765.07	12153765.22	12153765.39	0.0292	0.0184
Mercury	28566-01-07 17:31 G	12154584.17	12154584.23	12154584.29	0.0296	0.0277
Mercury	28566-04-06 15:50 G	12154673.00	12154673.16	12154673.32	0.0296	0.0103
Mercury	28566-07-04 13:41 G	12154761.91	12154762.07	12154762.24	0.0296	0.0068
Mercury	28566-10-01 10:48 G	12154850.86	12154850.95	12154851.06	0.0297	0.0235

Moon	28575-01-16 21:36 G	12157880.23	12157880.40	12157880.57	0.0275	0.0204
Earth	28575-01-16 22:48 G	12157880.29	12157880.45	12157880.64	0.0275	0.0193 *
Moon	28576-01-29 09:50 G	12158257.74	12158257.91	12158258.10	0.0272	0.0182
Earth	28576-01-29 13:41 G	12158257.91	12158258.07	12158258.25	0.0272	0.0198 *
Venus	28576-05-11 11:02 G	12158360.92	12158360.96	12158361.03	0.0272	0.0263
Venus	28576-12-26 15:21 G	12158589.94	12158590.14	12158590.34	0.0270	0.0071
Venus	28577-08-12 18:00 G	12158819.06	12158819.25	12158819.44	0.0268	0.0118
Mercury	28580-07-25 07:55 G	12159896.74	12159896.83	12159896.94	0.0264	0.0182
Mercury	28580-10-21 19:12 G	12159985.16	12159985.30	12159985.43	0.0264	0.0086
Mercury	28581-01-18 06:14 G	12160073.62	12160073.76	12160073.90	0.0264	0.0010
Mercury	28581-04-16 17:31 G	12160162.10	12160162.23	12160162.36	0.0264	0.0108
Mercury	28581-07-14 05:02 G	12160250.62	12160250.71	12160250.79	0.0264	0.0207
Earth	28591-07-27 23:17 G	12163916.26	12163916.47	12163916.70	0.0287	0.0123
Moon	28591-07-28 02:09 G	12163916.39	12163916.59	12163916.81	0.0287	0.0136 *
Venus	28592-01-18 23:31 G	12164091.41	12164091.48	12164091.55	0.0289	0.0272
Venus	28592-09-04 20:38 G	12164321.15	12164321.36	12164321.58	0.0290	0.0036
Venus	28593-04-22 19:26 G	12164551.16	12164551.31	12164551.46	0.0292	0.0207
Mercury	28595-08-24 13:12 G	12165404.91	12165405.05	12165405.20	0.0296	0.0165
Mercury	28595-11-21 11:17 G	12165493.80	12165493.97	12165494.14	0.0297	0.0009
Mercury	28596-02-18 08:53 G	12165582.74	12165582.87	12165583.01	0.0297	0.0177
Mars	28597-11-03 09:21 G	12166206.77	12166206.89	12166207.04	0.0296	0.0255
Earth	28605-01-24 12:00 G	12168844.76	12168845.00	12168845.25	0.0274	0.0032
Moon	28605-01-24 15:50 G	12168844.91	12168845.16	12168845.40	0.0274	0.0017 *
Venus	28605-11-22 16:48 G	12169147.11	12169147.20	12169147.31	0.0272	0.0236
Venus	28606-07-09 20:38 G	12169376.16	12169376.36	12169376.58	0.0270	0.0044
Venus	28607-02-23 23:17 G	12169605.30	12169605.47	12169605.65	0.0268	0.0145
Mercury	28609-12-13 11:02 G	12170628.88	12170628.96	12170629.05	0.0264	0.0204
Mercury	28610-03-11 22:05 G	12170717.29	12170717.42	12170717.55	0.0264	0.0109
Mercury	28610-06-08 09:07 G	12170805.74	12170805.88	12170806.02	0.0264	0.0013
Mercury	28610-09-04 20:24 G	12170894.22	12170894.35	12170894.48	0.0264	0.0085

Mercury	28610-12-02 07:41 G	12170982.73	12170982.82	12170982.93	0.0264	0.0184
Moon	28620-07-22 03:21 G	12174502.40	12174502.64	12174502.89	0.0286	0.0060
Earth	28620-07-22 06:29 G	12174502.54	12174502.77	12174503.01	0.0286	0.0074 *
Venus	28621-08-01 05:02 G	12174877.60	12174877.71	12174877.83	0.0289	0.0244
Venus	28622-03-19 02:24 G	12175107.39	12175107.60	12175107.81	0.0291	0.0007
Venus	28622-11-04 00:57 G	12175337.43	12175337.54	12175337.67	0.0293	0.0237
Mercury	28625-01-11 11:31 G	12176136.87	12176136.98	12176137.10	0.0296	0.0221
Mercury	28625-04-10 09:50 G	12176225.74	12176225.91	12176226.08	0.0297	0.0047
Mercury	28625-07-08 07:26 G	12176314.66	12176314.81	12176314.97	0.0297	0.0123
Mercury	28625-10-05 04:33 G	12176403.66	12176403.69	12176403.73	0.0297	0.0289
Moon	28634-01-18 21:36 G	12179431.21	12179431.40	12179431.60	0.0275	0.0163
Earth	28634-01-19 01:12 G	12179431.35	12179431.55	12179431.76	0.0275	0.0148 *
Moon	28635-01-31 14:53 G	12179809.01	12179809.12	12179809.26	0.0272	0.0228
Earth	28635-01-31 15:07 G	12179809.03	12179809.13	12179809.26	0.0272	0.0241 *
Venus	28635-06-04 17:45 G	12179933.12	12179933.24	12179933.37	0.0271	0.0215
Venus	28636-01-19 21:21 G	12180162.18	12180162.39	12180162.60	0.0269	0.0024
Venus	28636-09-04 23:45 G	12180391.33	12180391.49	12180391.66	0.0268	0.0163
Mercury	28639-05-02 12:29 G	12181360.97	12181361.02	12181361.08	0.0264	0.0240
Mercury	28639-07-29 23:17 G	12181449.36	12181449.47	12181449.59	0.0264	0.0146
Mercury	28639-10-26 10:19 G	12181537.80	12181537.93	12181538.07	0.0264	0.0051
Mercury	28640-01-22 21:36 G	12181626.26	12181626.40	12181626.54	0.0264	0.0047
Mercury	28640-04-20 08:53 G	12181714.75	12181714.87	12181714.99	0.0264	0.0145
Mercury	28640-07-17 20:24 G	12181803.30	12181803.35	12181803.40	0.0264	0.0244
Mars	28641-11-24 17:17 G	12182297.97	12182298.22	12182298.49	0.0264	0.0140
Earth	28649-07-16 06:14 G	12185088.72	12185088.76	12185088.79	0.0284	0.0280
Moon	28649-07-16 09:07 G	12185088.81	12185088.88	12185088.98	0.0284	0.0265
Earth	28650-07-29 20:53 G	12185467.17	12185467.37	12185467.57	0.0287	0.0162
Moon	28650-07-29 23:17 G	12185467.29	12185467.47	12185467.68	0.0287	0.0175 *
Venus	28651-02-11 05:02 G	12185663.58	12185663.71	12185663.85	0.0289	0.0224
Venus	28651-09-29 02:38 G	12185893.40	12185893.61	12185893.82	0.0291	0.0014

Venus	28652-05-16 01:26 G	12186123.47	12186123.56	12186123.67	0.0292	0.0258
Mercury	28654-05-31 07:55 G	12186868.80	12186868.83	12186868.86	0.0296	0.0290
Mercury	28654-08-28 06:14 G	12186957.61	12186957.76	12186957.92	0.0297	0.0115
Mercury	28654-11-25 04:19 G	12187046.51	12187046.68	12187046.85	0.0297	0.0057
Mercury	28655-02-22 01:41 G	12187135.47	12187135.57	12187135.68	0.0297	0.0225
Earth	28664-01-26 12:14 G	12190395.78	12190396.01	12190396.25	0.0274	0.0074
Moon	28664-01-26 12:43 G	12190395.78	12190396.03	12190396.28	0.0274	0.0060 *
Venus	28664-12-14 22:19 G	12190719.28	12190719.43	12190719.58	0.0271	0.0190
Venus	28665-08-01 01:55 G	12190948.37	12190948.58	12190948.80	0.0270	0.0004
Venus	28666-03-18 04:19 G	12191177.53	12191177.68	12191177.83	0.0268	0.0189
Mercury	28668-09-18 15:21 G	12192093.14	12192093.14	12192093.15	0.0264	0.0264
Mercury	28668-12-16 02:09 G	12192181.49	12192181.59	12192181.70	0.0264	0.0170
Mercury	28669-03-14 13:12 G	12192269.92	12192270.05	12192270.19	0.0264	0.0075
Mercury	28669-06-11 00:14 G	12192358.37	12192358.51	12192358.66	0.0264	0.0024
Mercury	28669-09-07 11:45 G	12192446.86	12192446.99	12192447.11	0.0264	0.0120
Mercury	28669-12-04 23:02 G	12192535.39	12192535.46	12192535.54	0.0264	0.0219
Moon	28679-07-24 01:12 G	12196053.31	12196053.55	12196053.78	0.0286	0.0022
Earth	28679-07-24 03:36 G	12196053.41	12196053.65	12196053.90	0.0286	0.0035 *
Venus	28680-08-23 10:33 G	12196449.79	12196449.94	12196450.10	0.0289	0.0197
Venus	28681-04-10 08:09 G	12196679.64	12196679.84	12196680.06	0.0291	0.0043
Venus	28681-11-26 07:12 G	12196909.77	12196909.80	12196909.85	0.0293	0.0287
Mercury	28684-01-15 04:48 G	12197689.56	12197689.70	12197689.84	0.0297	0.0170
Mercury	28684-04-13 02:53 G	12197778.45	12197778.62	12197778.80	0.0297	0.0009
Mercury	28684-07-11 00:29 G	12197867.39	12197867.52	12197867.66	0.0297	0.0173
Mars	28686-03-30 09:50 G	12198494.83	12198494.91	12198495.01	0.0296	0.0280
Moon	28693-01-20 01:12 G	12200982.34	12200982.55	12200982.77	0.0275	0.0119
Earth	28693-01-20 01:55 G	12200982.35	12200982.58	12200982.81	0.0275	0.0105 *
Moon	28694-02-01 18:57 G	12201360.29	12201360.29	12201360.32	0.0272	0.0271
Venus	28694-06-26 23:17 G	12201505.31	12201505.47	12201505.64	0.0271	0.0170
Venus	28695-02-11 02:38 G	12201734.40	12201734.61	12201734.82	0.0269	0.0021

Venus	28695-09-28 04:48 G	12201963.57	12201963.70	12201963.83	0.0268	0.0207
Mercury	28698-05-05 03:36 G	12202913.57	12202913.65	12202913.74	0.0264	0.0206
Mercury	28698-08-01 14:38 G	12203001.98	12203002.11	12203002.23	0.0264	0.0112
Mercury	28698-10-29 01:41 G	12203090.43	12203090.57	12203090.71	0.0264	0.0016
Mercury	28699-01-25 12:43 G	12203178.90	12203179.03	12203179.17	0.0264	0.0082
Mercury	28699-04-24 00:14 G	12203267.40	12203267.51	12203267.61	0.0264	0.0180
Earth	28708-07-18 01:55 G	12206639.47	12206639.58	12206639.72	0.0284	0.0243
Moon	28708-07-18 04:05 G	12206639.54	12206639.67	12206639.83	0.0284	0.0228 *
Moon	28709-07-31 15:07 G	12207017.97	12207018.13	12207018.32	0.0287	0.0208
Earth	28709-07-31 17:02 G	12207018.05	12207018.21	12207018.40	0.0287	0.0201 *
Venus	28710-03-06 09:50 G	12207235.75	12207235.91	12207236.09	0.0289	0.0177
Venus	28710-10-22 07:41 G	12207465.62	12207465.82	12207466.03	0.0291	0.0063
Mercury	28713-06-04 00:29 G	12208421.43	12208421.52	12208421.63	0.0296	0.0243
Mercury	28713-08-31 23:02 G	12208510.29	12208510.46	12208510.63	0.0297	0.0068
Mercury	28713-11-28 20:53 G	12208599.21	12208599.37	12208599.53	0.0297	0.0104
Mercury	28714-02-25 18:14 G	12208688.20	12208688.26	12208688.33	0.0297	0.0271
Moon	28723-01-28 07:26 G	12211946.58	12211946.81	12211947.05	0.0274	0.0101
Earth	28723-01-28 10:48 G	12211946.73	12211946.95	12211947.18	0.0274	0.0114 *
Venus	28724-01-08 02:53 G	12212291.44	12212291.62	12212291.80	0.0271	0.0147
Venus	28724-08-24 06:14 G	12212520.55	12212520.76	12212520.97	0.0270	0.0045
Venus	28725-04-10 08:09 G	12212749.75	12212749.84	12212749.96	0.0268	0.0231
Mercury	28727-09-23 06:29 G	12213645.70	12213645.77	12213645.83	0.0264	0.0231
Mercury	28727-12-20 17:17 G	12213734.10	12213734.22	12213734.34	0.0264	0.0137
Mercury	28728-03-18 04:19 G	12213822.54	12213822.68	12213822.81	0.0264	0.0042
Mercury	28728-06-14 15:21 G	12213911.00	12213911.14	12213911.28	0.0264	0.0055
Mercury	28728-09-11 02:38 G	12213999.50	12213999.61	12213999.73	0.0264	0.0154
Mercury	28728-12-08 14:09 G	12214088.06	12214088.09	12214088.13	0.0263	0.0253
Mars	28730-04-21 02:53 G	12214586.34	12214586.62	12214586.91	0.0264	0.0102
Earth	28738-07-26 00:14 G	12217604.26	12217604.51	12217604.75	0.0286	0.0006
Moon	28738-07-26 02:09 G	12217604.36	12217604.59	12217604.83	0.0286	0.0015 *

Venus	28739-09-16 15:36 G	12218021.97	12218022.15	12218022.34	0.0290	0.0150
Venus	28740-05-03 13:26 G	12218251.87	12218252.06	12218252.27	0.0292	0.0092
Mercury	28743-01-18 21:36 G	12219242.25	12219242.40	12219242.56	0.0297	0.0123
Mercury	28743-04-17 19:41 G	12219331.15	12219331.32	12219331.49	0.0297	0.0050
Mercury	28743-07-15 17:02 G	12219420.10	12219420.21	12219420.33	0.0297	0.0219
Earth	28752-01-23 00:57 G	12222533.30	12222533.54	12222533.78	0.0275	0.0064
Moon	28752-01-23 04:05 G	12222533.45	12222533.67	12222533.91	0.0275	0.0080 *
Venus	28753-07-20 04:05 G	12223077.49	12223077.67	12223077.86	0.0271	0.0126
Venus	28754-03-06 07:12 G	12223306.60	12223306.80	12223307.01	0.0269	0.0064
Venus	28754-10-21 09:07 G	12223535.81	12223535.88	12223535.96	0.0267	0.0250
Mercury	28757-05-08 18:43 G	12224466.18	12224466.28	12224466.38	0.0264	0.0173
Mercury	28757-08-05 05:31 G	12224554.60	12224554.73	12224554.87	0.0264	0.0079
Mercury	28757-11-01 16:48 G	12224643.06	12224643.20	12224643.34	0.0264	0.0020
Mercury	28758-01-29 03:50 G	12224731.54	12224731.66	12224731.79	0.0263	0.0116
Mercury	28758-04-27 15:21 G	12224820.06	12224820.14	12224820.22	0.0263	0.0215
Moon	28767-07-19 18:43 G	12228190.11	12228190.28	12228190.47	0.0284	0.0196
Earth	28767-07-19 22:05 G	12228190.25	12228190.42	12228190.59	0.0284	0.0205 *
Moon	28768-08-01 09:36 G	12228568.77	12228568.90	12228569.03	0.0287	0.0243
Earth	28768-08-01 12:57 G	12228568.92	12228569.04	12228569.18	0.0287	0.0239 *
Venus	28769-03-28 14:38 G	12228807.92	12228808.11	12228808.30	0.0289	0.0131
Venus	28769-11-13 12:43 G	12229037.83	12229038.03	12229038.22	0.0291	0.0110
Mercury	28772-06-06 17:17 G	12229974.10	12229974.22	12229974.35	0.0296	0.0197
Mercury	28772-09-03 15:36 G	12230062.98	12230063.15	12230063.32	0.0297	0.0022
Mercury	28772-12-01 13:26 G	12230151.91	12230152.06	12230152.21	0.0297	0.0149
Mars	28774-08-23 17:31 G	12230782.14	12230782.23	12230782.35	0.0296	0.0274
Moon	28781-01-16 11:02 G	12233119.89	12233119.96	12233120.06	0.0278	0.0261
Earth	28781-01-16 14:38 G	12233120.01	12233120.11	12233120.24	0.0278	0.0245 *
Moon	28782-01-29 06:57 G	12233497.59	12233497.79	12233498.00	0.0274	0.0143
Earth	28782-01-29 09:07 G	12233497.68	12233497.88	12233498.09	0.0274	0.0155 *
Venus	28783-01-30 07:12 G	12233863.61	12233863.80	12233864.00	0.0271	0.0104

Venus	28783-09-16 10:19 G	12234092.74	12234092.93	12234093.14	0.0269	0.0088
Mercury	28786-09-25 21:21 G	12235198.30	12235198.39	12235198.48	0.0264	0.0199
Mercury	28786-12-23 08:09 G	12235286.72	12235286.84	12235286.97	0.0264	0.0105
Mercury	28787-03-21 19:12 G	12235375.16	12235375.30	12235375.44	0.0264	0.0011
Mercury	28787-06-18 06:29 G	12235463.64	12235463.77	12235463.90	0.0264	0.0089
Mercury	28787-09-14 17:45 G	12235552.15	12235552.24	12235552.34	0.0263	0.0188
Earth	28797-07-26 21:07 G	12239155.14	12239155.38	12239155.62	0.0286	0.0045
Moon	28797-07-27 00:29 G	12239155.28	12239155.52	12239155.77	0.0286	0.0051 *
Venus	28798-10-08 20:53 G	12239594.18	12239594.37	12239594.58	0.0290	0.0102
Venus	28799-05-26 19:12 G	12239824.12	12239824.30	12239824.49	0.0292	0.0141
Mercury	28801-10-24 16:05 G	12240706.08	12240706.17	12240706.27	0.0297	0.0250
Mercury	28802-01-21 14:38 G	12240794.94	12240795.11	12240795.28	0.0297	0.0074
Mercury	28802-04-20 12:29 G	12240883.86	12240884.02	12240884.18	0.0297	0.0098
Mercury	28802-07-18 09:50 G	12240972.84	12240972.91	12240972.99	0.0297	0.0266
Earth	28811-01-24 00:14 G	12244084.26	12244084.51	12244084.75	0.0275	0.0022
Moon	28811-01-24 02:24 G	12244084.35	12244084.60	12244084.85	0.0275	0.0037 *
Venus	28812-08-11 08:53 G	12244649.67	12244649.87	12244650.07	0.0270	0.0083
Venus	28813-03-28 11:45 G	12244878.81	12244878.99	12244879.19	0.0269	0.0108
Mercury	28816-02-12 23:02 G	12245930.40	12245930.46	12245930.53	0.0264	0.0233
Mercury	28816-05-11 09:50 G	12246018.80	12246018.91	12246019.03	0.0264	0.0139
Mercury	28816-08-07 20:53 G	12246107.23	12246107.37	12246107.51	0.0264	0.0043
Mercury	28816-11-04 07:55 G	12246195.69	12246195.83	12246195.97	0.0263	0.0054
Mercury	28817-01-31 19:12 G	12246284.19	12246284.30	12246284.42	0.0263	0.0152
Mercury	28817-04-30 06:29 G	12246372.74	12246372.77	12246372.82	0.0263	0.0252
Mars	28818-09-13 19:26 G	12246874.02	12246874.31	12246874.61	0.0264	0.0079
Moon	28826-07-20 17:02 G	12249741.01	12249741.21	12249741.40	0.0284	0.0160
Earth	28826-07-20 19:26 G	12249741.12	12249741.31	12249741.52	0.0284	0.0165 *
Earth	28827-08-03 10:19 G	12250119.90	12250119.93	12250120.00	0.0287	0.0281
Moon	28827-08-03 11:17 G	12250119.92	12250119.97	12250120.03	0.0287	0.0279 *
Venus	28828-04-19 20:24 G	12250380.15	12250380.35	12250380.56	0.0290	0.0083

Venus	28828-12-05 18:29 G	12250610.10	12250610.27	12250610.45	0.0292	0.0160
Mercury	28831-06-10 10:19 G	12251526.78	12251526.93	12251527.08	0.0296	0.0148
Mercury	28831-09-07 08:24 G	12251615.68	12251615.85	12251616.02	0.0297	0.0026
Mercury	28831-12-05 06:00 G	12251704.63	12251704.75	12251704.88	0.0297	0.0196
Moon	28840-01-18 11:45 G	12254670.84	12254670.99	12254671.13	0.0278	0.0219
Earth	28840-01-18 13:26 G	12254670.89	12254671.06	12254671.23	0.0278	0.0203 *
Earth	28841-01-30 07:26 G	12255048.65	12255048.81	12255048.99	0.0274	0.0196
Moon	28841-01-30 09:50 G	12255048.74	12255048.91	12255049.09	0.0274	0.0186 *
Venus	28841-07-07 07:12 G	12255206.74	12255206.80	12255206.88	0.0273	0.0256
Venus	28842-02-21 11:45 G	12255435.79	12255435.99	12255436.20	0.0271	0.0061
Venus	28842-10-08 15:07 G	12255664.94	12255665.13	12255665.31	0.0269	0.0130
Mercury	28845-07-02 01:41 G	12256662.55	12256662.57	12256662.59	0.0264	0.0260
Mercury	28845-09-28 12:29 G	12256750.91	12256751.02	12256751.13	0.0264	0.0166
Mercury	28845-12-25 23:31 G	12256839.34	12256839.48	12256839.61	0.0264	0.0070
Mercury	28846-03-24 10:33 G	12256927.80	12256927.94	12256928.08	0.0264	0.0027
Mercury	28846-06-20 21:50 G	12257016.28	12257016.41	12257016.53	0.0264	0.0125
Mercury	28846-09-17 09:07 G	12257104.81	12257104.88	12257104.96	0.0264	0.0224
Moon	28856-07-27 18:29 G	12260706.03	12260706.27	12260706.51	0.0286	0.0086
Earth	28856-07-27 19:41 G	12260706.09	12260706.32	12260706.56	0.0286	0.0088 *
Venus	28857-03-15 06:43 G	12260936.77	12260936.78	12260936.80	0.0288	0.0287
Venus	28857-10-31 03:36 G	12261166.44	12261166.65	12261166.86	0.0290	0.0052
Venus	28858-06-18 01:41 G	12261396.42	12261396.57	12261396.74	0.0292	0.0191
Mercury	28860-10-27 09:21 G	12262258.77	12262258.89	12262259.03	0.0297	0.0199
Mercury	28861-01-24 07:55 G	12262347.66	12262347.83	12262348.00	0.0297	0.0023
Mercury	28861-04-23 05:45 G	12262436.59	12262436.74	12262436.88	0.0297	0.0149
Moon	28870-01-24 21:50 G	12265635.16	12265635.41	12265635.66	0.0275	0.0009
Earth	28870-01-25 00:43 G	12265635.28	12265635.53	12265635.77	0.0275	0.0022 *
Venus	28871-01-17 10:19 G	12265992.83	12265992.93	12265993.04	0.0272	0.0231
Venus	28871-09-03 14:38 G	12266221.90	12266222.11	12266222.32	0.0270	0.0038
Venus	28872-04-19 17:31 G	12266451.06	12266451.23	12266451.40	0.0269	0.0152

Mercury	28875-02-15 14:24 G	12267483.01	12267483.10	12267483.20	0.0264	0.0197
Mercury	28875-05-15 01:12 G	12267571.43	12267571.55	12267571.68	0.0264	0.0103
Mercury	28875-08-11 12:14 G	12267659.87	12267660.01	12267660.16	0.0264	0.0011
Mercury	28875-11-07 23:31 G	12267748.35	12267748.48	12267748.61	0.0263	0.0091
Mercury	28876-02-04 10:48 G	12267836.86	12267836.95	12267837.05	0.0263	0.0190
Earth	28885-07-21 19:41 G	12271292.10	12271292.32	12271292.54	0.0284	0.0120
Moon	28885-07-21 21:36 G	12271292.19	12271292.40	12271292.62	0.0284	0.0120 *
Venus	28886-09-25 06:57 G	12271722.72	12271722.79	12271722.87	0.0288	0.0267
Venus	28887-05-13 03:50 G	12271952.45	12271952.66	12271952.87	0.0290	0.0031
Venus	28887-12-29 02:09 G	12272182.45	12272182.59	12272182.73	0.0292	0.0212
Mercury	28890-03-16 05:17 G	12272990.66	12272990.72	12272990.80	0.0296	0.0271
Mercury	28890-06-13 04:05 G	12273079.51	12273079.67	12273079.83	0.0296	0.0094
Mercury	28890-09-10 01:55 G	12273168.42	12273168.58	12273168.75	0.0297	0.0080
Mercury	28890-12-07 23:31 G	12273257.39	12273257.48	12273257.57	0.0297	0.0248
Earth	28899-01-19 13:41 G	12276221.87	12276222.07	12276222.27	0.0278	0.0159
Moon	28899-01-19 16:33 G	12276222.01	12276222.19	12276222.38	0.0278	0.0173 *
Earth	28900-02-01 07:55 G	12276599.71	12276599.83	12276599.95	0.0274	0.0239
Moon	28900-02-01 11:02 G	12276599.84	12276599.96	12276600.11	0.0274	0.0232 *
Venus	28900-07-30 12:57 G	12276778.91	12276779.04	12276779.18	0.0273	0.0211
Venus	28901-03-16 17:31 G	12277008.01	12277008.23	12277008.44	0.0271	0.0017
Venus	28901-10-31 20:24 G	12277237.20	12277237.35	12277237.52	0.0269	0.0174
Mercury	28904-07-05 17:02 G	12278215.14	12278215.21	12278215.28	0.0264	0.0224
Mercury	28904-10-02 03:50 G	12278303.54	12278303.66	12278303.78	0.0264	0.0130
Mercury	28904-12-29 14:53 G	12278391.98	12278392.12	12278392.26	0.0264	0.0033
Mercury	28905-03-28 01:55 G	12278480.45	12278480.58	12278480.72	0.0264	0.0065
Mercury	28905-06-24 13:26 G	12278568.95	12278569.06	12278569.17	0.0264	0.0163
Mercury	28905-09-21 00:43 G	12278657.53	12278657.53	12278657.54	0.0264	0.0263
Mars	28907-02-08 11:45 G	12279162.69	12279162.99	12279163.29	0.0264	0.0030
Moon	28915-07-30 18:14 G	12282257.05	12282257.26	12282257.48	0.0286	0.0129
Earth	28915-07-30 22:05 G	12282257.20	12282257.42	12282257.63	0.0286	0.0135 *

Venus	28916-04-07 15:07 G	12282509.02	12282509.13	12282509.26	0.0288	0.0236
Venus	28916-11-23 12:14 G	12282738.80	12282739.01	12282739.22	0.0290	0.0002
Venus	28917-07-11 10:48 G	12282968.83	12282968.95	12282969.06	0.0292	0.0246
Mercury	28919-11-01 03:50 G	12283811.51	12283811.66	12283811.82	0.0297	0.0140
Mercury	28920-01-29 01:55 G	12283900.41	12283900.58	12283900.76	0.0297	0.0036
Mercury	28920-04-26 23:31 G	12283989.37	12283989.48	12283989.61	0.0297	0.0206
Moon	28929-01-26 23:45 G	12287186.25	12287186.49	12287186.73	0.0275	0.0059
Earth	28929-01-27 02:38 G	12287186.38	12287186.61	12287186.85	0.0275	0.0068 *
Venus	28930-02-09 17:02 G	12287565.06	12287565.21	12287565.37	0.0272	0.0185
Venus	28930-09-26 21:07 G	12287794.17	12287794.38	12287794.60	0.0270	0.0010
Venus	28931-05-14 00:00 G	12288023.36	12288023.50	12288023.65	0.0268	0.0198
Mercury	28933-11-22 19:26 G	12288947.28	12288947.31	12288947.35	0.0264	0.0252
Mercury	28934-02-19 06:14 G	12289035.65	12289035.76	12289035.87	0.0264	0.0158
Mercury	28934-05-18 17:17 G	12289124.08	12289124.22	12289124.35	0.0264	0.0063
Mercury	28934-08-15 04:19 G	12289212.54	12289212.68	12289212.82	0.0264	0.0035
Mercury	28934-11-11 15:21 G	12289301.02	12289301.14	12289301.27	0.0263	0.0133
Mercury	28935-02-08 02:53 G	12289389.56	12289389.62	12289389.69	0.0263	0.0232
Earth	28944-07-23 23:17 G	12292843.24	12292843.47	12292843.71	0.0284	0.0070
Moon	28944-07-24 02:53 G	12292843.38	12292843.62	12292843.86	0.0284	0.0072 *
Venus	28945-10-18 16:05 G	12293295.04	12293295.17	12293295.32	0.0288	0.0214
Venus	28946-06-05 13:26 G	12293524.85	12293525.06	12293525.27	0.0290	0.0024
Venus	28947-01-21 11:45 G	12293754.91	12293754.99	12293755.08	0.0292	0.0268
Mercury	28949-03-20 00:14 G	12294543.39	12294543.51	12294543.64	0.0296	0.0208
Mercury	28949-06-16 22:33 G	12294632.27	12294632.44	12294632.62	0.0296	0.0033
Mercury	28949-09-13 20:24 G	12294721.20	12294721.35	12294721.50	0.0297	0.0139
Earth	28958-01-21 16:05 G	12297772.95	12297773.17	12297773.40	0.0278	0.0112
Moon	28958-01-21 18:57 G	12297773.07	12297773.29	12297773.52	0.0278	0.0122 *
Venus	28959-08-22 19:55 G	12298351.17	12298351.33	12298351.51	0.0272	0.0164
Venus	28960-04-08 00:14 G	12298580.30	12298580.51	12298580.73	0.0271	0.0031
Venus	28960-11-23 03:21 G	12298809.53	12298809.64	12298809.77	0.0269	0.0220

Mercury	28963-07-09 08:53 G	12299767.78	12299767.87	12299767.97	0.0265	0.0185
Mercury	28963-10-05 19:55 G	12299856.20	12299856.33	12299856.46	0.0264	0.0090
Mercury	28964-01-02 06:57 G	12299944.65	12299944.79	12299944.93	0.0264	0.0009
Mercury	28964-03-30 18:00 G	12300033.13	12300033.25	12300033.38	0.0264	0.0106
Mercury	28964-06-27 05:31 G	12300121.64	12300121.73	12300121.82	0.0264	0.0205
Moon	28973-07-18 12:29 G	12303429.91	12303430.02	12303430.14	0.0282	0.0245
Earth	28973-07-18 15:50 G	12303430.06	12303430.16	12303430.29	0.0282	0.0248 *
Moon	28974-08-01 02:53 G	12303808.44	12303808.62	12303808.81	0.0286	0.0181
Earth	28974-08-01 03:07 G	12303808.46	12303808.63	12303808.83	0.0286	0.0188 *
Venus	28975-05-01 01:55 G	12304081.42	12304081.58	12304081.75	0.0289	0.0179
Venus	28975-12-16 23:02 G	12304311.25	12304311.46	12304311.67	0.0291	0.0060
Mercury	28978-08-07 00:43 G	12305275.44	12305275.53	12305275.62	0.0297	0.0250
Mercury	28978-11-03 23:02 G	12305364.30	12305364.46	12305364.63	0.0297	0.0074
Mercury	28979-01-31 21:07 G	12305453.22	12305453.38	12305453.54	0.0297	0.0100
Mercury	28979-04-30 18:29 G	12305542.21	12305542.27	12305542.35	0.0297	0.0269
Earth	28988-01-29 07:41 G	12308737.60	12308737.82	12308738.04	0.0275	0.0118
Moon	28988-01-29 08:53 G	12308737.66	12308737.87	12308738.10	0.0275	0.0114 *
Venus	28989-03-04 01:26 G	12309137.38	12309137.56	12309137.75	0.0272	0.0136
Venus	28989-10-19 05:31 G	12309366.52	12309366.73	12309366.94	0.0270	0.0058
Venus	28990-06-05 08:09 G	12309595.76	12309595.84	12309595.93	0.0268	0.0246
Mercury	28992-11-25 11:31 G	12310499.91	12310499.98	12310500.07	0.0264	0.0211
Mercury	28993-02-21 22:33 G	12310588.31	12310588.44	12310588.56	0.0264	0.0116
Mercury	28993-05-21 09:36 G	12310676.76	12310676.90	12310677.03	0.0264	0.0021
Mercury	28993-08-17 20:38 G	12310765.23	12310765.36	12310765.49	0.0264	0.0078
Mercury	28993-11-14 07:55 G	12310853.73	12310853.83	12310853.93	0.0264	0.0177
Mars	28995-07-05 04:05 G	12311451.37	12311451.67	12311451.97	0.0264	0.0028

30TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 30th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	29003-07-27 07:41	G	12314394.58	12314394.82	12314395.07	0.0284	0.0015	
Moon	29003-07-27 08:09	G	12314394.58	12314394.84	12314395.09	0.0284	0.0018	*
Venus	29004-11-11 04:33	G	12314867.52	12314867.69	12314867.87	0.0289	0.0154	
Venus	29005-06-29 01:55	G	12315097.38	12315097.58	12315097.78	0.0291	0.0086	
Mercury	29008-03-23 20:24	G	12316096.20	12316096.35	12316096.50	0.0296	0.0136	
Mercury	29008-06-20 18:29	G	12316185.10	12316185.27	12316185.44	0.0296	0.0039	
Mercury	29008-09-17 16:05	G	12316274.06	12316274.17	12316274.30	0.0297	0.0209	
Moon	29017-01-23 19:55	G	12319324.09	12319324.33	12319324.58	0.0277	0.0068	
Earth	29017-01-23 21:36	G	12319324.16	12319324.40	12319324.64	0.0277	0.0061	*
Venus	29018-09-15 04:19	G	12319923.50	12319923.68	12319923.88	0.0272	0.0114	
Venus	29019-05-02 08:38	G	12320152.66	12320152.86	12320153.06	0.0270	0.0080	
Venus	29019-12-17 11:31	G	12320381.98	12320381.98	12320382.00	0.0269	0.0268	
Mercury	29022-04-15 14:24	G	12321232.04	12321232.10	12321232.16	0.0265	0.0238	
Mercury	29022-07-13 01:12	G	12321320.43	12321320.55	12321320.67	0.0265	0.0143	
Mercury	29022-10-09 12:14	G	12321408.87	12321409.01	12321409.14	0.0264	0.0047	
Mercury	29023-01-05 23:17	G	12321497.33	12321497.47	12321497.61	0.0264	0.0052	
Mercury	29023-04-04 10:33	G	12321585.82	12321585.94	12321586.05	0.0264	0.0151	
Mercury	29023-07-01 21:50	G	12321674.38	12321674.41	12321674.46	0.0264	0.0251	
Moon	29032-07-21 00:29	G	12324981.36	12324981.52	12324981.70	0.0282	0.0192	
Earth	29032-07-21 00:57	G	12324981.37	12324981.54	12324981.73	0.0282	0.0192	*
Earth	29033-08-03 12:43	G	12325359.92	12325360.03	12325360.16	0.0286	0.0246	
Moon	29033-08-03 15:50	G	12325360.04	12325360.16	12325360.30	0.0286	0.0237	*

Venus	29034-05-24 15:07 G	12325653.93	12325654.13	12325654.32	0.0289	0.0117
Venus	29035-01-09 12:29 G	12325883.83	12325884.02	12325884.21	0.0291	0.0123
Mercury	29037-08-10 21:07 G	12326828.25	12326828.38	12326828.53	0.0297	0.0175
Mercury	29037-11-07 19:41 G	12326917.14	12326917.32	12326917.49	0.0297	0.0008
Mercury	29038-02-04 17:17 G	12327006.09	12327006.22	12327006.36	0.0297	0.0173
Earth	29046-01-18 17:17 G	12329911.10	12329911.22	12329911.37	0.0279	0.0234
Moon	29046-01-18 18:14 G	12329911.17	12329911.26	12329911.38	0.0279	0.0247 *
Earth	29047-01-31 14:53 G	12330288.93	12330289.12	12330289.32	0.0275	0.0171
Moon	29047-01-31 18:29 G	12330289.08	12330289.27	12330289.47	0.0275	0.0169 *
Venus	29048-03-27 11:17 G	12330709.77	12330709.97	12330710.17	0.0271	0.0083
Venus	29048-11-11 15:07 G	12330938.94	12330939.13	12330939.33	0.0270	0.0110
Mercury	29051-09-02 17:31 G	12331964.21	12331964.23	12331964.25	0.0264	0.0260
Mercury	29051-11-30 04:05 G	12332052.57	12332052.67	12332052.78	0.0264	0.0166
Mercury	29052-02-26 15:07 G	12332141.00	12332141.13	12332141.27	0.0264	0.0069
Mercury	29052-05-25 02:09 G	12332229.45	12332229.59	12332229.73	0.0264	0.0028
Mercury	29052-08-21 13:26 G	12332317.94	12332318.06	12332318.18	0.0264	0.0127
Mercury	29052-11-18 00:43 G	12332406.46	12332406.53	12332406.61	0.0264	0.0226
Moon	29062-07-28 16:19 G	12335945.93	12335946.18	12335946.42	0.0284	0.0041
Earth	29062-07-28 19:41 G	12335946.08	12335946.32	12335946.56	0.0284	0.0048 *
Venus	29063-12-04 19:12 G	12336440.10	12336440.30	12336440.51	0.0289	0.0090
Venus	29064-07-21 16:48 G	12336670.02	12336670.20	12336670.38	0.0291	0.0151
Mercury	29066-12-28 19:12 G	12337560.19	12337560.30	12337560.40	0.0296	0.0232
Mercury	29067-03-27 17:31 G	12337649.06	12337649.23	12337649.40	0.0296	0.0056
Mercury	29067-06-24 15:21 G	12337737.99	12337738.14	12337738.30	0.0296	0.0117
Mercury	29067-09-21 12:43 G	12337827.00	12337827.03	12337827.08	0.0297	0.0286
Moon	29076-01-26 02:24 G	12340875.36	12340875.60	12340875.85	0.0277	0.0013
Earth	29076-01-26 06:00 G	12340875.51	12340875.75	12340876.00	0.0277	0.0006 *
Venus	29077-02-20 09:21 G	12341266.83	12341266.89	12341266.96	0.0274	0.0258
Venus	29077-10-07 14:38 G	12341495.91	12341496.11	12341496.32	0.0272	0.0061
Venus	29078-05-24 18:29 G	12341725.09	12341725.27	12341725.46	0.0270	0.0132

Mercury	29081-04-18 06:57 G	12342784.70	12342784.79	12342784.88	0.0265	0.0193
Mercury	29081-07-15 17:45 G	12342873.11	12342873.24	12342873.37	0.0265	0.0097
Mercury	29081-10-12 04:48 G	12342961.56	12342961.70	12342961.84	0.0265	0.0005
Mercury	29082-01-08 16:05 G	12343050.04	12343050.17	12343050.30	0.0264	0.0100
Mercury	29082-04-07 03:21 G	12343138.55	12343138.64	12343138.73	0.0264	0.0199
Mars	29083-11-30 12:29 G	12343740.75	12343741.02	12343741.30	0.0264	0.0107
Earth	29091-07-23 13:41 G	12346532.86	12346533.07	12346533.29	0.0283	0.0131
Moon	29091-07-23 17:02 G	12346533.01	12346533.21	12346533.43	0.0283	0.0134 *
Venus	29092-10-29 10:33 G	12346996.91	12346996.94	12346996.96	0.0287	0.0285
Venus	29093-06-16 06:43 G	12347226.57	12347226.78	12347226.99	0.0289	0.0050
Venus	29094-02-01 04:33 G	12347456.53	12347456.69	12347456.85	0.0291	0.0192
Mercury	29096-05-16 20:24 G	12348292.28	12348292.35	12348292.43	0.0296	0.0266
Mercury	29096-08-13 18:57 G	12348381.13	12348381.29	12348381.46	0.0297	0.0089
Mercury	29096-11-10 17:02 G	12348470.05	12348470.21	12348470.38	0.0297	0.0085
Mercury	29097-02-07 14:38 G	12348559.03	12348559.11	12348559.20	0.0297	0.0255
Mars	29098-02-12 04:48 G	12348928.50	12348928.70	12348928.92	0.0297	0.0198
Earth	29105-01-21 03:50 G	12351462.48	12351462.66	12351462.86	0.0278	0.0176
Moon	29105-01-21 07:41 G	12351462.65	12351462.82	12351463.01	0.0278	0.0189 *
Earth	29106-02-03 00:43 G	12351840.40	12351840.53	12351840.68	0.0275	0.0227
Moon	29106-02-03 01:55 G	12351840.44	12351840.58	12351840.72	0.0275	0.0225 *
Venus	29106-09-03 17:17 G	12352053.11	12352053.22	12352053.34	0.0273	0.0225
Venus	29107-04-20 22:19 G	12352282.22	12352282.43	12352282.64	0.0271	0.0029
Venus	29107-12-06 01:55 G	12352511.42	12352511.58	12352511.76	0.0269	0.0163
Mercury	29110-09-06 10:19 G	12353516.85	12353516.93	12353517.01	0.0264	0.0213
Mercury	29110-12-03 21:07 G	12353605.26	12353605.38	12353605.51	0.0264	0.0117
Mercury	29111-03-02 08:09 G	12353693.70	12353693.84	12353693.98	0.0264	0.0020
Mercury	29111-05-29 19:12 G	12353782.17	12353782.30	12353782.44	0.0264	0.0079
Mercury	29111-08-26 06:29 G	12353870.67	12353870.77	12353870.88	0.0264	0.0178
Moon	29121-07-31 07:55 G	12357497.62	12357497.83	12357498.06	0.0285	0.0106
Earth	29121-07-31 10:33 G	12357497.73	12357497.94	12357498.18	0.0285	0.0114 *

Venus	29122-05-12 16:05 G	12357783.08	12357783.17	12357783.27	0.0287	0.0256
Venus	29122-12-28 12:14 G	12358012.80	12358013.01	12358013.22	0.0289	0.0021
Venus	29123-08-15 10:05 G	12358242.78	12358242.92	12358243.05	0.0291	0.0222
Mercury	29126-01-01 17:17 G	12359113.07	12359113.22	12359113.38	0.0296	0.0144
Mercury	29126-03-31 15:36 G	12359201.98	12359202.15	12359202.32	0.0296	0.0031
Mercury	29126-06-28 13:12 G	12359290.93	12359291.05	12359291.18	0.0296	0.0202
Moon	29135-01-28 15:36 G	12362426.92	12362427.15	12362427.39	0.0277	0.0046
Earth	29135-01-28 16:33 G	12362426.95	12362427.19	12362427.44	0.0277	0.0052 *
Venus	29136-03-15 20:53 G	12362839.23	12362839.37	12362839.51	0.0273	0.0202
Venus	29136-10-31 01:55 G	12363068.37	12363068.58	12363068.79	0.0271	0.0006
Venus	29137-06-17 05:31 G	12363297.58	12363297.73	12363297.89	0.0270	0.0186
Mercury	29140-01-24 12:57 G	12364248.99	12364249.04	12364249.10	0.0265	0.0240
Mercury	29140-04-21 23:45 G	12364337.38	12364337.49	12364337.61	0.0265	0.0145
Mercury	29140-07-19 10:48 G	12364425.81	12364425.95	12364426.09	0.0265	0.0048
Mercury	29140-10-15 21:50 G	12364514.28	12364514.41	12364514.55	0.0265	0.0051
Mercury	29141-01-12 09:07 G	12364602.77	12364602.88	12364603.00	0.0264	0.0150
Mercury	29141-04-10 20:24 G	12364691.32	12364691.35	12364691.40	0.0264	0.0252
Earth	29150-07-26 04:05 G	12368084.44	12368084.67	12368084.92	0.0283	0.0068
Moon	29150-07-26 06:43 G	12368084.54	12368084.78	12368085.03	0.0283	0.0073 *
Venus	29151-11-23 02:38 G	12368569.49	12368569.61	12368569.76	0.0288	0.0218
Venus	29152-07-09 23:31 G	12368799.27	12368799.48	12368799.69	0.0290	0.0020
Venus	29153-02-24 21:21 G	12369029.31	12369029.39	12369029.49	0.0292	0.0263
Mercury	29155-05-21 18:57 G	12369845.15	12369845.29	12369845.43	0.0296	0.0176
Mercury	29155-08-18 17:17 G	12369934.05	12369934.22	12369934.39	0.0297	0.0002
Mercury	29155-11-15 15:07 G	12370022.99	12370023.13	12370023.27	0.0297	0.0172
Earth	29164-01-23 16:19 G	12373013.96	12373014.18	12373014.41	0.0278	0.0117
Moon	29164-01-23 17:31 G	12373014.01	12373014.23	12373014.46	0.0278	0.0125 *
Venus	29165-09-26 05:17 G	12373625.57	12373625.72	12373625.90	0.0273	0.0169
Venus	29166-05-13 10:19 G	12373854.72	12373854.93	12373855.14	0.0271	0.0028
Venus	29166-12-28 13:41 G	12374083.95	12374084.07	12374084.20	0.0269	0.0218

Mercury	29169-06-12 16:19 G	12374981.17	12374981.18	12374981.22	0.0265	0.0259
Mercury	29169-09-09 03:21 G	12375069.53	12375069.64	12375069.75	0.0264	0.0163
Mercury	29169-12-06 14:09 G	12375157.96	12375158.09	12375158.23	0.0264	0.0067
Mercury	29170-03-05 01:26 G	12375246.42	12375246.56	12375246.70	0.0264	0.0032
Mercury	29170-06-01 12:29 G	12375334.90	12375335.02	12375335.15	0.0264	0.0130
Mercury	29170-08-28 23:45 G	12375423.43	12375423.49	12375423.57	0.0264	0.0231
Mars	29172-04-27 04:19 G	12376030.49	12376030.68	12376030.89	0.0264	0.0197
Moon	29179-07-20 16:48 G	12378671.10	12378671.20	12378671.30	0.0282	0.0255
Earth	29179-07-20 18:43 G	12378671.18	12378671.28	12378671.39	0.0282	0.0251 *
Earth	29180-08-02 03:36 G	12379049.47	12379049.65	12379049.85	0.0285	0.0182
Moon	29180-08-02 05:17 G	12379049.54	12379049.72	12379049.92	0.0285	0.0172 *
Venus	29181-06-04 09:50 G	12379355.76	12379355.91	12379356.08	0.0288	0.0186
Venus	29182-01-20 06:29 G	12379585.57	12379585.77	12379585.98	0.0290	0.0052
Mercury	29184-10-07 18:00 G	12380577.14	12380577.25	12380577.36	0.0296	0.0226
Mercury	29185-01-04 16:19 G	12380666.01	12380666.18	12380666.35	0.0296	0.0050
Mercury	29185-04-03 14:09 G	12380754.94	12380755.09	12380755.25	0.0296	0.0124
Mercury	29185-07-01 11:31 G	12380843.97	12380843.98	12380844.02	0.0297	0.0293
Mars	29186-07-10 16:19 G	12381217.93	12381218.18	12381218.45	0.0296	0.0110
Earth	29194-01-30 05:02 G	12383978.49	12383978.71	12383978.94	0.0276	0.0111
Moon	29194-01-30 07:55 G	12383978.62	12383978.83	12383979.06	0.0276	0.0109 *
Venus	29195-04-08 09:07 G	12384411.71	12384411.88	12384412.07	0.0273	0.0144
Venus	29195-11-23 13:55 G	12384640.87	12384641.08	12384641.29	0.0271	0.0051
Venus	29196-07-09 17:02 G	12384870.13	12384870.21	12384870.31	0.0269	0.0241
Mercury	29199-01-27 05:45 G	12385801.65	12385801.74	12385801.84	0.0265	0.0192
Mercury	29199-04-25 16:48 G	12385890.07	12385890.20	12385890.33	0.0265	0.0095
Mercury	29199-07-23 03:50 G	12385978.52	12385978.66	12385978.80	0.0265	0.0003
Mercury	29199-10-19 15:07 G	12386067.00	12386067.13	12386067.26	0.0265	0.0102
Mercury	29200-01-16 02:24 G	12386155.51	12386155.60	12386155.69	0.0264	0.0202
Moon	29209-07-27 17:45 G	12389635.99	12389636.24	12389636.49	0.0283	0.0013
Earth	29209-07-27 19:55 G	12389636.08	12389636.33	12389636.57	0.0283	0.0003 *

Venus	29210-12-15 20:09 G	12390142.17	12390142.34	12390142.53	0.0288	0.0148
Venus	29211-08-02 17:17 G	12390372.02	12390372.22	12390372.42	0.0290	0.0092
Mercury	29214-02-24 19:12 G	12391309.22	12391309.30	12391309.38	0.0296	0.0260
Mercury	29214-05-24 17:45 G	12391398.08	12391398.24	12391398.41	0.0297	0.0083
Mercury	29214-08-21 15:50 G	12391487.00	12391487.16	12391487.33	0.0297	0.0092
Mercury	29214-11-18 13:12 G	12391575.98	12391576.05	12391576.14	0.0297	0.0262
Moon	29223-01-25 02:09 G	12394565.35	12394565.59	12394565.83	0.0278	0.0062
Earth	29223-01-25 05:31 G	12394565.49	12394565.73	12394565.97	0.0278	0.0057 *
Venus	29224-10-18 18:00 G	12395198.06	12395198.25	12395198.45	0.0272	0.0110
Venus	29225-06-04 22:19 G	12395427.23	12395427.43	12395427.63	0.0270	0.0084
Mercury	29228-06-15 09:36 G	12396533.82	12396533.90	12396533.98	0.0265	0.0209
Mercury	29228-09-11 20:24 G	12396622.23	12396622.35	12396622.48	0.0264	0.0113
Mercury	29228-12-09 07:26 G	12396710.67	12396710.81	12396710.95	0.0264	0.0016
Mercury	29229-03-07 18:29 G	12396799.14	12396799.27	12396799.41	0.0264	0.0083
Mercury	29229-06-04 05:45 G	12396887.65	12396887.74	12396887.85	0.0264	0.0183
Mars	29230-08-03 23:31 G	12397313.39	12397313.48	12397313.60	0.0264	0.0246
Earth	29238-07-22 10:33 G	12400222.76	12400222.94	12400223.12	0.0282	0.0187
Moon	29238-07-22 12:29 G	12400222.85	12400223.02	12400223.20	0.0282	0.0193 *
Earth	29239-08-04 20:24 G	12400601.24	12400601.35	12400601.48	0.0286	0.0249
Moon	29239-08-05 00:00 G	12400601.38	12400601.50	12400601.65	0.0286	0.0236 *
Venus	29240-06-27 03:50 G	12400928.47	12400928.66	12400928.86	0.0289	0.0115
Venus	29241-02-12 00:43 G	12401158.34	12401158.53	12401158.73	0.0291	0.0125
Mercury	29243-10-11 16:48 G	12402130.05	12402130.20	12402130.36	0.0296	0.0132
Mercury	29244-01-08 15:07 G	12402218.96	12402219.13	12402219.30	0.0296	0.0043
Mercury	29244-04-06 12:43 G	12402307.92	12402308.03	12402308.15	0.0296	0.0215
Earth	29252-01-19 18:43 G	12405152.16	12405152.28	12405152.41	0.0279	0.0240
Moon	29252-01-19 22:05 G	12405152.31	12405152.42	12405152.53	0.0279	0.0247 *
Earth	29253-01-31 17:31 G	12405530.04	12405530.23	12405530.43	0.0276	0.0169
Moon	29253-01-31 20:24 G	12405530.16	12405530.35	12405530.56	0.0276	0.0169 *
Venus	29254-04-30 21:36 G	12405984.20	12405984.40	12405984.60	0.0272	0.0086

Venus	29254-12-16 01:55 G	12406213.38	12406213.58	12406213.77	0.0270	0.0108
Mercury	29257-11-02 12:00 G	12407265.95	12407266.00	12407266.06	0.0265	0.0239
Mercury	29258-01-29 22:48 G	12407354.34	12407354.45	12407354.57	0.0265	0.0143
Mercury	29258-04-28 09:50 G	12407442.77	12407442.91	12407443.05	0.0265	0.0046
Mercury	29258-07-25 20:53 G	12407531.23	12407531.37	12407531.51	0.0265	0.0053
Mercury	29258-10-22 08:09 G	12407619.73	12407619.84	12407619.95	0.0264	0.0152
Mercury	29259-01-18 19:26 G	12407708.28	12407708.31	12407708.35	0.0264	0.0253
Moon	29268-07-29 06:43 G	12411187.54	12411187.78	12411188.02	0.0284	0.0049
Earth	29268-07-29 10:05 G	12411187.69	12411187.92	12411188.16	0.0284	0.0060 *
Venus	29270-01-07 12:57 G	12411714.84	12411715.04	12411715.25	0.0289	0.0078
Venus	29270-08-25 10:19 G	12411944.76	12411944.93	12411945.11	0.0291	0.0164
Mercury	29273-02-27 18:00 G	12412862.11	12412862.25	12412862.39	0.0296	0.0168
Mercury	29273-05-27 16:19 G	12412951.01	12412951.18	12412951.35	0.0297	0.0009
Mercury	29273-08-24 14:09 G	12413039.96	12413040.09	12413040.23	0.0297	0.0181
Mars	29274-12-05 22:19 G	12413508.15	12413508.43	12413508.72	0.0297	0.0022
Moon	29282-01-26 16:05 G	12416116.93	12416117.17	12416117.41	0.0277	0.0005
Earth	29282-01-26 18:57 G	12416117.04	12416117.29	12416117.53	0.0277	0.0006 *
Venus	29283-03-27 00:57 G	12416541.47	12416541.54	12416541.64	0.0273	0.0249
Venus	29283-11-11 06:29 G	12416770.56	12416770.77	12416770.98	0.0272	0.0052
Venus	29284-06-27 10:19 G	12416999.75	12416999.93	12417000.11	0.0270	0.0141
Mercury	29287-03-22 15:36 G	12417998.13	12417998.15	12417998.19	0.0265	0.0256
Mercury	29287-06-19 02:24 G	12418086.50	12418086.60	12418086.71	0.0264	0.0161
Mercury	29287-09-15 13:26 G	12418174.92	12418175.06	12418175.19	0.0264	0.0064
Mercury	29287-12-13 00:29 G	12418263.38	12418263.52	12418263.66	0.0264	0.0034
Mercury	29288-03-10 11:31 G	12418351.87	12418351.98	12418352.11	0.0264	0.0134
Mercury	29288-06-06 23:02 G	12418440.40	12418440.46	12418440.52	0.0264	0.0234
Earth	29297-07-24 00:29 G	12421774.31	12421774.52	12421774.74	0.0283	0.0126
Moon	29297-07-24 04:05 G	12421774.46	12421774.67	12421774.89	0.0283	0.0131 *
Venus	29298-12-03 00:43 G	12422271.49	12422271.53	12422271.59	0.0287	0.0279
Venus	29299-07-20 20:53 G	12422501.16	12422501.37	12422501.58	0.0289	0.0044

Venus	29300-03-07 18:14 G	12422731.11	12422731.26	12422731.42	0.0291	0.0197
Mercury	29302-07-18 17:02 G	12423594.10	12423594.21	12423594.33	0.0296	0.0217
Mercury	29302-10-15 15:36 G	12423682.98	12423683.15	12423683.32	0.0296	0.0040
Mercury	29303-01-12 13:26 G	12423771.92	12423772.06	12423772.22	0.0296	0.0135
Earth	29311-01-22 07:55 G	12426703.65	12426703.83	12426704.02	0.0279	0.0180
Moon	29311-01-22 10:19 G	12426703.76	12426703.93	12426704.13	0.0279	0.0188 *
Moon	29312-02-04 03:36 G	12427081.52	12427081.65	12427081.79	0.0275	0.0229
Earth	29312-02-04 05:17 G	12427081.59	12427081.72	12427081.87	0.0275	0.0225 *
Venus	29312-10-07 04:19 G	12427327.57	12427327.68	12427327.80	0.0273	0.0225
Venus	29313-05-24 09:21 G	12427556.68	12427556.89	12427557.10	0.0271	0.0029
Venus	29314-01-08 12:57 G	12427785.88	12427786.04	12427786.21	0.0270	0.0164
Mercury	29316-11-06 04:33 G	12428818.60	12428818.69	12428818.79	0.0265	0.0192
Mercury	29317-02-02 15:36 G	12428907.02	12428907.15	12428907.28	0.0265	0.0095
Mercury	29317-05-02 02:38 G	12428995.47	12428995.61	12428995.75	0.0265	0.0007
Mercury	29317-07-29 13:41 G	12429083.94	12429084.07	12429084.20	0.0264	0.0101
Mercury	29317-10-26 00:57 G	12429172.45	12429172.54	12429172.63	0.0264	0.0202
Mars	29318-12-30 00:57 G	12429602.32	12429602.54	12429602.77	0.0264	0.0174
Moon	29327-08-01 21:36 G	12432739.19	12432739.40	12432739.62	0.0284	0.0109
Earth	29327-08-01 22:05 G	12432739.20	12432739.42	12432739.65	0.0284	0.0119 *
Venus	29328-06-15 07:55 G	12433057.72	12433057.83	12433057.94	0.0287	0.0246
Venus	29329-01-31 04:19 G	12433287.46	12433287.68	12433287.89	0.0289	0.0011
Venus	29329-09-18 01:55 G	12433517.46	12433517.58	12433517.72	0.0291	0.0233
Mercury	29331-12-05 17:02 G	12434326.14	12434326.21	12434326.30	0.0296	0.0260
Mercury	29332-03-03 15:50 G	12434415.00	12434415.16	12434415.33	0.0297	0.0081
Mercury	29332-05-31 13:55 G	12434503.92	12434504.08	12434504.25	0.0297	0.0095
Mercury	29332-08-28 11:45 G	12434592.91	12434592.99	12434593.06	0.0297	0.0265
Earth	29341-01-29 06:14 G	12437668.52	12437668.76	12437669.00	0.0277	0.0060
Moon	29341-01-29 07:41 G	12437668.59	12437668.82	12437669.05	0.0277	0.0060 *
Venus	29342-04-19 12:43 G	12438113.89	12438114.03	12438114.19	0.0273	0.0192
Venus	29342-12-04 17:45 G	12438343.03	12438343.24	12438343.45	0.0271	0.0005

Venus	29343-07-21 20:53 G	12438572.24	12438572.37	12438572.52	0.0269	0.0196
Mercury	29346-03-26 08:09 G	12439550.76	12439550.84	12439550.93	0.0264	0.0210
Mercury	29346-06-22 18:57 G	12439639.17	12439639.29	12439639.42	0.0264	0.0114
Mercury	29346-09-19 06:00 G	12439727.61	12439727.75	12439727.89	0.0264	0.0017
Mercury	29346-12-16 17:02 G	12439816.08	12439816.21	12439816.35	0.0264	0.0083
Mercury	29347-03-15 04:19 G	12439904.58	12439904.68	12439904.79	0.0264	0.0182
Earth	29356-07-26 11:17 G	12443325.73	12443325.97	12443326.21	0.0283	0.0069
Moon	29356-07-26 11:45 G	12443325.75	12443325.99	12443326.24	0.0283	0.0076 *
Venus	29357-12-26 15:07 G	12443844.00	12443844.13	12443844.28	0.0288	0.0214
Venus	29358-08-13 11:45 G	12444073.78	12444073.99	12444074.20	0.0290	0.0023
Venus	29359-03-31 09:21 G	12444303.82	12444303.89	12444303.99	0.0292	0.0266
Mercury	29361-07-21 15:07 G	12445146.97	12445147.13	12445147.28	0.0296	0.0131
Mercury	29361-10-18 13:12 G	12445235.89	12445236.05	12445236.23	0.0297	0.0046
Mercury	29362-01-15 11:02 G	12445324.85	12445324.96	12445325.08	0.0297	0.0218
Mars	29363-05-03 08:53 G	12445797.62	12445797.87	12445798.15	0.0297	0.0108
Moon	29370-01-23 18:29 G	12448255.05	12448255.27	12448255.50	0.0278	0.0127
Earth	29370-01-23 19:41 G	12448255.11	12448255.32	12448255.55	0.0278	0.0123 *
Venus	29371-10-30 15:50 G	12448899.99	12448900.16	12448900.32	0.0272	0.0168
Venus	29372-06-15 20:09 G	12449129.13	12449129.34	12449129.56	0.0271	0.0028
Venus	29373-01-30 23:17 G	12449358.36	12449358.47	12449358.60	0.0269	0.0217
Mercury	29375-08-13 10:19 G	12450282.88	12450282.93	12450282.98	0.0265	0.0242
Mercury	29375-11-09 21:07 G	12450371.27	12450371.38	12450371.49	0.0265	0.0146
Mercury	29376-02-06 07:55 G	12450459.70	12450459.83	12450459.97	0.0264	0.0050
Mercury	29376-05-04 18:57 G	12450548.16	12450548.29	12450548.43	0.0264	0.0049
Mercury	29376-08-01 06:14 G	12450636.64	12450636.76	12450636.88	0.0264	0.0148
Mercury	29376-10-28 17:31 G	12450725.19	12450725.23	12450725.28	0.0264	0.0248
Earth	29385-07-20 21:36 G	12453912.32	12453912.40	12453912.51	0.0281	0.0260
Moon	29385-07-20 21:21 G	12453912.33	12453912.39	12453912.48	0.0281	0.0265 *
Earth	29386-08-03 06:29 G	12454290.58	12454290.77	12454290.97	0.0285	0.0173
Moon	29386-08-03 09:36 G	12454290.71	12454290.90	12454291.10	0.0285	0.0161 *

Venus	29387-07-08 20:24 G	12454630.20	12454630.35	12454630.53	0.0288	0.0184
Venus	29388-02-23 17:17 G	12454860.02	12454860.22	12454860.44	0.0290	0.0055
Mercury	29390-12-08 14:24 G	12455878.96	12455879.10	12455879.23	0.0297	0.0179
Mercury	29391-03-07 12:43 G	12455967.86	12455968.03	12455968.21	0.0297	0.0006
Mercury	29391-06-04 10:33 G	12456056.81	12456056.94	12456057.09	0.0297	0.0173
Earth	29400-01-31 15:21 G	12459219.92	12459220.14	12459220.37	0.0276	0.0114
Moon	29400-01-31 18:57 G	12459220.07	12459220.29	12459220.52	0.0276	0.0114 *
Venus	29401-05-12 23:17 G	12459686.29	12459686.47	12459686.65	0.0272	0.0136
Venus	29401-12-28 03:36 G	12459915.44	12459915.65	12459915.86	0.0270	0.0058
Venus	29402-08-14 06:29 G	12460144.69	12460144.77	12460144.85	0.0269	0.0247
Mercury	29404-12-31 13:41 G	12461015.06	12461015.07	12461015.09	0.0264	0.0261
Mercury	29405-03-30 00:29 G	12461103.42	12461103.52	12461103.63	0.0264	0.0166
Mercury	29405-06-26 11:17 G	12461191.84	12461191.97	12461192.11	0.0264	0.0070
Mercury	29405-09-22 22:19 G	12461280.29	12461280.43	12461280.57	0.0264	0.0028
Mercury	29405-12-20 09:36 G	12461368.77	12461368.90	12461369.02	0.0264	0.0127
Mercury	29406-03-18 20:53 G	12461457.30	12461457.37	12461457.44	0.0263	0.0227
Mars	29407-05-27 06:57 G	12461891.52	12461891.79	12461892.07	0.0263	0.0104
Moon	29415-07-29 15:07 G	12464876.88	12464877.13	12464877.38	0.0283	0.0028
Earth	29415-07-29 18:29 G	12464877.03	12464877.27	12464877.52	0.0283	0.0017 *
Venus	29417-01-19 03:36 G	12465416.47	12465416.65	12465416.83	0.0289	0.0153
Venus	29417-09-06 00:14 G	12465646.32	12465646.51	12465646.72	0.0291	0.0087
Mercury	29420-04-27 12:57 G	12466610.94	12466611.04	12466611.16	0.0296	0.0232
Mercury	29420-07-25 11:45 G	12466699.82	12466699.99	12466700.16	0.0297	0.0053
Mercury	29420-10-22 09:50 G	12466788.75	12466788.91	12466789.07	0.0297	0.0122
Mercury	29421-01-19 07:12 G	12466877.79	12466877.80	12466877.83	0.0297	0.0293
Moon	29429-01-26 00:57 G	12469806.31	12469806.54	12469806.78	0.0278	0.0073
Earth	29429-01-26 04:48 G	12469806.46	12469806.70	12469806.94	0.0278	0.0069 *
Venus	29430-11-23 01:26 G	12470472.38	12470472.56	12470472.76	0.0272	0.0114
Venus	29431-07-10 05:31 G	12470701.53	12470701.73	12470701.94	0.0270	0.0080
Venus	29432-02-24 08:24 G	12470930.84	12470930.85	12470930.86	0.0269	0.0268

Mercury	29434-08-17 02:09 G	12471835.51	12471835.59	12471835.69	0.0264	0.0201
Mercury	29434-11-13 13:12 G	12471923.92	12471924.05	12471924.18	0.0264	0.0104
Mercury	29435-02-10 00:00 G	12472012.36	12472012.50	12472012.64	0.0264	0.0009
Mercury	29435-05-09 11:02 G	12472100.83	12472100.96	12472101.10	0.0264	0.0092
Mercury	29435-08-05 22:19 G	12472189.34	12472189.43	12472189.53	0.0264	0.0191
Earth	29444-07-23 00:57 G	12475463.40	12475463.54	12475463.72	0.0281	0.0214
Moon	29444-07-23 05:02 G	12475463.57	12475463.71	12475463.86	0.0281	0.0223 *
Earth	29445-08-05 10:48 G	12475841.80	12475841.95	12475842.10	0.0285	0.0222
Moon	29445-08-05 13:26 G	12475841.89	12475842.06	12475842.23	0.0285	0.0208 *
Venus	29446-08-01 06:43 G	12476202.59	12476202.78	12476202.97	0.0289	0.0126
Venus	29447-03-19 03:50 G	12476432.47	12476432.66	12476432.86	0.0291	0.0114
Mercury	29449-09-14 11:02 G	12477342.93	12477342.96	12477343.00	0.0296	0.0289
Mercury	29449-12-12 09:50 G	12477431.75	12477431.91	12477432.08	0.0297	0.0109
Mercury	29450-03-11 08:24 G	12477520.68	12477520.85	12477521.01	0.0297	0.0068
Mercury	29450-06-08 06:00 G	12477609.66	12477609.75	12477609.85	0.0297	0.0241
Mars	29451-09-28 09:07 G	12478086.66	12478086.88	12478087.11	0.0297	0.0178
Earth	29458-01-20 23:17 G	12480393.35	12480393.47	12480393.58	0.0280	0.0246
Moon	29458-01-21 02:53 G	12480393.53	12480393.62	12480393.73	0.0280	0.0254 *
Earth	29459-02-02 22:19 G	12480771.24	12480771.43	12480771.63	0.0276	0.0164
Moon	29459-02-02 23:17 G	12480771.27	12480771.47	12480771.68	0.0276	0.0166 *
Venus	29460-06-04 08:09 G	12481258.64	12481258.84	12481259.05	0.0272	0.0084
Venus	29461-01-19 12:00 G	12481487.81	12481488.00	12481488.20	0.0270	0.0110
Mercury	29464-01-04 05:31 G	12482567.66	12482567.73	12482567.81	0.0264	0.0221
Mercury	29464-04-01 16:19 G	12482656.06	12482656.18	12482656.30	0.0264	0.0125
Mercury	29464-06-29 03:21 G	12482744.50	12482744.64	12482744.77	0.0264	0.0030
Mercury	29464-09-25 14:09 G	12482832.96	12482833.09	12482833.23	0.0263	0.0070
Mercury	29464-12-23 01:26 G	12482921.45	12482921.56	12482921.67	0.0263	0.0169
Moon	29474-07-30 19:12 G	12486428.07	12486428.30	12486428.54	0.0284	0.0016
Earth	29474-07-30 21:21 G	12486428.15	12486428.39	12486428.64	0.0284	0.0030 *
Venus	29476-02-11 13:12 G	12486988.85	12486989.05	12486989.25	0.0289	0.0096

Venus	29476-09-28 10:19 G	12487218.75	12487218.93	12487219.12	0.0291	0.0145
Mercury	29479-05-01 08:38 G	12488163.72	12488163.86	12488164.01	0.0297	0.0163
Mercury	29479-07-29 07:12 G	12488252.63	12488252.80	12488252.97	0.0297	0.0016
Mercury	29479-10-26 05:02 G	12488341.58	12488341.71	12488341.84	0.0297	0.0190
Moon	29488-01-28 10:05 G	12491357.69	12491357.92	12491358.16	0.0277	0.0019
Earth	29488-01-28 11:02 G	12491357.71	12491357.96	12491358.21	0.0277	0.0018 *
Venus	29489-04-30 04:33 G	12491815.64	12491815.69	12491815.77	0.0273	0.0259
Venus	29489-12-15 09:50 G	12492044.71	12492044.91	12492045.12	0.0271	0.0063
Venus	29490-08-01 13:26 G	12492273.88	12492274.06	12492274.25	0.0269	0.0130
Mercury	29493-05-23 07:26 G	12493299.78	12493299.81	12493299.84	0.0264	0.0256
Mercury	29493-08-19 18:00 G	12493388.14	12493388.25	12493388.36	0.0264	0.0161
Mercury	29493-11-16 04:48 G	12493476.57	12493476.70	12493476.84	0.0264	0.0065
Mercury	29494-02-12 15:50 G	12493565.02	12493565.16	12493565.30	0.0264	0.0033
Mercury	29494-05-12 02:53 G	12493653.50	12493653.62	12493653.74	0.0264	0.0132
Mercury	29494-08-08 14:09 G	12493742.02	12493742.09	12493742.16	0.0263	0.0231
Mars	29495-10-20 09:50 G	12494179.63	12494179.91	12494180.21	0.0263	0.0067
Earth	29503-07-26 01:41 G	12497014.39	12497014.57	12497014.77	0.0282	0.0171
Moon	29503-07-26 03:21 G	12497014.45	12497014.64	12497014.84	0.0282	0.0183 *
Moon	29504-08-07 09:36 G	12497392.78	12497392.90	12497393.02	0.0285	0.0249
Earth	29504-08-07 12:00 G	12497392.91	12497393.00	12497393.09	0.0285	0.0266 *
Venus	29505-08-24 14:53 G	12497774.92	12497775.12	12497775.33	0.0289	0.0072
Venus	29506-04-11 12:14 G	12498004.85	12498005.01	12498005.19	0.0291	0.0170
Mercury	29508-09-18 05:45 G	12498895.63	12498895.74	12498895.85	0.0297	0.0227
Mercury	29508-12-16 04:33 G	12498984.52	12498984.69	12498984.86	0.0297	0.0047
Mercury	29509-03-15 02:38 G	12499073.46	12499073.61	12499073.77	0.0297	0.0129
Earth	29517-01-23 03:21 G	12501944.47	12501944.64	12501944.82	0.0280	0.0198
Moon	29517-01-23 03:50 G	12501944.49	12501944.66	12501944.84	0.0280	0.0200 *
Moon	29518-02-04 22:48 G	12502322.30	12502322.45	12502322.61	0.0276	0.0217
Earth	29518-02-05 01:55 G	12502322.43	12502322.58	12502322.75	0.0276	0.0211 *
Venus	29518-11-11 10:33 G	12502601.83	12502601.94	12502602.05	0.0273	0.0231

Venus	29519-06-28 15:36 G	12502830.94	12502831.15	12502831.36	0.0271	0.0035
Venus	29520-02-12 18:57 G	12503060.12	12503060.29	12503060.46	0.0270	0.0158
Mercury	29523-01-07 20:53 G	12504120.28	12504120.37	12504120.48	0.0264	0.0184
Mercury	29523-04-06 07:55 G	12504208.70	12504208.83	12504208.96	0.0264	0.0088
Mercury	29523-07-03 18:43 G	12504297.14	12504297.28	12504297.42	0.0263	0.0010
Mercury	29523-09-30 05:45 G	12504385.61	12504385.74	12504385.87	0.0263	0.0108
Mercury	29523-12-27 17:02 G	12504474.13	12504474.21	12504474.30	0.0263	0.0208
Earth	29533-08-01 20:53 G	12507979.13	12507979.37	12507979.61	0.0284	0.0072
Moon	29533-08-01 23:31 G	12507979.25	12507979.48	12507979.72	0.0284	0.0057 *
Venus	29534-07-20 00:14 G	12508331.47	12508331.51	12508331.57	0.0287	0.0279
Venus	29535-03-06 20:24 G	12508561.14	12508561.35	12508561.56	0.0290	0.0044
Venus	29535-10-22 18:00 G	12508791.10	12508791.25	12508791.41	0.0292	0.0199
Mercury	29538-02-05 04:05 G	12509627.62	12509627.67	12509627.72	0.0297	0.0284
Mercury	29538-05-05 02:53 G	12509716.46	12509716.62	12509716.78	0.0297	0.0103
Mercury	29538-08-02 01:12 G	12509805.39	12509805.55	12509805.72	0.0297	0.0074
Mercury	29538-10-29 23:02 G	12509894.37	12509894.46	12509894.56	0.0297	0.0248
Mars	29540-02-22 17:17 G	12510375.05	12510375.22	12510375.42	0.0297	0.0221
Earth	29547-01-30 14:38 G	12512908.86	12512909.11	12512909.35	0.0277	0.0028
Moon	29547-01-30 18:00 G	12512909.02	12512909.25	12512909.50	0.0277	0.0034 *
Venus	29548-05-23 12:00 G	12513387.88	12513388.00	12513388.14	0.0273	0.0210
Venus	29549-01-07 16:48 G	12513616.99	12513617.20	12513617.42	0.0271	0.0015
Venus	29549-08-24 19:55 G	12513846.18	12513846.33	12513846.50	0.0269	0.0178
Mercury	29552-05-26 22:33 G	12514852.37	12514852.44	12514852.52	0.0264	0.0219
Mercury	29552-08-23 09:21 G	12514940.77	12514940.89	12514941.02	0.0264	0.0124
Mercury	29552-11-19 20:09 G	12515029.21	12515029.34	12515029.48	0.0264	0.0028
Mercury	29553-02-16 07:12 G	12515117.67	12515117.80	12515117.94	0.0263	0.0071
Mercury	29553-05-15 18:14 G	12515206.16	12515206.26	12515206.37	0.0263	0.0170
Moon	29562-07-26 19:55 G	12518565.12	12518565.33	12518565.55	0.0282	0.0147
Earth	29562-07-26 23:02 G	12518565.25	12518565.46	12518565.69	0.0282	0.0132 *
Venus	29564-01-30 00:43 G	12519117.44	12519117.53	12519117.62	0.0287	0.0258

Venus	29564-09-15 20:53 G	12519347.16	12519347.37	12519347.58	0.0289	0.0022
Venus	29565-05-03 18:43 G	12519577.15	12519577.28	12519577.42	0.0291	0.0221
Mercury	29567-09-21 23:17 G	12520448.33	12520448.47	12520448.61	0.0297	0.0173
Mercury	29567-12-19 21:50 G	12520537.24	12520537.41	12520537.59	0.0297	0.0009
Mercury	29568-03-17 19:55 G	12520626.20	12520626.33	12520626.47	0.0297	0.0183
Moon	29576-01-25 01:41 G	12523495.37	12523495.57	12523495.78	0.0279	0.0149
Earth	29576-01-25 05:17 G	12523495.52	12523495.72	12523495.93	0.0279	0.0153 *
Moon	29577-02-06 00:57 G	12523873.50	12523873.54	12523873.62	0.0276	0.0266
Earth	29577-02-06 03:36 G	12523873.57	12523873.65	12523873.75	0.0276	0.0255 *
Venus	29577-12-03 16:48 G	12524174.05	12524174.20	12524174.36	0.0273	0.0184
Venus	29578-07-20 21:36 G	12524403.19	12524403.40	12524403.61	0.0271	0.0012
Venus	29579-03-07 00:29 G	12524632.39	12524632.52	12524632.67	0.0269	0.0204
Mercury	29581-10-14 01:41 G	12525584.52	12525584.57	12525584.62	0.0264	0.0243
Mercury	29582-01-10 12:14 G	12525672.90	12525673.01	12525673.13	0.0264	0.0148
Mercury	29582-04-08 23:02 G	12525761.33	12525761.46	12525761.60	0.0263	0.0052
Mercury	29582-07-06 10:05 G	12525849.78	12525849.92	12525850.06	0.0263	0.0046
Mercury	29582-10-02 21:07 G	12525938.26	12525938.38	12525938.50	0.0263	0.0145
Mercury	29582-12-30 08:24 G	12526026.80	12526026.85	12526026.90	0.0263	0.0244
Mars	29584-03-15 23:45 G	12526468.19	12526468.49	12526468.79	0.0263	0.0023
Earth	29592-08-02 18:14 G	12529530.05	12529530.26	12529530.49	0.0284	0.0113
Moon	29592-08-02 21:21 G	12529530.16	12529530.39	12529530.63	0.0284	0.0096 *
Venus	29593-08-11 06:14 G	12529903.63	12529903.76	12529903.88	0.0288	0.0230
Venus	29594-03-29 02:24 G	12530133.39	12530133.60	12530133.82	0.0290	0.0009
Venus	29594-11-14 00:29 G	12530363.42	12530363.52	12530363.63	0.0292	0.0250
Mercury	29597-02-07 21:36 G	12531180.29	12531180.40	12531180.51	0.0297	0.0230
Mercury	29597-05-07 20:24 G	12531269.18	12531269.35	12531269.52	0.0297	0.0049
Mercury	29597-08-04 18:43 G	12531358.13	12531358.28	12531358.43	0.0298	0.0128
Earth	29606-01-31 16:05 G	12534459.93	12534460.17	12534460.41	0.0277	0.0073
Moon	29606-01-31 18:00 G	12534460.01	12534460.25	12534460.50	0.0277	0.0082 *
Venus	29607-06-15 18:14 G	12534960.09	12534960.26	12534960.43	0.0272	0.0163

Venus	29608-01-30 22:33 G	12535189.23	12535189.44	12535189.65	0.0270	0.0033
Venus	29608-09-16 01:26 G	12535418.45	12535418.56	12535418.68	0.0269	0.0223
Mercury	29611-05-30 13:55 G	12536404.98	12536405.08	12536405.18	0.0264	0.0184
Mercury	29611-08-27 00:29 G	12536493.40	12536493.52	12536493.66	0.0263	0.0089
Mercury	29611-11-23 11:31 G	12536581.84	12536581.98	12536582.12	0.0263	0.0009
Mercury	29612-02-19 22:33 G	12536670.31	12536670.44	12536670.57	0.0263	0.0107
Mercury	29612-05-18 09:36 G	12536758.82	12536758.90	12536758.99	0.0263	0.0206
Moon	29621-07-27 16:33 G	12540115.98	12540116.19	12540116.41	0.0282	0.0110
Earth	29621-07-27 18:57 G	12540116.07	12540116.29	12540116.53	0.0282	0.0094 *
Venus	29623-02-21 05:02 G	12540689.58	12540689.71	12540689.86	0.0288	0.0212
Venus	29623-10-09 01:41 G	12540919.36	12540919.57	12540919.79	0.0290	0.0027
Venus	29624-05-26 00:00 G	12541149.42	12541149.50	12541149.58	0.0292	0.0270
Mercury	29626-09-24 16:05 G	12542001.01	12542001.17	12542001.33	0.0297	0.0124
Mercury	29626-12-22 14:38 G	12542089.94	12542090.11	12542090.28	0.0297	0.0055
Mercury	29627-03-21 12:43 G	12542178.92	12542179.03	12542179.13	0.0298	0.0230
Mars	29628-07-17 04:33 G	12542662.52	12542662.69	12542662.89	0.0298	0.0222
Moon	29635-01-26 03:07 G	12545046.41	12545046.63	12545046.86	0.0279	0.0104
Earth	29635-01-26 05:02 G	12545046.48	12545046.71	12545046.93	0.0279	0.0110 *
Venus	29636-12-25 22:05 G	12545746.24	12545746.42	12545746.61	0.0273	0.0139
Venus	29637-08-12 02:38 G	12545975.40	12545975.61	12545975.81	0.0271	0.0057
Venus	29638-03-29 05:17 G	12546204.65	12546204.72	12546204.81	0.0269	0.0247
Mercury	29640-10-16 16:33 G	12547137.11	12547137.19	12547137.28	0.0264	0.0210
Mercury	29641-01-13 03:21 G	12547225.52	12547225.64	12547225.76	0.0264	0.0114
Mercury	29641-04-11 14:09 G	12547313.95	12547314.09	12547314.23	0.0263	0.0017
Mercury	29641-07-09 01:12 G	12547402.41	12547402.55	12547402.68	0.0263	0.0081
Mercury	29641-10-05 12:14 G	12547490.91	12547491.01	12547491.11	0.0263	0.0180
Earth	29650-07-22 08:24 G	12550702.82	12550702.85	12550702.90	0.0280	0.0275
Moon	29651-08-04 12:29 G	12551080.81	12551081.02	12551081.25	0.0284	0.0138
Earth	29651-08-04 14:24 G	12551080.90	12551081.10	12551081.31	0.0284	0.0151 *
Venus	29652-09-02 10:48 G	12551475.79	12551475.95	12551476.11	0.0288	0.0184

Venus	29653-04-20 07:26 G	12551705.60	12551705.81	12551706.02	0.0290	0.0054
Mercury	29656-02-11 14:24 G	12552732.97	12552733.10	12552733.24	0.0297	0.0181
Mercury	29656-05-10 13:12 G	12552821.88	12552822.05	12552822.22	0.0298	0.0002
Mercury	29656-08-07 11:17 G	12552910.84	12552910.97	12552911.11	0.0298	0.0176
Moon	29665-02-01 13:12 G	12556010.83	12556011.05	12556011.28	0.0277	0.0129
Earth	29665-02-01 16:05 G	12556010.95	12556011.17	12556011.39	0.0277	0.0116 *
Venus	29666-07-07 23:45 G	12556532.30	12556532.49	12556532.68	0.0272	0.0117
Venus	29667-02-22 03:50 G	12556761.46	12556761.66	12556761.86	0.0270	0.0078
Venus	29667-10-09 06:29 G	12556990.75	12556990.77	12556990.80	0.0268	0.0266
Mercury	29670-03-05 18:14 G	12557869.22	12557869.26	12557869.31	0.0264	0.0244
Mercury	29670-06-02 05:02 G	12557957.60	12557957.71	12557957.82	0.0264	0.0149
Mercury	29670-08-29 15:50 G	12558046.02	12558046.16	12558046.29	0.0263	0.0053
Mercury	29670-11-26 02:38 G	12558134.47	12558134.61	12558134.75	0.0263	0.0045
Mercury	29671-02-22 13:41 G	12558222.95	12558223.07	12558223.19	0.0263	0.0143
Mercury	29671-05-22 00:43 G	12558311.49	12558311.53	12558311.59	0.0263	0.0243
Mars	29672-08-08 17:02 G	12558755.90	12558756.21	12558756.51	0.0263	0.0003
Earth	29680-07-28 14:53 G	12561666.89	12561667.12	12561667.37	0.0282	0.0056
Moon	29680-07-28 16:48 G	12561666.98	12561667.20	12561667.44	0.0282	0.0070 *
Venus	29682-03-15 09:50 G	12562261.74	12562261.91	12562262.09	0.0288	0.0166
Venus	29682-10-31 06:43 G	12562491.57	12562491.78	12562491.98	0.0290	0.0074
Mercury	29685-06-30 09:50 G	12563464.83	12563464.91	12563465.00	0.0297	0.0257
Mercury	29685-09-27 08:53 G	12563553.70	12563553.87	12563554.04	0.0297	0.0076
Mercury	29685-12-25 07:12 G	12563642.64	12563642.80	12563642.96	0.0297	0.0103
Mercury	29686-03-24 05:02 G	12563731.66	12563731.71	12563731.78	0.0298	0.0277
Earth	29694-01-27 03:21 G	12566597.40	12566597.64	12566597.88	0.0279	0.0068
Moon	29694-01-27 06:00 G	12566597.52	12566597.75	12566597.99	0.0279	0.0058 *
Venus	29696-01-18 02:53 G	12567318.42	12567318.62	12567318.81	0.0273	0.0095
Venus	29696-09-03 06:57 G	12567547.60	12567547.79	12567547.99	0.0271	0.0101
Mercury	29699-10-20 07:41 G	12568689.72	12568689.82	12568689.92	0.0264	0.0176
Mercury	29700-01-16 18:14 G	12568778.13	12568778.26	12568778.40	0.0264	0.0081

Mercury	29700-04-15 05:17 G	12568866.58	12568866.72	12568866.86	0.0263	0.0018
Mercury	29700-07-12 16:19 G	12568955.05	12568955.18	12568955.30	0.0263	0.0116
Mercury	29700-10-09 03:21 G	12569043.56	12569043.64	12569043.72	0.0263	0.0215
Moon	29709-07-24 03:21 G	12572253.54	12572253.64	12572253.75	0.0280	0.0251
Earth	29709-07-24 05:17 G	12572253.59	12572253.72	12572253.85	0.0280	0.0236 *
Moon	29710-08-06 07:26 G	12572631.64	12572631.81	12572632.01	0.0284	0.0179
Earth	29710-08-06 11:17 G	12572631.79	12572631.97	12572632.15	0.0284	0.0190 *
Venus	29711-09-26 15:50 G	12573047.97	12573048.16	12573048.34	0.0288	0.0138
Venus	29712-05-13 12:29 G	12573277.83	12573278.02	12573278.22	0.0291	0.0103
Mercury	29715-02-15 07:12 G	12574285.65	12574285.80	12574285.96	0.0297	0.0133
Mercury	29715-05-15 06:00 G	12574374.58	12574374.75	12574374.92	0.0298	0.0048
Mercury	29715-08-12 03:50 G	12574463.55	12574463.66	12574463.78	0.0298	0.0223
Mars	29716-12-11 00:43 G	12574950.38	12574950.53	12574950.69	0.0298	0.0246
Moon	29723-01-22 10:05 G	12577183.81	12577183.92	12577184.03	0.0281	0.0250
Earth	29723-01-22 12:43 G	12577183.94	12577184.03	12577184.13	0.0281	0.0257 *
Moon	29724-02-04 12:14 G	12577561.82	12577562.01	12577562.20	0.0277	0.0172
Earth	29724-02-04 15:07 G	12577561.93	12577562.13	12577562.33	0.0277	0.0158 *
Venus	29724-12-13 23:02 G	12577875.44	12577875.46	12577875.49	0.0274	0.0272
Venus	29725-07-31 04:33 G	12578104.49	12578104.69	12578104.90	0.0272	0.0073
Venus	29726-03-17 08:38 G	12578333.67	12578333.86	12578334.05	0.0270	0.0122
Mercury	29729-03-09 09:21 G	12579421.82	12579421.89	12579421.98	0.0264	0.0210
Mercury	29729-06-05 20:09 G	12579510.22	12579510.34	12579510.46	0.0263	0.0114
Mercury	29729-09-02 06:57 G	12579598.65	12579598.79	12579598.93	0.0263	0.0017
Mercury	29729-11-29 17:45 G	12579687.11	12579687.24	12579687.38	0.0263	0.0081
Mercury	29730-02-26 04:48 G	12579775.61	12579775.70	12579775.81	0.0263	0.0180
Earth	29739-07-31 12:00 G	12583217.75	12583218.00	12583218.24	0.0282	0.0016
Moon	29739-07-31 15:21 G	12583217.90	12583218.14	12583218.39	0.0282	0.0030 *
Venus	29741-04-07 14:53 G	12583833.93	12583834.12	12583834.32	0.0288	0.0119
Venus	29741-11-23 11:45 G	12584063.80	12584063.99	12584064.19	0.0290	0.0122
Mercury	29744-07-04 02:38 G	12585017.49	12585017.61	12585017.74	0.0297	0.0209

Mercury	29744-10-01 01:26 G	12585106.39	12585106.56	12585106.74	0.0297	0.0030
Mercury	29744-12-28 23:45 G	12585195.35	12585195.49	12585195.64	0.0297	0.0150
Earth	29753-01-29 01:41 G	12588148.33	12588148.57	12588148.82	0.0280	0.0026
Moon	29753-01-29 04:48 G	12588148.45	12588148.70	12588148.95	0.0280	0.0015 *
Venus	29754-06-26 01:26 G	12588661.49	12588661.56	12588661.66	0.0274	0.0252
Venus	29755-02-10 07:26 G	12588890.60	12588890.81	12588891.02	0.0272	0.0051
Venus	29755-09-27 11:31 G	12589119.80	12589119.98	12589120.16	0.0270	0.0144
Mercury	29758-07-27 12:00 G	12590153.95	12590154.00	12590154.06	0.0264	0.0238
Mercury	29758-10-23 22:48 G	12590242.33	12590242.45	12590242.56	0.0264	0.0142
Mercury	29759-01-20 09:21 G	12590330.76	12590330.89	12590331.03	0.0264	0.0046
Mercury	29759-04-18 20:24 G	12590419.21	12590419.35	12590419.49	0.0263	0.0053
Mercury	29759-07-16 07:26 G	12590507.70	12590507.81	12590507.92	0.0263	0.0152
Mercury	29759-10-12 18:29 G	12590596.24	12590596.27	12590596.32	0.0263	0.0252
Mars	29761-01-03 04:33 G	12591044.39	12591044.69	12591044.99	0.0263	0.0040
Moon	29768-07-24 23:45 G	12593804.33	12593804.49	12593804.65	0.0280	0.0211
Earth	29768-07-25 03:07 G	12593804.46	12593804.63	12593804.81	0.0280	0.0195 *
Earth	29769-08-07 09:07 G	12594182.75	12594182.88	12594183.03	0.0284	0.0232
Moon	29769-08-07 09:07 G	12594182.75	12594182.88	12594183.03	0.0284	0.0224 *
Venus	29770-10-18 21:50 G	12594620.20	12594620.41	12594620.61	0.0289	0.0089
Venus	29771-06-05 18:43 G	12594850.11	12594850.28	12594850.47	0.0291	0.0153
Mercury	29773-11-21 01:41 G	12595749.49	12595749.57	12595749.65	0.0297	0.0262
Mercury	29774-02-18 00:43 G	12595838.36	12595838.53	12595838.69	0.0297	0.0080
Mercury	29774-05-17 23:02 G	12595927.30	12595927.46	12595927.62	0.0298	0.0099
Mercury	29774-08-14 20:53 G	12596016.31	12596016.37	12596016.44	0.0298	0.0274
Moon	29782-01-23 09:21 G	12598734.73	12598734.89	12598735.06	0.0281	0.0205
Earth	29782-01-23 12:14 G	12598734.87	12598735.01	12598735.18	0.0281	0.0214 *
Earth	29783-02-05 14:38 G	12599112.96	12599113.11	12599113.29	0.0277	0.0202
Moon	29783-02-05 16:05 G	12599113.03	12599113.17	12599113.32	0.0277	0.0216 *
Venus	29784-01-06 04:33 G	12599447.58	12599447.69	12599447.81	0.0274	0.0227
Venus	29784-08-22 10:05 G	12599676.71	12599676.92	12599677.13	0.0272	0.0028

Venus	29785-04-08 13:55 G	12599905.92	12599906.08	12599906.25	0.0270	0.0166
Mercury	29788-03-12 00:43 G	12600974.43	12600974.53	12600974.63	0.0264	0.0174
Mercury	29788-06-08 11:31 G	12601062.85	12601062.98	12601063.11	0.0263	0.0078
Mercury	29788-09-04 22:19 G	12601151.29	12601151.43	12601151.57	0.0263	0.0020
Mercury	29788-12-02 09:21 G	12601239.76	12601239.89	12601240.01	0.0263	0.0118
Mercury	29789-02-28 20:24 G	12601328.27	12601328.35	12601328.43	0.0263	0.0218
Moon	29798-08-01 11:02 G	12604768.71	12604768.96	12604769.22	0.0282	0.0018
Earth	29798-08-01 11:31 G	12604768.74	12604768.98	12604769.22	0.0282	0.0028 *
Venus	29800-04-30 21:36 G	12605406.20	12605406.40	12605406.61	0.0288	0.0069
Venus	29800-12-16 18:43 G	12605636.11	12605636.28	12605636.45	0.0291	0.0173
Mercury	29803-07-08 20:24 G	12606570.20	12606570.35	12606570.50	0.0297	0.0155
Mercury	29803-10-05 18:57 G	12606659.12	12606659.29	12606659.46	0.0297	0.0025
Mercury	29804-01-02 17:02 G	12606748.09	12606748.21	12606748.34	0.0297	0.0202
Mars	29805-05-06 06:43 G	12607237.62	12607237.78	12607237.95	0.0298	0.0239
Moon	29812-01-31 23:31 G	12609699.23	12609699.48	12609699.74	0.0280	0.0031
Earth	29812-02-01 00:43 G	12609699.29	12609699.53	12609699.78	0.0280	0.0018 *
Venus	29813-07-19 06:43 G	12610233.65	12610233.78	12610233.92	0.0274	0.0207
Venus	29814-03-05 12:29 G	12610462.81	12610463.02	12610463.23	0.0272	0.0007
Venus	29814-10-20 16:19 G	12610692.03	12610692.18	12610692.34	0.0270	0.0187
Mercury	29817-07-31 03:21 G	12611706.55	12611706.64	12611706.72	0.0264	0.0203
Mercury	29817-10-27 13:55 G	12611794.96	12611795.08	12611795.21	0.0264	0.0106
Mercury	29818-01-24 00:43 G	12611883.39	12611883.53	12611883.67	0.0264	0.0011
Mercury	29818-04-22 11:45 G	12611971.86	12611971.99	12611972.12	0.0263	0.0090
Mercury	29818-07-19 22:48 G	12612060.36	12612060.45	12612060.55	0.0263	0.0190
Earth	29827-07-28 03:50 G	12615355.46	12615355.66	12615355.87	0.0280	0.0150
Moon	29827-07-28 04:33 G	12615355.50	12615355.69	12615355.88	0.0280	0.0164 *
Earth	29828-08-09 09:50 G	12615733.87	12615733.91	12615733.97	0.0284	0.0278
Moon	29828-08-09 13:12 G	12615734.00	12615734.05	12615734.14	0.0284	0.0271
Venus	29829-03-26 09:50 G	12615962.85	12615962.91	12615962.98	0.0286	0.0271
Venus	29829-11-11 05:17 G	12616192.51	12616192.72	12616192.93	0.0289	0.0037

Venus	29830-06-29 02:38 G	12616422.46	12616422.61	12616422.76	0.0291	0.0205
Mercury	29832-11-24 19:41 G	12617302.19	12617302.32	12617302.45	0.0297	0.0205
Mercury	29833-02-21 18:29 G	12617391.10	12617391.27	12617391.44	0.0297	0.0024
Mercury	29833-05-21 16:48 G	12617480.05	12617480.20	12617480.35	0.0298	0.0154
Earth	29841-01-25 13:12 G	12620285.86	12620286.05	12620286.25	0.0281	0.0168
Moon	29841-01-25 14:24 G	12620285.92	12620286.10	12620286.31	0.0281	0.0156 *
Earth	29842-02-07 15:21 G	12620664.05	12620664.14	12620664.26	0.0277	0.0247
Moon	29842-02-07 19:12 G	12620664.23	12620664.30	12620664.38	0.0277	0.0262 *
Venus	29843-01-29 10:48 G	12621019.79	12621019.95	12621020.11	0.0273	0.0181
Venus	29843-09-15 16:05 G	12621248.96	12621249.17	12621249.38	0.0271	0.0018
Venus	29844-05-01 19:41 G	12621478.20	12621478.32	12621478.46	0.0270	0.0212
Mercury	29846-12-18 05:31 G	12622438.67	12622438.73	12622438.80	0.0264	0.0232
Mercury	29847-03-16 16:19 G	12622527.06	12622527.18	12622527.30	0.0264	0.0136
Mercury	29847-06-13 03:07 G	12622615.49	12622615.63	12622615.77	0.0263	0.0039
Mercury	29847-09-09 13:55 G	12622703.95	12622704.08	12622704.22	0.0263	0.0059
Mercury	29847-12-07 00:57 G	12622792.43	12622792.54	12622792.65	0.0263	0.0158
Mercury	29848-03-04 12:14 G	12622880.99	12622881.01	12622881.03	0.0263	0.0258
Mars	29849-05-30 10:48 G	12623332.66	12623332.95	12623333.24	0.0263	0.0080
Moon	29857-08-03 10:05 G	12626319.69	12626319.92	12626320.16	0.0282	0.0068
Earth	29857-08-03 13:55 G	12626319.85	12626320.08	12626320.32	0.0282	0.0077 *
Venus	29858-10-06 10:48 G	12626748.85	12626748.95	12626749.06	0.0286	0.0250
Venus	29859-05-24 06:29 G	12626978.55	12626978.77	12626978.98	0.0289	0.0016
Venus	29860-01-09 03:21 G	12627208.52	12627208.64	12627208.78	0.0291	0.0228
Mercury	29862-04-13 15:36 G	12628034.10	12628034.15	12628034.22	0.0296	0.0277
Mercury	29862-07-11 14:53 G	12628122.95	12628123.12	12628123.28	0.0297	0.0094
Mercury	29862-10-08 13:12 G	12628211.89	12628212.05	12628212.22	0.0297	0.0086
Mercury	29863-01-05 11:17 G	12628300.89	12628300.97	12628301.05	0.0297	0.0261
Moon	29871-02-01 22:33 G	12631250.20	12631250.44	12631250.67	0.0280	0.0080
Earth	29871-02-02 02:09 G	12631250.36	12631250.59	12631250.83	0.0280	0.0064 *
Venus	29872-08-10 13:12 G	12631805.88	12631806.05	12631806.22	0.0274	0.0160

Venus	29873-03-27 18:43 G	12632035.07	12632035.28	12632035.49	0.0272	0.0039
Venus	29873-11-11 22:19 G	12632264.34	12632264.43	12632264.55	0.0270	0.0234
Mercury	29876-05-06 08:09 G	12633170.82	12633170.84	12633170.86	0.0265	0.0261
Mercury	29876-08-02 18:57 G	12633259.18	12633259.29	12633259.39	0.0264	0.0165
Mercury	29876-10-30 05:31 G	12633347.60	12633347.73	12633347.87	0.0264	0.0068
Mercury	29877-01-26 16:33 G	12633436.05	12633436.19	12633436.33	0.0264	0.0031
Mercury	29877-04-25 03:36 G	12633524.53	12633524.65	12633524.77	0.0264	0.0130
Mercury	29877-07-22 14:38 G	12633613.05	12633613.11	12633613.18	0.0263	0.0230
Earth	29886-07-29 07:55 G	12636906.60	12636906.83	12636907.06	0.0280	0.0101
Moon	29886-07-29 11:45 G	12636906.77	12636906.99	12636907.22	0.0280	0.0112 *
Venus	29888-04-17 19:26 G	12637535.18	12637535.31	12637535.46	0.0287	0.0217
Venus	29888-12-03 15:21 G	12637764.93	12637765.14	12637765.35	0.0289	0.0020
Venus	29889-07-21 12:29 G	12637994.95	12637995.02	12637995.12	0.0291	0.0263
Mercury	29891-11-28 14:53 G	12638854.96	12638855.12	12638855.27	0.0297	0.0139
Mercury	29892-02-25 13:26 G	12638943.89	12638944.06	12638944.23	0.0297	0.0041
Mercury	29892-05-24 11:31 G	12639032.87	12639032.98	12639033.10	0.0298	0.0218
Earth	29900-01-27 16:33 G	12641836.97	12641837.19	12641837.41	0.0281	0.0119
Moon	29900-01-27 20:24 G	12641837.12	12641837.35	12641837.58	0.0281	0.0103 *
Venus	29902-02-21 18:00 G	12642592.08	12642592.25	12642592.44	0.0273	0.0133
Venus	29902-10-08 23:17 G	12642821.27	12642821.47	12642821.68	0.0271	0.0067
Venus	29903-05-26 02:53 G	12643050.57	12643050.62	12643050.68	0.0269	0.0258
Mercury	29905-12-21 21:36 G	12643991.30	12643991.40	12643991.49	0.0264	0.0191
Mercury	29906-03-20 08:09 G	12644079.71	12644079.84	12644079.97	0.0264	0.0095
Mercury	29906-06-16 18:57 G	12644168.15	12644168.29	12644168.43	0.0263	0.0006
Mercury	29906-09-13 06:00 G	12644256.62	12644256.75	12644256.88	0.0263	0.0102
Mercury	29906-12-10 17:02 G	12644345.12	12644345.21	12644345.30	0.0263	0.0202
Moon	29916-08-05 19:26 G	12647871.10	12647871.31	12647871.53	0.0282	0.0127
Earth	29916-08-05 20:38 G	12647871.14	12647871.36	12647871.58	0.0282	0.0130 *
Venus	29917-10-29 21:50 G	12648321.26	12648321.41	12648321.57	0.0287	0.0193
Venus	29918-06-16 17:45 G	12648551.03	12648551.24	12648551.45	0.0289	0.0044

Venus	29919-02-01 15:07 G	12648781.10	12648781.13	12648781.17	0.0291	0.0287
Mercury	29921-04-17 11:31 G	12649586.86	12649586.98	12649587.11	0.0296	0.0206
Mercury	29921-07-15 10:19 G	12649675.76	12649675.93	12649676.11	0.0297	0.0025
Mercury	29921-10-12 08:38 G	12649764.72	12649764.86	12649765.01	0.0297	0.0154
Moon	29930-02-04 05:31 G	12652801.52	12652801.73	12652801.94	0.0279	0.0129
Earth	29930-02-04 05:45 G	12652801.52	12652801.74	12652801.97	0.0279	0.0113 *
Venus	29931-09-03 20:53 G	12653378.18	12653378.37	12653378.56	0.0274	0.0111
Venus	29932-04-20 02:09 G	12653607.39	12653607.59	12653607.79	0.0272	0.0088
Mercury	29935-05-11 00:00 G	12654723.43	12654723.50	12654723.58	0.0265	0.0220
Mercury	29935-08-07 10:48 G	12654811.83	12654811.95	12654812.07	0.0265	0.0124
Mercury	29935-11-03 21:36 G	12654900.26	12654900.40	12654900.54	0.0264	0.0026
Mercury	29936-01-31 08:24 G	12654988.72	12654988.85	12654988.99	0.0264	0.0074
Mercury	29936-04-28 19:26 G	12655077.21	12655077.31	12655077.42	0.0264	0.0174
Mars	29937-10-25 09:07 G	12655621.63	12655621.88	12655622.13	0.0263	0.0143
Earth	29945-07-31 15:07 G	12658457.89	12658458.13	12658458.38	0.0280	0.0048
Moon	29945-07-31 16:05 G	12658457.92	12658458.17	12658458.42	0.0280	0.0054 *
Venus	29947-05-12 07:26 G	12659107.64	12659107.81	12659107.99	0.0287	0.0157
Venus	29947-12-28 03:21 G	12659337.44	12659337.64	12659337.85	0.0289	0.0082
Mercury	29950-09-04 12:00 G	12660318.91	12660319.00	12660319.10	0.0297	0.0247
Mercury	29950-12-02 11:02 G	12660407.79	12660407.96	12660408.13	0.0297	0.0065
Mercury	29951-03-01 09:21 G	12660496.74	12660496.89	12660497.05	0.0297	0.0115
Mercury	29951-05-29 07:12 G	12660585.77	12660585.80	12660585.85	0.0298	0.0290
Moon	29959-01-29 23:02 G	12663388.21	12663388.46	12663388.71	0.0281	0.0050
Earth	29959-01-29 23:02 G	12663388.23	12663388.46	12663388.70	0.0281	0.0066 *
Venus	29961-03-16 03:21 G	12664164.44	12664164.64	12664164.84	0.0273	0.0080
Venus	29961-10-31 08:09 G	12664393.66	12664393.84	12664394.04	0.0271	0.0118
Mercury	29964-09-27 03:07 G	12665455.58	12665455.63	12665455.68	0.0264	0.0244
Mercury	29964-12-24 13:41 G	12665543.96	12665544.07	12665544.19	0.0264	0.0148
Mercury	29965-03-23 00:29 G	12665632.39	12665632.52	12665632.66	0.0264	0.0050
Mercury	29965-06-19 11:31 G	12665720.84	12665720.98	12665721.11	0.0264	0.0049

Mercury	29965-09-15 22:19 G	12665809.32	12665809.43	12665809.55	0.0263	0.0148
Mercury	29965-12-13 09:36 G	12665897.86	12665897.90	12665897.95	0.0263	0.0249
Moon	29974-07-26 03:50 G	12669044.54	12669044.66	12669044.78	0.0279	0.0241
Earth	29974-07-26 04:33 G	12669044.56	12669044.69	12669044.83	0.0279	0.0231 *
Earth	29975-08-08 06:29 G	12669422.60	12669422.77	12669422.97	0.0282	0.0190
Moon	29975-08-08 09:50 G	12669422.74	12669422.91	12669423.10	0.0282	0.0190 *
Venus	29976-11-21 11:31 G	12669893.80	12669893.98	12669894.17	0.0287	0.0131
Venus	29977-07-09 07:41 G	12670123.63	12670123.82	12670124.02	0.0289	0.0108
Mercury	29980-04-20 08:38 G	12671139.70	12671139.86	12671140.02	0.0297	0.0125
Mercury	29980-07-18 07:12 G	12671228.63	12671228.80	12671228.97	0.0297	0.0055
Mercury	29980-10-15 05:17 G	12671317.62	12671317.72	12671317.83	0.0297	0.0231
Earth	29988-01-24 06:14 G	12673974.67	12673974.76	12673974.86	0.0283	0.0260
Moon	29988-01-24 06:43 G	12673974.67	12673974.78	12673974.90	0.0283	0.0246 *
Earth	29989-02-05 12:57 G	12674352.84	12674353.04	12674353.23	0.0279	0.0166
Moon	29989-02-05 16:19 G	12674353.01	12674353.18	12674353.38	0.0279	0.0182 *
Venus	29990-02-08 23:45 G	12674721.42	12674721.49	12674721.55	0.0276	0.0261
Venus	29990-09-26 06:14 G	12674950.55	12674950.76	12674950.97	0.0273	0.0058
Venus	29991-05-13 11:17 G	12675179.79	12675179.97	12675180.15	0.0272	0.0140
Mercury	29994-05-13 16:19 G	12676276.08	12676276.18	12676276.28	0.0265	0.0176
Mercury	29994-08-10 03:07 G	12676364.50	12676364.63	12676364.76	0.0265	0.0079
Mercury	29994-11-06 13:55 G	12676452.95	12676453.08	12676453.22	0.0264	0.0022
Mercury	29995-02-03 00:57 G	12676541.42	12676541.54	12676541.67	0.0264	0.0120
Mercury	29995-05-02 12:00 G	12676629.93	12676630.00	12676630.08	0.0264	0.0221

31ST MILLENNIUM CE

This is a list of transits visible from Saturn in the 31st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	30004-08-01 23:17	G	12680009.22	12680009.47	12680009.72	0.0281	0.0009	
Earth	30004-08-02 02:24	G	12680009.35	12680009.60	12680009.84	0.0281	0.0012	*
Venus	30006-06-03 22:05	G	12680680.22	12680680.42	12680680.62	0.0288	0.0092	
Venus	30007-01-19 18:14	G	12680910.09	12680910.26	12680910.45	0.0290	0.0148	
Mercury	30009-09-07 09:36	G	12681871.76	12681871.90	12681872.05	0.0297	0.0162	
Mercury	30009-12-05 08:24	G	12681960.68	12681960.85	12681961.02	0.0297	0.0019	
Mercury	30010-03-04 06:29	G	12682049.65	12682049.77	12682049.90	0.0297	0.0197	
Moon	30018-01-31 04:48	G	12684939.45	12684939.70	12684939.95	0.0281	0.0006	
Earth	30018-01-31 08:24	G	12684939.60	12684939.85	12684940.10	0.0281	0.0010	*
Venus	30019-08-22 07:26	G	12685507.70	12685507.81	12685507.93	0.0275	0.0228	
Venus	30020-04-07 13:41	G	12685736.86	12685737.07	12685737.28	0.0273	0.0026	
Venus	30020-11-22 18:29	G	12685966.11	12685966.27	12685966.44	0.0271	0.0171	
Mercury	30023-09-30 19:41	G	12687008.23	12687008.32	12687008.41	0.0264	0.0197	
Mercury	30023-12-28 06:29	G	12687096.64	12687096.77	12687096.89	0.0264	0.0100	
Mercury	30024-03-25 17:17	G	12687185.08	12687185.22	12687185.36	0.0264	0.0004	
Mercury	30024-06-22 04:05	G	12687273.55	12687273.67	12687273.80	0.0264	0.0098	
Mercury	30024-09-18 15:21	G	12687362.05	12687362.14	12687362.23	0.0263	0.0198	
Mars	30026-03-21 15:50	G	12687911.00	12687911.16	12687911.34	0.0263	0.0218	
Earth	30033-07-27 17:17	G	12690596.03	12690596.22	12690596.41	0.0279	0.0171	
Moon	30033-07-27 20:09	G	12690596.16	12690596.34	12690596.52	0.0279	0.0180	*
Earth	30034-08-09 19:55	G	12690974.23	12690974.33	12690974.45	0.0283	0.0252	
Moon	30034-08-09 22:48	G	12690974.35	12690974.45	12690974.57	0.0283	0.0253	*
Venus	30035-12-15 03:21	G	12691466.44	12691466.64	12691466.85	0.0288	0.0063	
Venus	30036-07-31 23:45	G	12691696.33	12691696.49	12691696.66	0.0290	0.0177	
Mercury	30039-01-25 07:41	G	12692603.71	12692603.82	12692603.94	0.0296	0.0219	
Mercury	30039-04-24 06:43	G	12692692.61	12692692.78	12692692.95	0.0297	0.0037	

Mercury	30039-07-22 05:02 G	12692781.56	12692781.71	12692781.86	0.0297	0.0142
Mars	30040-05-31 04:19 G	12693095.57	12693095.68	12693095.80	0.0298	0.0273
Earth	30047-01-25 17:31 G	12695526.06	12695526.23	12695526.40	0.0282	0.0201
Moon	30047-01-25 20:53 G	12695526.19	12695526.37	12695526.56	0.0282	0.0185 *
Earth	30048-02-07 23:02 G	12695904.32	12695904.46	12695904.61	0.0279	0.0223
Moon	30048-02-08 00:43 G	12695904.41	12695904.53	12695904.68	0.0279	0.0236 *
Venus	30049-03-03 11:02 G	12696293.82	12696293.96	12696294.10	0.0275	0.0204
Venus	30049-10-18 17:17 G	12696523.01	12696523.22	12696523.43	0.0273	0.0002
Venus	30050-06-04 21:50 G	12696752.27	12696752.41	12696752.56	0.0271	0.0194
Mercury	30053-02-16 22:19 G	12697740.36	12697740.43	12697740.50	0.0265	0.0226
Mercury	30053-05-16 08:53 G	12697828.76	12697828.87	12697829.00	0.0265	0.0129
Mercury	30053-08-12 19:55 G	12697917.19	12697917.33	12697917.46	0.0265	0.0031
Mercury	30053-11-09 06:43 G	12698005.65	12698005.78	12698005.92	0.0264	0.0069
Mercury	30054-02-05 17:45 G	12698094.14	12698094.24	12698094.35	0.0264	0.0170
Moon	30063-08-04 12:29 G	12701560.80	12701561.02	12701561.26	0.0281	0.0069
Earth	30063-08-04 15:21 G	12701560.91	12701561.14	12701561.39	0.0281	0.0073 *
Venus	30064-11-08 18:57 G	12702023.21	12702023.29	12702023.39	0.0286	0.0257
Venus	30065-06-26 14:09 G	12702252.88	12702253.09	12702253.31	0.0288	0.0024
Venus	30066-02-11 10:48 G	12702482.82	12702482.95	12702483.10	0.0290	0.0218
Mercury	30068-06-13 08:53 G	12703335.79	12703335.87	12703335.97	0.0297	0.0254
Mercury	30068-09-10 08:09 G	12703424.67	12703424.84	12703425.01	0.0297	0.0070
Mercury	30068-12-08 06:43 G	12703513.62	12703513.78	12703513.94	0.0297	0.0109
Mercury	30069-03-07 04:33 G	12703602.65	12703602.69	12703602.74	0.0298	0.0285
Moon	30077-02-01 18:29 G	12706491.04	12706491.27	12706491.50	0.0280	0.0064
Earth	30077-02-01 20:38 G	12706491.11	12706491.36	12706491.60	0.0280	0.0050 *
Venus	30078-09-13 19:26 G	12707080.15	12707080.31	12707080.48	0.0274	0.0170
Venus	30079-05-01 01:26 G	12707309.35	12707309.56	12707309.77	0.0272	0.0032
Venus	30079-12-16 05:45 G	12707538.64	12707538.74	12707538.87	0.0270	0.0227
Mercury	30082-07-07 01:55 G	12708472.53	12708472.58	12708472.63	0.0265	0.0244
Mercury	30082-10-03 12:29 G	12708560.91	12708561.02	12708561.14	0.0264	0.0148

Mercury	30082-12-30 23:17 G	12708649.34	12708649.47	12708649.61	0.0264	0.0050
Mercury	30083-03-29 10:05 G	12708737.79	12708737.92	12708738.06	0.0264	0.0050
Mercury	30083-06-25 21:07 G	12708826.27	12708826.38	12708826.50	0.0264	0.0150
Mercury	30083-09-22 08:24 G	12708914.81	12708914.85	12708914.89	0.0263	0.0250
Mars	30084-06-27 23:02 G	12709194.30	12709194.46	12709194.65	0.0263	0.0210
Earth	30092-07-29 08:09 G	12712147.63	12712147.84	12712148.08	0.0279	0.0109
Moon	30092-07-29 11:31 G	12712147.76	12712147.98	12712148.21	0.0279	0.0118 *
Venus	30094-05-22 02:09 G	12712809.46	12712809.59	12712809.72	0.0286	0.0226
Venus	30095-01-06 21:07 G	12713039.17	12713039.38	12713039.59	0.0288	0.0009
Venus	30095-08-24 17:45 G	12713269.14	12713269.24	12713269.35	0.0290	0.0251
Mercury	30098-01-28 06:57 G	12714156.63	12714156.79	12714156.95	0.0296	0.0122
Mercury	30098-04-27 05:31 G	12714245.56	12714245.73	12714245.90	0.0297	0.0059
Mercury	30098-07-25 03:36 G	12714334.55	12714334.65	12714334.76	0.0297	0.0235
Earth	30106-01-28 06:57 G	12717077.58	12717077.79	12717078.00	0.0282	0.0139
Moon	30106-01-28 09:07 G	12717077.66	12717077.88	12717078.11	0.0282	0.0124 *
Venus	30108-03-26 23:17 G	12717866.30	12717866.47	12717866.66	0.0274	0.0146
Venus	30108-11-11 05:17 G	12718095.51	12718095.72	12718095.93	0.0272	0.0056
Venus	30109-06-28 09:36 G	12718324.82	12718324.90	12718324.98	0.0271	0.0250
Mercury	30112-02-21 15:07 G	12719293.03	12719293.13	12719293.23	0.0265	0.0177
Mercury	30112-05-20 01:55 G	12719381.45	12719381.58	12719381.71	0.0265	0.0079
Mercury	30112-08-16 12:43 G	12719469.90	12719470.03	12719470.17	0.0264	0.0022
Mercury	30112-11-12 23:45 G	12719558.37	12719558.49	12719558.62	0.0264	0.0121
Mercury	30113-02-09 10:48 G	12719646.88	12719646.95	12719647.03	0.0264	0.0222
Earth	30122-08-07 05:45 G	12723112.54	12723112.74	12723112.96	0.0281	0.0136
Moon	30122-08-07 06:43 G	12723112.57	12723112.78	12723112.99	0.0281	0.0133 *
Venus	30123-12-03 11:31 G	12723595.83	12723595.98	12723596.15	0.0286	0.0189
Venus	30124-07-20 07:12 G	12723825.59	12723825.80	12723826.01	0.0289	0.0048
Venus	30125-03-07 04:19 G	12724055.68	12724055.68	12724055.70	0.0291	0.0291
Mercury	30127-06-18 07:55 G	12724888.69	12724888.83	12724888.99	0.0297	0.0158
Mercury	30127-09-15 06:57 G	12724977.61	12724977.79	12724977.96	0.0297	0.0025

Mercury	30127-12-13 05:02 G	12725066.59	12725066.71	12725066.84	0.0297	0.0203
Mars	30128-10-27 12:14 G	12725385.76	12725386.01	12725386.27	0.0298	0.0139
Earth	30136-02-05 10:19 G	12728042.71	12728042.93	12728043.16	0.0280	0.0112
Moon	30136-02-05 12:14 G	12728042.80	12728043.01	12728043.22	0.0280	0.0126 *
Venus	30137-10-07 08:38 G	12728652.67	12728652.86	12728653.06	0.0274	0.0109
Venus	30138-05-24 13:55 G	12728881.89	12728882.08	12728882.29	0.0272	0.0091
Mercury	30141-07-10 18:57 G	12730025.20	12730025.29	12730025.38	0.0265	0.0194
Mercury	30141-10-07 05:45 G	12730113.61	12730113.74	12730113.86	0.0264	0.0097
Mercury	30142-01-03 16:33 G	12730202.05	12730202.19	12730202.33	0.0264	0.0007
Mercury	30142-04-02 03:21 G	12730290.52	12730290.64	12730290.77	0.0264	0.0102
Mercury	30142-06-29 14:24 G	12730379.02	12730379.10	12730379.20	0.0263	0.0203
Moon	30151-08-01 22:33 G	12733699.20	12733699.44	12733699.69	0.0280	0.0051
Earth	30151-08-01 23:31 G	12733699.24	12733699.48	12733699.73	0.0280	0.0045 *
Venus	30153-06-14 19:26 G	12734382.14	12734382.31	12734382.49	0.0287	0.0156
Venus	30154-01-30 15:07 G	12734611.93	12734612.13	12734612.33	0.0289	0.0082
Mercury	30156-11-04 07:12 G	12735620.68	12735620.80	12735620.93	0.0296	0.0207
Mercury	30157-02-01 06:14 G	12735709.58	12735709.76	12735709.93	0.0297	0.0024
Mercury	30157-05-01 04:33 G	12735798.55	12735798.69	12735798.84	0.0297	0.0155
Moon	30165-01-29 19:55 G	12738629.09	12738629.33	12738629.58	0.0281	0.0060
Earth	30165-01-29 22:05 G	12738629.19	12738629.42	12738629.66	0.0281	0.0076 *
Venus	30167-04-19 12:43 G	12739438.83	12739439.03	12739439.23	0.0274	0.0084
Venus	30167-12-04 18:00 G	12739668.06	12739668.25	12739668.44	0.0272	0.0115
Mercury	30170-11-27 21:21 G	12740757.32	12740757.39	12740757.47	0.0265	0.0223
Mercury	30171-02-24 08:09 G	12740845.72	12740845.84	12740845.96	0.0265	0.0126
Mercury	30171-05-23 18:57 G	12740934.15	12740934.29	12740934.43	0.0265	0.0027
Mercury	30171-08-20 05:45 G	12741022.61	12741022.74	12741022.88	0.0264	0.0073
Mercury	30171-11-16 16:48 G	12741111.10	12741111.20	12741111.31	0.0264	0.0173
Mars	30172-11-23 06:57 G	12741483.54	12741483.79	12741484.06	0.0264	0.0131
Earth	30180-07-26 19:12 G	12744286.15	12744286.30	12744286.45	0.0278	0.0221
Moon	30180-07-26 20:24 G	12744286.22	12744286.35	12744286.48	0.0278	0.0231 *

Earth	30181-08-08 20:38 G	12744664.19	12744664.36	12744664.54	0.0282	0.0198
Moon	30181-08-09 00:29 G	12744664.35	12744664.52	12744664.70	0.0282	0.0197 *
Venus	30182-12-26 04:33 G	12745168.50	12745168.69	12745168.89	0.0287	0.0118
Venus	30183-08-13 00:43 G	12745398.34	12745398.53	12745398.72	0.0289	0.0121
Mercury	30186-03-24 08:09 G	12746352.74	12746352.84	12746352.94	0.0296	0.0243
Mercury	30186-06-21 07:12 G	12746441.63	12746441.80	12746441.97	0.0297	0.0060
Mercury	30186-09-18 05:45 G	12746530.58	12746530.74	12746530.90	0.0297	0.0121
Mercury	30186-12-16 03:50 G	12746619.65	12746619.66	12746619.67	0.0298	0.0297
Earth	30194-01-24 17:45 G	12749216.15	12749216.24	12749216.36	0.0283	0.0255
Moon	30194-01-24 20:09 G	12749216.22	12749216.34	12749216.47	0.0283	0.0239 *
Earth	30195-02-07 00:29 G	12749594.34	12749594.52	12749594.72	0.0279	0.0174
Moon	30195-02-07 04:19 G	12749594.50	12749594.68	12749594.87	0.0279	0.0188 *
Venus	30196-03-14 15:07 G	12749996.05	12749996.13	12749996.22	0.0275	0.0252
Venus	30196-10-29 21:36 G	12750225.20	12750225.40	12750225.61	0.0273	0.0049
Venus	30197-06-16 02:38 G	12750454.44	12750454.61	12750454.79	0.0271	0.0149
Mercury	30200-04-17 01:12 G	12751489.50	12751489.55	12751489.61	0.0265	0.0240
Mercury	30200-07-14 11:45 G	12751577.88	12751577.99	12751578.11	0.0264	0.0143
Mercury	30200-10-10 22:33 G	12751666.31	12751666.44	12751666.58	0.0264	0.0045
Mercury	30201-01-07 09:36 G	12751754.76	12751754.90	12751755.03	0.0264	0.0055
Mercury	30201-04-05 20:38 G	12751843.24	12751843.36	12751843.47	0.0264	0.0155
Mercury	30201-07-03 07:41 G	12751931.79	12751931.82	12751931.85	0.0263	0.0256
Moon	30210-08-04 10:05 G	12755250.67	12755250.92	12755251.16	0.0280	0.0014
Earth	30210-08-04 13:55 G	12755250.83	12755251.08	12755251.32	0.0280	0.0016 *
Venus	30212-07-08 12:29 G	12755954.82	12755955.02	12755955.22	0.0288	0.0085
Venus	30213-02-23 08:24 G	12756184.68	12756184.85	12756185.04	0.0290	0.0155
Mercury	30215-08-12 07:12 G	12757084.79	12757084.80	12757084.83	0.0296	0.0293
Mercury	30215-11-09 06:29 G	12757173.61	12757173.77	12757173.93	0.0297	0.0109
Mercury	30216-02-06 05:02 G	12757262.55	12757262.71	12757262.88	0.0297	0.0072
Mercury	30216-05-05 03:07 G	12757351.55	12757351.63	12757351.73	0.0297	0.0249
Mars	30217-03-25 08:24 G	12757675.56	12757675.85	12757676.14	0.0298	0.0036

Moon	30224-02-02 09:21 G	12760180.65	12760180.89	12760181.13	0.0281	0.0003
Earth	30224-02-02 12:57 G	12760180.80	12760181.04	12760181.29	0.0281	0.0013 *
Venus	30225-09-25 19:12 G	12760782.18	12760782.30	12760782.42	0.0275	0.0225
Venus	30226-05-13 01:26 G	12761011.35	12761011.56	12761011.77	0.0273	0.0024
Venus	30226-12-28 06:29 G	12761240.61	12761240.77	12761240.93	0.0271	0.0173
Mercury	30229-12-01 14:24 G	12762309.99	12762310.10	12762310.20	0.0265	0.0173
Mercury	30230-02-28 00:57 G	12762398.41	12762398.54	12762398.68	0.0265	0.0075
Mercury	30230-05-27 11:45 G	12762486.86	12762486.99	12762487.13	0.0264	0.0026
Mercury	30230-08-23 22:48 G	12762575.33	12762575.45	12762575.58	0.0264	0.0124
Mercury	30230-11-20 09:50 G	12762663.84	12762663.91	12762663.99	0.0264	0.0225
Earth	30239-07-30 06:29 G	12765837.58	12765837.77	12765837.97	0.0279	0.0165
Moon	30239-07-30 10:19 G	12765837.74	12765837.93	12765838.12	0.0279	0.0171 *
Earth	30240-08-11 09:07 G	12766215.79	12766215.88	12766215.99	0.0282	0.0258
Moon	30240-08-11 10:33 G	12766215.86	12766215.94	12766216.05	0.0282	0.0260 *
Venus	30241-06-03 01:26 G	12766511.53	12766511.56	12766511.59	0.0285	0.0282
Venus	30242-01-18 20:09 G	12766741.13	12766741.34	12766741.55	0.0288	0.0050
Venus	30242-09-05 16:33 G	12766971.04	12766971.19	12766971.35	0.0290	0.0191
Mercury	30245-03-28 06:43 G	12767905.63	12767905.78	12767905.93	0.0297	0.0150
Mercury	30245-06-25 05:31 G	12767994.56	12767994.73	12767994.90	0.0297	0.0032
Mercury	30245-09-22 03:50 G	12768083.54	12768083.66	12768083.78	0.0297	0.0211
Earth	30253-01-27 08:24 G	12770767.68	12770767.85	12770768.04	0.0283	0.0193
Moon	30253-01-27 12:00 G	12770767.82	12770768.00	12770768.20	0.0283	0.0176 *
Earth	30254-02-09 14:09 G	12771145.97	12771146.09	12771146.23	0.0279	0.0233
Moon	30254-02-09 14:53 G	12771146.00	12771146.12	12771146.24	0.0279	0.0245 *
Venus	30255-04-08 04:05 G	12771568.53	12771568.67	12771568.83	0.0275	0.0191
Venus	30255-11-23 10:19 G	12771797.72	12771797.93	12771798.14	0.0273	0.0011
Venus	30256-07-09 14:38 G	12772026.98	12772027.11	12772027.25	0.0271	0.0207
Mercury	30259-04-20 18:00 G	12773042.16	12773042.25	12773042.34	0.0264	0.0191
Mercury	30259-07-18 04:48 G	12773130.57	12773130.70	12773130.82	0.0264	0.0093
Mercury	30259-10-14 15:36 G	12773219.01	12773219.15	12773219.28	0.0264	0.0009

Mercury	30260-01-11 02:24 G	12773307.47	12773307.60	12773307.73	0.0264	0.0105
Mercury	30260-04-08 13:26 G	12773395.98	12773396.06	12773396.15	0.0263	0.0206
Mars	30261-04-20 22:33 G	12773773.15	12773773.44	12773773.74	0.0263	0.0048
Moon	30269-08-06 00:43 G	12776802.30	12776802.53	12776802.76	0.0281	0.0075
Earth	30269-08-06 01:41 G	12776802.34	12776802.57	12776802.81	0.0281	0.0075 *
Venus	30270-12-14 09:21 G	12777297.79	12777297.89	12777297.99	0.0286	0.0249
Venus	30271-08-01 04:05 G	12777527.46	12777527.67	12777527.89	0.0288	0.0017
Venus	30272-03-18 00:43 G	12777757.40	12777757.53	12777757.67	0.0290	0.0225
Mercury	30274-08-15 06:00 G	12778637.62	12778637.75	12778637.88	0.0297	0.0199
Mercury	30274-11-12 05:02 G	12778726.53	12778726.71	12778726.88	0.0297	0.0017
Mercury	30275-02-09 03:21 G	12778815.50	12778815.64	12778815.79	0.0297	0.0164
Earth	30283-02-04 02:38 G	12781732.37	12781732.61	12781732.85	0.0280	0.0048
Moon	30283-02-04 02:38 G	12781732.38	12781732.61	12781732.85	0.0280	0.0062 *
Venus	30284-10-18 07:41 G	12782354.66	12782354.82	12782355.00	0.0274	0.0165
Venus	30285-06-04 13:26 G	12782583.86	12782584.06	12782584.28	0.0272	0.0036
Venus	30286-01-19 17:45 G	12782813.14	12782813.24	12782813.36	0.0270	0.0230
Mercury	30288-09-06 20:09 G	12783774.27	12783774.34	12783774.42	0.0265	0.0222
Mercury	30288-12-04 06:57 G	12783862.67	12783862.79	12783862.91	0.0264	0.0125
Mercury	30289-03-02 17:45 G	12783951.10	12783951.24	12783951.38	0.0264	0.0027
Mercury	30289-05-30 04:33 G	12784039.56	12784039.69	12784039.82	0.0264	0.0073
Mercury	30289-08-26 15:36 G	12784128.05	12784128.15	12784128.25	0.0264	0.0173
Earth	30298-07-31 15:07 G	12787388.91	12787389.13	12787389.36	0.0279	0.0113
Moon	30298-07-31 16:05 G	12787388.95	12787389.17	12787389.41	0.0279	0.0116 *
Venus	30300-06-26 14:38 G	12788083.98	12788084.11	12788084.25	0.0286	0.0219
Venus	30301-02-11 10:05 G	12788313.70	12788313.92	12788314.13	0.0288	0.0017
Venus	30301-09-29 06:43 G	12788543.69	12788543.78	12788543.88	0.0290	0.0258
Mercury	30304-01-03 04:48 G	12789369.62	12789369.70	12789369.81	0.0297	0.0250
Mercury	30304-04-01 04:05 G	12789458.50	12789458.67	12789458.85	0.0297	0.0065
Mercury	30304-06-29 02:53 G	12789547.46	12789547.62	12789547.78	0.0297	0.0116
Mercury	30304-09-26 00:57 G	12789636.52	12789636.54	12789636.57	0.0298	0.0294

Mars	30305-08-21 02:24 G	12789965.32	12789965.60	12789965.88	0.0298	0.0066
Moon	30312-01-30 20:09 G	12792319.12	12792319.34	12792319.58	0.0282	0.0119
Earth	30312-01-30 20:24 G	12792319.14	12792319.35	12792319.57	0.0282	0.0133 *
Venus	30314-05-01 15:36 G	12793140.97	12793141.15	12793141.34	0.0274	0.0132
Venus	30314-12-16 21:21 G	12793370.19	12793370.39	12793370.60	0.0272	0.0068
Venus	30315-08-03 01:26 G	12793599.51	12793599.56	12793599.61	0.0270	0.0261
Mercury	30318-01-25 23:45 G	12794506.44	12794506.49	12794506.55	0.0265	0.0241
Mercury	30318-04-24 10:19 G	12794594.82	12794594.93	12794595.05	0.0264	0.0144
Mercury	30318-07-21 21:07 G	12794683.25	12794683.38	12794683.52	0.0264	0.0046
Mercury	30318-10-18 07:55 G	12794771.70	12794771.83	12794771.97	0.0264	0.0054
Mercury	30319-01-14 18:57 G	12794860.18	12794860.29	12794860.41	0.0263	0.0153
Mercury	30319-04-13 06:00 G	12794948.72	12794948.75	12794948.79	0.0263	0.0254
Earth	30328-08-08 09:36 G	12798353.69	12798353.90	12798354.13	0.0281	0.0129
Moon	30328-08-08 12:57 G	12798353.83	12798354.04	12798354.25	0.0281	0.0133 *
Venus	30330-01-06 21:50 G	12798870.26	12798870.41	12798870.58	0.0287	0.0188
Venus	30330-08-24 17:17 G	12799100.01	12799100.22	12799100.43	0.0289	0.0049
Mercury	30333-08-19 03:21 G	12800190.48	12800190.64	12800190.80	0.0297	0.0116
Mercury	30333-11-16 02:09 G	12800279.42	12800279.59	12800279.76	0.0297	0.0066
Mercury	30334-02-13 00:14 G	12800368.42	12800368.51	12800368.61	0.0298	0.0245
Earth	30342-02-06 13:12 G	12803283.83	12803284.05	12803284.28	0.0280	0.0104
Moon	30342-02-06 16:48 G	12803283.99	12803284.20	12803284.43	0.0280	0.0117 *
Venus	30343-11-11 18:43 G	12803927.09	12803927.28	12803927.48	0.0273	0.0108
Venus	30344-06-28 00:00 G	12804156.31	12804156.50	12804156.70	0.0271	0.0092
Mercury	30347-09-11 12:29 G	12805326.92	12805327.02	12805327.12	0.0264	0.0177
Mercury	30347-12-08 23:17 G	12805415.34	12805415.47	12805415.60	0.0264	0.0080
Mercury	30348-03-06 09:50 G	12805503.78	12805503.91	12805504.05	0.0264	0.0021
Mercury	30348-06-02 20:53 G	12805592.25	12805592.37	12805592.49	0.0264	0.0119
Mercury	30348-08-30 07:55 G	12805680.76	12805680.83	12805680.91	0.0263	0.0220
Mars	30349-09-15 14:24 G	12806061.80	12806062.10	12806062.40	0.0263	0.0007
Moon	30357-08-02 17:02 G	12808939.97	12808940.21	12808940.46	0.0279	0.0064

Earth	30357-08-02 20:09 G	12808940.11	12808940.34	12808940.58	0.0279	0.0064	*
Venus	30359-07-20 01:41 G	12809656.40	12809656.57	12809656.75	0.0287	0.0160	
Venus	30360-03-05 21:21 G	12809886.19	12809886.39	12809886.60	0.0289	0.0078	
Mercury	30363-01-06 01:26 G	12810922.42	12810922.56	12810922.71	0.0297	0.0172	
Mercury	30363-04-05 00:29 G	12811011.35	12811011.52	12811011.70	0.0297	0.0013	
Mercury	30363-07-02 22:48 G	12811100.33	12811100.45	12811100.59	0.0298	0.0193	
Moon	30371-02-01 02:24 G	12813870.36	12813870.60	12813870.84	0.0282	0.0064	
Earth	30371-02-01 05:45 G	12813870.51	12813870.74	12813870.98	0.0282	0.0077	*
Venus	30373-05-24 01:41 G	12814713.37	12814713.57	12814713.78	0.0273	0.0077	
Venus	30374-01-08 06:43 G	12814942.60	12814942.78	12814942.98	0.0271	0.0123	
Mercury	30377-01-28 15:36 G	12816059.07	12816059.15	12816059.25	0.0264	0.0199	
Mercury	30377-04-27 02:24 G	12816147.48	12816147.60	12816147.73	0.0264	0.0101	
Mercury	30377-07-24 13:12 G	12816235.91	12816236.05	12816236.19	0.0264	0.0002	
Mercury	30377-10-21 00:00 G	12816324.37	12816324.50	12816324.63	0.0263	0.0097	
Mercury	30378-01-17 11:02 G	12816412.87	12816412.96	12816413.05	0.0263	0.0198	
Earth	30386-07-28 13:41 G	12819526.96	12819527.07	12819527.20	0.0278	0.0241	
Moon	30386-07-28 16:48 G	12819527.09	12819527.20	12819527.31	0.0278	0.0247	*
Earth	30387-08-10 14:09 G	12819904.90	12819905.09	12819905.28	0.0282	0.0177	
Moon	30387-08-10 16:48 G	12819905.02	12819905.20	12819905.40	0.0282	0.0182	*
Venus	30389-01-29 08:24 G	12820442.66	12820442.85	12820443.04	0.0287	0.0130	
Venus	30389-09-16 04:05 G	12820672.48	12820672.67	12820672.87	0.0290	0.0109	
Mercury	30392-05-25 00:00 G	12821654.40	12821654.50	12821654.62	0.0297	0.0227	
Mercury	30392-08-21 23:17 G	12821743.30	12821743.47	12821743.65	0.0297	0.0042	
Mercury	30392-11-18 21:50 G	12821832.26	12821832.41	12821832.57	0.0298	0.0140	
Mars	30394-01-15 00:00 G	12822254.25	12822254.50	12822254.76	0.0298	0.0133	
Earth	30400-01-26 12:43 G	12824456.98	12824457.03	12824457.10	0.0283	0.0273	
Moon	30400-01-26 16:19 G	12824457.09	12824457.18	12824457.29	0.0283	0.0257	*
Earth	30401-02-07 20:53 G	12824835.16	12824835.37	12824835.57	0.0279	0.0157	
Moon	30401-02-07 22:33 G	12824835.24	12824835.44	12824835.65	0.0279	0.0166	*
Venus	30402-04-18 21:21 G	12825270.32	12825270.39	12825270.47	0.0275	0.0256	

Venus	30402-12-04 04:05 G	12825499.46	12825499.67	12825499.88	0.0273	0.0053
Venus	30403-07-21 08:38 G	12825728.69	12825728.86	12825729.05	0.0271	0.0144
Mercury	30406-06-17 17:31 G	12826791.18	12826791.23	12826791.30	0.0264	0.0233
Mercury	30406-09-14 04:19 G	12826879.56	12826879.68	12826879.80	0.0264	0.0135
Mercury	30406-12-11 14:53 G	12826967.99	12826968.12	12826968.26	0.0264	0.0038
Mercury	30407-03-10 01:41 G	12827056.44	12827056.57	12827056.71	0.0264	0.0062
Mercury	30407-06-06 12:43 G	12827144.92	12827145.03	12827145.14	0.0263	0.0162
Mercury	30407-09-02 23:45 G	12827233.49	12827233.49	12827233.50	0.0263	0.0262
Moon	30416-08-03 18:43 G	12830491.05	12830491.28	12830491.52	0.0280	0.0019
Earth	30416-08-03 21:36 G	12830491.15	12830491.40	12830491.64	0.0280	0.0020 *
Venus	30418-08-11 10:05 G	12831228.73	12831228.92	12831229.12	0.0287	0.0105
Venus	30419-03-29 06:14 G	12831458.57	12831458.76	12831458.95	0.0289	0.0135
Mercury	30421-10-11 21:07 G	12832386.35	12832386.38	12832386.41	0.0297	0.0292
Mercury	30422-01-08 20:24 G	12832475.19	12832475.35	12832475.52	0.0297	0.0106
Mercury	30422-04-07 19:26 G	12832564.14	12832564.31	12832564.47	0.0297	0.0078
Mercury	30422-07-05 17:31 G	12832653.15	12832653.23	12832653.32	0.0298	0.0257
Moon	30430-02-02 09:07 G	12835421.64	12835421.88	12835422.12	0.0282	0.0014
Earth	30430-02-02 11:02 G	12835421.72	12835421.96	12835422.21	0.0282	0.0027 *
Venus	30431-10-30 03:21 G	12836056.53	12836056.64	12836056.76	0.0275	0.0228
Venus	30432-06-15 09:36 G	12836285.70	12836285.90	12836286.12	0.0273	0.0026
Venus	30433-01-30 14:24 G	12836514.94	12836515.10	12836515.26	0.0271	0.0172
Mercury	30435-11-04 20:38 G	12837523.34	12837523.36	12837523.40	0.0264	0.0256
Mercury	30436-02-01 07:12 G	12837611.70	12837611.80	12837611.92	0.0264	0.0159
Mercury	30436-04-29 18:00 G	12837700.12	12837700.25	12837700.39	0.0264	0.0061
Mercury	30436-07-27 04:48 G	12837788.56	12837788.70	12837788.84	0.0263	0.0038
Mercury	30436-10-23 15:36 G	12837877.04	12837877.15	12837877.27	0.0263	0.0138
Mercury	30437-01-20 02:38 G	12837965.56	12837965.61	12837965.67	0.0263	0.0238
Mars	30438-02-09 11:17 G	12838350.68	12838350.97	12838351.26	0.0262	0.0058
Earth	30445-07-29 13:41 G	12841077.90	12841078.07	12841078.24	0.0278	0.0199
Moon	30445-07-29 16:19 G	12841078.02	12841078.18	12841078.36	0.0278	0.0201 *

Moon	30446-08-11 12:29 G	12841455.89	12841456.02	12841456.18	0.0282	0.0229
Earth	30446-08-11 14:24 G	12841455.95	12841456.10	12841456.25	0.0282	0.0220 *
Venus	30448-02-21 15:50 G	12842014.96	12842015.16	12842015.37	0.0288	0.0077
Venus	30448-10-08 12:00 G	12842244.83	12842245.00	12842245.18	0.0290	0.0164
Mercury	30451-05-28 18:57 G	12843207.14	12843207.29	12843207.44	0.0297	0.0162
Mercury	30451-08-25 18:00 G	12843296.07	12843296.25	12843296.42	0.0298	0.0022
Mercury	30451-11-22 16:19 G	12843385.06	12843385.18	12843385.31	0.0298	0.0203
Earth	30459-01-27 18:00 G	12846008.10	12846008.25	12846008.40	0.0283	0.0222
Moon	30459-01-27 19:55 G	12846008.17	12846008.33	12846008.51	0.0283	0.0207 *
Moon	30460-02-09 22:48 G	12846386.29	12846386.45	12846386.62	0.0279	0.0211
Earth	30460-02-10 01:26 G	12846386.40	12846386.56	12846386.73	0.0279	0.0205 *
Venus	30461-05-11 05:31 G	12846842.59	12846842.73	12846842.87	0.0274	0.0205
Venus	30461-12-26 11:31 G	12847071.77	12847071.98	12847072.19	0.0272	0.0004
Venus	30462-08-12 15:36 G	12847301.02	12847301.15	12847301.31	0.0270	0.0194
Mercury	30465-06-20 09:07 G	12848343.79	12848343.88	12848343.97	0.0264	0.0194
Mercury	30465-09-16 19:41 G	12848432.20	12848432.32	12848432.45	0.0264	0.0097
Mercury	30465-12-14 06:29 G	12848520.63	12848520.77	12848520.91	0.0263	0.0002
Mercury	30466-03-12 17:17 G	12848609.09	12848609.22	12848609.35	0.0263	0.0101
Mercury	30466-06-09 04:05 G	12848697.59	12848697.67	12848697.77	0.0263	0.0201
Earth	30475-08-05 19:26 G	12852042.07	12852042.31	12852042.56	0.0280	0.0021
Moon	30475-08-05 21:21 G	12852042.15	12852042.39	12852042.63	0.0280	0.0027 *
Venus	30477-09-02 16:33 G	12852800.98	12852801.19	12852801.40	0.0288	0.0054
Venus	30478-04-20 12:57 G	12853030.88	12853031.04	12853031.20	0.0290	0.0187
Mercury	30480-10-14 15:07 G	12853939.02	12853939.13	12853939.24	0.0297	0.0234
Mercury	30481-01-11 14:24 G	12854027.93	12854028.10	12854028.27	0.0297	0.0048
Mercury	30481-04-10 12:57 G	12854116.89	12854117.04	12854117.20	0.0298	0.0135
Mars	30482-06-09 21:50 G	12854542.17	12854542.41	12854542.66	0.0299	0.0154
Earth	30489-02-03 13:12 G	12856972.80	12856973.05	12856973.29	0.0282	0.0021
Moon	30489-02-03 15:21 G	12856972.91	12856973.14	12856973.38	0.0282	0.0032 *
Venus	30490-11-21 09:50 G	12857628.76	12857628.91	12857629.08	0.0275	0.0180

Venus	30491-07-08 15:50 G	12857857.95	12857858.16	12857858.38	0.0273	0.0024
Venus	30492-02-22 19:55 G	12858087.22	12858087.33	12858087.47	0.0271	0.0219
Mercury	30494-11-07 12:00 G	12859075.93	12859076.00	12859076.07	0.0264	0.0219
Mercury	30495-02-03 22:33 G	12859164.32	12859164.44	12859164.56	0.0264	0.0122
Mercury	30495-05-03 09:07 G	12859252.75	12859252.88	12859253.02	0.0263	0.0026
Mercury	30495-07-30 19:55 G	12859341.20	12859341.33	12859341.47	0.0263	0.0075
Mercury	30495-10-27 06:57 G	12859429.69	12859429.79	12859429.89	0.0263	0.0175
Moon	30504-07-31 08:38 G	12862628.66	12862628.86	12862629.08	0.0278	0.0155
Earth	30504-07-31 11:02 G	12862628.76	12862628.96	12862629.16	0.0278	0.0160 *
Moon	30505-08-13 08:24 G	12863006.79	12863006.85	12863006.91	0.0282	0.0272
Earth	30505-08-13 12:00 G	12863006.91	12863007.00	12863007.09	0.0282	0.0260 *
Venus	30506-07-30 03:07 G	12863357.54	12863357.63	12863357.72	0.0286	0.0260
Venus	30507-03-16 21:50 G	12863587.19	12863587.41	12863587.62	0.0288	0.0027
Venus	30507-11-01 18:00 G	12863817.12	12863817.25	12863817.40	0.0290	0.0216
Mercury	30510-03-04 12:57 G	12864671.03	12864671.04	12864671.07	0.0297	0.0294
Mercury	30510-06-01 12:29 G	12864759.86	12864760.02	12864760.19	0.0297	0.0107
Mercury	30510-08-29 11:31 G	12864848.81	12864848.98	12864849.15	0.0298	0.0077
Mercury	30510-11-26 09:50 G	12864937.83	12864937.91	12864938.00	0.0298	0.0257
Moon	30518-01-29 16:19 G	12867558.99	12867559.18	12867559.39	0.0283	0.0164
Earth	30518-01-29 19:26 G	12867559.12	12867559.31	12867559.50	0.0283	0.0176 *
Moon	30519-02-11 23:17 G	12867937.38	12867937.47	12867937.57	0.0279	0.0255
Earth	30519-02-12 02:24 G	12867937.50	12867937.60	12867937.71	0.0279	0.0250 *
Venus	30520-06-03 11:31 G	12868414.81	12868414.98	12868415.16	0.0274	0.0157
Venus	30521-01-18 17:17 G	12868644.01	12868644.22	12868644.43	0.0272	0.0044
Venus	30521-09-04 21:07 G	12868873.30	12868873.38	12868873.49	0.0270	0.0239
Mercury	30524-03-27 13:41 G	12869808.04	12869808.07	12869808.11	0.0264	0.0255
Mercury	30524-06-24 00:14 G	12869896.40	12869896.51	12869896.62	0.0264	0.0158
Mercury	30524-09-20 10:48 G	12869984.82	12869984.95	12869985.09	0.0263	0.0061
Mercury	30524-12-17 21:36 G	12870073.26	12870073.40	12870073.54	0.0263	0.0038
Mercury	30525-03-16 08:24 G	12870161.73	12870161.85	12870161.97	0.0263	0.0137

Mercury	30525-06-12 19:26 G	12870250.25	12870250.31	12870250.37	0.0263	0.0237
Mars	30526-07-06 06:57 G	12870638.51	12870638.79	12870639.08	0.0262	0.0083
Earth	30534-08-07 15:07 G	12873592.89	12873593.13	12873593.37	0.0280	0.0057
Moon	30534-08-07 18:43 G	12873593.04	12873593.28	12873593.52	0.0280	0.0068 *
Venus	30536-02-09 02:09 G	12874143.48	12874143.59	12874143.71	0.0286	0.0242
Venus	30536-09-25 21:07 G	12874373.17	12874373.38	12874373.59	0.0288	0.0007
Venus	30537-05-13 17:45 G	12874603.12	12874603.24	12874603.37	0.0290	0.0235
Mercury	30539-10-19 08:09 G	12875491.70	12875491.84	12875491.98	0.0297	0.0183
Mercury	30540-01-16 07:12 G	12875580.63	12875580.80	12875580.98	0.0297	0.0005
Mercury	30540-04-14 05:45 G	12875669.61	12875669.74	12875669.88	0.0298	0.0185
Earth	30548-02-06 12:43 G	12878523.79	12878524.03	12878524.27	0.0282	0.0064
Moon	30548-02-06 16:05 G	12878523.93	12878524.17	12878524.41	0.0282	0.0073 *
Venus	30549-12-14 15:21 G	12879200.96	12879201.14	12879201.32	0.0274	0.0133
Venus	30550-07-31 20:53 G	12879430.17	12879430.37	12879430.58	0.0272	0.0068
Venus	30551-03-18 00:57 G	12879659.50	12879659.54	12879659.59	0.0270	0.0262
Mercury	30553-11-11 02:53 G	12880628.53	12880628.62	12880628.72	0.0264	0.0186
Mercury	30554-02-07 13:26 G	12880716.93	12880717.06	12880717.19	0.0264	0.0088
Mercury	30554-05-07 00:14 G	12880805.37	12880805.51	12880805.65	0.0263	0.0011
Mercury	30554-08-03 11:02 G	12880893.83	12880893.96	12880894.09	0.0263	0.0110
Mercury	30554-10-30 22:05 G	12880982.33	12880982.42	12880982.50	0.0263	0.0210
Moon	30563-08-02 03:07 G	12884179.42	12884179.63	12884179.86	0.0278	0.0113
Earth	30563-08-02 06:29 G	12884179.56	12884179.77	12884180.00	0.0278	0.0123 *
Venus	30565-08-21 07:12 G	12884929.67	12884929.80	12884929.95	0.0286	0.0215
Venus	30566-04-08 02:24 G	12885159.39	12885159.60	12885159.81	0.0288	0.0021
Venus	30566-11-23 23:02 G	12885389.38	12885389.46	12885389.55	0.0291	0.0264
Mercury	30569-03-07 06:00 G	12886223.66	12886223.75	12886223.86	0.0297	0.0243
Mercury	30569-06-04 05:31 G	12886312.56	12886312.73	12886312.90	0.0298	0.0056
Mercury	30569-09-01 04:19 G	12886401.52	12886401.68	12886401.84	0.0298	0.0127
Mars	30570-11-03 17:31 G	12886830.00	12886830.23	12886830.45	0.0299	0.0179
Moon	30577-01-30 16:05 G	12889109.96	12889110.17	12889110.39	0.0283	0.0124

Earth	30577-01-30 18:57 G	12889110.08	12889110.29	12889110.51	0.0283	0.0132	*
Venus	30579-06-26 16:48 G	12889987.01	12889987.20	12889987.39	0.0274	0.0111	
Venus	30580-02-10 22:05 G	12890216.23	12890216.42	12890216.63	0.0272	0.0089	
Mercury	30583-03-31 04:33 G	12891360.62	12891360.69	12891360.77	0.0264	0.0221	
Mercury	30583-06-27 15:07 G	12891449.01	12891449.13	12891449.25	0.0264	0.0124	
Mercury	30583-09-24 01:55 G	12891537.44	12891537.58	12891537.71	0.0263	0.0027	
Mercury	30583-12-21 12:29 G	12891625.89	12891626.02	12891626.16	0.0263	0.0073	
Mercury	30584-03-18 23:17 G	12891714.37	12891714.47	12891714.58	0.0263	0.0173	
Moon	30593-08-08 09:21 G	12895143.66	12895143.89	12895144.12	0.0280	0.0109	
Earth	30593-08-08 10:19 G	12895143.70	12895143.93	12895144.16	0.0280	0.0095	*
Venus	30595-03-03 06:00 G	12895715.61	12895715.75	12895715.91	0.0286	0.0197	
Venus	30595-10-19 01:12 G	12895945.34	12895945.55	12895945.76	0.0288	0.0040	
Venus	30596-06-04 22:19 G	12896175.39	12896175.43	12896175.48	0.0291	0.0283	
Mercury	30598-10-22 00:43 G	12897044.37	12897044.53	12897044.69	0.0297	0.0135	
Mercury	30599-01-18 23:45 G	12897133.32	12897133.49	12897133.66	0.0297	0.0050	
Mercury	30599-04-17 22:19 G	12897222.32	12897222.43	12897222.54	0.0298	0.0231	
Moon	30607-02-08 08:53 G	12900074.64	12900074.87	12900075.11	0.0282	0.0108	
Earth	30607-02-08 10:05 G	12900074.71	12900074.92	12900075.16	0.0282	0.0107	*
Venus	30609-01-06 19:41 G	12900773.12	12900773.32	12900773.52	0.0274	0.0090	
Venus	30609-08-24 00:57 G	12901002.35	12901002.54	12901002.74	0.0272	0.0111	
Mercury	30612-08-18 07:12 G	12902092.76	12902092.80	12902092.84	0.0264	0.0250	
Mercury	30612-11-14 17:45 G	12902181.13	12902181.24	12902181.35	0.0264	0.0153	
Mercury	30613-02-11 04:19 G	12902269.55	12902269.68	12902269.82	0.0264	0.0055	
Mercury	30613-05-10 15:07 G	12902357.99	12902358.13	12902358.26	0.0263	0.0044	
Mercury	30613-08-07 01:55 G	12902446.46	12902446.58	12902446.70	0.0263	0.0144	
Mercury	30613-11-03 12:43 G	12902534.99	12902535.03	12902535.09	0.0263	0.0245	
Mars	30614-11-30 14:38 G	12902926.85	12902927.11	12902927.38	0.0262	0.0116	
Earth	30622-08-04 01:41 G	12905730.34	12905730.57	12905730.81	0.0278	0.0085	
Moon	30622-08-04 03:07 G	12905730.40	12905730.63	12905730.86	0.0278	0.0073	*
Venus	30624-09-13 11:17 G	12906501.80	12906501.97	12906502.14	0.0286	0.0171	

Venus	30625-05-01 06:29 G	12906731.56	12906731.77	12906731.98	0.0289	0.0067
Mercury	30628-03-10 22:48 G	12907776.32	12907776.45	12907776.58	0.0297	0.0195
Mercury	30628-06-07 22:05 G	12907865.24	12907865.42	12907865.59	0.0298	0.0010
Mercury	30628-09-04 20:38 G	12907954.22	12907954.36	12907954.50	0.0298	0.0174
Earth	30636-02-02 17:31 G	12910661.00	12910661.23	12910661.46	0.0283	0.0089
Moon	30636-02-02 19:26 G	12910661.09	12910661.31	12910661.54	0.0283	0.0086 *
Venus	30637-12-02 14:38 G	12911330.08	12911330.11	12911330.15	0.0276	0.0272
Venus	30638-07-19 21:36 G	12911559.20	12911559.40	12911559.61	0.0273	0.0067
Venus	30639-03-06 02:38 G	12911788.44	12911788.61	12911788.80	0.0271	0.0134
Mercury	30642-04-03 19:41 G	12912913.22	12912913.32	12912913.41	0.0264	0.0187
Mercury	30642-07-01 06:14 G	12913001.63	12913001.76	12913001.88	0.0263	0.0090
Mercury	30642-09-27 16:48 G	12913090.06	12913090.20	12913090.34	0.0263	0.0009
Mercury	30642-12-25 03:36 G	12913178.52	12913178.65	12913178.78	0.0263	0.0108
Mercury	30643-03-23 14:24 G	12913267.02	12913267.10	12913267.19	0.0263	0.0208
Moon	30651-07-29 07:41 G	12916316.76	12916316.82	12916316.91	0.0276	0.0264
Earth	30651-07-29 09:21 G	12916316.89	12916316.89	12916316.92	0.0276	0.0275 *
Moon	30652-08-10 01:55 G	12916694.38	12916694.58	12916694.79	0.0280	0.0150
Earth	30652-08-10 05:45 G	12916694.53	12916694.74	12916694.96	0.0280	0.0133 *
Venus	30654-03-26 10:05 G	12917287.75	12917287.92	12917288.11	0.0286	0.0153
Venus	30654-11-11 05:31 G	12917517.53	12917517.73	12917517.93	0.0289	0.0085
Mercury	30657-07-28 18:00 G	12918508.19	12918508.25	12918508.31	0.0297	0.0275
Mercury	30657-10-25 17:17 G	12918597.06	12918597.22	12918597.39	0.0297	0.0088
Mercury	30658-01-22 16:19 G	12918686.01	12918686.18	12918686.34	0.0298	0.0097
Mercury	30658-04-21 14:38 G	12918775.06	12918775.11	12918775.17	0.0298	0.0278
Mars	30659-03-29 15:21 G	12919116.91	12919117.14	12919117.39	0.0299	0.0161
Moon	30666-02-09 04:19 G	12921625.48	12921625.68	12921625.89	0.0282	0.0144
Earth	30666-02-09 08:09 G	12921625.63	12921625.84	12921626.05	0.0282	0.0148 *
Venus	30667-06-14 16:33 G	12922116.11	12922116.19	12922116.28	0.0276	0.0252
Venus	30668-01-29 23:45 G	12922345.29	12922345.49	12922345.70	0.0274	0.0046
Venus	30668-09-15 05:17 G	12922574.54	12922574.72	12922574.89	0.0272	0.0154

Mercury	30671-08-21 21:50 G	12923645.34	12923645.41	12923645.50	0.0264	0.0218
Mercury	30671-11-18 08:38 G	12923733.74	12923733.86	12923733.98	0.0264	0.0119
Mercury	30672-02-14 19:12 G	12923822.16	12923822.30	12923822.44	0.0264	0.0021
Mercury	30672-05-13 06:00 G	12923910.62	12923910.75	12923910.88	0.0263	0.0078
Mercury	30672-08-09 16:48 G	12923999.10	12923999.20	12923999.30	0.0263	0.0179
Earth	30681-08-04 22:33 G	12927281.20	12927281.44	12927281.68	0.0278	0.0046
Moon	30681-08-05 02:09 G	12927281.34	12927281.59	12927281.83	0.0278	0.0031 *
Venus	30683-10-06 16:19 G	12928073.99	12928074.18	12928074.37	0.0287	0.0124
Venus	30684-05-23 11:31 G	12928303.79	12928303.98	12928304.18	0.0289	0.0115
Mercury	30687-03-14 15:50 G	12929329.01	12929329.16	12929329.31	0.0297	0.0145
Mercury	30687-06-11 14:53 G	12929417.95	12929418.12	12929418.30	0.0298	0.0041
Mercury	30687-09-08 13:26 G	12929506.95	12929507.06	12929507.18	0.0298	0.0224
Earth	30695-02-03 15:50 G	12932211.92	12932212.16	12932212.41	0.0283	0.0046
Moon	30695-02-03 19:26 G	12932212.06	12932212.31	12932212.55	0.0283	0.0047 *
Venus	30696-12-24 19:26 G	12932902.20	12932902.31	12932902.44	0.0276	0.0228
Venus	30697-08-11 02:24 G	12933131.39	12933131.60	12933131.82	0.0273	0.0023
Venus	30698-03-28 07:26 G	12933360.66	12933360.81	12933360.97	0.0271	0.0177
Mercury	30701-01-09 00:00 G	12934377.47	12934377.50	12934377.55	0.0264	0.0249
Mercury	30701-04-07 10:33 G	12934465.83	12934465.94	12934466.05	0.0264	0.0152
Mercury	30701-07-04 21:07 G	12934554.25	12934554.38	12934554.52	0.0263	0.0055
Mercury	30701-10-01 07:55 G	12934642.69	12934642.83	12934642.97	0.0263	0.0045
Mercury	30701-12-28 18:43 G	12934731.17	12934731.28	12934731.40	0.0263	0.0144
Mercury	30702-03-27 05:45 G	12934819.69	12934819.74	12934819.79	0.0262	0.0245
Mars	30703-04-26 12:57 G	12935214.80	12935215.04	12935215.30	0.0262	0.0144
Moon	30710-07-31 03:50 G	12937867.52	12937867.66	12937867.81	0.0276	0.0222
Earth	30710-07-31 07:12 G	12937867.68	12937867.80	12937867.94	0.0276	0.0235 *
Earth	30711-08-13 03:21 G	12938245.45	12938245.64	12938245.83	0.0280	0.0174
Moon	30711-08-13 03:21 G	12938245.47	12938245.64	12938245.81	0.0280	0.0189 *
Venus	30713-04-18 15:21 G	12938859.95	12938860.14	12938860.34	0.0286	0.0106
Venus	30713-12-04 10:48 G	12939089.77	12939089.95	12939090.14	0.0289	0.0134

Mercury	30716-08-01 11:02 G	12940060.85	12940060.96	12940061.08	0.0297	0.0224
Mercury	30716-10-29 10:19 G	12940149.76	12940149.93	12940150.10	0.0297	0.0037
Mercury	30717-01-26 09:07 G	12940238.73	12940238.88	12940239.03	0.0298	0.0147
Moon	30724-01-29 14:24 G	12942797.99	12942798.10	12942798.22	0.0286	0.0249
Earth	30724-01-29 17:31 G	12942798.12	12942798.23	12942798.35	0.0286	0.0250 *
Earth	30725-02-11 06:29 G	12943176.59	12943176.77	12943176.95	0.0282	0.0191
Moon	30725-02-11 06:43 G	12943176.61	12943176.78	12943176.97	0.0282	0.0184 *
Venus	30726-07-07 21:36 G	12943688.27	12943688.40	12943688.54	0.0276	0.0208
Venus	30727-02-22 04:48 G	12943917.48	12943917.70	12943917.91	0.0274	0.0005
Venus	30727-10-09 09:50 G	12944146.77	12944146.91	12944147.06	0.0272	0.0198
Mercury	30730-08-25 12:57 G	12945197.95	12945198.04	12945198.15	0.0264	0.0183
Mercury	30730-11-21 23:45 G	12945286.36	12945286.49	12945286.62	0.0264	0.0084
Mercury	30731-02-18 10:19 G	12945374.80	12945374.93	12945375.07	0.0264	0.0017
Mercury	30731-05-17 21:07 G	12945463.26	12945463.38	12945463.51	0.0263	0.0115
Mercury	30731-08-14 07:55 G	12945551.76	12945551.83	12945551.92	0.0263	0.0216
Earth	30740-08-06 21:21 G	12948832.14	12948832.39	12948832.63	0.0278	0.0004
Moon	30740-08-06 21:36 G	12948832.14	12948832.40	12948832.65	0.0278	0.0011 *
Venus	30742-10-29 22:19 G	12949646.23	12949646.43	12949646.64	0.0287	0.0075
Venus	30743-06-16 18:00 G	12949876.09	12949876.25	12949876.43	0.0289	0.0166
Mercury	30745-12-19 09:50 G	12950792.85	12950792.91	12950792.97	0.0297	0.0278
Mercury	30746-03-18 09:21 G	12950881.72	12950881.89	12950882.06	0.0298	0.0090
Mercury	30746-06-15 08:09 G	12950970.68	12950970.84	12950971.01	0.0298	0.0096
Mercury	30746-09-12 06:43 G	12951059.72	12951059.78	12951059.85	0.0298	0.0277
Mars	30747-08-23 17:02 G	12951405.00	12951405.21	12951405.43	0.0299	0.0201
Moon	30754-02-05 15:36 G	12953762.89	12953763.15	12953763.40	0.0283	0.0006
Earth	30754-02-05 16:05 G	12953762.93	12953763.17	12953763.42	0.0283	0.0003 *
Venus	30756-01-18 01:26 G	12954474.41	12954474.56	12954474.72	0.0275	0.0181
Venus	30756-09-03 08:09 G	12954703.63	12954703.84	12954704.06	0.0273	0.0025
Venus	30757-04-20 13:12 G	12954932.93	12954933.05	12954933.17	0.0271	0.0222
Mercury	30760-01-12 15:21 G	12955930.07	12955930.14	12955930.23	0.0264	0.0212

Mercury	30760-04-10 01:55 G	12956018.46	12956018.58	12956018.71	0.0264	0.0115
Mercury	30760-07-07 12:43 G	12956106.89	12956107.03	12956107.17	0.0263	0.0017
Mercury	30760-10-03 23:17 G	12956195.34	12956195.47	12956195.61	0.0263	0.0084
Mercury	30760-12-31 10:19 G	12956283.83	12956283.93	12956284.03	0.0263	0.0184
Moon	30769-08-01 07:55 G	12959418.66	12959418.83	12959419.02	0.0276	0.0177
Earth	30769-08-01 08:24 G	12959418.68	12959418.85	12959419.03	0.0276	0.0190 *
Earth	30770-08-14 04:19 G	12959796.54	12959796.68	12959796.84	0.0280	0.0221
Moon	30770-08-14 07:55 G	12959796.71	12959796.83	12959796.97	0.0280	0.0234 *
Venus	30772-05-10 23:17 G	12960432.26	12960432.47	12960432.68	0.0287	0.0054
Venus	30772-12-26 18:43 G	12960662.13	12960662.28	12960662.45	0.0289	0.0187
Mercury	30775-08-05 05:17 G	12961613.58	12961613.72	12961613.87	0.0297	0.0164
Mercury	30775-11-02 04:33 G	12961702.51	12961702.69	12961702.86	0.0297	0.0023
Mercury	30776-01-30 03:07 G	12961791.51	12961791.63	12961791.76	0.0298	0.0206
Earth	30783-01-30 18:00 G	12964349.08	12964349.25	12964349.42	0.0286	0.0204
Moon	30783-01-30 18:29 G	12964349.12	12964349.27	12964349.44	0.0286	0.0207 *
Earth	30784-02-13 06:43 G	12964727.66	12964727.78	12964727.92	0.0282	0.0237
Moon	30784-02-13 10:33 G	12964727.79	12964727.94	12964728.08	0.0282	0.0225 *
Venus	30785-07-30 03:36 G	12965260.48	12965260.65	12965260.83	0.0276	0.0161
Venus	30786-03-16 10:33 G	12965489.73	12965489.94	12965490.15	0.0274	0.0045
Venus	30786-10-31 15:21 G	12965719.06	12965719.14	12965719.24	0.0272	0.0244
Mercury	30789-05-31 18:00 G	12966662.20	12966662.25	12966662.30	0.0265	0.0243
Mercury	30789-08-28 04:33 G	12966750.58	12966750.69	12966750.80	0.0264	0.0145
Mercury	30789-11-24 15:07 G	12966839.00	12966839.13	12966839.27	0.0264	0.0046
Mercury	30790-02-21 01:55 G	12966927.44	12966927.58	12966927.71	0.0264	0.0054
Mercury	30790-05-20 12:43 G	12967015.92	12967016.03	12967016.14	0.0263	0.0154
Mercury	30790-08-16 23:31 G	12967104.46	12967104.48	12967104.52	0.0263	0.0256
Mars	30791-09-20 03:21 G	12967503.44	12967503.64	12967503.84	0.0262	0.0194
Moon	30799-08-08 20:09 G	12970383.10	12970383.34	12970383.59	0.0278	0.0059
Earth	30799-08-08 23:45 G	12970383.25	12970383.49	12970383.73	0.0278	0.0044 *
Venus	30801-04-05 12:57 G	12970988.95	12970989.04	12970989.14	0.0284	0.0253

Venus	30801-11-21 06:57 G	12971218.58	12971218.79	12971219.00	0.0287	0.0021
Venus	30802-07-09 02:53 G	12971448.49	12971448.62	12971448.76	0.0289	0.0220
Mercury	30804-12-22 04:33 G	12972345.57	12972345.69	12972345.82	0.0297	0.0214
Mercury	30805-03-21 03:50 G	12972434.49	12972434.66	12972434.84	0.0298	0.0028
Mercury	30805-06-18 02:38 G	12972523.47	12972523.61	12972523.76	0.0298	0.0157
Moon	30813-02-06 14:53 G	12975313.87	12975314.12	12975314.36	0.0283	0.0039
Earth	30813-02-06 18:29 G	12975314.02	12975314.27	12975314.51	0.0283	0.0048 *
Venus	30815-02-09 08:24 G	12976046.68	12976046.85	12976047.05	0.0275	0.0132
Venus	30815-09-26 15:07 G	12976275.93	12976276.13	12976276.34	0.0273	0.0073
Venus	30816-05-12 19:55 G	12976505.32	12976505.33	12976505.35	0.0271	0.0270
Mercury	30819-01-15 06:57 G	12977482.70	12977482.79	12977482.90	0.0264	0.0173
Mercury	30819-04-13 17:45 G	12977571.11	12977571.24	12977571.37	0.0264	0.0073
Mercury	30819-07-11 04:19 G	12977659.55	12977659.68	12977659.82	0.0263	0.0028
Mercury	30819-10-07 15:07 G	12977748.01	12977748.13	12977748.26	0.0263	0.0126
Mercury	30820-01-04 02:09 G	12977836.52	12977836.59	12977836.66	0.0263	0.0227
Earth	30828-08-02 12:57 G	12980969.84	12980970.04	12980970.26	0.0276	0.0140
Moon	30828-08-02 16:33 G	12980969.97	12980970.19	12980970.41	0.0276	0.0124 *
Earth	30829-08-15 09:21 G	12981347.84	12981347.89	12981347.95	0.0280	0.0271
Venus	30830-10-16 15:21 G	12981775.01	12981775.14	12981775.26	0.0285	0.0230
Venus	30831-06-03 09:21 G	12982004.67	12982004.89	12982005.10	0.0287	0.0006
Venus	30832-01-19 05:02 G	12982234.60	12982234.71	12982234.83	0.0289	0.0244
Mercury	30834-05-11 00:57 G	12983077.50	12983077.54	12983077.60	0.0296	0.0284
Mercury	30834-08-08 00:29 G	12983166.36	12983166.52	12983166.69	0.0297	0.0096
Mercury	30834-11-04 23:31 G	12983255.32	12983255.48	12983255.65	0.0297	0.0090
Mercury	30835-02-01 21:50 G	12983344.35	12983344.41	12983344.49	0.0298	0.0272
Mars	30836-01-16 11:17 G	12983692.79	12983692.97	12983693.18	0.0299	0.0220
Earth	30842-01-31 21:07 G	12985900.18	12985900.38	12985900.60	0.0286	0.0155
Moon	30842-02-01 00:57 G	12985900.34	12985900.54	12985900.75	0.0286	0.0159 *
Moon	30843-02-14 11:31 G	12986278.92	12986278.98	12986279.04	0.0282	0.0273
Venus	30844-08-21 11:02 G	12986832.77	12986832.96	12986833.16	0.0276	0.0111

Venus	30845-04-07 17:45 G	12987062.05	12987062.24	12987062.44	0.0273	0.0094
Mercury	30848-06-03 09:36 G	12988214.82	12988214.90	12988214.99	0.0265	0.0202
Mercury	30848-08-30 20:24 G	12988303.22	12988303.35	12988303.47	0.0265	0.0104
Mercury	30848-11-27 06:57 G	12988391.65	12988391.79	12988391.93	0.0264	0.0004
Mercury	30849-02-23 17:45 G	12988480.11	12988480.24	12988480.37	0.0264	0.0097
Mercury	30849-05-23 04:48 G	12988568.61	12988568.70	12988568.79	0.0263	0.0198
Mars	30849-12-27 10:48 G	12988786.83	12988786.95	12988787.08	0.0263	0.0236
Moon	30858-08-10 03:50 G	12991934.44	12991934.66	12991934.88	0.0278	0.0110
Earth	30858-08-10 06:00 G	12991934.52	12991934.75	12991934.98	0.0278	0.0096 *
Venus	30860-04-28 00:14 G	12992561.36	12992561.51	12992561.67	0.0285	0.0195
Venus	30860-12-13 18:29 G	12992791.06	12992791.27	12992791.48	0.0287	0.0039
Venus	30861-07-31 14:38 G	12993021.07	12993021.11	12993021.16	0.0290	0.0281
Mercury	30863-12-26 00:43 G	12993898.38	12993898.53	12993898.69	0.0297	0.0139
Mercury	30864-03-24 00:00 G	12993987.32	12993987.50	12993987.67	0.0298	0.0048
Mercury	30864-06-20 22:19 G	12994076.33	12994076.43	12994076.55	0.0298	0.0230
Moon	30872-02-08 22:33 G	12996865.22	12996865.44	12996865.67	0.0283	0.0092
Earth	30872-02-09 00:14 G	12996865.28	12996865.51	12996865.74	0.0283	0.0100 *
Venus	30874-03-03 17:17 G	12997619.02	12997619.22	12997619.43	0.0275	0.0080
Venus	30874-10-18 23:45 G	12997848.30	12997848.49	12997848.68	0.0273	0.0124
Mercury	30877-10-21 12:43 G	12998946.96	12998947.03	12998947.10	0.0265	0.0226
Mercury	30878-01-17 23:17 G	12999035.35	12999035.47	12999035.59	0.0264	0.0128
Mercury	30878-04-16 09:50 G	12999123.78	12999123.91	12999124.05	0.0264	0.0030
Mercury	30878-07-13 20:38 G	12999212.23	12999212.36	12999212.50	0.0263	0.0071
Mercury	30878-10-10 07:26 G	12999300.71	12999300.81	12999300.92	0.0263	0.0172
Mars	30880-02-14 00:29 G	12999792.46	12999792.52	12999792.60	0.0262	0.0254
Earth	30887-08-04 21:50 G	13002521.18	13002521.41	13002521.64	0.0276	0.0085
Moon	30887-08-05 00:00 G	13002521.26	13002521.50	13002521.75	0.0276	0.0069 *
Venus	30889-11-08 03:50 G	13003347.50	13003347.66	13003347.84	0.0285	0.0169
Venus	30890-06-25 22:19 G	13003577.22	13003577.43	13003577.64	0.0287	0.0066
Mercury	30893-05-13 21:50 G	13004630.29	13004630.41	13004630.54	0.0296	0.0204

Mercury	30893-08-10 21:07 G	13004719.21	13004719.38	13004719.56	0.0297	0.0018
Mercury	30893-11-07 19:55 G	13004808.19	13004808.33	13004808.48	0.0297	0.0167
Earth	30901-02-03 04:05 G	13007451.44	13007451.67	13007451.90	0.0285	0.0101
Moon	30901-02-03 05:17 G	13007451.49	13007451.72	13007451.96	0.0285	0.0109 *
Venus	30903-01-28 12:00 G	13008175.95	13008176.00	13008176.06	0.0278	0.0267
Venus	30903-09-14 20:09 G	13008405.14	13008405.34	13008405.55	0.0275	0.0057
Venus	30904-05-01 02:38 G	13008634.43	13008634.61	13008634.79	0.0273	0.0146
Mercury	30907-03-11 15:21 G	13009679.11	13009679.14	13009679.17	0.0265	0.0256
Mercury	30907-06-08 01:55 G	13009767.47	13009767.58	13009767.69	0.0265	0.0158
Mercury	30907-09-04 12:29 G	13009855.89	13009856.02	13009856.16	0.0265	0.0058
Mercury	30907-12-01 23:17 G	13009944.33	13009944.47	13009944.61	0.0264	0.0042
Mercury	30908-02-28 10:05 G	13010032.81	13010032.92	13010033.04	0.0264	0.0143
Mercury	30908-05-26 21:07 G	13010121.33	13010121.38	13010121.43	0.0264	0.0245
Moon	30916-07-30 20:38 G	13013108.25	13013108.36	13013108.49	0.0274	0.0236
Earth	30916-07-30 22:19 G	13013108.35	13013108.43	13013108.54	0.0274	0.0252 *
Earth	30917-08-12 15:36 G	13013485.95	13013486.15	13013486.36	0.0278	0.0153
Moon	30917-08-12 18:00 G	13013486.06	13013486.25	13013486.44	0.0278	0.0167 *
Venus	30919-05-22 13:41 G	13014133.88	13014134.07	13014134.26	0.0285	0.0132
Venus	30920-01-07 08:09 G	13014363.65	13014363.84	13014364.04	0.0288	0.0104
Mercury	30922-10-01 22:33 G	13015362.34	13015362.44	13015362.54	0.0297	0.0243
Mercury	30922-12-29 22:05 G	13015451.24	13015451.42	13015451.59	0.0297	0.0056
Mercury	30923-03-28 20:53 G	13015540.21	13015540.37	13015540.53	0.0298	0.0129
Earth	30931-02-11 08:53 G	13018416.66	13018416.87	13018417.07	0.0283	0.0156
Moon	30931-02-11 11:17 G	13018416.77	13018416.97	13018417.18	0.0283	0.0145 *
Venus	30932-08-09 19:41 G	13018962.21	13018962.32	13018962.44	0.0277	0.0233
Venus	30933-03-27 03:36 G	13019191.44	13019191.65	13019191.86	0.0275	0.0025
Venus	30933-11-11 09:36 G	13019420.75	13019420.90	13019421.06	0.0272	0.0178
Mercury	30936-10-25 05:02 G	13020499.62	13020499.71	13020499.82	0.0265	0.0180
Mercury	30937-01-21 15:50 G	13020588.03	13020588.16	13020588.29	0.0264	0.0080
Mercury	30937-04-20 02:24 G	13020676.47	13020676.60	13020676.74	0.0264	0.0020

Mercury	30937-07-17 13:12 G	13020764.93	13020765.05	13020765.18	0.0263	0.0120
Mercury	30937-10-14 00:14 G	13020853.44	13020853.51	13020853.58	0.0263	0.0222
Mars	30938-05-24 15:36 G	13021075.93	13021076.15	13021076.38	0.0263	0.0166
Moon	30946-08-07 07:12 G	13024072.54	13024072.80	13024073.05	0.0277	0.0013
Earth	30946-08-07 09:50 G	13024072.66	13024072.91	13024073.15	0.0277	0.0027 *
Venus	30948-12-01 18:57 G	13024920.10	13024920.29	13024920.50	0.0286	0.0104
Venus	30949-07-19 13:41 G	13025149.89	13025150.07	13025150.26	0.0288	0.0134
Mercury	30952-05-17 20:09 G	13026183.18	13026183.34	13026183.50	0.0297	0.0113
Mercury	30952-08-14 19:12 G	13026272.13	13026272.30	13026272.47	0.0297	0.0073
Mercury	30952-11-11 17:45 G	13026361.15	13026361.24	13026361.33	0.0297	0.0255
Moon	30960-02-05 11:45 G	13029002.74	13029002.99	13029003.24	0.0285	0.0054
Earth	30960-02-05 15:07 G	13029002.88	13029003.13	13029003.37	0.0285	0.0041 *
Venus	30962-02-19 23:02 G	13029748.34	13029748.46	13029748.61	0.0277	0.0209
Venus	30962-10-07 07:12 G	13029977.58	13029977.80	13029978.01	0.0275	0.0005
Venus	30963-05-24 12:57 G	13030206.91	13030207.04	13030207.19	0.0273	0.0202
Mercury	30966-03-14 07:55 G	13031231.75	13031231.83	13031231.91	0.0265	0.0209
Mercury	30966-06-10 18:14 G	13031320.14	13031320.26	13031320.39	0.0265	0.0110
Mercury	30966-09-07 05:02 G	13031408.57	13031408.71	13031408.85	0.0265	0.0010
Mercury	30966-12-04 15:50 G	13031497.03	13031497.16	13031497.29	0.0264	0.0092
Mercury	30967-03-03 02:53 G	13031585.52	13031585.62	13031585.71	0.0264	0.0193
Jupiter	30975-07-14 22:19 G	13034641.14	13034641.43	13034641.77	0.0275	0.0210
Earth	30975-08-02 10:33 G	13034659.77	13034659.94	13034660.12	0.0275	0.0194
Moon	30975-08-02 12:43 G	13034659.86	13034660.03	13034660.22	0.0275	0.0180 *
Earth	30976-08-14 04:33 G	13035037.54	13035037.69	13035037.85	0.0279	0.0213
Moon	30976-08-14 07:55 G	13035037.70	13035037.83	13035037.99	0.0279	0.0226 *
Venus	30978-06-14 05:31 G	13035706.52	13035706.73	13035706.93	0.0286	0.0064
Venus	30979-01-30 00:14 G	13035936.35	13035936.51	13035936.69	0.0288	0.0175
Mercury	30981-10-04 21:07 G	13036915.23	13036915.38	13036915.54	0.0297	0.0150
Mercury	30982-01-01 20:24 G	13037004.17	13037004.35	13037004.52	0.0297	0.0037
Mercury	30982-03-31 18:57 G	13037093.18	13037093.29	13037093.41	0.0298	0.0220

Earth	30989-01-30 05:17 G	13039589.58	13039589.72	13039589.87	0.0287	0.0232
Moon	30989-01-30 08:24 G	13039589.74	13039589.85	13039589.99	0.0287	0.0243 *
Earth	30990-02-12 19:55 G	13039968.19	13039968.33	13039968.50	0.0283	0.0216
Moon	30990-02-12 23:31 G	13039968.31	13039968.48	13039968.66	0.0283	0.0201 *
Venus	30991-09-02 07:41 G	13040534.66	13040534.82	13040534.99	0.0276	0.0174
Venus	30992-04-18 15:07 G	13040763.92	13040764.13	13040764.34	0.0274	0.0034
Venus	30992-12-03 20:53 G	13040993.27	13040993.37	13040993.48	0.0272	0.0234
Mercury	30995-08-01 11:17 G	13041963.91	13041963.97	13041964.04	0.0265	0.0228
Mercury	30995-10-28 21:50 G	13042052.30	13042052.41	13042052.53	0.0265	0.0130
Mercury	30996-01-25 08:38 G	13042140.72	13042140.86	13042140.99	0.0264	0.0030
Mercury	30996-04-22 19:26 G	13042229.17	13042229.31	13042229.44	0.0264	0.0071
Mercury	30996-07-20 06:14 G	13042317.66	13042317.76	13042317.86	0.0263	0.0172

32ND MILLENNIUM CE

This is a list of transits visible from Saturn in the 32nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	31005-08-09 20:53 G	13045624.13	13045624.37	13045624.61	0.0277	0.0048		
Earth	31005-08-10 00:14 G	13045624.27	13045624.51	13045624.75	0.0277	0.0035 *		
Venus	31007-05-10 18:43 G	13046263.22	13046263.28	13046263.37	0.0284	0.0263		
Venus	31007-12-26 12:14 G	13046492.80	13046493.01	13046493.22	0.0286	0.0033		
Venus	31008-08-12 07:12 G	13046722.66	13046722.80	13046722.95	0.0289	0.0207		
Mercury	31011-02-22 19:41 G	13047647.20	13047647.32	13047647.46	0.0296	0.0203		
Mercury	31011-05-22 19:12 G	13047736.12	13047736.30	13047736.47	0.0297	0.0017		

Mercury	31011-08-19 18:00 G	13047825.10	13047825.25	13047825.39	0.0297	0.0168
Moon	31019-02-08 01:41 G	13050554.33	13050554.57	13050554.81	0.0284	0.0007
Earth	31019-02-08 04:19 G	13050554.44	13050554.68	13050554.93	0.0284	0.0021 *
Venus	31021-03-15 11:45 G	13051320.81	13051320.99	13051321.17	0.0276	0.0148
Venus	31021-10-30 18:57 G	13051550.09	13051550.29	13051550.50	0.0274	0.0059
Venus	31022-06-17 00:43 G	13051779.47	13051779.53	13051779.60	0.0272	0.0258
Mercury	31024-12-19 13:55 G	13052696.06	13052696.08	13052696.12	0.0266	0.0258
Mercury	31025-03-18 00:29 G	13052784.42	13052784.52	13052784.63	0.0265	0.0159
Mercury	31025-06-14 11:17 G	13052872.83	13052872.97	13052873.10	0.0265	0.0059
Mercury	31025-09-10 21:50 G	13052961.28	13052961.41	13052961.55	0.0265	0.0043
Mercury	31025-12-08 08:53 G	13053049.75	13053049.87	13053049.98	0.0264	0.0143
Mercury	31026-03-06 19:41 G	13053138.28	13053138.32	13053138.37	0.0264	0.0246
Mars	31026-10-19 21:21 G	13053365.13	13053365.39	13053365.68	0.0263	0.0090
Earth	31034-08-04 23:45 G	13056211.28	13056211.49	13056211.70	0.0275	0.0135
Moon	31034-08-05 03:07 G	13056211.41	13056211.63	13056211.85	0.0275	0.0120 *
Earth	31035-08-17 18:57 G	13056589.25	13056589.29	13056589.33	0.0279	0.0274
Venus	31036-11-20 04:19 G	13057049.56	13057049.68	13057049.82	0.0284	0.0225
Venus	31037-07-07 22:05 G	13057279.21	13057279.42	13057279.64	0.0287	0.0009
Venus	31038-02-22 17:31 G	13057509.13	13057509.23	13057509.35	0.0289	0.0247
Mercury	31040-07-11 20:53 G	13058379.27	13058379.37	13058379.48	0.0296	0.0238
Mercury	31040-10-08 20:24 G	13058468.17	13058468.35	13058468.52	0.0297	0.0050
Mercury	31041-01-05 19:12 G	13058557.15	13058557.30	13058557.46	0.0297	0.0135
Earth	31048-02-02 20:53 G	13061141.17	13061141.37	13061141.57	0.0286	0.0166
Moon	31048-02-02 23:31 G	13061141.29	13061141.48	13061141.68	0.0286	0.0176 *
Moon	31049-02-15 09:07 G	13061519.80	13061519.88	13061519.98	0.0282	0.0261
Earth	31049-02-15 10:33 G	13061519.90	13061519.94	13061519.98	0.0282	0.0278 *
Venus	31050-09-25 20:53 G	13062107.18	13062107.37	13062107.57	0.0276	0.0112
Venus	31051-05-13 03:50 G	13062336.47	13062336.66	13062336.86	0.0274	0.0094
Mercury	31054-08-05 04:19 G	13063516.58	13063516.68	13063516.78	0.0265	0.0177
Mercury	31054-11-01 14:53 G	13063604.99	13063605.12	13063605.25	0.0264	0.0077

Mercury	31055-01-29 01:41 G	13063693.43	13063693.57	13063693.70	0.0264	0.0024
Mercury	31055-04-27 12:14 G	13063781.90	13063782.01	13063782.14	0.0264	0.0125
Mercury	31055-07-24 23:17 G	13063870.40	13063870.47	13063870.54	0.0263	0.0226
Earth	31064-08-11 15:07 G	13067175.91	13067176.13	13067176.37	0.0278	0.0099
Moon	31064-08-11 15:36 G	13067175.94	13067176.15	13067176.37	0.0278	0.0110 *
Venus	31066-06-02 12:29 G	13067835.87	13067836.02	13067836.18	0.0285	0.0192
Venus	31067-01-18 06:14 G	13068065.55	13068065.76	13068065.97	0.0287	0.0041
Venus	31067-09-05 01:41 G	13068295.53	13068295.57	13068295.62	0.0289	0.0281
Mercury	31069-11-28 20:09 G	13069111.30	13069111.34	13069111.38	0.0296	0.0288
Mercury	31070-02-25 19:41 G	13069200.15	13069200.32	13069200.48	0.0296	0.0100
Mercury	31070-05-25 18:43 G	13069289.11	13069289.28	13069289.44	0.0297	0.0086
Mercury	31070-08-22 17:17 G	13069378.15	13069378.22	13069378.29	0.0297	0.0269
Mars	31071-02-12 19:41 G	13069552.13	13069552.32	13069552.54	0.0298	0.0214
Earth	31078-02-09 19:41 G	13072106.09	13072106.32	13072106.56	0.0284	0.0085
Moon	31078-02-09 21:07 G	13072106.15	13072106.38	13072106.61	0.0284	0.0071 *
Venus	31080-04-07 00:57 G	13072893.35	13072893.54	13072893.75	0.0276	0.0086
Venus	31080-11-22 07:55 G	13073122.64	13073122.83	13073123.02	0.0273	0.0120
Mercury	31083-12-23 06:43 G	13074248.70	13074248.78	13074248.87	0.0265	0.0207
Mercury	31084-03-20 17:31 G	13074337.10	13074337.23	13074337.35	0.0265	0.0107
Mercury	31084-06-17 04:05 G	13074425.53	13074425.67	13074425.81	0.0265	0.0008
Mercury	31084-09-13 14:53 G	13074513.99	13074514.12	13074514.25	0.0264	0.0095
Mercury	31084-12-11 01:41 G	13074602.49	13074602.57	13074602.67	0.0264	0.0197
Earth	31093-08-06 13:12 G	13077762.82	13077763.05	13077763.29	0.0276	0.0077
Moon	31093-08-06 13:26 G	13077762.82	13077763.06	13077763.31	0.0276	0.0063 *
Venus	31095-12-13 21:07 G	13078622.21	13078622.38	13078622.56	0.0285	0.0155
Venus	31096-07-30 15:21 G	13078851.94	13078852.14	13078852.35	0.0287	0.0080
Mercury	31099-07-15 20:24 G	13079932.20	13079932.35	13079932.51	0.0297	0.0137
Mercury	31099-10-12 19:41 G	13080021.14	13080021.32	13080021.49	0.0297	0.0050
Mercury	31100-01-09 18:14 G	13080110.16	13080110.26	13080110.37	0.0298	0.0234
Moon	31107-02-05 11:45 G	13082692.76	13082692.99	13082693.23	0.0286	0.0111

Earth	31107-02-05 12:57 G	13082692.82	13082693.04	13082693.28	0.0286	0.0101	*
Venus	31109-03-04 02:09 G	13083450.52	13083450.59	13083450.67	0.0278	0.0259	
Venus	31109-10-19 10:19 G	13083679.73	13083679.93	13083680.14	0.0275	0.0049	
Venus	31110-06-05 16:33 G	13083909.03	13083909.19	13083909.38	0.0273	0.0155	
Mercury	31113-05-12 10:33 G	13084980.87	13084980.94	13084981.02	0.0265	0.0224	
Mercury	31113-08-08 21:07 G	13085069.26	13085069.38	13085069.50	0.0265	0.0125	
Mercury	31113-11-05 07:55 G	13085157.69	13085157.83	13085157.96	0.0264	0.0025	
Mercury	31114-02-01 18:29 G	13085246.14	13085246.27	13085246.41	0.0264	0.0077	
Mercury	31114-05-01 05:31 G	13085334.63	13085334.73	13085334.83	0.0264	0.0178	
Mars	31115-03-17 14:24 G	13085654.80	13085655.10	13085655.39	0.0263	0.0004	
Moon	31122-08-02 12:29 G	13088349.90	13088350.02	13088350.15	0.0274	0.0230	
Earth	31122-08-02 12:57 G	13088349.94	13088350.04	13088350.16	0.0274	0.0245	*
Earth	31123-08-15 05:31 G	13088727.53	13088727.73	13088727.93	0.0278	0.0160	
Moon	31123-08-15 08:38 G	13088727.68	13088727.86	13088728.06	0.0278	0.0171	*
Venus	31125-06-26 05:17 G	13089408.53	13089408.72	13089408.92	0.0285	0.0122	
Venus	31126-02-10 23:31 G	13089638.29	13089638.48	13089638.68	0.0288	0.0114	
Mercury	31128-12-02 19:41 G	13090664.19	13090664.32	13090664.47	0.0296	0.0186	
Mercury	31129-03-01 19:12 G	13090753.12	13090753.30	13090753.47	0.0297	0.0006	
Mercury	31129-05-29 18:00 G	13090842.11	13090842.25	13090842.38	0.0297	0.0187	
Earth	31137-02-12 11:45 G	13093657.79	13093657.99	13093658.21	0.0283	0.0150	
Moon	31137-02-12 15:21 G	13093657.93	13093658.14	13093658.36	0.0283	0.0136	*
Venus	31138-09-14 06:43 G	13094236.67	13094236.78	13094236.90	0.0277	0.0231	
Venus	31139-05-01 14:53 G	13094465.91	13094466.12	13094466.33	0.0275	0.0022	
Venus	31139-12-16 20:53 G	13094695.22	13094695.37	13094695.54	0.0273	0.0181	
Mercury	31142-09-29 13:12 G	13095713.02	13095713.05	13095713.09	0.0266	0.0253	
Mercury	31142-12-26 23:45 G	13095801.38	13095801.49	13095801.60	0.0265	0.0154	
Mercury	31143-03-25 10:19 G	13095889.80	13095889.93	13095890.07	0.0265	0.0055	
Mercury	31143-06-21 21:07 G	13095978.24	13095978.38	13095978.51	0.0264	0.0046	
Mercury	31143-09-18 07:55 G	13096066.72	13096066.83	13096066.95	0.0264	0.0148	
Mercury	31143-12-15 18:57 G	13096155.25	13096155.29	13096155.33	0.0264	0.0250	

Moon	31152-08-08 21:50 G	13099314.16	13099314.41	13099314.66	0.0276	0.0005
Earth	31152-08-09 01:12 G	13099314.31	13099314.55	13099314.80	0.0276	0.0020 *
Venus	31155-01-06 12:57 G	13100194.84	13100195.04	13100195.25	0.0285	0.0086
Venus	31155-08-24 07:41 G	13100424.65	13100424.82	13100425.01	0.0288	0.0152
Mercury	31158-04-21 20:09 G	13101396.22	13101396.34	13101396.45	0.0296	0.0227
Mercury	31158-07-19 19:26 G	13101485.14	13101485.31	13101485.49	0.0297	0.0038
Mercury	31158-10-16 18:29 G	13101574.12	13101574.27	13101574.42	0.0297	0.0148
Mars	31159-07-12 02:53 G	13101842.35	13101842.62	13101842.91	0.0298	0.0089
Moon	31166-02-07 01:26 G	13104244.32	13104244.56	13104244.81	0.0285	0.0047
Earth	31166-02-07 05:02 G	13104244.47	13104244.71	13104244.96	0.0285	0.0035 *
Venus	31168-03-26 16:05 G	13105023.03	13105023.17	13105023.32	0.0277	0.0195
Venus	31168-11-10 23:45 G	13105252.28	13105252.49	13105252.70	0.0274	0.0014
Venus	31169-06-28 05:31 G	13105481.60	13105481.73	13105481.86	0.0272	0.0215
Mercury	31172-05-15 03:21 G	13106533.54	13106533.64	13106533.75	0.0265	0.0173
Mercury	31172-08-11 13:55 G	13106621.95	13106622.08	13106622.22	0.0264	0.0074
Mercury	31172-11-08 00:43 G	13106710.39	13106710.53	13106710.67	0.0264	0.0027
Mercury	31173-02-04 11:31 G	13106798.86	13106798.98	13106799.10	0.0264	0.0129
Mercury	31173-05-03 22:33 G	13106887.37	13106887.44	13106887.50	0.0263	0.0231
Earth	31181-08-04 00:14 G	13109901.34	13109901.51	13109901.69	0.0275	0.0189
Moon	31181-08-04 03:50 G	13109901.48	13109901.66	13109901.85	0.0275	0.0173 *
Earth	31182-08-16 17:45 G	13110279.10	13110279.24	13110279.40	0.0279	0.0219
Moon	31182-08-16 20:09 G	13110279.21	13110279.34	13110279.49	0.0279	0.0230 *
Venus	31183-12-02 04:05 G	13110751.65	13110751.67	13110751.70	0.0284	0.0282
Venus	31184-07-18 21:07 G	13110981.18	13110981.38	13110981.59	0.0286	0.0053
Venus	31185-03-05 16:05 G	13111211.01	13111211.17	13111211.33	0.0289	0.0186
Mercury	31187-09-08 19:12 G	13112128.25	13112128.30	13112128.37	0.0296	0.0276
Mercury	31187-12-06 18:57 G	13112217.12	13112217.29	13112217.46	0.0297	0.0087
Mercury	31188-03-04 18:00 G	13112306.09	13112306.25	13112306.41	0.0297	0.0100
Mercury	31188-06-01 16:33 G	13112395.14	13112395.19	13112395.24	0.0298	0.0283
Earth	31195-02-01 12:00 G	13114830.86	13114831.00	13114831.14	0.0286	0.0235

Moon	31195-02-01 15:36 G	13114831.03	13114831.15	13114831.28	0.0286	0.0245 *
Earth	31196-02-15 02:53 G	13115209.46	13115209.62	13115209.78	0.0282	0.0213
Moon	31196-02-15 04:19 G	13115209.50	13115209.68	13115209.86	0.0282	0.0199 *
Venus	31197-10-06 20:09 G	13115809.18	13115809.34	13115809.52	0.0276	0.0167
Venus	31198-05-24 03:36 G	13116038.44	13116038.65	13116038.86	0.0274	0.0040
Venus	31199-01-08 09:07 G	13116267.79	13116267.88	13116267.99	0.0272	0.0240
Mercury	31201-10-02 05:45 G	13117265.66	13117265.74	13117265.83	0.0265	0.0204
Mercury	31201-12-29 16:19 G	13117354.06	13117354.18	13117354.31	0.0265	0.0104
Mercury	31202-03-28 03:07 G	13117442.49	13117442.63	13117442.77	0.0264	0.0004
Mercury	31202-06-24 13:55 G	13117530.95	13117531.08	13117531.21	0.0264	0.0097
Mercury	31202-09-21 00:43 G	13117619.44	13117619.53	13117619.62	0.0264	0.0199
Mars	31203-08-11 14:38 G	13117943.83	13117944.11	13117944.40	0.0263	0.0063
Moon	31211-08-11 07:55 G	13120865.60	13120865.83	13120866.07	0.0277	0.0048
Earth	31211-08-11 10:19 G	13120865.69	13120865.93	13120866.17	0.0277	0.0034 *
Venus	31213-06-13 09:36 G	13121537.81	13121537.90	13121538.01	0.0284	0.0251
Venus	31214-01-29 03:07 G	13121767.42	13121767.63	13121767.84	0.0286	0.0020
Venus	31214-09-15 22:19 G	13121997.30	13121997.43	13121997.57	0.0289	0.0220
Mercury	31217-04-24 18:14 G	13122949.10	13122949.26	13122949.42	0.0297	0.0135
Mercury	31217-07-22 17:31 G	13123038.05	13123038.23	13123038.40	0.0297	0.0053
Mercury	31217-10-19 16:05 G	13123127.07	13123127.17	13123127.28	0.0298	0.0238
Moon	31225-02-08 17:45 G	13125796.01	13125796.24	13125796.48	0.0285	0.0017
Earth	31225-02-08 19:26 G	13125796.06	13125796.31	13125796.55	0.0285	0.0029 *
Venus	31227-04-19 04:48 G	13126595.53	13126595.70	13126595.90	0.0276	0.0133
Venus	31227-12-04 12:00 G	13126824.80	13126825.00	13126825.21	0.0274	0.0074
Mercury	31231-02-19 09:36 G	13127997.83	13127997.90	13127997.97	0.0265	0.0222
Mercury	31231-05-18 19:55 G	13128086.21	13128086.33	13128086.46	0.0264	0.0123
Mercury	31231-08-15 06:43 G	13128174.64	13128174.78	13128174.91	0.0264	0.0024
Mercury	31231-11-11 17:17 G	13128263.09	13128263.22	13128263.35	0.0264	0.0078
Mercury	31232-02-08 04:05 G	13128351.57	13128351.67	13128351.78	0.0263	0.0179
Earth	31240-08-05 08:09 G	13131452.63	13131452.84	13131453.05	0.0275	0.0137

Moon	31240-08-05 10:19 G	13131452.71	13131452.93	13131453.16	0.0275	0.0122 *
Earth	31241-08-18 02:24 G	13131830.57	13131830.60	13131830.66	0.0279	0.0273
Venus	31242-12-24 17:02 G	13132324.08	13132324.21	13132324.35	0.0284	0.0219
Venus	31243-08-11 10:48 G	13132553.74	13132553.95	13132554.16	0.0287	0.0013
Venus	31244-03-28 06:14 G	13132783.66	13132783.76	13132783.86	0.0289	0.0254
Mercury	31246-09-11 17:17 G	13133681.09	13133681.22	13133681.37	0.0297	0.0186
Mercury	31246-12-09 16:48 G	13133770.03	13133770.20	13133770.38	0.0297	0.0005
Mercury	31247-03-08 15:36 G	13133859.02	13133859.15	13133859.29	0.0298	0.0189
Mars	31247-12-06 16:05 G	13134131.87	13134132.17	13134132.46	0.0299	0.0008
Earth	31254-02-03 02:09 G	13136382.40	13136382.59	13136382.79	0.0286	0.0171
Moon	31254-02-03 03:21 G	13136382.44	13136382.64	13136382.83	0.0286	0.0183 *
Moon	31255-02-16 12:57 G	13136760.95	13136761.04	13136761.16	0.0282	0.0257
Earth	31255-02-16 15:50 G	13136761.11	13136761.16	13136761.23	0.0282	0.0273 *
Venus	31256-10-29 08:38 G	13137381.67	13137381.86	13137382.06	0.0275	0.0106
Venus	31257-06-15 15:21 G	13137610.95	13137611.14	13137611.34	0.0273	0.0099
Mercury	31260-07-08 11:45 G	13138729.96	13138729.99	13138730.03	0.0265	0.0254
Mercury	31260-10-04 22:19 G	13138818.32	13138818.43	13138818.54	0.0265	0.0155
Mercury	31261-01-01 08:53 G	13138906.73	13138906.87	13138907.00	0.0264	0.0056
Mercury	31261-03-30 19:26 G	13138995.18	13138995.31	13138995.45	0.0264	0.0045
Mercury	31261-06-27 06:14 G	13139083.65	13139083.76	13139083.88	0.0264	0.0146
Mercury	31261-09-23 17:02 G	13139172.17	13139172.21	13139172.26	0.0263	0.0248
Earth	31270-08-12 16:19 G	13142416.94	13142417.18	13142417.41	0.0277	0.0085
Moon	31270-08-12 18:43 G	13142417.05	13142417.28	13142417.50	0.0277	0.0095 *
Venus	31272-07-05 21:21 G	13143110.23	13143110.39	13143110.55	0.0284	0.0191
Venus	31273-02-20 15:07 G	13143339.92	13143340.13	13143340.34	0.0287	0.0043
Venus	31273-10-08 10:48 G	13143569.92	13143569.95	13143569.99	0.0289	0.0284
Mercury	31276-01-29 15:36 G	13144413.05	13144413.15	13144413.25	0.0296	0.0242
Mercury	31276-04-27 15:07 G	13144501.96	13144502.13	13144502.31	0.0297	0.0052
Mercury	31276-07-25 14:09 G	13144590.94	13144591.09	13144591.25	0.0297	0.0136
Earth	31284-02-11 06:29 G	13147347.54	13147347.77	13147348.00	0.0284	0.0089

Moon	31284-02-11 09:21 G	13147347.66	13147347.89	13147348.12	0.0284	0.0073 *
Venus	31286-05-11 16:05 G	13148167.97	13148168.17	13148168.38	0.0275	0.0074
Venus	31286-12-26 22:33 G	13148397.27	13148397.44	13148397.64	0.0273	0.0131
Mercury	31290-02-22 01:41 G	13149550.47	13149550.57	13149550.67	0.0265	0.0176
Mercury	31290-05-21 12:14 G	13149638.88	13149639.01	13149639.14	0.0264	0.0077
Mercury	31290-08-17 22:48 G	13149727.31	13149727.45	13149727.59	0.0264	0.0024
Mercury	31290-11-14 09:36 G	13149815.78	13149815.90	13149816.02	0.0263	0.0125
Mercury	31291-02-10 20:24 G	13149904.29	13149904.35	13149904.42	0.0263	0.0226
Mars	31292-01-05 21:36 G	13150233.15	13150233.40	13150233.66	0.0262	0.0128
Moon	31299-08-07 09:50 G	13153003.67	13153003.91	13153004.15	0.0275	0.0078
Earth	31299-08-07 12:29 G	13153003.79	13153004.02	13153004.26	0.0275	0.0090 *
Venus	31302-01-17 03:36 G	13153896.48	13153896.65	13153896.83	0.0285	0.0161
Venus	31302-09-03 21:36 G	13154126.20	13154126.40	13154126.61	0.0288	0.0074
Mercury	31305-09-15 13:55 G	13155233.92	13155234.08	13155234.25	0.0297	0.0106
Mercury	31305-12-13 13:12 G	13155322.88	13155323.05	13155323.22	0.0298	0.0082
Mercury	31306-03-12 11:45 G	13155411.92	13155411.99	13155412.07	0.0298	0.0267
Moon	31313-02-05 09:21 G	13157933.67	13157933.89	13157934.12	0.0286	0.0128
Earth	31313-02-05 12:57 G	13157933.81	13157934.04	13157934.26	0.0286	0.0112 *
Venus	31315-04-07 11:17 G	13158724.91	13158724.97	13158725.05	0.0277	0.0258
Venus	31315-11-22 19:26 G	13158954.10	13158954.31	13158954.52	0.0275	0.0048
Venus	31316-07-09 01:26 G	13159183.40	13159183.56	13159183.74	0.0273	0.0156
Mercury	31319-07-13 03:50 G	13160282.58	13160282.66	13160282.74	0.0265	0.0209
Mercury	31319-10-09 14:24 G	13160370.98	13160371.10	13160371.22	0.0264	0.0110
Mercury	31320-01-06 00:57 G	13160459.40	13160459.54	13160459.68	0.0264	0.0010
Mercury	31320-04-03 11:31 G	13160547.86	13160547.98	13160548.11	0.0264	0.0091
Mercury	31320-06-30 22:19 G	13160636.34	13160636.43	13160636.53	0.0263	0.0192
Earth	31328-08-02 02:38 G	13163590.59	13163590.61	13163590.65	0.0274	0.0271
Moon	31328-08-02 05:02 G	13163590.65	13163590.71	13163590.80	0.0274	0.0259 *
Earth	31329-08-14 18:00 G	13163968.05	13163968.25	13163968.48	0.0277	0.0131
Moon	31329-08-14 21:21 G	13163968.18	13163968.39	13163968.62	0.0277	0.0137 *

Venus	31331-07-30 06:00 G	13164682.57	13164682.75	13164682.94	0.0285	0.0136
Venus	31332-03-16 00:29 G	13164912.32	13164912.52	13164912.72	0.0287	0.0101
Mercury	31335-02-02 11:02 G	13165965.82	13165965.96	13165966.11	0.0297	0.0170
Mercury	31335-05-02 10:33 G	13166054.77	13166054.94	13166055.12	0.0297	0.0022
Mercury	31335-07-30 09:36 G	13166143.78	13166143.90	13166144.03	0.0298	0.0206
Mars	31336-05-02 07:12 G	13166420.52	13166420.80	13166421.09	0.0299	0.0059
Earth	31343-02-13 14:09 G	13168898.88	13168899.09	13168899.30	0.0284	0.0144
Moon	31343-02-13 17:17 G	13168898.99	13168899.22	13168899.44	0.0284	0.0127 *
Venus	31344-10-17 17:45 G	13169511.13	13169511.24	13169511.36	0.0277	0.0228
Venus	31345-06-04 01:41 G	13169740.36	13169740.57	13169740.78	0.0275	0.0019
Venus	31346-01-19 07:41 G	13169969.67	13169969.82	13169969.98	0.0273	0.0184
Mercury	31348-11-29 06:57 G	13171014.73	13171014.79	13171014.86	0.0265	0.0232
Mercury	31349-02-25 17:31 G	13171103.11	13171103.23	13171103.35	0.0264	0.0133
Mercury	31349-05-25 04:05 G	13171191.53	13171191.67	13171191.80	0.0264	0.0034
Mercury	31349-08-21 14:38 G	13171279.98	13171280.11	13171280.25	0.0263	0.0067
Mercury	31349-11-18 01:26 G	13171368.46	13171368.56	13171368.67	0.0263	0.0168
Moon	31358-08-09 10:48 G	13174554.71	13174554.95	13174555.18	0.0276	0.0037
Earth	31358-08-09 13:41 G	13174554.83	13174555.07	13174555.32	0.0276	0.0046 *
Venus	31361-02-08 12:00 G	13175468.81	13175469.00	13175469.20	0.0286	0.0107
Venus	31361-09-26 06:29 G	13175698.59	13175698.77	13175698.96	0.0288	0.0131
Mercury	31364-06-21 09:50 G	13176697.79	13176697.91	13176698.02	0.0297	0.0226
Mercury	31364-09-18 09:21 G	13176786.71	13176786.89	13176787.06	0.0297	0.0036
Mercury	31364-12-16 08:24 G	13176875.70	13176875.85	13176876.00	0.0298	0.0152
Moon	31372-02-07 17:17 G	13179484.99	13179485.22	13179485.45	0.0285	0.0073
Earth	31372-02-07 19:41 G	13179485.08	13179485.32	13179485.56	0.0285	0.0058 *
Venus	31374-04-29 20:24 G	13180297.22	13180297.35	13180297.50	0.0276	0.0203
Venus	31374-12-15 04:19 G	13180526.47	13180526.68	13180526.89	0.0274	0.0006
Venus	31375-08-01 09:50 G	13180755.78	13180755.91	13180756.05	0.0272	0.0207
Mercury	31378-07-15 19:26 G	13181835.21	13181835.31	13181835.42	0.0264	0.0167
Mercury	31378-10-12 06:00 G	13181923.62	13181923.75	13181923.88	0.0264	0.0068

Mercury	31379-01-08 16:33 G	13182012.05	13182012.19	13182012.33	0.0263	0.0032
Mercury	31379-04-07 03:07 G	13182100.52	13182100.63	13182100.76	0.0263	0.0133
Mercury	31379-07-04 14:09 G	13182189.03	13182189.09	13182189.15	0.0263	0.0234
Mars	31380-06-01 04:19 G	13182521.46	13182521.68	13182521.91	0.0262	0.0167
Earth	31387-08-04 01:55 G	13185141.45	13185141.58	13185141.71	0.0274	0.0230
Moon	31387-08-04 05:02 G	13185141.57	13185141.71	13185141.87	0.0274	0.0217 *
Moon	31388-08-15 16:05 G	13185518.97	13185519.17	13185519.37	0.0277	0.0172
Earth	31388-08-15 17:31 G	13185519.04	13185519.23	13185519.42	0.0277	0.0172 *
Venus	31390-08-21 12:43 G	13186254.83	13186255.03	13186255.23	0.0285	0.0084
Venus	31391-04-08 07:26 G	13186484.63	13186484.81	13186484.99	0.0288	0.0154
Mercury	31394-02-05 05:31 G	13187518.57	13187518.73	13187518.90	0.0297	0.0108
Mercury	31394-05-05 04:48 G	13187607.53	13187607.70	13187607.87	0.0297	0.0082
Mercury	31394-08-02 03:36 G	13187696.58	13187696.65	13187696.73	0.0298	0.0267
Earth	31401-02-01 23:31 G	13190071.40	13190071.48	13190071.60	0.0288	0.0263
Moon	31401-02-02 02:09 G	13190071.52	13190071.59	13190071.67	0.0288	0.0275 *
Moon	31402-02-15 15:50 G	13190449.97	13190450.16	13190450.37	0.0284	0.0178
Earth	31402-02-15 17:45 G	13190450.07	13190450.24	13190450.43	0.0284	0.0194 *
Venus	31403-11-11 01:26 G	13191083.40	13191083.56	13191083.73	0.0277	0.0177
Venus	31404-06-27 09:07 G	13191312.67	13191312.88	13191313.09	0.0275	0.0032
Venus	31405-02-11 14:38 G	13191542.01	13191542.11	13191542.23	0.0272	0.0234
Mercury	31407-12-03 22:19 G	13192567.34	13192567.43	13192567.53	0.0265	0.0193
Mercury	31408-03-01 08:53 G	13192655.74	13192655.87	13192656.00	0.0264	0.0094
Mercury	31408-05-28 19:26 G	13192744.17	13192744.31	13192744.45	0.0264	0.0007
Mercury	31408-08-25 06:00 G	13192832.63	13192832.75	13192832.88	0.0263	0.0108
Mercury	31408-11-21 16:48 G	13192921.12	13192921.20	13192921.29	0.0263	0.0209
Earth	31417-08-11 11:45 G	13196105.74	13196105.99	13196106.23	0.0276	0.0006
Moon	31417-08-11 12:43 G	13196105.79	13196106.03	13196106.26	0.0276	0.0002 *
Venus	31420-03-03 18:00 G	13197041.04	13197041.25	13197041.46	0.0286	0.0057
Venus	31420-10-19 12:43 G	13197270.87	13197271.03	13197271.20	0.0289	0.0182
Mercury	31423-06-26 03:36 G	13198250.51	13198250.65	13198250.80	0.0297	0.0167

Mercury	31423-09-23 03:07 G	13198339.46	13198339.63	13198339.81	0.0298	0.0024
Mercury	31423-12-21 02:09 G	13198428.47	13198428.59	13198428.71	0.0298	0.0210
Mars	31424-09-26 11:17 G	13198708.71	13198708.97	13198709.26	0.0299	0.0101
Earth	31431-02-09 22:33 G	13201036.20	13201036.44	13201036.69	0.0285	0.0008
Moon	31431-02-10 00:29 G	13201036.29	13201036.52	13201036.76	0.0285	0.0023 *
Venus	31433-05-23 03:50 G	13201869.49	13201869.66	13201869.84	0.0276	0.0152
Venus	31434-01-07 11:02 G	13202098.76	13202098.96	13202099.17	0.0274	0.0056
Venus	31434-08-24 16:33 G	13202328.12	13202328.19	13202328.26	0.0271	0.0255
Mercury	31437-04-22 00:14 G	13203299.45	13203299.51	13203299.58	0.0264	0.0228
Mercury	31437-07-19 10:48 G	13203387.83	13203387.95	13203388.07	0.0264	0.0129
Mercury	31437-10-15 21:21 G	13203476.25	13203476.39	13203476.52	0.0264	0.0030
Mercury	31438-01-12 07:55 G	13203564.70	13203564.83	13203564.96	0.0263	0.0071
Mercury	31438-04-10 18:29 G	13203653.17	13203653.27	13203653.38	0.0263	0.0172
Moon	31446-08-05 21:36 G	13206692.22	13206692.40	13206692.60	0.0274	0.0182
Earth	31446-08-05 22:33 G	13206692.27	13206692.44	13206692.62	0.0274	0.0192 *
Moon	31447-08-18 10:19 G	13207069.78	13207069.93	13207070.10	0.0278	0.0208
Earth	31447-08-18 14:09 G	13207069.93	13207070.09	13207070.25	0.0278	0.0211 *
Venus	31449-01-27 00:29 G	13207597.47	13207597.52	13207597.60	0.0283	0.0268
Venus	31449-09-13 17:45 G	13207827.03	13207827.24	13207827.45	0.0286	0.0037
Venus	31450-05-01 12:43 G	13208056.89	13208057.03	13208057.18	0.0288	0.0203
Mercury	31452-11-11 23:17 G	13208982.37	13208982.47	13208982.57	0.0297	0.0244
Mercury	31453-02-08 22:48 G	13209071.28	13209071.45	13209071.63	0.0297	0.0053
Mercury	31453-05-08 22:05 G	13209160.27	13209160.42	13209160.58	0.0298	0.0136
Moon	31460-02-03 22:33 G	13211622.29	13211622.44	13211622.59	0.0288	0.0229
Earth	31460-02-04 00:43 G	13211622.37	13211622.53	13211622.69	0.0288	0.0215 *
Moon	31461-02-16 15:07 G	13212000.99	13212001.13	13212001.28	0.0284	0.0226
Earth	31461-02-16 18:43 G	13212001.15	13212001.28	13212001.41	0.0284	0.0240 *
Venus	31462-12-03 07:41 G	13212655.64	13212655.82	13212656.01	0.0277	0.0129
Venus	31463-07-20 14:53 G	13212884.92	13212885.12	13212885.33	0.0274	0.0079
Mercury	31466-09-09 03:07 G	13214031.60	13214031.63	13214031.66	0.0265	0.0256

Mercury	31466-12-06 13:26 G	13214119.96	13214120.06	13214120.17	0.0264	0.0157
Mercury	31467-03-05 00:00 G	13214208.37	13214208.50	13214208.63	0.0264	0.0057
Mercury	31467-06-01 10:33 G	13214296.81	13214296.94	13214297.08	0.0263	0.0043
Mercury	31467-08-28 21:21 G	13214385.27	13214385.39	13214385.50	0.0263	0.0144
Mercury	31467-11-25 07:55 G	13214473.79	13214473.83	13214473.89	0.0263	0.0246
Mars	31468-10-26 16:33 G	13214810.02	13214810.19	13214810.38	0.0262	0.0207
Earth	31476-08-12 07:55 G	13217656.59	13217656.83	13217657.08	0.0276	0.0034
Moon	31476-08-12 11:31 G	13217656.74	13217656.98	13217657.23	0.0276	0.0038 *
Venus	31478-08-09 05:31 G	13218383.63	13218383.73	13218383.85	0.0284	0.0241
Venus	31479-03-26 22:48 G	13218613.24	13218613.45	13218613.66	0.0286	0.0010
Venus	31479-11-11 17:45 G	13218843.12	13218843.24	13218843.37	0.0289	0.0231
Mercury	31482-06-28 20:53 G	13219803.20	13219803.37	13219803.53	0.0297	0.0115
Mercury	31482-09-25 20:09 G	13219892.17	13219892.34	13219892.51	0.0298	0.0076
Mercury	31482-12-23 18:57 G	13219981.22	13219981.29	13219981.38	0.0298	0.0262
Earth	31490-02-10 22:05 G	13222587.18	13222587.42	13222587.67	0.0285	0.0038
Moon	31490-02-11 01:41 G	13222587.32	13222587.57	13222587.82	0.0285	0.0022 *
Venus	31492-06-14 09:21 G	13223441.70	13223441.89	13223442.09	0.0276	0.0106
Venus	31493-01-29 16:33 G	13223670.99	13223671.19	13223671.38	0.0273	0.0102
Mercury	31496-04-24 15:21 G	13224852.05	13224852.14	13224852.23	0.0264	0.0192
Mercury	31496-07-22 01:55 G	13224940.45	13224940.58	13224940.70	0.0264	0.0093
Mercury	31496-10-18 12:14 G	13225028.88	13225029.01	13225029.15	0.0263	0.0011
Mercury	31497-01-14 23:02 G	13225117.33	13225117.46	13225117.58	0.0263	0.0107
Mercury	31497-04-13 09:36 G	13225205.82	13225205.90	13225205.99	0.0263	0.0209
Moon	31505-08-07 14:24 G	13228242.90	13228243.10	13228243.31	0.0274	0.0148
Earth	31505-08-07 18:00 G	13228243.06	13228243.25	13228243.46	0.0274	0.0155 *
Moon	31506-08-20 08:53 G	13228620.77	13228620.87	13228621.00	0.0278	0.0244
Earth	31506-08-20 09:21 G	13228620.79	13228620.89	13228621.00	0.0278	0.0249 *
Venus	31508-02-20 04:19 G	13229169.56	13229169.68	13229169.82	0.0284	0.0224
Venus	31508-10-06 21:36 G	13229399.19	13229399.40	13229399.62	0.0286	0.0011
Venus	31509-05-24 17:02 G	13229629.11	13229629.21	13229629.31	0.0289	0.0250

Mercury	31511-11-16 15:50 G	13230535.03	13230535.16	13230535.30	0.0297	0.0195
Mercury	31512-02-13 15:36 G	13230623.97	13230624.15	13230624.32	0.0297	0.0008
Mercury	31512-05-12 14:38 G	13230712.97	13230713.11	13230713.25	0.0298	0.0184
Mars	31513-02-19 10:48 G	13230995.68	13230995.95	13230996.24	0.0299	0.0087
Moon	31519-02-05 18:43 G	13233173.11	13233173.28	13233173.47	0.0288	0.0189
Earth	31519-02-05 22:05 G	13233173.23	13233173.42	13233173.63	0.0288	0.0172 *
Moon	31520-02-19 16:33 G	13233552.13	13233552.19	13233552.26	0.0284	0.0272
Earth	31520-02-19 16:33 G	13233552.17	13233552.19	13233552.21	0.0284	0.0282 *
Venus	31521-12-26 12:14 G	13234227.81	13234228.01	13234228.21	0.0276	0.0084
Venus	31522-08-12 19:12 G	13234457.12	13234457.30	13234457.50	0.0274	0.0124
Mercury	31525-09-12 17:45 G	13235584.18	13235584.24	13235584.32	0.0265	0.0223
Mercury	31525-12-10 04:19 G	13235672.56	13235672.68	13235672.80	0.0264	0.0123
Mercury	31526-03-08 14:53 G	13235760.98	13235761.12	13235761.25	0.0264	0.0023
Mercury	31526-06-05 01:26 G	13235849.43	13235849.56	13235849.69	0.0263	0.0078
Mercury	31526-09-01 12:00 G	13235937.91	13235938.00	13235938.11	0.0263	0.0179
Mars	31527-02-03 21:21 G	13236093.26	13236093.39	13236093.52	0.0262	0.0233
Earth	31535-08-15 03:07 G	13239207.40	13239207.63	13239207.87	0.0275	0.0071
Moon	31535-08-15 03:50 G	13239207.41	13239207.66	13239207.91	0.0275	0.0070 *
Venus	31537-09-01 09:21 G	13239955.74	13239955.89	13239956.05	0.0284	0.0197
Venus	31538-04-19 02:38 G	13240185.40	13240185.61	13240185.82	0.0287	0.0037
Venus	31538-12-04 22:05 G	13240415.37	13240415.42	13240415.48	0.0289	0.0278
Mercury	31541-04-04 13:41 G	13241266.99	13241267.07	13241267.16	0.0297	0.0258
Mercury	31541-07-02 13:26 G	13241355.89	13241356.06	13241356.24	0.0298	0.0065
Mercury	31541-09-29 12:43 G	13241444.87	13241445.03	13241445.19	0.0298	0.0125
Moon	31549-02-12 20:24 G	13244138.11	13244138.35	13244138.60	0.0285	0.0067
Earth	31549-02-12 20:38 G	13244138.13	13244138.36	13244138.60	0.0285	0.0081 *
Venus	31550-11-21 05:31 G	13244784.70	13244784.73	13244784.77	0.0278	0.0272
Venus	31551-07-08 14:24 G	13245013.89	13245014.10	13245014.30	0.0275	0.0060
Venus	31552-02-22 21:07 G	13245243.20	13245243.38	13245243.56	0.0273	0.0146
Mercury	31555-01-30 19:41 G	13246316.30	13246316.32	13246316.36	0.0265	0.0257

Mercury	31555-04-29 06:14 G	13246404.65	13246404.76	13246404.87	0.0264	0.0158
Mercury	31555-07-26 16:33 G	13246493.06	13246493.19	13246493.33	0.0264	0.0059
Mercury	31555-10-23 03:07 G	13246581.50	13246581.63	13246581.77	0.0263	0.0042
Mercury	31556-01-19 13:55 G	13246669.96	13246670.08	13246670.19	0.0263	0.0143
Mercury	31556-04-17 00:29 G	13246758.48	13246758.52	13246758.58	0.0263	0.0245
Mars	31557-03-22 12:57 G	13247097.92	13247098.04	13247098.20	0.0262	0.0230
Earth	31564-08-08 13:41 G	13249793.86	13249794.07	13249794.30	0.0274	0.0117
Moon	31564-08-08 13:26 G	13249793.86	13249794.06	13249794.29	0.0274	0.0117 *
Moon	31565-08-21 08:09 G	13250171.84	13250171.84	13250171.85	0.0277	0.0277
Venus	31567-03-14 08:24 G	13250741.68	13250741.85	13250742.01	0.0284	0.0179
Venus	31567-10-30 01:41 G	13250971.36	13250971.57	13250971.78	0.0286	0.0055
Mercury	31570-11-19 08:24 G	13252087.70	13252087.85	13252088.01	0.0297	0.0147
Mercury	31571-02-16 07:55 G	13252176.66	13252176.83	13252177.01	0.0297	0.0044
Mercury	31571-05-16 06:57 G	13252265.68	13252265.79	13252265.90	0.0298	0.0231
Earth	31578-02-06 18:14 G	13254724.05	13254724.26	13254724.49	0.0288	0.0132
Moon	31578-02-06 19:12 G	13254724.10	13254724.30	13254724.51	0.0288	0.0146 *
Venus	31580-06-02 06:57 G	13255570.71	13255570.79	13255570.88	0.0279	0.0254
Venus	31581-01-17 16:05 G	13255799.96	13255800.17	13255800.38	0.0276	0.0040
Venus	31581-09-03 22:48 G	13256029.29	13256029.45	13256029.63	0.0274	0.0167
Mercury	31584-09-15 08:38 G	13257136.77	13257136.86	13257136.95	0.0265	0.0190
Mercury	31584-12-12 18:57 G	13257225.17	13257225.29	13257225.42	0.0264	0.0090
Mercury	31585-03-11 05:31 G	13257313.60	13257313.73	13257313.87	0.0264	0.0012
Mercury	31585-06-07 16:19 G	13257402.05	13257402.18	13257402.30	0.0263	0.0112
Mercury	31585-09-04 02:53 G	13257490.55	13257490.62	13257490.70	0.0263	0.0213
Moon	31594-08-15 19:26 G	13260758.09	13260758.31	13260758.54	0.0275	0.0102
Earth	31594-08-15 23:02 G	13260758.24	13260758.46	13260758.69	0.0275	0.0109 *
Venus	31596-09-23 13:26 G	13261527.88	13261528.06	13261528.24	0.0284	0.0152
Venus	31597-05-11 06:57 G	13261757.59	13261757.79	13261757.99	0.0287	0.0083
Mercury	31600-04-07 06:14 G	13262819.64	13262819.76	13262819.89	0.0297	0.0209
Mercury	31600-07-05 06:00 G	13262908.58	13262908.75	13262908.93	0.0298	0.0017

Mercury	31600-10-02 05:17 G	13262997.58	13262997.72	13262997.86	0.0298	0.0172
Mars	31601-07-15 01:55 G	13263283.32	13263283.58	13263283.86	0.0299	0.0111
Moon	31608-02-14 13:55 G	13265688.86	13265689.08	13265689.31	0.0286	0.0111
Earth	31608-02-14 17:45 G	13265689.02	13265689.24	13265689.46	0.0286	0.0123 *
Venus	31609-12-13 09:50 G	13266356.80	13266356.91	13266357.04	0.0278	0.0228
Venus	31610-07-30 18:43 G	13266586.06	13266586.28	13266586.49	0.0275	0.0016
Venus	31611-03-17 00:57 G	13266815.40	13266815.54	13266815.70	0.0273	0.0190
Mercury	31614-02-02 10:33 G	13267868.87	13267868.94	13267869.01	0.0265	0.0223
Mercury	31614-05-01 21:07 G	13267957.26	13267957.38	13267957.50	0.0264	0.0124
Mercury	31614-07-29 07:26 G	13268045.68	13268045.81	13268045.95	0.0264	0.0025
Mercury	31614-10-25 18:00 G	13268134.12	13268134.25	13268134.39	0.0263	0.0078
Mercury	31615-01-22 04:48 G	13268222.60	13268222.70	13268222.80	0.0263	0.0178
Mars	31615-06-29 19:12 G	13268381.14	13268381.30	13268381.49	0.0262	0.0208
Earth	31623-08-10 10:19 G	13271344.70	13271344.93	13271345.17	0.0274	0.0077
Moon	31623-08-10 14:09 G	13271344.86	13271345.09	13271345.32	0.0274	0.0082 *
Venus	31626-04-05 12:29 G	13272313.84	13272314.02	13272314.21	0.0284	0.0134
Venus	31626-11-21 06:00 G	13272543.56	13272543.75	13272543.96	0.0287	0.0102
Mercury	31629-08-25 01:12 G	13273551.53	13273551.55	13273551.59	0.0296	0.0290
Mercury	31629-11-22 01:12 G	13273640.39	13273640.55	13273640.72	0.0297	0.0097
Mercury	31630-02-19 00:29 G	13273729.36	13273729.52	13273729.69	0.0297	0.0094
Mercury	31630-05-18 23:31 G	13273818.43	13273818.48	13273818.54	0.0298	0.0280
Earth	31637-02-07 15:36 G	13276274.92	13276275.15	13276275.38	0.0288	0.0089
Moon	31637-02-07 19:26 G	13276275.08	13276275.31	13276275.54	0.0288	0.0102 *
Venus	31639-06-25 11:31 G	13277142.84	13277142.98	13277143.12	0.0278	0.0209
Venus	31640-02-09 20:09 G	13277372.13	13277372.34	13277372.56	0.0276	0.0008
Venus	31640-09-26 03:07 G	13277601.49	13277601.63	13277601.76	0.0274	0.0210
Mercury	31643-06-22 12:57 G	13278601.01	13278601.04	13278601.08	0.0265	0.0256
Mercury	31643-09-18 23:17 G	13278689.37	13278689.47	13278689.58	0.0265	0.0157
Mercury	31643-12-16 09:50 G	13278777.78	13278777.91	13278778.05	0.0264	0.0056
Mercury	31644-03-13 20:24 G	13278866.22	13278866.35	13278866.49	0.0264	0.0045

Mercury	31644-06-10 07:12 G	13278954.68	13278954.80	13278954.91	0.0263	0.0147
Mercury	31644-09-06 17:45 G	13279043.21	13279043.24	13279043.29	0.0263	0.0249
Moon	31652-08-04 05:45 G	13281931.65	13281931.74	13281931.85	0.0271	0.0246
Earth	31652-08-04 09:36 G	13281931.80	13281931.90	13281932.01	0.0271	0.0243 *
Moon	31653-08-16 18:43 G	13282309.09	13282309.28	13282309.50	0.0275	0.0140
Earth	31653-08-16 20:38 G	13282309.16	13282309.36	13282309.57	0.0275	0.0150 *
Venus	31655-10-16 18:43 G	13283100.08	13283100.28	13283100.48	0.0284	0.0105
Venus	31656-06-02 12:29 G	13283329.83	13283330.02	13283330.21	0.0287	0.0132
Mercury	31659-04-10 23:45 G	13284372.34	13284372.49	13284372.64	0.0297	0.0155
Mercury	31659-07-08 23:17 G	13284461.29	13284461.47	13284461.64	0.0298	0.0036
Mercury	31659-10-05 22:05 G	13284550.32	13284550.42	13284550.54	0.0298	0.0225
Moon	31667-02-15 14:38 G	13287239.92	13287240.11	13287240.31	0.0286	0.0159
Earth	31667-02-15 15:50 G	13287239.96	13287240.16	13287240.36	0.0286	0.0166 *
Venus	31669-01-04 14:38 G	13287928.96	13287929.11	13287929.28	0.0278	0.0183
Venus	31669-08-21 23:17 G	13288158.26	13288158.47	13288158.68	0.0275	0.0030
Venus	31670-04-08 05:45 G	13288387.64	13288387.74	13288387.85	0.0273	0.0234
Mercury	31673-02-05 01:26 G	13289421.47	13289421.56	13289421.66	0.0265	0.0189
Mercury	31673-05-04 12:00 G	13289509.87	13289510.00	13289510.13	0.0264	0.0088
Mercury	31673-07-31 22:33 G	13289598.30	13289598.44	13289598.58	0.0264	0.0012
Mercury	31673-10-28 09:07 G	13289686.76	13289686.88	13289687.01	0.0263	0.0114
Mercury	31674-01-24 19:55 G	13289775.26	13289775.33	13289775.41	0.0263	0.0215
Earth	31682-08-11 09:50 G	13292895.66	13292895.91	13292896.15	0.0274	0.0035
Moon	31682-08-11 11:02 G	13292895.71	13292895.96	13292896.21	0.0274	0.0044 *
Venus	31685-04-27 18:43 G	13293886.08	13293886.28	13293886.49	0.0284	0.0085
Venus	31685-12-13 12:29 G	13294115.84	13294116.02	13294116.20	0.0287	0.0152
Mercury	31688-08-27 19:12 G	13295104.19	13295104.30	13295104.41	0.0296	0.0233
Mercury	31688-11-24 18:57 G	13295193.11	13295193.29	13295193.46	0.0297	0.0042
Mercury	31689-02-21 18:00 G	13295282.10	13295282.25	13295282.41	0.0297	0.0149
Mars	31689-12-07 03:50 G	13295570.39	13295570.66	13295570.95	0.0299	0.0104
Earth	31696-02-09 13:55 G	13297825.83	13297826.08	13297826.32	0.0288	0.0045

Moon	31696-02-09 13:55 G	13297825.83	13297826.08	13297826.33	0.0288	0.0052 *
Venus	31698-07-17 16:19 G	13298715.02	13298715.18	13298715.36	0.0278	0.0163
Venus	31699-03-04 00:57 G	13298944.33	13298944.54	13298944.75	0.0276	0.0050
Venus	31699-10-19 07:26 G	13299173.74	13299173.81	13299173.89	0.0273	0.0254
Mercury	31702-06-26 03:50 G	13300153.59	13300153.66	13300153.74	0.0265	0.0221
Mercury	31702-09-22 14:24 G	13300241.98	13300242.10	13300242.22	0.0265	0.0121
Mercury	31702-12-20 00:57 G	13300330.40	13300330.54	13300330.68	0.0264	0.0020
Mercury	31703-03-18 11:31 G	13300418.85	13300418.98	13300419.11	0.0264	0.0082
Mercury	31703-06-14 22:19 G	13300507.33	13300507.43	13300507.53	0.0264	0.0184
Mars	31703-11-24 04:05 G	13300669.46	13300669.67	13300669.90	0.0263	0.0167
Moon	31711-08-07 08:09 G	13303482.70	13303482.84	13303483.00	0.0272	0.0206
Earth	31711-08-07 09:36 G	13303482.74	13303482.90	13303483.07	0.0272	0.0201 *
Earth	31712-08-18 20:24 G	13303860.18	13303860.35	13303860.53	0.0275	0.0194
Moon	31712-08-18 23:31 G	13303860.31	13303860.48	13303860.67	0.0275	0.0180 *
Venus	31714-03-24 09:36 G	13304442.90	13304442.90	13304442.92	0.0282	0.0281
Venus	31714-11-09 01:41 G	13304672.36	13304672.57	13304672.78	0.0285	0.0054
Venus	31715-06-26 19:41 G	13304902.16	13304902.32	13304902.48	0.0287	0.0184
Mercury	31718-01-15 17:45 G	13305836.21	13305836.24	13305836.29	0.0296	0.0289
Mercury	31718-04-14 17:45 G	13305925.07	13305925.24	13305925.41	0.0297	0.0095
Mercury	31718-07-12 17:17 G	13306014.05	13306014.22	13306014.38	0.0298	0.0096
Mercury	31718-10-09 16:05 G	13306103.12	13306103.17	13306103.23	0.0298	0.0283
Earth	31725-02-03 17:31 G	13308412.12	13308412.23	13308412.36	0.0290	0.0254
Moon	31725-02-03 18:00 G	13308412.16	13308412.25	13308412.36	0.0290	0.0263 *
Earth	31726-02-17 16:05 G	13308791.02	13308791.17	13308791.35	0.0286	0.0213
Moon	31726-02-17 19:55 G	13308791.17	13308791.33	13308791.49	0.0286	0.0210 *
Venus	31728-01-28 20:53 G	13309501.19	13309501.37	13309501.56	0.0277	0.0135
Venus	31728-09-14 05:17 G	13309730.52	13309730.72	13309730.93	0.0275	0.0077
Mercury	31731-11-13 06:29 G	13310885.73	13310885.77	13310885.82	0.0265	0.0250
Mercury	31732-02-09 16:48 G	13310974.09	13310974.20	13310974.32	0.0265	0.0150
Mercury	31732-05-08 03:21 G	13311062.51	13311062.64	13311062.78	0.0264	0.0050

Mercury	31732-08-04 13:55 G	13311150.95	13311151.08	13311151.22	0.0264	0.0052
Mercury	31732-11-01 00:43 G	13311239.42	13311239.53	13311239.64	0.0263	0.0153
Mercury	31733-01-28 11:31 G	13311327.95	13311327.98	13311328.01	0.0263	0.0256
Moon	31741-08-13 08:53 G	13314446.62	13314446.87	13314447.12	0.0274	0.0002
Earth	31741-08-13 12:00 G	13314446.76	13314447.00	13314447.25	0.0274	0.0013 *
Venus	31743-10-04 11:17 G	13315228.90	13315228.97	13315229.06	0.0282	0.0260
Venus	31744-05-21 03:21 G	13315458.43	13315458.64	13315458.85	0.0285	0.0031
Venus	31745-01-05 21:07 G	13315688.24	13315688.38	13315688.54	0.0287	0.0207
Mercury	31747-09-01 13:55 G	13316656.94	13316657.08	13316657.23	0.0296	0.0168
Mercury	31747-11-29 13:41 G	13316745.89	13316746.07	13316746.24	0.0297	0.0025
Mercury	31748-02-26 12:43 G	13316834.91	13316835.03	13316835.15	0.0298	0.0213
Moon	31755-02-11 11:45 G	13319376.75	13319376.99	13319377.24	0.0288	0.0004
Earth	31755-02-11 15:36 G	13319376.90	13319377.15	13319377.40	0.0288	0.0003 *
Venus	31757-08-09 22:48 G	13320287.27	13320287.45	13320287.65	0.0278	0.0114
Venus	31758-03-27 07:12 G	13320516.61	13320516.80	13320517.00	0.0275	0.0098
Mercury	31761-06-28 19:12 G	13321706.21	13321706.30	13321706.40	0.0265	0.0183
Mercury	31761-09-25 05:45 G	13321794.61	13321794.74	13321794.87	0.0265	0.0082
Mercury	31761-12-22 16:19 G	13321883.05	13321883.18	13321883.32	0.0264	0.0021
Mercury	31762-03-21 03:07 G	13321971.51	13321971.63	13321971.75	0.0264	0.0122
Mercury	31762-06-17 13:55 G	13322060.01	13322060.08	13322060.15	0.0264	0.0225
Earth	31770-08-08 13:12 G	13325033.85	13325034.05	13325034.26	0.0272	0.0154
Moon	31770-08-08 15:50 G	13325033.97	13325034.16	13325034.36	0.0272	0.0161 *
Earth	31771-08-21 00:29 G	13325411.41	13325411.52	13325411.64	0.0276	0.0242
Moon	31771-08-21 02:53 G	13325411.49	13325411.62	13325411.78	0.0276	0.0227 *
Venus	31773-04-15 19:12 G	13326015.18	13326015.30	13326015.43	0.0282	0.0227
Venus	31773-12-01 11:17 G	13326244.76	13326244.97	13326245.19	0.0285	0.0005
Venus	31774-07-19 05:31 G	13326474.63	13326474.73	13326474.85	0.0288	0.0242
Mercury	31777-01-18 13:26 G	13327388.95	13327389.06	13327389.19	0.0297	0.0217
Mercury	31777-04-17 13:12 G	13327477.88	13327478.05	13327478.23	0.0297	0.0024
Mercury	31777-07-15 12:29 G	13327566.88	13327567.02	13327567.17	0.0298	0.0165

Mars	31778-05-03 20:24 G	13327859.11	13327859.35	13327859.59	0.0299	0.0173
Earth	31784-02-05 21:36 G	13329963.23	13329963.40	13329963.58	0.0290	0.0203
Moon	31784-02-06 00:57 G	13329963.38	13329963.54	13329963.72	0.0290	0.0209 *
Earth	31785-02-18 19:41 G	13330342.24	13330342.32	13330342.43	0.0286	0.0263
Moon	31785-02-18 22:05 G	13330342.34	13330342.42	13330342.53	0.0286	0.0264 *
Venus	31787-02-20 04:33 G	13331073.50	13331073.69	13331073.90	0.0277	0.0083
Venus	31787-10-07 12:43 G	13331302.84	13331303.03	13331303.22	0.0275	0.0128
Mercury	31790-11-15 22:19 G	13332438.34	13332438.43	13332438.51	0.0265	0.0208
Mercury	31791-02-12 08:38 G	13332526.74	13332526.86	13332526.98	0.0265	0.0108
Mercury	31791-05-11 19:12 G	13332615.16	13332615.30	13332615.44	0.0264	0.0007
Mercury	31791-08-08 05:45 G	13332703.62	13332703.74	13332703.87	0.0264	0.0095
Mercury	31791-11-04 16:33 G	13332792.10	13332792.19	13332792.28	0.0263	0.0197
Mars	31792-04-18 20:09 G	13332958.09	13332958.34	13332958.61	0.0263	0.0117
Moon	31800-08-15 15:21 G	13335997.91	13335998.14	13335998.38	0.0274	0.0050
Earth	31800-08-15 18:00 G	13335998.01	13335998.25	13335998.49	0.0274	0.0063 *
Venus	31802-10-27 22:05 G	13336801.28	13336801.42	13336801.57	0.0283	0.0203
Venus	31803-06-14 14:24 G	13337030.89	13337031.10	13337031.32	0.0285	0.0028
Venus	31804-01-30 08:38 G	13337260.79	13337260.86	13337260.94	0.0288	0.0267
Mercury	31806-06-08 10:05 G	13338120.89	13338120.92	13338120.98	0.0296	0.0285
Mercury	31806-09-05 10:05 G	13338209.76	13338209.92	13338210.09	0.0297	0.0092
Mercury	31806-12-03 09:36 G	13338298.73	13338298.90	13338299.06	0.0297	0.0099
Mercury	31807-03-02 08:24 G	13338387.81	13338387.85	13338387.90	0.0298	0.0286
Moon	31814-02-13 19:12 G	13340928.07	13340928.30	13340928.54	0.0288	0.0056
Earth	31814-02-13 20:53 G	13340928.13	13340928.37	13340928.61	0.0288	0.0055 *
Venus	31816-01-16 21:07 G	13341630.37	13341630.38	13341630.42	0.0280	0.0278
Venus	31816-09-02 07:26 G	13341859.61	13341859.81	13341860.02	0.0278	0.0060
Venus	31817-04-19 15:21 G	13342088.97	13342089.14	13342089.33	0.0275	0.0150
Mercury	31820-04-05 00:43 G	13343170.48	13343170.53	13343170.59	0.0266	0.0240
Mercury	31820-07-02 11:02 G	13343258.85	13343258.96	13343259.08	0.0265	0.0140
Mercury	31820-09-28 21:36 G	13343347.27	13343347.40	13343347.54	0.0265	0.0039

Mercury	31820-12-26 08:24 G	13343435.71	13343435.85	13343435.98	0.0264	0.0065
Mercury	31821-03-24 18:57 G	13343524.19	13343524.29	13343524.40	0.0264	0.0167
Jupiter	31829-06-03 04:48 G	13346516.27	13346516.70	13346517.16	0.0271	0.0108
Earth	31829-08-10 20:09 G	13346585.12	13346585.34	13346585.57	0.0272	0.0103
Moon	31829-08-10 23:17 G	13346585.25	13346585.47	13346585.70	0.0272	0.0111 *
Venus	31832-05-09 06:57 G	13347587.62	13347587.79	13347587.96	0.0283	0.0167
Venus	31832-12-24 23:31 G	13347817.27	13347817.48	13347817.69	0.0285	0.0065
Mercury	31836-01-23 10:33 G	13348941.78	13348941.94	13348942.10	0.0297	0.0134
Mercury	31836-04-21 10:05 G	13349030.74	13349030.92	13349031.09	0.0297	0.0057
Mercury	31836-07-19 08:53 G	13349119.78	13349119.87	13349119.97	0.0298	0.0246
Earth	31843-02-08 06:00 G	13351514.54	13351514.75	13351514.97	0.0290	0.0146
Moon	31843-02-08 07:41 G	13351514.62	13351514.82	13351515.05	0.0290	0.0151 *
Venus	31845-07-29 04:48 G	13352416.60	13352416.70	13352416.81	0.0279	0.0243
Venus	31846-03-15 14:24 G	13352645.89	13352646.10	13352646.32	0.0277	0.0028
Venus	31846-10-30 22:05 G	13352875.27	13352875.42	13352875.58	0.0274	0.0182
Mercury	31849-08-23 03:50 G	13353902.65	13353902.66	13353902.68	0.0266	0.0263
Mercury	31849-11-19 14:24 G	13353990.99	13353991.10	13353991.20	0.0265	0.0162
Mercury	31850-02-16 00:57 G	13354079.40	13354079.54	13354079.67	0.0265	0.0062
Mercury	31850-05-15 11:31 G	13354167.84	13354167.98	13354168.11	0.0264	0.0041
Mercury	31850-08-11 22:05 G	13354256.31	13354256.42	13354256.54	0.0264	0.0143
Mercury	31850-11-08 08:53 G	13354344.83	13354344.87	13354344.92	0.0263	0.0246
Earth	31858-08-05 20:09 G	13357172.33	13357172.34	13357172.37	0.0271	0.0270
Earth	31859-08-18 03:50 G	13357549.45	13357549.66	13357549.89	0.0274	0.0119
Moon	31859-08-18 05:17 G	13357549.50	13357549.72	13357549.94	0.0274	0.0106 *
Venus	31861-11-19 12:00 G	13358373.82	13358374.00	13358374.19	0.0283	0.0139
Venus	31862-07-07 04:48 G	13358603.50	13358603.70	13358603.90	0.0286	0.0094
Mercury	31865-06-11 08:09 G	13359673.71	13359673.84	13359673.98	0.0296	0.0195
Mercury	31865-09-08 07:55 G	13359762.65	13359762.83	13359763.01	0.0297	0.0003
Mercury	31865-12-06 07:12 G	13359851.66	13359851.80	13359851.93	0.0297	0.0187
Mars	31866-09-28 14:53 G	13360147.96	13360148.12	13360148.32	0.0299	0.0235

Earth	31873-02-15 06:29 G	13362479.55	13362479.77	13362480.00	0.0287	0.0113
Moon	31873-02-15 08:53 G	13362479.65	13362479.87	13362480.09	0.0287	0.0116 *
Venus	31875-02-08 08:09 G	13363202.71	13363202.84	13363202.97	0.0279	0.0219
Venus	31875-09-25 17:45 G	13363432.03	13363432.24	13363432.46	0.0277	0.0007
Venus	31876-05-12 01:26 G	13363661.43	13363661.56	13363661.70	0.0275	0.0206
Mercury	31879-04-08 17:02 G	13364723.12	13364723.21	13364723.30	0.0266	0.0193
Mercury	31879-07-06 03:21 G	13364811.52	13364811.64	13364811.77	0.0265	0.0092
Mercury	31879-10-02 14:09 G	13364899.95	13364900.09	13364900.22	0.0265	0.0012
Mercury	31879-12-30 00:43 G	13364988.41	13364988.53	13364988.66	0.0264	0.0113
Mercury	31880-03-27 11:31 G	13365076.90	13365076.98	13365077.06	0.0264	0.0216
Mars	31880-09-13 20:24 G	13365247.07	13365247.35	13365247.64	0.0263	0.0048
Moon	31888-08-12 05:31 G	13368136.48	13368136.73	13368136.98	0.0272	0.0059
Earth	31888-08-12 06:29 G	13368136.53	13368136.77	13368137.01	0.0272	0.0049 *
Venus	31891-06-01 21:07 G	13369160.19	13369160.38	13369160.58	0.0283	0.0102
Venus	31892-01-17 14:09 G	13369389.90	13369390.09	13369390.28	0.0286	0.0133
Mercury	31894-10-29 08:38 G	13370405.76	13370405.86	13370405.98	0.0296	0.0235
Mercury	31895-01-26 08:38 G	13370494.68	13370494.86	13370495.03	0.0297	0.0043
Mercury	31895-04-25 07:55 G	13370583.68	13370583.83	13370583.98	0.0297	0.0148
Moon	31902-02-10 15:36 G	13373065.92	13373066.15	13373066.40	0.0289	0.0086
Earth	31902-02-10 18:14 G	13373066.02	13373066.26	13373066.49	0.0289	0.0084 *
Venus	31904-08-21 16:48 G	13373989.05	13373989.20	13373989.36	0.0279	0.0183
Venus	31905-04-08 02:09 G	13374218.38	13374218.59	13374218.80	0.0276	0.0032
Venus	31905-11-23 09:21 G	13374447.79	13374447.89	13374448.00	0.0274	0.0239
Mercury	31908-08-26 20:24 G	13375455.28	13375455.35	13375455.44	0.0266	0.0213
Mercury	31908-11-23 06:57 G	13375543.67	13375543.79	13375543.91	0.0265	0.0112
Mercury	31909-02-19 17:31 G	13375632.09	13375632.23	13375632.37	0.0264	0.0011
Mercury	31909-05-19 04:19 G	13375720.55	13375720.68	13375720.80	0.0264	0.0092
Mercury	31909-08-15 14:53 G	13375809.03	13375809.12	13375809.22	0.0264	0.0195
Earth	31917-08-08 07:55 G	13378723.69	13378723.83	13378723.99	0.0271	0.0214
Moon	31917-08-08 08:53 G	13378723.75	13378723.87	13378724.01	0.0271	0.0222 *

Earth	31918-08-20 16:48 G	13379101.02	13379101.20	13379101.39	0.0275	0.0178
Moon	31918-08-20 20:24 G	13379101.16	13379101.35	13379101.55	0.0275	0.0164 *
Venus	31920-12-13 03:50 G	13379946.45	13379946.66	13379946.86	0.0284	0.0071
Venus	31921-07-30 20:53 G	13380176.20	13380176.37	13380176.55	0.0286	0.0165
Mercury	31924-03-18 07:12 G	13381137.78	13381137.80	13381137.84	0.0296	0.0290
Mercury	31924-06-15 07:12 G	13381226.63	13381226.80	13381226.97	0.0296	0.0097
Mercury	31924-09-12 06:29 G	13381315.61	13381315.77	13381315.94	0.0297	0.0095
Mercury	31924-12-10 05:17 G	13381404.68	13381404.72	13381404.79	0.0297	0.0283
Earth	31932-02-18 20:09 G	13384031.15	13384031.34	13384031.54	0.0287	0.0176
Moon	31932-02-18 23:45 G	13384031.30	13384031.49	13384031.69	0.0287	0.0178 *
Venus	31934-03-03 21:07 G	13384775.21	13384775.38	13384775.56	0.0279	0.0156
Venus	31934-10-19 06:14 G	13385004.55	13385004.76	13385004.97	0.0276	0.0059
Venus	31935-06-05 13:26 G	13385234.01	13385234.06	13385234.11	0.0274	0.0264
Mercury	31938-01-13 23:02 G	13386187.42	13386187.46	13386187.52	0.0266	0.0244
Mercury	31938-04-12 09:36 G	13386275.79	13386275.90	13386276.02	0.0266	0.0142
Mercury	31938-07-09 20:09 G	13386364.21	13386364.34	13386364.48	0.0265	0.0040
Mercury	31938-10-06 06:57 G	13386452.65	13386452.79	13386452.92	0.0265	0.0063
Mercury	31939-01-02 17:31 G	13386541.13	13386541.23	13386541.34	0.0264	0.0166
Moon	31947-08-15 15:21 G	13389687.89	13389688.14	13389688.38	0.0273	0.0006
Earth	31947-08-15 19:12 G	13389688.05	13389688.30	13389688.54	0.0273	0.0010 *
Venus	31949-11-07 21:50 G	13390503.34	13390503.41	13390503.50	0.0281	0.0259
Venus	31950-06-25 13:26 G	13390732.85	13390733.06	13390733.28	0.0284	0.0032
Venus	31951-02-10 06:57 G	13390962.65	13390962.79	13390962.94	0.0287	0.0205
Mercury	31953-11-02 08:09 G	13391958.69	13391958.84	13391959.00	0.0296	0.0133
Mercury	31954-01-30 07:41 G	13392047.65	13392047.82	13392048.00	0.0297	0.0059
Mercury	31954-04-29 06:43 G	13392136.69	13392136.78	13392136.88	0.0298	0.0248
Moon	31961-02-12 06:29 G	13394617.52	13394617.77	13394618.01	0.0289	0.0019
Earth	31961-02-12 09:50 G	13394617.67	13394617.91	13394618.16	0.0289	0.0019 *
Venus	31963-09-14 06:29 G	13395561.58	13395561.77	13395561.96	0.0278	0.0118
Venus	31964-04-30 15:07 G	13395790.94	13395791.13	13395791.33	0.0276	0.0095

Mercury	31967-06-03 02:53 G	13396919.60	13396919.62	13396919.65	0.0266	0.0261
Mercury	31967-08-30 13:26 G	13397007.95	13397008.06	13397008.17	0.0265	0.0160
Mercury	31967-11-27 00:00 G	13397096.36	13397096.50	13397096.63	0.0265	0.0059
Mercury	31968-02-23 10:33 G	13397184.80	13397184.94	13397185.07	0.0264	0.0044
Mercury	31968-05-21 21:07 G	13397273.27	13397273.38	13397273.50	0.0264	0.0147
Mercury	31968-08-18 07:55 G	13397361.79	13397361.83	13397361.88	0.0264	0.0250
Mars	31969-02-09 11:31 G	13397536.70	13397536.98	13397537.27	0.0263	0.0033
Earth	31976-08-09 21:36 G	13400275.21	13400275.40	13400275.61	0.0272	0.0156
Moon	31976-08-10 01:41 G	13400275.38	13400275.57	13400275.76	0.0272	0.0166 *
Earth	31977-08-22 07:26 G	13400652.70	13400652.81	13400652.94	0.0275	0.0240
Moon	31977-08-22 08:53 G	13400652.73	13400652.87	13400653.02	0.0275	0.0224 *
Venus	31979-05-21 05:17 G	13401289.61	13401289.72	13401289.86	0.0282	0.0227
Venus	31980-01-05 21:07 G	13401519.17	13401519.38	13401519.60	0.0285	0.0005
Venus	31980-08-22 14:38 G	13401749.01	13401749.11	13401749.24	0.0287	0.0239
Mercury	31983-03-22 07:12 G	13402690.67	13402690.80	13402690.94	0.0296	0.0184
Mercury	31983-06-19 06:57 G	13402779.61	13402779.79	13402779.97	0.0297	0.0008
Mercury	31983-09-16 06:00 G	13402868.62	13402868.75	13402868.88	0.0297	0.0197
Earth	31990-02-06 12:14 G	13405203.87	13405204.01	13405204.17	0.0290	0.0229
Moon	31990-02-06 15:36 G	13405204.01	13405204.15	13405204.31	0.0290	0.0230 *
Earth	31991-02-20 12:14 G	13405582.89	13405583.01	13405583.14	0.0286	0.0241
Moon	31991-02-20 12:29 G	13405582.90	13405583.02	13405583.15	0.0286	0.0245 *
Venus	31993-03-26 11:02 G	13406347.76	13406347.96	13406348.16	0.0278	0.0090
Venus	31993-11-10 19:41 G	13406577.13	13406577.32	13406577.51	0.0276	0.0122
Mercury	31997-01-16 16:05 G	13407740.08	13407740.17	13407740.27	0.0266	0.0189
Mercury	31997-04-15 02:38 G	13407828.48	13407828.61	13407828.74	0.0266	0.0088
Mercury	31997-07-12 13:12 G	13407916.91	13407917.05	13407917.19	0.0265	0.0015
Mercury	31997-10-08 23:45 G	13408005.37	13408005.49	13408005.62	0.0265	0.0118
Mercury	31998-01-05 10:33 G	13408093.87	13408093.94	13408094.02	0.0264	0.0222

33RD MILLENNIUM CE

This is a list of transits visible from Saturn in the 33rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	32006-08-17 07:12	G	13411239.57	13411239.80	13411240.04	0.0273	0.0055	
Earth	32006-08-17 08:24	G	13411239.61	13411239.85	13411240.09	0.0273	0.0069	*
Venus	32008-11-30 14:09	G	13412075.94	13412076.09	13412076.25	0.0282	0.0190	
Venus	32009-07-18 06:29	G	13412305.56	13412305.77	13412305.98	0.0285	0.0041	
Venus	32010-03-05 00:29	G	13412535.47	13412535.52	13412535.57	0.0287	0.0279	
Mercury	32012-08-08 08:09	G	13413422.72	13413422.84	13413422.96	0.0296	0.0221	
Mercury	32012-11-05 07:55	G	13413511.65	13413511.83	13413512.00	0.0297	0.0029	
Mercury	32013-02-02 06:57	G	13413600.65	13413600.79	13413600.94	0.0297	0.0162	
Mars	32013-05-30 13:26	G	13413717.98	13413718.06	13413718.18	0.0298	0.0280	
Earth	32020-02-15 03:07	G	13416169.39	13416169.63	13416169.88	0.0288	0.0051	
Moon	32020-02-15 03:21	G	13416169.41	13416169.64	13416169.88	0.0288	0.0054	*
Venus	32022-02-19 10:33	G	13416904.90	13416904.94	13416905.00	0.0280	0.0270	
Venus	32022-10-06 20:53	G	13417134.16	13417134.37	13417134.57	0.0278	0.0053	
Venus	32023-05-24 04:48	G	13417363.53	13417363.70	13417363.88	0.0275	0.0159	
Mercury	32026-06-05 19:55	G	13418472.25	13418472.33	13418472.41	0.0266	0.0207	
Mercury	32026-09-02 06:29	G	13418560.64	13418560.77	13418560.89	0.0265	0.0106	
Mercury	32026-11-29 17:02	G	13418649.07	13418649.21	13418649.34	0.0265	0.0005	
Mercury	32027-02-26 03:36	G	13418737.52	13418737.65	13418737.78	0.0264	0.0099	
Mercury	32027-05-25 14:24	G	13418826.01	13418826.10	13418826.19	0.0264	0.0203	
Earth	32035-08-12 11:17	G	13421826.75	13421826.97	13421827.20	0.0272	0.0097	

Moon	32035-08-12 12:29 G	13421826.80	13421827.02	13421827.26	0.0272	0.0107 *
Venus	32038-06-12 22:33 G	13422862.27	13422862.44	13422862.63	0.0283	0.0156
Venus	32039-01-28 14:53 G	13423091.92	13423092.12	13423092.33	0.0285	0.0076
Mercury	32041-12-26 07:41 G	13424154.75	13424154.82	13424154.89	0.0296	0.0269
Mercury	32042-03-25 07:26 G	13424243.64	13424243.81	13424243.98	0.0296	0.0076
Mercury	32042-06-22 06:43 G	13424332.62	13424332.78	13424332.95	0.0297	0.0116
Moon	32049-02-08 06:43 G	13426755.57	13426755.78	13426756.00	0.0289	0.0155
Earth	32049-02-08 07:41 G	13426755.62	13426755.82	13426756.03	0.0289	0.0157 *
Venus	32051-09-01 15:50 G	13427691.06	13427691.16	13427691.27	0.0279	0.0240
Venus	32052-04-18 01:41 G	13427920.36	13427920.57	13427920.79	0.0277	0.0024
Venus	32052-12-03 09:36 G	13428149.75	13428149.90	13428150.06	0.0275	0.0186
Mercury	32055-10-23 22:33 G	13429204.39	13429204.44	13429204.51	0.0266	0.0236
Mercury	32056-01-20 09:07 G	13429292.77	13429292.88	13429293.00	0.0266	0.0135
Mercury	32056-04-17 19:41 G	13429381.18	13429381.32	13429381.45	0.0265	0.0033
Mercury	32056-07-15 06:14 G	13429469.63	13429469.76	13429469.89	0.0265	0.0070
Mercury	32056-10-11 17:02 G	13429558.11	13429558.21	13429558.31	0.0264	0.0173
Mars	32057-07-06 18:57 G	13429826.04	13429826.29	13429826.56	0.0263	0.0111
Moon	32064-08-06 11:17 G	13432413.95	13432413.97	13432414.00	0.0270	0.0269
Earth	32064-08-06 12:57 G	13432413.99	13432414.04	13432414.10	0.0270	0.0262 *
Earth	32065-08-18 21:07 G	13432791.17	13432791.38	13432791.60	0.0274	0.0127
Moon	32065-08-19 00:14 G	13432791.29	13432791.51	13432791.73	0.0274	0.0112 *
Venus	32067-12-24 06:29 G	13433648.58	13433648.77	13433648.96	0.0283	0.0120
Venus	32068-08-09 23:02 G	13433878.27	13433878.46	13433878.66	0.0286	0.0114
Mercury	32071-08-12 07:41 G	13434975.66	13434975.82	13434975.99	0.0296	0.0117
Mercury	32071-11-09 07:12 G	13435064.63	13435064.80	13435064.97	0.0297	0.0075
Mercury	32072-02-06 06:14 G	13435153.69	13435153.76	13435153.84	0.0297	0.0264
Earth	32079-02-16 20:09 G	13437721.13	13437721.34	13437721.57	0.0288	0.0120
Moon	32079-02-17 00:00 G	13437721.29	13437721.50	13437721.72	0.0288	0.0126 *
Venus	32081-03-14 01:26 G	13438477.42	13438477.56	13438477.71	0.0279	0.0203
Venus	32081-10-29 11:02 G	13438706.75	13438706.96	13438707.17	0.0277	0.0014

Venus	32082-06-15 18:14 G	13438936.15	13438936.26	13438936.39	0.0274	0.0222
Mercury	32085-03-12 02:24 G	13439936.57	13439936.60	13439936.64	0.0266	0.0254
Mercury	32085-06-08 12:57 G	13440024.93	13440025.04	13440025.15	0.0265	0.0153
Mercury	32085-09-04 23:17 G	13440113.34	13440113.47	13440113.61	0.0265	0.0052
Mercury	32085-12-02 09:50 G	13440201.78	13440201.91	13440202.05	0.0264	0.0053
Mercury	32086-02-28 20:38 G	13440290.25	13440290.36	13440290.47	0.0264	0.0155
Mercury	32086-05-28 07:26 G	13440378.79	13440378.81	13440378.84	0.0264	0.0258
Moon	32094-08-13 20:38 G	13443378.11	13443378.36	13443378.61	0.0272	0.0052
Earth	32094-08-13 23:17 G	13443378.23	13443378.47	13443378.72	0.0272	0.0040 *
Venus	32097-07-05 14:53 G	13444434.92	13444435.12	13444435.32	0.0284	0.0086
Venus	32098-02-20 07:41 G	13444664.64	13444664.82	13444665.00	0.0286	0.0148
Mercury	32100-12-30 07:12 G	13445707.66	13445707.80	13445707.95	0.0296	0.0165
Mercury	32101-03-29 06:57 G	13445796.61	13445796.79	13445796.97	0.0297	0.0028
Mercury	32101-06-26 06:14 G	13445885.64	13445885.76	13445885.87	0.0297	0.0218
Mars	32101-10-26 15:36 G	13446007.91	13446008.15	13446008.40	0.0298	0.0163
Moon	32108-02-11 22:05 G	13448307.18	13448307.42	13448307.66	0.0289	0.0083
Earth	32108-02-12 01:41 G	13448307.34	13448307.57	13448307.81	0.0289	0.0087 *
Venus	32110-09-25 06:43 G	13449263.61	13449263.78	13449263.94	0.0279	0.0173
Venus	32111-05-12 15:50 G	13449492.95	13449493.16	13449493.37	0.0276	0.0042
Venus	32111-12-27 22:48 G	13449722.38	13449722.45	13449722.55	0.0274	0.0249
Mercury	32114-10-27 15:21 G	13450757.05	13450757.14	13450757.24	0.0266	0.0183
Mercury	32115-01-24 01:55 G	13450845.45	13450845.58	13450845.71	0.0265	0.0081
Mercury	32115-04-22 12:29 G	13450933.88	13450934.02	13450934.16	0.0265	0.0021
Mercury	32115-07-19 23:02 G	13451022.34	13451022.46	13451022.59	0.0264	0.0125
Mercury	32115-10-16 09:50 G	13451110.85	13451110.91	13451110.98	0.0264	0.0228
Earth	32123-08-09 22:05 G	13453965.28	13453965.42	13453965.58	0.0271	0.0210
Moon	32123-08-10 00:29 G	13453965.39	13453965.52	13453965.67	0.0271	0.0218 *
Earth	32124-08-21 07:26 G	13454342.63	13454342.81	13454342.99	0.0274	0.0183
Moon	32124-08-21 10:19 G	13454342.73	13454342.93	13454343.13	0.0274	0.0168 *
Venus	32126-06-01 05:45 G	13454991.73	13454991.74	13454991.78	0.0281	0.0279

Venus	32127-01-16 21:07 G	13455221.18	13455221.38	13455221.59	0.0284	0.0053
Venus	32127-09-03 14:24 G	13455450.94	13455451.10	13455451.27	0.0286	0.0184
Mercury	32130-05-19 06:29 G	13456439.66	13456439.77	13456439.91	0.0296	0.0212
Mercury	32130-08-16 06:29 G	13456528.59	13456528.77	13456528.95	0.0297	0.0018
Mercury	32130-11-13 05:45 G	13456617.60	13456617.74	13456617.89	0.0297	0.0173
Earth	32137-02-05 10:48 G	13458893.94	13458893.95	13458893.99	0.0291	0.0290
Moon	32137-02-05 14:38 G	13458894.11	13458894.11	13458894.12	0.0291	0.0291
Earth	32138-02-19 12:29 G	13459272.84	13459273.02	13459273.21	0.0287	0.0187
Moon	32138-02-19 14:24 G	13459272.93	13459273.10	13459273.30	0.0287	0.0194 *
Venus	32140-04-06 15:36 G	13460049.97	13460050.15	13460050.34	0.0279	0.0137
Venus	32140-11-22 00:29 G	13460279.32	13460279.52	13460279.72	0.0276	0.0077
Mercury	32144-03-15 19:12 G	13461489.21	13461489.30	13461489.38	0.0266	0.0202
Mercury	32144-06-12 05:31 G	13461577.61	13461577.73	13461577.86	0.0265	0.0101
Mercury	32144-09-08 16:05 G	13461666.04	13461666.17	13461666.31	0.0265	0.0004
Mercury	32144-12-06 02:38 G	13461754.49	13461754.61	13461754.74	0.0264	0.0105
Mercury	32145-03-04 13:26 G	13461842.98	13461843.06	13461843.14	0.0264	0.0208
Mars	32145-12-02 09:50 G	13462115.72	13462115.91	13462116.13	0.0263	0.0187
Moon	32153-08-16 05:31 G	13464929.49	13464929.73	13464929.97	0.0273	0.0002
Earth	32153-08-16 08:38 G	13464929.62	13464929.86	13464930.11	0.0273	0.0015 *
Venus	32155-12-12 13:26 G	13465777.97	13465778.06	13465778.17	0.0282	0.0247
Venus	32156-07-29 05:17 G	13466007.50	13466007.72	13466007.93	0.0284	0.0020
Venus	32157-03-15 22:33 G	13466237.31	13466237.44	13466237.58	0.0287	0.0218
Mercury	32159-10-06 06:00 G	13467171.67	13467171.75	13467171.84	0.0296	0.0261
Mercury	32160-01-03 06:00 G	13467260.58	13467260.75	13467260.92	0.0297	0.0067
Mercury	32160-04-01 05:17 G	13467349.57	13467349.72	13467349.89	0.0297	0.0125
Moon	32167-02-13 15:36 G	13469858.91	13469859.15	13469859.39	0.0288	0.0017
Earth	32167-02-13 17:31 G	13469858.98	13469859.23	13469859.47	0.0288	0.0020 *
Venus	32169-10-17 19:55 G	13470836.14	13470836.33	13470836.53	0.0278	0.0109
Venus	32170-06-04 04:19 G	13471065.49	13471065.68	13471065.88	0.0275	0.0104
Mercury	32173-08-02 21:36 G	13472221.34	13472221.40	13472221.46	0.0266	0.0233

Mercury	32173-10-30 07:55 G	13472309.72	13472309.83	13472309.95	0.0265	0.0132
Mercury	32174-01-26 18:29 G	13472398.14	13472398.27	13472398.41	0.0265	0.0030
Mercury	32174-04-25 05:02 G	13472486.58	13472486.71	13472486.84	0.0264	0.0073
Mercury	32174-07-22 15:36 G	13472575.06	13472575.15	13472575.26	0.0264	0.0176
Earth	32182-08-11 04:33 G	13475516.50	13475516.69	13475516.89	0.0271	0.0160
Moon	32182-08-11 07:55 G	13475516.65	13475516.83	13475517.04	0.0271	0.0170 *
Moon	32183-08-23 13:12 G	13475893.91	13475894.05	13475894.21	0.0275	0.0221
Earth	32183-08-23 14:24 G	13475893.99	13475894.10	13475894.24	0.0275	0.0235 *
Venus	32185-06-23 17:45 G	13476564.12	13476564.24	13476564.39	0.0282	0.0218
Venus	32186-02-08 09:50 G	13476793.70	13476793.91	13476794.12	0.0284	0.0012
Venus	32186-09-26 03:36 G	13477023.55	13477023.65	13477023.75	0.0287	0.0249
Mercury	32189-05-22 04:19 G	13477992.52	13477992.68	13477992.85	0.0296	0.0122
Mercury	32189-08-19 04:05 G	13478081.49	13478081.67	13478081.84	0.0297	0.0071
Mercury	32189-11-16 03:07 G	13478170.55	13478170.63	13478170.72	0.0298	0.0261
Mars	32190-03-23 04:19 G	13478297.40	13478297.68	13478297.97	0.0298	0.0075
Earth	32196-02-08 00:43 G	13480445.37	13480445.53	13480445.68	0.0291	0.0224
Moon	32196-02-08 02:24 G	13480445.45	13480445.60	13480445.77	0.0291	0.0225 *
Moon	32197-02-20 22:48 G	13480824.36	13480824.45	13480824.58	0.0287	0.0258
Earth	32197-02-21 01:26 G	13480824.44	13480824.56	13480824.68	0.0287	0.0249 *
Venus	32199-04-30 03:50 G	13481622.46	13481622.66	13481622.87	0.0278	0.0075
Venus	32199-12-15 12:14 G	13481851.83	13481852.01	13481852.19	0.0275	0.0137
Mercury	32202-12-22 00:57 G	13482953.51	13482953.54	13482953.58	0.0266	0.0255
Mercury	32203-03-20 11:31 G	13483041.87	13483041.98	13483042.09	0.0265	0.0153
Mercury	32203-06-16 21:50 G	13483130.28	13483130.41	13483130.55	0.0265	0.0052
Mercury	32203-09-13 08:24 G	13483218.72	13483218.85	13483218.99	0.0264	0.0051
Mercury	32203-12-10 19:12 G	13483307.19	13483307.30	13483307.41	0.0264	0.0154
Mercury	32204-03-08 05:45 G	13483395.72	13483395.74	13483395.77	0.0263	0.0258
Mars	32204-03-12 11:31 G	13483399.85	13483399.98	13483400.13	0.0263	0.0229
Earth	32212-08-18 13:55 G	13486480.84	13486481.08	13486481.32	0.0273	0.0064
Moon	32212-08-18 14:38 G	13486480.88	13486481.11	13486481.34	0.0273	0.0050 *

Venus	32215-01-05 00:43 G	13487350.37	13487350.53	13487350.69	0.0283	0.0188
Venus	32215-08-22 16:48 G	13487579.99	13487580.20	13487580.41	0.0285	0.0043
Venus	32216-04-08 10:33 G	13487809.91	13487809.94	13487809.99	0.0288	0.0282
Mercury	32218-10-10 03:21 G	13488724.50	13488724.64	13488724.79	0.0296	0.0175
Mercury	32219-01-07 03:07 G	13488813.45	13488813.63	13488813.81	0.0297	0.0019
Mercury	32219-04-06 02:24 G	13488902.48	13488902.60	13488902.73	0.0298	0.0210
Earth	32226-02-16 06:00 G	13491410.51	13491410.75	13491410.99	0.0288	0.0043
Moon	32226-02-16 08:09 G	13491410.60	13491410.84	13491411.07	0.0288	0.0049 *
Venus	32228-03-25 21:36 G	13492179.35	13492179.40	13492179.48	0.0279	0.0266
Venus	32228-11-10 07:41 G	13492408.62	13492408.82	13492409.03	0.0277	0.0048
Venus	32229-06-27 15:36 G	13492637.98	13492638.15	13492638.32	0.0275	0.0163
Mercury	32232-08-06 13:55 G	13493773.98	13493774.08	13493774.17	0.0265	0.0186
Mercury	32232-11-03 00:14 G	13493862.38	13493862.51	13493862.64	0.0265	0.0084
Mercury	32233-01-30 10:48 G	13493950.81	13493950.95	13493951.08	0.0264	0.0019
Mercury	32233-04-28 21:21 G	13494039.27	13494039.39	13494039.51	0.0264	0.0121
Mercury	32233-07-26 07:55 G	13494127.76	13494127.83	13494127.90	0.0263	0.0224
Mars	32234-04-29 02:38 G	13494404.51	13494404.61	13494404.75	0.0262	0.0239
Moon	32241-08-13 06:29 G	13497067.55	13497067.77	13497068.00	0.0271	0.0128
Earth	32241-08-13 07:26 G	13497067.59	13497067.81	13497068.03	0.0271	0.0114 *
Moon	32242-08-25 13:55 G	13497445.04	13497445.08	13497445.15	0.0275	0.0267
Venus	32244-07-17 03:21 G	13498136.47	13498136.64	13498136.82	0.0283	0.0162
Venus	32245-03-03 19:41 G	13498366.12	13498366.32	13498366.53	0.0285	0.0071
Mercury	32248-02-27 00:43 G	13499456.43	13499456.53	13499456.64	0.0296	0.0238
Mercury	32248-05-26 00:43 G	13499545.35	13499545.53	13499545.70	0.0297	0.0044
Mercury	32248-08-23 00:00 G	13499634.35	13499634.50	13499634.66	0.0297	0.0149
Moon	32255-02-10 07:55 G	13501996.62	13501996.83	13501997.04	0.0291	0.0160
Earth	32255-02-10 10:19 G	13501996.74	13501996.93	13501997.14	0.0291	0.0164 *
Venus	32257-10-06 04:19 G	13502965.57	13502965.68	13502965.80	0.0280	0.0235
Venus	32258-05-23 14:09 G	13503194.88	13503195.09	13503195.30	0.0277	0.0018
Venus	32259-01-07 21:50 G	13503424.27	13503424.41	13503424.57	0.0275	0.0193

Mercury	32261-12-24 17:02 G	13504506.13	13504506.21	13504506.29	0.0265	0.0210
Mercury	32262-03-23 03:21 G	13504594.52	13504594.64	13504594.76	0.0265	0.0108
Mercury	32262-06-19 13:55 G	13504682.94	13504683.08	13504683.21	0.0264	0.0010
Mercury	32262-09-16 00:14 G	13504771.39	13504771.51	13504771.64	0.0264	0.0097
Mercury	32262-12-13 11:02 G	13504859.87	13504859.96	13504860.05	0.0263	0.0199
Earth	32271-08-20 15:36 G	13508031.93	13508032.15	13508032.38	0.0273	0.0110
Moon	32271-08-20 19:26 G	13508032.08	13508032.31	13508032.54	0.0273	0.0094 *
Venus	32274-01-27 09:21 G	13508922.70	13508922.89	13508923.08	0.0283	0.0133
Venus	32274-09-14 01:41 G	13509152.37	13509152.57	13509152.77	0.0286	0.0100
Mercury	32277-07-15 23:17 G	13510188.47	13510188.47	13510188.47	0.0296	0.0296
Mercury	32277-10-12 23:02 G	13510277.30	13510277.46	13510277.64	0.0297	0.0101
Mercury	32278-01-09 22:48 G	13510366.28	13510366.45	13510366.62	0.0297	0.0093
Mercury	32278-04-08 21:50 G	13510455.37	13510455.41	13510455.47	0.0298	0.0284
Mars	32278-08-18 00:57 G	13510586.25	13510586.54	13510586.84	0.0299	0.0006
Earth	32285-02-17 13:41 G	13512961.85	13512962.07	13512962.31	0.0288	0.0101
Moon	32285-02-17 17:31 G	13512962.00	13512962.23	13512962.46	0.0288	0.0107 *
Venus	32287-04-18 07:41 G	13513751.69	13513751.82	13513751.97	0.0279	0.0208
Venus	32287-12-03 17:17 G	13513981.01	13513981.22	13513981.43	0.0276	0.0009
Venus	32288-07-20 00:29 G	13514210.40	13514210.52	13514210.66	0.0274	0.0217
Mercury	32291-05-13 18:57 G	13515238.25	13515238.29	13515238.35	0.0265	0.0244
Mercury	32291-08-10 05:31 G	13515326.62	13515326.73	13515326.84	0.0265	0.0142
Mercury	32291-11-06 15:50 G	13515415.03	13515415.16	13515415.30	0.0264	0.0041
Mercury	32292-02-03 02:24 G	13515503.47	13515503.60	13515503.73	0.0264	0.0062
Mercury	32292-05-01 12:57 G	13515591.94	13515592.04	13515592.15	0.0263	0.0164
Mars	32292-08-05 22:19 G	13515688.24	13515688.43	13515688.65	0.0263	0.0187
Moon	32300-08-15 03:07 G	13518618.40	13518618.63	13518618.86	0.0271	0.0089
Earth	32300-08-15 06:57 G	13518618.55	13518618.79	13518619.02	0.0271	0.0073 *
Venus	32303-08-10 10:05 G	13519708.73	13519708.92	13519709.12	0.0283	0.0111
Venus	32304-03-27 02:53 G	13519938.43	13519938.62	13519938.82	0.0286	0.0124
Mercury	32307-03-02 19:26 G	13521009.17	13521009.31	13521009.46	0.0296	0.0172

Mercury	32307-05-30 19:26 G	13521098.13	13521098.31	13521098.48	0.0297	0.0024
Mercury	32307-08-27 18:43 G	13521187.16	13521187.28	13521187.40	0.0298	0.0215
Moon	32314-02-12 12:43 G	13523547.80	13523548.03	13523548.25	0.0291	0.0102
Earth	32314-02-12 15:50 G	13523547.94	13523548.16	13523548.39	0.0291	0.0109 *
Venus	32316-10-29 13:12 G	13524537.89	13524538.05	13524538.21	0.0279	0.0181
Venus	32317-06-15 22:33 G	13524767.23	13524767.44	13524767.65	0.0277	0.0036
Venus	32318-01-31 05:45 G	13524996.66	13524996.74	13524996.84	0.0274	0.0244
Mercury	32320-12-28 08:24 G	13526058.75	13526058.85	13526058.96	0.0265	0.0169
Mercury	32321-03-26 18:43 G	13526147.15	13526147.28	13526147.42	0.0265	0.0068
Mercury	32321-06-23 05:17 G	13526235.59	13526235.72	13526235.86	0.0264	0.0035
Mercury	32321-09-19 15:50 G	13526324.05	13526324.16	13526324.28	0.0264	0.0138
Mercury	32321-12-17 02:38 G	13526412.56	13526412.61	13526412.66	0.0263	0.0241
Earth	32329-08-10 07:26 G	13529205.70	13529205.81	13529205.93	0.0270	0.0236
Moon	32329-08-10 10:48 G	13529205.88	13529205.95	13529206.06	0.0270	0.0250 *
Earth	32330-08-22 14:09 G	13529582.88	13529583.09	13529583.29	0.0273	0.0151
Moon	32330-08-22 14:38 G	13529582.89	13529583.11	13529583.33	0.0273	0.0136 *
Venus	32333-02-19 15:21 G	13530494.94	13530495.14	13530495.35	0.0284	0.0084
Venus	32333-10-07 08:09 G	13530724.67	13530724.84	13530725.03	0.0286	0.0152
Mercury	32336-07-19 17:31 G	13531741.13	13531741.23	13531741.35	0.0296	0.0232
Mercury	32336-10-16 17:31 G	13531830.06	13531830.23	13531830.41	0.0297	0.0037
Mercury	32337-01-13 17:02 G	13531919.06	13531919.21	13531919.36	0.0298	0.0157
Moon	32344-02-20 17:31 G	13534513.02	13534513.23	13534513.44	0.0288	0.0164
Earth	32344-02-20 18:00 G	13534513.04	13534513.25	13534513.46	0.0288	0.0153 *
Venus	32346-05-11 15:50 G	13535323.99	13535324.16	13535324.34	0.0278	0.0155
Venus	32346-12-27 00:57 G	13535553.34	13535553.54	13535553.75	0.0276	0.0061
Venus	32347-08-13 08:09 G	13535782.79	13535782.84	13535782.88	0.0273	0.0267
Mercury	32350-05-17 10:33 G	13536790.85	13536790.94	13536791.02	0.0265	0.0203
Mercury	32350-08-13 20:53 G	13536879.24	13536879.37	13536879.49	0.0265	0.0102
Mercury	32350-11-10 07:12 G	13536967.67	13536967.80	13536967.94	0.0264	0.0006
Mercury	32351-02-06 17:45 G	13537056.12	13537056.24	13537056.37	0.0264	0.0102

Mercury	32351-05-06 04:19 G	13537144.60	13537144.68	13537144.77	0.0263	0.0205
Earth	32359-08-17 04:05 G	13540169.42	13540169.67	13540169.91	0.0271	0.0033
Moon	32359-08-17 03:50 G	13540169.43	13540169.66	13540169.90	0.0271	0.0048 *
Venus	32362-09-01 15:21 G	13541280.93	13541281.14	13541281.35	0.0283	0.0063
Venus	32363-04-19 08:24 G	13541510.68	13541510.85	13541511.02	0.0286	0.0173
Mercury	32366-03-05 13:12 G	13542561.89	13542562.05	13542562.22	0.0296	0.0114
Mercury	32366-06-02 12:57 G	13542650.87	13542651.04	13542651.21	0.0297	0.0081
Mercury	32366-08-30 12:14 G	13542739.94	13542740.01	13542740.08	0.0298	0.0272
Mars	32367-01-11 11:45 G	13542873.70	13542873.99	13542874.29	0.0299	0.0004
Earth	32373-02-13 17:02 G	13545098.98	13545099.21	13545099.46	0.0291	0.0061
Moon	32373-02-13 18:29 G	13545099.04	13545099.27	13545099.51	0.0291	0.0049 *
Venus	32375-11-21 19:41 G	13546110.14	13546110.32	13546110.51	0.0279	0.0131
Venus	32376-07-08 04:48 G	13546339.50	13546339.70	13546339.90	0.0276	0.0085
Mercury	32379-10-04 13:12 G	13547522.99	13547523.05	13547523.11	0.0266	0.0233
Mercury	32379-12-31 23:31 G	13547611.36	13547611.48	13547611.60	0.0265	0.0131
Mercury	32380-03-29 09:50 G	13547699.78	13547699.91	13547700.05	0.0264	0.0031
Mercury	32380-06-25 20:24 G	13547788.22	13547788.35	13547788.48	0.0264	0.0073
Mercury	32380-09-22 06:57 G	13547876.69	13547876.79	13547876.90	0.0263	0.0176
Mars	32380-12-31 12:57 G	13547976.80	13547977.04	13547977.28	0.0263	0.0144
Earth	32388-08-11 03:21 G	13550756.49	13550756.64	13550756.82	0.0270	0.0199
Moon	32388-08-11 03:50 G	13550756.52	13550756.66	13550756.83	0.0270	0.0212 *
Moon	32389-08-23 06:14 G	13551133.58	13551133.76	13551133.95	0.0273	0.0177
Earth	32389-08-23 10:05 G	13551133.74	13551133.92	13551134.10	0.0273	0.0189 *
Venus	32391-07-28 04:33 G	13551837.63	13551837.69	13551837.77	0.0281	0.0264
Venus	32392-03-13 19:41 G	13552067.11	13552067.32	13552067.54	0.0284	0.0037
Venus	32392-10-29 12:57 G	13552296.89	13552297.04	13552297.19	0.0287	0.0200
Mercury	32395-07-23 10:48 G	13553293.81	13553293.95	13553294.10	0.0297	0.0178
Mercury	32395-10-20 10:48 G	13553382.77	13553382.95	13553383.13	0.0297	0.0018
Mercury	32396-01-17 10:05 G	13553471.80	13553471.92	13553472.05	0.0298	0.0211
Moon	32402-02-07 12:14 G	13555684.93	13555685.01	13555685.12	0.0292	0.0269

Earth	32402-02-07 14:38 G	13555685.05	13555685.11	13555685.18	0.0292	0.0281	*
Moon	32403-02-21 14:38 G	13556063.96	13556064.11	13556064.28	0.0288	0.0216	
Earth	32403-02-21 18:29 G	13556064.11	13556064.27	13556064.46	0.0288	0.0201	*
Venus	32405-06-02 22:19 G	13556896.23	13556896.43	13556896.62	0.0278	0.0105	
Venus	32406-01-18 06:57 G	13557125.60	13557125.79	13557125.99	0.0275	0.0109	
Mercury	32409-05-20 01:26 G	13558343.46	13558343.56	13558343.67	0.0265	0.0166	
Mercury	32409-08-16 11:45 G	13558431.86	13558431.99	13558432.13	0.0264	0.0066	
Mercury	32409-11-12 22:19 G	13558520.30	13558520.43	13558520.57	0.0264	0.0037	
Mercury	32410-02-09 08:53 G	13558608.75	13558608.87	13558608.99	0.0263	0.0140	
Mercury	32410-05-08 19:26 G	13558697.26	13558697.31	13558697.36	0.0263	0.0243	
Earth	32418-08-17 23:17 G	13561720.22	13561720.47	13561720.71	0.0271	0.0005	
Moon	32418-08-18 02:53 G	13561720.37	13561720.62	13561720.86	0.0271	0.0010	*
Venus	32421-02-06 03:36 G	13562623.56	13562623.65	13562623.76	0.0281	0.0246	
Venus	32421-09-23 18:57 G	13562853.07	13562853.29	13562853.50	0.0284	0.0018	
Venus	32422-05-11 12:00 G	13563082.87	13563083.00	13563083.14	0.0286	0.0220	
Mercury	32424-12-09 06:00 G	13564025.66	13564025.75	13564025.83	0.0296	0.0259	
Mercury	32425-03-08 06:00 G	13564114.58	13564114.75	13564114.93	0.0297	0.0063	
Mercury	32425-06-05 05:31 G	13564203.58	13564203.73	13564203.89	0.0297	0.0132	
Earth	32432-02-15 15:50 G	13566649.92	13566650.16	13566650.41	0.0291	0.0015	
Moon	32432-02-15 19:41 G	13566650.07	13566650.32	13566650.56	0.0291	0.0004	*
Venus	32434-12-14 00:57 G	13567682.35	13567682.54	13567682.75	0.0279	0.0084	
Venus	32435-07-31 09:50 G	13567911.73	13567911.91	13567912.10	0.0276	0.0132	
Mercury	32438-10-07 04:05 G	13569075.58	13569075.67	13569075.76	0.0265	0.0198	
Mercury	32439-01-03 14:24 G	13569163.97	13569164.10	13569164.23	0.0265	0.0096	
Mercury	32439-04-02 00:43 G	13569252.40	13569252.53	13569252.67	0.0264	0.0010	
Mercury	32439-06-29 11:17 G	13569340.85	13569340.97	13569341.10	0.0264	0.0109	
Mercury	32439-09-25 21:50 G	13569429.34	13569429.41	13569429.50	0.0263	0.0213	
Moon	32447-08-12 19:26 G	13572307.14	13572307.31	13572307.51	0.0269	0.0177	
Earth	32447-08-12 23:02 G	13572307.27	13572307.46	13572307.66	0.0269	0.0162	*
Moon	32448-08-24 03:36 G	13572684.52	13572684.65	13572684.81	0.0273	0.0219	

Earth	32448-08-24 05:02 G	13572684.59	13572684.71	13572684.86	0.0273	0.0226	*
Venus	32450-08-19 08:09 G	13573409.72	13573409.84	13573409.98	0.0281	0.0220	
Venus	32451-04-05 23:31 G	13573639.27	13573639.48	13573639.69	0.0284	0.0009	
Venus	32451-11-21 16:48 G	13573869.10	13573869.20	13573869.31	0.0287	0.0247	
Mercury	32454-07-26 03:36 G	13574846.49	13574846.65	13574846.82	0.0297	0.0127	
Mercury	32454-10-23 03:21 G	13574935.47	13574935.64	13574935.82	0.0298	0.0069	
Mercury	32455-01-20 02:38 G	13575024.54	13575024.61	13575024.70	0.0298	0.0261	
Mars	32455-06-06 01:55 G	13575161.28	13575161.58	13575161.88	0.0299	0.0026	
Moon	32461-02-08 09:36 G	13577235.75	13577235.90	13577236.06	0.0292	0.0224	
Earth	32461-02-08 12:43 G	13577235.90	13577236.03	13577236.18	0.0292	0.0237	*
Moon	32462-02-22 16:33 G	13577615.09	13577615.19	13577615.28	0.0288	0.0262	
Earth	32462-02-22 16:48 G	13577615.09	13577615.20	13577615.34	0.0288	0.0245	*
Venus	32463-11-08 16:19 G	13578239.18	13578239.18	13578239.21	0.0281	0.0280	
Venus	32464-06-25 03:21 G	13578468.43	13578468.64	13578468.85	0.0278	0.0059	
Venus	32465-02-09 11:45 G	13578697.83	13578697.99	13578698.17	0.0275	0.0155	
Mercury	32468-02-24 06:00 G	13579807.69	13579807.75	13579807.81	0.0265	0.0232	
Mercury	32468-05-22 16:19 G	13579896.06	13579896.18	13579896.30	0.0265	0.0131	
Mercury	32468-08-19 02:38 G	13579984.48	13579984.61	13579984.75	0.0264	0.0031	
Mercury	32468-11-15 13:12 G	13580072.92	13580073.05	13580073.18	0.0264	0.0073	
Mercury	32469-02-11 23:45 G	13580161.39	13580161.49	13580161.59	0.0263	0.0176	
Mars	32469-05-26 12:43 G	13580264.78	13580265.03	13580265.29	0.0263	0.0119	
Earth	32477-08-18 18:29 G	13583271.02	13583271.27	13583271.51	0.0271	0.0041	
Moon	32477-08-18 19:55 G	13583271.08	13583271.33	13583271.58	0.0271	0.0031	*
Venus	32480-02-29 06:57 G	13584195.64	13584195.79	13584195.93	0.0281	0.0204	
Venus	32480-10-15 22:05 G	13584425.21	13584425.42	13584425.64	0.0284	0.0026	
Venus	32481-06-02 15:21 G	13584655.08	13584655.14	13584655.23	0.0287	0.0265	
Mercury	32483-12-12 22:19 G	13585578.31	13585578.43	13585578.56	0.0296	0.0212	
Mercury	32484-03-10 22:19 G	13585667.25	13585667.43	13585667.61	0.0297	0.0016	
Mercury	32484-06-07 21:50 G	13585756.27	13585756.41	13585756.55	0.0297	0.0178	
Moon	32491-02-16 12:14 G	13588200.76	13588201.01	13588201.26	0.0291	0.0042	

Earth	32491-02-16 12:14 G	13588200.77	13588201.01	13588201.26	0.0291	0.0028	*
Venus	32493-05-20 18:29 G	13589025.19	13589025.27	13589025.35	0.0281	0.0259	
Venus	32494-01-05 05:31 G	13589254.52	13589254.73	13589254.94	0.0278	0.0038	
Venus	32494-08-22 13:55 G	13589483.93	13589484.08	13589484.25	0.0276	0.0176	
Mercury	32497-07-13 08:24 G	13590539.85	13590539.85	13590539.86	0.0266	0.0265	
Mercury	32497-10-09 18:43 G	13590628.18	13590628.28	13590628.39	0.0265	0.0164	
Mercury	32498-01-06 05:17 G	13590716.58	13590716.72	13590716.85	0.0265	0.0062	
Mercury	32498-04-04 15:36 G	13590805.02	13590805.15	13590805.29	0.0264	0.0041	
Mercury	32498-07-02 02:09 G	13590893.48	13590893.59	13590893.71	0.0264	0.0144	
Mercury	32498-09-28 12:43 G	13590981.99	13590982.03	13590982.08	0.0263	0.0248	
Moon	32506-08-14 16:33 G	13593857.99	13593858.19	13593858.40	0.0269	0.0138	
Earth	32506-08-14 18:43 G	13593858.06	13593858.28	13593858.49	0.0269	0.0125	*
Earth	32507-08-27 00:14 G	13594235.46	13594235.51	13594235.58	0.0273	0.0263	
Moon	32507-08-27 03:07 G	13594235.58	13594235.63	13594235.72	0.0273	0.0261	*
Venus	32509-09-11 11:31 G	13594981.82	13594981.98	13594982.15	0.0282	0.0177	
Venus	32510-04-29 02:53 G	13595211.42	13595211.62	13595211.84	0.0284	0.0054	
Mercury	32513-05-01 19:55 G	13596310.27	13596310.33	13596310.40	0.0296	0.0276	
Mercury	32513-07-29 20:09 G	13596399.17	13596399.34	13596399.51	0.0297	0.0079	
Mercury	32513-10-26 19:41 G	13596488.16	13596488.32	13596488.49	0.0298	0.0117	
Earth	32520-02-11 09:50 G	13598786.73	13598786.91	13598787.10	0.0292	0.0195	
Moon	32520-02-11 10:05 G	13598786.75	13598786.92	13598787.12	0.0292	0.0182	*
Earth	32521-02-24 14:38 G	13599166.11	13599166.11	13599166.11	0.0288	0.0288	
Venus	32522-12-01 21:21 G	13599811.28	13599811.39	13599811.51	0.0280	0.0233	
Venus	32523-07-19 08:09 G	13600040.62	13600040.84	13600041.05	0.0278	0.0013	
Venus	32524-03-04 16:19 G	13600270.04	13600270.18	13600270.33	0.0275	0.0200	
Mercury	32527-02-27 20:38 G	13601360.28	13601360.36	13601360.46	0.0265	0.0199	
Mercury	32527-05-27 07:12 G	13601448.68	13601448.80	13601448.93	0.0265	0.0096	
Mercury	32527-08-23 17:31 G	13601537.10	13601537.23	13601537.37	0.0264	0.0011	
Mercury	32527-11-20 04:05 G	13601625.55	13601625.67	13601625.80	0.0264	0.0109	
Mercury	32528-02-16 14:38 G	13601714.04	13601714.11	13601714.19	0.0263	0.0212	

Moon	32536-08-20 12:00 G	13604821.76	13604822.00	13604822.24	0.0271	0.0073
Earth	32536-08-20 14:38 G	13604821.89	13604822.11	13604822.35	0.0271	0.0080 *
Venus	32539-03-24 10:48 G	13605767.78	13605767.95	13605768.13	0.0282	0.0159
Venus	32539-11-09 02:24 G	13605997.39	13605997.60	13605997.80	0.0284	0.0072
Mercury	32542-12-16 15:07 G	13607130.98	13607131.13	13607131.28	0.0296	0.0161
Mercury	32543-03-15 15:07 G	13607219.95	13607220.13	13607220.30	0.0297	0.0035
Mercury	32543-06-12 14:24 G	13607308.99	13607309.10	13607309.22	0.0298	0.0228
Mars	32543-10-29 18:57 G	13607447.99	13607448.29	13607448.59	0.0298	0.0006
Moon	32550-02-18 05:17 G	13609751.49	13609751.72	13609751.97	0.0291	0.0086
Earth	32550-02-18 08:53 G	13609751.64	13609751.87	13609752.12	0.0291	0.0070 *
Venus	32552-06-12 22:48 G	13610597.32	13610597.45	13610597.59	0.0281	0.0214
Venus	32553-01-28 09:36 G	13610826.69	13610826.90	13610827.11	0.0278	0.0008
Venus	32553-09-14 18:14 G	13611056.13	13611056.26	13611056.38	0.0276	0.0220
Mercury	32556-07-16 23:02 G	13612092.40	13612092.46	13612092.53	0.0266	0.0232
Mercury	32556-10-13 09:36 G	13612180.78	13612180.90	13612181.02	0.0265	0.0130
Mercury	32557-01-09 19:55 G	13612269.20	13612269.33	13612269.47	0.0265	0.0027
Mercury	32557-04-08 06:29 G	13612357.64	13612357.77	13612357.90	0.0264	0.0076
Mercury	32557-07-05 17:02 G	13612446.11	13612446.21	13612446.31	0.0264	0.0180
Mars	32557-10-20 18:57 G	13612553.02	13612553.29	13612553.56	0.0263	0.0082
Earth	32565-08-15 15:36 G	13615408.92	13615409.15	13615409.39	0.0269	0.0086
Moon	32565-08-15 18:14 G	13615409.04	13615409.26	13615409.48	0.0269	0.0098 *
Venus	32568-10-03 16:05 G	13616553.99	13616554.17	13616554.36	0.0282	0.0131
Venus	32569-05-21 07:41 G	13616783.62	13616783.82	13616784.02	0.0285	0.0101
Mercury	32572-05-04 12:57 G	13617862.93	13617863.04	13617863.16	0.0296	0.0224
Mercury	32572-08-01 12:57 G	13617951.86	13617952.04	13617952.22	0.0297	0.0028
Mercury	32572-10-29 12:29 G	13618040.88	13618041.02	13618041.17	0.0298	0.0168
Earth	32579-02-12 06:57 G	13620337.58	13620337.79	13620338.00	0.0293	0.0152
Moon	32579-02-12 10:33 G	13620337.73	13620337.94	13620338.16	0.0293	0.0136 *
Venus	32581-12-24 02:09 G	13621383.44	13621383.59	13621383.75	0.0280	0.0187
Venus	32582-08-10 12:43 G	13621612.82	13621613.03	13621613.24	0.0278	0.0034

Venus	32583-03-27 20:53 G	13621842.28	13621842.37	13621842.47	0.0275	0.0245
Mercury	32585-12-04 01:26 G	13622824.55	13622824.56	13622824.57	0.0266	0.0264
Mercury	32586-03-02 11:45 G	13622912.89	13622912.99	13622913.10	0.0265	0.0162
Mercury	32586-05-29 22:05 G	13623001.29	13623001.42	13623001.56	0.0265	0.0060
Mercury	32586-08-26 08:38 G	13623089.72	13623089.86	13623089.99	0.0264	0.0043
Mercury	32586-11-22 19:12 G	13623178.19	13623178.30	13623178.41	0.0264	0.0146
Mercury	32587-02-19 05:45 G	13623266.70	13623266.74	13623266.78	0.0263	0.0250
Earth	32594-08-10 11:31 G	13625995.92	13625995.98	13625996.05	0.0268	0.0257
Moon	32595-08-22 10:19 G	13626372.72	13626372.93	13626373.15	0.0271	0.0116
Earth	32595-08-22 13:12 G	13626372.83	13626373.05	13626373.27	0.0271	0.0121 *
Venus	32598-04-15 16:05 G	13627339.98	13627340.17	13627340.37	0.0282	0.0112
Venus	32598-12-01 07:41 G	13627569.63	13627569.82	13627570.01	0.0285	0.0120
Mercury	32601-12-20 08:24 G	13628683.68	13628683.85	13628684.02	0.0296	0.0107
Mercury	32602-03-19 08:09 G	13628772.67	13628772.84	13628773.01	0.0297	0.0088
Mercury	32602-06-16 07:26 G	13628861.76	13628861.81	13628861.87	0.0298	0.0281
Moon	32609-02-20 04:48 G	13631302.50	13631302.70	13631302.92	0.0291	0.0128
Earth	32609-02-20 06:29 G	13631302.55	13631302.77	13631303.00	0.0291	0.0113 *
Venus	32611-07-07 03:36 G	13632169.49	13632169.65	13632169.82	0.0281	0.0167
Venus	32612-02-21 14:09 G	13632398.89	13632399.09	13632399.30	0.0278	0.0054
Venus	32612-10-07 22:33 G	13632628.39	13632628.44	13632628.50	0.0276	0.0265
Mercury	32615-07-21 14:09 G	13633645.00	13633645.09	13633645.18	0.0266	0.0196
Mercury	32615-10-18 00:29 G	13633733.39	13633733.52	13633733.65	0.0265	0.0093
Mercury	32616-01-14 11:02 G	13633821.82	13633821.96	13633822.09	0.0265	0.0013
Mercury	32616-04-11 21:36 G	13633910.27	13633910.40	13633910.52	0.0264	0.0114
Mercury	32616-07-09 07:55 G	13633998.76	13633998.83	13633998.92	0.0264	0.0218
Earth	32624-08-17 14:53 G	13636959.89	13636960.12	13636960.37	0.0269	0.0046
Moon	32624-08-17 18:14 G	13636960.02	13636960.26	13636960.51	0.0269	0.0055 *
Venus	32627-10-27 22:19 G	13638126.23	13638126.43	13638126.64	0.0282	0.0081
Venus	32628-06-13 14:09 G	13638355.92	13638356.09	13638356.27	0.0285	0.0152
Mercury	32631-05-09 06:57 G	13639415.64	13639415.79	13639415.94	0.0296	0.0164

Mercury	32631-08-06 06:57 G	13639504.61	13639504.79	13639504.96	0.0297	0.0033
Mercury	32631-11-03 06:14 G	13639593.65	13639593.76	13639593.88	0.0298	0.0226
Mars	32632-03-24 17:02 G	13639735.92	13639736.21	13639736.51	0.0299	0.0047
Earth	32638-02-14 06:43 G	13641888.56	13641888.78	13641889.01	0.0293	0.0106
Moon	32638-02-14 08:09 G	13641888.60	13641888.84	13641889.08	0.0293	0.0090 *
Venus	32641-01-16 08:09 G	13642955.66	13642955.84	13642956.02	0.0280	0.0138
Venus	32641-09-02 18:29 G	13643185.07	13643185.27	13643185.47	0.0277	0.0082
Mercury	32644-12-07 16:33 G	13644377.12	13644377.19	13644377.26	0.0266	0.0226
Mercury	32645-03-06 02:53 G	13644465.50	13644465.62	13644465.74	0.0265	0.0124
Mercury	32645-06-02 13:26 G	13644553.92	13644554.06	13644554.19	0.0265	0.0022
Mercury	32645-08-29 23:45 G	13644642.37	13644642.49	13644642.62	0.0264	0.0083
Mercury	32645-11-26 10:33 G	13644730.84	13644730.94	13644731.03	0.0264	0.0186
Mars	32646-03-17 02:09 G	13644841.31	13644841.59	13644841.87	0.0263	0.0045
Moon	32653-08-12 10:05 G	13647546.80	13647546.92	13647547.05	0.0268	0.0226
Earth	32653-08-12 12:57 G	13647546.90	13647547.04	13647547.19	0.0268	0.0214 *
Earth	32654-08-24 14:38 G	13647923.93	13647924.11	13647924.31	0.0271	0.0166
Moon	32654-08-24 16:05 G	13647923.99	13647924.17	13647924.37	0.0271	0.0166 *
Venus	32657-05-08 23:45 G	13648912.28	13648912.49	13648912.70	0.0282	0.0060
Venus	32657-12-24 15:36 G	13649141.98	13649142.15	13649142.32	0.0285	0.0174
Mercury	32660-09-25 02:38 G	13650147.52	13650147.61	13650147.72	0.0296	0.0241
Mercury	32660-12-23 02:53 G	13650236.44	13650236.62	13650236.80	0.0296	0.0043
Mercury	32661-03-22 02:24 G	13650325.45	13650325.60	13650325.76	0.0297	0.0151
Earth	32668-02-22 06:29 G	13652853.57	13652853.77	13652853.98	0.0291	0.0159
Moon	32668-02-22 09:07 G	13652853.70	13652853.88	13652854.08	0.0291	0.0173 *
Venus	32670-07-29 09:36 G	13653741.71	13653741.90	13653742.09	0.0280	0.0118
Venus	32671-03-15 19:55 G	13653971.13	13653971.33	13653971.53	0.0278	0.0102
Mercury	32674-04-26 18:57 G	13655109.27	13655109.29	13655109.31	0.0267	0.0261
Mercury	32674-07-24 05:17 G	13655197.61	13655197.72	13655197.83	0.0266	0.0158
Mercury	32674-10-20 15:36 G	13655286.02	13655286.15	13655286.29	0.0266	0.0055
Mercury	32675-01-17 02:09 G	13655374.46	13655374.59	13655374.73	0.0265	0.0049

Mercury	32675-04-15 12:43 G	13655462.92	13655463.03	13655463.14	0.0264	0.0153
Mercury	32675-07-12 23:17 G	13655551.45	13655551.47	13655551.50	0.0264	0.0258
Moon	32683-08-19 16:05 G	13658510.91	13658511.17	13658511.42	0.0269	0.0007
Earth	32683-08-19 17:45 G	13658510.99	13658511.24	13658511.48	0.0269	0.0004 *
Venus	32686-04-03 17:02 G	13659469.12	13659469.21	13659469.30	0.0280	0.0251
Venus	32686-11-19 06:57 G	13659698.58	13659698.79	13659699.00	0.0282	0.0027
Venus	32687-07-06 22:48 G	13659928.32	13659928.45	13659928.61	0.0285	0.0208
Mercury	32690-02-12 01:55 G	13660879.56	13660879.58	13660879.60	0.0296	0.0293
Mercury	32690-05-12 01:55 G	13660968.41	13660968.58	13660968.75	0.0296	0.0096
Mercury	32690-08-09 01:41 G	13661057.41	13661057.57	13661057.74	0.0297	0.0100
Mercury	32690-11-06 00:57 G	13661146.52	13661146.54	13661146.58	0.0298	0.0292
Moon	32697-02-15 05:45 G	13663439.50	13663439.74	13663439.99	0.0293	0.0041
Earth	32697-02-15 09:07 G	13663439.64	13663439.88	13663440.12	0.0293	0.0057 *
Venus	32700-02-08 15:07 G	13664527.93	13664528.13	13664528.33	0.0280	0.0087
Venus	32700-09-26 01:12 G	13664757.37	13664757.55	13664757.74	0.0277	0.0132
Mercury	32703-12-12 07:55 G	13665929.74	13665929.83	13665929.93	0.0266	0.0186
Mercury	32704-03-09 18:29 G	13666018.14	13666018.27	13666018.40	0.0265	0.0083
Mercury	32704-06-06 04:48 G	13666106.57	13666106.70	13666106.84	0.0265	0.0022
Mercury	32704-09-02 15:21 G	13666195.02	13666195.14	13666195.26	0.0264	0.0125
Mercury	32704-11-30 02:09 G	13666283.52	13666283.59	13666283.65	0.0264	0.0229
Earth	32712-08-14 17:17 G	13669098.03	13669098.22	13669098.41	0.0268	0.0167
Moon	32712-08-14 18:57 G	13669098.11	13669098.29	13669098.47	0.0268	0.0175 *
Earth	32713-08-26 19:26 G	13669475.17	13669475.31	13669475.46	0.0271	0.0215
Moon	32713-08-26 23:17 G	13669475.33	13669475.47	13669475.62	0.0271	0.0217 *
Venus	32715-10-15 19:41 G	13670255.21	13670255.32	13670255.45	0.0280	0.0228
Venus	32716-06-01 09:50 G	13670484.70	13670484.91	13670485.12	0.0283	0.0003
Venus	32717-01-17 01:55 G	13670714.46	13670714.58	13670714.71	0.0285	0.0233
Mercury	32719-09-29 22:48 G	13671700.30	13671700.45	13671700.60	0.0296	0.0165
Mercury	32719-12-27 22:33 G	13671789.27	13671789.44	13671789.62	0.0296	0.0032
Mercury	32720-03-25 21:50 G	13671878.31	13671878.41	13671878.54	0.0297	0.0226

Mars	32720-08-18 15:36 G	13672023.86	13672024.15	13672024.44	0.0298	0.0077
Earth	32726-02-10 01:12 G	13674025.51	13674025.55	13674025.61	0.0294	0.0287
Moon	32726-02-10 05:02 G	13674025.63	13674025.71	13674025.81	0.0294	0.0271
Earth	32727-02-24 10:48 G	13674404.78	13674404.95	13674405.12	0.0290	0.0210
Moon	32727-02-24 14:09 G	13674404.93	13674405.09	13674405.24	0.0290	0.0223 *
Venus	32729-08-21 17:31 G	13675314.03	13675314.23	13675314.44	0.0280	0.0064
Venus	32730-04-08 03:36 G	13675543.48	13675543.65	13675543.83	0.0277	0.0154
Mercury	32733-04-30 10:33 G	13676661.86	13676661.94	13676662.01	0.0267	0.0219
Mercury	32733-07-27 20:53 G	13676750.25	13676750.37	13676750.49	0.0266	0.0116
Mercury	32733-10-24 07:26 G	13676838.67	13676838.81	13676838.94	0.0266	0.0014
Mercury	32734-01-20 17:45 G	13676927.12	13676927.24	13676927.37	0.0265	0.0093
Mercury	32734-04-19 04:33 G	13677015.60	13677015.69	13677015.78	0.0264	0.0197
Mars	32734-08-11 16:19 G	13677129.90	13677130.18	13677130.47	0.0264	0.0009
Moon	32742-08-21 19:41 G	13680062.08	13680062.32	13680062.56	0.0270	0.0049
Earth	32742-08-21 23:17 G	13680062.23	13680062.47	13680062.72	0.0270	0.0050 *
Venus	32745-04-27 03:36 G	13681041.51	13681041.65	13681041.81	0.0280	0.0193
Venus	32745-12-12 18:00 G	13681271.04	13681271.25	13681271.46	0.0283	0.0034
Venus	32746-07-30 10:33 G	13681500.88	13681500.94	13681501.01	0.0286	0.0269
Mercury	32749-02-15 22:19 G	13682432.32	13682432.43	13682432.57	0.0296	0.0212
Mercury	32749-05-15 22:33 G	13682521.26	13682521.44	13682521.62	0.0296	0.0015
Mercury	32749-08-12 22:05 G	13682610.28	13682610.42	13682610.56	0.0297	0.0180
Moon	32756-02-18 13:12 G	13684990.81	13684991.05	13684991.29	0.0292	0.0012
Earth	32756-02-18 15:50 G	13684990.91	13684991.16	13684991.40	0.0292	0.0003 *
Venus	32758-07-17 12:00 G	13685870.93	13685871.00	13685871.10	0.0282	0.0256
Venus	32759-03-04 00:00 G	13686100.29	13686100.50	13686100.71	0.0279	0.0031
Venus	32759-10-19 09:36 G	13686329.75	13686329.90	13686330.06	0.0277	0.0186
Mercury	32762-09-17 13:26 G	13687394.01	13687394.06	13687394.12	0.0267	0.0244
Mercury	32762-12-15 00:00 G	13687482.38	13687482.50	13687482.61	0.0266	0.0141
Mercury	32763-03-13 10:19 G	13687570.80	13687570.93	13687571.07	0.0265	0.0037
Mercury	32763-06-09 20:53 G	13687659.24	13687659.37	13687659.50	0.0265	0.0067

Mercury	32763-09-06 07:26 G	13687747.71	13687747.81	13687747.92	0.0264	0.0171
Earth	32771-08-17 00:57 G	13690649.33	13690649.54	13690649.77	0.0268	0.0117
Moon	32771-08-17 04:33 G	13690649.48	13690649.69	13690649.92	0.0268	0.0123 *
Earth	32772-08-28 03:50 G	13691026.63	13691026.66	13691026.70	0.0272	0.0268
Venus	32774-11-07 08:09 G	13691827.68	13691827.84	13691828.02	0.0280	0.0167
Venus	32775-06-24 22:48 G	13692057.24	13692057.45	13692057.66	0.0283	0.0062
Mercury	32778-07-05 19:55 G	13693164.27	13693164.33	13693164.40	0.0295	0.0275
Mercury	32778-10-02 20:09 G	13693253.17	13693253.34	13693253.51	0.0296	0.0078
Mercury	32778-12-30 19:41 G	13693342.16	13693342.32	13693342.49	0.0296	0.0117
Earth	32785-02-11 10:05 G	13695576.78	13695576.92	13695577.08	0.0294	0.0229
Moon	32785-02-11 11:45 G	13695576.84	13695576.99	13695577.18	0.0294	0.0216 *
Moon	32786-02-25 17:02 G	13695956.14	13695956.21	13695956.30	0.0290	0.0274
Earth	32786-02-25 18:29 G	13695956.19	13695956.27	13695956.38	0.0290	0.0266 *
Venus	32788-01-27 15:21 G	13696657.03	13696657.14	13696657.27	0.0282	0.0231
Venus	32788-09-13 03:21 G	13696886.43	13696886.64	13696886.85	0.0279	0.0006
Venus	32789-04-30 12:57 G	13697115.90	13697116.04	13697116.18	0.0277	0.0210
Mercury	32792-05-03 02:24 G	13698214.50	13698214.60	13698214.70	0.0267	0.0173
Mercury	32792-07-30 12:57 G	13698302.91	13698303.04	13698303.17	0.0266	0.0069
Mercury	32792-10-26 23:31 G	13698391.34	13698391.48	13698391.61	0.0266	0.0036
Mercury	32793-01-23 10:05 G	13698479.80	13698479.92	13698480.03	0.0265	0.0140
Mercury	32793-04-21 20:38 G	13698568.32	13698568.36	13698568.41	0.0264	0.0246
Earth	32801-08-23 07:55 G	13701613.61	13701613.83	13701614.06	0.0270	0.0102
Moon	32801-08-23 07:41 G	13701613.61	13701613.82	13701614.05	0.0270	0.0104 *
Venus	32804-05-19 16:48 G	13702614.01	13702614.20	13702614.39	0.0281	0.0130
Venus	32805-01-04 07:26 G	13702843.61	13702843.81	13702844.01	0.0283	0.0099
Mercury	32808-02-19 20:24 G	13703985.19	13703985.35	13703985.52	0.0296	0.0120
Mercury	32808-05-18 20:09 G	13704074.17	13704074.34	13704074.52	0.0297	0.0077
Mercury	32808-08-15 19:26 G	13704163.25	13704163.31	13704163.39	0.0297	0.0270
Mars	32809-01-13 05:45 G	13704313.51	13704313.74	13704313.98	0.0298	0.0181
Earth	32815-02-20 02:53 G	13706542.38	13706542.62	13706542.86	0.0292	0.0060

Moon	32815-02-20 04:48 G	13706542.47	13706542.70	13706542.93	0.0292	0.0071 *
Venus	32817-08-08 23:45 G	13707443.35	13707443.49	13707443.65	0.0282	0.0195
Venus	32818-03-26 11:17 G	13707672.76	13707672.97	13707673.18	0.0279	0.0029
Venus	32818-11-10 20:24 G	13707902.26	13707902.35	13707902.45	0.0276	0.0244
Mercury	32821-09-20 05:45 G	13708946.65	13708946.74	13708946.83	0.0266	0.0195
Mercury	32821-12-17 16:19 G	13709035.05	13709035.18	13709035.30	0.0266	0.0092
Mercury	32822-03-16 02:38 G	13709123.48	13709123.61	13709123.75	0.0265	0.0015
Mercury	32822-06-12 13:12 G	13709211.93	13709212.05	13709212.18	0.0265	0.0118
Mercury	32822-09-09 00:00 G	13709300.43	13709300.50	13709300.57	0.0264	0.0222
Mars	32823-01-05 20:24 G	13709419.08	13709419.35	13709419.63	0.0263	0.0073
Earth	32830-08-18 11:31 G	13712200.75	13712200.98	13712201.23	0.0269	0.0062
Moon	32830-08-18 12:29 G	13712200.78	13712201.02	13712201.27	0.0269	0.0067 *
Venus	32833-11-29 23:02 G	13713400.26	13713400.46	13713400.66	0.0281	0.0100
Venus	32834-07-17 13:55 G	13713629.90	13713630.08	13713630.27	0.0284	0.0131
Mercury	32837-07-08 18:57 G	13714717.15	13714717.29	13714717.44	0.0295	0.0176
Mercury	32837-10-05 18:57 G	13714806.11	13714806.29	13714806.46	0.0296	0.0021
Mercury	32838-01-02 18:14 G	13714895.14	13714895.26	13714895.39	0.0297	0.0214
Moon	32844-02-13 21:50 G	13717128.20	13717128.41	13717128.63	0.0293	0.0154
Earth	32844-02-14 00:29 G	13717128.32	13717128.52	13717128.73	0.0293	0.0163 *
Venus	32847-02-19 03:50 G	13718229.50	13718229.66	13718229.83	0.0281	0.0167
Venus	32847-10-06 15:07 G	13718458.92	13718459.13	13718459.34	0.0279	0.0056
Venus	32848-05-23 00:00 G	13718688.47	13718688.50	13718688.56	0.0276	0.0270
Mercury	32851-02-07 08:24 G	13719678.78	13719678.85	13719678.92	0.0267	0.0227
Mercury	32851-05-06 18:57 G	13719767.17	13719767.29	13719767.41	0.0267	0.0123
Mercury	32851-08-03 05:17 G	13719855.59	13719855.72	13719855.86	0.0266	0.0019
Mercury	32851-10-30 15:50 G	13719944.03	13719944.16	13719944.29	0.0265	0.0087
Mercury	32852-01-27 02:24 G	13720032.51	13720032.60	13720032.70	0.0265	0.0192
Moon	32859-08-13 16:19 G	13722788.07	13722788.18	13722788.30	0.0267	0.0232
Earth	32859-08-13 17:45 G	13722788.11	13722788.24	13722788.39	0.0267	0.0221 *
Earth	32860-08-24 18:57 G	13723165.10	13723165.29	13723165.50	0.0270	0.0159

Moon	32860-08-24 22:19 G	13723165.25	13723165.43	13723165.63	0.0270	0.0162 *
Venus	32863-06-12 07:55 G	13724186.63	13724186.83	13724187.04	0.0281	0.0062
Venus	32864-01-27 23:02 G	13724416.30	13724416.46	13724416.64	0.0284	0.0170
Mercury	32866-11-25 19:26 G	13725449.19	13725449.31	13725449.44	0.0295	0.0215
Mercury	32867-02-22 19:41 G	13725538.14	13725538.32	13725538.49	0.0296	0.0019
Mercury	32867-05-22 18:57 G	13725627.16	13725627.29	13725627.44	0.0297	0.0177
Earth	32874-02-21 17:31 G	13728094.01	13728094.23	13728094.45	0.0292	0.0127
Moon	32874-02-21 21:07 G	13728094.17	13728094.38	13728094.60	0.0292	0.0136 *
Venus	32876-08-31 13:12 G	13729015.86	13729016.05	13729016.24	0.0281	0.0129
Venus	32877-04-18 00:00 G	13729245.30	13729245.50	13729245.70	0.0278	0.0092
Mercury	32880-06-26 12:00 G	13730410.96	13730411.00	13730411.05	0.0267	0.0247
Mercury	32880-09-22 22:19 G	13730499.32	13730499.43	13730499.55	0.0266	0.0143
Mercury	32880-12-20 08:53 G	13730587.74	13730587.87	13730588.01	0.0266	0.0039
Mercury	32881-03-18 19:26 G	13730676.18	13730676.31	13730676.44	0.0265	0.0066
Mercury	32881-06-15 06:00 G	13730764.65	13730764.75	13730764.86	0.0265	0.0171
Moon	32889-08-19 20:53 G	13733752.12	13733752.37	13733752.62	0.0269	0.0008
Earth	32889-08-19 23:45 G	13733752.25	13733752.49	13733752.74	0.0269	0.0007 *
Venus	32892-05-07 01:55 G	13734743.50	13734743.58	13734743.67	0.0279	0.0253
Venus	32892-12-22 15:21 G	13734972.93	13734973.14	13734973.35	0.0282	0.0030
Venus	32893-08-09 06:43 G	13735202.64	13735202.78	13735202.93	0.0285	0.0203
Mercury	32896-04-13 18:29 G	13736181.20	13736181.27	13736181.35	0.0295	0.0267
Mercury	32896-07-11 18:43 G	13736270.10	13736270.28	13736270.45	0.0296	0.0070
Mercury	32896-10-08 18:14 G	13736359.10	13736359.26	13736359.43	0.0296	0.0126
Mars	32897-06-10 00:43 G	13736603.44	13736603.53	13736603.61	0.0298	0.0284
Moon	32903-02-16 14:53 G	13738679.89	13738680.12	13738680.35	0.0293	0.0082
Earth	32903-02-16 18:14 G	13738680.03	13738680.26	13738680.49	0.0293	0.0092 *
Venus	32906-03-14 18:14 G	13739802.06	13739802.26	13739802.46	0.0280	0.0099
Venus	32906-10-30 04:48 G	13740031.51	13740031.70	13740031.89	0.0278	0.0121
Mercury	32910-02-11 01:12 G	13741231.45	13741231.55	13741231.65	0.0267	0.0173
Mercury	32910-05-10 11:45 G	13741319.86	13741319.99	13741320.12	0.0266	0.0068

Mercury	32910-08-06 22:05 G	13741408.29	13741408.42	13741408.56	0.0266	0.0038
Mercury	32910-11-03 08:38 G	13741496.75	13741496.86	13741496.98	0.0265	0.0143
Mercury	32911-01-30 19:26 G	13741585.27	13741585.31	13741585.36	0.0265	0.0248
Mars	32911-06-03 00:57 G	13741708.32	13741708.54	13741708.79	0.0264	0.0147
Earth	32918-08-16 05:02 G	13744339.53	13744339.71	13744339.91	0.0268	0.0167
Moon	32918-08-16 07:55 G	13744339.66	13744339.83	13744340.02	0.0268	0.0176 *
Earth	32919-08-28 07:12 G	13744716.67	13744716.80	13744716.96	0.0271	0.0216
Moon	32919-08-28 10:19 G	13744716.78	13744716.93	13744717.07	0.0271	0.0219 *
Venus	32921-11-18 10:05 G	13745529.80	13745529.92	13745530.06	0.0279	0.0217
Venus	32922-07-06 00:14 G	13745759.30	13745759.51	13745759.72	0.0282	0.0009
Venus	32923-02-20 16:05 G	13745989.06	13745989.17	13745989.28	0.0285	0.0243
Mercury	32925-11-29 19:26 G	13747002.14	13747002.31	13747002.48	0.0296	0.0107
Mercury	32926-02-26 19:12 G	13747091.13	13747091.30	13747091.47	0.0296	0.0089
Mercury	32926-05-26 18:29 G	13747180.22	13747180.27	13747180.33	0.0297	0.0282
Moon	32932-02-11 05:17 G	13749266.68	13749266.72	13749266.78	0.0295	0.0288
Earth	32933-02-24 11:17 G	13749645.81	13749645.97	13749646.16	0.0291	0.0198
Moon	32933-02-24 12:14 G	13749645.84	13749646.01	13749646.20	0.0291	0.0205 *
Venus	32935-09-25 03:50 G	13750588.46	13750588.66	13750588.87	0.0280	0.0062
Venus	32936-05-11 13:55 G	13750817.92	13750818.08	13750818.26	0.0278	0.0159
Mercury	32939-07-01 04:48 G	13751963.62	13751963.70	13751963.80	0.0267	0.0192
Mercury	32939-09-27 15:21 G	13752052.02	13752052.14	13752052.27	0.0266	0.0087
Mercury	32939-12-25 01:55 G	13752140.44	13752140.58	13752140.71	0.0265	0.0018
Mercury	32940-03-22 12:29 G	13752228.90	13752229.02	13752229.14	0.0265	0.0123
Mercury	32940-06-18 23:02 G	13752317.40	13752317.46	13752317.53	0.0264	0.0228
Moon	32948-08-22 09:50 G	13755303.68	13755303.91	13755304.15	0.0270	0.0052
Earth	32948-08-22 12:57 G	13755303.80	13755304.04	13755304.28	0.0270	0.0054 *
Venus	32951-05-31 18:29 G	13756316.11	13756316.27	13756316.43	0.0280	0.0183
Venus	32952-01-16 08:24 G	13756545.65	13756545.85	13756546.07	0.0283	0.0044
Venus	32952-09-02 00:29 G	13756775.49	13756775.52	13756775.57	0.0285	0.0279
Mercury	32955-04-18 18:57 G	13757734.14	13757734.29	13757734.45	0.0295	0.0155

Mercury	32955-07-16 18:57 G	13757823.11	13757823.29	13757823.46	0.0296	0.0041
Mercury	32955-10-13 18:14 G	13757912.16	13757912.26	13757912.37	0.0297	0.0235
Moon	32962-02-18 13:12 G	13760231.82	13760232.05	13760232.29	0.0292	0.0010
Earth	32962-02-18 13:55 G	13760231.83	13760232.08	13760232.33	0.0292	0.0018 *
Venus	32964-08-19 21:21 G	13761145.31	13761145.39	13761145.48	0.0282	0.0256
Venus	32965-04-06 09:21 G	13761374.68	13761374.89	13761375.10	0.0280	0.0030
Venus	32965-11-21 19:12 G	13761604.15	13761604.30	13761604.46	0.0277	0.0187
Mercury	32968-11-17 07:55 G	13762695.75	13762695.83	13762695.90	0.0267	0.0220
Mercury	32969-02-13 18:14 G	13762784.14	13762784.26	13762784.38	0.0266	0.0116
Mercury	32969-05-13 04:33 G	13762872.56	13762872.69	13762872.83	0.0266	0.0015
Mercury	32969-08-09 15:07 G	13762961.01	13762961.13	13762961.26	0.0265	0.0094
Mars	32969-09-10 14:53 G	13762993.07	13762993.12	13762993.21	0.0265	0.0257
Mercury	32969-11-06 01:55 G	13763049.49	13763049.58	13763049.67	0.0265	0.0199
Earth	32977-08-17 16:19 G	13765890.96	13765891.18	13765891.41	0.0268	0.0111
Moon	32977-08-17 19:26 G	13765891.09	13765891.31	13765891.54	0.0268	0.0117 *
Venus	32980-12-11 01:41 G	13767102.40	13767102.57	13767102.76	0.0280	0.0149
Venus	32981-07-28 16:19 G	13767331.98	13767332.18	13767332.39	0.0283	0.0081
Mercury	32984-09-04 18:57 G	13768466.16	13768466.29	13768466.43	0.0295	0.0198
Mercury	32984-12-02 19:12 G	13768555.12	13768555.30	13768555.48	0.0296	0.0002
Mercury	32985-03-01 18:43 G	13768644.15	13768644.28	13768644.42	0.0297	0.0195
Earth	32991-02-12 21:50 G	13770818.26	13770818.41	13770818.57	0.0294	0.0228
Moon	32991-02-12 22:05 G	13770818.26	13770818.42	13770818.60	0.0294	0.0214 *
Moon	32992-02-27 03:36 G	13771197.57	13771197.65	13771197.72	0.0290	0.0276
Earth	32992-02-27 06:14 G	13771197.68	13771197.76	13771197.86	0.0290	0.0270 *
Venus	32994-03-02 07:41 G	13771931.69	13771931.82	13771931.96	0.0282	0.0216
Venus	32994-10-17 19:12 G	13772161.09	13772161.30	13772161.51	0.0279	0.0009
Venus	32995-06-04 04:33 G	13772390.58	13772390.69	13772390.82	0.0277	0.0225
Mercury	32998-04-06 11:31 G	13773427.93	13773427.98	13773428.04	0.0267	0.0239
Mercury	32998-07-03 22:05 G	13773516.30	13773516.42	13773516.53	0.0266	0.0135
Mercury	32998-09-30 08:24 G	13773604.72	13773604.85	13773604.99	0.0266	0.0030

Mercury 32998-12-27 18:57 G 13773693.16 13773693.29 13773693.42 0.0265 0.0075

Mercury 32999-03-26 05:31 G 13773781.63 13773781.73 13773781.83 0.0265 0.0180

Mars 32999-10-28 18:43 G 13773998.15 13773998.28 13773998.43 0.0263 0.0228

34TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 34th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	33006-08-14 00:29	G	13776478.51	13776478.52	13776478.54	0.0267	0.0266	
Earth	33007-08-26 00:43	G	13776855.31	13776855.53	13776855.75	0.0270	0.0111	
Moon	33007-08-26 01:55	G	13776855.37	13776855.58	13776855.80	0.0270	0.0113	*
Venus	33010-06-24 10:19	G	13777888.74	13777888.93	13777889.13	0.0281	0.0114	
Venus	33011-02-09 00:57	G	13778118.35	13778118.54	13778118.74	0.0284	0.0116	
Mercury	33014-01-23 18:43	G	13779198.19	13779198.28	13779198.39	0.0295	0.0244	
Mercury	33014-04-22 18:57	G	13779287.12	13779287.29	13779287.47	0.0296	0.0046	
Mercury	33014-07-20 18:43	G	13779376.13	13779376.28	13779376.43	0.0297	0.0149	
Earth	33021-02-21 10:05	G	13781783.68	13781783.92	13781784.16	0.0292	0.0057	
Moon	33021-02-21 13:12	G	13781783.82	13781784.05	13781784.29	0.0292	0.0068	*
Venus	33023-09-13 13:26	G	13782717.91	13782718.06	13782718.23	0.0281	0.0184	
Venus	33024-04-30 00:43	G	13782947.32	13782947.53	13782947.74	0.0279	0.0040	
Venus	33024-12-15 10:05	G	13783176.84	13783176.92	13783177.00	0.0276	0.0254	
Mercury	33027-11-22 00:43	G	13784248.43	13784248.53	13784248.64	0.0267	0.0164	
Mercury	33028-02-18 11:17	G	13784336.83	13784336.97	13784337.10	0.0266	0.0060	
Mercury	33028-05-16 21:36	G	13784425.27	13784425.40	13784425.54	0.0265	0.0046	

Mercury	33028-08-13 08:09 G	13784513.73	13784513.84	13784513.96	0.0265	0.0151
Mercury	33028-11-09 18:43 G	13784602.26	13784602.28	13784602.32	0.0264	0.0257
Moon	33036-08-20 01:12 G	13787442.30	13787442.55	13787442.80	0.0269	0.0058
Earth	33036-08-20 02:38 G	13787442.37	13787442.61	13787442.85	0.0269	0.0057 *
Venus	33040-01-04 16:48 G	13788675.00	13788675.20	13788675.41	0.0281	0.0080
Venus	33040-08-21 07:55 G	13788904.66	13788904.83	13788905.02	0.0284	0.0152
Mercury	33043-06-12 18:14 G	13789930.24	13789930.26	13789930.30	0.0295	0.0290
Mercury	33043-09-09 18:43 G	13790019.11	13790019.28	13790019.45	0.0296	0.0092
Mercury	33043-12-07 18:29 G	13790108.11	13790108.27	13790108.44	0.0296	0.0105
Mars	33044-02-10 12:14 G	13790172.84	13790173.01	13790173.19	0.0297	0.0240
Moon	33050-02-15 13:26 G	13792369.85	13792370.06	13792370.29	0.0294	0.0142
Earth	33050-02-15 17:02 G	13792370.01	13792370.21	13792370.43	0.0294	0.0153 *
Venus	33053-03-25 23:17 G	13793504.29	13793504.47	13793504.65	0.0281	0.0147
Venus	33053-11-10 10:05 G	13793733.71	13793733.92	13793734.12	0.0279	0.0076
Mercury	33057-04-10 04:33 G	13794980.59	13794980.69	13794980.78	0.0267	0.0183
Mercury	33057-07-07 14:53 G	13795068.99	13795069.12	13795069.25	0.0266	0.0079
Mercury	33057-10-04 01:26 G	13795157.42	13795157.56	13795157.69	0.0265	0.0027
Mercury	33057-12-31 12:00 G	13795245.88	13795246.00	13795246.12	0.0265	0.0131
Mars	33058-02-06 08:38 G	13795282.66	13795282.86	13795283.08	0.0264	0.0176
Mercury	33058-03-29 22:33 G	13795334.38	13795334.44	13795334.50	0.0264	0.0236
Earth	33065-08-15 09:36 G	13798029.76	13798029.90	13798030.06	0.0267	0.0213
Moon	33065-08-15 10:19 G	13798029.81	13798029.93	13798030.07	0.0267	0.0221 *
Earth	33066-08-27 10:19 G	13798406.75	13798406.93	13798407.13	0.0271	0.0167
Moon	33066-08-27 14:09 G	13798406.91	13798407.09	13798407.29	0.0271	0.0172 *
Venus	33068-11-29 11:17 G	13799231.93	13799231.97	13799232.03	0.0279	0.0270
Venus	33069-07-17 00:43 G	13799461.32	13799461.53	13799461.74	0.0282	0.0047
Venus	33070-03-03 16:05 G	13799691.01	13799691.17	13799691.33	0.0285	0.0186
Mercury	33073-01-26 18:00 G	13800751.10	13800751.25	13800751.41	0.0296	0.0141
Mercury	33073-04-25 18:00 G	13800840.08	13800840.25	13800840.43	0.0296	0.0056
Mercury	33073-07-23 17:31 G	13800929.14	13800929.23	13800929.33	0.0297	0.0251

Earth	33080-02-24 04:05 G	13803335.46	13803335.67	13803335.90	0.0291	0.0129
Moon	33080-02-24 07:12 G	13803335.58	13803335.80	13803336.02	0.0291	0.0137 *
Venus	33082-10-06 04:33 G	13804290.50	13804290.69	13804290.89	0.0280	0.0115
Venus	33083-05-23 15:07 G	13804519.94	13804520.13	13804520.33	0.0278	0.0106
Mercury	33086-08-28 07:12 G	13805712.72	13805712.80	13805712.88	0.0267	0.0213
Mercury	33086-11-24 17:31 G	13805801.11	13805801.23	13805801.36	0.0266	0.0109
Mercury	33087-02-21 04:05 G	13805889.53	13805889.67	13805889.80	0.0265	0.0004
Mercury	33087-05-20 14:38 G	13805977.98	13805978.11	13805978.23	0.0265	0.0101
Mercury	33087-08-17 00:57 G	13806066.46	13806066.54	13806066.63	0.0264	0.0207
Moon	33095-08-22 06:29 G	13808993.53	13808993.77	13808994.02	0.0269	0.0005
Earth	33095-08-22 10:05 G	13808993.68	13808993.92	13808994.17	0.0269	0.0006 *
Venus	33098-06-11 16:05 G	13810018.07	13810018.17	13810018.28	0.0279	0.0240
Venus	33099-01-27 05:45 G	13810247.53	13810247.74	13810247.96	0.0282	0.0016
Venus	33099-09-13 21:21 G	13810477.27	13810477.39	13810477.53	0.0285	0.0219
Mercury	33102-06-16 16:48 G	13811483.06	13811483.20	13811483.33	0.0295	0.0195
Mercury	33102-09-13 16:48 G	13811572.02	13811572.20	13811572.38	0.0296	0.0005
Mercury	33102-12-11 16:19 G	13811661.06	13811661.18	13811661.32	0.0297	0.0200
Moon	33109-02-18 07:26 G	13813921.58	13813921.81	13813922.04	0.0294	0.0073
Earth	33109-02-18 09:36 G	13813921.67	13813921.90	13813922.14	0.0294	0.0081 *
Venus	33112-04-18 13:26 G	13815076.86	13815077.06	13815077.26	0.0280	0.0080
Venus	33112-12-03 23:31 G	13815306.30	13815306.48	13815306.67	0.0278	0.0141
Mercury	33116-01-16 10:48 G	13816444.89	13816444.95	13816445.01	0.0267	0.0234
Mercury	33116-04-13 21:07 G	13816533.27	13816533.38	13816533.50	0.0266	0.0130
Mercury	33116-07-11 07:41 G	13816621.68	13816621.82	13816621.95	0.0265	0.0027
Mercury	33116-10-07 18:00 G	13816710.12	13816710.25	13816710.38	0.0265	0.0080
Mercury	33117-01-04 04:33 G	13816798.60	13816798.69	13816798.79	0.0264	0.0185
Earth	33124-08-17 15:50 G	13819580.98	13819581.16	13819581.37	0.0267	0.0164
Moon	33124-08-17 19:26 G	13819581.13	13819581.31	13819581.51	0.0267	0.0170 *
Earth	33125-08-29 17:31 G	13819958.09	13819958.23	13819958.37	0.0271	0.0218
Moon	33125-08-29 17:45 G	13819958.11	13819958.24	13819958.39	0.0271	0.0225 *

Venus	33127-12-23 23:02 G	13820804.33	13820804.46	13820804.61	0.0280	0.0210
Venus	33128-08-09 13:12 G	13821033.84	13821034.05	13821034.26	0.0283	0.0017
Venus	33129-03-27 05:02 G	13821263.62	13821263.71	13821263.81	0.0285	0.0252
Mercury	33131-11-03 16:05 G	13822215.07	13822215.17	13822215.27	0.0295	0.0246
Mercury	33132-01-31 16:19 G	13822304.00	13822304.18	13822304.35	0.0296	0.0047
Mercury	33132-04-29 16:05 G	13822393.02	13822393.17	13822393.32	0.0297	0.0150
Mars	33132-07-08 03:21 G	13822462.39	13822462.64	13822462.92	0.0297	0.0140
Moon	33138-02-12 10:33 G	13824507.93	13824507.94	13824507.97	0.0295	0.0294
Moon	33139-02-26 17:31 G	13824887.06	13824887.23	13824887.42	0.0291	0.0201
Earth	33139-02-26 19:12 G	13824887.13	13824887.30	13824887.49	0.0291	0.0197 *
Venus	33141-03-14 06:00 G	13825633.72	13825633.75	13825633.80	0.0282	0.0276
Venus	33141-10-29 18:00 G	13825863.05	13825863.25	13825863.46	0.0280	0.0050
Venus	33142-06-16 03:50 G	13826092.50	13826092.66	13826092.83	0.0277	0.0169
Mercury	33145-06-04 13:12 G	13827177.05	13827177.05	13827177.07	0.0267	0.0265
Mercury	33145-08-31 23:31 G	13827265.38	13827265.48	13827265.59	0.0266	0.0161
Mercury	33145-11-28 10:05 G	13827353.79	13827353.92	13827354.05	0.0266	0.0057
Mercury	33146-02-24 20:24 G	13827442.22	13827442.35	13827442.49	0.0265	0.0049
Mercury	33146-05-24 06:57 G	13827530.68	13827530.79	13827530.90	0.0264	0.0153
Mars	33146-07-04 08:24 G	13827571.60	13827571.85	13827572.11	0.0264	0.0115
Mercury	33146-08-20 17:31 G	13827619.21	13827619.23	13827619.26	0.0264	0.0258
Moon	33154-08-24 13:55 G	13830544.85	13830545.08	13830545.31	0.0269	0.0046
Earth	33154-08-24 14:38 G	13830544.87	13830545.11	13830545.35	0.0269	0.0044 *
Venus	33157-07-05 02:24 G	13831590.44	13831590.60	13831590.76	0.0280	0.0183
Venus	33158-02-19 16:33 G	13831819.98	13831820.19	13831820.40	0.0283	0.0045
Venus	33158-10-07 08:38 G	13832049.83	13832049.86	13832049.90	0.0285	0.0280
Mercury	33161-06-19 13:41 G	13833035.90	13833036.07	13833036.24	0.0296	0.0110
Mercury	33161-09-16 13:41 G	13833124.90	13833125.07	13833125.24	0.0296	0.0088
Mercury	33161-12-14 13:12 G	13833214.00	13833214.05	13833214.10	0.0297	0.0283
Earth	33168-02-20 21:21 G	13835473.14	13835473.39	13835473.63	0.0293	0.0017
Moon	33168-02-20 23:17 G	13835473.23	13835473.47	13835473.71	0.0293	0.0011 *

Venus	33170-09-24 12:57 G	13836419.95	13836420.04	13836420.16	0.0283	0.0245
Venus	33171-05-12 01:12 G	13836649.34	13836649.55	13836649.76	0.0280	0.0018
Venus	33171-12-27 10:48 G	13836878.81	13836878.95	13836879.10	0.0277	0.0200
Mercury	33175-01-19 02:53 G	13837997.53	13837997.62	13837997.72	0.0266	0.0185
Mercury	33175-04-17 13:12 G	13838085.93	13838086.05	13838086.18	0.0266	0.0081
Mercury	33175-07-14 23:45 G	13838174.35	13838174.49	13838174.62	0.0265	0.0024
Mercury	33175-10-11 10:05 G	13838262.81	13838262.92	13838263.05	0.0265	0.0130
Mercury	33176-01-07 20:53 G	13838351.31	13838351.37	13838351.43	0.0264	0.0234
Earth	33183-08-19 19:12 G	13841132.08	13841132.30	13841132.52	0.0268	0.0117
Moon	33183-08-19 20:24 G	13841132.14	13841132.35	13841132.59	0.0268	0.0122 *
Earth	33184-08-30 20:38 G	13841509.32	13841509.36	13841509.41	0.0271	0.0265
Venus	33187-01-15 08:24 G	13842376.68	13842376.85	13842377.03	0.0280	0.0154
Venus	33187-09-01 22:48 G	13842606.25	13842606.45	13842606.66	0.0283	0.0075
Mercury	33190-11-06 12:14 G	13843767.87	13843768.01	13843768.17	0.0296	0.0166
Mercury	33191-02-03 12:29 G	13843856.84	13843857.02	13843857.20	0.0297	0.0033
Mercury	33191-05-03 12:00 G	13843945.90	13843946.00	13843946.12	0.0297	0.0230
Moon	33197-02-13 16:48 G	13846059.05	13846059.20	13846059.36	0.0295	0.0235
Earth	33197-02-13 19:12 G	13846059.17	13846059.30	13846059.44	0.0295	0.0242 *
Moon	33198-02-28 01:55 G	13846438.47	13846438.58	13846438.68	0.0291	0.0259
Earth	33198-02-28 05:17 G	13846438.62	13846438.72	13846438.84	0.0291	0.0259 *
Venus	33200-04-05 17:31 G	13847206.10	13847206.23	13847206.37	0.0282	0.0215
Venus	33200-11-21 05:17 G	13847435.51	13847435.72	13847435.93	0.0279	0.0012
Venus	33201-07-08 14:24 G	13847664.99	13847665.10	13847665.23	0.0276	0.0227
Mercury	33204-06-07 05:17 G	13848729.65	13848729.72	13848729.80	0.0266	0.0217
Mercury	33204-09-03 15:36 G	13848818.03	13848818.15	13848818.27	0.0266	0.0114
Mercury	33204-12-01 02:09 G	13848906.45	13848906.59	13848906.72	0.0265	0.0012
Mercury	33205-02-27 12:29 G	13848994.89	13848995.02	13848995.15	0.0265	0.0096
Mercury	33205-05-26 23:02 G	13849083.37	13849083.46	13849083.55	0.0264	0.0201
Earth	33213-08-25 15:21 G	13852095.91	13852096.14	13852096.38	0.0269	0.0088
Moon	33213-08-25 18:43 G	13852096.05	13852096.28	13852096.50	0.0269	0.0094 *

Venus	33216-07-27 10:05 G	13853162.73	13853162.92	13853163.11	0.0280	0.0131
Venus	33217-03-14 00:43 G	13853392.33	13853392.53	13853392.73	0.0283	0.0099
Mercury	33220-03-25 08:53 G	13854499.77	13854499.87	13854499.98	0.0295	0.0235
Mercury	33220-06-22 09:07 G	13854588.71	13854588.88	13854589.06	0.0296	0.0036
Mercury	33220-09-19 08:53 G	13854677.73	13854677.87	13854678.03	0.0297	0.0162
Mars	33220-12-01 10:05 G	13854750.63	13854750.92	13854751.21	0.0297	0.0099
Earth	33227-02-22 04:48 G	13857024.46	13857024.70	13857024.95	0.0293	0.0043
Moon	33227-02-22 08:24 G	13857024.61	13857024.85	13857025.09	0.0293	0.0048 *
Venus	33229-10-16 23:17 G	13857992.31	13857992.47	13857992.63	0.0282	0.0186
Venus	33230-06-03 10:48 G	13858221.74	13858221.95	13858222.16	0.0279	0.0039
Venus	33231-01-18 20:09 G	13858451.26	13858451.34	13858451.42	0.0277	0.0255
Mercury	33233-10-25 08:09 G	13859461.80	13859461.84	13859461.90	0.0267	0.0245
Mercury	33234-01-21 18:43 G	13859550.17	13859550.28	13859550.39	0.0266	0.0140
Mercury	33234-04-20 05:02 G	13859638.58	13859638.71	13859638.84	0.0265	0.0036
Mercury	33234-07-17 15:36 G	13859727.01	13859727.15	13859727.28	0.0265	0.0069
Mercury	33234-10-14 01:55 G	13859815.48	13859815.58	13859815.69	0.0264	0.0174
Mars	33234-11-28 08:24 G	13859860.58	13859860.85	13859861.13	0.0264	0.0059
Moon	33242-08-20 15:36 G	13862682.92	13862683.15	13862683.40	0.0267	0.0075
Earth	33242-08-20 18:57 G	13862683.05	13862683.29	13862683.52	0.0267	0.0074 *
Venus	33246-02-06 15:21 G	13863948.94	13863949.14	13863949.34	0.0281	0.0103
Venus	33246-09-24 06:00 G	13864178.56	13864178.75	13864178.94	0.0284	0.0128
Mercury	33249-11-09 07:26 G	13865320.64	13865320.81	13865320.98	0.0296	0.0097
Mercury	33250-02-06 07:26 G	13865409.64	13865409.81	13865409.97	0.0297	0.0102
Moon	33256-02-15 21:07 G	13867610.20	13867610.38	13867610.58	0.0295	0.0180
Earth	33256-02-16 00:29 G	13867610.34	13867610.52	13867610.72	0.0295	0.0186 *
Venus	33259-04-29 02:38 G	13868778.44	13868778.61	13868778.78	0.0281	0.0159
Venus	33259-12-14 13:41 G	13869007.87	13869008.07	13869008.28	0.0278	0.0066
Mercury	33263-06-10 20:53 G	13870282.27	13870282.37	13870282.47	0.0266	0.0175
Mercury	33263-09-07 07:12 G	13870370.67	13870370.80	13870370.93	0.0265	0.0071
Mercury	33263-12-04 17:31 G	13870459.10	13870459.23	13870459.37	0.0265	0.0034

Mercury	33264-03-02 04:05 G	13870547.55	13870547.67	13870547.78	0.0264	0.0138
Mercury	33264-05-29 14:24 G	13870636.06	13870636.10	13870636.16	0.0264	0.0244
Earth	33271-08-15 15:21 G	13873270.06	13873270.14	13873270.24	0.0266	0.0245
Moon	33271-08-15 18:43 G	13873270.20	13873270.28	13873270.37	0.0266	0.0249 *
Earth	33272-08-26 13:41 G	13873646.85	13873647.07	13873647.28	0.0269	0.0129
Moon	33272-08-26 16:05 G	13873646.96	13873647.17	13873647.39	0.0269	0.0136 *
Venus	33275-08-19 15:21 G	13874734.94	13874735.14	13874735.35	0.0281	0.0083
Venus	33276-04-05 06:14 G	13874964.58	13874964.76	13874964.94	0.0284	0.0149
Mercury	33279-03-29 02:53 G	13876052.48	13876052.62	13876052.77	0.0295	0.0174
Mercury	33279-06-26 03:07 G	13876141.45	13876141.63	13876141.81	0.0296	0.0025
Mercury	33279-09-23 02:53 G	13876230.50	13876230.62	13876230.74	0.0297	0.0222
Earth	33286-02-23 06:57 G	13878575.57	13878575.79	13878576.03	0.0293	0.0094
Moon	33286-02-23 07:12 G	13878575.57	13878575.80	13878576.05	0.0293	0.0096 *
Venus	33288-11-08 06:29 G	13879564.59	13879564.77	13879564.96	0.0282	0.0134
Venus	33289-06-25 17:45 G	13879794.04	13879794.24	13879794.44	0.0279	0.0091
Mercury	33292-10-27 23:31 G	13881014.40	13881014.48	13881014.57	0.0267	0.0205
Mercury	33293-01-24 09:50 G	13881102.79	13881102.91	13881103.04	0.0266	0.0101
Mercury	33293-04-22 20:09 G	13881191.21	13881191.34	13881191.48	0.0265	0.0008
Mercury	33293-07-20 06:43 G	13881279.66	13881279.78	13881279.90	0.0265	0.0109
Mercury	33293-10-16 17:02 G	13881368.14	13881368.21	13881368.30	0.0264	0.0215
Moon	33301-08-22 12:57 G	13884233.81	13884234.04	13884234.28	0.0267	0.0031
Earth	33301-08-22 15:36 G	13884233.91	13884234.15	13884234.40	0.0267	0.0036 *
Venus	33304-07-15 07:12 G	13885291.80	13885291.80	13885291.80	0.0278	0.0278
Venus	33305-03-01 19:55 G	13885521.12	13885521.33	13885521.54	0.0281	0.0056
Venus	33305-10-17 10:48 G	13885750.79	13885750.95	13885751.12	0.0284	0.0176
Mercury	33308-08-16 00:29 G	13886784.42	13886784.52	13886784.63	0.0296	0.0239
Mercury	33308-11-13 00:57 G	13886873.36	13886873.54	13886873.72	0.0296	0.0038
Mercury	33309-02-10 00:43 G	13886962.39	13886962.53	13886962.68	0.0297	0.0160
Mars	33309-04-27 07:55 G	13887038.53	13887038.83	13887039.12	0.0298	0.0061
Earth	33315-02-18 02:09 G	13889161.37	13889161.59	13889161.80	0.0295	0.0136

Moon	33315-02-18 02:24 G	13889161.39	13889161.60	13889161.81	0.0295	0.0134 *
Venus	33318-05-22 09:21 G	13890350.70	13890350.89	13890351.09	0.0281	0.0107
Venus	33319-01-06 20:24 G	13890580.16	13890580.35	13890580.54	0.0278	0.0116
Mercury	33322-03-18 01:26 G	13891746.51	13891746.56	13891746.62	0.0266	0.0241
Mercury	33322-06-14 11:45 G	13891834.88	13891834.99	13891835.11	0.0266	0.0137
Mercury	33322-09-10 22:19 G	13891923.29	13891923.43	13891923.56	0.0265	0.0034
Mercury	33322-12-08 08:38 G	13892011.73	13892011.86	13892011.99	0.0264	0.0072
Mercury	33323-03-06 18:57 G	13892100.20	13892100.29	13892100.40	0.0264	0.0178
Mars	33323-04-24 12:29 G	13892148.74	13892149.02	13892149.30	0.0264	0.0029
Earth	33330-08-17 11:17 G	13894820.83	13894820.97	13894821.13	0.0266	0.0208
Moon	33330-08-17 13:55 G	13894820.92	13894821.08	13894821.24	0.0266	0.0205 *
Moon	33331-08-29 06:43 G	13895197.61	13895197.78	13895197.98	0.0269	0.0180
Earth	33331-08-29 09:21 G	13895197.70	13895197.89	13895198.09	0.0269	0.0167 *
Venus	33334-01-25 06:14 G	13896077.69	13896077.76	13896077.83	0.0278	0.0261
Venus	33334-09-11 19:12 G	13896307.09	13896307.30	13896307.51	0.0281	0.0037
Venus	33335-04-29 10:05 G	13896536.78	13896536.92	13896537.08	0.0284	0.0196
Mercury	33338-04-01 19:55 G	13897605.17	13897605.33	13897605.50	0.0296	0.0121
Mercury	33338-06-29 20:09 G	13897694.17	13897694.34	13897694.51	0.0296	0.0079
Mercury	33338-09-26 19:41 G	13897783.26	13897783.32	13897783.39	0.0297	0.0275
Moon	33345-02-25 01:55 G	13900126.37	13900126.58	13900126.81	0.0293	0.0137
Earth	33345-02-25 05:31 G	13900126.52	13900126.73	13900126.95	0.0293	0.0140 *
Venus	33347-12-02 11:45 G	13901136.80	13901136.99	13901137.20	0.0281	0.0086
Venus	33348-07-18 22:48 G	13901366.27	13901366.45	13901366.63	0.0279	0.0138
Mercury	33351-11-01 14:24 G	13902567.00	13902567.10	13902567.20	0.0266	0.0170
Mercury	33352-01-29 00:43 G	13902655.40	13902655.53	13902655.66	0.0266	0.0065
Mercury	33352-04-26 11:02 G	13902743.83	13902743.96	13902744.09	0.0265	0.0040
Mercury	33352-07-23 21:21 G	13902832.28	13902832.39	13902832.51	0.0264	0.0146
Mercury	33352-10-20 07:55 G	13902920.80	13902920.83	13902920.88	0.0264	0.0251
Earth	33360-08-23 10:48 G	13905784.71	13905784.95	13905785.20	0.0267	0.0003
Moon	33360-08-23 13:12 G	13905784.81	13905785.05	13905785.29	0.0267	0.0012 *

Venus	33363-08-07 10:05 G	13906863.82	13906863.92	13906864.04	0.0279	0.0236
Venus	33364-03-23 23:17 G	13907093.26	13907093.47	13907093.68	0.0281	0.0012
Venus	33364-11-08 14:09 G	13907322.97	13907323.09	13907323.23	0.0284	0.0222
Mercury	33367-08-19 17:17 G	13908337.08	13908337.22	13908337.36	0.0296	0.0188
Mercury	33367-11-16 17:31 G	13908426.05	13908426.23	13908426.41	0.0297	0.0012
Mercury	33368-02-13 17:17 G	13908515.10	13908515.22	13908515.35	0.0297	0.0210
Earth	33374-02-18 23:17 G	13910712.24	13910712.47	13910712.71	0.0295	0.0092
Moon	33374-02-19 03:21 G	13910712.41	13910712.64	13910712.87	0.0295	0.0093 *
Venus	33377-06-13 14:09 G	13911922.89	13911923.09	13911923.30	0.0281	0.0060
Venus	33378-01-29 00:57 G	13912152.37	13912152.54	13912152.72	0.0278	0.0162
Mercury	33381-03-20 16:05 G	13913299.10	13913299.17	13913299.26	0.0266	0.0207
Mercury	33381-06-17 02:38 G	13913387.48	13913387.61	13913387.73	0.0266	0.0101
Mercury	33381-09-13 12:57 G	13913475.90	13913476.04	13913476.18	0.0265	0.0003
Mercury	33381-12-10 23:17 G	13913564.35	13913564.47	13913564.60	0.0264	0.0108
Mercury	33382-03-09 09:50 G	13913652.83	13913652.91	13913652.99	0.0264	0.0213
Moon	33389-08-18 03:36 G	13916371.46	13916371.65	13916371.85	0.0266	0.0164
Earth	33389-08-18 06:14 G	13916371.58	13916371.76	13916371.95	0.0266	0.0172 *
Moon	33390-08-30 00:29 G	13916748.39	13916748.52	13916748.67	0.0269	0.0218
Earth	33390-08-30 03:50 G	13916748.51	13916748.66	13916748.83	0.0269	0.0203 *
Venus	33393-02-16 08:38 G	13917649.74	13917649.86	13917650.00	0.0279	0.0220
Venus	33393-10-03 21:50 G	13917879.20	13917879.41	13917879.62	0.0281	0.0006
Venus	33394-05-21 12:57 G	13918108.93	13918109.04	13918109.16	0.0284	0.0240
Mercury	33397-01-05 12:00 G	13919068.94	13919069.00	13919069.07	0.0295	0.0273
Mercury	33397-04-04 12:14 G	13919157.84	13919158.01	13919158.19	0.0296	0.0073
Mercury	33397-07-02 12:14 G	13919246.85	13919247.01	13919247.18	0.0297	0.0126
Mars	33397-09-18 23:31 G	13919325.19	13919325.48	13919325.78	0.0297	0.0081
Moon	33404-02-28 00:00 G	13921677.31	13921677.50	13921677.69	0.0293	0.0176
Earth	33404-02-28 01:41 G	13921677.38	13921677.57	13921677.76	0.0293	0.0182 *
Venus	33406-05-10 02:53 G	13922479.57	13922479.62	13922479.69	0.0284	0.0270
Venus	33406-12-25 16:05 G	13922708.96	13922709.17	13922709.38	0.0281	0.0039

Venus	33407-08-12 02:38 G	13922938.46	13922938.61	13922938.78	0.0278	0.0184
Mercury	33410-08-08 18:29 G	13924031.22	13924031.27	13924031.33	0.0267	0.0241
Mercury	33410-11-05 04:48 G	13924119.59	13924119.70	13924119.82	0.0266	0.0137
Mercury	33411-02-01 15:21 G	13924208.00	13924208.14	13924208.27	0.0266	0.0032
Mercury	33411-05-01 01:41 G	13924296.44	13924296.57	13924296.70	0.0265	0.0074
Mercury	33411-07-28 12:14 G	13924384.91	13924385.01	13924385.11	0.0264	0.0180
Mars	33411-09-18 16:33 G	13924436.90	13924437.19	13924437.47	0.0264	0.0006
Earth	33419-08-26 05:17 G	13927335.48	13927335.72	13927335.97	0.0267	0.0037
Moon	33419-08-26 08:24 G	13927335.61	13927335.85	13927336.10	0.0267	0.0050 *
Venus	33422-08-30 12:43 G	13928435.89	13928436.03	13928436.19	0.0279	0.0194
Venus	33423-04-17 01:55 G	13928665.37	13928665.58	13928665.80	0.0282	0.0032
Venus	33423-12-02 17:17 G	13928895.15	13928895.22	13928895.30	0.0285	0.0266
Mercury	33426-08-23 09:36 G	13929889.75	13929889.90	13929890.06	0.0296	0.0140
Mercury	33426-11-20 09:50 G	13929978.73	13929978.91	13929979.09	0.0297	0.0060
Mercury	33427-02-17 09:36 G	13930067.81	13930067.90	13930067.99	0.0297	0.0258
Earth	33433-02-20 19:26 G	13932263.08	13932263.31	13932263.56	0.0295	0.0050
Moon	33433-02-20 20:24 G	13932263.10	13932263.35	13932263.60	0.0295	0.0057 *
Venus	33435-11-20 05:31 G	13933265.63	13933265.73	13933265.84	0.0283	0.0243
Venus	33436-07-06 18:29 G	13933495.05	13933495.27	13933495.48	0.0280	0.0015
Venus	33437-02-21 04:48 G	13933724.57	13933724.70	13933724.85	0.0278	0.0207
Mercury	33440-03-24 06:57 G	13934851.69	13934851.79	13934851.89	0.0266	0.0172
Mercury	33440-06-20 17:02 G	13934940.09	13934940.21	13934940.35	0.0265	0.0068
Mercury	33440-09-17 03:36 G	13935028.51	13935028.65	13935028.78	0.0265	0.0037
Mercury	33440-12-14 13:55 G	13935116.97	13935117.08	13935117.20	0.0264	0.0143
Mercury	33441-03-13 00:29 G	13935205.48	13935205.52	13935205.57	0.0264	0.0248
Moon	33448-08-19 22:19 G	13937922.23	13937922.43	13937922.66	0.0266	0.0127
Earth	33448-08-20 01:41 G	13937922.36	13937922.57	13937922.78	0.0266	0.0136 *
Earth	33449-08-31 22:33 G	13938299.35	13938299.44	13938299.57	0.0269	0.0239
Moon	33449-09-01 00:14 G	13938299.45	13938299.51	13938299.60	0.0269	0.0255 *
Venus	33452-03-11 11:45 G	13939221.83	13939221.99	13939222.15	0.0279	0.0177

Venus	33452-10-27 00:43 G	13939451.33	13939451.53	13939451.75	0.0282	0.0050
Venus	33453-06-13 16:19 G	13939681.17	13939681.18	13939681.19	0.0284	0.0284
Mercury	33456-01-10 04:19 G	13940621.57	13940621.68	13940621.80	0.0295	0.0226
Mercury	33456-04-08 04:33 G	13940710.51	13940710.69	13940710.87	0.0296	0.0026
Mercury	33456-07-06 04:33 G	13940799.55	13940799.69	13940799.83	0.0297	0.0173
Earth	33462-02-14 04:33 G	13942848.67	13942848.69	13942848.73	0.0297	0.0294
Earth	33463-02-28 20:09 G	13943228.19	13943228.34	13943228.51	0.0293	0.0223
Moon	33463-02-28 23:17 G	13943228.32	13943228.47	13943228.65	0.0293	0.0211 *
Venus	33465-06-01 06:14 G	13944051.65	13944051.76	13944051.90	0.0284	0.0225
Venus	33466-01-16 19:41 G	13944281.11	13944281.32	13944281.53	0.0281	0.0007
Venus	33466-09-03 06:00 G	13944510.64	13944510.75	13944510.88	0.0278	0.0227
Mercury	33469-08-11 09:07 G	13945583.80	13945583.88	13945583.96	0.0267	0.0209
Mercury	33469-11-07 19:26 G	13945672.18	13945672.31	13945672.43	0.0266	0.0103
Mercury	33470-02-04 05:45 G	13945760.60	13945760.74	13945760.88	0.0266	0.0002
Mercury	33470-05-03 16:05 G	13945849.05	13945849.17	13945849.30	0.0265	0.0108
Mercury	33470-07-31 02:38 G	13945937.54	13945937.61	13945937.69	0.0264	0.0214
Moon	33478-08-26 23:02 G	13948886.22	13948886.46	13948886.70	0.0267	0.0086
Earth	33478-08-27 00:43 G	13948886.29	13948886.53	13948886.76	0.0267	0.0073 *
Venus	33481-09-21 15:50 G	13950007.98	13950008.16	13950008.34	0.0279	0.0150
Venus	33482-05-09 05:02 G	13950237.51	13950237.71	13950237.92	0.0282	0.0077
Mercury	33485-05-29 01:41 G	13951353.55	13951353.57	13951353.59	0.0295	0.0293
Mercury	33485-08-26 02:09 G	13951442.42	13951442.59	13951442.76	0.0296	0.0092
Mercury	33485-11-23 02:09 G	13951531.42	13951531.59	13951531.76	0.0297	0.0108
Mars	33486-02-12 06:57 G	13951612.49	13951612.79	13951613.09	0.0297	0.0063
Moon	33492-02-22 11:45 G	13953813.74	13953813.99	13953814.24	0.0295	0.0022
Earth	33492-02-22 15:36 G	13953813.90	13953814.15	13953814.39	0.0295	0.0009 *
Venus	33494-12-12 09:36 G	13954837.76	13954837.90	13954838.06	0.0283	0.0197
Venus	33495-07-29 22:33 G	13955067.23	13955067.44	13955067.65	0.0280	0.0033
Venus	33496-03-15 08:38 G	13955296.78	13955296.86	13955296.95	0.0277	0.0252
Mercury	33498-12-29 11:17 G	13956315.92	13956315.97	13956316.02	0.0267	0.0243

Mercury	33499-03-27 21:21 G	13956404.28	13956404.39	13956404.51	0.0266	0.0139
Mercury	33499-06-24 07:55 G	13956492.69	13956492.83	13956492.96	0.0265	0.0033
Mercury	33499-09-20 18:14 G	13956581.13	13956581.26	13956581.39	0.0265	0.0073
Mercury	33499-12-18 04:48 G	13956669.60	13956669.70	13956669.80	0.0264	0.0178
Mars	33500-02-11 15:36 G	13956724.87	13956725.15	13956725.43	0.0264	0.0027
Earth	33507-08-22 22:05 G	13959473.19	13959473.42	13959473.65	0.0266	0.0099
Moon	33507-08-22 23:02 G	13959473.24	13959473.46	13959473.69	0.0266	0.0088 *
Venus	33511-04-04 15:21 G	13960793.96	13960794.14	13960794.33	0.0279	0.0133
Venus	33511-11-20 04:48 G	13961023.50	13961023.70	13961023.90	0.0282	0.0095
Mercury	33515-01-13 21:07 G	13962174.24	13962174.38	13962174.53	0.0295	0.0175
Mercury	33515-04-12 21:21 G	13962263.21	13962263.39	13962263.57	0.0296	0.0026
Mercury	33515-07-10 21:07 G	13962352.27	13962352.38	13962352.50	0.0297	0.0224
Earth	33521-02-16 00:57 G	13964399.42	13964399.54	13964399.67	0.0297	0.0253
Moon	33521-02-16 04:33 G	13964399.59	13964399.69	13964399.80	0.0297	0.0267 *
Earth	33522-03-02 16:33 G	13964779.09	13964779.19	13964779.30	0.0293	0.0264
Moon	33522-03-02 19:12 G	13964779.17	13964779.30	13964779.44	0.0293	0.0248 *
Venus	33524-06-24 10:48 G	13965623.78	13965623.95	13965624.11	0.0283	0.0178
Venus	33525-02-08 23:31 G	13965853.28	13965853.48	13965853.69	0.0281	0.0052
Venus	33525-09-26 09:50 G	13966082.88	13966082.91	13966082.96	0.0278	0.0272
Mercury	33528-08-14 23:31 G	13967136.39	13967136.48	13967136.59	0.0267	0.0175
Mercury	33528-11-11 10:05 G	13967224.79	13967224.92	13967225.05	0.0266	0.0069
Mercury	33529-02-07 20:24 G	13967313.22	13967313.35	13967313.49	0.0266	0.0037
Mercury	33529-05-07 06:57 G	13967401.67	13967401.79	13967401.90	0.0265	0.0143
Mercury	33529-08-03 17:17 G	13967490.19	13967490.22	13967490.27	0.0264	0.0250
Moon	33536-08-17 02:53 G	13970060.55	13970060.62	13970060.72	0.0264	0.0248
Earth	33536-08-17 03:21 G	13970060.60	13970060.64	13970060.71	0.0264	0.0257 *
Moon	33537-08-28 18:43 G	13970437.06	13970437.28	13970437.49	0.0267	0.0125
Earth	33537-08-28 22:05 G	13970437.20	13970437.42	13970437.65	0.0267	0.0111 *
Venus	33540-10-14 20:38 G	13971580.16	13971580.36	13971580.56	0.0279	0.0104
Venus	33541-06-01 10:05 G	13971809.73	13971809.92	13971810.11	0.0282	0.0125

Mercury	33544-06-01 19:12 G	13972906.19	13972906.30	13972906.41	0.0295	0.0236
Mercury	33544-08-29 19:26 G	13972995.13	13972995.31	13972995.49	0.0296	0.0036
Mercury	33544-11-26 19:26 G	13973084.16	13973084.31	13973084.45	0.0297	0.0163
Moon	33551-02-24 11:17 G	13975364.73	13975364.97	13975365.21	0.0295	0.0020
Earth	33551-02-24 12:57 G	13975364.80	13975365.04	13975365.28	0.0295	0.0035 *
Venus	33554-01-04 14:38 G	13976409.94	13976410.11	13976410.29	0.0283	0.0149
Venus	33554-08-22 03:07 G	13976639.43	13976639.63	13976639.84	0.0280	0.0080
Mercury	33558-01-02 01:55 G	13977868.50	13977868.58	13977868.67	0.0267	0.0207
Mercury	33558-03-31 12:14 G	13977956.89	13977957.01	13977957.14	0.0266	0.0102
Mercury	33558-06-27 22:48 G	13978045.31	13978045.45	13978045.58	0.0265	0.0006
Mercury	33558-09-24 09:07 G	13978133.76	13978133.88	13978134.01	0.0265	0.0110
Mercury	33558-12-21 19:41 G	13978222.24	13978222.32	13978222.40	0.0264	0.0216
Earth	33566-08-23 21:07 G	13981024.14	13981024.38	13981024.62	0.0266	0.0059
Moon	33566-08-24 00:43 G	13981024.29	13981024.53	13981024.77	0.0266	0.0045 *
Venus	33570-04-26 21:07 G	13982366.18	13982366.38	13982366.59	0.0279	0.0084
Venus	33570-12-12 10:33 G	13982595.76	13982595.94	13982596.13	0.0282	0.0145
Mercury	33574-01-16 14:53 G	13983726.96	13983727.12	13983727.29	0.0295	0.0116
Mercury	33574-04-15 14:53 G	13983815.95	13983816.12	13983816.30	0.0296	0.0084
Mars	33574-07-08 08:24 G	13983899.55	13983899.85	13983900.15	0.0297	0.0064
Mercury	33574-07-13 14:38 G	13983905.06	13983905.11	13983905.17	0.0297	0.0281
Earth	33580-02-17 23:31 G	13985950.31	13985950.48	13985950.66	0.0297	0.0209
Moon	33580-02-18 00:29 G	13985950.35	13985950.52	13985950.69	0.0297	0.0222 *
Moon	33581-03-03 12:29 G	13986330.00	13986330.02	13986330.06	0.0293	0.0290
Venus	33583-07-17 16:05 G	13987195.98	13987196.17	13987196.36	0.0283	0.0128
Venus	33584-03-03 04:33 G	13987425.50	13987425.69	13987425.89	0.0280	0.0101
Mercury	33587-05-22 04:19 G	13988600.63	13988600.68	13988600.73	0.0268	0.0243
Mercury	33587-08-18 14:38 G	13988689.00	13988689.11	13988689.22	0.0267	0.0137
Mercury	33587-11-15 00:57 G	13988777.41	13988777.54	13988777.68	0.0266	0.0031
Mercury	33588-02-11 11:17 G	13988865.85	13988865.97	13988866.11	0.0266	0.0076
Mercury	33588-05-09 21:50 G	13988954.32	13988954.41	13988954.51	0.0265	0.0182

Mars	33588-07-07 21:36 G	13989013.13	13989013.40	13989013.67	0.0265	0.0068
Moon	33595-08-18 23:45 G	13991611.34	13991611.49	13991611.65	0.0264	0.0205
Earth	33595-08-19 03:36 G	13991611.52	13991611.65	13991611.80	0.0264	0.0216 *
Moon	33596-08-29 21:50 G	13991988.23	13991988.41	13991988.60	0.0267	0.0166
Earth	33596-08-29 22:05 G	13991988.23	13991988.42	13991988.63	0.0267	0.0153 *
Venus	33599-03-22 15:36 G	13992923.12	13992923.15	13992923.20	0.0277	0.0272
Venus	33599-11-07 03:21 G	13993152.43	13993152.64	13993152.85	0.0280	0.0052
Venus	33600-06-23 17:02 G	13993382.05	13993382.21	13993382.38	0.0282	0.0177
Mercury	33603-06-05 13:26 G	13994458.92	13994459.06	13994459.21	0.0295	0.0172
Mercury	33603-09-02 13:41 G	13994547.89	13994548.07	13994548.25	0.0296	0.0029
Mercury	33603-11-30 13:26 G	13994636.95	13994637.06	13994637.18	0.0297	0.0227
Earth	33610-02-25 13:41 G	13996915.84	13996916.07	13996916.31	0.0295	0.0084
Moon	33610-02-25 16:33 G	13996915.96	13996916.19	13996916.42	0.0295	0.0068 *
Venus	33613-01-26 21:21 G	13997982.19	13997982.39	13997982.59	0.0283	0.0097
Venus	33613-09-13 09:21 G	13998211.71	13998211.89	13998212.09	0.0280	0.0131
Mercury	33617-01-04 17:17 G	13999421.12	13999421.22	13999421.32	0.0267	0.0167
Mercury	33617-04-03 03:36 G	13999509.52	13999509.65	13999509.78	0.0266	0.0061
Mercury	33617-06-30 13:55 G	13999597.95	13999598.08	13999598.22	0.0265	0.0046
Mercury	33617-09-27 00:29 G	13999686.41	13999686.52	13999686.63	0.0265	0.0151
Mercury	33617-12-24 11:02 G	13999774.94	13999774.96	13999774.99	0.0264	0.0258
Earth	33625-08-24 23:45 G	14002575.25	14002575.49	14002575.74	0.0266	0.0014
Moon	33625-08-25 00:43 G	14002575.27	14002575.53	14002575.78	0.0266	0.0003 *
Venus	33628-10-01 18:14 G	14003709.17	14003709.26	14003709.35	0.0277	0.0249
Venus	33629-05-19 05:45 G	14003938.53	14003938.74	14003938.95	0.0280	0.0029
Venus	33630-01-03 19:26 G	14004168.17	14004168.31	14004168.47	0.0283	0.0201
Mercury	33632-10-22 09:50 G	14005190.82	14005190.91	14005191.02	0.0294	0.0245
Mercury	33633-01-19 10:19 G	14005279.75	14005279.93	14005280.11	0.0295	0.0044
Mercury	33633-04-18 10:05 G	14005368.77	14005368.92	14005369.08	0.0296	0.0155
Moon	33639-02-18 23:17 G	14007501.28	14007501.47	14007501.68	0.0297	0.0174
Earth	33639-02-19 02:24 G	14007501.40	14007501.60	14007501.82	0.0297	0.0159 *

Venus	33642-08-08 23:17 G	14008768.27	14008768.47	14008768.68	0.0283	0.0074
Venus	33643-03-26 11:31 G	14008997.81	14008997.98	14008998.16	0.0280	0.0153
Mercury	33646-05-24 19:26 G	14010153.23	14010153.31	14010153.40	0.0268	0.0203
Mercury	33646-08-21 06:00 G	14010241.62	14010241.75	14010241.87	0.0267	0.0096
Mercury	33646-11-17 16:19 G	14010330.05	14010330.18	14010330.32	0.0266	0.0012
Mercury	33647-02-14 02:53 G	14010418.50	14010418.62	14010418.74	0.0266	0.0117
Mercury	33647-05-13 13:26 G	14010506.99	14010507.06	14010507.13	0.0265	0.0225
Moon	33654-08-20 06:14 G	14013162.57	14013162.76	14013162.95	0.0265	0.0159
Earth	33654-08-20 07:12 G	14013162.61	14013162.80	14013162.99	0.0265	0.0172 *
Earth	33655-09-01 01:55 G	14013539.43	14013539.58	14013539.75	0.0267	0.0199
Moon	33655-09-01 05:02 G	14013539.58	14013539.71	14013539.87	0.0267	0.0214 *
Venus	33658-04-14 00:57 G	14014495.41	14014495.54	14014495.67	0.0277	0.0216
Venus	33658-11-29 12:43 G	14014724.82	14014725.03	14014725.25	0.0280	0.0006
Venus	33659-07-17 02:53 G	14014954.51	14014954.62	14014954.74	0.0283	0.0236
Mercury	33662-06-08 09:21 G	14016011.72	14016011.89	14016012.07	0.0295	0.0095
Mercury	33662-09-05 09:21 G	14016100.73	14016100.89	14016101.06	0.0296	0.0104
Mars	33662-12-02 00:57 G	14016188.24	14016188.54	14016188.84	0.0297	0.0005
Earth	33669-02-26 18:29 G	14018467.06	14018467.27	14018467.49	0.0295	0.0137
Moon	33669-02-26 21:36 G	14018467.18	14018467.40	14018467.63	0.0295	0.0121 *
Venus	33671-07-04 15:36 G	14019325.10	14019325.15	14019325.20	0.0285	0.0276
Venus	33672-02-19 05:45 G	14019554.53	14019554.74	14019554.95	0.0282	0.0041
Venus	33672-10-05 17:31 G	14019784.08	14019784.23	14019784.40	0.0279	0.0185
Mercury	33675-10-11 22:33 G	14020885.38	14020885.44	14020885.51	0.0268	0.0229
Mercury	33676-01-08 08:53 G	14020973.75	14020973.87	14020973.99	0.0267	0.0123
Mercury	33676-04-05 19:26 G	14021062.17	14021062.31	14021062.44	0.0266	0.0017
Mercury	33676-07-03 05:45 G	14021150.62	14021150.74	14021150.87	0.0265	0.0091
Mercury	33676-09-29 16:19 G	14021239.09	14021239.18	14021239.27	0.0265	0.0197
Mars	33676-12-01 14:38 G	14021301.86	14021302.11	14021302.37	0.0264	0.0116
Moon	33684-08-26 02:24 G	14024126.36	14024126.60	14024126.85	0.0266	0.0050
Earth	33684-08-26 05:45 G	14024126.50	14024126.74	14024126.99	0.0266	0.0035 *

Venus	33687-10-25 05:02 G	14025281.56	14025281.71	14025281.87	0.0278	0.0191
Venus	33688-06-10 17:02 G	14025511.00	14025511.21	14025511.42	0.0280	0.0032
Venus	33689-01-26 06:57 G	14025740.73	14025740.79	14025740.88	0.0283	0.0263
Mercury	33691-10-26 06:43 G	14026743.63	14026743.78	14026743.94	0.0295	0.0161
Mercury	33692-01-23 06:57 G	14026832.61	14026832.79	14026832.97	0.0295	0.0039
Mercury	33692-04-21 06:29 G	14026921.68	14026921.77	14026921.89	0.0296	0.0237
Moon	33698-02-20 07:26 G	14029052.60	14029052.81	14029053.04	0.0296	0.0117
Earth	33698-02-20 10:19 G	14029052.70	14029052.93	14029053.17	0.0296	0.0101 *
Venus	33701-01-14 18:57 G	14030111.19	14030111.29	14030111.39	0.0285	0.0249
Venus	33701-09-01 09:07 G	14030340.66	14030340.88	14030341.09	0.0282	0.0016
Venus	33702-04-18 20:53 G	14030570.23	14030570.37	14030570.51	0.0279	0.0210
Mercury	33705-03-01 01:12 G	14031617.52	14031617.55	14031617.57	0.0269	0.0263
Mercury	33705-05-28 11:17 G	14031705.87	14031705.97	14031706.09	0.0268	0.0157
Mercury	33705-08-24 21:50 G	14031794.28	14031794.41	14031794.54	0.0267	0.0049
Mercury	33705-11-21 08:24 G	14031882.71	14031882.85	14031882.98	0.0266	0.0058
Mercury	33706-02-17 18:43 G	14031971.18	14031971.28	14031971.39	0.0266	0.0166
Earth	33713-08-22 13:41 G	14034713.86	14034714.07	14034714.29	0.0265	0.0123
Moon	33713-08-22 17:02 G	14034714.00	14034714.21	14034714.44	0.0265	0.0108 *
Earth	33714-09-03 09:36 G	14035090.82	14035090.90	14035090.99	0.0268	0.0250
Moon	33714-09-03 12:00 G	14035090.96	14035091.00	14035091.05	0.0268	0.0262 *
Venus	33717-05-07 12:43 G	14036067.86	14036068.03	14036068.21	0.0278	0.0156
Venus	33717-12-23 01:12 G	14036297.34	14036297.55	14036297.76	0.0281	0.0069
Mercury	33721-03-15 06:43 G	14037475.66	14037475.78	14037475.92	0.0294	0.0205
Mercury	33721-06-12 07:12 G	14037564.62	14037564.80	14037564.98	0.0295	0.0007
Mercury	33721-09-09 06:57 G	14037653.66	14037653.79	14037653.92	0.0296	0.0194
Moon	33728-03-01 04:05 G	14040018.49	14040018.67	14040018.89	0.0295	0.0183
Earth	33728-03-01 05:02 G	14040018.53	14040018.71	14040018.89	0.0295	0.0198 *
Venus	33730-07-28 02:53 G	14040897.49	14040897.62	14040897.76	0.0285	0.0213
Venus	33731-03-14 16:48 G	14041126.99	14041127.20	14041127.41	0.0282	0.0021
Venus	33731-10-30 03:50 G	14041356.57	14041356.66	14041356.77	0.0279	0.0244

Mercury	33734-10-15 14:38 G	14042438.02	14042438.11	14042438.21	0.0268	0.0180
Mercury	33735-01-12 00:57 G	14042526.42	14042526.54	14042526.68	0.0267	0.0074
Mercury	33735-04-10 11:31 G	14042614.85	14042614.98	14042615.12	0.0266	0.0034
Mercury	33735-07-07 22:05 G	14042703.30	14042703.42	14042703.53	0.0265	0.0141
Mercury	33735-10-04 08:38 G	14042791.82	14042791.86	14042791.91	0.0265	0.0248
Moon	33743-08-29 12:57 G	14045677.82	14045678.04	14045678.26	0.0267	0.0103
Earth	33743-08-29 15:07 G	14045677.91	14045678.13	14045678.37	0.0267	0.0089 *
Venus	33746-11-17 18:43 G	14046854.09	14046854.28	14046854.47	0.0278	0.0126
Venus	33747-07-05 07:12 G	14047083.60	14047083.80	14047084.00	0.0281	0.0099
Mercury	33750-08-02 05:02 G	14048207.63	14048207.71	14048207.79	0.0294	0.0263
Mercury	33750-10-30 05:17 G	14048296.54	14048296.72	14048296.90	0.0295	0.0063
Mercury	33751-01-27 05:17 G	14048385.56	14048385.72	14048385.88	0.0296	0.0136
Mars	33751-04-29 03:50 G	14048477.37	14048477.66	14048477.96	0.0296	0.0085
Earth	33757-02-22 23:02 G	14050604.22	14050604.46	14050604.71	0.0296	0.0036
Moon	33757-02-23 00:14 G	14050604.28	14050604.51	14050604.75	0.0296	0.0053 *
Venus	33760-02-07 06:57 G	14051683.64	14051683.79	14051683.95	0.0284	0.0184
Venus	33760-09-23 20:38 G	14051913.15	14051913.36	14051913.57	0.0282	0.0048
Venus	33761-05-11 07:55 G	14052142.79	14052142.83	14052142.88	0.0279	0.0270
Mercury	33764-03-03 17:17 G	14053170.14	14053170.22	14053170.30	0.0268	0.0212
Mercury	33764-05-31 03:36 G	14053258.53	14053258.65	14053258.78	0.0268	0.0106
Mercury	33764-08-27 14:09 G	14053346.96	14053347.09	14053347.22	0.0267	0.0002
Mercury	33764-11-24 00:43 G	14053435.41	14053435.53	14053435.65	0.0266	0.0110
Mercury	33765-02-20 11:17 G	14053523.89	14053523.97	14053524.05	0.0266	0.0218
Mars	33765-04-28 13:41 G	14053590.88	14053591.07	14053591.29	0.0265	0.0182
Earth	33772-08-23 23:17 G	14056265.24	14056265.47	14056265.71	0.0265	0.0071
Moon	33772-08-24 01:55 G	14056265.33	14056265.58	14056265.83	0.0265	0.0056 *
Venus	33776-05-30 02:53 G	14057640.42	14057640.62	14057640.83	0.0278	0.0090
Venus	33777-01-14 15:50 G	14057869.98	14057870.16	14057870.35	0.0281	0.0137
Mercury	33780-03-18 05:45 G	14059028.57	14059028.74	14059028.91	0.0295	0.0103
Mercury	33780-06-15 05:45 G	14059117.57	14059117.74	14059117.91	0.0296	0.0096

Mercury	33780-09-12 05:17 G	14059206.70	14059206.72	14059206.75	0.0296	0.0293
Moon	33786-02-16 23:45 G	14061190.41	14061190.49	14061190.60	0.0298	0.0276
Earth	33786-02-17 02:09 G	14061190.48	14061190.59	14061190.72	0.0298	0.0259 *
Moon	33787-03-03 15:21 G	14061570.01	14061570.14	14061570.28	0.0294	0.0247
Earth	33787-03-03 19:12 G	14061570.20	14061570.30	14061570.41	0.0294	0.0265 *
Venus	33789-08-19 16:19 G	14062470.00	14062470.18	14062470.36	0.0284	0.0146
Venus	33790-04-06 05:31 G	14062699.53	14062699.73	14062699.93	0.0281	0.0085
Mercury	33793-07-21 20:53 G	14063902.31	14063902.37	14063902.43	0.0268	0.0233
Mercury	33793-10-18 07:12 G	14063990.69	14063990.80	14063990.92	0.0267	0.0127
Mercury	33794-01-14 17:45 G	14064079.10	14064079.24	14064079.37	0.0267	0.0020
Mercury	33794-04-13 04:05 G	14064167.55	14064167.67	14064167.80	0.0266	0.0089
Mercury	33794-07-10 14:38 G	14064256.02	14064256.11	14064256.21	0.0265	0.0196
Moon	33801-08-20 05:45 G	14066852.62	14066852.74	14066852.90	0.0264	0.0214
Earth	33801-08-20 09:07 G	14066852.75	14066852.88	14066853.01	0.0264	0.0225 *
Earth	33802-09-01 02:53 G	14067229.42	14067229.62	14067229.83	0.0267	0.0145
Moon	33802-09-01 04:48 G	14067229.52	14067229.70	14067229.91	0.0267	0.0158 *
Venus	33805-04-25 23:17 G	14068197.46	14068197.47	14068197.50	0.0276	0.0275
Venus	33805-12-11 10:19 G	14068426.72	14068426.93	14068427.14	0.0279	0.0057
Venus	33806-07-28 23:17 G	14068656.31	14068656.47	14068656.65	0.0282	0.0171
Mercury	33809-08-06 04:48 G	14069760.55	14069760.70	14069760.86	0.0294	0.0155
Mercury	33809-11-03 05:02 G	14069849.53	14069849.71	14069849.89	0.0295	0.0045
Mercury	33810-01-31 04:48 G	14069938.60	14069938.70	14069938.80	0.0296	0.0242
Earth	33816-02-26 16:48 G	14072155.96	14072156.20	14072156.45	0.0295	0.0037
Moon	33816-02-26 20:53 G	14072156.12	14072156.37	14072156.61	0.0295	0.0020 *
Venus	33819-03-02 21:36 G	14073256.21	14073256.40	14073256.59	0.0283	0.0114
Venus	33819-10-18 10:19 G	14073485.75	14073485.93	14073486.13	0.0281	0.0116
Mercury	33822-12-09 23:45 G	14074634.47	14074634.49	14074634.51	0.0269	0.0264
Mercury	33823-03-08 10:05 G	14074722.81	14074722.92	14074723.03	0.0268	0.0157
Mercury	33823-06-04 20:24 G	14074811.22	14074811.35	14074811.49	0.0267	0.0050
Mars	33823-08-08 06:14 G	14074875.63	14074875.76	14074875.92	0.0267	0.0225

Mercury	33823-09-01 06:57 G	14074899.66	14074899.79	14074899.92	0.0267	0.0058
Mercury	33823-11-28 17:31 G	14074988.12	14074988.23	14074988.34	0.0266	0.0166
Moon	33831-08-27 08:53 G	14077816.62	14077816.87	14077817.13	0.0266	0.0003
Earth	33831-08-27 10:33 G	14077816.70	14077816.94	14077817.19	0.0266	0.0016 *
Venus	33834-11-06 07:26 G	14078983.71	14078983.81	14078983.92	0.0277	0.0239
Venus	33835-06-23 18:57 G	14079213.08	14079213.29	14079213.50	0.0279	0.0019
Venus	33836-02-08 08:09 G	14079442.71	14079442.84	14079442.99	0.0282	0.0210
Mercury	33838-12-24 05:17 G	14080492.59	14080492.72	14080492.86	0.0294	0.0194
Mercury	33839-03-23 05:31 G	14080581.55	14080581.73	14080581.92	0.0295	0.0010
Mercury	33839-06-20 05:17 G	14080670.60	14080670.72	14080670.86	0.0296	0.0205
Mars	33839-09-25 13:55 G	14080767.88	14080768.08	14080768.30	0.0297	0.0212
Moon	33845-02-19 17:17 G	14082742.05	14082742.22	14082742.41	0.0297	0.0201
Earth	33845-02-19 21:07 G	14082742.19	14082742.38	14082742.57	0.0297	0.0184 *
Venus	33848-09-12 07:26 G	14084042.60	14084042.81	14084043.01	0.0283	0.0076
Venus	33849-04-29 19:41 G	14084272.15	14084272.32	14084272.50	0.0280	0.0153
Mercury	33852-07-25 13:41 G	14085454.97	14085455.07	14085455.17	0.0268	0.0177
Mercury	33852-10-22 00:00 G	14085543.38	14085543.50	14085543.64	0.0267	0.0071
Mercury	33853-01-18 10:33 G	14085631.81	14085631.94	14085632.08	0.0266	0.0038
Mercury	33853-04-16 21:07 G	14085720.27	14085720.38	14085720.49	0.0266	0.0146
Mercury	33853-07-14 07:41 G	14085808.79	14085808.82	14085808.86	0.0265	0.0254
Mars	33853-09-24 04:19 G	14085880.62	14085880.68	14085880.75	0.0265	0.0257
Earth	33860-08-21 20:53 G	14088404.19	14088404.37	14088404.56	0.0265	0.0169
Moon	33860-08-21 21:36 G	14088404.21	14088404.40	14088404.59	0.0265	0.0157 *
Earth	33861-09-02 15:36 G	14088781.00	14088781.15	14088781.32	0.0267	0.0204
Moon	33861-09-02 19:12 G	14088781.16	14088781.30	14088781.45	0.0267	0.0215 *
Venus	33864-05-18 15:21 G	14089770.00	14089770.14	14089770.29	0.0277	0.0206
Venus	33865-01-03 03:07 G	14089999.41	14089999.63	14089999.84	0.0280	0.0016
Venus	33865-08-20 16:48 G	14090229.10	14090229.20	14090229.31	0.0283	0.0245
Mercury	33868-05-12 05:02 G	14091224.61	14091224.71	14091224.81	0.0294	0.0242
Mercury	33868-08-09 05:17 G	14091313.54	14091313.72	14091313.90	0.0295	0.0042

Mercury	33868-11-06 05:02 G	14091402.57	14091402.71	14091402.87	0.0296	0.0158
Earth	33875-02-28 12:43 G	14093707.81	14093708.03	14093708.27	0.0295	0.0113
Moon	33875-02-28 13:55 G	14093707.84	14093708.08	14093708.32	0.0295	0.0097 *
Venus	33877-08-07 22:33 G	14094599.41	14094599.44	14094599.50	0.0285	0.0278
Venus	33878-03-25 13:12 G	14094828.84	14094829.05	14094829.26	0.0282	0.0043
Venus	33878-11-10 01:12 G	14095058.40	14095058.55	14095058.72	0.0280	0.0185
Mercury	33881-12-12 16:33 G	14096187.11	14096187.19	14096187.28	0.0268	0.0206
Mercury	33882-03-11 02:53 G	14096275.50	14096275.62	14096275.75	0.0268	0.0099
Mercury	33882-06-07 13:26 G	14096363.92	14096364.06	14096364.19	0.0267	0.0009
Mercury	33882-09-04 00:00 G	14096452.38	14096452.50	14096452.62	0.0266	0.0117
Mercury	33882-12-01 10:19 G	14096540.87	14096540.93	14096541.01	0.0266	0.0225
Moon	33890-08-28 18:29 G	14099368.03	14099368.27	14099368.51	0.0266	0.0055
Earth	33890-08-28 22:05 G	14099368.18	14099368.42	14099368.66	0.0266	0.0041 *
Venus	33893-11-28 23:02 G	14100556.29	14100556.46	14100556.63	0.0277	0.0171
Venus	33894-07-16 11:02 G	14100785.75	14100785.96	14100786.17	0.0280	0.0053
Mercury	33897-09-29 05:02 G	14101956.68	14101956.71	14101956.77	0.0294	0.0283
Mercury	33897-12-27 05:45 G	14102045.56	14102045.74	14102045.91	0.0295	0.0082
Mercury	33898-03-26 05:45 G	14102134.57	14102134.74	14102134.90	0.0295	0.0118
Moon	33904-02-23 17:45 G	14104294.03	14104294.24	14104294.46	0.0297	0.0120
Earth	33904-02-23 18:14 G	14104294.03	14104294.26	14104294.49	0.0297	0.0104 *
Venus	33907-02-19 09:21 G	14105385.78	14105385.89	14105386.01	0.0285	0.0238
Venus	33907-10-06 23:31 G	14105615.27	14105615.48	14105615.69	0.0282	0.0005
Venus	33908-05-23 11:02 G	14105844.84	14105844.96	14105845.09	0.0280	0.0222
Mercury	33911-05-02 20:24 G	14106919.28	14106919.35	14106919.42	0.0268	0.0226
Mercury	33911-07-30 06:43 G	14107007.66	14107007.78	14107007.90	0.0268	0.0118
Mercury	33911-10-26 17:17 G	14107096.08	14107096.22	14107096.35	0.0267	0.0013
Mars	33912-01-04 00:57 G	14107165.31	14107165.54	14107165.78	0.0266	0.0143
Mercury	33912-01-23 03:36 G	14107184.53	14107184.65	14107184.78	0.0266	0.0097
Mercury	33912-04-20 14:09 G	14107273.01	14107273.09	14107273.18	0.0265	0.0205
Earth	33919-08-25 08:09 G	14109955.62	14109955.84	14109956.07	0.0265	0.0113

Moon	33919-08-25 12:00 G	14109955.77	14109956.00	14109956.23	0.0265	0.0098 *
Earth	33920-09-05 03:50 G	14110332.63	14110332.66	14110332.72	0.0268	0.0262
Venus	33923-06-12 07:12 G	14111342.62	14111342.80	14111342.99	0.0278	0.0137
Venus	33924-01-27 19:41 G	14111572.12	14111572.32	14111572.52	0.0281	0.0088
Mercury	33927-05-17 05:31 G	14112777.57	14112777.73	14112777.90	0.0294	0.0127
Mercury	33927-08-14 05:45 G	14112866.56	14112866.74	14112866.91	0.0295	0.0073
Mercury	33927-11-11 05:17 G	14112955.66	14112955.72	14112955.80	0.0296	0.0271
Moon	33934-03-03 06:57 G	14115259.60	14115259.79	14115260.00	0.0294	0.0176
Earth	33934-03-03 10:19 G	14115259.74	14115259.93	14115260.11	0.0294	0.0191 *
Venus	33936-08-31 15:36 G	14116172.01	14116172.15	14116172.31	0.0284	0.0204
Venus	33937-04-18 05:17 G	14116401.52	14116401.72	14116401.94	0.0281	0.0030
Venus	33937-12-03 16:48 G	14116631.11	14116631.20	14116631.28	0.0279	0.0253
Mercury	33940-09-18 23:17 G	14117651.43	14117651.47	14117651.51	0.0269	0.0255
Mercury	33940-12-16 09:36 G	14117739.79	14117739.90	14117740.01	0.0268	0.0147
Mercury	33941-03-14 19:55 G	14117828.20	14117828.33	14117828.47	0.0267	0.0041
Mercury	33941-06-11 06:29 G	14117916.64	14117916.77	14117916.90	0.0266	0.0068
Mercury	33941-09-07 17:02 G	14118005.11	14118005.21	14118005.31	0.0266	0.0176
Moon	33948-08-19 10:33 G	14120542.91	14120542.94	14120543.01	0.0264	0.0259
Moon	33949-08-31 07:26 G	14120919.60	14120919.81	14120920.04	0.0267	0.0111
Earth	33949-08-31 08:38 G	14120919.63	14120919.86	14120920.09	0.0267	0.0097 *
Venus	33952-12-22 13:55 G	14122128.88	14122129.08	14122129.28	0.0278	0.0103
Venus	33953-08-09 02:38 G	14122358.43	14122358.61	14122358.81	0.0281	0.0124
Mercury	33956-10-03 05:17 G	14123509.57	14123509.72	14123509.87	0.0294	0.0173
Mercury	33956-12-31 05:31 G	14123598.55	14123598.73	14123598.91	0.0295	0.0028
Mercury	33957-03-30 05:17 G	14123687.61	14123687.72	14123687.84	0.0296	0.0227
Earth	33963-02-25 14:38 G	14125845.86	14125846.11	14125846.35	0.0296	0.0026
Moon	33963-02-25 17:31 G	14125845.99	14125846.23	14125846.47	0.0296	0.0041 *
Venus	33966-03-14 01:41 G	14126958.41	14126958.57	14126958.75	0.0284	0.0164
Venus	33966-10-29 14:53 G	14127187.92	14127188.12	14127188.33	0.0281	0.0069
Mercury	33970-05-05 13:12 G	14128471.95	14128472.05	14128472.16	0.0268	0.0168

Mercury	33970-08-01 23:45 G	14128560.36	14128560.49	14128560.62	0.0267	0.0060
Mercury	33970-10-29 10:05 G	14128648.79	14128648.92	14128649.06	0.0266	0.0048
Mercury	33971-01-25 20:38 G	14128737.25	14128737.36	14128737.47	0.0266	0.0156
Mercury	33971-04-24 07:12 G	14128825.79	14128825.80	14128825.81	0.0265	0.0263
Earth	33978-08-26 17:45 G	14131507.01	14131507.24	14131507.49	0.0265	0.0059
Moon	33978-08-26 19:12 G	14131507.05	14131507.30	14131507.55	0.0265	0.0044 *
Venus	33982-07-04 21:50 G	14132915.21	14132915.41	14132915.62	0.0279	0.0070
Venus	33983-02-19 10:48 G	14133144.78	14133144.95	14133145.13	0.0282	0.0158
Mercury	33986-02-20 04:48 G	14134241.59	14134241.70	14134241.83	0.0294	0.0221
Mercury	33986-05-20 05:17 G	14134330.54	14134330.72	14134330.90	0.0295	0.0019
Mercury	33986-08-17 05:17 G	14134419.58	14134419.72	14134419.86	0.0296	0.0181
Moon	33992-02-19 10:19 G	14136431.83	14136431.93	14136432.03	0.0297	0.0272
Earth	33992-02-19 13:12 G	14136431.94	14136432.05	14136432.19	0.0297	0.0256 *
Moon	33993-03-05 03:07 G	14136811.51	14136811.63	14136811.75	0.0294	0.0253
Earth	33993-03-05 06:14 G	14136811.66	14136811.76	14136811.86	0.0294	0.0267 *
Venus	33995-09-24 08:09 G	14137744.66	14137744.84	14137745.03	0.0283	0.0130
Venus	33996-05-10 21:07 G	14137974.18	14137974.38	14137974.58	0.0280	0.0100
Mercury	33999-09-22 16:05 G	14139204.09	14139204.17	14139204.26	0.0268	0.0197
Mercury	33999-12-20 02:38 G	14139292.48	14139292.61	14139292.73	0.0267	0.0090
Mercury	34000-03-17 12:57 G	14139380.91	14139381.04	14139381.17	0.0267	0.0018
Mars	34000-05-30 08:09 G	14139454.58	14139454.84	14139455.12	0.0266	0.0073
Mercury	34000-06-13 23:17 G	14139469.36	14139469.47	14139469.60	0.0266	0.0126
Mercury	34000-09-10 10:05 G	14139557.85	14139557.92	14139557.98	0.0265	0.0234

35TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 35th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	34007-08-21 21:21	G	14142094.24	14142094.39	14142094.54	0.0264	0.0207	
Earth	34007-08-21 22:19	G	14142094.31	14142094.43	14142094.58	0.0264	0.0220	*
Earth	34008-09-01 16:33	G	14142471.00	14142471.19	14142471.40	0.0267	0.0150	
Moon	34008-09-01 19:41	G	14142471.14	14142471.32	14142471.52	0.0267	0.0164	*
Venus	34011-05-30 16:05	G	14143472.09	14143472.17	14143472.24	0.0276	0.0258	
Venus	34012-01-15 03:07	G	14143701.43	14143701.63	14143701.85	0.0279	0.0039	
Venus	34012-08-31 16:33	G	14143931.04	14143931.19	14143931.35	0.0282	0.0191	
Mercury	34015-07-10 03:36	G	14144973.60	14144973.65	14144973.73	0.0294	0.0272	
Mercury	34015-10-07 04:19	G	14145062.50	14145062.68	14145062.86	0.0295	0.0070	
Mercury	34016-01-04 04:19	G	14145151.52	14145151.68	14145151.84	0.0295	0.0131	
Earth	34022-02-27 09:07	G	14147397.64	14147397.88	14147398.12	0.0296	0.0051	
Moon	34022-02-27 12:29	G	14147397.77	14147398.02	14147398.27	0.0296	0.0035	*
Venus	34025-04-05 17:17	G	14148531.02	14148531.22	14148531.42	0.0283	0.0094	
Venus	34025-11-21 05:45	G	14148760.56	14148760.74	14148760.92	0.0281	0.0136	
Mercury	34029-02-08 19:41	G	14149936.25	14149936.32	14149936.40	0.0268	0.0219	
Mercury	34029-05-08 06:00	G	14150024.63	14150024.75	14150024.88	0.0267	0.0112	
Mercury	34029-08-04 16:33	G	14150113.05	14150113.19	14150113.32	0.0267	0.0008	
Mercury	34029-11-01 02:53	G	14150201.50	14150201.62	14150201.75	0.0266	0.0104	
Mercury	34030-01-28 13:26	G	14150289.98	14150290.06	14150290.14	0.0265	0.0212	
Moon	34037-08-27 21:50	G	14153058.16	14153058.41	14153058.66	0.0266	0.0008	
Earth	34037-08-28 01:12	G	14153058.30	14153058.55	14153058.79	0.0266	0.0008	*
Venus	34040-12-09 23:02	G	14154258.34	14154258.46	14154258.58	0.0277	0.0227	
Venus	34041-07-27 10:33	G	14154487.73	14154487.94	14154488.16	0.0280	0.0008	
Venus	34042-03-14 00:00	G	14154717.38	14154717.50	14154717.64	0.0282	0.0225	
Mercury	34045-02-23 03:50	G	14155794.49	14155794.66	14155794.82	0.0295	0.0120	
Mercury	34045-05-23 03:50	G	14155883.49	14155883.66	14155883.84	0.0296	0.0081	

Mercury	34045-08-20 03:36 G	14155972.60	14155972.65	14155972.71	0.0296	0.0280
Moon	34051-02-21 03:50 G	14157983.49	14157983.66	14157983.85	0.0297	0.0198
Earth	34051-02-21 06:43 G	14157983.60	14157983.78	14157983.98	0.0297	0.0181 *
Venus	34054-10-16 23:02 G	14159317.25	14159317.46	14159317.66	0.0282	0.0061
Venus	34055-06-03 10:48 G	14159546.80	14159546.95	14159547.13	0.0280	0.0168
Mercury	34058-06-28 22:19 G	14160668.39	14160668.43	14160668.48	0.0268	0.0249
Mercury	34058-09-25 08:38 G	14160756.75	14160756.86	14160756.98	0.0267	0.0142
Mercury	34058-12-22 19:12 G	14160845.16	14160845.30	14160845.43	0.0267	0.0035
Mercury	34059-03-21 05:31 G	14160933.60	14160933.73	14160933.86	0.0266	0.0073
Mercury	34059-06-17 16:05 G	14161022.07	14161022.17	14161022.27	0.0265	0.0181
Earth	34066-08-23 03:21 G	14163645.46	14163645.64	14163645.83	0.0264	0.0172
Moon	34066-08-23 06:14 G	14163645.58	14163645.76	14163645.96	0.0264	0.0158 *
Earth	34067-09-03 21:36 G	14164022.25	14164022.40	14164022.57	0.0267	0.0200
Moon	34067-09-04 00:29 G	14164022.37	14164022.52	14164022.68	0.0267	0.0211 *
Venus	34070-06-22 02:09 G	14165044.45	14165044.59	14165044.74	0.0277	0.0201
Venus	34071-02-06 14:09 G	14165273.88	14165274.09	14165274.30	0.0280	0.0022
Venus	34071-09-24 04:05 G	14165503.58	14165503.67	14165503.76	0.0283	0.0254
Mercury	34074-07-13 01:26 G	14166526.42	14166526.56	14166526.71	0.0294	0.0181
Mercury	34074-10-10 01:55 G	14166615.40	14166615.58	14166615.76	0.0295	0.0022
Mars	34074-10-20 20:53 G	14166626.20	14166626.37	14166626.57	0.0295	0.0235
Mercury	34075-01-07 01:41 G	14166704.46	14166704.57	14166704.69	0.0296	0.0221
Moon	34081-02-28 22:48 G	14168949.22	14168949.45	14168949.69	0.0296	0.0106
Earth	34081-02-28 23:31 G	14168949.26	14168949.48	14168949.71	0.0296	0.0121 *
Venus	34083-09-11 16:19 G	14169874.11	14169874.18	14169874.27	0.0285	0.0264
Venus	34084-04-28 06:43 G	14170103.58	14170103.78	14170104.00	0.0283	0.0028
Venus	34084-12-13 18:43 G	14170333.14	14170333.28	14170333.43	0.0280	0.0200
Mercury	34088-02-12 12:14 G	14171488.90	14171489.01	14171489.11	0.0268	0.0166
Mercury	34088-05-10 22:33 G	14171577.31	14171577.44	14171577.57	0.0267	0.0059
Mercury	34088-08-07 08:53 G	14171665.74	14171665.87	14171666.00	0.0266	0.0049
Mars	34088-10-24 18:29 G	14171743.99	14171744.27	14171744.55	0.0266	0.0002

Mercury	34088-11-03 19:26 G	14171754.20	14171754.31	14171754.42	0.0266	0.0157
Mercury	34089-01-31 05:45 G	14171842.74	14171842.74	14171842.75	0.0265	0.0265
Moon	34096-08-29 02:24 G	14174609.36	14174609.60	14174609.83	0.0266	0.0054
Earth	34096-08-29 04:48 G	14174609.46	14174609.70	14174609.94	0.0266	0.0041 *
Venus	34100-01-02 08:24 G	14175830.69	14175830.85	14175831.02	0.0278	0.0172
Venus	34100-08-19 20:38 G	14176060.15	14176060.36	14176060.57	0.0280	0.0053
Mercury	34103-12-01 00:14 G	14177258.41	14177258.51	14177258.62	0.0294	0.0236
Mercury	34104-02-28 00:43 G	14177347.35	14177347.53	14177347.71	0.0295	0.0033
Mercury	34104-05-27 00:43 G	14177436.39	14177436.53	14177436.68	0.0296	0.0168
Earth	34110-02-23 19:55 G	14179535.11	14179535.33	14179535.57	0.0297	0.0112
Moon	34110-02-23 21:36 G	14179535.19	14179535.40	14179535.62	0.0297	0.0128 *
Venus	34113-03-24 21:36 G	14180660.29	14180660.40	14180660.54	0.0284	0.0231
Venus	34113-11-09 11:45 G	14180889.78	14180889.99	14180890.20	0.0282	0.0005
Venus	34114-06-26 23:17 G	14181119.35	14181119.47	14181119.59	0.0279	0.0229
Mercury	34117-07-02 14:38 G	14182221.03	14182221.11	14182221.20	0.0268	0.0198
Mercury	34117-09-29 00:57 G	14182309.42	14182309.54	14182309.67	0.0267	0.0091
Mercury	34117-12-26 11:17 G	14182397.84	14182397.97	14182398.11	0.0266	0.0019
Mercury	34118-03-24 21:50 G	14182486.29	14182486.41	14182486.53	0.0265	0.0124
Mercury	34118-06-21 08:09 G	14182574.78	14182574.84	14182574.91	0.0265	0.0232
Earth	34125-08-25 05:45 G	14185196.53	14185196.74	14185196.96	0.0264	0.0126
Moon	34125-08-25 08:38 G	14185196.63	14185196.86	14185197.09	0.0264	0.0112 *
Moon	34126-09-05 21:36 G	14185573.32	14185573.40	14185573.49	0.0267	0.0251
Earth	34126-09-06 00:00 G	14185573.41	14185573.50	14185573.60	0.0267	0.0246 *
Venus	34129-07-15 10:33 G	14186616.76	14186616.94	14186617.12	0.0278	0.0147
Venus	34130-03-01 22:48 G	14186846.25	14186846.45	14186846.66	0.0280	0.0078
Mercury	34133-07-16 21:36 G	14188079.23	14188079.40	14188079.57	0.0295	0.0101
Mercury	34133-10-13 21:50 G	14188168.24	14188168.41	14188168.58	0.0295	0.0101
Moon	34140-03-03 05:02 G	14190500.52	14190500.71	14190500.92	0.0296	0.0170
Earth	34140-03-03 09:07 G	14190500.69	14190500.88	14190501.07	0.0296	0.0184 *
Venus	34142-10-05 03:50 G	14191446.52	14191446.66	14191446.82	0.0285	0.0201

Venus	34143-05-22 17:45 G	14191676.03	14191676.24	14191676.45	0.0282	0.0034
Venus	34144-01-07 05:17 G	14191905.65	14191905.72	14191905.80	0.0279	0.0259
Mercury	34146-11-19 17:45 G	14192953.17	14192953.24	14192953.31	0.0268	0.0225
Mercury	34147-02-16 04:05 G	14193041.55	14193041.67	14193041.79	0.0267	0.0118
Mercury	34147-05-15 14:24 G	14193129.97	14193130.10	14193130.24	0.0267	0.0011
Mercury	34147-08-12 00:43 G	14193218.41	14193218.53	14193218.66	0.0266	0.0098
Mercury	34147-11-08 11:17 G	14193306.89	14193306.97	14193307.06	0.0265	0.0205
Earth	34155-09-01 05:17 G	14196160.49	14196160.72	14196160.96	0.0265	0.0085
Moon	34155-09-01 07:12 G	14196160.58	14196160.80	14196161.03	0.0265	0.0095 *
Venus	34159-01-25 15:36 G	14197402.96	14197403.15	14197403.34	0.0278	0.0120
Venus	34159-09-12 04:05 G	14197632.47	14197632.67	14197632.86	0.0281	0.0106
Mercury	34162-12-03 19:41 G	14198811.17	14198811.32	14198811.48	0.0295	0.0163
Mercury	34163-03-02 20:09 G	14198900.16	14198900.34	14198900.52	0.0296	0.0040
Mars	34163-03-17 13:12 G	14198914.80	14198915.05	14198915.30	0.0296	0.0167
Mercury	34163-05-30 19:55 G	14198989.24	14198989.33	14198989.44	0.0297	0.0241
Earth	34169-02-25 03:50 G	14201086.42	14201086.66	14201086.90	0.0297	0.0051
Moon	34169-02-25 07:26 G	14201086.58	14201086.81	14201087.06	0.0297	0.0066 *
Venus	34172-04-16 08:24 G	14202232.69	14202232.85	14202233.02	0.0284	0.0170
Venus	34172-12-01 21:50 G	14202462.21	14202462.41	14202462.62	0.0281	0.0064
Mercury	34176-04-07 20:09 G	14203685.31	14203685.34	14203685.37	0.0268	0.0258
Mercury	34176-07-05 06:29 G	14203773.66	14203773.77	14203773.88	0.0267	0.0151
Mercury	34176-10-01 16:48 G	14203862.07	14203862.20	14203862.33	0.0266	0.0044
Mercury	34176-12-29 03:07 G	14203950.50	14203950.63	14203950.76	0.0266	0.0063
Mars	34177-03-21 10:05 G	14204032.65	14204032.92	14204033.20	0.0265	0.0044
Mercury	34177-03-27 13:26 G	14204038.96	14204039.06	14204039.17	0.0265	0.0171
Moon	34184-08-26 03:36 G	14206747.40	14206747.65	14206747.89	0.0264	0.0071
Earth	34184-08-26 05:02 G	14206747.48	14206747.71	14206747.95	0.0264	0.0084 *
Venus	34188-08-06 16:05 G	14208188.98	14208189.17	14208189.38	0.0278	0.0100
Venus	34189-03-24 04:48 G	14208418.51	14208418.70	14208418.89	0.0281	0.0128
Mercury	34192-04-21 15:50 G	14209543.05	14209543.16	14209543.26	0.0294	0.0237

Mercury	34192-07-19 16:19 G	14209632.00	14209632.18	14209632.36	0.0295	0.0035
Mercury	34192-10-16 16:19 G	14209721.03	14209721.18	14209721.33	0.0296	0.0167
Earth	34198-02-18 17:31 G	14211672.19	14211672.23	14211672.28	0.0299	0.0293
Moon	34199-03-05 12:43 G	14212051.90	14212052.03	14212052.19	0.0296	0.0231
Earth	34199-03-05 13:41 G	14212051.94	14212052.07	14212052.23	0.0296	0.0241 *
Venus	34201-10-28 12:57 G	14213018.87	14213019.04	14213019.23	0.0284	0.0144
Venus	34202-06-15 02:24 G	14213248.41	14213248.60	14213248.81	0.0282	0.0090
Mercury	34205-11-23 09:21 G	14214505.79	14214505.89	14214505.98	0.0268	0.0182
Mercury	34206-02-19 19:26 G	14214594.19	14214594.31	14214594.44	0.0267	0.0075
Mercury	34206-05-19 06:00 G	14214682.61	14214682.75	14214682.88	0.0266	0.0034
Mercury	34206-08-15 16:19 G	14214771.07	14214771.18	14214771.30	0.0266	0.0141
Mercury	34206-11-12 02:38 G	14214859.57	14214859.61	14214859.66	0.0265	0.0249
Earth	34213-08-22 12:00 G	14217334.90	14217335.00	14217335.10	0.0263	0.0239
Moon	34213-08-22 12:43 G	14217334.92	14217335.03	14217335.16	0.0263	0.0226 *
Earth	34214-09-03 03:21 G	14217711.43	14217711.64	14217711.86	0.0265	0.0125
Moon	34214-09-03 06:43 G	14217711.57	14217711.78	14217712.00	0.0265	0.0134 *
Venus	34218-02-17 20:53 G	14218975.16	14218975.37	14218975.58	0.0278	0.0072
Venus	34218-10-05 09:21 G	14219204.72	14219204.89	14219205.07	0.0281	0.0156
Mercury	34221-12-07 13:55 G	14220363.91	14220364.08	14220364.25	0.0295	0.0099
Mercury	34222-03-06 14:09 G	14220452.92	14220453.09	14220453.26	0.0296	0.0104
Moon	34228-02-28 06:57 G	14222637.54	14222637.79	14222638.05	0.0297	0.0008
Earth	34228-02-28 06:57 G	14222637.55	14222637.79	14222638.04	0.0297	0.0004 *
Venus	34231-05-10 16:33 G	14223805.00	14223805.19	14223805.39	0.0284	0.0115
Venus	34231-12-26 05:45 G	14224034.55	14224034.74	14224034.93	0.0281	0.0117
Mercury	34235-04-12 11:31 G	14225237.90	14225237.98	14225238.05	0.0268	0.0217
Mercury	34235-07-09 21:50 G	14225326.28	14225326.41	14225326.53	0.0267	0.0110
Mercury	34235-10-06 08:09 G	14225414.70	14225414.84	14225414.97	0.0266	0.0007
Mercury	34236-01-02 18:29 G	14225503.14	14225503.27	14225503.39	0.0265	0.0105
Mercury	34236-03-31 04:48 G	14225591.63	14225591.70	14225591.78	0.0265	0.0213
Moon	34243-08-28 22:33 G	14228298.21	14228298.44	14228298.69	0.0264	0.0034

Earth	34243-08-29 02:09 G	14228298.35	14228298.59	14228298.84	0.0264	0.0045 *
Venus	34247-01-13 09:36 G	14229531.87	14229531.90	14229531.93	0.0276	0.0272
Venus	34247-08-30 20:09 G	14229761.14	14229761.34	14229761.55	0.0278	0.0054
Venus	34248-04-16 08:53 G	14229990.71	14229990.87	14229991.04	0.0281	0.0175
Mercury	34251-04-26 08:53 G	14231095.74	14231095.87	14231096.02	0.0294	0.0182
Mercury	34251-07-24 09:21 G	14231184.71	14231184.89	14231185.08	0.0295	0.0023
Mars	34251-08-10 18:00 G	14231202.00	14231202.25	14231202.51	0.0295	0.0164
Mercury	34251-10-21 09:21 G	14231273.78	14231273.89	14231274.01	0.0296	0.0223
Earth	34257-02-20 17:02 G	14233223.08	14233223.21	14233223.35	0.0299	0.0245
Moon	34257-02-20 17:45 G	14233223.13	14233223.24	14233223.37	0.0299	0.0255 *
Earth	34258-03-07 13:26 G	14233603.03	14233603.06	14233603.13	0.0296	0.0289
Moon	34258-03-07 17:02 G	14233603.15	14233603.21	14233603.29	0.0296	0.0284
Venus	34260-11-19 19:41 G	14234591.12	14234591.32	14234591.52	0.0284	0.0092
Venus	34261-07-07 08:38 G	14234820.69	14234820.86	14234821.05	0.0281	0.0141
Mercury	34264-08-29 13:55 G	14235970.04	14235970.08	14235970.13	0.0268	0.0251
Mercury	34264-11-26 00:14 G	14236058.40	14236058.51	14236058.63	0.0268	0.0143
Mercury	34265-02-22 10:33 G	14236146.81	14236146.94	14236147.08	0.0267	0.0036
Mercury	34265-05-21 21:07 G	14236235.25	14236235.38	14236235.51	0.0266	0.0073
Mars	34265-08-15 22:33 G	14236321.18	14236321.44	14236321.71	0.0265	0.0089
Mercury	34265-08-18 07:26 G	14236323.71	14236323.81	14236323.91	0.0265	0.0181
Earth	34272-08-23 08:24 G	14238885.70	14238885.85	14238886.01	0.0263	0.0202
Moon	34272-08-23 12:14 G	14238885.85	14238886.01	14238886.19	0.0263	0.0186 *
Moon	34273-09-03 23:17 G	14239262.27	14239262.47	14239262.66	0.0265	0.0167
Earth	34273-09-03 23:17 G	14239262.29	14239262.47	14239262.67	0.0265	0.0164 *
Venus	34276-07-25 13:41 G	14240317.98	14240318.07	14240318.16	0.0276	0.0246
Venus	34277-03-12 00:14 G	14240547.30	14240547.51	14240547.72	0.0279	0.0027
Venus	34277-10-27 12:57 G	14240776.90	14240777.04	14240777.19	0.0281	0.0202
Mercury	34280-09-12 06:14 G	14241827.67	14241827.76	14241827.86	0.0294	0.0250
Mercury	34280-12-10 06:43 G	14241916.60	14241916.78	14241916.96	0.0295	0.0046
Mercury	34281-03-09 06:57 G	14242005.64	14242005.79	14242005.94	0.0296	0.0157

Moon	34287-03-01 02:09 G	14244188.35	14244188.59	14244188.83	0.0297	0.0044
Earth	34287-03-01 05:45 G	14244188.50	14244188.74	14244188.98	0.0297	0.0049 *
Venus	34290-06-01 22:33 G	14245377.24	14245377.44	14245377.65	0.0283	0.0064
Venus	34291-01-17 11:31 G	14245606.82	14245606.98	14245607.16	0.0280	0.0167
Mercury	34294-04-15 02:24 G	14246790.50	14246790.60	14246790.70	0.0267	0.0179
Mercury	34294-07-12 12:43 G	14246878.90	14246879.03	14246879.16	0.0267	0.0071
Mercury	34294-10-08 23:02 G	14246967.33	14246967.46	14246967.59	0.0266	0.0036
Mercury	34295-01-05 09:21 G	14247055.78	14247055.89	14247056.01	0.0265	0.0144
Mercury	34295-04-03 19:55 G	14247144.29	14247144.33	14247144.37	0.0265	0.0252
Earth	34302-08-30 22:05 G	14249849.17	14249849.42	14249849.66	0.0264	0.0008
Moon	34302-08-30 22:05 G	14249849.18	14249849.42	14249849.66	0.0264	0.0001 *
Venus	34306-02-05 12:29 G	14251103.91	14251104.02	14251104.14	0.0276	0.0230
Venus	34306-09-22 23:17 G	14251333.26	14251333.47	14251333.69	0.0279	0.0010
Venus	34307-05-10 12:14 G	14251562.88	14251563.01	14251563.14	0.0282	0.0220
Mercury	34310-04-30 01:41 G	14252648.41	14252648.57	14252648.74	0.0294	0.0130
Mercury	34310-07-28 02:09 G	14252737.41	14252737.59	14252737.76	0.0295	0.0073
Mercury	34310-10-25 01:55 G	14252826.52	14252826.58	14252826.65	0.0296	0.0274
Earth	34316-02-23 13:41 G	14254773.90	14254774.07	14254774.26	0.0299	0.0202
Moon	34316-02-23 17:17 G	14254774.06	14254774.22	14254774.40	0.0299	0.0209 *
Venus	34319-04-28 09:07 G	14255933.85	14255933.88	14255933.91	0.0287	0.0283
Venus	34319-12-14 00:29 G	14256163.32	14256163.52	14256163.73	0.0284	0.0043
Venus	34320-07-30 13:26 G	14256392.91	14256393.06	14256393.22	0.0281	0.0189
Mercury	34323-09-03 04:33 G	14257522.62	14257522.69	14257522.77	0.0268	0.0215
Mercury	34323-11-30 14:53 G	14257611.00	14257611.12	14257611.25	0.0268	0.0107
Mercury	34324-02-27 01:26 G	14257699.42	14257699.56	14257699.69	0.0267	0.0009
Mercury	34324-05-25 11:45 G	14257787.87	14257787.99	14257788.11	0.0266	0.0109
Mercury	34324-08-21 22:05 G	14257876.35	14257876.42	14257876.50	0.0265	0.0218
Moon	34331-08-26 04:05 G	14260436.47	14260436.67	14260436.89	0.0263	0.0154
Earth	34331-08-26 04:05 G	14260436.49	14260436.67	14260436.87	0.0263	0.0166 *
Moon	34332-09-05 14:53 G	14260812.98	14260813.12	14260813.30	0.0265	0.0200

Earth	34332-09-05 18:43 G	14260813.13	14260813.28	14260813.45	0.0265	0.0200	*
Venus	34335-08-18 16:19 G	14261890.04	14261890.18	14261890.33	0.0276	0.0204	
Venus	34336-04-04 03:07 G	14262119.42	14262119.63	14262119.84	0.0279	0.0017	
Venus	34336-11-19 16:05 G	14262349.07	14262349.17	14262349.28	0.0282	0.0246	
Mercury	34339-09-16 22:33 G	14263380.32	14263380.44	14263380.58	0.0294	0.0201	
Mercury	34339-12-14 23:17 G	14263469.29	14263469.47	14263469.65	0.0295	0.0005	
Mars	34340-01-04 00:14 G	14263489.25	14263489.51	14263489.79	0.0296	0.0147	
Mercury	34340-03-12 23:17 G	14263558.34	14263558.47	14263558.60	0.0296	0.0206	
Moon	34346-03-03 00:00 G	14265739.28	14265739.50	14265739.73	0.0298	0.0090	
Earth	34346-03-03 01:41 G	14265739.33	14265739.57	14265739.80	0.0298	0.0092	*
Venus	34348-11-07 11:31 G	14266719.90	14266719.98	14266720.08	0.0286	0.0256	
Venus	34349-06-25 02:53 G	14266949.41	14266949.62	14266949.83	0.0283	0.0017	
Venus	34350-02-09 15:50 G	14267179.03	14267179.16	14267179.30	0.0280	0.0214	
Mercury	34353-01-20 06:43 G	14268254.74	14268254.78	14268254.82	0.0268	0.0252	
Mercury	34353-04-18 16:48 G	14268343.10	14268343.20	14268343.32	0.0267	0.0145	
Mercury	34353-07-16 03:21 G	14268431.50	14268431.64	14268431.77	0.0267	0.0036	
Mercury	34353-10-12 13:41 G	14268519.94	14268520.07	14268520.20	0.0266	0.0072	
Mercury	34354-01-09 00:00 G	14268608.41	14268608.50	14268608.60	0.0265	0.0180	
Mars	34354-01-09 22:48 G	14268609.20	14268609.45	14268609.70	0.0265	0.0111	
Earth	34361-08-31 17:31 G	14271399.99	14271400.23	14271400.48	0.0264	0.0029	
Moon	34361-08-31 21:21 G	14271400.15	14271400.39	14271400.63	0.0264	0.0034	*
Venus	34365-02-27 15:21 G	14272675.98	14272676.14	14272676.29	0.0276	0.0187	
Venus	34365-10-15 02:09 G	14272905.37	14272905.59	14272905.80	0.0279	0.0034	
Venus	34366-06-01 14:53 G	14273135.06	14273135.12	14273135.20	0.0282	0.0264	
Mercury	34369-02-02 17:17 G	14274112.19	14274112.22	14274112.26	0.0294	0.0287	
Mercury	34369-05-02 18:00 G	14274201.07	14274201.25	14274201.42	0.0294	0.0083	
Mercury	34369-07-30 18:14 G	14274290.09	14274290.26	14274290.42	0.0295	0.0120	
Earth	34375-02-24 08:09 G	14276324.64	14276324.84	14276325.05	0.0299	0.0163	
Moon	34375-02-24 08:53 G	14276324.67	14276324.87	14276325.09	0.0299	0.0166	*
Venus	34378-05-20 12:43 G	14277505.92	14277506.03	14277506.15	0.0287	0.0236	

Venus	34379-01-05 04:19 G	14277735.47	14277735.68	14277735.89	0.0284	0.0005
Venus	34379-08-22 17:02 G	14277965.10	14277965.21	14277965.33	0.0281	0.0234
Mercury	34382-09-05 19:12 G	14279075.20	14279075.30	14279075.40	0.0268	0.0181
Mercury	34382-12-03 05:31 G	14279163.60	14279163.73	14279163.86	0.0268	0.0073
Mercury	34383-03-01 15:50 G	14279252.03	14279252.16	14279252.29	0.0267	0.0036
Mercury	34383-05-29 02:09 G	14279340.48	14279340.59	14279340.71	0.0266	0.0144
Mercury	34383-08-25 12:43 G	14279428.99	14279429.03	14279429.07	0.0265	0.0253
Moon	34390-08-26 19:41 G	14281987.11	14281987.32	14281987.55	0.0262	0.0124
Earth	34390-08-26 23:31 G	14281987.28	14281987.48	14281987.70	0.0262	0.0131 *
Moon	34391-09-07 12:43 G	14282363.93	14282364.03	14282364.16	0.0265	0.0232
Earth	34391-09-07 13:55 G	14282363.98	14282364.08	14282364.20	0.0265	0.0235 *
Venus	34394-09-09 18:57 G	14283462.13	14283462.29	14283462.47	0.0276	0.0161
Venus	34395-04-27 06:00 G	14283691.54	14283691.75	14283691.96	0.0279	0.0061
Mercury	34398-09-19 15:07 G	14284932.98	14284933.13	14284933.29	0.0294	0.0151
Mercury	34398-12-17 15:36 G	14285021.97	14285022.15	14285022.33	0.0295	0.0053
Mercury	34399-03-16 15:36 G	14285111.06	14285111.15	14285111.24	0.0296	0.0254
Earth	34405-03-03 21:07 G	14287290.17	14287290.38	14287290.60	0.0298	0.0134
Moon	34405-03-04 00:00 G	14287290.29	14287290.50	14287290.71	0.0298	0.0136 *
Venus	34407-11-30 15:36 G	14288292.02	14288292.15	14288292.31	0.0286	0.0209
Venus	34408-07-17 06:57 G	14288521.58	14288521.79	14288522.00	0.0283	0.0031
Venus	34409-03-03 19:41 G	14288751.25	14288751.32	14288751.40	0.0280	0.0260
Mercury	34412-01-23 21:21 G	14289807.31	14289807.39	14289807.46	0.0268	0.0218
Mercury	34412-04-21 07:41 G	14289895.69	14289895.82	14289895.94	0.0267	0.0110
Mercury	34412-07-18 18:00 G	14289984.11	14289984.25	14289984.38	0.0267	0.0008
Mercury	34412-10-15 04:19 G	14290072.56	14290072.68	14290072.80	0.0266	0.0107
Mercury	34413-01-11 14:38 G	14290161.04	14290161.11	14290161.19	0.0265	0.0216
Earth	34420-09-01 13:41 G	14292950.83	14292951.07	14292951.31	0.0264	0.0066
Moon	34420-09-01 14:24 G	14292950.86	14292951.10	14292951.36	0.0264	0.0065 *
Venus	34424-03-21 18:43 G	14294248.10	14294248.28	14294248.46	0.0276	0.0144
Venus	34424-11-06 05:31 G	14294477.53	14294477.73	14294477.94	0.0279	0.0079

Mercury	34428-02-06 10:05 G	14295664.81	14295664.92	14295665.03	0.0294	0.0236
Mercury	34428-05-05 10:33 G	14295753.76	14295753.94	14295754.12	0.0295	0.0032
Mars	34428-05-27 14:53 G	14295775.86	14295776.12	14295776.38	0.0295	0.0162
Mercury	34428-08-02 10:33 G	14295842.80	14295842.94	14295843.09	0.0295	0.0171
Moon	34434-02-24 23:31 G	14297875.26	14297875.48	14297875.71	0.0299	0.0121
Earth	34434-02-25 03:07 G	14297875.41	14297875.63	14297875.85	0.0299	0.0124 *
Venus	34437-06-11 16:19 G	14299078.03	14299078.18	14299078.34	0.0286	0.0189
Venus	34438-01-27 07:41 G	14299307.61	14299307.82	14299308.03	0.0284	0.0050
Venus	34438-09-13 20:24 G	14299537.33	14299537.35	14299537.37	0.0281	0.0279
Mercury	34441-06-11 23:17 G	14300539.44	14300539.47	14300539.51	0.0269	0.0257
Mercury	34441-09-08 09:36 G	14300627.79	14300627.90	14300628.01	0.0268	0.0148
Mercury	34441-12-05 19:55 G	14300716.20	14300716.33	14300716.46	0.0268	0.0039
Mercury	34442-03-04 06:14 G	14300804.64	14300804.76	14300804.90	0.0267	0.0071
Mercury	34442-05-31 16:48 G	14300893.10	14300893.20	14300893.30	0.0266	0.0179
Mars	34442-06-04 23:31 G	14300897.25	14300897.48	14300897.73	0.0266	0.0144
Moon	34449-08-27 19:26 G	14303538.08	14303538.31	14303538.53	0.0262	0.0091
Earth	34449-08-27 20:09 G	14303538.12	14303538.34	14303538.58	0.0262	0.0094 *
Moon	34450-09-08 13:55 G	14303915.07	14303915.08	14303915.11	0.0265	0.0264
Venus	34453-10-01 23:02 G	14305034.26	14305034.46	14305034.65	0.0276	0.0116
Venus	34454-05-19 10:05 G	14305263.72	14305263.92	14305264.11	0.0279	0.0107
Mercury	34457-09-22 08:09 G	14306485.67	14306485.84	14306486.01	0.0294	0.0097
Mercury	34457-12-20 08:24 G	14306574.68	14306574.85	14306575.02	0.0295	0.0105
Earth	34464-03-04 16:33 G	14308841.00	14308841.19	14308841.40	0.0298	0.0175
Moon	34464-03-04 19:55 G	14308841.13	14308841.33	14308841.53	0.0298	0.0179 *
Venus	34466-12-22 19:55 G	14309864.16	14309864.33	14309864.51	0.0286	0.0161
Venus	34467-08-09 11:02 G	14310093.76	14310093.96	14310094.16	0.0283	0.0078
Mercury	34471-01-26 11:45 G	14311359.90	14311359.99	14311360.09	0.0268	0.0183
Mercury	34471-04-24 22:05 G	14311448.29	14311448.42	14311448.55	0.0267	0.0074
Mercury	34471-07-22 08:24 G	14311536.72	14311536.85	14311536.99	0.0267	0.0036
Mercury	34471-10-18 18:57 G	14311625.18	14311625.29	14311625.40	0.0266	0.0143

Mercury	34472-01-15 05:17 G	14311713.69	14311713.72	14311713.77	0.0265	0.0252
Earth	34478-08-22 23:17 G	14314125.44	14314125.47	14314125.53	0.0262	0.0257
Moon	34478-08-23 00:57 G	14314125.47	14314125.54	14314125.64	0.0262	0.0247 *
Moon	34479-09-03 07:41 G	14314501.60	14314501.82	14314502.06	0.0264	0.0097
Earth	34479-09-03 11:31 G	14314501.76	14314501.98	14314502.21	0.0264	0.0104 *
Venus	34483-04-13 23:17 G	14315820.27	14315820.47	14315820.67	0.0277	0.0097
Venus	34483-11-29 10:19 G	14316049.74	14316049.93	14316050.12	0.0279	0.0127
Mercury	34487-02-09 03:21 G	14317217.50	14317217.64	14317217.79	0.0294	0.0179
Mercury	34487-05-09 03:50 G	14317306.48	14317306.66	14317306.84	0.0295	0.0024
Mercury	34487-08-06 03:50 G	14317395.55	14317395.66	14317395.78	0.0295	0.0226
Moon	34493-02-25 22:19 G	14319426.20	14319426.43	14319426.66	0.0299	0.0073
Earth	34493-02-26 00:14 G	14319426.28	14319426.51	14319426.75	0.0299	0.0081 *
Venus	34496-07-03 20:53 G	14320650.19	14320650.37	14320650.56	0.0286	0.0140
Venus	34497-02-18 12:00 G	14320879.81	14320880.00	14320880.20	0.0283	0.0099
Mercury	34500-06-15 13:41 G	14322092.01	14322092.07	14322092.15	0.0269	0.0223
Mercury	34500-09-12 00:14 G	14322180.39	14322180.51	14322180.63	0.0268	0.0112
Mercury	34500-12-09 10:33 G	14322268.81	14322268.94	14322269.08	0.0268	0.0007
Mercury	34501-03-07 21:07 G	14322357.25	14322357.38	14322357.50	0.0267	0.0107
Mercury	34501-06-04 07:26 G	14322445.74	14322445.81	14322445.89	0.0266	0.0216
Earth	34508-08-29 18:43 G	14325089.04	14325089.28	14325089.52	0.0263	0.0055
Moon	34508-08-29 21:50 G	14325089.17	14325089.41	14325089.65	0.0263	0.0056 *
Venus	34512-10-25 04:33 G	14326606.48	14326606.69	14326606.90	0.0277	0.0066
Venus	34513-06-11 15:50 G	14326835.98	14326836.16	14326836.33	0.0279	0.0158
Mercury	34516-06-29 01:41 G	14327949.46	14327949.57	14327949.67	0.0293	0.0239
Mercury	34516-09-26 02:09 G	14328038.41	14328038.59	14328038.77	0.0294	0.0035
Mars	34516-10-21 09:50 G	14328063.63	14328063.91	14328064.19	0.0295	0.0126
Mercury	34516-12-24 02:09 G	14328127.45	14328127.59	14328127.74	0.0295	0.0167
Moon	34523-03-07 13:26 G	14330391.91	14330392.06	14330392.23	0.0298	0.0231
Earth	34523-03-07 15:21 G	14330391.99	14330392.14	14330392.31	0.0298	0.0220 *
Venus	34526-01-15 01:26 G	14331436.37	14331436.56	14331436.76	0.0286	0.0110

Venus	34526-09-01 16:19 G	14331665.99	14331666.18	14331666.36	0.0283	0.0128
Mercury	34529-11-02 16:19 G	14332824.14	14332824.18	14332824.22	0.0269	0.0255
Mercury	34530-01-30 02:38 G	14332912.50	14332912.61	14332912.72	0.0268	0.0145
Mercury	34530-04-28 12:57 G	14333000.91	14333001.04	14333001.18	0.0267	0.0037
Mercury	34530-07-25 23:31 G	14333089.35	14333089.48	14333089.61	0.0267	0.0073
Mercury	34530-10-22 09:50 G	14333177.82	14333177.91	14333178.01	0.0266	0.0183
Mars	34530-10-30 03:21 G	14333185.44	14333185.64	14333185.86	0.0266	0.0172
Moon	34537-08-24 21:07 G	14335676.24	14335676.38	14335676.53	0.0262	0.0210
Earth	34537-08-25 00:00 G	14335676.36	14335676.50	14335676.64	0.0262	0.0216 *
Moon	34538-09-05 10:05 G	14336052.72	14336052.92	14336053.13	0.0264	0.0137
Earth	34538-09-05 12:00 G	14336052.80	14336053.00	14336053.21	0.0264	0.0146 *
Venus	34541-09-19 21:07 G	14337163.32	14337163.38	14337163.45	0.0274	0.0259
Venus	34542-05-07 06:14 G	14337392.55	14337392.76	14337392.97	0.0277	0.0045
Venus	34542-12-22 17:31 G	14337622.07	14337622.23	14337622.40	0.0280	0.0180
Mercury	34546-02-12 22:05 G	14338770.25	14338770.42	14338770.59	0.0294	0.0112
Mercury	34546-05-12 22:19 G	14338859.26	14338859.43	14338859.61	0.0295	0.0091
Mercury	34546-08-09 22:19 G	14338948.41	14338948.43	14338948.46	0.0296	0.0292
Earth	34552-02-29 00:43 G	14340977.28	14340977.53	14340977.77	0.0299	0.0034
Moon	34552-02-29 03:36 G	14340977.41	14340977.65	14340977.89	0.0299	0.0021 *
Venus	34555-07-28 03:07 G	14342222.43	14342222.63	14342222.83	0.0286	0.0087
Venus	34556-03-13 17:45 G	14342452.07	14342452.24	14342452.42	0.0283	0.0151
Mercury	34559-06-19 04:48 G	14343644.61	14343644.70	14343644.80	0.0269	0.0183
Mercury	34559-09-15 15:07 G	14343733.01	14343733.13	14343733.26	0.0268	0.0074
Mercury	34559-12-13 01:41 G	14343821.44	14343821.57	14343821.70	0.0268	0.0037
Mercury	34560-03-10 12:00 G	14343909.89	14343910.00	14343910.12	0.0267	0.0147
Mercury	34560-06-06 22:33 G	14343998.41	14343998.44	14343998.48	0.0266	0.0256
Earth	34567-08-31 19:55 G	14346640.08	14346640.33	14346640.57	0.0263	0.0014
Moon	34567-08-31 22:33 G	14346640.18	14346640.44	14346640.69	0.0263	0.0015 *
Venus	34571-04-02 02:38 G	14347949.50	14347949.61	14347949.73	0.0274	0.0229
Venus	34571-11-17 12:14 G	14348178.80	14348179.01	14348179.22	0.0277	0.0013

Venus	34572-07-03 23:45 G	14348408.36	14348408.49	14348408.63	0.0280	0.0213
Mercury	34575-07-02 20:53 G	14349502.22	14349502.37	14349502.52	0.0293	0.0166
Mercury	34575-09-29 21:21 G	14349591.21	14349591.39	14349591.57	0.0294	0.0037
Mercury	34575-12-27 21:07 G	14349680.28	14349680.38	14349680.49	0.0295	0.0238
Moon	34581-02-21 15:21 G	14351563.03	14351563.14	14351563.27	0.0300	0.0262
Earth	34581-02-21 18:57 G	14351563.20	14351563.29	14351563.39	0.0300	0.0276 *
Moon	34582-03-08 14:38 G	14351943.06	14351943.11	14351943.18	0.0298	0.0286
Earth	34582-03-08 18:29 G	14351943.18	14351943.27	14351943.37	0.0298	0.0271 *
Venus	34585-02-06 09:07 G	14353008.68	14353008.88	14353009.09	0.0285	0.0054
Venus	34585-09-23 23:17 G	14353238.32	14353238.47	14353238.64	0.0282	0.0183
Mercury	34588-11-05 07:41 G	14354376.74	14354376.82	14354376.90	0.0269	0.0213
Mercury	34589-02-01 18:00 G	14354465.13	14354465.25	14354465.37	0.0268	0.0103
Mars	34589-02-06 10:19 G	14354469.86	14354469.93	14354470.04	0.0268	0.0253
Mercury	34589-05-01 04:19 G	14354553.55	14354553.68	14354553.82	0.0267	0.0009
Mercury	34589-07-28 14:53 G	14354642.00	14354642.12	14354642.24	0.0267	0.0117
Mercury	34589-10-25 01:26 G	14354730.49	14354730.56	14354730.63	0.0266	0.0226
Moon	34596-08-26 00:00 G	14357227.32	14357227.50	14357227.69	0.0262	0.0168
Earth	34596-08-26 03:07 G	14357227.45	14357227.63	14357227.81	0.0262	0.0172 *
Earth	34597-09-06 15:50 G	14357603.99	14357604.16	14357604.32	0.0264	0.0192
Moon	34597-09-06 17:45 G	14357604.08	14357604.24	14357604.43	0.0264	0.0182 *
Venus	34600-10-13 06:00 G	14358735.62	14358735.75	14358735.90	0.0275	0.0205
Venus	34601-05-30 15:50 G	14358964.94	14358965.16	14358965.37	0.0277	0.0013
Venus	34602-01-15 03:07 G	14359194.54	14359194.63	14359194.75	0.0280	0.0240
Mercury	34604-11-19 18:00 G	14360234.14	14360234.25	14360234.36	0.0293	0.0234
Mercury	34605-02-16 18:29 G	14360323.09	14360323.27	14360323.45	0.0294	0.0032
Mars	34605-03-17 11:45 G	14360351.69	14360351.99	14360352.29	0.0294	0.0084
Mercury	34605-05-16 18:29 G	14360412.13	14360412.27	14360412.42	0.0295	0.0171
Earth	34611-03-03 06:43 G	14362528.53	14362528.78	14362529.02	0.0298	0.0023
Moon	34611-03-03 09:36 G	14362528.66	14362528.90	14362529.15	0.0298	0.0038 *
Venus	34614-01-02 18:57 G	14363565.23	14363565.29	14363565.36	0.0288	0.0272

Venus	34614-08-20 11:45 G	14363794.78	14363794.99	14363795.20	0.0285	0.0028
Venus	34615-04-07 01:41 G	14364024.44	14364024.57	14364024.73	0.0282	0.0208
Mercury	34618-03-26 09:50 G	14365108.87	14365108.91	14365108.96	0.0270	0.0249
Mercury	34618-06-22 20:09 G	14365197.23	14365197.34	14365197.46	0.0269	0.0140
Mercury	34618-09-19 06:43 G	14365285.65	14365285.78	14365285.91	0.0268	0.0029
Mercury	34618-12-16 17:02 G	14365374.09	14365374.21	14365374.34	0.0268	0.0082
Mercury	34619-03-15 03:36 G	14365462.56	14365462.65	14365462.74	0.0267	0.0192
Mars	34619-03-26 14:09 G	14365473.95	14365474.09	14365474.26	0.0267	0.0219
Moon	34626-09-02 22:33 G	14368191.19	14368191.44	14368191.70	0.0263	0.0028
Earth	34626-09-03 00:29 G	14368191.27	14368191.52	14368191.76	0.0263	0.0033 *
Venus	34630-04-25 12:43 G	14369521.88	14369522.03	14369522.21	0.0275	0.0171
Venus	34630-12-10 22:48 G	14369751.24	14369751.45	14369751.66	0.0278	0.0048
Venus	34631-07-28 10:48 G	14369980.92	14369980.95	14369981.00	0.0280	0.0275
Mercury	34634-04-08 17:17 G	14370966.18	14370966.22	14370966.27	0.0293	0.0283
Mercury	34634-07-06 18:00 G	14371055.07	14371055.25	14371055.42	0.0294	0.0080
Mercury	34634-10-03 18:00 G	14371144.09	14371144.25	14371144.42	0.0295	0.0123
Moon	34640-02-25 00:57 G	14373114.37	14373114.54	14373114.72	0.0300	0.0203
Earth	34640-02-25 03:07 G	14373114.48	14373114.63	14373114.81	0.0300	0.0217 *
Venus	34643-07-16 02:24 G	14374351.49	14374351.60	14374351.73	0.0288	0.0237
Venus	34644-03-01 18:57 G	14374581.08	14374581.29	14374581.50	0.0285	0.0007
Venus	34644-10-17 08:53 G	14374810.76	14374810.87	14374810.98	0.0282	0.0240
Mercury	34647-11-09 23:17 G	14375929.37	14375929.47	14375929.58	0.0269	0.0166
Mercury	34648-02-06 09:36 G	14376017.78	14376017.90	14376018.04	0.0268	0.0057
Mercury	34648-05-04 20:09 G	14376106.21	14376106.34	14376106.47	0.0267	0.0055
Mercury	34648-08-01 06:43 G	14376194.67	14376194.78	14376194.88	0.0267	0.0165
Earth	34655-08-29 09:07 G	14378778.67	14378778.88	14378779.10	0.0262	0.0124
Moon	34655-08-29 10:19 G	14378778.73	14378778.93	14378779.15	0.0262	0.0125 *
Earth	34656-09-08 22:19 G	14379155.34	14379155.43	14379155.54	0.0265	0.0242
Moon	34656-09-09 01:55 G	14379155.46	14379155.58	14379155.70	0.0265	0.0230 *
Venus	34659-11-05 17:45 G	14380308.07	14380308.24	14380308.43	0.0275	0.0144

Venus	34660-06-22 03:50 G	14380537.46	14380537.66	14380537.87	0.0278	0.0076
Mercury	34663-11-23 15:50 G	14381787.00	14381787.16	14381787.32	0.0293	0.0141
Mercury	34664-02-20 16:05 G	14381875.99	14381876.17	14381876.35	0.0294	0.0061
Mercury	34664-05-19 15:50 G	14381965.09	14381965.16	14381965.25	0.0295	0.0262
Moon	34670-03-04 16:19 G	14384079.95	14384080.18	14384080.43	0.0298	0.0102
Earth	34670-03-04 18:00 G	14384080.01	14384080.25	14384080.48	0.0298	0.0086 *
Venus	34673-01-25 06:57 G	14385137.65	14385137.79	14385137.94	0.0287	0.0207
Venus	34673-09-11 23:02 G	14385367.25	14385367.46	14385367.67	0.0284	0.0036
Venus	34674-04-29 12:43 G	14385596.97	14385597.03	14385597.09	0.0282	0.0268
Mercury	34677-03-29 01:55 G	14386661.49	14386661.58	14386661.67	0.0270	0.0199
Mercury	34677-06-25 12:14 G	14386749.89	14386750.01	14386750.14	0.0269	0.0089
Mars	34677-07-04 03:07 G	14386758.46	14386758.63	14386758.82	0.0269	0.0200
Mercury	34677-09-21 22:48 G	14386838.32	14386838.45	14386838.58	0.0268	0.0022
Mercury	34677-12-19 09:07 G	14386926.77	14386926.88	14386927.00	0.0267	0.0133
Mercury	34678-03-17 19:41 G	14387015.27	14387015.32	14387015.38	0.0267	0.0243
Moon	34685-09-04 04:05 G	14389742.44	14389742.67	14389742.90	0.0263	0.0075
Earth	34685-09-04 07:41 G	14389742.59	14389742.82	14389743.06	0.0263	0.0083 *
Venus	34689-05-18 01:26 G	14391094.36	14391094.56	14391094.75	0.0275	0.0108
Venus	34690-01-02 11:45 G	14391323.80	14391323.99	14391324.18	0.0278	0.0113
Mercury	34693-04-11 15:50 G	14392519.02	14392519.16	14392519.31	0.0293	0.0184
Mercury	34693-07-09 16:19 G	14392608.00	14392608.18	14392608.36	0.0294	0.0019
Mars	34693-08-12 04:33 G	14392641.38	14392641.69	14392642.00	0.0294	0.0016
Mercury	34693-10-06 16:05 G	14392697.06	14392697.17	14392697.30	0.0295	0.0221
Earth	34699-02-26 17:31 G	14394666.02	14394666.23	14394666.45	0.0300	0.0147
Moon	34699-02-26 19:12 G	14394666.09	14394666.30	14394666.51	0.0300	0.0133 *
Venus	34702-08-08 15:50 G	14395924.00	14395924.16	14395924.34	0.0287	0.0168
Venus	34703-03-26 07:41 G	14396153.61	14396153.82	14396154.02	0.0284	0.0074
Mercury	34706-08-17 05:17 G	14397393.65	14397393.72	14397393.80	0.0270	0.0223
Mercury	34706-11-13 15:36 G	14397482.03	14397482.15	14397482.28	0.0269	0.0113
Mercury	34707-02-10 02:09 G	14397570.46	14397570.59	14397570.72	0.0268	0.0003

Mercury	34707-05-09 12:29 G	14397658.90	14397659.02	14397659.15	0.0267	0.0109
Mercury	34707-08-05 23:02 G	14397747.39	14397747.46	14397747.54	0.0267	0.0219
Earth	34714-08-31 18:29 G	14400330.03	14400330.27	14400330.51	0.0263	0.0072
Moon	34714-08-31 22:19 G	14400330.19	14400330.43	14400330.67	0.0263	0.0075 *
Venus	34718-11-29 08:09 G	14401880.64	14401880.84	14401881.04	0.0276	0.0077
Venus	34719-07-16 18:43 G	14402110.10	14402110.28	14402110.46	0.0279	0.0146
Mercury	34722-08-30 14:38 G	14403251.01	14403251.11	14403251.23	0.0293	0.0238
Mercury	34722-11-27 15:21 G	14403339.96	14403340.14	14403340.32	0.0294	0.0035
Mercury	34723-02-24 15:21 G	14403428.99	14403429.14	14403429.29	0.0295	0.0167
Moon	34729-03-07 06:57 G	14405631.60	14405631.79	14405631.99	0.0298	0.0175
Earth	34729-03-07 10:33 G	14405631.74	14405631.94	14405632.15	0.0298	0.0158 *
Venus	34732-02-18 21:21 G	14406710.20	14406710.39	14406710.57	0.0286	0.0136
Venus	34732-10-05 12:43 G	14406939.83	14406940.03	14406940.23	0.0284	0.0104
Mercury	34736-01-04 08:09 G	14408125.80	14408125.84	14408125.88	0.0270	0.0255
Mercury	34736-04-01 18:29 G	14408214.16	14408214.27	14408214.38	0.0270	0.0144
Mercury	34736-06-29 04:48 G	14408302.57	14408302.70	14408302.84	0.0269	0.0034
Mercury	34736-09-25 15:21 G	14408391.01	14408391.14	14408391.27	0.0268	0.0078
Mercury	34736-12-23 01:55 G	14408479.48	14408479.58	14408479.67	0.0267	0.0188
Moon	34743-08-27 00:57 G	14410917.42	14410917.54	14410917.66	0.0262	0.0226
Earth	34743-08-27 04:19 G	14410917.57	14410917.68	14410917.82	0.0262	0.0227 *
Moon	34744-09-06 17:02 G	14411294.01	14411294.21	14411294.43	0.0264	0.0127
Earth	34744-09-06 17:17 G	14411294.02	14411294.22	14411294.44	0.0264	0.0137 *
Venus	34747-10-25 06:43 G	14412437.72	14412437.78	14412437.87	0.0274	0.0255
Venus	34748-06-10 15:50 G	14412666.95	14412667.16	14412667.37	0.0276	0.0040
Venus	34749-01-26 02:38 G	14412896.46	14412896.61	14412896.77	0.0279	0.0183
Mercury	34752-01-17 14:53 G	14413983.07	14413983.12	14413983.18	0.0292	0.0279
Mercury	34752-04-15 15:21 G	14414071.97	14414072.14	14414072.32	0.0293	0.0076
Mercury	34752-07-13 15:36 G	14414160.99	14414161.15	14414161.32	0.0294	0.0127
Earth	34758-03-01 11:45 G	14416217.76	14416217.99	14416218.23	0.0299	0.0071
Moon	34758-03-01 15:21 G	14416217.90	14416218.14	14416218.39	0.0299	0.0056 *

Venus	34761-08-31 07:12 G	14417496.61	14417496.80	14417497.01	0.0286	0.0096
Venus	34762-04-17 22:19 G	14417726.25	14417726.43	14417726.61	0.0283	0.0144
Mercury	34765-08-19 22:05 G	14418946.32	14418946.42	14418946.53	0.0269	0.0165
Mercury	34765-11-16 08:24 G	14419034.72	14419034.85	14419034.99	0.0269	0.0055
Mars	34765-11-29 15:36 G	14419047.92	14419048.15	14419048.40	0.0268	0.0127
Mercury	34766-02-12 18:57 G	14419123.16	14419123.29	14419123.42	0.0268	0.0057
Mercury	34766-05-12 05:31 G	14419211.62	14419211.73	14419211.83	0.0267	0.0167
Earth	34773-09-02 05:31 G	14421881.48	14421881.73	14421881.98	0.0263	0.0016
Moon	34773-09-02 06:00 G	14421881.49	14421881.75	14421882.00	0.0263	0.0023 *
Venus	34777-05-06 14:24 G	14423223.98	14423224.10	14423224.23	0.0274	0.0223
Venus	34777-12-21 23:31 G	14423453.27	14423453.48	14423453.70	0.0277	0.0009
Venus	34778-08-08 10:48 G	14423682.83	14423682.95	14423683.09	0.0280	0.0218
Mercury	34781-09-02 15:07 G	14424803.97	14424804.13	14424804.30	0.0293	0.0124
Mercury	34781-11-30 15:21 G	14424892.97	14424893.14	14424893.32	0.0294	0.0079
Mars	34782-01-08 06:43 G	14424931.51	14424931.78	14424932.07	0.0295	0.0134
Mercury	34782-02-27 15:21 G	14424982.09	14424982.14	14424982.20	0.0295	0.0280
Moon	34787-02-23 04:05 G	14426803.63	14426803.67	14426803.71	0.0300	0.0295
Moon	34788-03-09 05:17 G	14427183.61	14427183.72	14427183.85	0.0297	0.0252
Earth	34788-03-09 06:57 G	14427183.66	14427183.79	14427183.95	0.0297	0.0237 *
Venus	34791-03-13 13:41 G	14428282.87	14428283.07	14428283.28	0.0285	0.0060
Venus	34791-10-29 04:19 G	14428512.52	14428512.68	14428512.85	0.0283	0.0177
Mercury	34795-01-07 00:57 G	14429678.45	14429678.54	14429678.63	0.0270	0.0195
Mercury	34795-04-05 11:31 G	14429766.85	14429766.98	14429767.10	0.0269	0.0084
Mercury	34795-07-02 21:50 G	14429855.28	14429855.41	14429855.54	0.0268	0.0027
Mercury	34795-09-29 08:09 G	14429943.73	14429943.84	14429943.96	0.0268	0.0139
Mercury	34795-12-26 18:43 G	14430032.24	14430032.28	14430032.33	0.0267	0.0249
Moon	34802-08-28 14:09 G	14432468.92	14432469.09	14432469.28	0.0262	0.0173
Earth	34802-08-28 15:07 G	14432468.95	14432469.13	14432469.32	0.0262	0.0173 *
Earth	34803-09-09 04:48 G	14432845.54	14432845.70	14432845.87	0.0264	0.0194
Moon	34803-09-09 08:24 G	14432845.68	14432845.85	14432846.03	0.0264	0.0181 *

Venus	34806-11-16 21:50 G	14434010.26	14434010.41	14434010.57	0.0275	0.0188
Venus	34807-07-04 07:41 G	14434239.61	14434239.82	14434240.03	0.0277	0.0031
Venus	34808-02-18 19:26 G	14434469.22	14434469.31	14434469.39	0.0280	0.0256
Mercury	34811-01-20 15:36 G	14435536.00	14435536.15	14435536.30	0.0293	0.0163
Mercury	34811-04-19 15:50 G	14435624.98	14435625.16	14435625.34	0.0294	0.0040
Mercury	34811-07-17 15:50 G	14435714.06	14435714.16	14435714.27	0.0295	0.0241
Earth	34817-03-03 09:50 G	14437769.66	14437769.91	14437770.15	0.0299	0.0012
Moon	34817-03-03 11:17 G	14437769.72	14437769.97	14437770.22	0.0299	0.0027 *
Venus	34820-02-06 07:41 G	14438839.74	14438839.82	14438839.90	0.0288	0.0265
Venus	34820-09-23 00:14 G	14439069.30	14439069.51	14439069.72	0.0285	0.0020
Venus	34821-05-10 14:09 G	14439298.97	14439299.09	14439299.23	0.0283	0.0216
Mercury	34824-05-26 04:48 G	14440410.62	14440410.70	14440410.78	0.0270	0.0215
Mercury	34824-08-22 15:07 G	14440499.01	14440499.13	14440499.26	0.0269	0.0104
Mercury	34824-11-19 01:41 G	14440587.43	14440587.57	14440587.70	0.0268	0.0009
Mercury	34825-02-15 12:00 G	14440675.88	14440676.00	14440676.12	0.0267	0.0118
Mercury	34825-05-14 22:33 G	14440764.37	14440764.44	14440764.51	0.0267	0.0229
Moon	34832-09-03 13:41 G	14443432.82	14443433.07	14443433.32	0.0263	0.0031
Earth	34832-09-03 17:02 G	14443432.97	14443433.21	14443433.46	0.0263	0.0041 *
Venus	34836-05-29 06:00 G	14444796.58	14444796.75	14444796.93	0.0275	0.0154
Venus	34837-01-13 15:50 G	14445025.95	14445026.16	14445026.37	0.0278	0.0065
Mercury	34840-06-08 15:21 G	14446268.02	14446268.14	14446268.27	0.0293	0.0210
Mercury	34840-09-05 15:50 G	14446356.98	14446357.16	14446357.34	0.0294	0.0006
Mercury	34840-12-03 15:50 G	14446446.03	14446446.16	14446446.30	0.0295	0.0196
Moon	34846-02-25 06:00 G	14448355.58	14448355.75	14448355.92	0.0300	0.0212
Earth	34846-02-25 06:29 G	14448355.61	14448355.77	14448355.93	0.0300	0.0227 *
Venus	34849-08-18 14:38 G	14449625.99	14449626.11	14449626.25	0.0287	0.0228
Venus	34850-04-05 06:57 G	14449855.58	14449855.79	14449856.00	0.0284	0.0016
Venus	34850-11-20 20:38 G	14450085.27	14450085.36	14450085.46	0.0282	0.0250
Mercury	34853-10-13 07:55 G	14451142.77	14451142.83	14451142.88	0.0270	0.0243
Mercury	34854-01-09 18:14 G	14451231.14	14451231.26	14451231.37	0.0269	0.0132

Mercury	34854-04-08 04:33 G	14451319.56	14451319.69	14451319.83	0.0269	0.0022
Mars	34854-04-26 02:24 G	14451337.33	14451337.60	14451337.88	0.0268	0.0051
Mercury	34854-07-05 15:07 G	14451408.00	14451408.13	14451408.25	0.0268	0.0090
Mercury	34854-10-02 01:41 G	14451496.48	14451496.57	14451496.65	0.0267	0.0200
Earth	34861-08-30 01:55 G	14454020.36	14454020.58	14454020.80	0.0263	0.0117
Moon	34861-08-30 04:33 G	14454020.48	14454020.69	14454020.91	0.0263	0.0119 *
Earth	34862-09-10 15:50 G	14454397.09	14454397.16	14454397.24	0.0265	0.0251
Moon	34862-09-10 17:45 G	14454397.14	14454397.24	14454397.36	0.0265	0.0237 *
Venus	34865-12-09 12:43 G	14455582.84	14455583.03	14455583.22	0.0275	0.0120
Venus	34866-07-26 23:02 G	14455812.27	14455812.46	14455812.66	0.0278	0.0101
Mercury	34869-10-26 15:07 G	14457000.05	14457000.13	14457000.23	0.0292	0.0254
Mercury	34870-01-23 15:50 G	14457088.98	14457089.16	14457089.34	0.0293	0.0050
Mercury	34870-04-22 15:50 G	14457178.01	14457178.16	14457178.32	0.0294	0.0154
Mars	34870-06-05 18:57 G	14457222.16	14457222.29	14457222.46	0.0295	0.0259
Moon	34876-03-05 04:48 G	14459321.48	14459321.70	14459321.94	0.0299	0.0112
Earth	34876-03-05 07:55 G	14459321.60	14459321.83	14459322.06	0.0299	0.0095 *
Venus	34879-03-01 01:12 G	14460412.41	14460412.55	14460412.72	0.0287	0.0188
Venus	34879-10-16 17:17 G	14460642.02	14460642.22	14460642.43	0.0285	0.0056
Mercury	34883-03-02 11:31 G	14461874.96	14461874.98	14461875.01	0.0270	0.0264
Mercury	34883-05-29 21:50 G	14461963.31	14461963.41	14461963.53	0.0269	0.0153
Mercury	34883-08-26 08:24 G	14462051.72	14462051.85	14462051.98	0.0269	0.0042
Mercury	34883-11-22 18:43 G	14462140.15	14462140.28	14462140.41	0.0268	0.0070
Mercury	34884-02-19 05:17 G	14462228.62	14462228.72	14462228.82	0.0267	0.0180
Moon	34890-08-25 12:43 G	14464608.01	14464608.03	14464608.07	0.0262	0.0260
Moon	34891-09-06 01:12 G	14464984.33	14464984.55	14464984.78	0.0263	0.0088
Earth	34891-09-06 03:36 G	14464984.43	14464984.65	14464984.88	0.0263	0.0097 *
Venus	34895-06-21 20:53 G	14466369.17	14466369.37	14466369.57	0.0276	0.0087
Venus	34896-02-06 07:26 G	14466598.63	14466598.81	14466599.00	0.0279	0.0136
Mercury	34899-06-12 15:50 G	14467820.99	14467821.16	14467821.34	0.0293	0.0095
Mercury	34899-09-09 16:05 G	14467910.01	14467910.17	14467910.34	0.0294	0.0110

Earth	34905-02-28 05:31 G	14469907.52	14469907.73	14469907.95	0.0299	0.0142
Moon	34905-02-28 08:53 G	14469907.66	14469907.87	14469908.09	0.0299	0.0125 *
Venus	34908-09-11 08:53 G	14471198.70	14471198.87	14471199.05	0.0286	0.0149
Venus	34909-04-29 00:14 G	14471428.31	14471428.51	14471428.71	0.0283	0.0091
Mercury	34912-10-17 00:57 G	14472695.45	14472695.54	14472695.64	0.0269	0.0181
Mercury	34913-01-13 11:17 G	14472783.84	14472783.97	14472784.10	0.0269	0.0071
Mercury	34913-04-11 21:50 G	14472872.27	14472872.41	14472872.54	0.0268	0.0041
Mercury	34913-07-09 08:09 G	14472960.73	14472960.84	14472960.95	0.0267	0.0151
Mercury	34913-10-05 18:29 G	14473049.26	14473049.27	14473049.30	0.0266	0.0263
Earth	34920-09-01 11:17 G	14475571.73	14475571.97	14475572.21	0.0263	0.0062
Moon	34920-09-01 14:24 G	14475571.86	14475572.10	14475572.35	0.0263	0.0064 *
Venus	34924-05-17 17:31 G	14476926.21	14476926.23	14476926.28	0.0274	0.0270
Venus	34925-01-02 02:38 G	14477155.40	14477155.61	14477155.82	0.0276	0.0055
Venus	34925-08-19 13:41 G	14477384.90	14477385.07	14477385.24	0.0279	0.0169
Mercury	34928-10-30 14:53 G	14478552.97	14478553.12	14478553.29	0.0293	0.0145
Mercury	34929-01-27 15:21 G	14478641.96	14478642.14	14478642.32	0.0294	0.0059
Mercury	34929-04-26 15:21 G	14478731.06	14478731.14	14478731.23	0.0295	0.0261
Moon	34935-03-09 00:57 G	14480873.35	14480873.54	14480873.72	0.0298	0.0193
Earth	34935-03-09 03:50 G	14480873.48	14480873.66	14480873.87	0.0298	0.0176 *
Venus	34938-03-24 18:14 G	14481985.07	14481985.26	14481985.46	0.0287	0.0112
Venus	34938-11-09 09:21 G	14482214.71	14482214.89	14482215.08	0.0284	0.0129
Mercury	34942-03-06 04:33 G	14483427.61	14483427.69	14483427.78	0.0270	0.0204
Mercury	34942-06-02 14:53 G	14483516.00	14483516.12	14483516.25	0.0269	0.0093
Mercury	34942-08-30 01:26 G	14483604.42	14483604.56	14483604.69	0.0268	0.0019
Mars	34942-09-21 20:38 G	14483627.09	14483627.36	14483627.64	0.0268	0.0033
Mercury	34942-11-26 11:45 G	14483692.87	14483692.99	14483693.11	0.0267	0.0129
Mercury	34943-02-22 22:05 G	14483781.37	14483781.42	14483781.49	0.0267	0.0241
Moon	34949-08-27 20:09 G	14486159.21	14486159.34	14486159.49	0.0262	0.0210
Earth	34949-08-27 23:45 G	14486159.35	14486159.49	14486159.64	0.0262	0.0212 *
Earth	34950-09-08 12:00 G	14486535.81	14486536.00	14486536.21	0.0264	0.0152

Moon	34950-09-08 13:26 G	14486535.87	14486536.06	14486536.27	0.0264	0.0142 *
Venus	34953-11-28 00:57 G	14487712.44	14487712.54	14487712.65	0.0274	0.0238
Venus	34954-07-15 10:05 G	14487941.71	14487941.92	14487942.14	0.0277	0.0023
Venus	34955-03-01 21:21 G	14488171.24	14488171.39	14488171.53	0.0280	0.0203
Mercury	34958-03-19 14:38 G	14489284.98	14489285.11	14489285.25	0.0293	0.0193
Mercury	34958-06-16 15:07 G	14489373.95	14489374.13	14489374.31	0.0294	0.0011
Mercury	34958-09-13 15:21 G	14489463.01	14489463.14	14489463.26	0.0295	0.0214
Earth	34964-03-02 00:43 G	14491459.30	14491459.53	14491459.78	0.0299	0.0063
Moon	34964-03-02 03:36 G	14491459.40	14491459.65	14491459.90	0.0299	0.0046 *
Venus	34967-10-05 01:12 G	14492771.35	14492771.55	14492771.76	0.0285	0.0075
Venus	34968-05-21 15:50 G	14493000.99	14493001.16	14493001.34	0.0283	0.0163
Mercury	34971-07-24 07:26 G	14494159.75	14494159.81	14494159.88	0.0270	0.0233
Mercury	34971-10-20 17:45 G	14494248.13	14494248.24	14494248.36	0.0269	0.0122
Mercury	34972-01-17 04:19 G	14494336.54	14494336.68	14494336.81	0.0268	0.0014
Mercury	34972-04-14 14:38 G	14494424.98	14494425.11	14494425.23	0.0267	0.0100
Mercury	34972-07-12 00:57 G	14494513.47	14494513.54	14494513.63	0.0267	0.0211
Moon	34979-09-03 16:48 G	14497122.94	14497123.20	14497123.45	0.0263	0.0018
Earth	34979-09-03 17:45 G	14497123.00	14497123.24	14497123.49	0.0263	0.0012 *
Venus	34983-06-10 04:33 G	14498498.57	14498498.69	14498498.84	0.0274	0.0212
Venus	34984-01-25 14:09 G	14498727.88	14498728.09	14498728.31	0.0277	0.0009
Venus	34984-09-11 01:55 G	14498957.47	14498957.58	14498957.70	0.0280	0.0233
Mercury	34987-08-06 12:43 G	14500016.94	14500017.03	14500017.13	0.0292	0.0250
Mercury	34987-11-03 13:26 G	14500105.88	14500106.06	14500106.24	0.0293	0.0046
Mercury	34988-01-31 13:41 G	14500194.92	14500195.07	14500195.22	0.0294	0.0158
Moon	34993-02-23 17:45 G	14502045.18	14502045.24	14502045.32	0.0301	0.0287
Earth	34994-03-10 21:07 G	14502425.26	14502425.38	14502425.52	0.0298	0.0251
Moon	34994-03-10 21:36 G	14502425.31	14502425.40	14502425.52	0.0298	0.0269 *
Venus	34996-08-29 16:33 G	14503328.18	14503328.19	14503328.22	0.0289	0.0287
Venus	34997-04-16 09:36 G	14503557.69	14503557.90	14503558.11	0.0286	0.0040
Venus	34997-12-02 00:00 G	14503787.35	14503787.50	14503787.65	0.0283	0.0197

Mercury 35000-12-11 11:02 G 14504891.92 14504891.96 14504892.00 0.0270 0.0257

36TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 36th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	35001-03-09 21:21	G	14504980.28	14504980.39	14504980.50	0.0269	0.0147	
Mercury	35001-06-06 07:41	G	14505068.69	14505068.82	14505068.95	0.0268	0.0036	
Mercury	35001-09-02 18:00	G	14505157.12	14505157.25	14505157.38	0.0268	0.0075	
Mercury	35001-11-30 04:33	G	14505245.59	14505245.69	14505245.78	0.0267	0.0186	
Earth	35008-08-30 04:48	G	14507710.52	14507710.70	14507710.91	0.0262	0.0163	
Moon	35008-08-30 06:00	G	14507710.57	14507710.75	14507710.94	0.0262	0.0165	*
Earth	35009-09-10 17:31	G	14508087.08	14508087.23	14508087.40	0.0264	0.0202	
Moon	35009-09-10 21:07	G	14508087.22	14508087.38	14508087.56	0.0264	0.0190	*
Venus	35012-12-21 11:17	G	14509284.81	14509284.97	14509285.13	0.0275	0.0181	
Venus	35013-08-07 21:07	G	14509514.17	14509514.38	14509514.59	0.0277	0.0038	
Venus	35014-03-25 08:38	G	14509743.80	14509743.86	14509743.93	0.0280	0.0265	
Mars	35017-02-03 14:09	G	14510790.08	14510790.09	14510790.13	0.0293	0.0292	
Mercury	35017-03-23 12:29	G	14510837.85	14510838.02	14510838.20	0.0294	0.0099	
Mercury	35017-06-20 12:57	G	14510926.87	14510927.04	14510927.21	0.0295	0.0106	
Moon	35023-03-05 14:38	G	14513010.86	14513011.11	14513011.37	0.0299	0.0026	
Earth	35023-03-05 16:05	G	14513010.93	14513011.17	14513011.41	0.0299	0.0010	*
Venus	35026-03-12 22:33	G	14514114.35	14514114.44	14514114.55	0.0288	0.0252	
Venus	35026-10-28 15:21	G	14514343.93	14514344.14	14514344.35	0.0285	0.0008	

Venus	35027-06-15 05:02 G	14514573.60	14514573.71	14514573.84	0.0282	0.0229
Mercury	35030-07-28 00:00 G	14515712.40	14515712.50	14515712.60	0.0269	0.0178
Mercury	35030-10-24 10:19 G	14515800.80	14515800.93	14515801.06	0.0268	0.0068
Mercury	35031-01-20 20:38 G	14515889.23	14515889.36	14515889.49	0.0268	0.0043
Mars	35031-02-16 22:48 G	14515916.20	14515916.45	14515916.72	0.0267	0.0095
Mercury	35031-04-19 06:57 G	14515977.68	14515977.79	14515977.90	0.0267	0.0154
Mercury	35031-07-16 17:31 G	14516066.22	14516066.23	14516066.24	0.0266	0.0264
Moon	35038-09-05 17:45 G	14518673.99	14518674.24	14518674.48	0.0263	0.0026
Earth	35038-09-05 21:36 G	14518674.15	14518674.40	14518674.64	0.0263	0.0037 *
Venus	35042-07-03 13:26 G	14520070.90	14520071.06	14520071.25	0.0275	0.0157
Venus	35043-02-17 23:31 G	14520300.27	14520300.48	14520300.69	0.0278	0.0063
Mercury	35046-08-10 09:36 G	14521569.75	14521569.90	14521570.06	0.0293	0.0165
Mercury	35046-11-07 10:05 G	14521658.74	14521658.92	14521659.10	0.0294	0.0040
Mercury	35047-02-04 10:19 G	14521747.83	14521747.93	14521748.03	0.0295	0.0243
Earth	35052-02-27 07:26 G	14523596.67	14523596.81	14523596.97	0.0301	0.0234
Moon	35052-02-27 09:07 G	14523596.73	14523596.88	14523597.05	0.0301	0.0219 *
Venus	35055-09-23 05:17 G	14524900.60	14524900.72	14524900.87	0.0288	0.0221
Venus	35056-05-09 21:50 G	14525130.20	14525130.41	14525130.62	0.0285	0.0025
Venus	35056-12-25 11:45 G	14525359.91	14525359.99	14525360.07	0.0282	0.0260
Mercury	35059-12-15 03:07 G	14526444.55	14526444.63	14526444.71	0.0270	0.0206
Mercury	35060-03-12 13:26 G	14526532.93	14526533.06	14526533.18	0.0269	0.0095
Mercury	35060-06-08 23:45 G	14526621.36	14526621.49	14526621.62	0.0268	0.0016
Mercury	35060-09-05 10:05 G	14526709.80	14526709.92	14526710.04	0.0267	0.0127
Mercury	35060-12-02 20:24 G	14526798.30	14526798.35	14526798.42	0.0266	0.0238
Earth	35067-09-01 06:43 G	14529261.57	14529261.78	14529262.01	0.0262	0.0118
Moon	35067-09-01 10:33 G	14529261.73	14529261.94	14529262.16	0.0262	0.0124 *
Moon	35068-09-11 19:26 G	14529638.21	14529638.31	14529638.44	0.0264	0.0233
Earth	35068-09-11 19:26 G	14529638.23	14529638.31	14529638.40	0.0264	0.0247 *
Venus	35072-01-13 18:43 G	14530857.10	14530857.28	14530857.47	0.0275	0.0129
Venus	35072-08-30 04:48 G	14531086.51	14531086.70	14531086.91	0.0278	0.0093

Mercury	35075-12-28 07:55 G	14532301.72	14532301.83	14532301.95	0.0293	0.0225
Mercury	35076-03-26 08:38 G	14532390.67	14532390.86	14532391.04	0.0294	0.0020
Mercury	35076-06-23 08:53 G	14532479.73	14532479.87	14532480.01	0.0295	0.0185
Moon	35082-03-06 22:19 G	14534562.20	14534562.43	14534562.67	0.0299	0.0092
Earth	35082-03-07 01:55 G	14534562.35	14534562.58	14534562.82	0.0299	0.0076 *
Venus	35085-04-04 10:33 G	14535686.79	14535686.94	14535687.11	0.0287	0.0188
Venus	35085-11-20 02:38 G	14535916.41	14535916.61	14535916.82	0.0284	0.0057
Mercury	35089-05-03 05:31 G	14537176.67	14537176.73	14537176.79	0.0269	0.0239
Mercury	35089-07-30 15:50 G	14537265.04	14537265.16	14537265.28	0.0269	0.0129
Mercury	35089-10-27 02:09 G	14537353.46	14537353.59	14537353.72	0.0268	0.0018
Mercury	35090-01-23 12:29 G	14537441.90	14537442.02	14537442.15	0.0267	0.0093
Mercury	35090-04-21 22:48 G	14537530.37	14537530.45	14537530.54	0.0266	0.0204
Earth	35097-09-06 21:36 G	14540225.17	14540225.40	14540225.64	0.0263	0.0081
Moon	35097-09-06 21:36 G	14540225.17	14540225.40	14540225.63	0.0263	0.0068 *
Venus	35101-07-26 19:55 G	14541643.14	14541643.33	14541643.53	0.0275	0.0107
Venus	35102-03-13 06:00 G	14541872.56	14541872.75	14541872.95	0.0278	0.0115
Mars	35105-06-30 15:36 G	14543078.01	14543078.15	14543078.31	0.0293	0.0256
Mercury	35105-08-14 04:48 G	14543122.53	14543122.70	14543122.88	0.0293	0.0093
Mercury	35105-11-11 05:17 G	14543211.55	14543211.72	14543211.89	0.0294	0.0112
Earth	35111-03-01 13:26 G	14545147.87	14545148.06	14545148.27	0.0301	0.0175
Moon	35111-03-01 17:17 G	14545148.02	14545148.22	14545148.43	0.0301	0.0157 *
Venus	35114-10-16 15:36 G	14546472.97	14546473.15	14546473.32	0.0288	0.0160
Venus	35115-06-03 07:26 G	14546702.61	14546702.81	14546703.02	0.0285	0.0084
Mercury	35118-12-18 18:43 G	14547997.17	14547997.28	14547997.38	0.0269	0.0161
Mercury	35119-03-17 05:02 G	14548085.58	14548085.71	14548085.84	0.0268	0.0050
Mercury	35119-06-13 15:21 G	14548174.01	14548174.14	14548174.27	0.0268	0.0062
Mars	35119-07-14 20:24 G	14548205.12	14548205.35	14548205.58	0.0267	0.0152
Mercury	35119-09-10 01:41 G	14548262.47	14548262.57	14548262.67	0.0267	0.0173
Jupiter	35126-03-28 08:09 G	14550653.50	14550653.84	14550654.21	0.0261	0.0173
Earth	35126-09-03 06:00 G	14550812.52	14550812.75	14550812.99	0.0261	0.0076

Moon	35126-09-03 06:29 G	14550812.53	14550812.77	14550813.01	0.0261	0.0085 *
Venus	35131-02-06 00:14 G	14552429.31	14552429.51	14552429.71	0.0276	0.0080
Venus	35131-09-23 10:33 G	14552658.76	14552658.94	14552659.12	0.0278	0.0142
Mercury	35135-01-01 02:24 G	14553854.45	14553854.60	14553854.76	0.0293	0.0158
Mercury	35135-03-31 02:53 G	14553943.44	14553943.62	14553943.80	0.0294	0.0048
Mercury	35135-06-28 02:53 G	14554032.54	14554032.62	14554032.73	0.0295	0.0253
Moon	35141-03-09 04:33 G	14556113.49	14556113.69	14556113.90	0.0299	0.0148
Earth	35141-03-09 05:45 G	14556113.52	14556113.74	14556113.96	0.0299	0.0132 *
Venus	35144-04-27 19:26 G	14557259.13	14557259.31	14557259.50	0.0287	0.0130
Venus	35144-12-13 11:17 G	14557488.77	14557488.97	14557489.16	0.0284	0.0113
Mercury	35148-05-06 20:53 G	14558729.28	14558729.37	14558729.46	0.0269	0.0196
Mercury	35148-08-03 07:12 G	14558817.67	14558817.80	14558817.93	0.0268	0.0085
Mercury	35148-10-30 17:31 G	14558906.10	14558906.23	14558906.36	0.0267	0.0026
Mercury	35149-01-27 03:50 G	14558994.55	14558994.66	14558994.78	0.0267	0.0137
Mercury	35149-04-25 14:09 G	14559083.05	14559083.09	14559083.14	0.0266	0.0247
Moon	35155-08-29 07:55 G	14561399.75	14561399.83	14561399.92	0.0261	0.0243
Earth	35155-08-29 09:07 G	14561399.79	14561399.88	14561399.98	0.0261	0.0239 *
Earth	35156-09-08 18:57 G	14561776.08	14561776.29	14561776.51	0.0263	0.0120
Moon	35156-09-08 22:33 G	14561776.22	14561776.44	14561776.67	0.0263	0.0106 *
Venus	35160-08-18 00:00 G	14563215.29	14563215.50	14563215.71	0.0276	0.0062
Venus	35161-04-04 10:19 G	14563444.76	14563444.93	14563445.10	0.0278	0.0162
Mercury	35164-05-19 21:50 G	14564586.31	14564586.41	14564586.52	0.0292	0.0239
Mercury	35164-08-16 22:33 G	14564675.25	14564675.44	14564675.62	0.0293	0.0034
Mercury	35164-11-13 22:48 G	14564764.30	14564764.45	14564764.60	0.0294	0.0172
Moon	35170-03-02 14:24 G	14566698.87	14566699.10	14566699.35	0.0301	0.0108
Earth	35170-03-02 14:38 G	14566698.89	14566699.11	14566699.33	0.0301	0.0124 *
Venus	35173-11-07 23:02 G	14568045.26	14568045.46	14568045.65	0.0287	0.0105
Venus	35174-06-25 14:38 G	14568274.93	14568275.11	14568275.30	0.0284	0.0138
Mercury	35177-09-23 23:17 G	14569461.41	14569461.47	14569461.54	0.0270	0.0231
Mercury	35177-12-21 09:36 G	14569549.79	14569549.90	14569550.02	0.0269	0.0120

Mercury	35178-03-19 20:09 G	14569638.20	14569638.34	14569638.47	0.0268	0.0011
Mercury	35178-06-16 06:29 G	14569726.64	14569726.77	14569726.89	0.0267	0.0103
Mercury	35178-09-12 16:48 G	14569815.12	14569815.20	14569815.28	0.0267	0.0214
Moon	35185-09-03 23:02 G	14572363.22	14572363.46	14572363.71	0.0261	0.0051
Earth	35185-09-04 02:38 G	14572363.37	14572363.61	14572363.85	0.0261	0.0038 *
Venus	35189-07-13 19:12 G	14573772.22	14573772.30	14573772.39	0.0273	0.0250
Venus	35190-02-28 03:36 G	14574001.44	14574001.65	14574001.86	0.0276	0.0036
Venus	35190-10-15 14:09 G	14574230.93	14574231.09	14574231.25	0.0279	0.0188
Mars	35193-11-23 05:17 G	14575365.54	14575365.72	14575365.94	0.0293	0.0226
Mercury	35194-01-03 19:41 G	14575407.15	14575407.32	14575407.49	0.0294	0.0102
Mercury	35194-04-02 20:09 G	14575496.17	14575496.34	14575496.51	0.0295	0.0104
Earth	35200-03-10 05:02 G	14577664.53	14577664.71	14577664.92	0.0299	0.0182
Moon	35200-03-10 08:38 G	14577664.68	14577664.86	14577665.04	0.0299	0.0197 *
Venus	35203-05-21 02:09 G	14578831.39	14578831.59	14578831.79	0.0286	0.0076
Venus	35204-01-05 17:17 G	14579061.06	14579061.22	14579061.40	0.0283	0.0166
Mercury	35207-02-11 01:26 G	14580193.55	14580193.56	14580193.57	0.0270	0.0268
Mercury	35207-05-10 11:45 G	14580281.88	14580281.99	14580282.10	0.0269	0.0157
Mercury	35207-08-06 22:05 G	14580370.29	14580370.42	14580370.55	0.0268	0.0046
Mercury	35207-11-03 08:24 G	14580458.72	14580458.85	14580458.98	0.0267	0.0065
Mars	35207-12-08 00:43 G	14580493.33	14580493.53	14580493.74	0.0267	0.0180
Mercury	35208-01-30 18:43 G	14580547.18	14580547.28	14580547.38	0.0266	0.0176
Earth	35214-08-30 05:02 G	14582950.56	14582950.71	14582950.87	0.0261	0.0203
Moon	35214-08-30 08:09 G	14582950.70	14582950.84	14582950.99	0.0261	0.0210 *
Earth	35215-09-10 14:53 G	14583326.92	14583327.12	14583327.31	0.0262	0.0157
Moon	35215-09-10 16:05 G	14583326.96	14583327.17	14583327.39	0.0262	0.0143 *
Venus	35219-01-23 18:14 G	14584558.16	14584558.26	14584558.37	0.0273	0.0234
Venus	35219-09-10 02:38 G	14584787.40	14584787.61	14584787.83	0.0276	0.0019
Venus	35220-04-26 13:12 G	14585016.91	14585017.05	14585017.20	0.0279	0.0206
Mercury	35223-05-23 14:38 G	14586138.97	14586139.11	14586139.25	0.0293	0.0187
Mercury	35223-08-20 15:07 G	14586227.95	14586228.13	14586228.31	0.0294	0.0019

Mercury	35223-11-17 15:21 G	14586317.03	14586317.14	14586317.26	0.0295	0.0223
Moon	35229-03-03 07:26 G	14588249.57	14588249.81	14588250.05	0.0301	0.0066
Earth	35229-03-03 11:17 G	14588249.74	14588249.97	14588250.21	0.0301	0.0080 *
Venus	35232-11-30 04:05 G	14589617.46	14589617.67	14589617.87	0.0287	0.0054
Venus	35233-07-17 19:26 G	14589847.16	14589847.31	14589847.47	0.0284	0.0187
Mercury	35236-09-26 13:55 G	14591014.00	14591014.08	14591014.18	0.0270	0.0195
Mercury	35236-12-24 00:29 G	14591102.39	14591102.52	14591102.64	0.0269	0.0083
Mercury	35237-03-22 10:48 G	14591190.81	14591190.95	14591191.08	0.0268	0.0030
Mercury	35237-06-18 21:07 G	14591279.26	14591279.38	14591279.49	0.0267	0.0140
Mercury	35237-09-15 07:26 G	14591367.77	14591367.81	14591367.86	0.0267	0.0251
Moon	35244-09-04 19:41 G	14593914.08	14593914.32	14593914.56	0.0261	0.0016
Earth	35244-09-04 21:36 G	14593914.16	14593914.40	14593914.65	0.0261	0.0005 *
Venus	35248-08-04 21:07 G	14595344.26	14595344.38	14595344.53	0.0273	0.0209
Venus	35249-03-22 05:45 G	14595573.53	14595573.74	14595573.96	0.0276	0.0007
Venus	35249-11-06 16:19 G	14595803.07	14595803.18	14595803.30	0.0279	0.0231
Mercury	35252-10-09 11:02 G	14596870.89	14596870.96	14596871.05	0.0293	0.0260
Mercury	35253-01-06 12:00 G	14596959.82	14596960.00	14596960.18	0.0294	0.0053
Mercury	35253-04-05 12:14 G	14597048.86	14597049.01	14597049.17	0.0295	0.0152
Earth	35259-03-12 01:12 G	14599215.40	14599215.55	14599215.72	0.0300	0.0225
Moon	35259-03-12 03:36 G	14599215.51	14599215.65	14599215.82	0.0300	0.0236 *
Venus	35261-10-25 12:57 G	14600173.99	14600174.04	14600174.11	0.0289	0.0277
Venus	35262-06-12 06:57 G	14600403.58	14600403.79	14600404.00	0.0286	0.0026
Venus	35263-01-27 22:19 G	14600633.29	14600633.43	14600633.56	0.0283	0.0214
Mercury	35266-02-13 16:05 G	14601746.11	14601746.17	14601746.24	0.0270	0.0232
Mars	35266-03-17 04:05 G	14601777.58	14601777.67	14601777.76	0.0269	0.0255
Mercury	35266-05-13 02:24 G	14601834.48	14601834.60	14601834.72	0.0269	0.0121
Mercury	35266-08-09 12:43 G	14601922.90	14601923.03	14601923.16	0.0268	0.0009
Mercury	35266-11-05 23:02 G	14602011.34	14602011.46	14602011.59	0.0267	0.0102
Mercury	35267-02-02 09:21 G	14602099.82	14602099.89	14602099.98	0.0266	0.0213
Earth	35273-08-31 00:00 G	14604501.33	14604501.50	14604501.70	0.0260	0.0169

Moon	35273-08-31 02:53 G	14604501.44	14604501.62	14604501.81	0.0260	0.0178	*
Moon	35274-09-11 06:29 G	14604877.59	14604877.77	14604877.96	0.0262	0.0179	
Earth	35274-09-11 09:21 G	14604877.74	14604877.89	14604878.07	0.0262	0.0192	*
Venus	35278-02-14 20:09 G	14606130.20	14606130.34	14606130.50	0.0273	0.0193	
Venus	35278-10-02 04:48 G	14606359.49	14606359.70	14606359.91	0.0276	0.0024	
Venus	35279-05-19 15:07 G	14606589.05	14606589.13	14606589.24	0.0279	0.0249	
Mars	35282-04-16 16:48 G	14607652.04	14607652.20	14607652.39	0.0292	0.0244	
Mercury	35282-05-26 06:43 G	14607691.62	14607691.78	14607691.94	0.0293	0.0140	
Mercury	35282-08-23 07:12 G	14607780.62	14607780.80	14607780.98	0.0294	0.0066	
Mercury	35282-11-20 07:26 G	14607869.74	14607869.81	14607869.88	0.0295	0.0270	
Moon	35288-03-04 05:17 G	14609800.48	14609800.72	14609800.95	0.0301	0.0032	
Earth	35288-03-04 06:00 G	14609800.51	14609800.75	14609800.99	0.0301	0.0040	*
Venus	35291-05-07 14:09 G	14610960.00	14610960.09	14610960.19	0.0290	0.0256	
Venus	35291-12-23 08:09 G	14611189.63	14611189.84	14611190.05	0.0287	0.0007	
Venus	35292-08-08 23:17 G	14611419.36	14611419.47	14611419.59	0.0284	0.0234	
Mercury	35295-09-30 04:33 G	14612566.58	14612566.69	14612566.79	0.0270	0.0160	
Mercury	35295-12-27 14:53 G	14612654.99	14612655.12	14612655.25	0.0269	0.0048	
Mercury	35296-03-25 01:12 G	14612743.42	14612743.55	14612743.68	0.0268	0.0064	
Mars	35296-05-02 02:24 G	14612781.45	14612781.60	14612781.78	0.0268	0.0213	
Mercury	35296-06-21 11:31 G	14612831.88	14612831.98	14612832.09	0.0267	0.0176	
Earth	35303-09-07 16:33 G	14615464.95	14615465.19	14615465.44	0.0261	0.0032	
Moon	35303-09-07 18:57 G	14615465.05	14615465.29	14615465.53	0.0261	0.0018	*
Venus	35307-08-28 23:17 G	14616916.32	14616916.47	14616916.65	0.0273	0.0168	
Venus	35308-04-14 08:09 G	14617145.63	14617145.84	14617146.05	0.0276	0.0050	
Venus	35308-11-29 18:43 G	14617375.26	14617375.28	14617375.32	0.0279	0.0275	
Mercury	35311-10-14 03:21 G	14618423.52	14618423.64	14618423.78	0.0293	0.0211	
Mercury	35312-01-11 04:19 G	14618512.49	14618512.68	14618512.86	0.0294	0.0009	
Mercury	35312-04-09 04:19 G	14618601.56	14618601.68	14618601.82	0.0295	0.0201	
Moon	35317-02-26 15:36 G	14620386.10	14620386.15	14620386.22	0.0302	0.0292	
Earth	35317-02-26 15:50 G	14620386.14	14620386.16	14620386.19	0.0302	0.0300	*

Moon	35318-03-13 17:17 G	14620766.12	14620766.22	14620766.34	0.0300	0.0269
Earth	35318-03-13 20:24 G	14620766.24	14620766.35	14620766.46	0.0300	0.0265 *
Venus	35320-11-17 17:02 G	14621746.09	14621746.21	14621746.34	0.0289	0.0228
Venus	35321-07-05 10:48 G	14621975.74	14621975.95	14621976.16	0.0286	0.0022
Venus	35322-02-20 01:55 G	14622205.50	14622205.58	14622205.66	0.0283	0.0260
Mercury	35325-02-17 06:29 G	14623298.68	14623298.77	14623298.86	0.0270	0.0198
Mercury	35325-05-16 16:48 G	14623387.08	14623387.20	14623387.33	0.0269	0.0086
Mercury	35325-08-13 03:07 G	14623475.50	14623475.63	14623475.77	0.0268	0.0026
Mercury	35325-11-09 13:26 G	14623563.95	14623564.06	14623564.18	0.0267	0.0138
Mercury	35326-02-06 00:00 G	14623652.46	14623652.50	14623652.55	0.0266	0.0248
Moon	35332-09-01 17:17 G	14626052.02	14626052.22	14626052.44	0.0260	0.0147
Earth	35332-09-01 19:55 G	14626052.12	14626052.33	14626052.55	0.0260	0.0133 *
Moon	35333-09-13 02:09 G	14626428.46	14626428.59	14626428.73	0.0262	0.0216
Earth	35333-09-13 04:33 G	14626428.58	14626428.69	14626428.82	0.0262	0.0227 *
Venus	35337-03-09 22:33 G	14627702.27	14627702.44	14627702.63	0.0274	0.0151
Venus	35337-10-25 07:12 G	14627931.59	14627931.80	14627932.01	0.0276	0.0067
Mercury	35341-05-29 22:48 G	14629244.28	14629244.45	14629244.63	0.0293	0.0092
Mercury	35341-08-26 23:17 G	14629333.30	14629333.47	14629333.64	0.0294	0.0113
Earth	35347-03-06 23:45 G	14631351.25	14631351.49	14631351.74	0.0301	0.0002
Moon	35347-03-07 03:21 G	14631351.40	14631351.64	14631351.88	0.0301	0.0003 *
Venus	35350-05-30 17:45 G	14632532.10	14632532.24	14632532.39	0.0289	0.0208
Venus	35351-01-15 11:31 G	14632761.78	14632761.98	14632762.19	0.0286	0.0043
Venus	35351-09-02 02:53 G	14632991.59	14632991.62	14632991.64	0.0283	0.0281
Mercury	35354-07-07 08:24 G	14634030.80	14634030.85	14634030.92	0.0271	0.0239
Mars	35354-08-11 01:26 G	14634065.42	14634065.56	14634065.71	0.0270	0.0229
Mercury	35354-10-03 18:57 G	14634119.17	14634119.29	14634119.40	0.0270	0.0126
Mercury	35354-12-31 05:17 G	14634207.58	14634207.72	14634207.85	0.0269	0.0014
Mercury	35355-03-29 15:36 G	14634296.03	14634296.15	14634296.28	0.0268	0.0099
Mercury	35355-06-26 02:09 G	14634384.51	14634384.59	14634384.67	0.0267	0.0211
Earth	35362-09-08 12:14 G	14637015.77	14637016.01	14637016.25	0.0261	0.0067

Moon	35362-09-08 15:21 G	14637015.90	14637016.14	14637016.39	0.0261	0.0052 *
Venus	35366-09-20 02:09 G	14638488.41	14638488.59	14638488.79	0.0273	0.0123
Venus	35367-05-07 11:02 G	14638717.76	14638717.96	14638718.16	0.0276	0.0095
Mars	35370-09-09 21:07 G	14639939.20	14639939.38	14639939.59	0.0292	0.0229
Mercury	35370-10-16 20:09 G	14639976.19	14639976.34	14639976.49	0.0293	0.0160
Mercury	35371-01-13 20:38 G	14640065.18	14640065.36	14640065.54	0.0294	0.0046
Mercury	35371-04-12 20:38 G	14640154.28	14640154.36	14640154.46	0.0295	0.0251
Moon	35376-02-28 07:12 G	14641936.68	14641936.80	14641936.93	0.0302	0.0260
Earth	35376-02-28 10:48 G	14641936.84	14641936.95	14641937.08	0.0302	0.0261 *
Venus	35379-12-10 21:07 G	14643318.23	14643318.38	14643318.55	0.0289	0.0179
Venus	35380-07-27 14:53 G	14643547.91	14643548.12	14643548.32	0.0286	0.0070
Mercury	35384-02-20 21:07 G	14644851.27	14644851.38	14644851.48	0.0270	0.0163
Mercury	35384-05-19 07:26 G	14644939.68	14644939.81	14644939.94	0.0269	0.0051
Mercury	35384-08-15 17:45 G	14645028.11	14645028.24	14645028.37	0.0268	0.0062
Mars	35384-09-26 00:57 G	14645069.42	14645069.54	14645069.69	0.0268	0.0233
Mercury	35384-11-12 04:05 G	14645116.57	14645116.67	14645116.78	0.0267	0.0174
Moon	35391-09-03 13:41 G	14647602.86	14647603.07	14647603.30	0.0260	0.0113
Earth	35391-09-03 17:02 G	14647602.98	14647603.21	14647603.44	0.0260	0.0096 *
Moon	35392-09-14 03:36 G	14647979.61	14647979.65	14647979.70	0.0262	0.0256
Venus	35396-04-01 02:38 G	14649274.41	14649274.61	14649274.81	0.0274	0.0105
Venus	35396-11-16 11:17 G	14649503.78	14649503.97	14649504.16	0.0277	0.0114
Mercury	35400-03-05 15:07 G	14650708.04	14650708.13	14650708.24	0.0292	0.0243
Mercury	35400-06-02 15:50 G	14650796.98	14650797.16	14650797.35	0.0293	0.0037
Mercury	35400-08-30 16:19 G	14650886.03	14650886.18	14650886.33	0.0294	0.0168
Earth	35406-03-08 19:55 G	14652902.09	14652902.33	14652902.58	0.0301	0.0040
Moon	35406-03-08 21:50 G	14652902.17	14652902.41	14652902.67	0.0301	0.0039 *
Venus	35409-06-22 22:05 G	14654104.25	14654104.42	14654104.60	0.0289	0.0157
Venus	35410-02-07 15:50 G	14654333.96	14654334.16	14654334.36	0.0286	0.0092
Mercury	35413-07-10 23:02 G	14655583.37	14655583.46	14655583.55	0.0271	0.0204
Mercury	35413-10-07 09:21 G	14655671.77	14655671.89	14655672.02	0.0270	0.0090

Mercury	35414-01-03 19:41 G	14655760.19	14655760.32	14655760.46	0.0269	0.0024
Mercury	35414-04-02 06:14 G	14655848.65	14655848.76	14655848.88	0.0268	0.0135
Mercury	35414-06-29 16:48 G	14655937.15	14655937.20	14655937.25	0.0267	0.0248
Earth	35420-08-30 01:55 G	14658190.53	14658190.58	14658190.64	0.0260	0.0253
Moon	35421-09-10 08:24 G	14658566.61	14658566.85	14658567.09	0.0261	0.0091
Earth	35421-09-10 09:50 G	14658566.69	14658566.91	14658567.14	0.0261	0.0104 *
Venus	35425-10-13 06:43 G	14660060.58	14660060.78	14660060.99	0.0274	0.0076
Venus	35426-05-30 15:36 G	14660289.97	14660290.15	14660290.34	0.0276	0.0143
Mercury	35429-10-20 13:26 G	14661528.89	14661529.06	14661529.24	0.0293	0.0102
Mercury	35430-01-17 13:55 G	14661617.91	14661618.08	14661618.25	0.0294	0.0104
Moon	35435-03-02 06:29 G	14663487.61	14663487.77	14663487.93	0.0302	0.0220
Earth	35435-03-02 07:26 G	14663487.66	14663487.81	14663487.99	0.0302	0.0219 *
Venus	35439-01-03 02:24 G	14664890.41	14664890.60	14664890.79	0.0289	0.0127
Venus	35439-08-20 19:26 G	14665120.13	14665120.31	14665120.51	0.0286	0.0121
Mercury	35442-11-28 01:12 G	14666315.50	14666315.55	14666315.62	0.0271	0.0239
Mars	35443-01-05 03:50 G	14666353.50	14666353.66	14666353.85	0.0270	0.0206
Mercury	35443-02-24 11:45 G	14666403.87	14666403.99	14666404.11	0.0270	0.0125
Mercury	35443-05-23 22:05 G	14666492.29	14666492.42	14666492.56	0.0269	0.0013
Mercury	35443-08-20 08:24 G	14666580.73	14666580.85	14666580.98	0.0268	0.0101
Mercury	35443-11-16 18:57 G	14666669.21	14666669.29	14666669.37	0.0267	0.0213
Earth	35450-09-05 16:19 G	14669153.95	14669154.18	14669154.43	0.0260	0.0058
Moon	35450-09-05 18:00 G	14669154.02	14669154.25	14669154.48	0.0260	0.0071 *
Venus	35454-09-08 01:26 G	14670617.53	14670617.56	14670617.62	0.0271	0.0264
Venus	35455-04-25 08:24 G	14670846.64	14670846.85	14670847.06	0.0274	0.0055
Venus	35455-12-10 17:02 G	14671076.05	14671076.21	14671076.39	0.0277	0.0165
Mars	35459-02-03 01:55 G	14672226.38	14672226.58	14672226.80	0.0291	0.0218
Mercury	35459-03-09 09:21 G	14672260.75	14672260.89	14672261.04	0.0292	0.0179
Mercury	35459-06-06 10:05 G	14672349.73	14672349.92	14672350.10	0.0293	0.0027
Mercury	35459-09-03 10:05 G	14672438.81	14672438.92	14672439.04	0.0294	0.0231
Moon	35465-03-09 16:19 G	14674452.94	14674453.18	14674453.43	0.0301	0.0079

Earth	35465-03-09 18:57 G	14674453.06	14674453.29	14674453.53	0.0301	0.0086	*
Venus	35468-07-15 03:36 G	14675676.46	14675676.65	14675676.86	0.0289	0.0104	
Venus	35469-03-01 21:07 G	14675906.21	14675906.38	14675906.57	0.0286	0.0145	
Mercury	35472-07-13 13:55 G	14677135.97	14677136.08	14677136.18	0.0271	0.0165	
Mercury	35472-10-10 00:14 G	14677224.38	14677224.51	14677224.64	0.0270	0.0051	
Mercury	35473-01-06 10:33 G	14677312.82	14677312.94	14677313.07	0.0269	0.0063	
Mars	35473-02-20 03:50 G	14677357.65	14677357.66	14677357.71	0.0269	0.0267	
Mercury	35473-04-04 21:07 G	14677401.28	14677401.38	14677401.48	0.0268	0.0175	
Moon	35479-09-01 00:57 G	14679741.42	14679741.54	14679741.67	0.0260	0.0226	
Earth	35479-09-01 01:55 G	14679741.45	14679741.58	14679741.73	0.0260	0.0214	*
Moon	35480-09-11 06:14 G	14680117.57	14680117.76	14680117.98	0.0261	0.0137	
Earth	35480-09-11 10:05 G	14680117.72	14680117.92	14680118.13	0.0261	0.0145	*
Venus	35484-03-20 06:29 G	14681403.68	14681403.77	14681403.89	0.0271	0.0234	
Venus	35484-11-04 13:41 G	14681632.86	14681633.07	14681633.28	0.0274	0.0023	
Venus	35485-06-21 22:48 G	14681862.30	14681862.45	14681862.60	0.0277	0.0197	
Mercury	35488-07-26 07:55 G	14682992.73	14682992.83	14682992.94	0.0291	0.0235	
Mercury	35488-10-23 08:38 G	14683081.67	14683081.86	14683082.04	0.0293	0.0031	
Mercury	35489-01-20 08:38 G	14683170.72	14683170.86	14683171.01	0.0294	0.0175	
Earth	35494-03-03 09:36 G	14685038.71	14685038.90	14685039.11	0.0302	0.0168	
Moon	35494-03-03 12:43 G	14685038.83	14685039.03	14685039.22	0.0302	0.0172	*
Venus	35498-01-25 09:36 G	14686462.69	14686462.90	14686463.10	0.0289	0.0071	
Venus	35498-09-12 02:24 G	14686692.44	14686692.60	14686692.77	0.0286	0.0176	
Mercury	35501-12-01 16:33 G	14687868.10	14687868.19	14687868.28	0.0271	0.0197	
Mercury	35502-02-28 02:53 G	14687956.49	14687956.62	14687956.74	0.0270	0.0083	
Mercury	35502-05-27 13:12 G	14688044.92	14688045.05	14688045.18	0.0269	0.0030	
Mercury	35502-08-23 23:45 G	14688133.37	14688133.49	14688133.60	0.0268	0.0143	
Mercury	35502-11-20 10:05 G	14688221.89	14688221.92	14688221.96	0.0267	0.0256	
Earth	35509-09-07 18:29 G	14690705.03	14690705.27	14690705.52	0.0261	0.0015	
Moon	35509-09-07 22:05 G	14690705.18	14690705.42	14690705.67	0.0261	0.0027	*
Venus	35513-10-01 09:50 G	14692189.78	14692189.91	14692190.04	0.0272	0.0210	

Venus	35514-05-18 16:48 G	14692418.99	14692419.20	14692419.41	0.0274	0.0002
Venus	35515-01-03 01:41 G	14692648.46	14692648.57	14692648.71	0.0277	0.0223
Mercury	35518-03-13 05:17 G	14693813.55	14693813.72	14693813.89	0.0292	0.0101
Mercury	35518-06-10 05:31 G	14693902.57	14693902.73	14693902.91	0.0293	0.0104
Moon	35524-03-11 19:26 G	14696004.10	14696004.31	14696004.53	0.0301	0.0132
Earth	35524-03-11 22:33 G	14696004.23	14696004.44	14696004.67	0.0301	0.0140 *
Venus	35527-08-08 11:31 G	14697248.78	14697248.98	14697249.19	0.0288	0.0045
Venus	35528-03-25 04:19 G	14697478.54	14697478.68	14697478.84	0.0285	0.0202
Mercury	35531-04-20 18:29 G	14698600.21	14698600.27	14698600.34	0.0272	0.0236
Mars	35531-06-01 10:33 G	14698641.74	14698641.94	14698642.16	0.0271	0.0171
Mercury	35531-07-18 05:02 G	14698688.59	14698688.71	14698688.83	0.0271	0.0121
Mercury	35531-10-14 15:21 G	14698777.01	14698777.14	14698777.28	0.0270	0.0012
Mercury	35532-01-11 01:55 G	14698865.46	14698865.58	14698865.70	0.0269	0.0106
Mercury	35532-04-08 12:14 G	14698953.94	14698954.01	14698954.09	0.0268	0.0221
Moon	35538-09-03 01:26 G	14701292.39	14701292.56	14701292.73	0.0260	0.0184
Earth	35538-09-03 04:48 G	14701292.52	14701292.70	14701292.89	0.0260	0.0170 *
Earth	35539-09-14 13:26 G	14701668.90	14701669.06	14701669.23	0.0261	0.0190
Moon	35539-09-14 13:41 G	14701668.91	14701669.07	14701669.25	0.0261	0.0185 *
Venus	35543-04-13 15:36 G	14702975.99	14702976.15	14702976.31	0.0272	0.0178
Venus	35543-11-28 23:02 G	14703205.25	14703205.46	14703205.67	0.0274	0.0035
Venus	35544-07-15 08:24 G	14703434.78	14703434.85	14703434.93	0.0277	0.0256
Mars	35547-06-30 21:36 G	14704515.13	14704515.40	14704515.67	0.0291	0.0151
Mercury	35547-07-31 04:19 G	14704545.53	14704545.68	14704545.84	0.0292	0.0152
Mercury	35547-10-28 04:48 G	14704634.52	14704634.70	14704634.88	0.0293	0.0053
Mercury	35548-01-25 05:02 G	14704723.62	14704723.71	14704723.79	0.0294	0.0256
Earth	35553-03-05 16:05 G	14706589.95	14706590.17	14706590.40	0.0302	0.0109
Moon	35553-03-05 19:12 G	14706590.07	14706590.30	14706590.54	0.0302	0.0115 *
Venus	35556-07-02 23:31 G	14707805.40	14707805.48	14707805.57	0.0291	0.0264
Venus	35557-02-17 18:43 G	14708035.07	14708035.28	14708035.49	0.0288	0.0010
Venus	35557-10-05 11:17 G	14708264.85	14708264.97	14708265.09	0.0285	0.0235

Mercury	35560-09-06 21:36 G	14709332.37	14709332.40	14709332.43	0.0272	0.0265
Mercury	35560-12-04 07:55 G	14709420.72	14709420.83	14709420.94	0.0271	0.0151
Mercury	35561-03-02 18:29 G	14709509.14	14709509.27	14709509.40	0.0270	0.0037
Mercury	35561-05-30 04:48 G	14709597.57	14709597.70	14709597.83	0.0269	0.0077
Mercury	35561-08-26 15:21 G	14709686.05	14709686.14	14709686.23	0.0268	0.0191
Earth	35568-09-08 23:31 G	14712256.24	14712256.48	14712256.72	0.0261	0.0033
Moon	35568-09-08 23:45 G	14712256.24	14712256.49	14712256.75	0.0261	0.0023 *
Venus	35572-10-23 20:09 G	14713762.17	14713762.34	14713762.52	0.0272	0.0152
Venus	35573-06-10 03:36 G	14713991.45	14713991.65	14713991.86	0.0275	0.0063
Mercury	35576-12-17 01:55 G	14715277.47	14715277.58	14715277.72	0.0291	0.0216
Mercury	35577-03-16 02:38 G	14715366.43	14715366.61	14715366.80	0.0292	0.0011
Mercury	35577-06-13 02:53 G	14715455.49	14715455.62	14715455.76	0.0293	0.0194
Earth	35583-03-14 08:38 G	14717555.69	14717555.86	14717556.05	0.0300	0.0202
Moon	35583-03-14 08:53 G	14717555.70	14717555.87	14717556.06	0.0300	0.0193 *
Venus	35586-01-13 03:36 G	14718591.53	14718591.65	14718591.78	0.0290	0.0233
Venus	35586-08-30 22:33 G	14718821.23	14718821.44	14718821.65	0.0288	0.0020
Venus	35587-04-17 14:53 G	14719051.04	14719051.12	14719051.20	0.0285	0.0263
Mercury	35590-04-23 10:19 G	14720152.84	14720152.93	14720153.03	0.0272	0.0187
Mercury	35590-07-20 20:53 G	14720241.24	14720241.37	14720241.50	0.0271	0.0072
Mercury	35590-10-17 07:12 G	14720329.67	14720329.80	14720329.94	0.0270	0.0044
Mercury	35591-01-13 17:45 G	14720418.13	14720418.24	14720418.35	0.0269	0.0157
Moon	35597-09-04 09:07 G	14722843.69	14722843.88	14722844.09	0.0260	0.0137
Earth	35597-09-04 10:33 G	14722843.72	14722843.94	14722844.16	0.0260	0.0123 *
Earth	35598-09-15 19:41 G	14723220.23	14723220.32	14723220.42	0.0262	0.0239
Moon	35598-09-15 23:17 G	14723220.37	14723220.47	14723220.58	0.0262	0.0237 *
Venus	35602-05-06 02:53 G	14724548.44	14724548.62	14724548.82	0.0272	0.0118
Venus	35602-12-21 10:48 G	14724777.76	14724777.95	14724778.15	0.0275	0.0099
Mercury	35606-05-06 01:55 G	14726009.50	14726009.58	14726009.67	0.0291	0.0260
Mercury	35606-08-03 02:38 G	14726098.43	14726098.61	14726098.79	0.0292	0.0055
Mercury	35606-10-31 02:53 G	14726187.46	14726187.62	14726187.77	0.0293	0.0149

Moon	35612-03-07 03:07 G	14728141.38	14728141.63	14728141.88	0.0302	0.0052
Earth	35612-03-07 04:33 G	14728141.45	14728141.69	14728141.93	0.0302	0.0041 *
Venus	35615-07-26 11:45 G	14729377.85	14729377.99	14729378.16	0.0290	0.0197
Venus	35616-03-12 06:29 G	14729607.57	14729607.77	14729607.98	0.0287	0.0057
Mercury	35619-09-10 13:26 G	14730884.99	14730885.06	14730885.15	0.0272	0.0214
Mars	35619-10-26 10:33 G	14730930.70	14730930.94	14730931.20	0.0271	0.0116
Mercury	35619-12-08 00:00 G	14730973.38	14730973.50	14730973.62	0.0271	0.0099
Mercury	35620-03-05 10:33 G	14731061.80	14731061.94	14731062.07	0.0270	0.0017
Mercury	35620-06-01 20:53 G	14731150.26	14731150.37	14731150.49	0.0269	0.0130
Mercury	35620-08-29 07:26 G	14731238.76	14731238.81	14731238.87	0.0268	0.0244
Moon	35627-09-11 04:05 G	14733807.44	14733807.67	14733807.91	0.0261	0.0076
Earth	35627-09-11 07:26 G	14733807.58	14733807.81	14733808.04	0.0261	0.0085 *
Venus	35631-11-16 09:07 G	14735334.68	14735334.88	14735335.08	0.0273	0.0088
Venus	35632-07-02 17:17 G	14735564.03	14735564.22	14735564.40	0.0276	0.0129
Mars	35635-11-25 07:26 G	14736804.51	14736804.81	14736805.12	0.0291	0.0060
Mercury	35635-12-21 01:12 G	14736830.38	14736830.55	14736830.72	0.0292	0.0111
Mercury	35636-03-19 01:41 G	14736919.40	14736919.57	14736919.74	0.0293	0.0094
Earth	35641-02-28 18:57 G	14738727.25	14738727.29	14738727.35	0.0302	0.0295
Earth	35642-03-15 23:31 G	14739107.38	14739107.48	14739107.58	0.0300	0.0273
Moon	35642-03-16 03:07 G	14739107.52	14739107.63	14739107.75	0.0300	0.0261 *
Venus	35645-02-04 17:31 G	14740164.06	14740164.23	14740164.41	0.0290	0.0162
Venus	35645-09-22 11:45 G	14740393.79	14740393.99	14740394.19	0.0287	0.0089
Mercury	35649-01-27 16:19 G	14741617.13	14741617.18	14741617.23	0.0272	0.0246
Mercury	35649-04-26 02:38 G	14741705.50	14741705.61	14741705.73	0.0271	0.0132
Mercury	35649-07-23 13:12 G	14741793.92	14741794.05	14741794.18	0.0270	0.0017
Mercury	35649-10-19 23:31 G	14741882.36	14741882.48	14741882.61	0.0270	0.0098
Mercury	35650-01-16 10:05 G	14741970.84	14741970.92	14741971.00	0.0269	0.0212
Earth	35656-09-05 18:29 G	14744395.03	14744395.27	14744395.51	0.0261	0.0071
Moon	35656-09-05 21:21 G	14744395.16	14744395.39	14744395.62	0.0261	0.0085 *
Venus	35660-10-11 09:50 G	14745891.86	14745891.91	14745891.97	0.0271	0.0261

Venus	35661-05-28 16:19 G	14746120.97	14746121.18	14746121.39	0.0273	0.0052
Venus	35662-01-13 00:43 G	14746350.36	14746350.53	14746350.70	0.0276	0.0166
Mercury	35665-05-09 01:26 G	14747562.40	14747562.56	14747562.72	0.0291	0.0152
Mercury	35665-08-06 01:55 G	14747651.40	14747651.58	14747651.76	0.0292	0.0053
Mercury	35665-11-03 01:55 G	14747740.50	14747740.58	14747740.67	0.0293	0.0256
Moon	35671-03-09 18:14 G	14749693.02	14749693.26	14749693.51	0.0301	0.0023
Earth	35671-03-09 22:05 G	14749693.18	14749693.42	14749693.67	0.0301	0.0037 *
Venus	35674-08-18 03:21 G	14750950.45	14750950.64	14750950.83	0.0290	0.0121
Venus	35675-04-04 21:07 G	14751180.19	14751180.38	14751180.57	0.0287	0.0129
Mercury	35678-06-16 19:41 G	14752349.31	14752349.32	14752349.34	0.0272	0.0270
Mercury	35678-09-13 06:14 G	14752437.65	14752437.76	14752437.87	0.0271	0.0155
Mercury	35678-12-10 16:33 G	14752526.06	14752526.19	14752526.32	0.0270	0.0041
Mercury	35679-03-09 03:07 G	14752614.50	14752614.63	14752614.76	0.0269	0.0074
Mercury	35679-06-05 13:26 G	14752702.97	14752703.06	14752703.16	0.0269	0.0189
Moon	35685-09-01 05:17 G	14754982.63	14754982.72	14754982.84	0.0260	0.0236
Earth	35685-09-01 08:24 G	14754982.73	14754982.85	14754982.98	0.0260	0.0221 *
Moon	35686-09-12 14:24 G	14755358.91	14755359.10	14755359.32	0.0261	0.0132
Earth	35686-09-12 17:02 G	14755359.01	14755359.21	14755359.43	0.0261	0.0139 *
Venus	35690-04-23 16:48 G	14756678.10	14756678.20	14756678.32	0.0272	0.0231
Venus	35690-12-08 23:45 G	14756907.28	14756907.49	14756907.70	0.0274	0.0020
Venus	35691-07-26 08:24 G	14757136.71	14757136.85	14757137.00	0.0277	0.0200
Mercury	35694-09-26 00:57 G	14758294.41	14758294.54	14758294.68	0.0291	0.0201
Mercury	35694-12-24 01:26 G	14758383.38	14758383.56	14758383.75	0.0292	0.0006
Mercury	35695-03-23 01:41 G	14758472.44	14758472.57	14758472.70	0.0293	0.0208
Earth	35700-03-03 15:50 G	14760278.99	14760279.16	14760279.34	0.0301	0.0213
Moon	35700-03-03 19:26 G	14760279.15	14760279.31	14760279.48	0.0301	0.0226 *
Venus	35704-02-29 09:50 G	14761736.71	14761736.91	14761737.12	0.0289	0.0086
Venus	35704-10-16 03:07 G	14761966.46	14761966.63	14761966.81	0.0286	0.0163
Mercury	35708-02-01 08:53 G	14763169.78	14763169.87	14763169.97	0.0272	0.0187
Mars	35708-03-22 15:36 G	14763219.88	14763220.15	14763220.42	0.0271	0.0050

Mercury	35708-04-29 19:26 G	14763258.18	14763258.31	14763258.44	0.0271	0.0072
Mercury	35708-07-27 06:00 G	14763346.62	14763346.75	14763346.88	0.0270	0.0043
Mercury	35708-10-23 16:19 G	14763435.08	14763435.18	14763435.29	0.0269	0.0158
Earth	35715-09-09 04:05 G	14765946.42	14765946.67	14765946.92	0.0261	0.0017
Moon	35715-09-09 06:57 G	14765946.55	14765946.79	14765947.05	0.0261	0.0030 *
Venus	35719-11-04 23:45 G	14767464.35	14767464.49	14767464.64	0.0272	0.0197
Venus	35720-06-21 06:57 G	14767693.58	14767693.79	14767694.01	0.0274	0.0017
Venus	35721-02-05 16:05 G	14767923.07	14767923.17	14767923.28	0.0277	0.0237
Mercury	35724-02-14 01:12 G	14769026.45	14769026.55	14769026.65	0.0291	0.0242
Mars	35724-04-22 18:57 G	14769094.99	14769095.29	14769095.60	0.0291	0.0062
Mercury	35724-05-13 01:41 G	14769115.39	14769115.57	14769115.76	0.0292	0.0037
Mercury	35724-08-10 01:55 G	14769204.44	14769204.58	14769204.73	0.0293	0.0167
Moon	35730-03-12 18:14 G	14771245.04	14771245.26	14771245.48	0.0301	0.0106
Earth	35730-03-12 19:12 G	14771245.08	14771245.30	14771245.53	0.0301	0.0119 *
Venus	35733-09-10 20:24 G	14772523.14	14772523.35	14772523.56	0.0289	0.0044
Venus	35734-04-28 13:12 G	14772752.91	14772753.05	14772753.20	0.0286	0.0203
Mercury	35737-06-20 12:43 G	14773901.95	14773902.03	14773902.11	0.0272	0.0209
Mercury	35737-09-16 23:02 G	14773990.34	14773990.46	14773990.59	0.0271	0.0094
Mercury	35737-12-14 09:36 G	14774078.77	14774078.90	14774079.03	0.0270	0.0021
Mercury	35738-03-12 19:55 G	14774167.22	14774167.33	14774167.45	0.0269	0.0136
Mercury	35738-06-09 06:29 G	14774255.73	14774255.77	14774255.82	0.0268	0.0250
Moon	35744-09-03 15:21 G	14776533.98	14776534.14	14776534.32	0.0260	0.0181
Earth	35744-09-03 18:29 G	14776534.09	14776534.27	14776534.47	0.0260	0.0166 *
Earth	35745-09-15 03:36 G	14776910.50	14776910.65	14776910.83	0.0262	0.0196
Moon	35745-09-15 05:31 G	14776910.57	14776910.73	14776910.90	0.0262	0.0190 *
Venus	35749-05-17 07:26 G	14778250.65	14778250.81	14778250.98	0.0272	0.0164
Venus	35750-01-01 14:53 G	14778479.91	14778480.12	14778480.33	0.0275	0.0050
Venus	35750-08-19 00:29 G	14778709.48	14778709.52	14778709.56	0.0278	0.0272
Mercury	35753-07-03 00:57 G	14779758.53	14779758.54	14779758.57	0.0291	0.0288
Mercury	35753-09-30 01:41 G	14779847.40	14779847.57	14779847.75	0.0292	0.0083

Mercury	35753-12-28 01:55 G	14779936.42	14779936.58	14779936.75	0.0293	0.0123
Earth	35759-03-06 15:07 G	14781830.92	14781831.13	14781831.36	0.0301	0.0127
Moon	35759-03-06 15:36 G	14781830.93	14781831.15	14781831.39	0.0301	0.0138 *
Venus	35762-08-06 09:07 G	14783079.79	14783079.88	14783079.97	0.0290	0.0260
Venus	35763-03-24 04:05 G	14783309.46	14783309.67	14783309.88	0.0288	0.0007
Venus	35763-11-08 20:24 G	14783539.24	14783539.35	14783539.47	0.0285	0.0239
Mercury	35766-11-07 15:50 G	14784634.10	14784634.16	14784634.22	0.0272	0.0237
Mercury	35767-02-04 02:09 G	14784722.47	14784722.59	14784722.71	0.0271	0.0122
Mercury	35767-05-03 12:43 G	14784810.89	14784811.03	14784811.16	0.0270	0.0010
Mercury	35767-07-30 23:02 G	14784899.34	14784899.46	14784899.58	0.0269	0.0107
Mercury	35767-10-27 09:36 G	14784987.83	14784987.90	14784987.97	0.0269	0.0221
Moon	35774-09-10 12:29 G	14787497.77	14787498.02	14787498.28	0.0261	0.0030
Earth	35774-09-10 14:24 G	14787497.85	14787498.10	14787498.34	0.0261	0.0039 *
Venus	35778-11-27 14:09 G	14789036.91	14789037.09	14789037.28	0.0273	0.0131
Venus	35779-07-14 22:05 G	14789266.22	14789266.42	14789266.62	0.0275	0.0085
Mercury	35783-02-17 01:41 G	14790579.41	14790579.57	14790579.74	0.0291	0.0125
Mercury	35783-05-17 02:09 G	14790668.42	14790668.59	14790668.77	0.0292	0.0080
Mercury	35783-08-14 02:09 G	14790757.56	14790757.59	14790757.64	0.0293	0.0284
Earth	35789-03-14 18:14 G	14792797.09	14792797.26	14792797.45	0.0301	0.0206
Moon	35789-03-14 21:07 G	14792797.20	14792797.38	14792797.56	0.0301	0.0193 *
Venus	35792-02-16 19:55 G	14793866.20	14793866.33	14793866.47	0.0291	0.0219
Venus	35792-10-03 14:24 G	14794095.90	14794096.10	14794096.31	0.0288	0.0036
Venus	35793-05-21 06:29 G	14794325.73	14794325.77	14794325.82	0.0285	0.0278
Mercury	35796-03-26 19:26 G	14795366.28	14795366.31	14795366.35	0.0272	0.0260
Mercury	35796-06-23 06:00 G	14795454.64	14795454.75	14795454.86	0.0271	0.0144
Mars	35796-08-17 11:17 G	14795509.70	14795509.97	14795510.25	0.0271	0.0037
Mercury	35796-09-19 16:19 G	14795543.05	14795543.18	14795543.31	0.0270	0.0029
Mercury	35796-12-17 02:38 G	14795631.49	14795631.61	14795631.74	0.0269	0.0086
Mercury	35797-03-15 13:12 G	14795719.96	14795720.05	14795720.14	0.0269	0.0200
Earth	35803-09-07 04:33 G	14798085.47	14798085.69	14798085.92	0.0260	0.0111

Moon	35803-09-07 05:45 G	14798085.53	14798085.74	14798085.95	0.0260	0.0123	*
Earth	35804-09-17 14:09 G	14798462.04	14798462.09	14798462.17	0.0262	0.0253	
Moon	35804-09-17 18:00 G	14798462.19	14798462.25	14798462.34	0.0262	0.0249	
Venus	35808-06-09 22:05 G	14799823.22	14799823.42	14799823.62	0.0273	0.0097	
Venus	35809-01-25 06:14 G	14800052.57	14800052.76	14800052.95	0.0276	0.0120	
Mercury	35812-07-07 01:55 G	14801311.43	14801311.58	14801311.73	0.0291	0.0169	
Mars	35812-09-19 08:24 G	14801385.63	14801385.85	14801386.10	0.0292	0.0197	
Mercury	35812-10-04 02:24 G	14801400.42	14801400.60	14801400.78	0.0292	0.0036	
Mercury	35813-01-01 02:38 G	14801489.51	14801489.61	14801489.71	0.0293	0.0241	
Moon	35818-03-09 12:00 G	14803382.76	14803383.00	14803383.25	0.0301	0.0052	
Earth	35818-03-09 15:07 G	14803382.89	14803383.13	14803383.37	0.0301	0.0039	*
Venus	35821-08-30 04:05 G	14804652.51	14804652.67	14804652.84	0.0289	0.0178	
Venus	35822-04-16 22:05 G	14804882.22	14804882.42	14804882.63	0.0287	0.0074	
Mercury	35825-11-11 09:07 G	14806186.77	14806186.88	14806186.98	0.0271	0.0173	
Mercury	35826-02-07 19:26 G	14806275.18	14806275.31	14806275.44	0.0270	0.0058	
Mercury	35826-05-07 05:45 G	14806363.61	14806363.74	14806363.87	0.0270	0.0057	
Mercury	35826-08-03 16:05 G	14806452.08	14806452.17	14806452.28	0.0269	0.0172	
Moon	35833-09-12 19:55 G	14809049.11	14809049.33	14809049.57	0.0261	0.0089	
Earth	35833-09-12 23:45 G	14809049.26	14809049.49	14809049.72	0.0261	0.0095	*
Venus	35837-12-21 03:36 G	14810609.45	14810609.65	14810609.86	0.0273	0.0066	
Venus	35838-08-07 12:14 G	14810838.83	14810839.01	14810839.19	0.0276	0.0153	
Mercury	35841-11-24 01:12 G	14812043.43	14812043.55	14812043.67	0.0291	0.0218	
Mercury	35842-02-21 01:41 G	14812132.39	14812132.57	14812132.76	0.0292	0.0014	
Mercury	35842-05-21 01:55 G	14812221.45	14812221.58	14812221.72	0.0293	0.0193	
Earth	35847-03-03 11:45 G	14813968.91	14813968.99	14813969.09	0.0302	0.0280	
Moon	35847-03-03 14:53 G	14813969.07	14813969.12	14813969.19	0.0302	0.0291	*
Earth	35848-03-17 16:33 G	14814349.14	14814349.19	14814349.25	0.0300	0.0291	
Moon	35848-03-17 19:55 G	14814349.25	14814349.33	14814349.43	0.0300	0.0279	*
Venus	35851-03-12 14:24 G	14815438.92	14815439.10	14815439.29	0.0290	0.0138	
Venus	35851-10-28 08:09 G	14815668.65	14815668.84	14815669.04	0.0287	0.0113	

Mercury	35855-03-31 12:43 G	14816918.94	14816919.03	14816919.12	0.0272	0.0195
Mercury	35855-06-27 23:02 G	14817007.34	14817007.46	14817007.59	0.0271	0.0080
Mercury	35855-09-24 09:36 G	14817095.76	14817095.90	14817096.03	0.0270	0.0035
Mercury	35855-12-21 19:55 G	14817184.22	14817184.33	14817184.44	0.0269	0.0150
Mercury	35856-03-19 06:29 G	14817272.75	14817272.77	14817272.79	0.0268	0.0263
Earth	35862-09-08 13:26 G	14819636.82	14819637.06	14819637.31	0.0260	0.0056
Moon	35862-09-08 17:02 G	14819636.97	14819637.21	14819637.45	0.0260	0.0068 *
Venus	35866-11-16 04:19 G	14821166.60	14821166.68	14821166.78	0.0271	0.0244
Venus	35867-07-03 11:17 G	14821395.76	14821395.97	14821396.18	0.0274	0.0033
Venus	35868-02-17 19:55 G	14821625.18	14821625.33	14821625.49	0.0277	0.0187
Mercury	35871-04-13 01:12 G	14822775.47	14822775.55	14822775.62	0.0291	0.0264
Mercury	35871-07-11 01:41 G	14822864.39	14822864.57	14822864.75	0.0292	0.0059
Mercury	35871-10-08 02:09 G	14822953.43	14822953.59	14822953.75	0.0293	0.0147
Moon	35877-03-11 09:50 G	14824934.67	14824934.91	14824935.15	0.0301	0.0035
Earth	35877-03-11 12:57 G	14824934.81	14824935.04	14824935.29	0.0301	0.0047 *
Venus	35880-09-21 22:33 G	14826225.24	14826225.44	14826225.64	0.0289	0.0099
Venus	35881-05-09 15:36 G	14826454.98	14826455.15	14826455.34	0.0286	0.0151
Mercury	35884-08-17 15:36 G	14827651.09	14827651.15	14827651.23	0.0272	0.0224
Mercury	35884-11-14 02:09 G	14827739.47	14827739.59	14827739.71	0.0271	0.0109
Mars	35885-01-13 00:00 G	14827799.26	14827799.50	14827799.76	0.0270	0.0113
Mercury	35885-02-10 12:29 G	14827827.89	14827828.02	14827828.16	0.0270	0.0008
Mercury	35885-05-09 22:48 G	14827916.34	14827916.45	14827916.58	0.0269	0.0121
Mercury	35885-08-06 09:21 G	14828004.83	14828004.89	14828004.96	0.0268	0.0234
Moon	35891-09-03 19:12 G	14830224.19	14830224.30	14830224.43	0.0260	0.0227
Earth	35891-09-03 22:48 G	14830224.32	14830224.45	14830224.60	0.0260	0.0213 *
Moon	35892-09-14 07:12 G	14830600.61	14830600.80	14830601.00	0.0262	0.0145
Earth	35892-09-14 07:26 G	14830600.62	14830600.81	14830601.02	0.0262	0.0149 *
Venus	35896-05-28 08:38 G	14831952.74	14831952.86	14831952.99	0.0272	0.0217
Venus	35897-01-12 15:50 G	14832181.95	14832182.16	14832182.37	0.0274	0.0004
Venus	35897-08-30 00:57 G	14832411.41	14832411.54	14832411.67	0.0277	0.0218

Mercury	35900-11-28 00:14 G	14833596.35	14833596.51	14833596.69	0.0291	0.0113
Mercury	35901-02-25 00:43 G	14833685.36	14833685.53	14833685.71	0.0292	0.0093
Earth	35906-03-06 07:41 G	14835520.63	14835520.82	14835521.00	0.0302	0.0199
Moon	35906-03-06 10:19 G	14835520.76	14835520.93	14835521.12	0.0302	0.0210 *
Venus	35910-04-05 07:26 G	14837011.61	14837011.81	14837012.02	0.0289	0.0062
Venus	35910-11-21 00:29 G	14837241.37	14837241.52	14837241.68	0.0286	0.0187
Mercury	35914-01-05 19:12 G	14838383.26	14838383.30	14838383.36	0.0272	0.0248
Mercury	35914-04-04 05:45 G	14838471.62	14838471.74	14838471.85	0.0271	0.0133
Mercury	35914-07-01 16:05 G	14838560.04	14838560.17	14838560.30	0.0270	0.0018
Mercury	35914-09-28 02:24 G	14838648.48	14838648.60	14838648.73	0.0269	0.0096
Mercury	35914-12-25 12:57 G	14838736.96	14838737.04	14838737.12	0.0268	0.0210
Earth	35921-09-10 20:24 G	14841188.10	14841188.35	14841188.59	0.0260	0.0005
Moon	35921-09-10 21:36 G	14841188.15	14841188.40	14841188.66	0.0260	0.0016 *
Venus	35925-12-09 15:07 G	14842738.98	14842739.13	14842739.29	0.0272	0.0186
Venus	35926-07-26 22:19 G	14842968.22	14842968.43	14842968.65	0.0274	0.0028
Venus	35927-03-13 07:41 G	14843197.73	14843197.82	14843197.91	0.0277	0.0250
Mercury	35930-04-16 23:31 G	14844328.33	14844328.48	14844328.63	0.0292	0.0166
Mercury	35930-07-15 00:00 G	14844417.32	14844417.50	14844417.69	0.0293	0.0041
Mercury	35930-10-12 00:14 G	14844506.42	14844506.51	14844506.61	0.0294	0.0247
Earth	35936-03-14 06:14 G	14846486.55	14846486.76	14846486.99	0.0301	0.0126
Moon	35936-03-14 06:43 G	14846486.57	14846486.78	14846487.01	0.0301	0.0112 *
Venus	35939-02-28 19:26 G	14847568.26	14847568.31	14847568.36	0.0291	0.0280
Venus	35939-10-16 14:38 G	14847797.90	14847798.11	14847798.32	0.0288	0.0024
Venus	35940-06-02 07:12 G	14848027.67	14848027.80	14848027.93	0.0285	0.0222
Mercury	35943-08-22 08:38 G	14849203.75	14849203.86	14849203.96	0.0271	0.0163
Mercury	35943-11-18 18:57 G	14849292.16	14849292.29	14849292.42	0.0270	0.0049
Mercury	35944-02-15 05:17 G	14849380.59	14849380.72	14849380.85	0.0269	0.0066
Mercury	35944-05-13 15:36 G	14849469.06	14849469.15	14849469.25	0.0268	0.0180
Moon	35950-09-06 02:24 G	14851775.43	14851775.60	14851775.78	0.0260	0.0177
Earth	35950-09-06 04:19 G	14851775.49	14851775.68	14851775.88	0.0260	0.0162 *

Earth	35951-09-17 12:43 G	14852151.87	14852152.03	14852152.19	0.0261	0.0199
Moon	35951-09-17 15:50 G	14852152.01	14852152.16	14852152.32	0.0261	0.0197 *
Venus	35955-06-21 18:00 G	14853525.08	14853525.25	14853525.42	0.0272	0.0161
Venus	35956-02-06 01:26 G	14853754.36	14853754.56	14853754.77	0.0275	0.0054
Venus	35956-09-22 11:02 G	14853983.96	14853983.96	14853983.97	0.0277	0.0277
Mercury	35959-09-03 21:07 G	14855060.27	14855060.38	14855060.50	0.0291	0.0228
Mercury	35959-12-01 21:50 G	14855149.22	14855149.41	14855149.59	0.0292	0.0021
Mercury	35960-02-28 22:05 G	14855238.28	14855238.42	14855238.57	0.0293	0.0185
Moon	35965-03-07 20:09 G	14857072.12	14857072.34	14857072.57	0.0302	0.0140
Earth	35965-03-07 21:50 G	14857072.19	14857072.41	14857072.64	0.0302	0.0125 *
Venus	35968-09-10 03:07 G	14858354.52	14858354.63	14858354.74	0.0291	0.0246
Venus	35969-04-27 22:05 G	14858584.21	14858584.42	14858584.63	0.0288	0.0010
Venus	35969-12-13 14:24 G	14858814.02	14858814.10	14858814.20	0.0285	0.0256
Mercury	35973-01-08 11:45 G	14859935.90	14859935.99	14859936.09	0.0271	0.0191
Mercury	35973-04-06 22:05 G	14860024.30	14860024.42	14860024.55	0.0271	0.0076
Mars	35973-06-10 11:45 G	14860088.82	14860088.99	14860089.20	0.0270	0.0192
Mercury	35973-07-04 08:38 G	14860112.73	14860112.86	14860112.99	0.0270	0.0039
Mercury	35973-09-30 18:57 G	14860201.18	14860201.29	14860201.40	0.0269	0.0153
Mercury	35973-12-28 05:31 G	14860289.72	14860289.73	14860289.73	0.0268	0.0267
Moon	35980-09-11 21:21 G	14862739.14	14862739.39	14862739.64	0.0260	0.0035
Earth	35980-09-12 00:14 G	14862739.27	14862739.51	14862739.76	0.0260	0.0045 *
Venus	35984-12-31 23:31 G	14864311.30	14864311.48	14864311.67	0.0272	0.0132
Venus	35985-08-18 07:26 G	14864540.61	14864540.81	14864541.01	0.0275	0.0084
Mercury	35989-01-20 19:41 G	14865792.29	14865792.32	14865792.36	0.0291	0.0285
Mercury	35989-04-19 20:24 G	14865881.18	14865881.35	14865881.53	0.0292	0.0078
Mercury	35989-07-17 20:53 G	14865970.21	14865970.37	14865970.54	0.0293	0.0129
Earth	35995-03-16 19:12 G	14868038.12	14868038.30	14868038.49	0.0301	0.0196
Moon	35995-03-16 23:02 G	14868038.27	14868038.46	14868038.66	0.0301	0.0180 *
Venus	35998-03-23 09:07 G	14869140.75	14869140.88	14869141.04	0.0290	0.0211
Venus	35998-11-08 04:05 G	14869370.46	14869370.67	14869370.88	0.0287	0.0045

37TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 37th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	36002-05-28 14:24	G	14870668.03	14870668.10	14870668.18	0.0271	0.0224	
Mercury	36002-08-25 00:43	G	14870756.41	14870756.53	14870756.66	0.0270	0.0109	
Mercury	36002-11-21 11:17	G	14870844.83	14870844.97	14870845.10	0.0269	0.0010	
Mercury	36003-02-17 21:36	G	14870933.28	14870933.40	14870933.52	0.0269	0.0120	
Mercury	36003-05-17 07:55	G	14871021.77	14871021.83	14871021.90	0.0268	0.0234	
Earth	36009-09-07 06:57	G	14873326.57	14873326.79	14873327.01	0.0260	0.0116	
Moon	36009-09-07 09:36	G	14873326.70	14873326.90	14873327.12	0.0260	0.0130	*
Earth	36010-09-18 14:53	G	14873703.04	14873703.12	14873703.21	0.0261	0.0245	
Moon	36010-09-18 17:17	G	14873703.14	14873703.22	14873703.32	0.0261	0.0243	*
Venus	36014-07-14 01:12	G	14875097.36	14875097.55	14875097.75	0.0273	0.0110	
Venus	36015-02-28 08:53	G	14875326.68	14875326.87	14875327.07	0.0275	0.0108	
Mercury	36018-09-06 16:48	G	14876613.05	14876613.20	14876613.37	0.0291	0.0150	
Mercury	36018-12-04 17:31	G	14876702.05	14876702.23	14876702.41	0.0292	0.0057	
Mercury	36019-03-03 17:45	G	14876791.17	14876791.24	14876791.32	0.0293	0.0263	
Moon	36024-03-09 02:24	G	14878623.36	14878623.60	14878623.83	0.0302	0.0079	
Earth	36024-03-09 06:00	G	14878623.51	14878623.75	14878623.99	0.0302	0.0062	*
Venus	36027-10-03 14:53	G	14879926.96	14879927.12	14879927.29	0.0291	0.0181	
Venus	36028-05-20 09:36	G	14880156.69	14880156.90	14880157.10	0.0288	0.0074	
Mars	36031-09-19 03:07	G	14881373.50	14881373.63	14881373.77	0.0272	0.0234	

Mercury	36031-10-15 17:17 G	14881400.18	14881400.22	14881400.27	0.0272	0.0256
Mercury	36032-01-12 03:36 G	14881488.54	14881488.65	14881488.77	0.0271	0.0141
Mercury	36032-04-09 14:09 G	14881576.96	14881577.09	14881577.22	0.0270	0.0025
Mercury	36032-07-07 00:29 G	14881665.40	14881665.52	14881665.65	0.0269	0.0090
Mercury	36032-10-03 10:48 G	14881753.87	14881753.95	14881754.04	0.0268	0.0205
Moon	36039-09-13 22:19 G	14884290.20	14884290.43	14884290.66	0.0260	0.0082
Earth	36039-09-14 01:12 G	14884290.32	14884290.55	14884290.78	0.0260	0.0088 *
Venus	36044-01-24 05:31 G	14885883.53	14885883.73	14885883.94	0.0273	0.0083
Venus	36044-09-09 13:26 G	14886112.88	14886113.06	14886113.25	0.0275	0.0136
Mercury	36048-01-24 14:53 G	14887344.99	14887345.12	14887345.24	0.0291	0.0214
Mercury	36048-04-22 15:21 G	14887433.96	14887434.14	14887434.33	0.0292	0.0010
Mercury	36048-07-20 15:50 G	14887523.03	14887523.16	14887523.29	0.0293	0.0200
Earth	36054-03-18 01:26 G	14889589.44	14889589.56	14889589.69	0.0301	0.0257
Moon	36054-03-18 02:38 G	14889589.46	14889589.61	14889589.77	0.0301	0.0239 *
Venus	36057-04-14 19:55 G	14890713.15	14890713.33	14890713.51	0.0290	0.0147
Venus	36057-11-30 14:09 G	14890942.90	14890943.09	14890943.29	0.0287	0.0106
Mercury	36061-05-31 06:14 G	14892220.66	14892220.76	14892220.86	0.0271	0.0175
Mercury	36061-08-27 16:33 G	14892309.06	14892309.19	14892309.32	0.0270	0.0060
Mars	36061-11-04 04:33 G	14892377.56	14892377.69	14892377.82	0.0269	0.0238
Mercury	36061-11-24 02:53 G	14892397.49	14892397.62	14892397.75	0.0269	0.0055
Mercury	36062-02-20 13:12 G	14892485.95	14892486.05	14892486.16	0.0268	0.0169
Earth	36068-09-08 06:29 G	14894877.54	14894877.77	14894878.01	0.0260	0.0075
Moon	36068-09-08 09:21 G	14894877.66	14894877.89	14894878.14	0.0260	0.0085 *
Venus	36073-08-05 06:14 G	14896669.55	14896669.76	14896669.97	0.0273	0.0063
Venus	36074-03-22 14:09 G	14896898.92	14896899.09	14896899.27	0.0276	0.0156
Mercury	36077-09-09 11:17 G	14898165.80	14898165.97	14898166.15	0.0292	0.0084
Mercury	36077-12-07 11:45 G	14898254.83	14898254.99	14898255.16	0.0293	0.0124
Moon	36083-03-11 09:07 G	14900174.64	14900174.88	14900175.11	0.0302	0.0023
Earth	36083-03-11 09:07 G	14900174.64	14900174.88	14900175.13	0.0302	0.0008 *
Venus	36086-10-25 23:45 G	14901499.30	14901499.49	14901499.69	0.0290	0.0121

Venus	36087-06-12 18:14 G	14901729.07	14901729.26	14901729.45	0.0287	0.0133
Mercury	36090-10-18 08:38 G	14902952.78	14902952.86	14902952.95	0.0272	0.0211
Mercury	36091-01-14 19:12 G	14903041.17	14903041.30	14903041.42	0.0271	0.0095
Mercury	36091-04-13 05:31 G	14903129.60	14903129.73	14903129.86	0.0270	0.0021
Mercury	36091-07-10 15:50 G	14903218.05	14903218.16	14903218.28	0.0269	0.0135
Mercury	36091-10-07 02:09 G	14903306.55	14903306.59	14903306.64	0.0268	0.0250
Moon	36097-09-03 13:55 G	14905465.00	14905465.08	14905465.16	0.0259	0.0242
Earth	36097-09-03 16:48 G	14905465.09	14905465.20	14905465.31	0.0259	0.0229 *
Earth	36098-09-14 23:02 G	14905841.26	14905841.46	14905841.68	0.0260	0.0128
Moon	36098-09-15 00:57 G	14905841.34	14905841.54	14905841.76	0.0260	0.0127 *
Venus	36102-07-02 03:50 G	14907226.57	14907226.66	14907226.75	0.0270	0.0246
Venus	36103-02-16 09:50 G	14907455.70	14907455.91	14907456.12	0.0273	0.0036
Venus	36103-10-03 17:45 G	14907685.09	14907685.24	14907685.41	0.0276	0.0183
Mercury	36107-01-28 08:38 G	14908897.70	14908897.86	14908898.01	0.0291	0.0153
Mercury	36107-04-27 09:07 G	14908986.70	14908986.88	14908987.06	0.0293	0.0055
Mercury	36107-07-25 09:21 G	14909075.81	14909075.89	14909075.98	0.0294	0.0261
Moon	36112-03-04 18:14 G	14910760.18	14910760.26	14910760.34	0.0303	0.0287
Earth	36112-03-04 18:43 G	14910760.19	14910760.28	14910760.40	0.0303	0.0272 *
Moon	36113-03-19 22:33 G	14911140.39	14911140.44	14911140.51	0.0301	0.0291
Venus	36116-05-08 03:21 G	14912285.44	14912285.64	14912285.84	0.0290	0.0091
Venus	36116-12-23 21:07 G	14912515.22	14912515.38	14912515.56	0.0287	0.0162
Mars	36120-02-13 11:45 G	14913661.82	14913661.99	14913662.18	0.0272	0.0200
Mercury	36120-03-07 10:48 G	14913684.90	14913684.95	14913685.00	0.0272	0.0248
Mercury	36120-06-03 21:07 G	14913773.27	14913773.38	14913773.50	0.0271	0.0133
Mercury	36120-08-31 07:26 G	14913861.68	14913861.81	14913861.95	0.0270	0.0020
Mercury	36120-11-27 18:00 G	14913950.12	14913950.25	14913950.37	0.0269	0.0097
Mercury	36121-02-24 04:19 G	14914038.60	14914038.68	14914038.76	0.0268	0.0211
Moon	36127-09-11 01:55 G	14916428.33	14916428.58	14916428.83	0.0260	0.0041
Earth	36127-09-11 03:50 G	14916428.42	14916428.66	14916428.91	0.0260	0.0037 *
Venus	36132-01-12 03:07 G	14918012.52	14918012.63	14918012.75	0.0271	0.0229

Venus	36132-08-28 09:21 G	14918241.68	14918241.89	14918242.10	0.0273	0.0019
Venus	36133-04-14 17:17 G	14918471.08	14918471.22	14918471.37	0.0276	0.0201
Mercury	36136-06-16 03:21 G	14919629.54	14919629.64	14919629.76	0.0291	0.0237
Mercury	36136-09-13 04:19 G	14919718.50	14919718.68	14919718.86	0.0292	0.0029
Mercury	36136-12-11 04:33 G	14919807.55	14919807.69	14919807.84	0.0293	0.0178
Earth	36142-03-13 06:43 G	14921725.53	14921725.78	14921726.02	0.0302	0.0039
Moon	36142-03-13 10:05 G	14921725.68	14921725.92	14921726.16	0.0302	0.0023 *
Venus	36145-11-18 05:45 G	14923071.53	14923071.74	14923071.94	0.0290	0.0067
Venus	36146-07-05 23:45 G	14923301.33	14923301.49	14923301.65	0.0287	0.0185
Mercury	36149-10-21 23:31 G	14924505.38	14924505.48	14924505.58	0.0272	0.0172
Mercury	36150-01-18 09:50 G	14924593.78	14924593.91	14924594.04	0.0271	0.0056
Mercury	36150-04-16 20:09 G	14924682.21	14924682.34	14924682.47	0.0270	0.0060
Mercury	36150-07-14 06:29 G	14924770.68	14924770.77	14924770.88	0.0269	0.0175
Earth	36156-09-05 12:43 G	14927015.88	14927016.03	14927016.20	0.0259	0.0194
Moon	36156-09-05 13:55 G	14927015.95	14927016.08	14927016.24	0.0259	0.0204 *
Earth	36157-09-16 18:43 G	14927392.10	14927392.28	14927392.48	0.0260	0.0164
Moon	36157-09-16 22:19 G	14927392.25	14927392.43	14927392.63	0.0260	0.0167 *
Venus	36161-07-24 06:00 G	14928798.62	14928798.75	14928798.90	0.0270	0.0204
Venus	36162-03-10 12:14 G	14929027.80	14929028.01	14929028.23	0.0273	0.0008
Venus	36162-10-25 20:24 G	14929257.24	14929257.35	14929257.48	0.0276	0.0227
Mercury	36166-01-31 01:12 G	14930450.37	14930450.55	14930450.72	0.0292	0.0101
Mercury	36166-04-30 01:41 G	14930539.40	14930539.57	14930539.74	0.0293	0.0107
Moon	36171-03-06 11:31 G	14932310.85	14932310.98	14932311.14	0.0303	0.0247
Earth	36171-03-06 15:07 G	14932310.99	14932311.13	14932311.30	0.0303	0.0230 *
Venus	36175-05-31 08:38 G	14933857.65	14933857.86	14933858.07	0.0289	0.0039
Venus	36176-01-16 02:24 G	14934087.47	14934087.60	14934087.75	0.0286	0.0212
Mercury	36179-03-11 01:26 G	14935237.48	14935237.56	14935237.64	0.0272	0.0211
Mercury	36179-06-07 11:45 G	14935325.87	14935325.99	14935326.12	0.0271	0.0096
Mercury	36179-09-03 22:19 G	14935414.29	14935414.43	14935414.56	0.0270	0.0021
Mercury	36179-12-01 08:38 G	14935502.75	14935502.86	14935502.97	0.0269	0.0135

Mercury	36180-02-27 18:57 G	14935591.25	14935591.29	14935591.34	0.0268	0.0249
Moon	36186-09-11 19:55 G	14937979.09	14937979.33	14937979.58	0.0259	0.0004
Earth	36186-09-11 23:17 G	14937979.23	14937979.47	14937979.72	0.0259	0.0003 *
Venus	36191-02-03 05:02 G	14939584.57	14939584.71	14939584.87	0.0271	0.0188
Venus	36191-09-20 11:31 G	14939813.77	14939813.98	14939814.19	0.0273	0.0024
Venus	36192-05-06 19:26 G	14940043.23	14940043.31	14940043.42	0.0276	0.0244
Mercury	36195-06-19 19:41 G	14941182.19	14941182.32	14941182.47	0.0291	0.0188
Mercury	36195-09-16 20:38 G	14941271.17	14941271.36	14941271.54	0.0292	0.0020
Mercury	36195-12-14 20:53 G	14941360.26	14941360.37	14941360.49	0.0293	0.0227
Earth	36201-03-15 01:12 G	14943276.31	14943276.55	14943276.78	0.0302	0.0079
Moon	36201-03-15 02:53 G	14943276.38	14943276.62	14943276.87	0.0302	0.0064 *
Venus	36204-04-25 12:57 G	14944413.98	14944414.04	14944414.11	0.0293	0.0279
Venus	36204-12-11 09:36 G	14944643.69	14944643.90	14944644.11	0.0290	0.0018
Venus	36205-07-29 03:21 G	14944873.53	14944873.64	14944873.77	0.0287	0.0233
Mars	36208-07-09 11:02 G	14945949.76	14945949.96	14945950.18	0.0273	0.0172
Mercury	36208-07-29 03:21 G	14945969.60	14945969.64	14945969.69	0.0273	0.0254
Mercury	36208-10-25 13:55 G	14946057.96	14946058.08	14946058.19	0.0272	0.0137
Mercury	36209-01-22 00:14 G	14946146.38	14946146.51	14946146.64	0.0271	0.0021
Mercury	36209-04-20 10:33 G	14946234.82	14946234.94	14946235.07	0.0270	0.0095
Mercury	36209-07-17 21:07 G	14946323.30	14946323.38	14946323.46	0.0269	0.0210
Earth	36215-09-08 07:41 G	14948566.63	14948566.82	14948567.02	0.0259	0.0160
Moon	36215-09-08 11:02 G	14948566.78	14948566.96	14948567.16	0.0259	0.0169 *
Moon	36216-09-18 12:14 G	14948942.87	14948943.01	14948943.18	0.0260	0.0206
Earth	36216-09-18 13:26 G	14948942.92	14948943.06	14948943.23	0.0260	0.0198 *
Venus	36220-08-16 07:41 G	14950370.66	14950370.82	14950371.00	0.0270	0.0163
Venus	36221-04-02 14:09 G	14950599.88	14950600.09	14950600.30	0.0273	0.0050
Venus	36221-11-17 22:19 G	14950829.39	14950829.43	14950829.48	0.0276	0.0269
Mercury	36224-11-06 16:19 G	14951914.11	14951914.18	14951914.27	0.0290	0.0261
Mercury	36225-02-03 17:17 G	14952003.04	14952003.22	14952003.40	0.0292	0.0053
Mercury	36225-05-03 17:31 G	14952092.08	14952092.23	14952092.39	0.0293	0.0154

Moon	36230-03-08 07:55 G	14953861.66	14953861.83	14953862.00	0.0303	0.0206
Earth	36230-03-08 08:53 G	14953861.68	14953861.87	14953862.06	0.0303	0.0191 *
Venus	36233-11-05 15:50 G	14955200.06	14955200.16	14955200.27	0.0292	0.0251
Venus	36234-06-23 12:14 G	14955429.80	14955430.01	14955430.22	0.0289	0.0011
Venus	36235-02-08 06:00 G	14955659.66	14955659.75	14955659.84	0.0286	0.0260
Mercury	36238-03-14 15:50 G	14956790.06	14956790.16	14956790.26	0.0272	0.0177
Mercury	36238-06-11 02:09 G	14956878.46	14956878.59	14956878.72	0.0271	0.0061
Mercury	36238-09-07 12:29 G	14956966.89	14956967.02	14956967.15	0.0270	0.0055
Mercury	36238-12-04 23:02 G	14957055.35	14957055.46	14957055.56	0.0269	0.0170
Earth	36245-09-13 18:00 G	14959530.00	14959530.25	14959530.49	0.0259	0.0032
Moon	36245-09-13 18:29 G	14959530.04	14959530.27	14959530.51	0.0259	0.0036 *
Venus	36250-02-26 06:57 G	14961156.61	14961156.79	14961156.97	0.0271	0.0146
Venus	36250-10-13 13:12 G	14961385.84	14961386.05	14961386.26	0.0273	0.0066
Mercury	36254-06-23 11:45 G	14962734.83	14962734.99	14962735.16	0.0291	0.0141
Mercury	36254-09-20 12:29 G	14962823.84	14962824.02	14962824.20	0.0292	0.0066
Mercury	36254-12-18 12:43 G	14962912.97	14962913.03	14962913.10	0.0293	0.0273
Moon	36260-03-15 15:21 G	14964826.91	14964827.14	14964827.38	0.0302	0.0104
Earth	36260-03-15 18:14 G	14964827.04	14964827.26	14964827.49	0.0302	0.0116 *
Venus	36263-05-18 16:19 G	14965986.06	14965986.18	14965986.31	0.0292	0.0230
Venus	36264-01-03 12:43 G	14966215.82	14966216.03	14966216.24	0.0290	0.0032
Venus	36264-08-20 06:29 G	14966445.74	14966445.77	14966445.82	0.0287	0.0281
Mercury	36267-08-01 17:31 G	14967522.16	14967522.23	14967522.31	0.0273	0.0221
Mercury	36267-10-29 04:05 G	14967610.55	14967610.67	14967610.79	0.0272	0.0104
Mercury	36268-01-25 14:24 G	14967698.97	14967699.10	14967699.23	0.0271	0.0014
Mercury	36268-04-23 00:57 G	14967787.42	14967787.54	14967787.65	0.0270	0.0129
Mercury	36268-07-20 11:17 G	14967875.92	14967875.97	14967876.03	0.0269	0.0244
Earth	36274-09-09 02:24 G	14970117.39	14970117.60	14970117.82	0.0259	0.0127
Moon	36274-09-09 02:38 G	14970117.39	14970117.61	14970117.83	0.0259	0.0131 *
Moon	36275-09-20 04:48 G	14970493.62	14970493.70	14970493.78	0.0260	0.0243
Earth	36275-09-20 08:09 G	14970493.74	14970493.84	14970493.96	0.0260	0.0231 *

Venus	36279-09-08 09:50 G	14971942.72	14971942.91	14971943.10	0.0271	0.0120
Venus	36280-04-24 16:05 G	14972171.97	14972172.17	14972172.37	0.0273	0.0093
Mercury	36283-11-10 08:38 G	14973466.74	14973466.86	14973466.99	0.0290	0.0211
Mercury	36284-02-07 09:21 G	14973555.71	14973555.89	14973556.08	0.0291	0.0005
Mercury	36284-05-06 09:36 G	14973644.78	14973644.90	14973645.04	0.0293	0.0203
Earth	36289-03-09 02:24 G	14975412.39	14975412.60	14975412.81	0.0304	0.0153
Moon	36289-03-09 05:45 G	14975412.54	14975412.74	14975412.94	0.0304	0.0166 *
Venus	36292-11-27 19:12 G	14976772.15	14976772.30	14976772.45	0.0292	0.0202
Venus	36293-07-15 15:21 G	14977001.93	14977002.14	14977002.35	0.0289	0.0059
Mars	36296-12-02 06:14 G	14978237.54	14978237.76	14978237.98	0.0273	0.0161
Mercury	36296-12-18 19:26 G	14978254.28	14978254.31	14978254.35	0.0273	0.0261
Mercury	36297-03-17 06:00 G	14978342.64	14978342.75	14978342.86	0.0272	0.0144
Mercury	36297-06-13 16:19 G	14978431.05	14978431.18	14978431.31	0.0271	0.0028
Mercury	36297-09-10 02:53 G	14978519.49	14978519.62	14978519.74	0.0270	0.0089
Mercury	36297-12-07 13:12 G	14978607.97	14978608.05	14978608.14	0.0269	0.0204
Earth	36304-09-15 13:12 G	14981080.82	14981081.05	14981081.30	0.0259	0.0068
Moon	36304-09-15 16:48 G	14981080.97	14981081.20	14981081.44	0.0259	0.0073 *
Venus	36309-03-21 09:36 G	14982728.71	14982728.90	14982729.10	0.0271	0.0102
Venus	36309-11-05 15:50 G	14982957.97	14982958.16	14982958.36	0.0274	0.0111
Mercury	36313-06-27 04:19 G	14984287.51	14984287.68	14984287.86	0.0291	0.0090
Mercury	36313-09-24 04:48 G	14984376.53	14984376.70	14984376.87	0.0292	0.0117
Moon	36319-03-18 09:07 G	14986377.67	14986377.88	14986378.09	0.0302	0.0145
Earth	36319-03-18 11:45 G	14986377.79	14986377.99	14986378.21	0.0302	0.0155 *
Venus	36322-06-10 19:26 G	14987558.15	14987558.31	14987558.48	0.0292	0.0180
Venus	36323-01-26 15:50 G	14987787.96	14987788.16	14987788.36	0.0289	0.0080
Mercury	36326-08-05 07:41 G	14989074.73	14989074.82	14989074.92	0.0273	0.0188
Mercury	36326-11-01 18:14 G	14989163.13	14989163.26	14989163.39	0.0272	0.0070
Mercury	36327-01-29 04:33 G	14989251.56	14989251.69	14989251.83	0.0271	0.0048
Mercury	36327-04-27 15:07 G	14989340.03	14989340.13	14989340.24	0.0270	0.0163
Moon	36333-09-10 18:14 G	14991668.03	14991668.26	14991668.50	0.0259	0.0093

Earth	36333-09-10 21:50 G	14991668.19	14991668.41	14991668.65	0.0259	0.0093	*
Venus	36338-10-01 12:43 G	14993514.83	14993515.03	14993515.24	0.0271	0.0075	
Venus	36339-05-18 19:12 G	14993744.12	14993744.30	14993744.48	0.0273	0.0138	
Mercury	36342-11-14 01:26 G	14995019.41	14995019.56	14995019.72	0.0290	0.0158	
Mercury	36343-02-11 02:09 G	14995108.41	14995108.59	14995108.77	0.0291	0.0049	
Mercury	36343-05-11 02:09 G	14995197.51	14995197.59	14995197.69	0.0293	0.0256	
Earth	36348-03-10 21:21 G	14996963.17	14996963.39	14996963.62	0.0304	0.0113	
Moon	36348-03-10 23:17 G	14996963.24	14996963.47	14996963.70	0.0304	0.0120	*
Venus	36351-12-21 23:31 G	14998344.30	14998344.48	14998344.66	0.0292	0.0150	
Venus	36352-08-07 19:12 G	14998574.11	14998574.30	14998574.50	0.0289	0.0109	
Mercury	36355-12-23 09:50 G	14999806.84	14999806.91	14999806.99	0.0273	0.0226	
Mercury	36356-03-20 20:24 G	14999895.23	14999895.35	14999895.47	0.0272	0.0108	
Mercury	36356-06-17 06:43 G	14999983.65	14999983.78	14999983.92	0.0271	0.0012	
Mercury	36356-09-13 17:17 G	15000072.10	15000072.22	15000072.34	0.0270	0.0125	
Mercury	36356-12-11 03:36 G	15000160.60	15000160.65	15000160.71	0.0269	0.0241	
Earth	36362-09-06 05:02 G	15002255.68	15002255.71	15002255.77	0.0259	0.0253	
Moon	36362-09-06 08:53 G	15002255.87	15002255.87	15002255.89	0.0259	0.0258	
Earth	36363-09-17 10:19 G	15002631.71	15002631.93	15002632.16	0.0259	0.0104	
Moon	36363-09-17 11:31 G	15002631.75	15002631.98	15002632.21	0.0259	0.0112	*
Venus	36367-08-27 08:53 G	15004071.84	15004071.87	15004071.93	0.0269	0.0261	
Venus	36368-04-12 13:41 G	15004300.86	15004301.07	15004301.28	0.0271	0.0056	
Venus	36368-11-27 19:55 G	15004530.17	15004530.33	15004530.51	0.0274	0.0159	
Mercury	36372-04-01 21:07 G	15005751.28	15005751.38	15005751.49	0.0290	0.0237	
Mercury	36372-06-29 21:50 G	15005840.23	15005840.41	15005840.59	0.0291	0.0031	
Mercury	36372-09-26 22:05 G	15005929.28	15005929.42	15005929.57	0.0292	0.0176	
Earth	36378-03-19 08:53 G	15007928.70	15007928.87	15007929.07	0.0302	0.0198	
Moon	36378-03-19 11:17 G	15007928.79	15007928.97	15007929.15	0.0302	0.0195	*
Venus	36381-07-03 00:14 G	15009130.33	15009130.51	15009130.71	0.0292	0.0127	
Venus	36382-02-17 20:24 G	15009360.17	15009360.35	15009360.54	0.0289	0.0132	
Mars	36385-04-28 02:09 G	15010525.36	15010525.59	15010525.82	0.0274	0.0142	

Mercury	36385-05-11 11:45 G	15010538.97	15010538.99	15010539.01	0.0274	0.0269
Mercury	36385-08-07 22:19 G	15010627.32	15010627.43	15010627.54	0.0273	0.0151
Mercury	36385-11-04 08:38 G	15010715.73	15010715.86	15010715.99	0.0272	0.0033
Mercury	36386-01-31 19:12 G	15010804.17	15010804.30	15010804.42	0.0271	0.0084
Mercury	36386-04-30 05:31 G	15010892.65	15010892.73	15010892.82	0.0270	0.0201
Moon	36392-09-11 18:14 G	15013219.03	15013219.26	15013219.50	0.0259	0.0052
Earth	36392-09-11 19:41 G	15013219.08	15013219.32	15013219.56	0.0259	0.0056 *
Venus	36397-03-08 13:12 G	15014857.94	15014858.05	15014858.15	0.0269	0.0232
Venus	36397-10-23 17:45 G	15015087.03	15015087.24	15015087.45	0.0271	0.0026
Venus	36398-06-10 00:14 G	15015316.37	15015316.51	15015316.67	0.0274	0.0189
Mars	36401-05-18 07:26 G	15016389.73	15016389.81	15016389.91	0.0288	0.0275
Mercury	36401-11-16 19:41 G	15016572.15	15016572.32	15016572.50	0.0290	0.0092
Mercury	36402-02-13 20:09 G	15016661.17	15016661.34	15016661.51	0.0291	0.0114
Moon	36407-03-12 17:02 G	15018513.97	15018514.21	15018514.46	0.0303	0.0067
Earth	36407-03-12 20:09 G	15018514.11	15018514.34	15018514.59	0.0303	0.0067 *
Venus	36411-01-13 05:17 G	15019916.52	15019916.72	15019916.92	0.0292	0.0095
Venus	36411-08-31 00:43 G	15020146.36	15020146.53	15020146.71	0.0289	0.0163
Mercury	36414-12-26 00:29 G	15021359.43	15021359.52	15021359.62	0.0273	0.0187
Mercury	36415-03-24 11:02 G	15021447.83	15021447.96	15021448.09	0.0272	0.0069
Mercury	36415-06-20 21:36 G	15021536.27	15021536.40	15021536.53	0.0271	0.0049
Mercury	36415-09-17 07:55 G	15021624.73	15021624.83	15021624.94	0.0270	0.0165
Earth	36421-09-07 04:19 G	15023806.56	15023806.68	15023806.83	0.0259	0.0215
Moon	36421-09-07 06:00 G	15023806.62	15023806.75	15023806.90	0.0259	0.0214 *
Moon	36422-09-18 06:43 G	15024182.59	15024182.78	15024182.99	0.0259	0.0156
Earth	36422-09-18 10:05 G	15024182.72	15024182.92	15024183.13	0.0259	0.0143 *
Venus	36426-09-18 15:07 G	15025644.00	15025644.13	15025644.26	0.0269	0.0211
Venus	36427-05-05 19:55 G	15025873.12	15025873.33	15025873.54	0.0272	0.0004
Venus	36427-12-21 02:38 G	15026102.48	15026102.61	15026102.74	0.0274	0.0211
Mercury	36431-04-05 16:05 G	15027304.02	15027304.17	15027304.32	0.0290	0.0167
Mercury	36431-07-03 16:33 G	15027393.01	15027393.19	15027393.37	0.0291	0.0039

Mercury	36431-09-30 16:33 G	15027482.10	15027482.19	15027482.30	0.0292	0.0245
Earth	36437-03-20 10:05 G	15029479.80	15029479.92	15029480.07	0.0302	0.0248
Moon	36437-03-20 13:55 G	15029479.95	15029480.08	15029480.22	0.0302	0.0249 *
Venus	36440-07-25 07:12 G	15030702.60	15030702.80	15030703.01	0.0291	0.0069
Venus	36441-03-12 02:53 G	15030932.47	15030932.62	15030932.79	0.0289	0.0189
Mercury	36444-05-14 02:38 G	15032091.54	15032091.61	15032091.69	0.0274	0.0228
Mercury	36444-08-10 13:12 G	15032179.93	15032180.05	15032180.17	0.0273	0.0109
Mercury	36444-11-06 23:45 G	15032268.35	15032268.49	15032268.62	0.0272	0.0012
Mercury	36445-02-03 10:05 G	15032356.81	15032356.92	15032357.04	0.0271	0.0127
Mercury	36445-05-02 20:38 G	15032445.31	15032445.36	15032445.42	0.0270	0.0244
Earth	36451-09-13 20:24 G	15034770.10	15034770.35	15034770.60	0.0259	0.0015
Moon	36451-09-13 23:45 G	15034770.24	15034770.49	15034770.73	0.0259	0.0007 *
Venus	36456-03-30 19:55 G	15036430.18	15036430.33	15036430.50	0.0269	0.0180
Venus	36456-11-15 01:12 G	15036659.34	15036659.55	15036659.76	0.0272	0.0028
Venus	36457-07-02 07:55 G	15036888.75	15036888.83	15036888.93	0.0274	0.0244
Mercury	36460-08-22 14:38 G	15038036.00	15038036.11	15038036.23	0.0289	0.0221
Mercury	36460-11-19 15:21 G	15038124.95	15038125.14	15038125.32	0.0290	0.0016
Mercury	36461-02-16 15:36 G	15038214.01	15038214.15	15038214.29	0.0292	0.0191
Moon	36466-03-13 21:50 G	15040065.18	15040065.41	15040065.65	0.0303	0.0009
Earth	36466-03-14 00:43 G	15040065.28	15040065.53	15040065.77	0.0303	0.0010 *
Venus	36470-02-04 13:55 G	15041488.87	15041489.08	15041489.29	0.0291	0.0034
Venus	36470-09-22 09:07 G	15041718.75	15041718.88	15041719.01	0.0288	0.0222
Mars	36473-09-21 12:00 G	15042813.75	15042814.00	15042814.25	0.0274	0.0109
Mercury	36473-10-01 05:17 G	15042823.69	15042823.72	15042823.76	0.0274	0.0261
Mercury	36473-12-28 15:50 G	15042912.05	15042912.16	15042912.27	0.0273	0.0142
Mercury	36474-03-27 02:24 G	15043000.47	15043000.60	15043000.73	0.0272	0.0024
Mercury	36474-06-23 12:43 G	15043088.91	15043089.03	15043089.16	0.0271	0.0095
Mercury	36474-09-19 23:17 G	15043177.39	15043177.47	15043177.56	0.0270	0.0211
Moon	36480-09-08 04:19 G	15045357.49	15045357.68	15045357.87	0.0259	0.0165
Earth	36480-09-08 07:12 G	15045357.62	15045357.80	15045357.99	0.0259	0.0171 *

Moon	36481-09-19 10:48 G	15045733.80	15045733.95	15045734.10	0.0260	0.0203
Earth	36481-09-19 12:57 G	15045733.88	15045734.04	15045734.22	0.0260	0.0189 *
Venus	36485-10-11 00:00 G	15047216.33	15047216.50	15047216.68	0.0270	0.0155
Venus	36486-05-28 05:02 G	15047445.51	15047445.71	15047445.92	0.0272	0.0055
Venus	36487-01-12 12:14 G	15047674.98	15047675.01	15047675.04	0.0275	0.0271
Mars	36489-10-11 15:07 G	15048677.94	15048678.13	15048678.33	0.0288	0.0223
Mercury	36490-01-09 12:00 G	15048767.99	15048768.00	15048768.04	0.0289	0.0286
Mercury	36490-04-08 12:57 G	15048856.86	15048857.04	15048857.21	0.0290	0.0080
Mercury	36490-07-06 13:12 G	15048945.89	15048946.05	15048946.22	0.0291	0.0126
Earth	36495-03-07 09:50 G	15050650.83	15050650.91	15050651.02	0.0303	0.0278
Moon	36495-03-07 12:00 G	15050650.90	15050651.00	15050651.11	0.0303	0.0275 *
Venus	36498-12-30 19:41 G	15052045.24	15052045.32	15052045.41	0.0293	0.0269
Venus	36499-08-17 17:17 G	15052275.01	15052275.22	15052275.43	0.0291	0.0004
Venus	36500-04-04 12:29 G	15052504.92	15052505.02	15052505.12	0.0288	0.0250
Mercury	36503-05-18 18:14 G	15053644.16	15053644.26	15053644.36	0.0274	0.0180
Mercury	36503-08-15 04:33 G	15053732.57	15053732.69	15053732.82	0.0273	0.0062
Mercury	36503-11-11 15:07 G	15053821.00	15053821.13	15053821.26	0.0272	0.0057
Mercury	36504-02-08 01:41 G	15053909.47	15053909.57	15053909.67	0.0271	0.0175
Earth	36510-09-16 00:14 G	15056321.27	15056321.51	15056321.76	0.0259	0.0032
Moon	36510-09-16 02:53 G	15056321.37	15056321.62	15056321.87	0.0259	0.0043 *
Venus	36515-04-24 05:31 G	15058002.55	15058002.73	15058002.93	0.0270	0.0123
Venus	36515-12-09 11:02 G	15058231.77	15058231.96	15058232.17	0.0272	0.0089
Mercury	36519-08-27 12:00 G	15059588.84	15059589.00	15059589.17	0.0290	0.0130
Mercury	36519-11-24 12:29 G	15059677.84	15059678.02	15059678.20	0.0291	0.0076
Mercury	36520-02-21 12:43 G	15059766.99	15059767.03	15059767.08	0.0292	0.0281
Earth	36525-03-16 10:19 G	15061616.70	15061616.93	15061617.18	0.0303	0.0056
Moon	36525-03-16 12:00 G	15061616.77	15061617.00	15061617.23	0.0303	0.0061 *
Venus	36528-07-13 03:50 G	15062831.53	15062831.66	15062831.79	0.0294	0.0231
Venus	36529-02-28 01:12 G	15063061.34	15063061.55	15063061.76	0.0291	0.0033
Venus	36529-10-15 19:41 G	15063291.31	15063291.32	15063291.35	0.0288	0.0286

Mercury	36532-10-04 21:07 G	15064376.30	15064376.38	15064376.47	0.0274	0.0209
Mercury	36533-01-01 07:41 G	15064464.70	15064464.82	15064464.95	0.0273	0.0090
Mercury	36533-03-30 18:14 G	15064553.13	15064553.26	15064553.39	0.0272	0.0028
Mercury	36533-06-27 04:33 G	15064641.59	15064641.69	15064641.81	0.0271	0.0147
Mercury	36533-09-23 15:07 G	15064730.11	15064730.13	15064730.16	0.0270	0.0264
Moon	36539-09-11 10:19 G	15066908.72	15066908.93	15066909.15	0.0259	0.0116
Earth	36539-09-11 13:12 G	15066908.84	15066909.05	15066909.27	0.0259	0.0122 *
Earth	36540-09-21 19:26 G	15067285.21	15067285.31	15067285.40	0.0260	0.0238
Moon	36540-09-21 21:21 G	15067285.36	15067285.39	15067285.46	0.0260	0.0254 *
Venus	36544-11-03 11:17 G	15068788.77	15068788.97	15068789.17	0.0270	0.0094
Venus	36545-06-20 16:48 G	15069018.01	15069018.20	15069018.39	0.0273	0.0118
Mercury	36549-01-13 10:33 G	15070320.80	15070320.94	15070321.09	0.0289	0.0187
Mercury	36549-04-12 11:02 G	15070409.78	15070409.96	15070410.15	0.0290	0.0020
Mercury	36549-07-10 11:17 G	15070498.86	15070498.97	15070499.09	0.0292	0.0225
Moon	36554-03-09 21:36 G	15072202.22	15072202.40	15072202.60	0.0303	0.0202
Earth	36554-03-10 00:00 G	15072202.32	15072202.50	15072202.67	0.0303	0.0207 *
Venus	36558-01-23 09:21 G	15073617.74	15073617.89	15073618.05	0.0293	0.0196
Venus	36558-09-10 06:14 G	15073847.56	15073847.76	15073847.97	0.0290	0.0067
Mars	36562-02-16 06:43 G	15075102.51	15075102.78	15075103.04	0.0274	0.0060
Mercury	36562-02-21 23:45 G	15075108.44	15075108.49	15075108.55	0.0274	0.0244
Mercury	36562-05-21 10:19 G	15075196.81	15075196.93	15075197.05	0.0273	0.0125
Mercury	36562-08-17 20:53 G	15075285.24	15075285.37	15075285.50	0.0272	0.0007
Mercury	36562-11-14 07:26 G	15075373.69	15075373.81	15075373.93	0.0271	0.0113
Mercury	36563-02-10 17:45 G	15075462.18	15075462.24	15075462.31	0.0270	0.0231
Moon	36569-09-17 05:02 G	15077872.49	15077872.71	15077872.96	0.0260	0.0096
Earth	36569-09-17 07:12 G	15077872.57	15077872.80	15077873.04	0.0260	0.0083 *
Venus	36573-09-29 13:41 G	15079346.04	15079346.07	15079346.11	0.0268	0.0264
Venus	36574-05-16 18:00 G	15079575.04	15079575.25	15079575.46	0.0270	0.0059
Venus	36574-12-31 23:45 G	15079804.32	15079804.49	15079804.67	0.0273	0.0154
Mars	36578-03-09 10:33 G	15080967.66	15080967.94	15080968.24	0.0288	0.0126

Mercury	36578-06-02 10:33 G	15081052.83	15081052.94	15081053.06	0.0289	0.0229
Mercury	36578-08-30 11:02 G	15081141.78	15081141.96	15081142.15	0.0290	0.0025
Mercury	36578-11-27 11:17 G	15081230.84	15081230.97	15081231.12	0.0291	0.0182
Earth	36584-03-18 02:53 G	15083168.41	15083168.62	15083168.85	0.0303	0.0132
Moon	36584-03-18 06:29 G	15083168.56	15083168.77	15083169.00	0.0303	0.0138 *
Venus	36587-08-05 18:57 G	15084404.11	15084404.29	15084404.47	0.0293	0.0156
Venus	36588-03-22 15:36 G	15084633.96	15084634.15	15084634.35	0.0290	0.0106
Mercury	36591-07-12 03:07 G	15085840.62	15085840.63	15085840.65	0.0274	0.0271
Mercury	36591-10-08 13:41 G	15085928.96	15085929.07	15085929.18	0.0273	0.0151
Mercury	36592-01-05 00:14 G	15086017.38	15086017.51	15086017.64	0.0272	0.0032
Mercury	36592-04-02 10:33 G	15086105.82	15086105.94	15086106.07	0.0271	0.0087
Mercury	36592-06-29 21:07 G	15086194.30	15086194.38	15086194.47	0.0270	0.0205
Earth	36598-09-12 21:36 G	15088460.17	15088460.40	15088460.65	0.0259	0.0070
Moon	36598-09-12 22:33 G	15088460.22	15088460.44	15088460.68	0.0259	0.0062 *
Venus	36603-04-12 20:09 G	15090132.25	15090132.34	15090132.46	0.0269	0.0234
Venus	36603-11-28 00:43 G	15090361.32	15090361.53	15090361.74	0.0271	0.0028
Venus	36604-07-14 06:43 G	15090590.64	15090590.78	15090590.95	0.0274	0.0187
Mercury	36607-10-21 09:50 G	15091784.87	15091784.91	15091784.96	0.0289	0.0280
Mercury	36608-01-18 10:33 G	15091873.76	15091873.94	15091874.12	0.0290	0.0074
Mercury	36608-04-16 10:48 G	15091962.79	15091962.95	15091963.12	0.0291	0.0132
Moon	36613-03-12 15:07 G	15093753.92	15093754.13	15093754.36	0.0303	0.0123
Earth	36613-03-12 18:43 G	15093754.07	15093754.28	15093754.51	0.0303	0.0127 *
Venus	36617-02-16 01:41 G	15095190.38	15095190.57	15095190.77	0.0292	0.0118
Venus	36617-10-03 21:50 G	15095420.23	15095420.41	15095420.60	0.0289	0.0142
Mercury	36621-02-25 16:33 G	15096661.09	15096661.19	15096661.29	0.0274	0.0183
Mercury	36621-05-25 03:07 G	15096749.50	15096749.63	15096749.75	0.0273	0.0064
Mercury	36621-08-21 13:26 G	15096837.93	15096838.06	15096838.19	0.0272	0.0056
Mercury	36621-11-18 00:00 G	15096926.40	15096926.50	15096926.60	0.0271	0.0174
Moon	36627-09-09 09:36 G	15099047.78	15099047.90	15099048.04	0.0260	0.0222
Earth	36627-09-09 09:50 G	15099047.80	15099047.91	15099048.04	0.0260	0.0224 *

Moon	36628-09-19 13:26 G	15099423.86	15099424.06	15099424.25	0.0260	0.0151
Earth	36628-09-19 16:33 G	15099423.99	15099424.19	15099424.41	0.0260	0.0138 *
Venus	36632-10-23 03:07 G	15100918.49	15100918.63	15100918.77	0.0269	0.0200
Venus	36633-06-09 07:41 G	15101147.61	15101147.82	15101148.04	0.0271	0.0010
Venus	36634-01-24 14:24 G	15101376.98	15101377.10	15101377.22	0.0274	0.0223
Mercury	36637-06-06 10:48 G	15102605.78	15102605.95	15102606.12	0.0289	0.0115
Mercury	36637-09-03 11:17 G	15102694.79	15102694.97	15102695.14	0.0290	0.0091
Earth	36643-03-21 23:17 G	15104720.31	15104720.47	15104720.65	0.0303	0.0216
Moon	36643-03-22 01:12 G	15104720.38	15104720.55	15104720.73	0.0303	0.0220 *
Venus	36646-08-29 12:14 G	15105976.81	15105977.01	15105977.22	0.0292	0.0076
Venus	36647-04-16 08:09 G	15106206.68	15106206.84	15106207.00	0.0289	0.0183
Mars	36650-07-14 20:53 G	15107392.10	15107392.37	15107392.64	0.0274	0.0018
Mercury	36650-07-15 20:09 G	15107393.26	15107393.34	15107393.42	0.0274	0.0207
Mercury	36650-10-12 06:29 G	15107481.65	15107481.77	15107481.90	0.0273	0.0088
Mercury	36651-01-08 17:02 G	15107570.08	15107570.21	15107570.34	0.0272	0.0032
Mercury	36651-04-07 03:36 G	15107658.54	15107658.65	15107658.76	0.0271	0.0150
Mercury	36651-07-04 14:09 G	15107747.08	15107747.09	15107747.10	0.0270	0.0268
Earth	36657-09-15 07:55 G	15110011.58	15110011.83	15110012.08	0.0259	0.0013
Moon	36657-09-15 11:31 G	15110011.73	15110011.98	15110012.23	0.0259	0.0004 *
Venus	36662-05-05 10:33 G	15111704.78	15111704.94	15111705.11	0.0269	0.0168
Venus	36662-12-20 15:36 G	15111933.94	15111934.15	15111934.36	0.0272	0.0041
Venus	36663-08-06 22:19 G	15112163.37	15112163.43	15112163.51	0.0274	0.0258
Mars	36666-08-05 20:53 G	15113258.05	15113258.37	15113258.69	0.0288	0.0002
Mercury	36666-10-24 10:48 G	15113337.80	15113337.95	15113338.11	0.0289	0.0160
Mercury	36667-01-21 11:17 G	15113426.79	15113426.97	15113427.16	0.0290	0.0047
Mercury	36667-04-20 11:31 G	15113515.90	15113515.98	15113516.08	0.0291	0.0252
Moon	36672-03-14 17:31 G	15115306.00	15115306.23	15115306.47	0.0303	0.0033
Earth	36672-03-14 18:43 G	15115306.03	15115306.28	15115306.52	0.0303	0.0038 *
Venus	36676-03-10 20:38 G	15116763.15	15116763.36	15116763.57	0.0291	0.0035
Venus	36676-10-26 15:50 G	15116993.03	15116993.16	15116993.29	0.0288	0.0221

Mercury	36679-12-02 23:02 G	15118125.40	15118125.46	15118125.53	0.0274	0.0237
Mercury	36680-02-29 09:36 G	15118213.78	15118213.90	15118214.02	0.0273	0.0117
Mercury	36680-05-27 20:09 G	15118302.21	15118302.34	15118302.47	0.0272	0.0002
Mercury	36680-08-24 06:43 G	15118390.66	15118390.78	15118390.90	0.0271	0.0121
Mercury	36680-11-20 17:02 G	15118479.16	15118479.21	15118479.28	0.0270	0.0239
Moon	36686-09-10 16:19 G	15120599.00	15120599.18	15120599.38	0.0260	0.0163
Earth	36686-09-10 20:09 G	15120599.16	15120599.34	15120599.54	0.0260	0.0168 *
Moon	36687-09-22 02:24 G	15120975.47	15120975.60	15120975.75	0.0260	0.0209
Earth	36687-09-22 02:53 G	15120975.47	15120975.62	15120975.80	0.0260	0.0195 *
Venus	36691-11-15 17:02 G	15122491.03	15122491.21	15122491.40	0.0270	0.0135
Venus	36692-07-01 22:33 G	15122720.24	15122720.44	15122720.65	0.0272	0.0076
Mercury	36696-03-12 11:02 G	15124069.83	15124069.96	15124070.09	0.0289	0.0201
Mercury	36696-06-09 11:31 G	15124158.80	15124158.98	15124159.17	0.0290	0.0005
Mercury	36696-09-06 11:45 G	15124247.87	15124247.99	15124248.12	0.0291	0.0210
Moon	36701-03-09 15:21 G	15125892.04	15125892.14	15125892.25	0.0303	0.0276
Earth	36701-03-09 15:36 G	15125892.06	15125892.15	15125892.23	0.0303	0.0283 *
Venus	36705-02-04 09:21 G	15127319.81	15127319.89	15127320.00	0.0294	0.0259
Venus	36705-09-22 06:57 G	15127549.58	15127549.79	15127550.00	0.0291	0.0008
Venus	36706-05-10 01:41 G	15127779.50	15127779.57	15127779.67	0.0288	0.0262
Mercury	36709-04-22 02:53 G	15128857.58	15128857.62	15128857.66	0.0275	0.0260
Mercury	36709-07-19 13:12 G	15128945.94	15128946.05	15128946.17	0.0273	0.0141
Mercury	36709-10-15 23:45 G	15129034.36	15129034.49	15129034.62	0.0272	0.0021
Mercury	36710-01-12 10:19 G	15129122.81	15129122.93	15129123.05	0.0272	0.0098
Mercury	36710-04-10 20:38 G	15129211.29	15129211.36	15129211.45	0.0271	0.0217
Earth	36716-09-17 18:29 G	15131563.03	15131563.27	15131563.52	0.0260	0.0045
Moon	36716-09-17 19:55 G	15131563.08	15131563.33	15131563.58	0.0260	0.0055 *
Venus	36721-05-29 00:57 G	15133277.34	15133277.54	15133277.73	0.0270	0.0102
Venus	36722-01-13 06:29 G	15133506.58	15133506.77	15133506.97	0.0273	0.0110
Mercury	36725-07-31 11:02 G	15134801.87	15134801.96	15134802.07	0.0289	0.0245
Mercury	36725-10-28 11:45 G	15134890.81	15134890.99	15134891.18	0.0290	0.0039

Mercury	36726-01-25 12:14 G	15134979.86	15134980.01	15134980.16	0.0291	0.0168
Earth	36731-03-18 18:43 G	15136858.04	15136858.28	15136858.52	0.0302	0.0053
Moon	36731-03-18 21:50 G	15136858.18	15136858.41	15136858.65	0.0302	0.0061 *
Venus	36734-08-17 18:29 G	15138106.14	15138106.27	15138106.42	0.0293	0.0216
Venus	36735-04-04 15:36 G	15138335.95	15138336.15	15138336.36	0.0290	0.0049
Mercury	36738-12-06 16:33 G	15139678.09	15139678.19	15139678.29	0.0273	0.0168
Mars	36738-12-10 10:48 G	15139681.70	15139681.95	15139682.21	0.0273	0.0098
Mercury	36739-03-05 02:53 G	15139766.49	15139766.62	15139766.75	0.0273	0.0050
Mercury	36739-06-01 13:26 G	15139854.93	15139855.06	15139855.19	0.0272	0.0070
Mercury	36739-08-29 00:00 G	15139943.41	15139943.50	15139943.59	0.0271	0.0188
Moon	36745-09-13 04:48 G	15142150.49	15142150.70	15142150.93	0.0260	0.0104
Earth	36745-09-13 06:29 G	15142150.55	15142150.77	15142150.99	0.0260	0.0111 *
Earth	36746-09-24 12:57 G	15142527.00	15142527.04	15142527.12	0.0260	0.0252
Venus	36750-12-09 06:43 G	15144063.58	15144063.78	15144063.99	0.0271	0.0070
Venus	36751-07-26 12:43 G	15144292.86	15144293.03	15144293.22	0.0273	0.0144
Mars	36755-01-02 08:24 G	15145548.56	15145548.85	15145549.13	0.0288	0.0122
Mercury	36755-03-17 11:31 G	15145622.80	15145622.98	15145623.16	0.0289	0.0084
Mercury	36755-06-14 12:00 G	15145711.83	15145712.00	15145712.17	0.0290	0.0122
Moon	36760-03-11 11:45 G	15147443.80	15147443.99	15147444.19	0.0303	0.0184
Earth	36760-03-11 15:21 G	15147443.96	15147444.14	15147444.34	0.0303	0.0194 *
Venus	36764-02-28 05:31 G	15148892.56	15148892.73	15148892.90	0.0293	0.0174
Venus	36764-10-15 02:09 G	15149122.39	15149122.59	15149122.79	0.0290	0.0089
Mercury	36768-04-24 20:09 G	15150410.25	15150410.34	15150410.44	0.0274	0.0192
Mercury	36768-07-22 06:43 G	15150498.65	15150498.78	15150498.91	0.0273	0.0072
Mercury	36768-10-18 17:02 G	15150587.08	15150587.21	15150587.34	0.0272	0.0048
Mercury	36769-01-15 03:36 G	15150675.55	15150675.65	15150675.76	0.0271	0.0165
Moon	36774-09-08 23:17 G	15152738.46	15152738.47	15152738.50	0.0259	0.0258
Moon	36775-09-20 00:57 G	15153114.32	15153114.54	15153114.77	0.0260	0.0115
Earth	36775-09-20 04:19 G	15153114.45	15153114.68	15153114.91	0.0260	0.0101 *
Venus	36779-11-04 09:36 G	15154620.83	15154620.90	15154621.00	0.0269	0.0244

Venus	36780-06-20 14:24 G	15154849.89	15154850.10	15154850.31	0.0271	0.0037
Venus	36781-02-04 20:38 G	15155079.20	15155079.36	15155079.52	0.0274	0.0178
Mercury	36784-08-03 11:31 G	15156354.82	15156354.98	15156355.16	0.0290	0.0129
Mercury	36784-10-31 12:14 G	15156443.83	15156444.01	15156444.19	0.0291	0.0078
Mercury	36785-01-28 12:14 G	15156532.98	15156533.01	15156533.06	0.0292	0.0285
Earth	36790-03-20 18:14 G	15158410.05	15158410.26	15158410.48	0.0302	0.0143
Moon	36790-03-20 21:21 G	15158410.18	15158410.39	15158410.61	0.0302	0.0152 *
Venus	36793-09-09 14:09 G	15159678.91	15159679.09	15159679.28	0.0292	0.0132
Venus	36794-04-27 10:19 G	15159908.74	15159908.93	15159909.12	0.0289	0.0129
Mercury	36797-09-11 23:17 G	15161142.40	15161142.47	15161142.55	0.0274	0.0221
Mercury	36797-12-09 09:36 G	15161230.78	15161230.90	15161231.03	0.0273	0.0102
Mercury	36798-03-07 20:09 G	15161319.21	15161319.34	15161319.47	0.0272	0.0018
Mercury	36798-06-04 06:43 G	15161407.66	15161407.78	15161407.89	0.0271	0.0136
Mercury	36798-08-31 17:02 G	15161496.17	15161496.21	15161496.26	0.0270	0.0254
Earth	36804-09-14 15:07 G	15163701.89	15163702.13	15163702.37	0.0260	0.0056
Moon	36804-09-14 18:00 G	15163702.02	15163702.25	15163702.49	0.0260	0.0046 *
Venus	36809-05-16 14:09 G	15165406.98	15165407.09	15165407.23	0.0269	0.0216
Venus	36809-12-31 19:12 G	15165636.09	15165636.30	15165636.51	0.0271	0.0008
Venus	36810-08-18 01:41 G	15165865.44	15165865.57	15165865.72	0.0274	0.0209
Mercury	36813-12-21 10:33 G	15167086.80	15167086.94	15167087.09	0.0289	0.0180
Mercury	36814-03-20 11:17 G	15167175.78	15167175.97	15167176.15	0.0290	0.0027
Mercury	36814-06-17 11:17 G	15167264.87	15167264.97	15167265.09	0.0291	0.0233
Moon	36819-03-14 10:05 G	15168995.70	15168995.92	15168996.15	0.0303	0.0100
Earth	36819-03-14 12:29 G	15168995.80	15168996.02	15168996.25	0.0303	0.0108 *
Venus	36823-03-22 23:45 G	15170465.29	15170465.49	15170465.69	0.0292	0.0093
Venus	36823-11-07 19:41 G	15170695.15	15170695.32	15170695.49	0.0289	0.0168
Mercury	36827-01-30 02:53 G	15171874.57	15171874.62	15171874.68	0.0274	0.0246
Mercury	36827-04-28 13:12 G	15171962.94	15171963.05	15171963.17	0.0273	0.0127
Mars	36827-05-07 06:29 G	15171971.58	15171971.77	15171971.97	0.0273	0.0189
Mercury	36827-07-25 23:45 G	15172051.36	15172051.49	15172051.62	0.0272	0.0007

Mercury	36827-10-22 10:05 G	15172139.80	15172139.92	15172140.05	0.0271	0.0112
Mercury	36828-01-18 20:38 G	15172228.29	15172228.36	15172228.43	0.0270	0.0230
Moon	36833-09-10 02:53 G	15174289.47	15174289.62	15174289.79	0.0259	0.0201
Earth	36833-09-10 05:02 G	15174289.58	15174289.71	15174289.88	0.0259	0.0207 *
Moon	36834-09-21 09:07 G	15174665.70	15174665.88	15174666.07	0.0259	0.0170
Earth	36834-09-21 11:45 G	15174665.80	15174665.99	15174666.19	0.0259	0.0155 *
Venus	36838-11-26 20:38 G	15176193.22	15176193.36	15176193.53	0.0269	0.0186
Venus	36839-07-14 01:55 G	15176422.36	15176422.58	15176422.79	0.0272	0.0025
Venus	36840-02-28 08:24 G	15176651.77	15176651.85	15176651.96	0.0274	0.0242
Mercury	36843-05-10 10:05 G	15177818.81	15177818.92	15177819.03	0.0289	0.0230
Mars	36843-05-30 09:50 G	15177838.75	15177838.91	15177839.10	0.0289	0.0241
Mercury	36843-08-07 10:48 G	15177907.76	15177907.95	15177908.13	0.0290	0.0023
Mercury	36843-11-04 11:02 G	15177996.82	15177996.96	15177997.11	0.0291	0.0184
Moon	36849-03-22 13:12 G	15179961.90	15179962.05	15179962.21	0.0302	0.0236
Earth	36849-03-22 14:09 G	15179961.93	15179962.09	15179962.25	0.0302	0.0227 *
Venus	36852-10-02 07:55 G	15181251.63	15181251.83	15181252.04	0.0291	0.0053
Venus	36853-05-20 03:21 G	15181481.50	15181481.64	15181481.79	0.0288	0.0206
Mercury	36856-09-14 16:19 G	15182695.07	15182695.18	15182695.29	0.0273	0.0156
Mercury	36856-12-12 02:38 G	15182783.48	15182783.61	15182783.74	0.0272	0.0038
Mercury	36857-03-10 13:12 G	15182871.92	15182872.05	15182872.18	0.0271	0.0081
Mercury	36857-06-06 23:31 G	15182960.40	15182960.48	15182960.57	0.0270	0.0200
Earth	36863-09-16 21:36 G	15185253.15	15185253.40	15185253.64	0.0259	0.0005
Moon	36863-09-17 00:29 G	15185253.27	15185253.52	15185253.77	0.0259	0.0008 *
Venus	36868-06-08 00:14 G	15186979.34	15186979.51	15186979.68	0.0269	0.0160
Venus	36869-01-23 05:31 G	15187208.52	15187208.73	15187208.94	0.0272	0.0051
Venus	36869-09-09 12:43 G	15187437.99	15187438.03	15187438.07	0.0274	0.0269
Mercury	36872-12-24 08:53 G	15188639.69	15188639.87	15188640.05	0.0289	0.0082
Mercury	36873-03-23 09:21 G	15188728.72	15188728.89	15188729.06	0.0291	0.0125
Earth	36878-03-16 05:17 G	15190547.48	15190547.72	15190547.97	0.0303	0.0030
Moon	36878-03-16 06:43 G	15190547.55	15190547.78	15190548.02	0.0303	0.0021 *

Venus	36881-08-27 18:14 G	15191808.21	15191808.26	15191808.32	0.0294	0.0284
Venus	36882-04-14 16:05 G	15192037.96	15192038.17	15192038.38	0.0291	0.0016
Venus	36882-11-30 11:17 G	15192267.86	15192267.97	15192268.09	0.0289	0.0241
Mars	36885-08-15 02:53 G	15193256.49	15193256.62	15193256.76	0.0276	0.0238
Mercury	36886-02-01 19:41 G	15193427.22	15193427.32	15193427.41	0.0274	0.0185
Mercury	36886-05-01 06:00 G	15193515.62	15193515.75	15193515.88	0.0273	0.0065
Mercury	36886-07-28 16:19 G	15193604.06	15193604.18	15193604.32	0.0272	0.0055
Mercury	36886-10-25 02:53 G	15193692.52	15193692.62	15193692.72	0.0271	0.0172
Moon	36892-09-11 07:12 G	15195840.61	15195840.80	15195841.01	0.0259	0.0152
Earth	36892-09-11 10:33 G	15195840.75	15195840.94	15195841.14	0.0259	0.0157 *
Earth	36893-09-22 16:33 G	15196217.05	15196217.19	15196217.35	0.0259	0.0204
Moon	36893-09-22 18:29 G	15196217.15	15196217.27	15196217.41	0.0259	0.0219 *
Venus	36897-12-19 05:45 G	15197765.56	15197765.74	15197765.93	0.0270	0.0130
Venus	36898-08-05 11:17 G	15197994.76	15197994.97	15197995.17	0.0272	0.0081
Mercury	36902-05-14 07:26 G	15199371.65	15199371.81	15199371.98	0.0290	0.0139
Mercury	36902-08-11 08:09 G	15199460.66	15199460.84	15199461.02	0.0291	0.0070
Mercury	36902-11-08 08:24 G	15199549.80	15199549.85	15199549.91	0.0292	0.0277
Moon	36907-03-10 18:43 G	15201133.19	15201133.28	15201133.38	0.0303	0.0280
Earth	36907-03-10 20:38 G	15201133.30	15201133.36	15201133.43	0.0303	0.0290 *
Earth	36908-03-25 04:19 G	15201513.68	15201513.68	15201513.71	0.0303	0.0302
Venus	36911-03-11 01:12 G	15202594.45	15202594.55	15202594.68	0.0293	0.0246
Venus	36911-10-26 22:48 G	15202824.24	15202824.45	15202824.66	0.0291	0.0022
Venus	36912-06-12 17:45 G	15203054.19	15203054.24	15203054.30	0.0288	0.0276
Mercury	36915-06-22 22:19 G	15204159.35	15204159.43	15204159.51	0.0273	0.0217
Mercury	36915-09-19 08:38 G	15204247.74	15204247.86	15204247.99	0.0272	0.0099
Mars	36915-10-02 10:19 G	15204260.84	15204260.93	15204261.04	0.0272	0.0253
Mercury	36915-12-16 19:12 G	15204336.17	15204336.30	15204336.43	0.0271	0.0021
Mercury	36916-03-14 05:31 G	15204424.62	15204424.73	15204424.85	0.0271	0.0140
Mercury	36916-06-10 16:05 G	15204513.14	15204513.17	15204513.21	0.0270	0.0257
Moon	36922-09-18 23:45 G	15206804.24	15206804.49	15206804.74	0.0259	0.0056

Earth	36922-09-19 00:57 G	15206804.30	15206804.54	15206804.79	0.0259	0.0044 *
Venus	36927-07-02 07:41 G	15208551.63	15208551.82	15208552.02	0.0270	0.0108
Venus	36928-02-16 13:12 G	15208780.85	15208781.05	15208781.25	0.0272	0.0104
Mercury	36931-10-01 04:33 G	15210103.56	15210103.69	15210103.82	0.0289	0.0206
Mercury	36931-12-29 05:17 G	15210192.53	15210192.72	15210192.90	0.0290	0.0003
Mercury	36932-03-27 05:31 G	15210281.61	15210281.73	15210281.86	0.0291	0.0209
Earth	36937-03-18 16:05 G	15212098.92	15212099.17	15212099.41	0.0303	0.0039
Moon	36937-03-18 19:41 G	15212099.08	15212099.32	15212099.56	0.0303	0.0049 *
Venus	36940-09-20 07:55 G	15213380.69	15213380.83	15213380.98	0.0294	0.0212
Venus	36941-05-08 05:17 G	15213610.52	15213610.72	15213610.93	0.0291	0.0054
Mercury	36944-11-09 01:12 G	15214891.51	15214891.55	15214891.61	0.0274	0.0250
Mercury	36945-02-05 11:45 G	15214979.88	15214979.99	15214980.11	0.0273	0.0129
Mercury	36945-05-04 22:19 G	15215068.29	15215068.43	15215068.56	0.0272	0.0013
Mercury	36945-08-01 08:38 G	15215156.74	15215156.86	15215156.98	0.0271	0.0109
Mercury	36945-10-28 18:57 G	15215245.23	15215245.29	15215245.37	0.0270	0.0228
Earth	36951-09-14 12:57 G	15217391.82	15217392.04	15217392.27	0.0259	0.0112
Moon	36951-09-14 13:12 G	15217391.84	15217392.05	15217392.27	0.0259	0.0104 *
Earth	36952-09-24 18:29 G	15217768.22	15217768.27	15217768.34	0.0259	0.0249
Venus	36957-01-11 12:00 G	15219337.81	15219338.00	15219338.21	0.0270	0.0080
Venus	36957-08-28 17:45 G	15219567.06	15219567.24	15219567.43	0.0273	0.0134
Mercury	36961-02-17 02:38 G	15220835.54	15220835.61	15220835.68	0.0289	0.0268
Mercury	36961-05-17 03:21 G	15220924.46	15220924.64	15220924.82	0.0290	0.0060
Mercury	36961-08-14 03:36 G	15221013.50	15221013.65	15221013.82	0.0291	0.0149
Moon	36966-03-12 01:26 G	15222684.40	15222684.56	15222684.73	0.0304	0.0216
Earth	36966-03-12 05:02 G	15222684.56	15222684.71	15222684.88	0.0304	0.0226 *
Venus	36970-04-02 13:41 G	15224166.91	15224167.07	15224167.24	0.0293	0.0177
Venus	36970-11-18 10:48 G	15224396.75	15224396.95	15224397.15	0.0290	0.0088
Mars	36974-01-10 00:29 G	15225545.33	15225545.52	15225545.73	0.0275	0.0183
Mercury	36974-06-25 14:09 G	15225711.99	15225712.09	15225712.20	0.0273	0.0165
Mercury	36974-09-22 00:43 G	15225800.40	15225800.53	15225800.66	0.0272	0.0045

Mercury	36974-12-19 11:02 G	15225888.84	15225888.96	15225889.09	0.0271	0.0074
Mercury	36975-03-17 21:21 G	15225977.31	15225977.39	15225977.49	0.0270	0.0192
Moon	36981-09-19 22:05 G	15228355.20	15228355.42	15228355.66	0.0259	0.0101
Earth	36981-09-20 01:55 G	15228355.35	15228355.58	15228355.81	0.0259	0.0087 *
Venus	36985-12-07 09:21 G	15229894.86	15229894.89	15229894.92	0.0268	0.0264
Venus	36986-07-24 13:12 G	15230123.84	15230124.05	15230124.26	0.0270	0.0059
Venus	36987-03-10 18:43 G	15230353.11	15230353.28	15230353.46	0.0273	0.0155
Mercury	36990-10-03 23:31 G	15231656.32	15231656.48	15231656.64	0.0289	0.0135
Mercury	36991-01-01 00:00 G	15231745.33	15231745.50	15231745.68	0.0290	0.0073
Mercury	36991-03-31 00:14 G	15231834.47	15231834.51	15231834.57	0.0291	0.0281
Earth	36996-03-19 20:53 G	15233650.14	15233650.37	15233650.61	0.0303	0.0098
Moon	36996-03-19 21:50 G	15233650.18	15233650.41	15233650.65	0.0303	0.0110 *
Venus	36999-10-13 18:14 G	15234953.08	15234953.26	15234953.45	0.0293	0.0148
Venus	37000-05-31 15:21 G	15235182.95	15235183.14	15235183.33	0.0290	0.0116

38TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 38th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	37003-11-13 17:02 G	15236444.12	15236444.21	15236444.29	0.0274	0.0200		
Mercury	37004-02-10 03:21 G	15236532.51	15236532.64	15236532.76	0.0273	0.0080		
Mercury	37004-05-08 13:41 G	15236620.94	15236621.07	15236621.20	0.0272	0.0040		
Mercury	37004-08-05 00:14 G	15236709.40	15236709.51	15236709.62	0.0271	0.0158		
Earth	37010-09-16 12:14 G	15238942.78	15238943.01	15238943.25	0.0258	0.0071		

Moon	37010-09-16 16:05 G	15238942.93	15238943.17	15238943.41	0.0258	0.0059 *
Venus	37015-06-20 12:43 G	15240680.93	15240681.03	15240681.12	0.0268	0.0238
Venus	37016-02-04 16:33 G	15240909.98	15240910.19	15240910.40	0.0270	0.0033
Venus	37016-09-20 22:19 G	15241139.28	15241139.43	15241139.59	0.0273	0.0181
Mercury	37020-02-21 20:38 G	15242388.23	15242388.36	15242388.49	0.0289	0.0204
Mercury	37020-05-20 21:21 G	15242477.20	15242477.39	15242477.57	0.0290	0.0005
Mercury	37020-08-17 21:36 G	15242566.28	15242566.40	15242566.53	0.0291	0.0212
Earth	37025-03-14 07:12 G	15244235.60	15244235.80	15244236.00	0.0304	0.0173
Moon	37025-03-14 07:26 G	15244235.61	15244235.81	15244236.01	0.0304	0.0159 *
Venus	37029-04-25 22:48 G	15245739.26	15245739.45	15245739.65	0.0293	0.0115
Venus	37029-12-11 19:41 G	15245969.14	15245969.32	15245969.50	0.0290	0.0148
Mercury	37033-04-01 19:12 G	15247176.24	15247176.30	15247176.36	0.0274	0.0238
Mercury	37033-06-29 05:45 G	15247264.62	15247264.74	15247264.85	0.0273	0.0118
Mercury	37033-09-25 16:05 G	15247353.04	15247353.17	15247353.30	0.0272	0.0002
Mercury	37033-12-23 02:24 G	15247441.49	15247441.60	15247441.72	0.0271	0.0121
Mercury	37034-03-21 12:57 G	15247529.98	15247530.04	15247530.10	0.0270	0.0238
Moon	37039-09-11 15:21 G	15249530.03	15249530.14	15249530.27	0.0258	0.0224
Earth	37039-09-11 19:12 G	15249530.21	15249530.30	15249530.42	0.0258	0.0234 *
Moon	37040-09-21 23:17 G	15249906.28	15249906.47	15249906.68	0.0259	0.0141
Earth	37040-09-22 00:00 G	15249906.29	15249906.50	15249906.72	0.0259	0.0127 *
Venus	37044-12-30 12:29 G	15251466.91	15251467.02	15251467.15	0.0268	0.0221
Venus	37045-08-16 16:33 G	15251695.98	15251696.19	15251696.41	0.0270	0.0015
Venus	37046-04-02 22:19 G	15251925.29	15251925.43	15251925.58	0.0273	0.0200
Mercury	37049-07-10 15:50 G	15253120.15	15253120.16	15253120.20	0.0288	0.0285
Mercury	37049-10-07 16:48 G	15253209.02	15253209.20	15253209.38	0.0289	0.0077
Mercury	37050-01-04 17:17 G	15253298.06	15253298.22	15253298.39	0.0291	0.0132
Moon	37055-03-22 17:17 G	15255201.01	15255201.22	15255201.43	0.0303	0.0163
Earth	37055-03-22 20:53 G	15255201.16	15255201.37	15255201.58	0.0303	0.0147 *
Venus	37058-11-06 01:55 G	15256525.38	15256525.58	15256525.78	0.0293	0.0089
Venus	37059-06-23 22:33 G	15256755.28	15256755.44	15256755.62	0.0290	0.0175

Mars	37062-06-06 11:31 G	15257833.75	15257833.98	15257834.22	0.0276	0.0137
Mercury	37062-11-16 07:55 G	15257996.73	15257996.83	15257996.94	0.0274	0.0157
Mercury	37063-02-12 18:29 G	15258085.14	15258085.27	15258085.40	0.0273	0.0037
Mercury	37063-05-12 04:48 G	15258173.58	15258173.70	15258173.83	0.0272	0.0083
Mercury	37063-08-08 15:21 G	15258262.05	15258262.14	15258262.23	0.0271	0.0201
Earth	37069-09-17 09:50 G	15260493.66	15260493.91	15260494.15	0.0258	0.0033
Moon	37069-09-17 10:33 G	15260493.69	15260493.94	15260494.20	0.0258	0.0020 *
Venus	37074-07-12 15:21 G	15262253.00	15262253.14	15262253.29	0.0268	0.0195
Venus	37075-02-26 19:26 G	15262482.10	15262482.31	15262482.53	0.0270	0.0012
Venus	37075-10-14 01:26 G	15262711.45	15262711.56	15262711.68	0.0273	0.0226
Mercury	37079-02-24 13:41 G	15263940.91	15263941.07	15263941.23	0.0289	0.0148
Mercury	37079-05-24 14:24 G	15264029.92	15264030.10	15264030.28	0.0290	0.0060
Mercury	37079-08-21 14:38 G	15264119.05	15264119.11	15264119.19	0.0292	0.0268
Earth	37084-03-15 04:48 G	15265786.49	15265786.70	15265786.93	0.0304	0.0127
Moon	37084-03-15 08:53 G	15265786.64	15265786.87	15265787.10	0.0304	0.0109 *
Venus	37088-05-18 05:17 G	15267311.52	15267311.72	15267311.93	0.0293	0.0060
Venus	37089-01-03 01:55 G	15267541.43	15267541.58	15267541.73	0.0290	0.0203
Mercury	37092-04-04 10:05 G	15268728.83	15268728.92	15268729.01	0.0274	0.0197
Mercury	37092-07-01 20:24 G	15268817.23	15268817.35	15268817.48	0.0273	0.0077
Mercury	37092-09-28 06:57 G	15268905.66	15268905.79	15268905.92	0.0272	0.0043
Mercury	37092-12-25 17:17 G	15268994.12	15268994.22	15268994.33	0.0271	0.0162
Moon	37098-09-12 15:21 G	15271080.98	15271081.14	15271081.31	0.0258	0.0185
Earth	37098-09-12 15:50 G	15271081.02	15271081.16	15271081.34	0.0258	0.0198 *
Earth	37099-09-23 20:09 G	15271457.16	15271457.34	15271457.54	0.0259	0.0164
Moon	37099-09-23 23:45 G	15271457.33	15271457.49	15271457.68	0.0259	0.0178 *
Venus	37104-01-23 14:38 G	15273038.96	15273039.11	15273039.28	0.0268	0.0178
Venus	37104-09-08 18:57 G	15273268.08	15273268.29	15273268.50	0.0271	0.0029
Venus	37105-04-26 00:57 G	15273497.44	15273497.54	15273497.63	0.0273	0.0244
Mercury	37108-07-14 08:24 G	15274672.75	15274672.85	15274672.97	0.0288	0.0234
Mercury	37108-10-11 09:21 G	15274761.70	15274761.89	15274762.07	0.0290	0.0026

Mercury	37109-01-08 09:50 G	15274850.77	15274850.91	15274851.05	0.0291	0.0182
Moon	37114-03-24 13:55 G	15276751.92	15276752.08	15276752.26	0.0304	0.0207
Earth	37114-03-24 15:50 G	15276751.98	15276752.16	15276752.36	0.0304	0.0189 *
Venus	37117-11-29 06:57 G	15278097.58	15278097.79	15278098.00	0.0293	0.0036
Venus	37118-07-17 03:21 G	15278327.52	15278327.64	15278327.78	0.0290	0.0227
Mercury	37121-08-23 12:00 G	15279460.94	15279461.00	15279461.07	0.0275	0.0240
Mercury	37121-11-19 22:33 G	15279549.32	15279549.44	15279549.56	0.0274	0.0119
Mercury	37122-02-16 09:07 G	15279637.74	15279637.88	15279638.01	0.0273	0.0010
Mercury	37122-05-15 19:26 G	15279726.19	15279726.31	15279726.43	0.0272	0.0122
Mercury	37122-08-12 05:45 G	15279814.69	15279814.74	15279814.81	0.0271	0.0241
Moon	37128-09-19 02:09 G	15282044.34	15282044.59	15282044.84	0.0258	0.0017
Earth	37128-09-19 05:45 G	15282044.50	15282044.74	15282044.99	0.0258	0.0004 *
Venus	37133-08-04 17:17 G	15283825.05	15283825.22	15283825.40	0.0268	0.0153
Venus	37134-03-21 21:21 G	15284054.19	15284054.39	15284054.60	0.0270	0.0055
Venus	37134-11-06 03:21 G	15284283.62	15284283.64	15284283.68	0.0273	0.0269
Mercury	37138-02-28 06:00 G	15285493.57	15285493.75	15285493.92	0.0289	0.0099
Mercury	37138-05-28 06:29 G	15285582.60	15285582.77	15285582.94	0.0290	0.0109
Earth	37143-03-17 23:17 G	15287337.23	15287337.47	15287337.70	0.0304	0.0088
Moon	37143-03-17 23:45 G	15287337.25	15287337.49	15287337.74	0.0304	0.0070 *
Venus	37146-10-24 11:02 G	15288653.89	15288653.96	15288654.03	0.0295	0.0279
Venus	37147-06-11 09:50 G	15288883.70	15288883.91	15288884.13	0.0293	0.0009
Venus	37148-01-27 06:14 G	15289113.67	15289113.76	15289113.86	0.0290	0.0254
Mars	37150-10-31 10:05 G	15290121.68	15290121.92	15290122.16	0.0276	0.0121
Mercury	37151-04-09 00:29 G	15290281.42	15290281.52	15290281.63	0.0274	0.0160
Mercury	37151-07-06 11:02 G	15290369.83	15290369.96	15290370.09	0.0273	0.0040
Mercury	37151-10-02 21:21 G	15290458.27	15290458.39	15290458.52	0.0272	0.0081
Mercury	37151-12-30 07:55 G	15290546.74	15290546.83	15290546.92	0.0271	0.0200
Earth	37157-09-14 11:45 G	15292631.81	15292631.99	15292632.19	0.0258	0.0162
Moon	37157-09-14 15:07 G	15292631.94	15292632.13	15292632.34	0.0258	0.0148 *
Earth	37158-09-25 16:05 G	15293008.01	15293008.17	15293008.33	0.0258	0.0198

Moon	37158-09-25 17:31 G	15293008.09	15293008.23	15293008.39	0.0258	0.0208 *
Venus	37163-02-14 16:48 G	15294611.02	15294611.20	15294611.39	0.0268	0.0136
Venus	37163-10-01 20:53 G	15294840.17	15294840.37	15294840.58	0.0271	0.0072
Mercury	37167-07-18 00:43 G	15296225.40	15296225.53	15296225.68	0.0288	0.0185
Mercury	37167-10-15 01:26 G	15296314.38	15296314.56	15296314.75	0.0290	0.0024
Mercury	37168-01-12 01:41 G	15296403.47	15296403.57	15296403.69	0.0291	0.0232
Earth	37173-03-25 09:50 G	15298302.76	15298302.91	15298303.08	0.0304	0.0228
Moon	37173-03-25 12:57 G	15298302.91	15298303.04	15298303.19	0.0304	0.0245 *
Venus	37176-05-05 11:31 G	15299439.89	15299439.98	15299440.09	0.0295	0.0256
Venus	37176-12-21 10:48 G	15299669.74	15299669.95	15299670.16	0.0293	0.0017
Venus	37177-08-08 06:57 G	15299899.74	15299899.79	15299899.86	0.0290	0.0277
Mercury	37180-08-26 02:24 G	15301013.51	15301013.60	15301013.69	0.0275	0.0204
Mercury	37180-11-22 12:43 G	15301101.91	15301102.03	15301102.16	0.0274	0.0084
Mercury	37181-02-18 23:17 G	15301190.34	15301190.47	15301190.60	0.0273	0.0038
Mercury	37181-05-18 09:50 G	15301278.80	15301278.91	15301279.02	0.0272	0.0158
Moon	37187-09-20 23:31 G	15303595.24	15303595.48	15303595.72	0.0258	0.0050
Earth	37187-09-21 01:12 G	15303595.30	15303595.55	15303595.79	0.0258	0.0037 *
Venus	37192-08-26 19:26 G	15305397.12	15305397.31	15305397.51	0.0268	0.0110
Venus	37193-04-12 23:31 G	15305626.28	15305626.48	15305626.68	0.0270	0.0098
Mercury	37196-12-03 21:21 G	15306957.32	15306957.39	15306957.48	0.0288	0.0256
Mercury	37197-03-02 22:05 G	15307046.24	15307046.42	15307046.61	0.0289	0.0049
Mercury	37197-05-30 22:33 G	15307135.29	15307135.44	15307135.60	0.0290	0.0159
Moon	37202-03-18 12:29 G	15308887.78	15308888.02	15308888.27	0.0304	0.0036
Earth	37202-03-18 16:05 G	15308887.93	15308888.17	15308888.42	0.0304	0.0050 *
Venus	37205-11-15 14:09 G	15310225.97	15310226.09	15310226.23	0.0295	0.0228
Venus	37206-07-03 13:12 G	15310455.84	15310456.05	15310456.26	0.0292	0.0044
Mercury	37210-01-13 04:05 G	15311745.62	15311745.67	15311745.73	0.0275	0.0247
Mercury	37210-04-11 14:53 G	15311834.00	15311834.12	15311834.23	0.0274	0.0125
Mercury	37210-07-09 01:12 G	15311922.42	15311922.55	15311922.68	0.0273	0.0005
Mercury	37210-10-05 11:45 G	15312010.87	15312010.99	15312011.11	0.0272	0.0116

Mercury	37211-01-01 22:05 G	15312099.36	15312099.42	15312099.49	0.0271	0.0236
Earth	37216-09-15 07:41 G	15314182.61	15314182.82	15314183.04	0.0258	0.0128
Moon	37216-09-15 09:50 G	15314182.69	15314182.91	15314183.15	0.0258	0.0114 *
Moon	37217-09-26 08:24 G	15314558.76	15314558.85	15314558.95	0.0258	0.0238
Earth	37217-09-26 11:45 G	15314558.89	15314558.99	15314559.10	0.0258	0.0233 *
Venus	37222-03-08 19:12 G	15316183.10	15316183.30	15316183.50	0.0268	0.0092
Venus	37222-10-23 23:17 G	15316412.28	15316412.47	15316412.67	0.0271	0.0117
Mercury	37226-07-20 17:02 G	15317778.05	15317778.21	15317778.38	0.0288	0.0135
Mercury	37226-10-17 17:45 G	15317867.06	15317867.24	15317867.42	0.0290	0.0073
Mercury	37227-01-14 18:00 G	15317956.21	15317956.25	15317956.30	0.0291	0.0281
Earth	37232-03-26 02:53 G	15319853.52	15319853.62	15319853.75	0.0304	0.0266
Moon	37232-03-26 05:45 G	15319853.64	15319853.74	15319853.84	0.0304	0.0278 *
Venus	37235-05-28 15:07 G	15321011.98	15321012.13	15321012.28	0.0295	0.0205
Venus	37236-01-13 13:55 G	15321241.88	15321242.08	15321242.29	0.0292	0.0067
Mars	37239-03-26 02:53 G	15322409.38	15322409.62	15322409.88	0.0277	0.0108
Mercury	37239-08-29 16:33 G	15322566.09	15322566.19	15322566.29	0.0275	0.0170
Mercury	37239-11-26 03:07 G	15322654.50	15322654.63	15322654.76	0.0274	0.0049
Mercury	37240-02-22 13:26 G	15322742.94	15322743.06	15322743.19	0.0273	0.0074
Mercury	37240-05-21 00:00 G	15322831.41	15322831.50	15322831.59	0.0272	0.0193
Earth	37246-09-21 20:38 G	15325146.13	15325146.36	15325146.60	0.0258	0.0072
Moon	37246-09-21 23:31 G	15325146.25	15325146.48	15325146.71	0.0258	0.0082 *
Venus	37251-02-01 19:41 G	15326740.32	15326740.32	15326740.33	0.0266	0.0266
Venus	37251-09-18 22:05 G	15326969.22	15326969.42	15326969.63	0.0268	0.0065
Venus	37252-05-05 02:09 G	15327198.42	15327198.59	15327198.78	0.0271	0.0144
Mercury	37255-12-07 14:09 G	15328509.97	15328510.09	15328510.23	0.0288	0.0202
Mercury	37256-03-05 14:53 G	15328598.93	15328599.12	15328599.31	0.0289	0.0005
Mercury	37256-06-02 15:07 G	15328688.01	15328688.13	15328688.26	0.0290	0.0213
Moon	37261-03-19 09:07 G	15330438.64	15330438.88	15330439.12	0.0304	0.0002
Earth	37261-03-19 10:48 G	15330438.71	15330438.95	15330439.19	0.0304	0.0010 *
Venus	37264-12-07 18:29 G	15331798.10	15331798.27	15331798.44	0.0295	0.0175

Venus	37265-07-25 17:02 G	15332028.01	15332028.21	15332028.41	0.0292	0.0095
Mercury	37269-01-15 18:29 G	15333298.19	15333298.27	15333298.35	0.0275	0.0211
Mercury	37269-04-14 05:02 G	15333386.59	15333386.71	15333386.83	0.0274	0.0089
Mercury	37269-07-11 15:36 G	15333475.02	15333475.15	15333475.28	0.0273	0.0033
Mercury	37269-10-08 01:55 G	15333563.48	15333563.58	15333563.69	0.0272	0.0153
Moon	37275-09-17 01:55 G	15335733.35	15335733.58	15335733.83	0.0258	0.0079
Earth	37275-09-17 04:19 G	15335733.45	15335733.68	15335733.92	0.0258	0.0092 *
Venus	37280-08-13 20:24 G	15337526.28	15337526.35	15337526.44	0.0266	0.0247
Venus	37281-03-30 23:02 G	15337755.25	15337755.46	15337755.67	0.0269	0.0046
Venus	37281-11-15 02:53 G	15337984.46	15337984.62	15337984.80	0.0271	0.0164
Mercury	37285-04-25 09:50 G	15339241.88	15339241.91	15339241.94	0.0287	0.0282
Mercury	37285-07-23 10:19 G	15339330.76	15339330.93	15339331.12	0.0288	0.0077
Mercury	37285-10-20 10:48 G	15339419.79	15339419.95	15339420.12	0.0290	0.0131
Earth	37290-03-12 12:43 G	15341023.98	15341024.03	15341024.09	0.0303	0.0295
Moon	37290-03-12 13:41 G	15341023.99	15341024.07	15341024.16	0.0303	0.0283 *
Venus	37294-06-19 18:57 G	15342584.12	15342584.29	15342584.48	0.0295	0.0152
Venus	37295-02-04 17:45 G	15342814.05	15342814.24	15342814.43	0.0292	0.0119
Mercury	37298-06-04 20:09 G	15344030.30	15344030.34	15344030.39	0.0276	0.0258
Mercury	37298-09-01 06:43 G	15344118.67	15344118.78	15344118.90	0.0275	0.0135
Mercury	37298-11-28 17:17 G	15344207.09	15344207.22	15344207.35	0.0274	0.0013
Mercury	37299-02-25 03:50 G	15344295.54	15344295.66	15344295.78	0.0273	0.0109
Mercury	37299-05-24 14:24 G	15344384.03	15344384.10	15344384.17	0.0272	0.0230
Earth	37304-09-12 12:43 G	15346321.00	15346321.03	15346321.09	0.0259	0.0254
Moon	37304-09-12 14:38 G	15346321.03	15346321.11	15346321.20	0.0259	0.0240 *
Earth	37305-09-23 17:31 G	15346697.01	15346697.23	15346697.46	0.0258	0.0109
Moon	37305-09-23 20:24 G	15346697.13	15346697.35	15346697.58	0.0258	0.0117 *
Venus	37310-02-24 23:31 G	15348312.37	15348312.48	15348312.61	0.0266	0.0220
Venus	37310-10-12 02:24 G	15348541.38	15348541.60	15348541.81	0.0268	0.0017
Venus	37311-05-29 06:29 G	15348770.63	15348770.77	15348770.93	0.0271	0.0193
Mercury	37314-12-11 07:55 G	15350062.67	15350062.83	15350063.00	0.0288	0.0140

Mercury	37315-03-10 08:24 G	15350151.67	15350151.85	15350152.03	0.0289	0.0067
Mercury	37315-06-07 08:38 G	15350240.81	15350240.86	15350240.92	0.0290	0.0273
Earth	37320-03-21 07:26 G	15351989.57	15351989.81	15351990.05	0.0304	0.0034
Moon	37320-03-21 10:05 G	15351989.68	15351989.92	15351990.16	0.0304	0.0043 *
Venus	37323-12-31 23:17 G	15353370.29	15353370.47	15353370.67	0.0295	0.0121
Venus	37324-08-17 21:36 G	15353600.23	15353600.40	15353600.59	0.0292	0.0149
Mars	37327-08-20 00:43 G	15354697.29	15354697.53	15354697.79	0.0277	0.0095
Mercury	37328-01-20 08:53 G	15354850.77	15354850.87	15354850.97	0.0275	0.0174
Mercury	37328-04-17 19:26 G	15354939.18	15354939.31	15354939.44	0.0274	0.0052
Mercury	37328-07-15 06:00 G	15355027.62	15355027.75	15355027.88	0.0273	0.0070
Mercury	37328-10-11 16:33 G	15355116.10	15355116.19	15355116.28	0.0272	0.0191
Moon	37334-09-18 23:17 G	15357284.23	15357284.47	15357284.71	0.0258	0.0041
Earth	37334-09-19 02:24 G	15357284.36	15357284.60	15357284.85	0.0258	0.0054 *
Venus	37339-09-07 01:12 G	15359098.42	15359098.55	15359098.70	0.0267	0.0199
Venus	37340-04-23 04:05 G	15359327.46	15359327.67	15359327.88	0.0269	0.0004
Venus	37340-12-08 08:24 G	15359556.73	15359556.85	15359556.98	0.0271	0.0214
Mercury	37344-04-29 04:19 G	15360794.56	15360794.68	15360794.80	0.0287	0.0215
Mercury	37344-07-27 04:48 G	15360883.52	15360883.70	15360883.89	0.0289	0.0009
Mercury	37344-10-24 05:02 G	15360972.58	15360972.71	15360972.85	0.0290	0.0198
Moon	37349-03-14 09:21 G	15362574.75	15362574.89	15362575.05	0.0303	0.0238
Earth	37349-03-14 12:29 G	15362574.90	15362575.02	15362575.18	0.0303	0.0247 *
Venus	37353-07-13 01:12 G	15364156.36	15364156.55	15364156.76	0.0294	0.0094
Venus	37354-02-27 23:45 G	15364386.32	15364386.49	15364386.66	0.0292	0.0175
Mercury	37357-06-08 10:48 G	15365582.88	15365582.95	15365583.03	0.0276	0.0218
Mercury	37357-09-04 21:21 G	15365671.27	15365671.39	15365671.52	0.0275	0.0095
Mercury	37357-12-02 07:55 G	15365759.70	15365759.83	15365759.96	0.0274	0.0029
Mercury	37358-02-28 18:29 G	15365848.16	15365848.27	15365848.38	0.0273	0.0150
Mercury	37358-05-28 05:02 G	15365936.71	15365936.71	15365936.72	0.0272	0.0271
Earth	37363-09-14 11:31 G	15367871.86	15367871.98	15367872.13	0.0259	0.0215
Moon	37363-09-14 15:21 G	15367871.99	15367872.14	15367872.31	0.0259	0.0199 *

Moon	37364-09-24 15:21 G	15368247.93	15368248.14	15368248.35	0.0258	0.0152
Earth	37364-09-24 16:33 G	15368248.00	15368248.19	15368248.40	0.0258	0.0149 *
Venus	37369-03-19 05:45 G	15369884.57	15369884.74	15369884.90	0.0267	0.0169
Venus	37369-11-03 08:24 G	15370113.64	15370113.85	15370114.06	0.0269	0.0035
Venus	37370-06-20 12:57 G	15370342.96	15370343.04	15370343.13	0.0271	0.0246
Mercury	37373-09-16 02:24 G	15371526.55	15371526.60	15371526.67	0.0287	0.0272
Mercury	37373-12-14 03:07 G	15371615.45	15371615.63	15371615.81	0.0288	0.0066
Mercury	37374-03-13 03:21 G	15371704.49	15371704.64	15371704.81	0.0289	0.0141
Earth	37379-03-23 09:21 G	15373540.66	15373540.89	15373541.13	0.0304	0.0088
Moon	37379-03-23 12:43 G	15373540.79	15373541.03	15373541.26	0.0304	0.0095 *
Venus	37383-01-23 06:57 G	15374942.58	15374942.79	15374942.99	0.0294	0.0061
Venus	37383-09-10 04:48 G	15375172.56	15375172.70	15375172.85	0.0292	0.0207
Mercury	37386-10-26 13:12 G	15376315.01	15376315.05	15376315.10	0.0276	0.0255
Mercury	37387-01-22 23:45 G	15376403.38	15376403.49	15376403.61	0.0275	0.0132
Mercury	37387-04-21 10:19 G	15376491.80	15376491.93	15376492.06	0.0274	0.0010
Mercury	37387-07-18 20:53 G	15376580.25	15376580.37	15376580.49	0.0273	0.0113
Mercury	37387-10-15 07:26 G	15376668.75	15376668.81	15376668.88	0.0272	0.0235
Earth	37393-09-20 03:07 G	15378835.38	15378835.63	15378835.88	0.0258	0.0011
Moon	37393-09-20 03:50 G	15378835.43	15378835.66	15378835.90	0.0258	0.0004 *
Venus	37398-09-29 08:38 G	15380670.69	15380670.86	15380671.04	0.0267	0.0145
Venus	37399-05-16 11:45 G	15380899.78	15380899.99	15380900.19	0.0269	0.0060
Venus	37399-12-31 16:19 G	15381129.17	15381129.18	15381129.20	0.0272	0.0271
Mercury	37403-05-04 00:14 G	15382347.35	15382347.51	15382347.68	0.0288	0.0134
Mercury	37403-08-01 00:43 G	15382436.35	15382436.53	15382436.71	0.0289	0.0073
Mercury	37403-10-29 00:43 G	15382525.50	15382525.53	15382525.59	0.0290	0.0279
Moon	37408-03-16 15:07 G	15384125.94	15384126.13	15384126.32	0.0303	0.0183
Earth	37408-03-16 17:31 G	15384126.05	15384126.23	15384126.43	0.0303	0.0189 *
Venus	37412-08-05 09:50 G	15385728.71	15385728.91	15385729.12	0.0294	0.0031
Venus	37413-03-23 07:41 G	15385958.71	15385958.82	15385958.95	0.0291	0.0237
Mars	37416-01-14 04:33 G	15386985.44	15386985.69	15386985.96	0.0278	0.0070

Mercury	37416-06-12 01:55 G	15387135.48	15387135.58	15387135.68	0.0276	0.0172
Mercury	37416-09-08 12:29 G	15387223.89	15387224.02	15387224.15	0.0275	0.0049
Mercury	37416-12-05 23:02 G	15387312.34	15387312.46	15387312.59	0.0274	0.0074
Mercury	37417-03-04 09:36 G	15387400.81	15387400.90	15387400.99	0.0273	0.0196
Moon	37422-09-16 12:43 G	15389422.83	15389423.03	15389423.24	0.0259	0.0157
Earth	37422-09-16 13:12 G	15389422.88	15389423.05	15389423.25	0.0259	0.0171 *
Moon	37423-09-27 15:07 G	15389798.97	15389799.13	15389799.29	0.0259	0.0195
Earth	37423-09-27 18:29 G	15389799.12	15389799.27	15389799.45	0.0259	0.0193 *
Venus	37428-04-11 13:41 G	15391456.88	15391457.07	15391457.26	0.0267	0.0115
Venus	37428-11-26 16:48 G	15391686.00	15391686.20	15391686.40	0.0269	0.0091
Mars	37432-01-26 00:57 G	15392841.44	15392841.54	15392841.67	0.0284	0.0265
Mercury	37432-09-19 23:17 G	15393079.33	15393079.47	15393079.61	0.0287	0.0185
Mercury	37432-12-17 23:45 G	15393168.30	15393168.49	15393168.68	0.0288	0.0021
Mercury	37433-03-17 00:00 G	15393257.39	15393257.50	15393257.62	0.0289	0.0227
Moon	37438-03-25 16:05 G	15395091.96	15395092.17	15395092.40	0.0304	0.0153
Earth	37438-03-25 17:02 G	15395092.01	15395092.21	15395092.43	0.0304	0.0151 *
Venus	37441-06-30 17:02 G	15396285.14	15396285.21	15396285.31	0.0297	0.0270
Venus	37442-02-15 17:17 G	15396515.01	15396515.22	15396515.43	0.0294	0.0008
Venus	37442-10-03 14:38 G	15396745.05	15396745.11	15396745.19	0.0291	0.0271
Mercury	37445-10-30 04:33 G	15397867.61	15397867.69	15397867.78	0.0276	0.0206
Mercury	37446-01-26 15:21 G	15397956.01	15397956.14	15397956.26	0.0275	0.0082
Mercury	37446-04-25 01:55 G	15398044.45	15398044.58	15398044.71	0.0274	0.0041
Mercury	37446-07-22 12:29 G	15398132.91	15398133.02	15398133.12	0.0273	0.0163
Earth	37452-09-22 06:43 G	15400386.54	15400386.78	15400387.02	0.0259	0.0036
Moon	37452-09-22 10:33 G	15400386.70	15400386.94	15400387.18	0.0259	0.0044 *
Venus	37457-10-22 18:14 G	15402243.06	15402243.26	15402243.46	0.0268	0.0087
Venus	37458-06-08 21:36 G	15402472.21	15402472.40	15402472.59	0.0270	0.0119
Mercury	37462-02-06 21:36 G	15403811.31	15403811.40	15403811.50	0.0287	0.0244
Mercury	37462-05-06 22:05 G	15403900.24	15403900.42	15403900.61	0.0288	0.0038
Mercury	37462-08-03 22:19 G	15403989.28	15403989.43	15403989.58	0.0289	0.0168

Earth	37467-03-19 05:17 G	15405677.49	15405677.72	15405677.94	0.0303	0.0119
Moon	37467-03-19 07:12 G	15405677.58	15405677.80	15405678.02	0.0303	0.0118 *
Venus	37471-01-10 22:19 G	15407071.31	15407071.43	15407071.57	0.0296	0.0234
Venus	37471-08-28 22:05 G	15407301.21	15407301.42	15407301.63	0.0293	0.0040
Mercury	37475-03-19 07:12 G	15408599.74	15408599.80	15408599.86	0.0277	0.0244
Mercury	37475-06-15 17:45 G	15408688.12	15408688.24	15408688.36	0.0276	0.0120
Mercury	37475-09-12 04:19 G	15408776.55	15408776.68	15408776.81	0.0275	0.0004
Mercury	37475-12-09 14:53 G	15408865.00	15408865.12	15408865.24	0.0273	0.0127
Mercury	37476-03-07 01:26 G	15408953.51	15408953.56	15408953.61	0.0272	0.0249
Moon	37481-09-17 13:55 G	15410973.87	15410974.08	15410974.31	0.0259	0.0112
Earth	37481-09-17 17:45 G	15410974.03	15410974.24	15410974.47	0.0259	0.0123 *
Moon	37482-09-28 23:17 G	15411350.38	15411350.47	15411350.55	0.0259	0.0242
Earth	37482-09-28 23:17 G	15411350.40	15411350.47	15411350.57	0.0259	0.0242 *
Venus	37486-09-17 21:50 G	15412800.36	15412800.41	15412800.47	0.0266	0.0256
Venus	37487-05-05 00:00 G	15413029.30	15413029.50	15413029.71	0.0268	0.0055
Venus	37487-12-20 03:50 G	15413258.49	15413258.66	15413258.83	0.0270	0.0153
Mercury	37491-09-23 21:36 G	15414632.22	15414632.40	15414632.58	0.0287	0.0085
Mercury	37491-12-21 22:05 G	15414721.25	15414721.42	15414721.59	0.0288	0.0121
Moon	37497-03-27 02:53 G	15416643.47	15416643.62	15416643.79	0.0304	0.0224
Earth	37497-03-27 06:43 G	15416643.63	15416643.78	15416643.96	0.0304	0.0225 *
Venus	37500-07-24 07:12 G	15417857.65	15417857.80	15417857.97	0.0296	0.0195
Venus	37501-03-11 06:43 G	15418087.58	15418087.78	15418087.99	0.0293	0.0079
Mars	37504-06-10 05:31 G	15419274.46	15419274.73	15419275.00	0.0278	0.0015
Mercury	37504-08-06 10:19 G	15419331.91	15419331.93	15419331.94	0.0277	0.0274
Mercury	37504-11-02 20:53 G	15419420.26	15419420.37	15419420.48	0.0276	0.0150
Mercury	37505-01-30 07:26 G	15419508.68	15419508.81	15419508.94	0.0275	0.0026
Mercury	37505-04-28 18:00 G	15419597.13	15419597.25	15419597.37	0.0274	0.0097
Mercury	37505-07-26 04:33 G	15419685.61	15419685.69	15419685.77	0.0273	0.0219
Earth	37511-09-25 13:12 G	15421937.82	15421938.05	15421938.28	0.0259	0.0087
Moon	37511-09-25 13:41 G	15421937.84	15421938.07	15421938.32	0.0259	0.0091 *

Venus	37516-03-31 03:21 G	15423586.55	15423586.64	15423586.77	0.0266	0.0227
Venus	37516-11-15 06:00 G	15423815.53	15423815.75	15423815.96	0.0268	0.0026
Venus	37517-07-02 09:36 G	15424044.75	15424044.90	15424045.06	0.0271	0.0184
Mars	37520-06-22 15:50 G	15425130.91	15425131.16	15425131.42	0.0284	0.0168
Mercury	37521-02-10 20:38 G	15425364.20	15425364.36	15425364.53	0.0287	0.0137
Mercury	37521-05-10 21:07 G	15425453.20	15425453.38	15425453.57	0.0288	0.0069
Mercury	37521-08-07 21:21 G	15425542.34	15425542.39	15425542.45	0.0290	0.0275
Earth	37526-03-21 22:19 G	15427229.19	15427229.43	15427229.67	0.0303	0.0040
Moon	37526-03-22 01:55 G	15427229.34	15427229.58	15427229.83	0.0303	0.0041 *
Venus	37530-02-03 14:24 G	15428643.93	15428644.10	15428644.29	0.0295	0.0155
Venus	37530-09-21 13:26 G	15428873.87	15428874.06	15428874.25	0.0292	0.0117
Mercury	37534-03-22 23:31 G	15430152.39	15430152.48	15430152.58	0.0276	0.0183
Mercury	37534-06-19 10:19 G	15430240.80	15430240.93	15430241.05	0.0275	0.0060
Mercury	37534-09-15 20:38 G	15430329.24	15430329.36	15430329.49	0.0274	0.0066
Mercury	37534-12-13 07:26 G	15430417.71	15430417.81	15430417.90	0.0273	0.0187
Moon	37540-09-20 00:14 G	15432525.28	15432525.51	15432525.74	0.0259	0.0062
Earth	37540-09-20 01:12 G	15432525.31	15432525.55	15432525.79	0.0259	0.0070 *
Venus	37545-10-11 09:21 G	15434372.76	15434372.89	15434373.05	0.0266	0.0196
Venus	37546-05-28 12:14 G	15434601.80	15434602.01	15434602.23	0.0268	0.0009
Venus	37547-01-12 16:33 G	15434831.07	15434831.19	15434831.32	0.0271	0.0219
Mercury	37550-06-30 20:53 G	15436096.22	15436096.37	15436096.52	0.0287	0.0179
Mercury	37550-09-27 21:21 G	15436185.20	15436185.39	15436185.57	0.0288	0.0027
Mercury	37550-12-25 21:21 G	15436274.29	15436274.39	15436274.51	0.0289	0.0233
Moon	37555-03-15 14:53 G	15437815.08	15437815.12	15437815.19	0.0303	0.0294
Earth	37555-03-15 18:14 G	15437815.20	15437815.26	15437815.33	0.0303	0.0292
Venus	37559-08-17 00:43 G	15439430.34	15439430.53	15439430.73	0.0295	0.0113
Venus	37560-04-02 23:31 G	15439660.30	15439660.48	15439660.65	0.0292	0.0158
Mercury	37563-08-10 02:53 G	15440884.54	15440884.62	15440884.71	0.0276	0.0210
Mercury	37563-11-06 13:26 G	15440972.94	15440973.06	15440973.19	0.0275	0.0087
Mercury	37564-02-03 00:14 G	15441061.38	15441061.51	15441061.64	0.0274	0.0038

Mercury	37564-05-01 10:48 G	15441149.84	15441149.95	15441150.05	0.0273	0.0161
Earth	37569-09-15 15:21 G	15443113.03	15443113.14	15443113.27	0.0259	0.0223
Moon	37569-09-15 17:45 G	15443113.09	15443113.24	15443113.39	0.0259	0.0210 *
Moon	37570-09-26 18:29 G	15443489.07	15443489.27	15443489.49	0.0259	0.0142
Earth	37570-09-26 21:50 G	15443489.22	15443489.41	15443489.63	0.0259	0.0143 *
Venus	37575-04-23 16:33 G	15445159.03	15445159.19	15445159.36	0.0267	0.0164
Venus	37575-12-08 19:26 G	15445388.10	15445388.31	15445388.52	0.0269	0.0041
Venus	37576-07-24 23:45 G	15445617.43	15445617.49	15445617.58	0.0272	0.0253
Mercury	37579-11-17 20:38 G	15446828.26	15446828.36	15446828.49	0.0287	0.0225
Mercury	37580-02-14 21:21 G	15446917.20	15446917.39	15446917.58	0.0288	0.0019
Mercury	37580-05-13 21:36 G	15447006.26	15447006.40	15447006.54	0.0289	0.0187
Earth	37585-03-23 20:24 G	15448781.11	15448781.35	15448781.59	0.0303	0.0048
Moon	37585-03-23 20:53 G	15448781.12	15448781.37	15448781.62	0.0303	0.0046 *
Venus	37589-02-26 09:07 G	15450216.68	15450216.88	15450217.09	0.0294	0.0071
Venus	37589-10-14 07:12 G	15450446.65	15450446.80	15450446.96	0.0291	0.0198
Mars	37592-11-04 13:41 G	15451563.81	15451564.07	15451564.34	0.0277	0.0057
Mercury	37592-12-27 06:00 G	15451616.69	15451616.75	15451616.81	0.0277	0.0241
Mercury	37593-03-25 16:33 G	15451705.07	15451705.19	15451705.31	0.0276	0.0117
Mercury	37593-06-22 03:07 G	15451793.50	15451793.63	15451793.76	0.0274	0.0009
Mercury	37593-09-18 13:41 G	15451881.96	15451882.07	15451882.19	0.0273	0.0131
Mercury	37593-12-16 00:14 G	15451970.47	15451970.51	15451970.56	0.0272	0.0253
Earth	37599-09-22 10:33 G	15454076.70	15454076.94	15454077.19	0.0259	0.0015
Moon	37599-09-22 13:26 G	15454076.82	15454077.06	15454077.30	0.0259	0.0007 *
Venus	37604-11-02 22:33 G	15455945.26	15455945.44	15455945.63	0.0267	0.0132
Venus	37605-06-20 01:41 G	15456174.37	15456174.57	15456174.78	0.0269	0.0075
Mars	37608-11-18 02:09 G	15457421.27	15457421.59	15457421.90	0.0284	0.0052
Mercury	37609-04-05 20:38 G	15457560.30	15457560.36	15457560.43	0.0286	0.0267
Mercury	37609-07-03 21:21 G	15457649.21	15457649.39	15457649.57	0.0287	0.0062
Mercury	37609-09-30 21:36 G	15457738.24	15457738.40	15457738.56	0.0288	0.0145
Earth	37614-03-17 17:02 G	15459367.03	15459367.21	15459367.39	0.0303	0.0203

Moon	37614-03-17 17:02 G	15459367.04	15459367.21	15459367.39	0.0303	0.0205 *
Venus	37618-09-08 20:09 G	15461003.13	15461003.34	15461003.55	0.0294	0.0028
Venus	37619-04-26 17:45 G	15461233.13	15461233.24	15461233.36	0.0292	0.0240
Mercury	37622-05-16 09:36 G	15462348.87	15462348.90	15462348.94	0.0277	0.0266
Mercury	37622-08-12 20:09 G	15462437.23	15462437.34	15462437.46	0.0276	0.0141
Mercury	37622-11-09 06:57 G	15462525.65	15462525.79	15462525.92	0.0275	0.0019
Mercury	37623-02-05 17:17 G	15462614.10	15462614.22	15462614.35	0.0274	0.0107
Mercury	37623-05-05 03:50 G	15462702.60	15462702.66	15462702.74	0.0273	0.0229
Moon	37628-09-16 23:45 G	15464664.29	15464664.49	15464664.70	0.0259	0.0153
Earth	37628-09-17 01:55 G	15464664.40	15464664.58	15464664.78	0.0259	0.0166 *
Moon	37629-09-28 06:00 G	15465040.60	15465040.75	15465040.91	0.0259	0.0199
Earth	37629-09-28 08:24 G	15465040.70	15465040.85	15465041.01	0.0259	0.0200 *
Venus	37634-05-16 06:00 G	15466731.56	15466731.75	15466731.95	0.0268	0.0099
Venus	37634-12-31 09:36 G	15466960.70	15466960.90	15466961.09	0.0270	0.0108
Mercury	37638-11-20 21:36 G	15468381.23	15468381.40	15468381.58	0.0287	0.0104
Mercury	37639-02-17 22:05 G	15468470.25	15468470.42	15468470.60	0.0289	0.0102
Moon	37644-03-25 18:00 G	15470333.04	15470333.25	15470333.48	0.0303	0.0138
Earth	37644-03-25 21:07 G	15470333.18	15470333.38	15470333.61	0.0303	0.0142 *
Venus	37647-08-04 05:31 G	15471559.65	15471559.73	15471559.85	0.0296	0.0259
Venus	37648-03-21 05:31 G	15471789.52	15471789.73	15471789.95	0.0293	0.0018
Venus	37648-11-06 02:53 G	15472019.57	15472019.62	15472019.67	0.0290	0.0281
Mercury	37651-12-30 23:31 G	15473169.38	15473169.48	15473169.58	0.0276	0.0169
Mercury	37652-03-28 10:05 G	15473257.79	15473257.92	15473258.05	0.0275	0.0045
Mercury	37652-06-24 20:38 G	15473346.23	15473346.36	15473346.49	0.0274	0.0078
Mercury	37652-09-21 07:12 G	15473434.71	15473434.80	15473434.89	0.0273	0.0201
Earth	37658-09-23 21:07 G	15475628.14	15475628.38	15475628.63	0.0259	0.0045
Moon	37658-09-24 00:14 G	15475628.27	15475628.51	15475628.76	0.0259	0.0053 *
Venus	37663-11-26 12:00 G	15477517.80	15477518.00	15477518.21	0.0268	0.0068
Venus	37664-07-12 15:50 G	15477746.98	15477747.16	15477747.34	0.0270	0.0141
Mercury	37668-04-08 21:36 G	15479113.24	15479113.40	15479113.57	0.0287	0.0147

Mercury	37668-07-06 22:05 G	15479202.24	15479202.42	15479202.61	0.0288	0.0059
Mercury	37668-10-03 22:05 G	15479291.37	15479291.42	15479291.51	0.0289	0.0267
Earth	37673-03-19 18:00 G	15480919.02	15480919.25	15480919.47	0.0303	0.0111
Moon	37673-03-19 20:53 G	15480919.15	15480919.37	15480919.60	0.0303	0.0110 *
Venus	37677-02-13 17:02 G	15482346.07	15482346.21	15482346.35	0.0296	0.0215
Venus	37677-10-01 16:19 G	15482575.98	15482576.18	15482576.39	0.0293	0.0059
Mars	37681-04-01 13:26 G	15483853.85	15483854.06	15483854.30	0.0277	0.0155
Mercury	37681-05-19 03:07 G	15483901.54	15483901.63	15483901.73	0.0276	0.0194
Mercury	37681-08-15 13:41 G	15483989.95	15483990.07	15483990.20	0.0275	0.0070
Mercury	37681-11-12 00:14 G	15484078.38	15484078.51	15484078.64	0.0274	0.0054
Mercury	37682-02-08 10:48 G	15484166.85	15484166.95	15484167.05	0.0273	0.0177
Moon	37687-09-19 08:53 G	15486215.65	15486215.87	15486216.11	0.0259	0.0096
Earth	37687-09-19 12:29 G	15486215.80	15486216.02	15486216.25	0.0259	0.0108 *
Earth	37688-09-29 18:43 G	15486592.27	15486592.28	15486592.31	0.0259	0.0258
Moon	37688-09-29 20:24 G	15486592.32	15486592.35	15486592.39	0.0259	0.0255
Venus	37692-10-21 17:17 G	15488075.12	15488075.22	15488075.31	0.0266	0.0237
Venus	37693-06-07 19:26 G	15488304.10	15488304.31	15488304.52	0.0268	0.0034
Venus	37694-01-22 23:17 G	15488533.32	15488533.47	15488533.64	0.0271	0.0176
Mars	37697-04-15 16:19 G	15489711.88	15489712.18	15489712.49	0.0285	0.0081
Mercury	37697-08-26 21:50 G	15489845.27	15489845.41	15489845.55	0.0287	0.0192
Mercury	37697-11-23 22:19 G	15489934.24	15489934.43	15489934.62	0.0288	0.0015
Mercury	37698-02-20 22:33 G	15490023.33	15490023.44	15490023.56	0.0289	0.0222
Moon	37703-03-29 18:14 G	15491885.12	15491885.26	15491885.42	0.0303	0.0233
Earth	37703-03-29 21:36 G	15491885.25	15491885.40	15491885.56	0.0303	0.0234 *
Venus	37706-08-28 02:38 G	15493132.44	15493132.61	15493132.78	0.0295	0.0170
Venus	37707-04-15 01:41 G	15493362.37	15493362.57	15493362.77	0.0292	0.0103
Mercury	37710-10-07 06:29 G	15494633.69	15494633.77	15494633.85	0.0276	0.0222
Mercury	37711-01-03 17:02 G	15494722.09	15494722.21	15494722.33	0.0275	0.0097
Mercury	37711-04-02 03:36 G	15494810.52	15494810.65	15494810.78	0.0274	0.0027
Mercury	37711-06-29 14:09 G	15494898.98	15494899.09	15494899.20	0.0273	0.0149

Mercury	37711-09-26 00:29 G	15494987.52	15494987.52	15494987.53	0.0272	0.0271
Moon	37716-09-15 04:05 G	15496803.62	15496803.67	15496803.75	0.0260	0.0251
Moon	37717-09-26 06:29 G	15497179.55	15497179.77	15497180.01	0.0259	0.0107
Earth	37717-09-26 07:26 G	15497179.58	15497179.81	15497180.04	0.0259	0.0102 *
Venus	37722-05-04 22:05 G	15498861.29	15498861.42	15498861.55	0.0266	0.0209
Venus	37722-12-20 00:43 G	15499090.32	15499090.53	15499090.74	0.0269	0.0005
Venus	37723-08-06 04:48 G	15499319.58	15499319.70	15499319.85	0.0271	0.0207
Mercury	37727-01-14 20:53 G	15500577.28	15500577.37	15500577.48	0.0286	0.0241
Mercury	37727-04-13 21:36 G	15500666.22	15500666.40	15500666.59	0.0287	0.0035
Mercury	37727-07-11 22:05 G	15500755.27	15500755.42	15500755.57	0.0289	0.0173
Earth	37732-03-22 16:33 G	15502470.95	15502471.19	15502471.44	0.0303	0.0021
Moon	37732-03-22 19:41 G	15502471.07	15502471.32	15502471.57	0.0303	0.0020 *
Venus	37736-03-09 13:12 G	15503918.87	15503919.05	15503919.24	0.0295	0.0129
Venus	37736-10-25 12:00 G	15504148.82	15504149.00	15504149.18	0.0293	0.0144
Mars	37739-07-12 13:41 G	15505139.05	15505139.07	15505139.10	0.0280	0.0278
Mercury	37740-02-24 10:05 G	15505365.87	15505365.92	15505365.98	0.0277	0.0247
Mercury	37740-05-22 20:38 G	15505454.24	15505454.36	15505454.48	0.0276	0.0122
Mercury	37740-08-19 07:12 G	15505542.67	15505542.80	15505542.93	0.0275	0.0003
Mercury	37740-11-15 17:45 G	15505631.12	15505631.24	15505631.35	0.0274	0.0125
Mercury	37741-02-12 04:19 G	15505719.62	15505719.68	15505719.73	0.0272	0.0247
Earth	37746-09-21 22:19 G	15507767.19	15507767.43	15507767.67	0.0259	0.0051
Moon	37746-09-21 22:33 G	15507767.21	15507767.44	15507767.68	0.0259	0.0042 *
Venus	37751-11-15 04:48 G	15509647.55	15509647.70	15509647.86	0.0267	0.0177
Venus	37752-07-01 07:41 G	15509876.61	15509876.82	15509877.03	0.0269	0.0028
Venus	37753-02-15 12:14 G	15510105.91	15510106.01	15510106.11	0.0271	0.0240
Mercury	37756-08-30 21:36 G	15511398.22	15511398.40	15511398.58	0.0288	0.0080
Mercury	37756-11-27 21:50 G	15511487.25	15511487.41	15511487.59	0.0289	0.0128
Moon	37761-03-16 09:21 G	15513056.81	15513056.89	15513056.99	0.0303	0.0280
Earth	37761-03-16 11:45 G	15513056.91	15513056.99	15513057.09	0.0303	0.0279 *
Venus	37765-09-19 22:33 G	15514705.24	15514705.44	15514705.64	0.0294	0.0084

Venus	37766-05-07 20:38 G	15514935.20	15514935.36	15514935.53	0.0292	0.0186
Mercury	37769-07-13 13:12 G	15516098.05	15516098.05	15516098.06	0.0276	0.0276
Mars	37769-08-28 05:31 G	15516143.61	15516143.73	15516143.88	0.0276	0.0239
Mercury	37769-10-09 23:45 G	15516186.38	15516186.49	15516186.60	0.0275	0.0152
Mercury	37770-01-06 10:19 G	15516274.80	15516274.93	15516275.06	0.0274	0.0028
Mercury	37770-04-04 20:53 G	15516363.24	15516363.37	15516363.49	0.0273	0.0095
Mercury	37770-07-02 07:26 G	15516451.73	15516451.81	15516451.89	0.0272	0.0218
Moon	37775-09-17 09:21 G	15518354.73	15518354.89	15518355.06	0.0259	0.0197
Earth	37775-09-17 09:21 G	15518354.76	15518354.89	15518355.04	0.0259	0.0210 *
Moon	37776-09-27 11:45 G	15518730.80	15518730.99	15518731.19	0.0259	0.0159
Earth	37776-09-27 15:36 G	15518730.96	15518731.15	15518731.35	0.0259	0.0157 *
Venus	37781-05-27 08:38 G	15520433.69	15520433.86	15520434.05	0.0267	0.0151
Venus	37782-01-11 11:45 G	15520662.79	15520662.99	15520663.20	0.0269	0.0056
Venus	37782-08-28 16:33 G	15520892.17	15520892.19	15520892.23	0.0272	0.0269
Mars	37785-09-11 11:31 G	15522001.74	15522001.98	15522002.24	0.0285	0.0180
Mercury	37786-01-17 19:55 G	15522130.17	15522130.33	15522130.50	0.0287	0.0136
Mercury	37786-04-16 20:38 G	15522219.18	15522219.36	15522219.54	0.0288	0.0072
Mercury	37786-07-14 20:38 G	15522308.33	15522308.36	15522308.42	0.0289	0.0280
Moon	37791-03-25 10:05 G	15524022.68	15524022.92	15524023.17	0.0304	0.0059
Earth	37791-03-25 11:17 G	15524022.74	15524022.97	15524023.21	0.0304	0.0062 *
Venus	37795-04-02 07:12 G	15525491.59	15525491.80	15525492.01	0.0295	0.0046
Venus	37795-11-18 05:17 G	15525721.59	15525721.72	15525721.86	0.0292	0.0223
Mercury	37799-02-27 03:07 G	15526918.53	15526918.63	15526918.73	0.0276	0.0180
Mercury	37799-05-26 13:41 G	15527006.94	15527007.07	15527007.20	0.0275	0.0056
Mercury	37799-08-23 00:14 G	15527095.38	15527095.51	15527095.64	0.0274	0.0068
Mercury	37799-11-19 10:33 G	15527183.85	15527183.94	15527184.04	0.0273	0.0191
Earth	37805-09-24 05:31 G	15529318.49	15529318.73	15529318.98	0.0259	0.0005
Moon	37805-09-24 09:21 G	15529318.65	15529318.89	15529319.14	0.0259	0.0010 *
Venus	37810-12-08 14:38 G	15531219.92	15531220.11	15531220.30	0.0267	0.0120
Venus	37811-07-25 17:45 G	15531449.04	15531449.24	15531449.44	0.0269	0.0087

Mercury	37815-06-07 19:12 G	15532862.16	15532862.30	15532862.44	0.0287	0.0189
Mercury	37815-09-04 19:41 G	15532951.14	15532951.32	15532951.51	0.0288	0.0019
Mercury	37815-12-02 19:55 G	15533040.23	15533040.33	15533040.45	0.0289	0.0227
Earth	37820-03-19 03:50 G	15534608.49	15534608.66	15534608.85	0.0303	0.0202
Moon	37820-03-19 06:00 G	15534608.59	15534608.75	15534608.93	0.0303	0.0206 *
Venus	37824-02-26 15:07 G	15536048.07	15536048.13	15536048.19	0.0297	0.0283
Venus	37824-10-13 15:21 G	15536277.93	15536278.14	15536278.35	0.0294	0.0006
Venus	37825-05-31 12:43 G	15536507.95	15536508.03	15536508.13	0.0291	0.0262
Mars	37827-12-08 00:57 G	15537428.37	15537428.54	15537428.74	0.0279	0.0201
Mercury	37828-07-17 06:00 G	15537650.67	15537650.75	15537650.84	0.0276	0.0212
Mercury	37828-10-13 16:33 G	15537739.07	15537739.19	15537739.32	0.0275	0.0087
Mercury	37829-01-10 03:07 G	15537827.50	15537827.63	15537827.76	0.0274	0.0036
Mercury	37829-04-08 13:41 G	15537915.96	15537916.07	15537916.18	0.0273	0.0159
Moon	37834-09-19 12:00 G	15539905.81	15539906.00	15539906.21	0.0259	0.0149
Earth	37834-09-19 15:36 G	15539905.96	15539906.15	15539906.35	0.0259	0.0159 *
Moon	37835-09-30 20:09 G	15540282.20	15540282.34	15540282.49	0.0259	0.0206
Earth	37835-09-30 20:53 G	15540282.24	15540282.37	15540282.53	0.0259	0.0208 *
Venus	37840-06-19 17:17 G	15542006.02	15542006.22	15542006.42	0.0267	0.0097
Venus	37841-02-03 20:24 G	15542235.17	15542235.35	15542235.55	0.0270	0.0112
Mercury	37844-10-24 16:33 G	15543594.11	15543594.19	15543594.29	0.0286	0.0252
Mercury	37845-01-21 17:31 G	15543683.04	15543683.23	15543683.41	0.0287	0.0045
Mercury	37845-04-20 17:45 G	15543772.09	15543772.24	15543772.40	0.0289	0.0164
Moon	37850-03-27 21:07 G	15545574.17	15545574.38	15545574.61	0.0304	0.0129
Earth	37850-03-28 00:57 G	15545574.33	15545574.54	15545574.77	0.0304	0.0136 *
Venus	37853-09-07 22:19 G	15546834.32	15546834.43	15546834.55	0.0297	0.0248
Venus	37854-04-25 22:33 G	15547064.23	15547064.44	15547064.65	0.0294	0.0030
Mercury	37857-12-04 09:07 G	15548382.82	15548382.88	15548382.94	0.0277	0.0244
Mercury	37858-03-02 19:41 G	15548471.20	15548471.32	15548471.44	0.0276	0.0119
Mercury	37858-05-30 06:14 G	15548559.63	15548559.76	15548559.89	0.0275	0.0006
Mercury	37858-08-26 16:48 G	15548648.08	15548648.20	15548648.31	0.0273	0.0129

Mercury	37858-11-23 03:07 G	15548736.59	15548736.63	15548736.68	0.0272	0.0251
Earth	37864-09-25 09:50 G	15550869.67	15550869.91	15550870.15	0.0258	0.0050
Moon	37864-09-25 11:02 G	15550869.72	15550869.96	15550870.22	0.0258	0.0054 *
Venus	37869-12-30 22:05 G	15552792.21	15552792.42	15552792.63	0.0267	0.0068
Venus	37870-08-17 01:26 G	15553021.39	15553021.56	15553021.75	0.0270	0.0141
Mars	37874-02-06 10:48 G	15554290.83	15554290.95	15554291.09	0.0286	0.0260
Mercury	37874-06-10 15:36 G	15554414.98	15554415.15	15554415.33	0.0287	0.0105
Mercury	37874-09-07 16:05 G	15554504.00	15554504.17	15554504.35	0.0289	0.0104
Earth	37879-03-21 14:24 G	15556159.89	15556160.10	15556160.33	0.0304	0.0134
Moon	37879-03-21 18:00 G	15556160.04	15556160.25	15556160.47	0.0304	0.0140 *
Venus	37883-03-21 04:48 G	15557620.56	15557620.70	15557620.85	0.0296	0.0210
Venus	37883-11-06 04:33 G	15557850.49	15557850.69	15557850.90	0.0293	0.0067
Mercury	37887-07-20 22:19 G	15559203.32	15559203.43	15559203.54	0.0275	0.0154
Mercury	37887-10-17 08:53 G	15559291.73	15559291.87	15559292.00	0.0274	0.0032
Mercury	37888-01-13 19:12 G	15559380.18	15559380.30	15559380.43	0.0273	0.0093
Mercury	37888-04-11 05:45 G	15559468.66	15559468.74	15559468.82	0.0272	0.0215
Moon	37893-09-20 16:48 G	15561456.98	15561457.20	15561457.42	0.0259	0.0104
Earth	37893-09-20 18:29 G	15561457.06	15561457.27	15561457.50	0.0259	0.0113 *
Earth	37894-10-01 23:17 G	15561833.43	15561833.47	15561833.53	0.0259	0.0253
Moon	37894-10-02 02:53 G	15561833.55	15561833.62	15561833.69	0.0259	0.0247
Venus	37898-11-25 21:36 G	15563349.33	15563349.40	15563349.48	0.0266	0.0248
Venus	37899-07-12 23:31 G	15563578.27	15563578.48	15563578.69	0.0268	0.0046
Venus	37900-02-27 02:53 G	15563807.46	15563807.62	15563807.80	0.0270	0.0163
Mercury	37903-10-29 12:14 G	15565146.86	15565147.01	15565147.16	0.0287	0.0176
Mercury	37904-01-26 12:57 G	15565235.85	15565236.04	15565236.22	0.0288	0.0032
Mercury	37904-04-24 13:12 G	15565324.95	15565325.05	15565325.15	0.0289	0.0240
Moon	37909-03-30 06:57 G	15567125.61	15567125.79	15567125.98	0.0304	0.0189
Earth	37909-03-30 07:26 G	15567125.64	15567125.81	15567126.00	0.0304	0.0198 *
Venus	37912-10-01 10:05 G	15568406.76	15568406.92	15568407.09	0.0296	0.0179
Venus	37913-05-19 09:50 G	15568636.71	15568636.91	15568637.11	0.0294	0.0098

Mars	37916-05-04 00:43 G	15569717.29	15569717.53	15569717.76	0.0279	0.0134
Mercury	37916-12-08 00:57 G	15569935.45	15569935.54	15569935.63	0.0276	0.0191
Mercury	37917-03-06 11:31 G	15570023.85	15570023.98	15570024.11	0.0275	0.0066
Mercury	37917-06-02 22:05 G	15570112.29	15570112.42	15570112.55	0.0274	0.0058
Mercury	37917-08-30 08:38 G	15570200.76	15570200.86	15570200.95	0.0273	0.0181
Moon	37923-09-28 07:26 G	15572420.58	15572420.81	15572421.05	0.0258	0.0092
Earth	37923-09-28 10:33 G	15572420.72	15572420.94	15572421.18	0.0258	0.0094 *
Venus	37928-06-08 01:12 G	15574135.43	15574135.55	15574135.66	0.0265	0.0221
Venus	37929-01-23 02:53 G	15574364.41	15574364.62	15574364.84	0.0268	0.0020
Venus	37929-09-09 06:29 G	15574593.63	15574593.77	15574593.93	0.0270	0.0190
Mercury	37933-03-17 09:36 G	15575878.81	15575878.90	15575879.01	0.0287	0.0242
Mercury	37933-06-14 10:19 G	15575967.75	15575967.93	15575968.12	0.0288	0.0035
Mercury	37933-09-11 10:48 G	15576056.80	15576056.95	15576057.10	0.0289	0.0174
Moon	37938-03-23 18:29 G	15577711.03	15577711.27	15577711.51	0.0304	0.0085
Earth	37938-03-23 18:43 G	15577711.04	15577711.28	15577711.52	0.0304	0.0076 *
Venus	37942-04-13 15:21 G	15579192.96	15579193.14	15579193.33	0.0296	0.0144
Venus	37942-11-29 14:53 G	15579422.93	15579423.12	15579423.31	0.0293	0.0131
Mercury	37946-04-27 03:07 G	15580667.57	15580667.63	15580667.71	0.0276	0.0230
Mercury	37946-07-24 13:55 G	15580755.96	15580756.08	15580756.20	0.0275	0.0104
Mercury	37946-10-21 00:14 G	15580844.38	15580844.51	15580844.65	0.0274	0.0022
Mercury	37947-01-17 10:48 G	15580932.84	15580932.95	15580933.06	0.0273	0.0143
Mercury	37947-04-15 21:21 G	15581021.37	15581021.39	15581021.42	0.0272	0.0265
Earth	37952-09-22 18:14 G	15583008.02	15583008.26	15583008.50	0.0258	0.0071
Moon	37952-09-22 20:38 G	15583008.13	15583008.36	15583008.59	0.0258	0.0065 *
Venus	37957-12-19 01:26 G	15584921.43	15584921.56	15584921.70	0.0266	0.0203
Venus	37958-08-05 03:36 G	15585150.43	15585150.65	15585150.86	0.0268	0.0004
Venus	37959-03-22 07:12 G	15585379.67	15585379.80	15585379.93	0.0270	0.0210
Mars	37962-07-02 23:17 G	15586578.44	15586578.47	15586578.52	0.0285	0.0283
Mercury	37962-11-01 06:14 G	15586699.59	15586699.76	15586699.93	0.0287	0.0113
Mercury	37963-01-29 06:43 G	15586788.61	15586788.78	15586788.96	0.0288	0.0096

Earth	37968-03-31 08:38 G	15588676.73	15588676.86	15588677.01	0.0304	0.0250
Moon	37968-03-31 12:14 G	15588676.86	15588677.01	15588677.16	0.0304	0.0237 *
Venus	37971-10-24 18:43 G	15589979.09	15589979.28	15589979.47	0.0296	0.0116
Venus	37972-06-10 18:00 G	15590209.08	15590209.25	15590209.43	0.0293	0.0159
Mercury	37975-09-14 05:31 G	15591399.71	15591399.73	15591399.76	0.0277	0.0271
Mercury	37975-12-11 16:05 G	15591488.06	15591488.17	15591488.28	0.0276	0.0145
Mercury	37976-03-09 02:38 G	15591576.48	15591576.61	15591576.74	0.0275	0.0020
Mercury	37976-06-05 13:12 G	15591664.93	15591665.05	15591665.17	0.0274	0.0104
Mercury	37976-09-01 23:45 G	15591753.42	15591753.49	15591753.56	0.0273	0.0227
Moon	37981-09-18 00:57 G	15593595.43	15593595.54	15593595.68	0.0259	0.0223
Earth	37981-09-18 03:21 G	15593595.54	15593595.64	15593595.75	0.0259	0.0234 *
Moon	37982-09-29 05:45 G	15593971.54	15593971.74	15593971.95	0.0258	0.0130
Earth	37982-09-29 08:24 G	15593971.64	15593971.85	15593972.07	0.0258	0.0132 *
Venus	37987-07-01 04:05 G	15595707.51	15595707.67	15595707.83	0.0265	0.0177
Venus	37988-02-15 06:00 G	15595936.54	15595936.75	15595936.97	0.0268	0.0026
Venus	37988-10-01 09:50 G	15596165.81	15596165.91	15596166.02	0.0270	0.0235
Mercury	37992-03-20 03:07 G	15597431.49	15597431.63	15597431.77	0.0287	0.0184
Mercury	37992-06-17 03:36 G	15597520.47	15597520.65	15597520.84	0.0288	0.0024
Mercury	37992-09-14 04:05 G	15597609.56	15597609.67	15597609.78	0.0289	0.0232
Moon	37997-03-24 13:26 G	15599261.82	15599262.06	15599262.30	0.0304	0.0042
Earth	37997-03-24 17:02 G	15599261.96	15599262.21	15599262.45	0.0304	0.0030 *

39TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 39th millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Venus	38001-05-05 22:19 G	15600765.23	15600765.43	15600765.63	0.0296	0.0085
Venus	38001-12-21 21:21 G	15600995.24	15600995.39	15600995.56	0.0293	0.0189
Mars	38004-09-27 06:00 G	15602005.50	15602005.75	15602006.00	0.0279	0.0107
Mercury	38005-04-29 18:14 G	15602220.16	15602220.26	15602220.35	0.0276	0.0187
Mercury	38005-07-27 04:33 G	15602308.57	15602308.69	15602308.82	0.0275	0.0062
Mercury	38005-10-23 15:07 G	15602397.01	15602397.13	15602397.26	0.0274	0.0063
Mercury	38006-01-20 01:41 G	15602485.48	15602485.57	15602485.67	0.0273	0.0186
Earth	38011-09-24 15:07 G	15604558.88	15604559.13	15604559.37	0.0258	0.0034
Moon	38011-09-24 18:14 G	15604559.02	15604559.26	15604559.52	0.0258	0.0031 *
Venus	38017-01-10 03:36 G	15606493.49	15606493.65	15606493.83	0.0266	0.0160
Venus	38017-08-27 05:45 G	15606722.53	15606722.74	15606722.95	0.0268	0.0043
Venus	38018-04-13 09:21 G	15606951.83	15606951.89	15606951.97	0.0270	0.0253
Mercury	38021-08-06 22:19 G	15608163.36	15608163.43	15608163.49	0.0286	0.0267
Mercury	38021-11-03 22:48 G	15608252.27	15608252.45	15608252.64	0.0287	0.0060
Mercury	38022-01-31 23:17 G	15608341.31	15608341.47	15608341.63	0.0288	0.0148
Earth	38027-04-02 05:02 G	15610227.65	15610227.71	15610227.77	0.0304	0.0294
Moon	38027-04-02 07:12 G	15610227.71	15610227.80	15610227.90	0.0304	0.0279 *
Venus	38030-11-16 00:29 G	15611551.31	15611551.52	15611551.72	0.0296	0.0060
Venus	38031-07-03 23:31 G	15611781.35	15611781.48	15611781.63	0.0293	0.0214
Mercury	38034-09-16 20:09 G	15612952.27	15612952.34	15612952.41	0.0277	0.0231
Mercury	38034-12-14 06:43 G	15613040.66	15613040.78	15613040.90	0.0276	0.0105
Mercury	38035-03-12 17:17 G	15613129.09	15613129.22	15613129.35	0.0275	0.0020
Mercury	38035-06-09 03:36 G	15613217.55	15613217.65	15613217.77	0.0274	0.0145
Mercury	38035-09-05 14:09 G	15613306.08	15613306.09	15613306.12	0.0273	0.0268
Moon	38040-09-18 19:55 G	15615146.18	15615146.33	15615146.50	0.0259	0.0192
Earth	38040-09-18 23:17 G	15615146.33	15615146.47	15615146.64	0.0259	0.0199 *
Earth	38041-09-30 03:50 G	15615522.49	15615522.66	15615522.86	0.0258	0.0168
Moon	38041-09-30 05:45 G	15615522.56	15615522.74	15615522.93	0.0258	0.0161 *

Venus	38046-07-23 05:45 G	15617279.56	15617279.74	15617279.93	0.0265	0.0135
Venus	38047-03-09 07:41 G	15617508.62	15617508.82	15617509.03	0.0268	0.0069
Mercury	38051-03-23 19:26 G	15618984.14	15618984.31	15618984.48	0.0287	0.0133
Mercury	38051-06-20 19:55 G	15619073.15	15619073.33	15619073.51	0.0288	0.0075
Mercury	38051-09-17 20:09 G	15619162.31	15619162.34	15619162.38	0.0289	0.0283
Moon	38056-03-25 10:19 G	15620812.69	15620812.93	15620813.16	0.0304	0.0006
Earth	38056-03-25 11:31 G	15620812.74	15620812.98	15620813.23	0.0304	0.0013 *
Venus	38060-05-28 03:07 G	15622337.43	15622337.63	15622337.85	0.0296	0.0032
Venus	38061-01-13 02:09 G	15622567.48	15622567.59	15622567.71	0.0293	0.0242
Mercury	38064-02-03 21:50 G	15623684.40	15623684.41	15623684.43	0.0277	0.0275
Mercury	38064-05-02 08:24 G	15623772.75	15623772.85	15623772.97	0.0276	0.0149
Mercury	38064-07-29 19:12 G	15623861.17	15623861.30	15623861.43	0.0275	0.0024
Mercury	38064-10-26 05:45 G	15623949.61	15623949.74	15623949.86	0.0274	0.0101
Mercury	38065-01-22 16:05 G	15624038.10	15624038.17	15624038.25	0.0273	0.0224
Moon	38070-09-25 09:07 G	15626109.62	15626109.88	15626110.13	0.0258	0.0005
Earth	38070-09-25 10:33 G	15626109.69	15626109.94	15626110.18	0.0258	0.0004 *
Venus	38076-02-02 05:02 G	15628065.53	15628065.71	15628065.91	0.0266	0.0118
Venus	38076-09-18 07:12 G	15628294.60	15628294.80	15628295.01	0.0268	0.0086
Mercury	38080-08-09 14:09 G	15629715.98	15629716.09	15629716.22	0.0286	0.0219
Mercury	38080-11-06 14:53 G	15629804.94	15629805.12	15629805.31	0.0287	0.0012
Mercury	38081-02-03 15:07 G	15629894.01	15629894.13	15629894.27	0.0288	0.0197
Earth	38085-03-18 12:57 G	15631397.95	15631398.04	15631398.13	0.0303	0.0279
Moon	38085-03-18 12:57 G	15631397.99	15631398.04	15631398.11	0.0303	0.0293 *
Venus	38089-04-22 02:24 G	15632893.55	15632893.60	15632893.65	0.0298	0.0289
Venus	38089-12-08 04:05 G	15633123.46	15633123.67	15633123.88	0.0296	0.0009
Venus	38090-07-26 03:07 G	15633353.55	15633353.63	15633353.72	0.0293	0.0265
Mars	38093-02-20 00:29 G	15634293.27	15634293.52	15634293.78	0.0280	0.0091
Mercury	38093-09-19 10:19 G	15634504.84	15634504.93	15634505.02	0.0277	0.0196
Mercury	38093-12-16 20:53 G	15634593.24	15634593.37	15634593.50	0.0276	0.0069
Mercury	38094-03-15 07:26 G	15634681.68	15634681.81	15634681.94	0.0275	0.0056

Mercury	38094-06-11 18:00 G	15634770.15	15634770.25	15634770.35	0.0274	0.0180
Earth	38099-09-20 18:00 G	15636697.07	15636697.25	15636697.45	0.0259	0.0165
Moon	38099-09-20 19:26 G	15636697.13	15636697.31	15636697.50	0.0259	0.0164 *
Earth	38100-10-01 22:33 G	15637073.29	15637073.44	15637073.60	0.0258	0.0201
Moon	38100-10-02 02:09 G	15637073.43	15637073.59	15637073.76	0.0258	0.0191 *
Venus	38105-08-15 06:57 G	15638851.59	15638851.79	15638851.99	0.0266	0.0093
Venus	38106-04-01 08:53 G	15639080.68	15639080.87	15639081.07	0.0268	0.0111
Mercury	38110-03-27 11:17 G	15640536.79	15640536.97	15640537.15	0.0287	0.0085
Mercury	38110-06-24 11:45 G	15640625.82	15640625.99	15640626.16	0.0288	0.0122
Earth	38115-03-28 03:50 G	15642363.42	15642363.66	15642363.90	0.0305	0.0049
Moon	38115-03-28 06:57 G	15642363.55	15642363.79	15642364.02	0.0305	0.0032 *
Venus	38118-11-03 05:17 G	15643679.63	15643679.72	15643679.82	0.0298	0.0261
Venus	38119-06-21 06:43 G	15643909.57	15643909.78	15643909.99	0.0296	0.0021
Venus	38120-02-06 05:31 G	15644139.73	15644139.73	15644139.74	0.0293	0.0292
Mercury	38123-02-07 12:00 G	15645236.94	15645237.00	15645237.07	0.0277	0.0240
Mercury	38123-05-06 22:33 G	15645325.33	15645325.44	15645325.57	0.0276	0.0114
Mercury	38123-08-03 09:21 G	15645413.76	15645413.89	15645414.02	0.0275	0.0014
Mercury	38123-10-30 19:55 G	15645502.21	15645502.33	15645502.44	0.0274	0.0137
Mercury	38124-01-27 06:29 G	15645590.73	15645590.77	15645590.80	0.0273	0.0260
Moon	38129-09-27 01:26 G	15647660.32	15647660.56	15647660.80	0.0258	0.0027
Earth	38129-09-27 05:02 G	15647660.47	15647660.71	15647660.96	0.0258	0.0035 *
Venus	38135-02-25 06:29 G	15649637.57	15649637.77	15649637.98	0.0266	0.0076
Venus	38135-10-12 08:38 G	15649866.68	15649866.86	15649867.05	0.0268	0.0128
Mars	38139-04-19 12:57 G	15651151.99	15651152.04	15651152.10	0.0284	0.0280
Mercury	38139-08-14 06:29 G	15651268.62	15651268.77	15651268.92	0.0286	0.0170
Mercury	38139-11-11 06:57 G	15651357.60	15651357.79	15651357.97	0.0287	0.0037
Mercury	38140-02-08 07:12 G	15651446.71	15651446.80	15651446.90	0.0288	0.0245
Moon	38144-03-20 01:41 G	15652948.45	15652948.57	15652948.70	0.0303	0.0260
Earth	38144-03-20 05:17 G	15652948.59	15652948.72	15652948.88	0.0303	0.0243 *
Venus	38148-05-15 05:45 G	15654465.62	15654465.74	15654465.87	0.0298	0.0237

Venus	38148-12-31 07:12 G	15654695.59	15654695.80	15654696.01	0.0295	0.0045
Mercury	38152-09-23 00:14 G	15656057.41	15656057.51	15656057.62	0.0277	0.0162
Mercury	38152-12-20 11:02 G	15656145.83	15656145.96	15656146.09	0.0276	0.0035
Mercury	38153-03-18 21:36 G	15656234.27	15656234.40	15656234.52	0.0275	0.0091
Mercury	38153-06-15 08:09 G	15656322.76	15656322.84	15656322.92	0.0274	0.0216
Earth	38158-09-22 12:43 G	15658247.82	15658248.03	15658248.24	0.0259	0.0132
Moon	38158-09-22 16:19 G	15658247.97	15658248.18	15658248.40	0.0259	0.0134 *
Moon	38159-10-03 16:33 G	15658624.07	15658624.19	15658624.33	0.0258	0.0221
Earth	38159-10-03 17:02 G	15658624.12	15658624.21	15658624.32	0.0258	0.0235 *
Venus	38164-01-21 08:09 G	15660194.77	15660194.84	15660194.92	0.0264	0.0247
Venus	38164-09-06 08:53 G	15660423.66	15660423.87	15660424.08	0.0266	0.0050
Venus	38165-04-23 10:48 G	15660652.79	15660652.95	15660653.13	0.0268	0.0155
Mercury	38168-12-31 03:07 G	15662000.53	15662000.63	15662000.73	0.0285	0.0240
Mercury	38169-03-30 03:36 G	15662089.47	15662089.65	15662089.84	0.0287	0.0034
Mercury	38169-06-27 03:50 G	15662178.52	15662178.66	15662178.82	0.0288	0.0174
Earth	38174-03-28 20:53 G	15663914.14	15663914.37	15663914.60	0.0304	0.0087
Moon	38174-03-28 23:31 G	15663914.23	15663914.48	15663914.72	0.0304	0.0070 *
Venus	38177-11-25 08:38 G	15665251.72	15665251.86	15665252.01	0.0298	0.0209
Venus	38178-07-13 09:50 G	15665481.71	15665481.91	15665482.12	0.0295	0.0073
Mars	38181-07-16 16:48 G	15666580.95	15666581.20	15666581.46	0.0280	0.0089
Mercury	38182-02-10 02:09 G	15666789.51	15666789.59	15666789.68	0.0277	0.0206
Mercury	38182-05-09 12:43 G	15666877.91	15666878.03	15666878.16	0.0276	0.0079
Mercury	38182-08-05 23:17 G	15666966.34	15666966.47	15666966.60	0.0275	0.0048
Mercury	38182-11-02 09:50 G	15667054.81	15667054.91	15667055.02	0.0274	0.0172
Earth	38188-09-28 00:14 G	15669211.28	15669211.51	15669211.75	0.0258	0.0069
Moon	38188-09-28 00:57 G	15669211.31	15669211.54	15669211.77	0.0258	0.0058 *
Venus	38193-08-02 08:09 G	15670980.75	15670980.84	15670980.96	0.0264	0.0230
Venus	38194-03-19 08:53 G	15671209.66	15671209.87	15671210.08	0.0266	0.0032
Venus	38194-11-03 11:02 G	15671438.80	15671438.96	15671439.12	0.0268	0.0173
Mercury	38198-08-16 22:48 G	15672821.29	15672821.45	15672821.63	0.0286	0.0118

Mercury	38198-11-13 23:17 G	15672910.30	15672910.47	15672910.65	0.0287	0.0090
Moon	38203-03-22 22:05 G	15674499.26	15674499.42	15674499.58	0.0303	0.0221
Earth	38203-03-22 22:48 G	15674499.28	15674499.45	15674499.64	0.0303	0.0205 *
Venus	38207-06-08 09:21 G	15676037.73	15676037.89	15676038.06	0.0298	0.0184
Venus	38208-01-24 10:33 G	15676267.75	15676267.94	15676268.14	0.0295	0.0098
Mercury	38211-07-01 03:50 G	15677521.61	15677521.66	15677521.71	0.0279	0.0254
Mercury	38211-09-27 14:24 G	15677609.99	15677610.10	15677610.22	0.0277	0.0126
Mercury	38211-12-25 01:12 G	15677698.42	15677698.55	15677698.68	0.0276	0.0006
Mercury	38212-03-22 11:45 G	15677786.87	15677786.99	15677787.11	0.0275	0.0127
Mercury	38212-06-18 22:19 G	15677875.38	15677875.43	15677875.48	0.0274	0.0252
Moon	38217-09-24 08:09 G	15679798.61	15679798.84	15679799.08	0.0259	0.0103
Earth	38217-09-24 08:38 G	15679798.63	15679798.86	15679799.09	0.0259	0.0096 *
Moon	38218-10-05 09:21 G	15680174.86	15680174.89	15680174.93	0.0258	0.0255
Venus	38223-02-13 10:48 G	15681766.83	15681766.95	15681767.10	0.0264	0.0203
Venus	38223-09-30 11:45 G	15681995.78	15681995.99	15681996.20	0.0266	0.0005
Venus	38224-05-16 13:41 G	15682224.94	15682225.07	15682225.22	0.0268	0.0201
Mercury	38228-01-04 20:09 G	15683553.20	15683553.34	15683553.49	0.0285	0.0183
Mercury	38228-04-02 20:38 G	15683642.17	15683642.36	15683642.55	0.0286	0.0023
Mercury	38228-06-30 20:53 G	15683731.26	15683731.37	15683731.48	0.0288	0.0230
Moon	38233-03-30 13:26 G	15685464.83	15685465.06	15685465.29	0.0304	0.0114
Earth	38233-03-30 16:05 G	15685464.95	15685465.17	15685465.39	0.0304	0.0129 *
Venus	38236-12-18 13:12 G	15686823.88	15686824.05	15686824.24	0.0298	0.0154
Venus	38237-08-05 14:24 G	15687053.91	15687054.10	15687054.29	0.0295	0.0127
Mercury	38241-02-13 16:33 G	15688342.09	15688342.19	15688342.29	0.0278	0.0169
Mercury	38241-05-13 03:07 G	15688430.50	15688430.63	15688430.76	0.0276	0.0041
Mercury	38241-08-09 13:41 G	15688518.95	15688519.07	15688519.20	0.0275	0.0085
Mercury	38241-11-06 00:29 G	15688607.43	15688607.52	15688607.60	0.0274	0.0211
Earth	38247-09-30 21:21 G	15690762.17	15690762.39	15690762.62	0.0258	0.0107
Moon	38247-10-01 01:12 G	15690762.32	15690762.55	15690762.78	0.0258	0.0093 *
Venus	38252-08-25 12:14 G	15692552.87	15692553.01	15692553.17	0.0264	0.0183

Venus	38253-04-11 13:12 G	15692781.83	15692782.05	15692782.26	0.0266	0.0017
Venus	38253-11-26 15:07 G	15693011.02	15693011.13	15693011.26	0.0269	0.0223
Mercury	38257-05-23 16:19 G	15694285.11	15694285.18	15694285.26	0.0285	0.0259
Mercury	38257-08-20 16:48 G	15694374.02	15694374.20	15694374.39	0.0286	0.0053
Mercury	38257-11-17 17:02 G	15694463.06	15694463.21	15694463.38	0.0287	0.0154
Earth	38262-03-23 20:53 G	15696050.17	15696050.37	15696050.58	0.0303	0.0158
Moon	38262-03-24 00:14 G	15696050.32	15696050.51	15696050.72	0.0303	0.0172 *
Venus	38266-06-30 14:53 G	15697609.93	15697610.12	15697610.32	0.0297	0.0126
Venus	38267-02-15 15:50 G	15697839.99	15697840.16	15697840.35	0.0295	0.0154
Mars	38269-12-10 10:19 G	15698868.68	15698868.93	15698869.19	0.0281	0.0080
Mercury	38270-07-03 18:14 G	15699074.18	15699074.26	15699074.34	0.0278	0.0215
Mercury	38270-09-30 04:48 G	15699162.58	15699162.70	15699162.83	0.0277	0.0088
Mercury	38270-12-27 15:36 G	15699251.02	15699251.15	15699251.28	0.0276	0.0040
Mercury	38271-03-26 02:09 G	15699339.49	15699339.59	15699339.70	0.0275	0.0167
Moon	38276-09-25 02:53 G	15701349.38	15701349.62	15701349.86	0.0259	0.0068
Earth	38276-09-25 06:14 G	15701349.53	15701349.76	15701350.01	0.0259	0.0058 *
Venus	38282-03-07 15:36 G	15703338.99	15703339.15	15703339.33	0.0264	0.0155
Venus	38282-10-22 16:33 G	15703567.98	15703568.19	15703568.40	0.0266	0.0046
Venus	38283-06-08 18:57 G	15703797.23	15703797.29	15703797.37	0.0268	0.0252
Mercury	38287-01-07 14:38 G	15705105.94	15705106.11	15705106.28	0.0285	0.0114
Mercury	38287-04-06 14:53 G	15705194.95	15705195.12	15705195.30	0.0286	0.0092
Moon	38292-03-31 12:14 G	15707015.81	15707016.01	15707016.21	0.0304	0.0168
Earth	38292-03-31 15:07 G	15707015.94	15707016.13	15707016.34	0.0304	0.0179 *
Venus	38296-01-10 19:41 G	15708396.13	15708396.32	15708396.53	0.0298	0.0094
Venus	38296-08-27 20:24 G	15708626.19	15708626.35	15708626.52	0.0295	0.0185
Mercury	38299-11-20 20:24 G	15709806.31	15709806.35	15709806.40	0.0279	0.0256
Mercury	38300-02-17 07:12 G	15709894.68	15709894.80	15709894.91	0.0278	0.0127
Mercury	38300-05-16 17:45 G	15709983.11	15709983.24	15709983.37	0.0276	0.0001
Mercury	38300-08-13 04:19 G	15710071.57	15710071.68	15710071.80	0.0275	0.0127
Mercury	38300-11-09 14:53 G	15710160.08	15710160.12	15710160.18	0.0274	0.0253

Earth	38305-09-21 14:53 G	15711937.00	15711937.12	15711937.26	0.0259	0.0222
Moon	38305-09-21 18:14 G	15711937.15	15711937.26	15711937.39	0.0259	0.0225 *
Earth	38306-10-02 21:07 G	15712313.18	15712313.38	15712313.59	0.0258	0.0148
Moon	38306-10-02 21:50 G	15712313.20	15712313.41	15712313.63	0.0258	0.0134 *
Venus	38311-09-18 18:14 G	15714125.08	15714125.26	15714125.45	0.0265	0.0132
Venus	38312-05-04 19:12 G	15714354.10	15714354.30	15714354.51	0.0267	0.0070
Mercury	38316-05-27 11:45 G	15715837.85	15715837.99	15715838.13	0.0285	0.0183
Mercury	38316-08-24 12:00 G	15715926.82	15715927.00	15715927.19	0.0286	0.0024
Mercury	38316-11-21 12:14 G	15716015.90	15716016.01	15716016.13	0.0287	0.0229
Earth	38321-03-25 23:31 G	15717601.25	15717601.48	15717601.71	0.0303	0.0104
Moon	38321-03-26 01:41 G	15717601.34	15717601.57	15717601.80	0.0303	0.0113 *
Venus	38325-07-23 23:02 G	15719182.25	15719182.46	15719182.66	0.0297	0.0063
Venus	38326-03-10 23:31 G	15719412.34	15719412.48	15719412.63	0.0294	0.0216
Mercury	38329-07-07 09:07 G	15720626.78	15720626.88	15720626.98	0.0278	0.0170
Mercury	38329-10-03 19:55 G	15720715.20	15720715.33	15720715.46	0.0277	0.0042
Mercury	38329-12-31 06:29 G	15720803.65	15720803.77	15720803.90	0.0276	0.0086
Mercury	38330-03-29 17:02 G	15720892.13	15720892.21	15720892.30	0.0275	0.0212
Moon	38335-09-28 05:31 G	15722900.49	15722900.73	15722900.97	0.0259	0.0025
Earth	38335-09-28 06:58 G	15722900.55	15722900.79	15722901.04	0.0259	0.0014 *
Venus	38341-03-30 22:48 G	15724911.25	15724911.45	15724911.65	0.0265	0.0102
Venus	38341-11-15 00:00 G	15725140.30	15725140.50	15725140.69	0.0267	0.0100
Mercury	38345-10-14 10:34 G	15726569.83	15726569.94	15726570.04	0.0284	0.0236
Mercury	38346-01-11 10:48 G	15726658.77	15726658.95	15726659.14	0.0285	0.0031
Mercury	38346-04-10 11:02 G	15726747.82	15726747.96	15726748.11	0.0287	0.0175
Earth	38351-04-03 21:07 G	15728567.24	15728567.38	15728567.53	0.0304	0.0239
Moon	38351-04-03 22:34 G	15728567.30	15728567.44	15728567.59	0.0304	0.0234 *
Venus	38355-02-03 05:31 G	15729968.53	15729968.73	15729968.95	0.0297	0.0028
Venus	38355-09-21 05:46 G	15730198.64	15730198.74	15730198.86	0.0294	0.0250
Mars	38358-05-06 20:24 G	15731157.08	15731157.35	15731157.61	0.0281	0.0049
Mercury	38358-11-24 11:46 G	15731358.90	15731358.99	15731359.07	0.0279	0.0208

Mercury	38359-02-20 22:19 G	15731447.31	15731447.43	15731447.56	0.0278	0.0079
Mercury	38359-05-20 09:07 G	15731535.75	15731535.88	15731536.01	0.0276	0.0049
Mercury	38359-08-16 19:41 G	15731624.22	15731624.32	15731624.42	0.0275	0.0176
Earth	38364-09-22 17:02 G	15733488.04	15733488.21	15733488.40	0.0259	0.0176
Moon	38364-09-22 19:12 G	15733488.14	15733488.30	15733488.50	0.0259	0.0182 *
Moon	38365-10-03 20:10 G	15733864.17	15733864.34	15733864.53	0.0258	0.0181
Earth	38365-10-03 23:17 G	15733864.32	15733864.47	15733864.65	0.0258	0.0195 *
Venus	38370-10-11 02:53 G	15735697.41	15735697.62	15735697.82	0.0265	0.0075
Venus	38371-05-28 04:05 G	15735926.49	15735926.67	15735926.86	0.0267	0.0127
Mercury	38375-05-31 08:53 G	15737390.69	15737390.87	15737391.05	0.0285	0.0092
Mercury	38375-08-28 09:07 G	15737479.71	15737479.88	15737480.05	0.0286	0.0114
Moon	38380-03-27 05:46 G	15739152.50	15739152.74	15739152.99	0.0303	0.0043
Earth	38380-03-27 08:10 G	15739152.60	15739152.84	15739153.08	0.0303	0.0038 *
Venus	38383-12-29 07:55 G	15740524.76	15740524.83	15740524.90	0.0299	0.0278
Venus	38384-08-15 10:05 G	15740754.71	15740754.92	15740755.13	0.0296	0.0007
Venus	38385-04-02 10:05 G	15740984.87	15740984.92	15740984.98	0.0294	0.0282
Mercury	38388-04-12 13:55 G	15742091.03	15742091.08	15742091.14	0.0279	0.0248
Mercury	38388-07-10 00:43 G	15742179.41	15742179.53	15742179.65	0.0278	0.0119
Mercury	38388-10-06 11:17 G	15742267.84	15742267.97	15742268.11	0.0277	0.0014
Mercury	38389-01-02 22:05 G	15742356.31	15742356.42	15742356.53	0.0276	0.0137
Mercury	38389-04-01 08:38 G	15742444.83	15742444.86	15742444.90	0.0275	0.0264
Earth	38394-09-29 10:34 G	15744451.69	15744451.94	15744452.18	0.0259	0.0034
Moon	38394-09-29 13:12 G	15744451.81	15744452.05	15744452.29	0.0259	0.0021 *
Venus	38399-09-06 07:41 G	15746254.75	15746254.82	15746254.91	0.0263	0.0242
Venus	38400-04-22 07:55 G	15746483.62	15746483.83	15746484.05	0.0265	0.0045
Venus	38400-12-07 09:36 G	15746712.73	15746712.90	15746713.07	0.0267	0.0159
Mercury	38404-10-17 08:10 G	15748122.68	15748122.84	15748123.01	0.0284	0.0140
Mercury	38405-01-14 08:24 G	15748211.67	15748211.85	15748212.04	0.0286	0.0066
Mercury	38405-04-13 08:38 G	15748300.81	15748300.86	15748300.92	0.0287	0.0271
Earth	38409-03-21 00:43 G	15749738.51	15749738.53	15749738.57	0.0303	0.0299

Venus	38413-07-10 16:05 G	15751311.06	15751311.17	15751311.30	0.0299	0.0240
Venus	38414-02-25 18:14 G	15751541.06	15751541.26	15751541.47	0.0296	0.0046
Mercury	38417-11-27 03:36 G	15752911.54	15752911.65	15752911.76	0.0278	0.0152
Mercury	38418-02-23 14:10 G	15752999.96	15753000.09	15753000.22	0.0277	0.0025
Mercury	38418-05-23 00:58 G	15753088.42	15753088.54	15753088.66	0.0276	0.0105
Mercury	38418-08-19 11:31 G	15753176.92	15753176.98	15753177.05	0.0275	0.0232
Moon	38423-09-24 19:41 G	15755039.11	15755039.32	15755039.54	0.0259	0.0137
Earth	38423-09-24 22:05 G	15755039.22	15755039.42	15755039.65	0.0259	0.0127 *
Moon	38424-10-05 02:24 G	15755415.50	15755415.60	15755415.71	0.0258	0.0232
Earth	38424-10-05 04:48 G	15755415.63	15755415.70	15755415.79	0.0258	0.0245 *
Venus	38429-03-18 12:58 G	15757040.92	15757041.04	15757041.17	0.0264	0.0213
Venus	38429-11-02 13:26 G	15757269.85	15757270.06	15757270.27	0.0266	0.0015
Venus	38430-06-19 15:07 G	15757498.98	15757499.13	15757499.28	0.0268	0.0189
Mercury	38434-03-06 07:12 G	15758854.67	15758854.80	15758854.95	0.0284	0.0193
Mercury	38434-06-03 07:41 G	15758943.63	15758943.82	15758944.01	0.0286	0.0013
Mercury	38434-08-31 07:41 G	15759032.71	15759032.82	15759032.95	0.0287	0.0219
Moon	38439-03-29 20:10 G	15760704.10	15760704.34	15760704.58	0.0303	0.0034
Earth	38439-03-29 23:31 G	15760704.24	15760704.48	15760704.73	0.0303	0.0040 *
Venus	38443-01-20 23:17 G	15762097.32	15762097.47	15762097.63	0.0298	0.0199
Venus	38443-09-08 00:58 G	15762327.34	15762327.54	15762327.74	0.0295	0.0084
Mars	38446-09-30 15:07 G	15763445.86	15763446.13	15763446.40	0.0281	0.0003
Mercury	38447-04-16 06:14 G	15763643.67	15763643.76	15763643.85	0.0279	0.0188
Mercury	38447-07-13 16:48 G	15763732.08	15763732.20	15763732.33	0.0278	0.0060
Mercury	38447-10-10 03:36 G	15763820.52	15763820.65	15763820.78	0.0277	0.0069
Mercury	38448-01-06 14:10 G	15763909.00	15763909.09	15763909.19	0.0275	0.0197
Earth	38453-09-30 16:48 G	15766002.97	15766003.20	15766003.43	0.0259	0.0087
Moon	38453-09-30 20:10 G	15766003.10	15766003.34	15766003.58	0.0259	0.0073 *
Venus	38458-09-28 18:29 G	15767827.13	15767827.27	15767827.43	0.0264	0.0183
Venus	38459-05-15 19:26 G	15768056.09	15768056.31	15768056.52	0.0266	0.0018
Venus	38459-12-30 21:22 G	15768285.28	15768285.39	15768285.51	0.0268	0.0223

Mars	38462-10-05 06:00 G	15769294.53	15769294.75	15769294.98	0.0280	0.0201
Mercury	38463-07-24 06:58 G	15769586.70	15769586.79	15769586.91	0.0284	0.0236
Mercury	38463-10-21 07:41 G	15769675.63	15769675.82	15769676.00	0.0285	0.0031
Mercury	38464-01-18 07:41 G	15769764.68	15769764.82	15769764.97	0.0286	0.0175
Earth	38468-03-22 18:29 G	15771290.11	15771290.27	15771290.45	0.0303	0.0218
Moon	38468-03-22 21:50 G	15771290.26	15771290.41	15771290.59	0.0303	0.0227 *
Venus	38472-08-02 08:38 G	15772883.69	15772883.86	15772884.05	0.0298	0.0159
Venus	38473-03-20 10:05 G	15773113.74	15773113.92	15773114.12	0.0296	0.0125
Mercury	38476-09-02 09:22 G	15774375.81	15774375.89	15774375.97	0.0279	0.0219
Mercury	38476-11-29 19:55 G	15774464.21	15774464.33	15774464.46	0.0278	0.0090
Mercury	38477-02-26 06:43 G	15774552.65	15774552.78	15774552.91	0.0277	0.0039
Mercury	38477-05-25 17:31 G	15774641.12	15774641.23	15774641.33	0.0276	0.0167
Moon	38482-09-26 02:53 G	15776590.39	15776590.62	15776590.85	0.0259	0.0085
Earth	38482-09-26 06:00 G	15776590.52	15776590.75	15776591.00	0.0259	0.0072 *
Venus	38488-04-10 00:43 G	15778613.37	15778613.53	15778613.72	0.0264	0.0153
Venus	38488-11-25 01:55 G	15778842.37	15778842.58	15778842.79	0.0266	0.0049
Venus	38489-07-12 04:05 G	15779071.61	15779071.67	15779071.74	0.0269	0.0255
Mercury	38492-12-10 06:58 G	15780318.78	15780318.79	15780318.81	0.0284	0.0282
Mercury	38493-03-09 07:26 G	15780407.63	15780407.81	15780407.99	0.0285	0.0078
Mercury	38493-06-06 07:41 G	15780496.65	15780496.82	15780496.99	0.0286	0.0128
Moon	38498-03-31 18:43 G	15782256.07	15782256.28	15782256.50	0.0303	0.0121
Earth	38498-03-31 19:41 G	15782256.10	15782256.32	15782256.54	0.0303	0.0126 *
Venus	38502-02-13 17:31 G	15783670.04	15783670.23	15783670.43	0.0297	0.0114
Venus	38502-10-01 18:14 G	15783900.10	15783900.26	15783900.44	0.0295	0.0167
Mercury	38506-01-21 12:14 G	15785107.96	15785108.01	15785108.07	0.0279	0.0252
Mercury	38506-04-19 23:02 G	15785196.34	15785196.46	15785196.58	0.0278	0.0122
Mercury	38506-07-17 09:50 G	15785284.77	15785284.91	15785285.04	0.0277	0.0011
Mercury	38506-10-13 20:24 G	15785373.24	15785373.35	15785373.46	0.0276	0.0135
Mercury	38507-01-10 06:58 G	15785461.76	15785461.79	15785461.83	0.0275	0.0262
Earth	38511-09-22 17:02 G	15787178.11	15787178.21	15787178.33	0.0261	0.0233

Moon	38511-09-22 20:24 G	15787178.27	15787178.35	15787178.45	0.0261	0.0241	*
Moon	38512-10-03 00:00 G	15787554.28	15787554.50	15787554.73	0.0259	0.0128	
Earth	38512-10-03 01:26 G	15787554.35	15787554.56	15787554.77	0.0259	0.0143	*
Venus	38517-10-22 06:29 G	15789399.59	15789399.77	15789399.97	0.0265	0.0122	
Venus	38518-06-08 07:55 G	15789628.63	15789628.83	15789629.03	0.0267	0.0081	
Mercury	38522-07-28 07:26 G	15791139.64	15791139.81	15791139.99	0.0284	0.0120	
Mercury	38522-10-25 07:41 G	15791228.65	15791228.82	15791229.01	0.0286	0.0086	
Earth	38527-03-26 16:34 G	15792841.98	15792842.19	15792842.42	0.0303	0.0129	
Moon	38527-03-26 16:48 G	15792841.98	15792842.20	15792842.43	0.0303	0.0135	*
Venus	38531-08-27 04:19 G	15794456.47	15794456.68	15794456.88	0.0297	0.0071	
Venus	38532-04-13 04:48 G	15794686.56	15794686.70	15794686.85	0.0295	0.0209	
Mars	38535-02-26 06:43 G	15795735.53	15795735.78	15795736.04	0.0281	0.0085	
Mercury	38535-06-10 15:50 G	15795840.16	15795840.16	15795840.17	0.0280	0.0279	
Mercury	38535-09-07 02:24 G	15795928.50	15795928.60	15795928.72	0.0279	0.0150	
Mercury	38535-12-04 13:12 G	15796016.92	15796017.05	15796017.18	0.0277	0.0020	
Mercury	38536-03-01 23:46 G	15796105.37	15796105.49	15796105.61	0.0276	0.0109	
Mercury	38536-05-29 10:34 G	15796193.87	15796193.94	15796194.01	0.0275	0.0235	
Earth	38541-09-28 15:50 G	15798141.91	15798142.16	15798142.40	0.0259	0.0014	
Moon	38541-09-28 16:48 G	15798141.96	15798142.20	15798142.43	0.0259	0.0027	*
Venus	38547-05-04 13:41 G	15800185.88	15800186.07	15800186.28	0.0265	0.0089	
Venus	38547-12-19 15:07 G	15800414.94	15800415.13	15800415.33	0.0267	0.0114	
Mars	38551-03-03 16:19 G	15801584.88	15801585.18	15801585.50	0.0281	0.0077	
Mercury	38551-12-15 07:55 G	15801871.68	15801871.83	15801871.98	0.0285	0.0162	
Mercury	38552-03-13 08:10 G	15801960.66	15801960.84	15801961.03	0.0286	0.0044	
Mercury	38552-06-10 08:10 G	15802049.76	15802049.84	15802049.94	0.0287	0.0250	
Earth	38557-04-03 19:41 G	15803808.16	15803808.32	15803808.50	0.0303	0.0220	
Moon	38557-04-03 22:48 G	15803808.29	15803808.45	15803808.62	0.0303	0.0215	*
Venus	38561-03-08 14:10 G	15805242.88	15805243.09	15805243.30	0.0296	0.0025	
Venus	38561-10-24 14:10 G	15805472.98	15805473.09	15805473.20	0.0294	0.0252	
Mercury	38565-01-24 05:31 G	15806660.64	15806660.73	15806660.84	0.0279	0.0180	

Mercury	38565-04-22 16:19 G	15806749.05	15806749.18	15806749.31	0.0277	0.0050
Mercury	38565-07-20 02:53 G	15806837.50	15806837.62	15806837.75	0.0276	0.0079
Mercury	38565-10-16 13:41 G	15806925.98	15806926.07	15806926.15	0.0275	0.0206
Earth	38570-09-24 03:22 G	15808729.46	15808729.64	15808729.83	0.0260	0.0175
Moon	38570-09-24 03:07 G	15808729.46	15808729.63	15808729.82	0.0260	0.0183 *
Moon	38571-10-05 07:26 G	15809105.65	15809105.81	15809105.99	0.0259	0.0187
Earth	38571-10-05 11:31 G	15809105.82	15809105.98	15809106.13	0.0259	0.0201 *
Venus	38576-03-29 18:58 G	15810743.26	15810743.29	15810743.35	0.0264	0.0257
Venus	38576-11-13 19:26 G	15810972.11	15810972.31	15810972.52	0.0265	0.0059
Venus	38577-06-30 21:07 G	15811201.21	15811201.38	15811201.57	0.0267	0.0147
Mercury	38581-05-03 07:41 G	15812603.70	15812603.82	15812603.96	0.0284	0.0205
Mercury	38581-07-31 08:24 G	15812692.66	15812692.85	15812693.03	0.0285	0.0007
Mercury	38581-10-28 08:24 G	15812781.73	15812781.85	15812781.98	0.0286	0.0207
Moon	38586-03-28 12:58 G	15814393.80	15814394.04	15814394.29	0.0303	0.0041
Earth	38586-03-28 16:48 G	15814393.96	15814394.20	15814394.44	0.0303	0.0036 *
Venus	38590-01-31 22:34 G	15815799.36	15815799.44	15815799.54	0.0299	0.0268
Venus	38590-09-19 00:43 G	15816029.33	15816029.53	15816029.75	0.0297	0.0020
Mercury	38594-06-13 09:07 G	15817392.80	15817392.88	15817392.97	0.0279	0.0206
Mercury	38594-09-09 19:55 G	15817481.20	15817481.33	15817481.45	0.0278	0.0076
Mercury	38594-12-07 06:29 G	15817569.64	15817569.77	15817569.90	0.0277	0.0053
Mercury	38595-03-05 17:02 G	15817658.12	15817658.21	15817658.32	0.0276	0.0181
Earth	38600-10-01 01:55 G	15819693.34	15819693.58	15819693.83	0.0259	0.0045
Moon	38600-10-01 05:31 G	15819693.49	15819693.73	15819693.98	0.0259	0.0031 *
Venus	38605-10-11 01:55 G	15821529.48	15821529.58	15821529.70	0.0264	0.0225
Venus	38606-05-28 02:38 G	15821758.40	15821758.61	15821758.82	0.0266	0.0026
Venus	38607-01-12 04:19 G	15821987.53	15821987.68	15821987.85	0.0268	0.0180
Mercury	38610-09-21 07:55 G	15823335.75	15823335.83	15823335.93	0.0284	0.0248
Mercury	38610-12-19 08:38 G	15823424.67	15823424.86	15823425.04	0.0285	0.0043
Mercury	38611-03-18 08:38 G	15823513.72	15823513.86	15823514.02	0.0287	0.0165
Earth	38615-03-23 14:38 G	15824980.06	15824980.11	15824980.18	0.0302	0.0292

Moon	38615-03-23 18:29 G	15824980.23	15824980.27	15824980.31	0.0302	0.0296
Venus	38619-08-15 09:22 G	15826585.76	15826585.89	15826586.04	0.0298	0.0219
Venus	38620-04-01 11:17 G	15826815.76	15826815.97	15826816.18	0.0296	0.0065
Mars	38623-07-25 00:58 G	15828025.33	15828025.54	15828025.75	0.0280	0.0173
Mercury	38623-11-01 12:29 G	15828124.96	15828125.02	15828125.09	0.0279	0.0234
Mercury	38624-01-28 23:17 G	15828213.35	15828213.47	15828213.59	0.0278	0.0104
Mercury	38624-04-26 09:50 G	15828301.78	15828301.91	15828302.04	0.0277	0.0024
Mercury	38624-07-23 20:24 G	15828390.25	15828390.35	15828390.46	0.0276	0.0152
Moon	38629-09-26 10:48 G	15830280.73	15830280.95	15830281.17	0.0260	0.0126
Earth	38629-09-26 14:10 G	15830280.87	15830281.09	15830281.31	0.0260	0.0116 *
Moon	38630-10-07 20:53 G	15830657.31	15830657.37	15830657.45	0.0259	0.0247
Earth	38630-10-07 21:22 G	15830657.39	15830657.39	15830657.41	0.0259	0.0259 *
Venus	38635-04-23 07:12 G	15832315.66	15832315.80	15832315.95	0.0264	0.0197
Venus	38635-12-08 07:55 G	15832544.62	15832544.83	15832545.05	0.0266	0.0005
Venus	38636-07-24 09:50 G	15832773.80	15832773.91	15832774.06	0.0268	0.0212
Mars	38639-07-31 00:58 G	15833875.22	15833875.54	15833875.86	0.0281	0.0040
Mercury	38640-05-07 08:10 G	15834156.67	15834156.84	15834157.03	0.0285	0.0088
Mercury	38640-08-04 08:24 G	15834245.69	15834245.85	15834246.03	0.0286	0.0119
Moon	38645-03-31 14:24 G	15835945.87	15835946.10	15835946.33	0.0303	0.0054
Earth	38645-03-31 16:48 G	15835945.96	15835946.20	15835946.44	0.0303	0.0057 *
Venus	38649-02-24 20:24 G	15837372.18	15837372.35	15837372.52	0.0298	0.0176
Venus	38649-10-12 21:50 G	15837602.21	15837602.41	15837602.60	0.0296	0.0108
Mercury	38653-03-20 16:05 G	15838857.13	15838857.17	15838857.22	0.0279	0.0261
Mercury	38653-06-17 02:53 G	15838945.50	15838945.62	15838945.73	0.0278	0.0131
Mercury	38653-09-13 13:26 G	15839033.93	15839034.06	15839034.19	0.0277	0.0002
Mercury	38653-12-11 00:00 G	15839122.39	15839122.50	15839122.62	0.0276	0.0126
Mercury	38654-03-09 10:48 G	15839210.90	15839210.95	15839211.00	0.0275	0.0253
Earth	38659-10-03 12:00 G	15841244.78	15841245.00	15841245.23	0.0259	0.0103
Moon	38659-10-03 13:41 G	15841244.83	15841245.07	15841245.31	0.0259	0.0089 *
Venus	38664-11-02 13:41 G	15843101.91	15843102.07	15843102.24	0.0264	0.0165

Venus	38665-06-19 14:38 G	15843330.90	15843331.11	15843331.32	0.0266	0.0037
Venus	38666-02-03 16:48 G	15843560.13	15843560.20	15843560.30	0.0269	0.0245
Mercury	38669-09-24 08:10 G	15844888.68	15844888.84	15844889.01	0.0285	0.0134
Mercury	38669-12-22 08:38 G	15844977.68	15844977.86	15844978.04	0.0286	0.0073
Mercury	38670-03-21 08:38 G	15845066.83	15845066.86	15845066.91	0.0287	0.0281
Earth	38674-03-25 13:26 G	15846531.89	15846532.06	15846532.24	0.0302	0.0203
Moon	38674-03-25 15:22 G	15846531.97	15846532.14	15846532.33	0.0302	0.0208 *
Venus	38678-09-07 06:14 G	15848158.58	15848158.76	15848158.96	0.0297	0.0130
Venus	38679-04-25 07:26 G	15848388.63	15848388.81	15848388.99	0.0295	0.0153
Mars	38681-11-01 20:10 G	15849310.29	15849310.34	15849310.40	0.0283	0.0276
Mercury	38682-11-04 06:00 G	15849677.65	15849677.75	15849677.86	0.0278	0.0160
Mercury	38683-01-31 16:48 G	15849766.07	15849766.20	15849766.33	0.0277	0.0032
Mercury	38683-04-30 03:22 G	15849854.52	15849854.64	15849854.76	0.0276	0.0097
Mercury	38683-07-27 13:55 G	15849943.01	15849943.08	15849943.16	0.0275	0.0224
Moon	38688-09-27 21:22 G	15851832.16	15851832.39	15851832.63	0.0260	0.0070
Earth	38688-09-27 23:31 G	15851832.25	15851832.48	15851832.73	0.0260	0.0059 *
Venus	38694-05-15 17:46 G	15853888.07	15853888.24	15853888.43	0.0265	0.0139
Venus	38694-12-30 18:58 G	15854117.09	15854117.29	15854117.50	0.0267	0.0065
Mercury	38699-02-11 07:12 G	15855620.66	15855620.80	15855620.94	0.0284	0.0187
Mercury	38699-05-11 07:26 G	15855709.63	15855709.81	15855710.00	0.0285	0.0022
Mercury	38699-08-08 07:55 G	15855798.72	15855798.83	15855798.94	0.0287	0.0227
Earth	38704-04-03 13:26 G	15857497.85	15857498.06	15857498.27	0.0303	0.0143
Moon	38704-04-03 14:53 G	15857497.92	15857498.12	15857498.33	0.0303	0.0143 *
Venus	38708-03-20 16:19 G	15858944.98	15858945.18	15858945.39	0.0298	0.0088
Venus	38708-11-05 17:17 G	15859175.06	15859175.22	15859175.38	0.0295	0.0193
Mars	38711-12-20 22:05 G	15860315.39	15860315.42	15860315.48	0.0280	0.0275
Mercury	38712-03-24 09:36 G	15860409.80	15860409.90	15860409.99	0.0279	0.0188
Mercury	38712-06-20 20:10 G	15860498.21	15860498.34	15860498.47	0.0278	0.0059
Mercury	38712-09-17 06:43 G	15860586.66	15860586.78	15860586.91	0.0276	0.0071
Mercury	38712-12-14 17:31 G	15860675.14	15860675.23	15860675.32	0.0275	0.0198

Earth	38717-09-24 12:29 G	15862419.90	15862420.02	15862420.16	0.0260	0.0219
Moon	38717-09-24 15:07 G	15862420.02	15862420.13	15862420.27	0.0260	0.0226 *
Moon	38718-10-05 18:00 G	15862796.05	15862796.25	15862796.47	0.0259	0.0144
Earth	38718-10-05 20:38 G	15862796.17	15862796.36	15862796.56	0.0259	0.0158 *
Venus	38723-11-26 23:46 G	15864674.30	15864674.49	15864674.69	0.0265	0.0107
Venus	38724-07-13 00:58 G	15864903.35	15864903.54	15864903.74	0.0267	0.0096
Mars	38727-12-26 20:38 G	15866165.09	15866165.36	15866165.64	0.0282	0.0148
Mercury	38728-07-01 06:14 G	15866352.67	15866352.76	15866352.87	0.0284	0.0238
Mercury	38728-09-28 06:58 G	15866441.60	15866441.79	15866441.98	0.0286	0.0031
Mercury	38728-12-26 07:12 G	15866530.66	15866530.80	15866530.95	0.0287	0.0177
Moon	38733-03-28 06:14 G	15868083.53	15868083.76	15868083.99	0.0303	0.0123
Earth	38733-03-28 08:10 G	15868083.62	15868083.84	15868084.07	0.0303	0.0121 *
Venus	38737-10-01 01:26 G	15869731.35	15869731.56	15869731.77	0.0297	0.0044
Venus	38738-05-19 01:41 G	15869961.45	15869961.57	15869961.70	0.0294	0.0236
Mercury	38741-08-11 12:43 G	15871141.95	15871142.03	15871142.10	0.0278	0.0219
Mercury	38741-11-07 23:17 G	15871230.35	15871230.47	15871230.59	0.0277	0.0090
Mercury	38742-02-04 09:50 G	15871318.78	15871318.91	15871319.04	0.0276	0.0039
Mercury	38742-05-03 20:24 G	15871407.25	15871407.35	15871407.46	0.0275	0.0166
Earth	38747-10-01 07:26 G	15873383.56	15873383.81	15873384.06	0.0259	0.0005
Moon	38747-10-01 09:36 G	15873383.66	15873383.90	15873384.14	0.0259	0.0018 *
Venus	38753-06-08 03:07 G	15875460.43	15875460.63	15875460.84	0.0265	0.0082
Venus	38754-01-23 04:19 G	15875689.50	15875689.68	15875689.88	0.0267	0.0123
Mercury	38758-02-15 05:02 G	15877173.54	15877173.71	15877173.89	0.0285	0.0090
Mercury	38758-05-15 05:31 G	15877262.56	15877262.73	15877262.90	0.0286	0.0118
Earth	38763-04-06 05:17 G	15879049.57	15879049.72	15879049.90	0.0304	0.0223
Moon	38763-04-06 09:07 G	15879049.72	15879049.88	15879050.05	0.0304	0.0221 *
Venus	38766-08-26 06:58 G	15880287.75	15880287.79	15880287.83	0.0299	0.0294
Venus	38767-04-13 09:36 G	15880517.69	15880517.90	15880518.11	0.0297	0.0006
Venus	38767-11-29 09:50 G	15880747.84	15880747.91	15880747.99	0.0294	0.0273
Mars	38770-03-30 11:31 G	15881599.78	15881599.98	15881600.19	0.0283	0.0182

Mercury	38770-12-29 15:36 G	15881874.10	15881874.15	15881874.21	0.0279	0.0252
Mercury	38771-03-28 02:24 G	15881962.48	15881962.60	15881962.72	0.0278	0.0121
Mercury	38771-06-24 12:58 G	15882050.91	15882051.04	15882051.17	0.0277	0.0011
Mercury	38771-09-20 23:46 G	15882139.37	15882139.49	15882139.60	0.0276	0.0136
Mercury	38771-12-18 10:19 G	15882227.89	15882227.93	15882227.96	0.0275	0.0263
Moon	38776-09-25 17:02 G	15883971.03	15883971.21	15883971.40	0.0260	0.0178
Earth	38776-09-25 19:12 G	15883971.12	15883971.30	15883971.50	0.0260	0.0167 *
Moon	38777-10-06 23:17 G	15884347.32	15884347.47	15884347.64	0.0259	0.0195
Earth	38777-10-07 02:38 G	15884347.47	15884347.61	15884347.76	0.0259	0.0209 *
Venus	38782-05-04 07:55 G	15886017.77	15886017.83	15886017.90	0.0263	0.0250
Venus	38782-12-19 07:55 G	15886246.62	15886246.83	15886247.04	0.0265	0.0053
Venus	38783-08-05 09:22 G	15886475.72	15886475.89	15886476.07	0.0267	0.0151
Mercury	38787-07-05 03:36 G	15887905.49	15887905.65	15887905.81	0.0285	0.0148
Mercury	38787-10-02 03:50 G	15887994.48	15887994.66	15887994.85	0.0286	0.0060
Mercury	38787-12-30 04:19 G	15888083.61	15888083.68	15888083.74	0.0287	0.0267
Moon	38792-03-29 17:02 G	15889634.98	15889635.21	15889635.46	0.0303	0.0053
Earth	38792-03-29 20:53 G	15889635.13	15889635.37	15889635.61	0.0303	0.0048 *
Venus	38796-03-07 14:38 G	15891074.01	15891074.11	15891074.23	0.0299	0.0253
Venus	38796-10-23 17:02 G	15891304.00	15891304.21	15891304.42	0.0296	0.0035
Mercury	38800-08-14 05:17 G	15892694.61	15892694.72	15892694.83	0.0278	0.0155
Mercury	38800-11-10 15:50 G	15892783.03	15892783.16	15892783.29	0.0277	0.0026
Mercury	38801-02-07 02:24 G	15892871.48	15892871.60	15892871.73	0.0276	0.0103
Mercury	38801-05-06 12:58 G	15892959.98	15892960.04	15892960.12	0.0275	0.0230
Earth	38806-10-02 12:29 G	15894934.78	15894935.02	15894935.27	0.0259	0.0045
Moon	38806-10-02 16:05 G	15894934.92	15894935.17	15894935.42	0.0259	0.0030 *
Venus	38811-11-14 10:05 G	15896803.82	15896803.92	15896804.03	0.0264	0.0228
Venus	38812-06-30 10:05 G	15897032.71	15897032.92	15897033.14	0.0265	0.0031
Venus	38813-02-14 11:46 G	15897261.83	15897261.99	15897262.15	0.0267	0.0175
Mars	38816-05-21 10:48 G	15898453.75	15898453.95	15898454.18	0.0282	0.0209
Mercury	38816-11-21 00:43 G	15898637.41	15898637.53	15898637.66	0.0284	0.0214

Mercury	38817-02-18 01:12 G	15898726.37	15898726.55	15898726.74	0.0285	0.0009
Mercury	38817-05-18 01:41 G	15898815.44	15898815.57	15898815.70	0.0286	0.0201
Earth	38822-04-07 15:07 G	15900601.07	15900601.13	15900601.21	0.0304	0.0290
Moon	38822-04-07 16:34 G	15900601.13	15900601.19	15900601.28	0.0304	0.0289 *
Venus	38825-09-17 21:22 G	15901860.24	15901860.39	15901860.53	0.0299	0.0217
Venus	38826-05-05 23:31 G	15902090.28	15902090.48	15902090.69	0.0297	0.0070
Mercury	38830-01-01 07:55 G	15903426.74	15903426.83	15903426.93	0.0279	0.0191
Mercury	38830-03-30 18:43 G	15903515.15	15903515.28	15903515.41	0.0278	0.0061
Mercury	38830-06-27 05:17 G	15903603.60	15903603.72	15903603.85	0.0277	0.0069
Mercury	38830-09-23 15:50 G	15903692.08	15903692.16	15903692.26	0.0275	0.0196
Moon	38835-09-27 19:55 G	15905522.12	15905522.33	15905522.54	0.0259	0.0133
Earth	38835-09-27 23:17 G	15905522.25	15905522.47	15905522.69	0.0259	0.0119 *
Earth	38836-10-08 05:31 G	15905898.71	15905898.73	15905898.78	0.0258	0.0255
Moon	38836-10-08 06:43 G	15905898.71	15905898.78	15905898.87	0.0258	0.0243 *
Venus	38841-05-26 13:55 G	15907589.94	15907590.08	15907590.22	0.0263	0.0200
Venus	38842-01-10 13:55 G	15907818.87	15907819.08	15907819.30	0.0265	0.0005
Venus	38842-08-27 15:36 G	15908048.02	15908048.15	15908048.29	0.0267	0.0203
Mercury	38846-04-09 22:34 G	15909369.41	15909369.44	15909369.48	0.0284	0.0277
Mercury	38846-07-07 23:02 G	15909458.28	15909458.46	15909458.65	0.0285	0.0071
Mercury	38846-10-04 23:31 G	15909547.32	15909547.48	15909547.65	0.0286	0.0138
Moon	38851-04-01 03:36 G	15911186.41	15911186.65	15911186.88	0.0304	0.0015
Earth	38851-04-01 04:05 G	15911186.42	15911186.67	15911186.91	0.0304	0.0015 *
Venus	38855-03-31 03:22 G	15912646.48	15912646.64	15912646.81	0.0299	0.0181
Venus	38855-11-16 05:17 G	15912876.53	15912876.72	15912876.93	0.0296	0.0107
Mars	38858-08-24 09:50 G	15913888.67	15913888.91	15913889.15	0.0283	0.0126
Mercury	38859-05-21 10:34 G	15914158.87	15914158.94	15914159.01	0.0279	0.0228
Mercury	38859-08-17 21:07 G	15914247.26	15914247.38	15914247.51	0.0278	0.0099
Mercury	38859-11-14 07:55 G	15914335.70	15914335.83	15914335.96	0.0276	0.0032
Mercury	38860-02-10 18:29 G	15914424.16	15914424.27	15914424.37	0.0275	0.0158
Moon	38865-10-03 13:26 G	15916485.82	15916486.06	15916486.31	0.0259	0.0076

Earth	38865-10-03 14:38 G	15916485.88	15916486.11	15916486.34	0.0259	0.0090	*
Venus	38870-12-06 14:53 G	15918375.98	15918376.12	15918376.29	0.0264	0.0181	
Venus	38871-07-23 15:07 G	15918604.92	15918605.13	15918605.35	0.0266	0.0019	
Venus	38872-03-08 16:48 G	15918834.09	15918834.20	15918834.32	0.0268	0.0224	
Mercury	38875-11-24 19:12 G	15920190.15	15920190.30	15920190.47	0.0284	0.0146	
Mercury	38876-02-21 19:55 G	15920279.14	15920279.33	15920279.51	0.0286	0.0062	
Mercury	38876-05-20 20:10 G	15920368.28	15920368.34	15920368.40	0.0287	0.0270	
Moon	38880-03-24 10:05 G	15921771.81	15921771.92	15921772.05	0.0302	0.0265	
Earth	38880-03-24 11:02 G	15921771.87	15921771.96	15921772.08	0.0302	0.0269	*
Venus	38884-10-10 07:26 G	15923432.63	15923432.81	15923433.00	0.0299	0.0150	
Venus	38885-05-28 09:36 G	15923662.71	15923662.90	15923663.09	0.0296	0.0137	
Mercury	38888-10-07 12:58 G	15924891.01	15924891.04	15924891.07	0.0280	0.0269	
Mercury	38889-01-03 23:31 G	15924979.37	15924979.48	15924979.60	0.0279	0.0139	
Mercury	38889-04-02 10:19 G	15925067.80	15925067.93	15925068.06	0.0278	0.0009	
Mercury	38889-06-29 20:53 G	15925156.25	15925156.37	15925156.49	0.0276	0.0120	
Mercury	38889-09-26 07:26 G	15925244.76	15925244.81	15925244.87	0.0275	0.0248	
Earth	38894-09-29 00:00 G	15927073.27	15927073.50	15927073.74	0.0259	0.0076	
Moon	38894-09-29 00:29 G	15927073.30	15927073.52	15927073.75	0.0259	0.0089	*
Venus	38900-06-18 18:00 G	15929162.08	15929162.25	15929162.42	0.0263	0.0154	
Venus	38901-02-02 18:00 G	15929391.04	15929391.25	15929391.46	0.0265	0.0046	
Venus	38901-09-19 19:41 G	15929620.26	15929620.32	15929620.40	0.0267	0.0251	
Mars	38904-10-15 07:12 G	15930741.66	15930741.80	15930741.98	0.0281	0.0246	
Mercury	38905-04-13 16:34 G	15930922.07	15930922.19	15930922.32	0.0284	0.0213	
Mercury	38905-07-11 17:02 G	15931011.02	15931011.21	15931011.40	0.0285	0.0006	
Mercury	38905-10-08 17:17 G	15931100.09	15931100.22	15931100.36	0.0286	0.0202	
Earth	38910-04-03 04:05 G	15932737.44	15932737.67	15932737.91	0.0304	0.0065	
Moon	38910-04-03 07:55 G	15932737.59	15932737.83	15932738.06	0.0304	0.0071	*
Venus	38914-04-23 12:14 G	15934218.82	15934219.01	15934219.20	0.0299	0.0116	
Venus	38914-12-09 14:10 G	15934448.92	15934449.09	15934449.26	0.0296	0.0169	
Mercury	38918-05-25 01:41 G	15935711.48	15935711.57	15935711.67	0.0279	0.0180	

Mercury	38918-08-21 12:29 G	15935799.89	15935800.02	15935800.15	0.0277	0.0050
Mercury	38918-11-17 23:02 G	15935888.34	15935888.46	15935888.59	0.0276	0.0079
Mercury	38919-02-14 09:36 G	15935976.82	15935976.90	15935976.99	0.0275	0.0207
Earth	38923-09-25 06:00 G	15937660.69	15937660.75	15937660.84	0.0260	0.0247
Moon	38923-09-25 06:29 G	15937660.74	15937660.77	15937660.82	0.0260	0.0256 *
Moon	38924-10-05 09:50 G	15938036.70	15938036.91	15938037.14	0.0258	0.0118
Earth	38924-10-05 13:41 G	15938036.86	15938037.07	15938037.29	0.0258	0.0130 *
Venus	38929-12-29 18:14 G	15939948.08	15939948.26	15939948.45	0.0264	0.0135
Venus	38930-08-15 18:29 G	15940177.06	15940177.27	15940177.48	0.0266	0.0065
Mercury	38934-11-28 12:43 G	15941742.85	15941743.03	15941743.21	0.0285	0.0086
Mercury	38935-02-25 13:12 G	15941831.88	15941832.05	15941832.22	0.0286	0.0122
Moon	38939-03-27 05:46 G	15943322.58	15943322.74	15943322.92	0.0302	0.0214
Earth	38939-03-27 09:50 G	15943322.75	15943322.91	15943323.08	0.0302	0.0223 *
Venus	38943-11-03 14:53 G	15945004.92	15945005.12	15945005.33	0.0299	0.0088
Venus	38944-06-20 16:48 G	15945235.05	15945235.20	15945235.36	0.0296	0.0197
Mars	38947-01-18 15:50 G	15946176.92	15946177.16	15946177.42	0.0283	0.0092
Mercury	38947-10-12 03:50 G	15946443.59	15946443.66	15946443.74	0.0280	0.0225
Mercury	38948-01-08 14:38 G	15946531.98	15946532.11	15946532.23	0.0279	0.0094
Mercury	38948-04-06 01:12 G	15946620.42	15946620.55	15946620.68	0.0277	0.0036
Mercury	38948-07-03 11:46 G	15946708.89	15946708.99	15946709.10	0.0276	0.0166
Earth	38953-09-30 22:05 G	15948624.17	15948624.42	15948624.66	0.0259	0.0037
Moon	38953-10-01 01:26 G	15948624.32	15948624.56	15948624.81	0.0259	0.0051 *
Venus	38959-07-11 20:24 G	15950734.16	15950734.35	15950734.55	0.0263	0.0110
Venus	38960-02-25 20:38 G	15950963.16	15950963.36	15950963.56	0.0265	0.0090
Mercury	38964-04-16 09:22 G	15952474.74	15952474.89	15952475.05	0.0284	0.0157
Mercury	38964-07-14 09:50 G	15952563.73	15952563.91	15952564.10	0.0285	0.0050
Mercury	38964-10-11 10:05 G	15952652.85	15952652.92	15952653.00	0.0286	0.0258
Earth	38969-04-04 00:00 G	15954288.27	15954288.50	15954288.73	0.0304	0.0108
Moon	38969-04-04 01:26 G	15954288.33	15954288.56	15954288.79	0.0304	0.0120 *
Venus	38973-05-15 18:00 G	15955791.04	15955791.25	15955791.46	0.0298	0.0058

Venus	38973-12-31 19:41 G	15956021.18	15956021.32	15956021.45	0.0296	0.0226
Mercury	38977-02-28 05:31 G	15957175.71	15957175.73	15957175.77	0.0280	0.0271
Mercury	38977-05-27 16:19 G	15957264.07	15957264.18	15957264.30	0.0279	0.0139
Mercury	38977-08-24 03:07 G	15957352.50	15957352.63	15957352.76	0.0277	0.0010
Mercury	38977-11-20 13:41 G	15957440.95	15957441.07	15957441.19	0.0276	0.0121
Mercury	38978-02-17 00:14 G	15957529.46	15957529.51	15957529.57	0.0275	0.0249
Moon	38982-09-25 23:31 G	15959211.37	15959211.48	15959211.62	0.0260	0.0223
Earth	38982-09-26 03:07 G	15959211.50	15959211.63	15959211.79	0.0260	0.0210 *
Moon	38983-10-07 09:50 G	15959587.73	15959587.91	15959588.10	0.0258	0.0158
Earth	38983-10-07 10:05 G	15959587.74	15959587.92	15959588.12	0.0258	0.0167 *
Venus	38989-01-20 20:24 G	15961520.15	15961520.35	15961520.55	0.0264	0.0092
Venus	38989-09-06 20:24 G	15961749.17	15961749.35	15961749.55	0.0266	0.0109
Mars	38993-03-09 04:19 G	15963028.53	15963028.68	15963028.83	0.0281	0.0246
Mercury	38993-09-03 04:48 G	15963206.60	15963206.70	15963206.80	0.0283	0.0239
Mercury	38993-12-01 05:17 G	15963295.53	15963295.72	15963295.91	0.0285	0.0034
Mercury	38994-02-28 05:31 G	15963384.58	15963384.73	15963384.88	0.0286	0.0174
Earth	38998-03-28 03:50 G	15964873.46	15964873.66	15964873.85	0.0302	0.0184
Moon	38998-03-28 03:36 G	15964873.46	15964873.65	15964873.85	0.0302	0.0172 *

40TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 40th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	39002-11-26 19:26 G	15966577.10	15966577.31	15966577.52	0.0298	0.0032		

Venus	39003-07-14 21:07 G	15966807.28	15966807.38	15966807.49	0.0296	0.0252
Mercury	39006-10-15 18:14 G	15967996.16	15967996.26	15967996.35	0.0280	0.0187
Mercury	39007-01-12 04:48 G	15968084.58	15968084.70	15968084.83	0.0279	0.0056
Mercury	39007-04-10 15:36 G	15968173.02	15968173.15	15968173.27	0.0277	0.0075
Mercury	39007-07-08 02:10 G	15968261.51	15968261.59	15968261.68	0.0276	0.0204
Earth	39012-10-02 17:46 G	15970174.99	15970175.24	15970175.49	0.0259	0.0001
Moon	39012-10-02 18:58 G	15970175.04	15970175.29	15970175.55	0.0259	0.0014 *
Venus	39017-12-17 23:17 G	15972077.46	15972077.47	15972077.49	0.0262	0.0261
Venus	39018-08-03 22:05 G	15972306.22	15972306.42	15972306.63	0.0263	0.0067
Venus	39019-03-20 22:19 G	15972535.25	15972535.43	15972535.61	0.0265	0.0133
Mercury	39023-04-21 01:41 G	15974027.40	15974027.57	15974027.75	0.0284	0.0106
Mercury	39023-07-19 02:10 G	15974116.41	15974116.59	15974116.76	0.0285	0.0101
Moon	39028-04-05 13:55 G	15975838.87	15975839.08	15975839.29	0.0304	0.0163
Earth	39028-04-05 17:17 G	15975839.01	15975839.22	15975839.44	0.0304	0.0147 *
Venus	39031-10-21 18:29 G	15977133.24	15977133.27	15977133.30	0.0301	0.0296
Venus	39032-06-07 22:05 G	15977363.21	15977363.42	15977363.63	0.0298	0.0006
Venus	39033-01-23 23:31 G	15977593.42	15977593.48	15977593.55	0.0296	0.0280
Mars	39035-06-14 10:19 G	15978464.67	15978464.93	15978465.18	0.0284	0.0086
Mercury	39036-03-03 19:55 G	15978728.26	15978728.33	15978728.40	0.0280	0.0234
Mercury	39036-05-31 06:29 G	15978816.65	15978816.77	15978816.89	0.0279	0.0102
Mercury	39036-08-27 17:17 G	15978905.09	15978905.22	15978905.35	0.0278	0.0029
Mercury	39036-11-24 03:50 G	15978993.56	15978993.66	15978993.77	0.0276	0.0159
Moon	39041-09-27 20:38 G	15980762.21	15980762.36	15980762.54	0.0260	0.0190
Earth	39041-09-27 22:19 G	15980762.26	15980762.43	15980762.62	0.0260	0.0175 *
Earth	39042-10-09 05:17 G	15981138.57	15981138.72	15981138.87	0.0258	0.0202
Moon	39042-10-09 08:24 G	15981138.70	15981138.85	15981139.02	0.0258	0.0196 *
Venus	39047-06-29 23:02 G	15982863.39	15982863.46	15982863.55	0.0262	0.0243
Venus	39048-02-13 21:50 G	15983092.20	15983092.41	15983092.62	0.0264	0.0049
Venus	39048-09-29 22:05 G	15983321.25	15983321.42	15983321.60	0.0266	0.0152
Mercury	39052-09-06 20:53 G	15984759.24	15984759.37	15984759.52	0.0283	0.0189

Mercury	39052-12-04 21:22 G	15984848.20	15984848.39	15984848.58	0.0284	0.0017
Mercury	39053-03-03 21:22 G	15984937.29	15984937.39	15984937.52	0.0286	0.0224
Earth	39057-03-29 19:55 G	15986424.13	15986424.33	15986424.55	0.0302	0.0148
Moon	39057-03-29 23:46 G	15986424.27	15986424.49	15986424.71	0.0302	0.0131 *
Venus	39061-05-02 18:43 G	15987919.19	15987919.28	15987919.37	0.0300	0.0271
Venus	39061-12-18 22:34 G	15988149.23	15988149.44	15988149.65	0.0298	0.0022
Mercury	39065-10-18 08:10 G	15989548.73	15989548.84	15989548.95	0.0280	0.0152
Mercury	39066-01-14 18:58 G	15989637.16	15989637.29	15989637.42	0.0279	0.0022
Mercury	39066-04-13 05:31 G	15989725.61	15989725.73	15989725.85	0.0277	0.0110
Mercury	39066-07-10 16:19 G	15989814.11	15989814.18	15989814.24	0.0276	0.0240
Moon	39071-10-04 09:07 G	15991725.63	15991725.88	15991726.13	0.0259	0.0021
Earth	39071-10-04 12:14 G	15991725.77	15991726.01	15991726.26	0.0259	0.0033 *
Venus	39077-01-09 00:29 G	15993649.42	15993649.52	15993649.65	0.0262	0.0219
Venus	39077-08-25 23:46 G	15993878.27	15993878.49	15993878.70	0.0263	0.0024
Venus	39078-04-12 00:00 G	15994107.34	15994107.50	15994107.65	0.0265	0.0177
Mars	39081-08-02 03:50 G	15995315.52	15995315.66	15995315.82	0.0280	0.0246
Mercury	39082-01-24 17:17 G	15995491.16	15995491.22	15995491.30	0.0282	0.0261
Mercury	39082-04-23 18:00 G	15995580.06	15995580.25	15995580.43	0.0284	0.0056
Mercury	39082-07-21 18:00 G	15995669.10	15995669.25	15995669.42	0.0285	0.0151
Moon	39087-04-07 06:58 G	15997389.62	15997389.79	15997389.97	0.0304	0.0201
Earth	39087-04-07 08:53 G	15997389.69	15997389.87	15997390.07	0.0304	0.0184 *
Venus	39090-11-12 21:22 G	15998705.27	15998705.39	15998705.51	0.0301	0.0244
Venus	39091-07-01 00:58 G	15998935.33	15998935.54	15998935.75	0.0298	0.0049
Mercury	39095-03-07 09:50 G	16000280.82	16000280.91	16000281.00	0.0280	0.0200
Mercury	39095-06-03 20:24 G	16000369.23	16000369.35	16000369.48	0.0279	0.0069
Mercury	39095-08-31 07:12 G	16000457.67	16000457.80	16000457.93	0.0278	0.0063
Mercury	39095-11-27 17:46 G	16000546.16	16000546.24	16000546.34	0.0276	0.0194
Earth	39100-09-29 17:02 G	16002313.00	16002313.21	16002313.42	0.0260	0.0140
Moon	39100-09-29 20:10 G	16002313.15	16002313.34	16002313.54	0.0260	0.0155 *
Earth	39101-10-10 23:31 G	16002689.39	16002689.48	16002689.59	0.0258	0.0236

Moon	39101-10-11 01:26 G	16002689.46	16002689.56	16002689.68	0.0258	0.0232 *
Venus	39106-07-23 00:43 G	16004435.40	16004435.53	16004435.67	0.0262	0.0201
Venus	39107-03-08 23:31 G	16004664.27	16004664.48	16004664.69	0.0264	0.0006
Venus	39107-10-23 23:31 G	16004893.35	16004893.48	16004893.64	0.0266	0.0196
Mercury	39111-09-11 13:26 G	16006311.89	16006312.06	16006312.22	0.0283	0.0138
Mercury	39111-12-09 13:41 G	16006400.89	16006401.07	16006401.25	0.0284	0.0068
Mercury	39112-03-07 13:41 G	16006490.03	16006490.07	16006490.13	0.0286	0.0275
Earth	39116-03-31 12:43 G	16007974.81	16007975.03	16007975.27	0.0303	0.0110
Moon	39116-03-31 14:10 G	16007974.85	16007975.09	16007975.33	0.0303	0.0093 *
Venus	39120-05-25 21:50 G	16009491.27	16009491.41	16009491.56	0.0300	0.0218
Venus	39121-01-11 01:41 G	16009721.37	16009721.57	16009721.77	0.0298	0.0075
Mars	39123-11-07 20:10 G	16010752.09	16010752.34	16010752.60	0.0285	0.0091
Mercury	39124-07-25 11:17 G	16011012.92	16011012.97	16011013.03	0.0281	0.0251
Mercury	39124-10-21 22:05 G	16011101.30	16011101.42	16011101.54	0.0280	0.0118
Mercury	39125-01-18 08:53 G	16011189.74	16011189.87	16011190.00	0.0279	0.0015
Mercury	39125-04-16 19:26 G	16011278.20	16011278.31	16011278.43	0.0277	0.0146
Mercury	39125-07-14 06:14 G	16011366.75	16011366.76	16011366.77	0.0276	0.0275
Moon	39130-10-06 04:34 G	16013276.46	16013276.69	16013276.93	0.0259	0.0059
Earth	39130-10-06 06:43 G	16013276.55	16013276.78	16013277.03	0.0259	0.0068 *
Venus	39136-02-02 02:24 G	16015221.46	16015221.60	16015221.77	0.0262	0.0176
Venus	39136-09-18 01:41 G	16015450.36	16015450.57	16015450.79	0.0264	0.0020
Venus	39137-05-05 01:55 G	16015679.47	16015679.58	16015679.70	0.0266	0.0222
Mercury	39141-01-28 10:19 G	16017043.80	16017043.93	16017044.06	0.0282	0.0205
Mercury	39141-04-27 10:34 G	16017132.76	16017132.94	16017133.13	0.0284	0.0007
Mercury	39141-07-25 10:34 G	16017221.82	16017221.94	16017222.08	0.0285	0.0206
Earth	39146-04-09 02:53 G	16018940.46	16018940.62	16018940.79	0.0304	0.0224
Moon	39146-04-09 05:02 G	16018940.58	16018940.71	16018940.87	0.0304	0.0241 *
Venus	39149-12-06 00:58 G	16020277.38	16020277.54	16020277.71	0.0300	0.0189
Venus	39150-07-24 04:19 G	16020507.49	16020507.68	16020507.89	0.0298	0.0103
Mercury	39154-03-10 23:46 G	16021833.39	16021833.49	16021833.59	0.0280	0.0166

Mercury	39154-06-07 10:34 G	16021921.81	16021921.94	16021922.07	0.0279	0.0033
Mercury	39154-09-03 21:22 G	16022010.26	16022010.39	16022010.51	0.0278	0.0099
Mercury	39154-12-01 07:55 G	16022098.76	16022098.83	16022098.90	0.0277	0.0229
Earth	39159-10-01 12:00 G	16023863.78	16023864.00	16023864.24	0.0260	0.0105
Moon	39159-10-01 14:24 G	16023863.88	16023864.10	16023864.34	0.0260	0.0117 *
Venus	39165-08-14 03:36 G	16026007.47	16026007.65	16026007.82	0.0262	0.0156
Venus	39166-03-31 02:24 G	16026236.39	16026236.60	16026236.81	0.0264	0.0040
Venus	39166-11-15 02:38 G	16026465.53	16026465.61	16026465.70	0.0266	0.0242
Mars	39169-12-26 05:02 G	16027602.57	16027602.71	16027602.85	0.0280	0.0252
Mercury	39170-09-14 06:43 G	16027864.60	16027864.78	16027864.96	0.0283	0.0078
Mercury	39170-12-12 06:43 G	16027953.62	16027953.78	16027953.95	0.0284	0.0127
Moon	39175-04-02 05:02 G	16029525.47	16029525.71	16029525.96	0.0302	0.0051
Earth	39175-04-02 08:10 G	16029525.60	16029525.84	16029526.08	0.0302	0.0067 *
Venus	39179-06-18 02:10 G	16031063.42	16031063.59	16031063.77	0.0300	0.0162
Venus	39180-02-03 05:31 G	16031293.55	16031293.73	16031293.93	0.0298	0.0130
Mercury	39183-07-29 01:26 G	16032565.48	16032565.56	16032565.64	0.0281	0.0215
Mercury	39183-10-25 12:14 G	16032653.88	16032654.01	16032654.13	0.0280	0.0082
Mercury	39184-01-21 22:48 G	16032742.33	16032742.45	16032742.58	0.0279	0.0052
Mercury	39184-04-19 09:36 G	16032830.81	16032830.90	16032831.00	0.0278	0.0182
Earth	39189-10-07 02:38 G	16034827.38	16034827.61	16034827.83	0.0259	0.0105
Moon	39189-10-07 05:02 G	16034827.50	16034827.71	16034827.94	0.0259	0.0102 *
Venus	39195-02-24 05:46 G	16036793.56	16036793.74	16036793.93	0.0262	0.0130
Venus	39195-10-11 05:02 G	16037022.50	16037022.71	16037022.92	0.0264	0.0067
Mercury	39200-02-01 03:50 G	16038596.51	16038596.66	16038596.83	0.0282	0.0143
Mercury	39200-04-30 04:19 G	16038685.49	16038685.68	16038685.86	0.0284	0.0063
Mercury	39200-07-28 04:19 G	16038774.62	16038774.68	16038774.74	0.0285	0.0268
Earth	39205-04-09 23:46 G	16040491.39	16040491.49	16040491.61	0.0304	0.0271
Moon	39205-04-10 02:53 G	16040491.55	16040491.62	16040491.71	0.0304	0.0286 *
Venus	39208-12-28 06:29 G	16041849.59	16041849.77	16041849.96	0.0300	0.0131
Venus	39209-08-15 09:50 G	16042079.73	16042079.91	16042080.08	0.0298	0.0160

Mars	39212-04-01 14:53 G	16043039.87	16043040.12	16043040.38	0.0285	0.0085
Mercury	39212-12-15 03:07 G	16043297.59	16043297.63	16043297.68	0.0281	0.0261
Mercury	39213-03-13 14:10 G	16043385.97	16043386.09	16043386.20	0.0280	0.0126
Mercury	39213-06-10 00:58 G	16043474.41	16043474.54	16043474.67	0.0279	0.0009
Mercury	39213-09-06 11:31 G	16043562.87	16043562.98	16043563.10	0.0278	0.0139
Mercury	39213-12-03 22:19 G	16043651.41	16043651.43	16043651.46	0.0277	0.0269
Moon	39218-10-02 06:29 G	16045414.53	16045414.77	16045415.02	0.0260	0.0073
Earth	39218-10-02 09:22 G	16045414.65	16045414.89	16045415.13	0.0260	0.0066 *
Venus	39224-09-05 07:41 G	16047579.63	16047579.82	16047580.02	0.0263	0.0108
Venus	39225-04-22 06:58 G	16047808.59	16047808.79	16047808.99	0.0264	0.0089
Mercury	39229-06-20 00:58 G	16049328.42	16049328.54	16049328.66	0.0282	0.0212
Mercury	39229-09-17 01:12 G	16049417.36	16049417.55	16049417.74	0.0283	0.0010
Mercury	39229-12-15 01:12 G	16049506.42	16049506.55	16049506.69	0.0285	0.0197
Moon	39234-04-03 05:31 G	16051076.49	16051076.73	16051076.97	0.0302	0.0002
Earth	39234-04-03 08:10 G	16051076.60	16051076.84	16051077.08	0.0302	0.0016 *
Venus	39238-07-10 09:07 G	16052635.69	16052635.88	16052636.08	0.0299	0.0100
Venus	39239-02-25 12:00 G	16052865.85	16052866.00	16052866.17	0.0297	0.0191
Mercury	39242-07-31 15:50 G	16054118.06	16054118.16	16054118.27	0.0281	0.0174
Mercury	39242-10-28 02:38 G	16054206.48	16054206.61	16054206.74	0.0280	0.0040
Mercury	39243-01-24 13:26 G	16054294.94	16054295.06	16054295.19	0.0279	0.0093
Mercury	39243-04-23 00:14 G	16054383.44	16054383.51	16054383.59	0.0277	0.0224
Earth	39247-09-27 15:22 G	16056002.04	16056002.14	16056002.24	0.0261	0.0238
Moon	39247-09-27 17:31 G	16056002.16	16056002.23	16056002.30	0.0261	0.0249 *
Earth	39248-10-08 00:43 G	16056378.33	16056378.53	16056378.74	0.0259	0.0145
Moon	39248-10-08 03:36 G	16056378.45	16056378.65	16056378.87	0.0259	0.0147 *
Venus	39254-03-18 11:02 G	16058365.76	16058365.96	16058366.16	0.0263	0.0081
Venus	39254-11-02 10:19 G	16058594.75	16058594.93	16058595.13	0.0264	0.0119
Mercury	39258-11-06 22:48 G	16060060.41	16060060.45	16060060.52	0.0281	0.0270
Mercury	39259-02-03 23:17 G	16060149.29	16060149.47	16060149.66	0.0283	0.0066
Mercury	39259-05-03 23:17 G	16060238.31	16060238.47	16060238.64	0.0284	0.0139

Earth	39263-03-27 21:07 G	16061662.32	16061662.38	16061662.47	0.0301	0.0286
Moon	39263-03-27 23:17 G	16061662.37	16061662.47	16061662.59	0.0301	0.0270 *
Venus	39268-01-20 14:38 G	16063421.91	16063422.11	16063422.32	0.0300	0.0067
Venus	39268-09-06 17:17 G	16063652.09	16063652.22	16063652.37	0.0297	0.0223
Mercury	39271-12-18 18:14 G	16064850.18	16064850.26	16064850.34	0.0281	0.0216
Mercury	39272-03-16 04:48 G	16064938.58	16064938.70	16064938.83	0.0280	0.0083
Mercury	39272-06-12 15:36 G	16065027.03	16065027.15	16065027.28	0.0279	0.0053
Mercury	39272-09-09 02:24 G	16065115.51	16065115.60	16065115.70	0.0278	0.0184
Jupiter	39276-12-21 18:00 G	16066679.85	16066680.25	16066680.68	0.0262	0.0120
Moon	39277-10-03 06:00 G	16066965.51	16066965.75	16066965.99	0.0260	0.0026
Earth	39277-10-03 08:53 G	16066965.63	16066965.87	16066966.12	0.0260	0.0023 *
Venus	39283-02-11 15:36 G	16068923.10	16068923.15	16068923.22	0.0261	0.0249
Venus	39283-09-28 14:10 G	16069151.88	16069152.09	16069152.30	0.0263	0.0056
Venus	39284-05-14 13:26 G	16069380.89	16069381.06	16069381.25	0.0265	0.0143
Mercury	39288-06-22 20:53 G	16070881.21	16070881.37	16070881.54	0.0282	0.0130
Mercury	39288-09-19 21:07 G	16070970.20	16070970.38	16070970.56	0.0284	0.0074
Mercury	39288-12-17 21:07 G	16071059.35	16071059.38	16071059.42	0.0285	0.0279
Earth	39293-04-04 13:26 G	16072627.82	16072628.06	16072628.30	0.0303	0.0045
Moon	39293-04-04 15:07 G	16072627.90	16072628.13	16072628.36	0.0303	0.0059 *
Venus	39297-08-01 19:12 G	16074208.09	16074208.30	16074208.51	0.0299	0.0031
Venus	39298-03-19 21:36 G	16074438.31	16074438.40	16074438.52	0.0297	0.0257
Mars	39300-08-26 17:17 G	16075327.97	16075328.22	16075328.49	0.0285	0.0066
Mercury	39301-05-07 20:10 G	16075582.30	16075582.34	16075582.40	0.0282	0.0259
Mercury	39301-08-04 07:12 G	16075670.68	16075670.80	16075670.91	0.0281	0.0124
Mercury	39301-10-31 18:00 G	16075759.12	16075759.25	16075759.38	0.0280	0.0012
Mercury	39302-01-28 04:48 G	16075847.58	16075847.70	16075847.81	0.0278	0.0143
Mercury	39302-04-26 15:22 G	16075936.13	16075936.14	16075936.16	0.0277	0.0274
Earth	39306-09-29 16:19 G	16077553.02	16077553.18	16077553.36	0.0261	0.0192
Moon	39306-09-29 19:55 G	16077553.18	16077553.33	16077553.49	0.0261	0.0203 *
Moon	39307-10-11 00:14 G	16077929.35	16077929.51	16077929.68	0.0260	0.0197

Earth	39307-10-11 01:55 G	16077929.43	16077929.58	16077929.76	0.0260	0.0192	*
Venus	39312-08-24 19:41 G	16079709.22	16079709.32	16079709.44	0.0262	0.0222	
Venus	39313-04-10 18:29 G	16079938.06	16079938.27	16079938.48	0.0263	0.0027	
Venus	39313-11-25 18:14 G	16080167.10	16080167.26	16080167.42	0.0265	0.0173	
Mercury	39317-11-10 19:55 G	16081613.19	16081613.33	16081613.48	0.0282	0.0181	
Mercury	39318-02-07 20:10 G	16081702.15	16081702.34	16081702.53	0.0283	0.0023	
Mercury	39318-05-07 19:55 G	16081791.23	16081791.33	16081791.45	0.0284	0.0229	
Moon	39322-03-30 03:22 G	16083213.46	16083213.64	16083213.82	0.0301	0.0207	
Earth	39322-03-30 06:14 G	16083213.59	16083213.76	16083213.92	0.0301	0.0220	*
Venus	39326-06-27 22:19 G	16084764.38	16084764.43	16084764.49	0.0301	0.0289	
Venus	39327-02-13 02:38 G	16084994.40	16084994.61	16084994.82	0.0299	0.0006	
Venus	39327-10-01 04:48 G	16085224.67	16085224.70	16085224.74	0.0297	0.0292	
Mercury	39330-12-22 09:36 G	16086402.80	16086402.90	16086403.01	0.0281	0.0162	
Mercury	39331-03-20 20:24 G	16086491.22	16086491.35	16086491.48	0.0280	0.0029	
Mercury	39331-06-17 07:12 G	16086579.68	16086579.80	16086579.92	0.0279	0.0106	
Mercury	39331-09-13 18:00 G	16086668.19	16086668.25	16086668.32	0.0278	0.0237	
Earth	39336-10-05 12:00 G	16088516.76	16088517.00	16088517.25	0.0260	0.0027	
Moon	39336-10-05 12:58 G	16088516.81	16088517.04	16088517.28	0.0260	0.0026	*
Venus	39342-03-07 00:14 G	16090495.37	16090495.51	16090495.65	0.0262	0.0194	
Venus	39342-10-21 23:02 G	16090724.25	16090724.46	16090724.67	0.0264	0.0002	
Venus	39343-06-07 22:48 G	16090953.32	16090953.45	16090953.59	0.0265	0.0202	
Mercury	39347-03-30 18:29 G	16092345.18	16092345.27	16092345.39	0.0282	0.0236	
Mercury	39347-06-27 18:58 G	16092434.10	16092434.29	16092434.48	0.0283	0.0032	
Mercury	39347-09-24 18:58 G	16092523.15	16092523.29	16092523.44	0.0284	0.0173	
Earth	39352-04-07 01:41 G	16094179.35	16094179.57	16094179.80	0.0303	0.0119	
Moon	39352-04-07 05:31 G	16094179.51	16094179.73	16094179.95	0.0303	0.0132	*
Venus	39356-01-08 05:02 G	16095550.60	16095550.71	16095550.83	0.0300	0.0248	
Venus	39356-08-25 08:53 G	16095780.67	16095780.87	16095781.08	0.0298	0.0046	
Mercury	39360-05-10 12:14 G	16097134.92	16097135.01	16097135.10	0.0281	0.0201	
Mercury	39360-08-06 23:02 G	16097223.33	16097223.46	16097223.58	0.0280	0.0066	

Mercury	39360-11-03 09:50 G	16097311.78	16097311.91	16097312.04	0.0279	0.0067
Mercury	39361-01-30 20:24 G	16097400.27	16097400.35	16097400.45	0.0278	0.0200
Moon	39365-09-30 20:53 G	16099104.16	16099104.37	16099104.58	0.0261	0.0149
Earth	39365-09-30 20:53 G	16099104.17	16099104.37	16099104.59	0.0261	0.0142 *
Moon	39366-10-12 03:22 G	16099480.58	16099480.64	16099480.70	0.0260	0.0251
Earth	39366-10-12 06:43 G	16099480.70	16099480.78	16099480.88	0.0260	0.0243 *
Venus	39371-09-17 05:17 G	16101281.55	16101281.72	16101281.88	0.0262	0.0166
Venus	39372-05-03 04:05 G	16101510.46	16101510.67	16101510.88	0.0264	0.0031
Venus	39372-12-18 04:05 G	16101739.58	16101739.67	16101739.78	0.0265	0.0233
Mercury	39376-11-13 18:29 G	16103166.09	16103166.27	16103166.45	0.0282	0.0079
Mercury	39377-02-10 18:29 G	16103255.10	16103255.27	16103255.44	0.0283	0.0125
Moon	39381-03-31 17:02 G	16104765.01	16104765.21	16104765.44	0.0301	0.0134
Earth	39381-03-31 20:24 G	16104765.14	16104765.35	16104765.57	0.0301	0.0143 *
Venus	39385-07-20 13:55 G	16106336.93	16106337.08	16106337.23	0.0301	0.0209
Venus	39386-03-07 17:46 G	16106567.04	16106567.24	16106567.44	0.0299	0.0086
Mars	39389-01-20 19:26 G	16107617.04	16107617.31	16107617.57	0.0285	0.0004
Mercury	39389-09-27 15:07 G	16107867.06	16107867.13	16107867.20	0.0282	0.0235
Mercury	39389-12-25 01:55 G	16107955.46	16107955.58	16107955.71	0.0281	0.0100
Mercury	39390-03-23 12:43 G	16108043.90	16108044.03	16108044.16	0.0280	0.0036
Mercury	39390-06-19 23:31 G	16108132.38	16108132.48	16108132.59	0.0278	0.0167
Earth	39395-10-07 18:43 G	16110068.05	16110068.28	16110068.52	0.0260	0.0080
Moon	39395-10-07 22:19 G	16110068.20	16110068.43	16110068.66	0.0260	0.0080 *
Venus	39401-03-30 10:48 G	16112067.77	16112067.95	16112068.13	0.0262	0.0136
Venus	39401-11-14 09:50 G	16112296.71	16112296.91	16112297.12	0.0264	0.0062
Venus	39402-07-01 10:19 G	16112525.91	16112525.93	16112525.95	0.0266	0.0264
Mars	39405-01-19 03:07 G	16113458.43	16113458.63	16113458.84	0.0276	0.0211
Mercury	39406-04-03 18:00 G	16113898.09	16113898.25	16113898.42	0.0282	0.0127
Mercury	39406-07-01 18:14 G	16113987.08	16113987.26	16113987.44	0.0283	0.0078
Mercury	39406-09-28 18:14 G	16114076.24	16114076.26	16114076.28	0.0285	0.0283
Earth	39411-04-10 19:41 G	16115731.14	16115731.32	16115731.50	0.0303	0.0203

Moon	39411-04-10 19:55 G	16115731.15	16115731.33	16115731.51	0.0303	0.0211 *
Venus	39415-01-31 22:48 G	16117123.28	16117123.45	16117123.63	0.0300	0.0163
Venus	39415-09-19 02:10 G	16117353.41	16117353.59	16117353.78	0.0298	0.0129
Mercury	39419-02-15 18:00 G	16118599.22	16118599.25	16118599.29	0.0282	0.0269
Mercury	39419-05-15 04:48 G	16118687.59	16118687.70	16118687.82	0.0281	0.0134
Mercury	39419-08-11 15:36 G	16118776.02	16118776.15	16118776.29	0.0280	0.0010
Mercury	39419-11-08 02:24 G	16118864.49	16118864.60	16118864.72	0.0279	0.0134
Mercury	39420-02-04 13:12 G	16118953.02	16118953.05	16118953.09	0.0277	0.0265
Moon	39424-10-03 01:12 G	16120655.32	16120655.55	16120655.79	0.0261	0.0091
Earth	39424-10-03 05:02 G	16120655.48	16120655.71	16120655.94	0.0261	0.0085 *
Venus	39430-10-10 16:19 G	16122853.99	16122854.18	16122854.38	0.0263	0.0106
Venus	39431-05-27 15:36 G	16123082.96	16123083.15	16123083.36	0.0264	0.0094
Mercury	39435-08-21 18:00 G	16124630.11	16124630.25	16124630.41	0.0281	0.0169
Mercury	39435-11-18 18:29 G	16124719.08	16124719.27	16124719.45	0.0283	0.0036
Mercury	39436-02-15 18:29 G	16124808.17	16124808.27	16124808.37	0.0284	0.0240
Earth	39440-04-03 17:17 G	16126316.98	16126317.22	16126317.46	0.0302	0.0055
Moon	39440-04-03 17:46 G	16126317.01	16126317.24	16126317.47	0.0302	0.0047 *
Venus	39444-08-13 09:07 G	16127909.69	16127909.88	16127910.08	0.0300	0.0120
Venus	39445-03-31 12:29 G	16128139.85	16128140.02	16128140.19	0.0298	0.0171
Mercury	39448-10-01 08:10 G	16129419.74	16129419.84	16129419.95	0.0281	0.0164
Mercury	39448-12-28 18:58 G	16129508.16	16129508.29	16129508.42	0.0280	0.0030
Mercury	39449-03-27 05:46 G	16129596.62	16129596.74	16129596.86	0.0279	0.0104
Mercury	39449-06-23 16:34 G	16129685.12	16129685.19	16129685.26	0.0278	0.0236
Earth	39453-09-28 16:05 G	16131243.10	16131243.17	16131243.24	0.0262	0.0250
Moon	39453-09-28 19:26 G	16131243.31	16131243.31	16131243.34	0.0262	0.0261
Earth	39454-10-10 03:50 G	16131619.45	16131619.66	16131619.87	0.0260	0.0138
Moon	39454-10-10 05:31 G	16131619.51	16131619.73	16131619.94	0.0260	0.0139 *
Venus	39460-04-21 22:48 G	16133640.25	16133640.45	16133640.66	0.0263	0.0074
Venus	39460-12-06 22:34 G	16133869.25	16133869.44	16133869.62	0.0265	0.0126
Mercury	39465-01-07 18:14 G	16135362.14	16135362.26	16135362.39	0.0282	0.0212

Mercury	39465-04-06 18:29 G	16135451.08	16135451.27	16135451.46	0.0283	0.0010
Mercury	39465-07-04 18:29 G	16135540.14	16135540.27	16135540.41	0.0284	0.0197
Moon	39470-04-12 14:24 G	16137283.08	16137283.10	16137283.15	0.0303	0.0300
Earth	39470-04-12 18:14 G	16137283.20	16137283.26	16137283.31	0.0303	0.0294
Venus	39474-02-23 19:12 G	16138696.10	16138696.30	16138696.50	0.0299	0.0072
Venus	39474-10-11 21:36 G	16138926.27	16138926.40	16138926.56	0.0297	0.0217
Mars	39477-06-18 08:24 G	16139906.60	16139906.85	16139907.11	0.0285	0.0077
Mercury	39478-02-18 11:17 G	16140151.88	16140151.97	16140152.06	0.0281	0.0195
Mercury	39478-05-17 22:05 G	16140240.29	16140240.42	16140240.55	0.0280	0.0061
Mercury	39478-08-14 08:53 G	16140328.75	16140328.87	16140329.00	0.0279	0.0073
Mercury	39478-11-10 19:41 G	16140417.23	16140417.32	16140417.41	0.0278	0.0206
Moon	39483-10-05 13:26 G	16142206.83	16142207.06	16142207.30	0.0261	0.0029
Earth	39483-10-05 15:22 G	16142206.89	16142207.14	16142207.38	0.0261	0.0025 *
Venus	39489-03-18 05:46 G	16144197.67	16144197.74	16144197.84	0.0262	0.0239
Venus	39489-11-02 04:34 G	16144426.48	16144426.69	16144426.91	0.0263	0.0044
Venus	39490-06-19 04:19 G	16144655.52	16144655.68	16144655.86	0.0265	0.0158
Mars	39493-06-16 12:43 G	16145748.73	16145749.03	16145749.34	0.0277	0.0097
Mercury	39494-05-27 18:29 G	16146094.20	16146094.27	16146094.36	0.0281	0.0253
Mercury	39494-08-24 18:43 G	16146183.10	16146183.28	16146183.47	0.0282	0.0050
Mercury	39494-11-21 18:43 G	16146272.13	16146272.28	16146272.44	0.0283	0.0155
Earth	39499-04-06 16:19 G	16147868.94	16147869.18	16147869.42	0.0302	0.0037
Moon	39499-04-06 19:41 G	16147869.08	16147869.32	16147869.56	0.0302	0.0046 *
Venus	39503-09-07 06:14 G	16149482.55	16149482.76	16149482.97	0.0299	0.0028
Venus	39504-04-24 08:53 G	16149712.77	16149712.87	16149712.97	0.0297	0.0260
Mercury	39507-07-09 14:53 G	16150884.04	16150884.12	16150884.20	0.0282	0.0223
Mercury	39507-10-06 01:41 G	16150972.45	16150972.57	16150972.69	0.0281	0.0088
Mercury	39508-01-02 12:29 G	16151060.89	16151061.02	16151061.15	0.0280	0.0046
Mercury	39508-03-30 23:02 G	16151149.37	16151149.46	16151149.57	0.0278	0.0180
Earth	39512-10-01 03:07 G	16152794.47	16152794.63	16152794.81	0.0262	0.0190
Moon	39512-10-01 05:02 G	16152794.55	16152794.71	16152794.89	0.0262	0.0197 *

Moon	39513-10-12 11:46 G	16153170.84	16153170.99	16153171.15	0.0260	0.0203
Earth	39513-10-12 14:38 G	16153170.96	16153171.11	16153171.27	0.0260	0.0198 *
Venus	39518-09-29 12:29 G	16154983.90	16154984.02	16154984.16	0.0262	0.0207
Venus	39519-05-16 11:31 G	16155212.77	16155212.98	16155213.20	0.0264	0.0011
Venus	39519-12-31 11:31 G	16155441.84	16155441.98	16155442.13	0.0265	0.0191
Mercury	39524-01-12 19:12 G	16156915.12	16156915.30	16156915.48	0.0282	0.0091
Mercury	39524-04-10 19:26 G	16157004.14	16157004.31	16157004.48	0.0284	0.0114
Moon	39528-03-31 12:43 G	16158454.86	16158455.03	16158455.21	0.0301	0.0209
Earth	39528-03-31 16:19 G	16158455.02	16158455.18	16158455.35	0.0301	0.0220 *
Venus	39532-08-01 12:58 G	16160038.96	16160039.04	16160039.13	0.0301	0.0274
Venus	39533-03-19 17:17 G	16160269.01	16160269.22	16160269.43	0.0298	0.0022
Mercury	39536-11-25 18:14 G	16161616.20	16161616.26	16161616.31	0.0282	0.0252
Mercury	39537-02-22 05:02 G	16161704.59	16161704.71	16161704.83	0.0280	0.0117
Mercury	39537-05-21 15:50 G	16161793.03	16161793.16	16161793.29	0.0279	0.0018
Mercury	39537-08-18 02:38 G	16161881.50	16161881.61	16161881.72	0.0278	0.0150
Earth	39542-10-08 02:38 G	16163758.36	16163758.61	16163758.85	0.0261	0.0035
Moon	39542-10-08 05:17 G	16163758.49	16163758.72	16163758.97	0.0261	0.0037 *
Venus	39548-04-10 18:00 G	16165770.11	16165770.25	16165770.42	0.0262	0.0179
Venus	39548-11-25 17:17 G	16165999.01	16165999.22	16165999.43	0.0264	0.0020
Venus	39549-07-12 17:17 G	16166228.12	16166228.22	16166228.35	0.0266	0.0223
Mercury	39553-05-31 19:12 G	16167647.14	16167647.30	16167647.47	0.0282	0.0135
Mercury	39553-08-28 19:26 G	16167736.13	16167736.31	16167736.49	0.0283	0.0070
Mercury	39553-11-25 19:12 G	16167825.27	16167825.30	16167825.36	0.0284	0.0277
Earth	39558-04-09 16:19 G	16169420.97	16169421.18	16169421.40	0.0302	0.0130
Moon	39558-04-09 19:12 G	16169421.08	16169421.30	16169421.52	0.0302	0.0141 *
Venus	39562-02-12 00:00 G	16170825.37	16170825.50	16170825.64	0.0301	0.0229
Venus	39562-09-30 03:50 G	16171055.46	16171055.66	16171055.87	0.0299	0.0065
Mars	39565-11-14 08:53 G	16172196.67	16172196.87	16172197.08	0.0284	0.0185
Mercury	39566-04-14 21:50 G	16172348.40	16172348.41	16172348.42	0.0282	0.0281
Mercury	39566-07-12 08:24 G	16172436.75	16172436.85	16172436.97	0.0281	0.0146

Mercury	39566-10-08 19:12 G	16172525.17	16172525.30	16172525.43	0.0280	0.0014
Mercury	39567-01-05 06:00 G	16172613.64	16172613.75	16172613.87	0.0279	0.0123
Mercury	39567-04-03 16:48 G	16172702.15	16172702.20	16172702.25	0.0278	0.0255
Moon	39571-10-03 12:14 G	16174345.80	16174346.01	16174346.24	0.0262	0.0133
Earth	39571-10-03 14:53 G	16174345.91	16174346.12	16174346.34	0.0262	0.0129 *
Earth	39572-10-14 01:26 G	16174722.55	16174722.56	16174722.60	0.0260	0.0258
Venus	39577-10-22 00:43 G	16176556.35	16176556.53	16176556.71	0.0262	0.0146
Venus	39578-06-07 23:46 G	16176785.29	16176785.49	16176785.71	0.0264	0.0053
Venus	39579-01-23 00:14 G	16177014.46	16177014.51	16177014.58	0.0266	0.0256
Mars	39581-11-12 22:48 G	16178039.13	16178039.45	16178039.77	0.0277	0.0027
Mercury	39582-10-18 19:12 G	16178379.16	16178379.30	16178379.46	0.0282	0.0179
Mercury	39583-01-15 19:41 G	16178468.13	16178468.32	16178468.51	0.0283	0.0027
Mercury	39583-04-14 19:41 G	16178557.22	16178557.32	16178557.43	0.0284	0.0232
Moon	39587-04-03 13:12 G	16180006.83	16180007.05	16180007.27	0.0301	0.0118
Earth	39587-04-03 15:22 G	16180006.93	16180007.14	16180007.37	0.0301	0.0129 *
Venus	39591-08-25 10:48 G	16181611.79	16181611.95	16181612.13	0.0300	0.0180
Venus	39592-04-11 14:38 G	16181841.92	16181842.11	16181842.31	0.0298	0.0113
Mercury	39595-11-29 11:46 G	16183168.89	16183168.99	16183169.10	0.0281	0.0174
Mercury	39596-02-25 22:34 G	16183257.32	16183257.44	16183257.57	0.0280	0.0040
Mercury	39596-05-24 09:22 G	16183345.77	16183345.89	16183346.01	0.0279	0.0094
Mercury	39596-08-20 20:10 G	16183434.27	16183434.34	16183434.41	0.0277	0.0226
Earth	39601-10-09 13:26 G	16185309.83	16185310.06	16185310.29	0.0261	0.0095
Moon	39601-10-09 16:34 G	16185309.96	16185310.19	16185310.43	0.0261	0.0098 *
Venus	39607-05-04 05:17 G	16187342.54	16187342.72	16187342.92	0.0263	0.0119
Venus	39607-12-19 04:48 G	16187571.50	16187571.70	16187571.91	0.0264	0.0081
Mercury	39612-03-06 18:43 G	16189111.18	16189111.28	16189111.40	0.0281	0.0227
Mercury	39612-06-03 19:12 G	16189200.11	16189200.30	16189200.49	0.0283	0.0022
Mercury	39612-08-31 19:12 G	16189289.16	16189289.30	16189289.45	0.0284	0.0184
Moon	39617-04-11 13:41 G	16190972.92	16190973.07	16190973.24	0.0302	0.0230
Earth	39617-04-11 15:07 G	16190972.96	16190973.13	16190973.29	0.0302	0.0221 *

Venus	39621-03-06 21:36 G	16192398.22	16192398.40	16192398.59	0.0300	0.0136
Venus	39621-10-23 00:58 G	16192628.36	16192628.54	16192628.72	0.0298	0.0157
Mars	39624-02-22 21:50 G	16193481.39	16193481.41	16193481.46	0.0287	0.0284
Mercury	39625-04-17 15:22 G	16193901.05	16193901.14	16193901.23	0.0282	0.0203
Mercury	39625-07-15 02:10 G	16193989.46	16193989.59	16193989.71	0.0280	0.0068
Mercury	39625-10-11 12:43 G	16194077.91	16194078.03	16194078.16	0.0279	0.0068
Mercury	39626-01-07 23:31 G	16194166.39	16194166.48	16194166.57	0.0278	0.0199
Moon	39630-10-04 22:05 G	16195897.19	16195897.42	16195897.66	0.0261	0.0074
Earth	39630-10-05 01:26 G	16195897.33	16195897.56	16195897.80	0.0261	0.0070 *
Venus	39636-11-13 11:17 G	16198128.77	16198128.97	16198129.18	0.0263	0.0087
Venus	39637-06-30 10:48 G	16198357.76	16198357.95	16198358.15	0.0265	0.0113
Mercury	39641-07-24 18:14 G	16199843.23	16199843.26	16199843.31	0.0281	0.0275
Mercury	39641-10-21 18:43 G	16199932.10	16199932.28	16199932.47	0.0283	0.0070
Mercury	39642-01-18 18:58 G	16200021.13	16200021.29	16200021.46	0.0284	0.0136
Earth	39646-04-05 11:46 G	16201558.75	16201558.99	16201559.23	0.0302	0.0043
Moon	39646-04-05 13:41 G	16201558.84	16201559.07	16201559.31	0.0302	0.0033 *
Venus	39650-09-17 07:26 G	16203184.61	16203184.81	16203185.01	0.0300	0.0090
Venus	39651-05-05 10:19 G	16203414.78	16203414.93	16203415.09	0.0297	0.0202
Mars	39654-04-11 05:02 G	16204486.66	16204486.71	16204486.77	0.0283	0.0276
Mercury	39654-09-04 18:29 G	16204633.20	16204633.27	16204633.34	0.0281	0.0234
Mercury	39654-12-02 05:17 G	16204721.60	16204721.72	16204721.84	0.0280	0.0099
Mercury	39655-02-28 16:05 G	16204810.04	16204810.17	16204810.30	0.0279	0.0036
Mercury	39655-05-28 02:38 G	16204898.51	16204898.61	16204898.72	0.0278	0.0168
Earth	39659-09-30 10:34 G	16206484.85	16206484.94	16206485.05	0.0262	0.0239
Moon	39659-09-30 14:24 G	16206485.03	16206485.10	16206485.17	0.0262	0.0250 *
Moon	39660-10-10 21:36 G	16206861.20	16206861.40	16206861.61	0.0260	0.0156
Earth	39660-10-10 22:34 G	16206861.24	16206861.44	16206861.64	0.0260	0.0151 *
Venus	39665-10-09 16:48 G	16208686.17	16208686.20	16208686.25	0.0262	0.0256
Venus	39666-05-26 15:22 G	16208914.93	16208915.14	16208915.35	0.0263	0.0061
Venus	39667-01-10 14:38 G	16209143.94	16209144.11	16209144.30	0.0265	0.0140

Mars	39670-04-09 13:41 G	16210328.79	16210329.07	16210329.37	0.0278	0.0122
Mercury	39671-03-10 17:17 G	16210664.05	16210664.22	16210664.39	0.0282	0.0125
Mercury	39671-06-07 17:31 G	16210753.05	16210753.23	16210753.42	0.0283	0.0081
Moon	39675-03-30 03:22 G	16212144.63	16212144.64	16212144.67	0.0300	0.0298
Venus	39680-03-29 16:34 G	16213970.98	16213971.19	16213971.40	0.0300	0.0048
Venus	39680-11-14 19:12 G	16214201.19	16214201.30	16214201.43	0.0297	0.0242
Mercury	39684-01-22 21:36 G	16215365.37	16215365.40	16215365.45	0.0282	0.0267
Mercury	39684-04-20 08:24 G	16215453.74	16215453.85	16215453.97	0.0281	0.0131
Mercury	39684-07-17 19:12 G	16215542.17	16215542.30	16215542.43	0.0280	0.0007
Mercury	39684-10-14 06:00 G	16215630.64	16215630.75	16215630.86	0.0279	0.0137
Mercury	39685-01-10 16:34 G	16215719.17	16215719.19	16215719.23	0.0277	0.0270
Earth	39689-10-06 09:50 G	16217448.66	16217448.91	16217449.15	0.0261	0.0015
Moon	39689-10-06 09:36 G	16217448.66	16217448.90	16217449.14	0.0261	0.0017 *
Venus	39695-04-21 21:22 G	16219472.30	16219472.39	16219472.51	0.0261	0.0227
Venus	39695-12-06 20:10 G	16219701.13	16219701.34	16219701.55	0.0263	0.0031
Venus	39696-07-22 19:41 G	16219930.16	16219930.32	16219930.49	0.0265	0.0170
Mercury	39700-07-28 16:05 G	16221396.03	16221396.17	16221396.32	0.0282	0.0180
Mercury	39700-10-25 16:34 G	16221485.00	16221485.19	16221485.38	0.0283	0.0026
Mercury	39701-01-22 16:34 G	16221574.09	16221574.19	16221574.30	0.0284	0.0233
Earth	39705-04-08 02:38 G	16223110.37	16223110.61	16223110.86	0.0302	0.0034
Moon	39705-04-08 06:29 G	16223110.53	16223110.77	16223111.01	0.0302	0.0042 *
Venus	39709-10-11 00:58 G	16224757.33	16224757.54	16224757.75	0.0299	0.0006
Venus	39710-05-29 03:36 G	16224987.59	16224987.65	16224987.71	0.0297	0.0283
Mars	39712-07-20 11:31 G	16225770.80	16225770.98	16225771.17	0.0287	0.0202
Mercury	39713-09-08 11:31 G	16226185.87	16226185.98	16226186.08	0.0281	0.0164
Mercury	39713-12-05 22:05 G	16226274.30	16226274.42	16226274.55	0.0280	0.0031
Mercury	39714-03-04 08:53 G	16226362.75	16226362.87	16226362.99	0.0278	0.0104
Mercury	39714-05-31 19:26 G	16226451.25	16226451.31	16226451.39	0.0277	0.0236
Earth	39718-10-02 18:00 G	16228036.08	16228036.25	16228036.43	0.0262	0.0186
Moon	39718-10-02 18:29 G	16228036.11	16228036.27	16228036.45	0.0262	0.0194 *

Moon	39719-10-14 01:26 G	16228412.42	16228412.56	16228412.70	0.0260	0.0210
Earth	39719-10-14 04:48 G	16228412.55	16228412.70	16228412.86	0.0260	0.0203 *
Venus	39724-11-02 00:29 G	16230258.39	16230258.52	16230258.66	0.0262	0.0203
Venus	39725-06-18 23:02 G	16230487.24	16230487.46	16230487.67	0.0263	0.0007
Venus	39726-02-02 22:34 G	16230716.31	16230716.44	16230716.59	0.0265	0.0195
Mercury	39729-12-15 13:55 G	16232127.99	16232128.08	16232128.18	0.0281	0.0242
Mercury	39730-03-14 14:24 G	16232216.91	16232217.10	16232217.28	0.0283	0.0037
Mercury	39730-06-11 14:38 G	16232305.96	16232306.11	16232306.26	0.0284	0.0170
Moon	39734-04-01 14:38 G	16233695.97	16233696.11	16233696.27	0.0300	0.0233
Earth	39734-04-01 18:00 G	16233696.10	16233696.25	16233696.39	0.0300	0.0239 *
Venus	39738-09-05 03:36 G	16235313.55	16235313.65	16235313.74	0.0301	0.0265
Venus	39739-04-23 08:10 G	16235543.63	16235543.84	16235544.05	0.0299	0.0032
Mercury	39743-01-26 14:10 G	16236918.01	16236918.09	16236918.18	0.0282	0.0201
Mercury	39743-04-25 00:58 G	16237006.42	16237006.54	16237006.67	0.0281	0.0066
Mercury	39743-07-22 11:46 G	16237094.86	16237094.99	16237095.12	0.0279	0.0069
Mercury	39743-10-18 22:34 G	16237183.35	16237183.44	16237183.53	0.0278	0.0201
Earth	39748-10-08 14:53 G	16238999.87	16239000.12	16239000.37	0.0260	0.0036
Moon	39748-10-08 18:29 G	16239000.02	16239000.27	16239000.51	0.0260	0.0036 *
Venus	39754-05-15 04:19 G	16241044.52	16241044.68	16241044.84	0.0262	0.0175
Venus	39754-12-30 02:53 G	16241273.40	16241273.62	16241273.83	0.0263	0.0021
Venus	39755-08-16 02:24 G	16241502.50	16241502.60	16241502.73	0.0265	0.0223
Mars	39758-09-04 08:10 G	16242617.62	16242617.84	16242618.09	0.0278	0.0190
Mercury	39759-08-01 12:14 G	16242948.84	16242949.01	16242949.19	0.0282	0.0098
Mercury	39759-10-29 12:29 G	16243037.85	16243038.02	16243038.20	0.0284	0.0109
Moon	39764-04-09 11:17 G	16244661.74	16244661.97	16244662.21	0.0303	0.0103
Earth	39764-04-09 11:17 G	16244661.75	16244661.97	16244662.20	0.0303	0.0100 *
Venus	39768-03-17 10:19 G	16246099.80	16246099.93	16246100.07	0.0301	0.0226
Venus	39768-11-02 14:38 G	16246329.91	16246330.11	16246330.32	0.0299	0.0071
Mercury	39772-06-14 16:48 G	16247650.13	16247650.20	16247650.27	0.0282	0.0239
Mercury	39772-09-11 03:36 G	16247738.53	16247738.65	16247738.77	0.0280	0.0104

Mercury	39772-12-08 14:24 G	16247826.97	16247827.10	16247827.23	0.0279	0.0031
Mercury	39773-03-07 00:58 G	16247915.44	16247915.54	16247915.65	0.0278	0.0164
Moon	39777-10-03 18:14 G	16249587.06	16249587.26	16249587.48	0.0261	0.0141
Earth	39777-10-03 22:05 G	16249587.21	16249587.42	16249587.63	0.0261	0.0137 *
Moon	39778-10-15 06:14 G	16249963.76	16249963.76	16249963.80	0.0259	0.0259
Earth	39778-10-15 07:41 G	16249963.77	16249963.82	16249963.90	0.0259	0.0250 *
Venus	39783-11-25 05:46 G	16251830.58	16251830.74	16251830.92	0.0262	0.0154
Venus	39784-07-11 04:19 G	16252059.47	16252059.68	16252059.89	0.0264	0.0043
Venus	39785-02-25 04:05 G	16252288.60	16252288.67	16252288.76	0.0265	0.0245
Mercury	39788-12-18 09:07 G	16253680.73	16253680.88	16253681.03	0.0282	0.0168
Mercury	39789-03-17 09:22 G	16253769.70	16253769.89	16253770.08	0.0283	0.0038
Mercury	39789-06-14 09:36 G	16253858.81	16253858.90	16253858.99	0.0284	0.0244
Earth	39793-04-02 22:34 G	16255247.26	16255247.44	16255247.65	0.0301	0.0182
Moon	39793-04-02 23:31 G	16255247.30	16255247.48	16255247.68	0.0301	0.0179 *
Venus	39797-09-27 15:36 G	16256885.99	16256886.15	16256886.32	0.0301	0.0191
Venus	39798-05-15 19:55 G	16257116.14	16257116.33	16257116.53	0.0299	0.0106
Mars	39800-12-15 08:24 G	16258059.62	16258059.85	16258060.09	0.0287	0.0141
Mercury	39801-11-02 19:12 G	16258382.29	16258382.30	16258382.32	0.0283	0.0280
Mercury	39802-01-30 06:00 G	16258470.64	16258470.75	16258470.87	0.0281	0.0144
Mercury	39802-04-28 16:48 G	16258559.07	16258559.20	16258559.33	0.0280	0.0012
Mercury	39802-07-26 03:36 G	16258647.54	16258647.65	16258647.77	0.0279	0.0126
Mercury	39802-10-22 14:24 G	16258736.06	16258736.10	16258736.15	0.0278	0.0258
Earth	39807-10-11 16:48 G	16260550.97	16260551.20	16260551.44	0.0260	0.0081
Moon	39807-10-11 18:58 G	16260551.05	16260551.29	16260551.53	0.0260	0.0085 *
Venus	39813-06-07 08:38 G	16262616.68	16262616.86	16262617.05	0.0262	0.0127
Venus	39814-01-22 07:12 G	16262845.60	16262845.80	16262846.01	0.0263	0.0070
Mercury	39818-05-08 06:29 G	16264412.67	16264412.77	16264412.88	0.0281	0.0233
Mercury	39818-08-05 06:43 G	16264501.59	16264501.78	16264501.97	0.0282	0.0029
Mercury	39818-11-02 06:58 G	16264590.65	16264590.79	16264590.94	0.0284	0.0178
Moon	39823-04-12 10:34 G	16266212.73	16266212.94	16266213.16	0.0303	0.0153

Earth	39823-04-12 14:10 G	16266212.89	16266213.09	16266213.30	0.0303	0.0156	*
Venus	39827-04-10 20:53 G	16267672.20	16267672.37	16267672.56	0.0301	0.0157	
Venus	39827-11-27 00:58 G	16267902.36	16267902.54	16267902.73	0.0299	0.0140	
Mercury	39831-06-19 08:10 G	16269202.75	16269202.84	16269202.94	0.0281	0.0187	
Mercury	39831-09-15 19:12 G	16269291.17	16269291.30	16269291.42	0.0280	0.0051	
Mercury	39831-12-13 05:46 G	16269379.62	16269379.74	16269379.87	0.0279	0.0084	
Mercury	39832-03-10 16:34 G	16269468.11	16269468.19	16269468.27	0.0278	0.0217	
Moon	39836-10-05 20:53 G	16271138.15	16271138.37	16271138.60	0.0261	0.0094	
Earth	39836-10-05 22:48 G	16271138.22	16271138.45	16271138.68	0.0261	0.0094	*
Venus	39842-12-18 09:36 G	16273402.71	16273402.90	16273403.10	0.0262	0.0107	
Venus	39843-08-04 08:10 G	16273631.64	16273631.84	16273632.04	0.0264	0.0090	
Mars	39847-01-28 21:36 G	16274905.21	16274905.40	16274905.62	0.0277	0.0215	
Mercury	39847-12-23 02:53 G	16275233.45	16275233.62	16275233.80	0.0282	0.0105	
Mercury	39848-03-21 03:07 G	16275322.46	16275322.63	16275322.81	0.0283	0.0102	
Earth	39852-04-04 22:34 G	16276798.23	16276798.44	16276798.66	0.0301	0.0132	
Moon	39852-04-05 02:10 G	16276798.37	16276798.59	16276798.81	0.0301	0.0131	*
Venus	39856-10-21 00:14 G	16278458.32	16278458.51	16278458.70	0.0301	0.0125	
Venus	39857-06-08 04:19 G	16278688.51	16278688.68	16278688.86	0.0299	0.0170	
Mercury	39860-11-05 10:19 G	16279934.86	16279934.93	16279935.01	0.0282	0.0232	
Mercury	39861-02-01 21:07 G	16280023.26	16280023.38	16280023.51	0.0281	0.0096	
Mercury	39861-05-01 07:55 G	16280111.71	16280111.83	16280111.96	0.0280	0.0042	
Mercury	39861-07-28 18:43 G	16280200.18	16280200.28	16280200.38	0.0279	0.0175	
Moon	39866-10-12 12:29 G	16282101.82	16282102.02	16282102.25	0.0260	0.0131	
Earth	39866-10-12 15:50 G	16282101.95	16282102.16	16282102.38	0.0260	0.0121	*
Venus	39872-06-29 11:31 G	16284188.78	16284188.98	16284189.18	0.0261	0.0082	
Venus	39873-02-13 10:05 G	16284417.73	16284417.92	16284418.11	0.0263	0.0115	
Mercury	39877-05-10 23:31 G	16285965.34	16285965.48	16285965.64	0.0281	0.0176	
Mercury	39877-08-07 23:46 G	16286054.31	16286054.49	16286054.68	0.0282	0.0031	
Mercury	39877-11-05 00:00 G	16286143.40	16286143.50	16286143.61	0.0284	0.0236	
Moon	39882-04-13 09:36 G	16287763.72	16287763.90	16287764.08	0.0303	0.0198	

Earth	39882-04-13 11:02 G	16287763.79	16287763.96	16287764.15	0.0303	0.0201	*
Venus	39886-05-03 04:05 G	16289244.47	16289244.67	16289244.87	0.0301	0.0094	
Venus	39886-12-19 07:55 G	16289474.69	16289474.83	16289474.99	0.0299	0.0202	
Mars	39889-05-10 13:12 G	16290347.81	16290348.05	16290348.30	0.0287	0.0117	
Mercury	39890-03-25 12:14 G	16290666.99	16290667.01	16290667.04	0.0283	0.0278	
Mercury	39890-06-21 23:17 G	16290755.35	16290755.47	16290755.58	0.0281	0.0141	
Mercury	39890-09-18 10:05 G	16290843.79	16290843.92	16290844.05	0.0280	0.0010	
Mercury	39890-12-15 20:38 G	16290932.25	16290932.36	16290932.48	0.0279	0.0130	
Mercury	39891-03-14 07:26 G	16291020.77	16291020.81	16291020.85	0.0278	0.0263	
Earth	39895-10-07 20:38 G	16292689.12	16292689.36	16292689.61	0.0261	0.0055	
Moon	39895-10-07 23:46 G	16292689.25	16292689.49	16292689.72	0.0261	0.0049	*
Venus	39901-05-26 14:24 G	16294746.06	16294746.10	16294746.15	0.0260	0.0254	
Venus	39902-01-10 11:46 G	16294974.79	16294974.99	16294975.20	0.0262	0.0063	
Venus	39902-08-27 10:19 G	16295203.75	16295203.93	16295204.12	0.0264	0.0135	
Mercury	39906-09-28 19:12 G	16296697.23	16296697.30	16296697.39	0.0281	0.0255	
Mercury	39906-12-26 19:41 G	16296786.13	16296786.32	16296786.51	0.0282	0.0050	
Mercury	39907-03-25 19:41 G	16296875.17	16296875.32	16296875.48	0.0283	0.0156	
Earth	39911-04-07 18:00 G	16298349.02	16298349.25	16298349.49	0.0301	0.0091	
Moon	39911-04-07 18:58 G	16298349.05	16298349.29	16298349.53	0.0301	0.0094	*
Venus	39915-11-14 06:14 G	16300030.56	16300030.76	16300030.97	0.0301	0.0065	
Venus	39916-07-01 10:05 G	16300260.80	16300260.92	16300261.06	0.0299	0.0230	
Mercury	39919-11-10 00:58 G	16301487.45	16301487.54	16301487.64	0.0282	0.0189	
Mercury	39920-02-06 11:46 G	16301575.87	16301575.99	16301576.12	0.0281	0.0052	
Mercury	39920-05-04 22:34 G	16301664.32	16301664.44	16301664.57	0.0280	0.0084	
Mercury	39920-08-01 09:22 G	16301752.81	16301752.89	16301752.97	0.0279	0.0217	
Moon	39924-10-02 22:34 G	16303276.34	16303276.44	16303276.57	0.0262	0.0232	
Earth	39924-10-03 01:26 G	16303276.45	16303276.56	16303276.67	0.0262	0.0232	*
Moon	39925-10-14 10:05 G	16303652.74	16303652.92	16303653.10	0.0260	0.0172	
Earth	39925-10-14 12:43 G	16303652.84	16303653.03	16303653.23	0.0260	0.0159	*
Venus	39930-12-06 15:50 G	16305532.08	16305532.16	16305532.27	0.0260	0.0230	

Venus	39931-07-23 13:26 G	16305760.85	16305761.06	16305761.27	0.0262	0.0038
Venus	39932-03-08 12:00 G	16305989.83	16305990.00	16305990.17	0.0263	0.0160
Mars	39935-06-24 02:10 G	16307192.42	16307192.59	16307192.80	0.0277	0.0223
Mercury	39936-05-14 16:19 G	16307518.01	16307518.18	16307518.35	0.0281	0.0121
Mercury	39936-08-11 16:19 G	16307607.00	16307607.18	16307607.37	0.0282	0.0084
Earth	39941-04-15 05:17 G	16309314.58	16309314.72	16309314.87	0.0303	0.0242
Moon	39941-04-15 07:55 G	16309314.69	16309314.83	16309314.99	0.0303	0.0234 *
Venus	39945-05-26 09:07 G	16310816.67	16310816.88	16310817.09	0.0301	0.0036
Venus	39946-01-11 12:58 G	16311046.94	16311047.04	16311047.14	0.0299	0.0258
Mercury	39949-03-29 02:38 G	16312219.54	16312219.61	16312219.68	0.0283	0.0238
Mercury	39949-06-25 13:26 G	16312307.94	16312308.06	16312308.18	0.0281	0.0101
Mercury	39949-09-22 00:14 G	16312396.38	16312396.51	16312396.64	0.0280	0.0036
Mercury	39949-12-19 11:02 G	16312484.86	16312484.96	16312485.07	0.0279	0.0170
Earth	39954-10-09 16:34 G	16314239.95	16314240.19	16314240.44	0.0261	0.0019
Moon	39954-10-09 19:26 G	16314240.06	16314240.31	16314240.57	0.0261	0.0010 *
Venus	39960-06-17 15:50 G	16316318.05	16316318.16	16316318.29	0.0260	0.0212
Venus	39961-02-01 13:26 G	16316546.84	16316547.06	16316547.27	0.0262	0.0019
Venus	39961-09-18 11:46 G	16316775.85	16316775.99	16316776.16	0.0264	0.0179
Mercury	39965-10-01 11:31 G	16318249.86	16318249.98	16318250.12	0.0281	0.0204
Mercury	39965-12-29 11:46 G	16318338.80	16318338.99	16318339.18	0.0282	0.0005
Mercury	39966-03-28 12:00 G	16318427.87	16318428.00	16318428.13	0.0283	0.0206
Moon	39970-04-08 07:12 G	16319899.56	16319899.80	16319900.04	0.0301	0.0064
Earth	39970-04-08 10:34 G	16319899.70	16319899.94	16319900.18	0.0301	0.0053 *
Venus	39974-12-06 10:05 G	16321602.71	16321602.92	16321603.13	0.0301	0.0009
Venus	39975-07-24 13:55 G	16321833.03	16321833.08	16321833.15	0.0298	0.0285
Mars	39977-10-04 03:22 G	16322635.41	16322635.64	16322635.89	0.0288	0.0115
Mercury	39978-11-12 15:07 G	16323040.02	16323040.13	16323040.24	0.0282	0.0151
Mercury	39979-02-09 01:55 G	16323128.45	16323128.58	16323128.71	0.0281	0.0017
Mercury	39979-05-08 12:43 G	16323216.92	16323217.03	16323217.15	0.0280	0.0122
Mercury	39979-08-04 23:31 G	16323305.44	16323305.48	16323305.53	0.0279	0.0256

Moon	39983-10-04 17:46 G	16324827.08	16324827.24	16324827.41	0.0262	0.0194
Earth	39983-10-04 20:38 G	16324827.21	16324827.36	16324827.54	0.0262	0.0197 *
Earth	39984-10-15 07:55 G	16325203.68	16325203.83	16325204.00	0.0260	0.0196
Moon	39984-10-15 10:19 G	16325203.79	16325203.93	16325204.07	0.0260	0.0210 *
Venus	39989-12-28 17:31 G	16327104.09	16327104.23	16327104.38	0.0260	0.0187
Venus	39990-08-14 14:53 G	16327332.91	16327333.12	16327333.34	0.0262	0.0007
Venus	39991-03-31 13:26 G	16327561.93	16327562.06	16327562.20	0.0263	0.0203
Mercury	39995-02-18 08:10 G	16328981.81	16328981.84	16328981.89	0.0280	0.0273
Mercury	39995-05-18 08:24 G	16329070.67	16329070.85	16329071.04	0.0281	0.0070
Mercury	39995-08-15 08:24 G	16329159.69	16329159.85	16329160.02	0.0282	0.0135
Earth	40000-04-15 21:36 G	16330865.31	16330865.40	16330865.49	0.0303	0.0280
Moon	40000-04-16 00:29 G	16330865.41	16330865.52	16330865.64	0.0303	0.0268 *

41ST MILLENNIUM CE

This is a list of transits visible from Saturn in the 41st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	40003-10-31 06:58 G	16332158.72	16332158.79	16332158.87	0.0303	0.0283		
Venus	40004-06-17 12:43 G	16332388.82	16332389.03	16332389.24	0.0301	0.0019		
Mercury	40008-03-31 16:48 G	16333772.11	16333772.20	16333772.29	0.0283	0.0202		
Mercury	40008-06-28 03:36 G	16333860.52	16333860.65	16333860.78	0.0282	0.0064		
Mercury	40008-09-24 14:24 G	16333948.98	16333949.10	16333949.23	0.0280	0.0072		
Mercury	40008-12-22 01:12 G	16334037.47	16334037.55	16334037.64	0.0279	0.0207		
Moon	40013-10-10 10:19 G	16335790.68	16335790.93	16335791.18	0.0261	0.0029		

Earth	40013-10-10 12:00 G	16335790.76	16335791.00	16335791.25	0.0261	0.0019	*
Venus	40019-07-10 17:31 G	16337890.08	16337890.23	16337890.40	0.0260	0.0169	
Venus	40020-02-24 15:07 G	16338118.92	16338119.13	16338119.34	0.0262	0.0025	
Venus	40020-10-10 13:26 G	16338347.96	16338348.06	16338348.19	0.0264	0.0223	
Mars	40023-11-15 22:34 G	16339479.26	16339479.44	16339479.65	0.0276	0.0222	
Mercury	40024-10-04 04:19 G	16339802.52	16339802.68	16339802.84	0.0281	0.0150	
Mercury	40025-01-01 04:19 G	16339891.49	16339891.68	16339891.87	0.0282	0.0054	
Mercury	40025-03-31 04:19 G	16339980.61	16339980.68	16339980.75	0.0283	0.0259	
Moon	40029-04-09 01:41 G	16341450.34	16341450.57	16341450.81	0.0301	0.0029	
Earth	40029-04-09 03:36 G	16341450.41	16341450.65	16341450.89	0.0301	0.0014	*
Venus	40033-05-12 07:55 G	16342944.72	16342944.83	16342944.94	0.0302	0.0255	
Venus	40033-12-28 13:41 G	16343174.86	16343175.07	16343175.28	0.0300	0.0047	
Mercury	40037-08-18 18:14 G	16344504.21	16344504.26	16344504.31	0.0284	0.0254	
Mercury	40037-11-15 05:02 G	16344592.60	16344592.71	16344592.83	0.0283	0.0116	
Mercury	40038-02-11 16:05 G	16344681.04	16344681.17	16344681.30	0.0281	0.0023	
Mercury	40038-05-11 02:53 G	16344769.51	16344769.62	16344769.73	0.0280	0.0158	
Earth	40042-10-05 15:36 G	16346377.97	16346378.15	16346378.36	0.0262	0.0160	
Moon	40042-10-05 16:48 G	16346378.01	16346378.20	16346378.40	0.0262	0.0154	*
Earth	40043-10-17 02:53 G	16346754.52	16346754.62	16346754.74	0.0260	0.0232	
Moon	40043-10-17 06:14 G	16346754.69	16346754.76	16346754.85	0.0260	0.0246	*
Venus	40049-01-19 19:26 G	16348676.13	16348676.31	16348676.49	0.0260	0.0144	
Venus	40049-09-05 17:02 G	16348905.00	16348905.21	16348905.42	0.0262	0.0050	
Venus	40050-04-22 15:36 G	16349134.08	16349134.15	16349134.22	0.0263	0.0248	
Mercury	40054-02-21 00:43 G	16350534.42	16350534.53	16350534.66	0.0280	0.0219	
Mercury	40054-05-21 00:58 G	16350623.36	16350623.54	16350623.73	0.0281	0.0017	
Mercury	40054-08-18 00:58 G	16350712.41	16350712.54	16350712.69	0.0282	0.0189	
Earth	40058-04-02 12:43 G	16352036.01	16352036.03	16352036.09	0.0300	0.0295	
Moon	40059-04-17 12:00 G	16352415.99	16352416.00	16352416.03	0.0303	0.0301	
Venus	40062-11-22 10:05 G	16353730.80	16353730.92	16353731.07	0.0303	0.0229	
Venus	40063-07-10 16:05 G	16353960.96	16353961.17	16353961.37	0.0301	0.0074	

Mars	40066-02-26 16:19 G	16354922.94	16354923.18	16354923.42	0.0289	0.0120
Mercury	40067-04-04 06:43 G	16355324.67	16355324.78	16355324.88	0.0283	0.0166
Mercury	40067-07-01 17:31 G	16355413.10	16355413.23	16355413.36	0.0282	0.0028
Mercury	40067-09-28 04:19 G	16355501.56	16355501.68	16355501.80	0.0280	0.0109
Mercury	40067-12-25 15:07 G	16355590.07	16355590.13	16355590.20	0.0279	0.0244
Moon	40072-10-11 03:50 G	16357341.43	16357341.66	16357341.91	0.0261	0.0069
Earth	40072-10-11 07:26 G	16357341.57	16357341.81	16357342.06	0.0261	0.0056 *
Venus	40078-08-01 20:10 G	16359462.15	16359462.34	16359462.53	0.0261	0.0124
Venus	40079-03-18 17:31 G	16359691.03	16359691.23	16359691.44	0.0262	0.0070
Mercury	40083-10-07 21:07 G	16361355.20	16361355.38	16361355.56	0.0281	0.0092
Mercury	40084-01-04 21:07 G	16361444.21	16361444.38	16361444.56	0.0282	0.0112
Earth	40088-04-09 21:22 G	16363001.15	16363001.39	16363001.64	0.0301	0.0027
Moon	40088-04-10 00:29 G	16363001.28	16363001.52	16363001.76	0.0301	0.0010 *
Venus	40092-06-03 12:00 G	16364516.84	16364517.00	16364517.16	0.0302	0.0199
Venus	40093-01-19 17:31 G	16364747.03	16364747.23	16364747.42	0.0300	0.0103
Mercury	40096-08-21 08:10 G	16366056.76	16366056.84	16366056.92	0.0284	0.0218
Mercury	40096-11-17 19:12 G	16366145.17	16366145.30	16366145.42	0.0283	0.0079
Mercury	40097-02-14 06:00 G	16366233.62	16366233.75	16366233.88	0.0281	0.0059
Mercury	40097-05-13 16:48 G	16366322.11	16366322.20	16366322.30	0.0280	0.0196
Earth	40101-10-07 11:17 G	16367928.75	16367928.97	16367929.19	0.0262	0.0122
Moon	40101-10-07 14:53 G	16367928.91	16367929.12	16367929.35	0.0262	0.0113 *
Venus	40108-02-12 22:05 G	16370248.23	16370248.42	16370248.62	0.0260	0.0099
Venus	40108-09-28 19:55 G	16370477.13	16370477.33	16370477.53	0.0262	0.0096
Mars	40112-04-10 11:17 G	16371766.81	16371766.97	16371767.15	0.0275	0.0234
Mercury	40113-02-24 18:29 G	16372087.12	16372087.27	16372087.43	0.0280	0.0156
Mercury	40113-05-24 18:29 G	16372176.09	16372176.27	16372176.46	0.0281	0.0047
Mercury	40113-08-21 18:29 G	16372265.19	16372265.27	16372265.36	0.0282	0.0251
Moon	40117-04-04 05:46 G	16373586.64	16373586.74	16373586.86	0.0300	0.0267
Earth	40117-04-04 09:36 G	16373586.77	16373586.90	16373587.03	0.0300	0.0249 *
Venus	40121-12-15 15:36 G	16375302.98	16375303.15	16375303.33	0.0302	0.0169

Venus	40122-08-02 20:53 G	16375533.19	16375533.37	16375533.56	0.0300	0.0132
Mercury	40126-01-09 09:50 G	16376788.87	16376788.91	16376788.96	0.0284	0.0268
Mercury	40126-04-07 20:53 G	16376877.25	16376877.37	16376877.49	0.0283	0.0128
Mercury	40126-07-05 07:41 G	16376965.69	16376965.82	16376965.95	0.0282	0.0014
Mercury	40126-10-01 18:43 G	16377054.17	16377054.28	16377054.39	0.0281	0.0148
Earth	40131-10-14 03:50 G	16378892.43	16378892.66	16378892.89	0.0261	0.0095
Moon	40131-10-14 03:50 G	16378892.45	16378892.66	16378892.89	0.0261	0.0109 *
Venus	40137-08-24 23:46 G	16381034.29	16381034.49	16381034.70	0.0261	0.0077
Venus	40138-04-10 21:22 G	16381263.21	16381263.39	16381263.59	0.0262	0.0118
Mercury	40142-07-14 15:22 G	16382819.03	16382819.14	16382819.25	0.0279	0.0226
Mercury	40142-10-11 15:22 G	16382907.95	16382908.14	16382908.33	0.0281	0.0025
Mercury	40143-01-08 15:22 G	16382996.99	16382997.14	16382997.28	0.0282	0.0179
Earth	40147-04-12 19:26 G	16384552.08	16384552.31	16384552.55	0.0301	0.0076
Moon	40147-04-12 22:05 G	16384552.18	16384552.42	16384552.67	0.0301	0.0058 *
Venus	40151-06-27 17:46 G	16386089.06	16386089.24	16386089.43	0.0302	0.0138
Venus	40152-02-12 23:02 G	16386319.28	16386319.46	16386319.64	0.0300	0.0162
Mars	40154-07-23 06:14 G	16387210.52	16387210.76	16387211.00	0.0289	0.0123
Mercury	40155-08-25 22:34 G	16387609.34	16387609.44	16387609.54	0.0284	0.0178
Mercury	40155-11-22 09:22 G	16387697.77	16387697.89	16387698.02	0.0283	0.0039
Mercury	40156-02-18 20:24 G	16387786.23	16387786.35	16387786.47	0.0281	0.0100
Mercury	40156-05-17 07:12 G	16387874.73	16387874.80	16387874.87	0.0280	0.0236
Moon	40160-10-08 08:10 G	16389479.60	16389479.84	16389480.10	0.0263	0.0069
Earth	40160-10-08 08:24 G	16389479.62	16389479.85	16389480.09	0.0263	0.0082 *
Venus	40166-07-21 05:31 G	16391591.67	16391591.73	16391591.81	0.0260	0.0242
Venus	40167-03-07 02:24 G	16391820.40	16391820.60	16391820.82	0.0261	0.0051
Venus	40167-10-22 00:29 G	16392049.35	16392049.52	16392049.70	0.0262	0.0145
Mercury	40172-02-28 13:26 G	16393639.87	16393640.06	16393640.24	0.0280	0.0084
Mercury	40172-05-27 13:12 G	16393728.88	16393729.05	16393729.22	0.0281	0.0119
Moon	40176-04-05 07:55 G	16395137.67	16395137.83	16395138.00	0.0300	0.0214
Earth	40176-04-05 09:36 G	16395137.72	16395137.90	16395138.09	0.0300	0.0197 *

Venus	40181-01-06 22:34 G	16396875.25	16396875.44	16396875.64	0.0302	0.0106
Venus	40181-08-25 03:36 G	16397105.50	16397105.65	16397105.82	0.0300	0.0194
Mercury	40185-01-12 00:29 G	16398341.44	16398341.52	16398341.60	0.0284	0.0224
Mercury	40185-04-10 11:17 G	16398429.85	16398429.97	16398430.10	0.0283	0.0085
Mercury	40185-07-07 22:19 G	16398518.30	16398518.43	16398518.56	0.0282	0.0054
Mercury	40185-10-04 09:07 G	16398606.79	16398606.88	16398606.98	0.0281	0.0192
Moon	40189-10-03 11:31 G	16400066.92	16400066.98	16400067.05	0.0264	0.0252
Earth	40189-10-03 11:17 G	16400066.96	16400066.97	16400067.00	0.0264	0.0263 *
Earth	40190-10-15 02:24 G	16400443.39	16400443.60	16400443.81	0.0261	0.0137
Moon	40190-10-15 05:46 G	16400443.55	16400443.74	16400443.95	0.0261	0.0153 *
Venus	40196-01-31 08:10 G	16402377.73	16402377.84	16402377.96	0.0260	0.0218
Venus	40196-09-16 05:17 G	16402606.50	16402606.72	16402606.93	0.0261	0.0027
Venus	40197-05-03 02:53 G	16402835.47	16402835.62	16402835.79	0.0263	0.0170
Mercury	40201-07-18 10:48 G	16404371.80	16404371.95	16404372.12	0.0280	0.0148
Mercury	40201-10-15 10:48 G	16404460.77	16404460.95	16404461.14	0.0281	0.0054
Mercury	40202-01-12 10:34 G	16404549.88	16404549.94	16404550.02	0.0282	0.0258
Moon	40206-04-14 20:24 G	16406103.13	16406103.35	16406103.59	0.0301	0.0120
Earth	40206-04-14 22:48 G	16406103.24	16406103.45	16406103.67	0.0301	0.0134 *
Venus	40210-07-21 03:07 G	16407661.43	16407661.63	16407661.84	0.0301	0.0070
Venus	40211-03-08 07:55 G	16407891.70	16407891.83	16407891.97	0.0299	0.0228
Mercury	40214-06-02 02:24 G	16409073.57	16409073.60	16409073.64	0.0285	0.0271
Mercury	40214-08-29 13:26 G	16409161.94	16409162.06	16409162.17	0.0283	0.0130
Mercury	40214-11-26 00:14 G	16409250.38	16409250.51	16409250.64	0.0282	0.0013
Mercury	40215-02-22 11:17 G	16409338.86	16409338.97	16409339.08	0.0281	0.0147
Moon	40219-10-11 04:19 G	16411030.43	16411030.68	16411030.93	0.0263	0.0022
Earth	40219-10-11 08:10 G	16411030.59	16411030.84	16411031.08	0.0263	0.0037 *
Venus	40225-08-13 11:31 G	16413163.84	16413163.98	16413164.13	0.0260	0.0192
Venus	40226-03-30 08:53 G	16413392.65	16413392.87	16413393.08	0.0261	0.0003
Venus	40226-11-14 06:43 G	16413621.66	16413621.78	16413621.93	0.0263	0.0199
Mercury	40230-12-05 09:36 G	16415103.77	16415103.90	16415104.04	0.0279	0.0200

Mercury	40231-03-04 09:36 G	16415192.71	16415192.90	16415193.09	0.0280	0.0003
Mercury	40231-06-01 09:22 G	16415281.77	16415281.89	16415282.03	0.0281	0.0204
Earth	40235-04-08 15:50 G	16416688.94	16416689.16	16416689.38	0.0300	0.0134
Moon	40235-04-08 18:14 G	16416689.06	16416689.26	16416689.47	0.0300	0.0149 *
Venus	40240-01-31 09:07 G	16418447.67	16418447.88	16418448.09	0.0302	0.0036
Venus	40240-09-17 13:41 G	16418677.97	16418678.07	16418678.17	0.0300	0.0262
Mars	40242-12-17 12:58 G	16419498.79	16419499.04	16419499.30	0.0290	0.0093
Mercury	40244-01-16 15:36 G	16419894.05	16419894.15	16419894.25	0.0284	0.0174
Mercury	40244-04-14 02:38 G	16419982.48	16419982.61	16419982.74	0.0283	0.0034
Mercury	40244-07-11 13:26 G	16420070.94	16420071.06	16420071.18	0.0282	0.0105
Mercury	40244-10-08 00:29 G	16420159.45	16420159.52	16420159.58	0.0280	0.0242
Earth	40248-10-05 12:29 G	16421617.89	16421618.02	16421618.17	0.0264	0.0216
Moon	40248-10-05 16:19 G	16421618.02	16421618.18	16421618.34	0.0264	0.0202 *
Earth	40249-10-17 03:36 G	16421994.48	16421994.65	16421994.82	0.0261	0.0184
Moon	40249-10-17 04:34 G	16421994.53	16421994.69	16421994.87	0.0261	0.0197 *
Venus	40255-02-23 15:07 G	16423949.97	16423950.13	16423950.30	0.0260	0.0166
Venus	40255-10-10 12:43 G	16424178.82	16424179.03	16424179.24	0.0262	0.0028
Venus	40256-05-26 10:48 G	16424407.85	16424407.95	16424408.07	0.0263	0.0225
Mercury	40260-04-23 07:55 G	16425835.77	16425835.83	16425835.91	0.0279	0.0258
Mercury	40260-07-21 08:10 G	16425924.65	16425924.84	16425925.03	0.0280	0.0056
Mercury	40260-10-18 07:55 G	16426013.67	16426013.83	16426014.00	0.0281	0.0147
Moon	40265-04-16 04:19 G	16427654.51	16427654.68	16427654.88	0.0301	0.0190
Earth	40265-04-16 07:55 G	16427654.66	16427654.83	16427655.01	0.0301	0.0203 *
Venus	40268-12-25 09:07 G	16429003.87	16429003.88	16429003.92	0.0302	0.0300
Venus	40269-08-12 15:22 G	16429233.93	16429234.14	16429234.35	0.0301	0.0005
Mercury	40273-06-04 18:00 G	16430626.17	16430626.25	16430626.33	0.0284	0.0216
Mercury	40273-09-01 05:02 G	16430714.58	16430714.71	16430714.83	0.0283	0.0076
Mercury	40273-11-28 15:50 G	16430803.04	16430803.16	16430803.29	0.0282	0.0064
Mercury	40274-02-25 02:38 G	16430891.53	16430891.61	16430891.71	0.0281	0.0202
Moon	40278-10-12 09:36 G	16432581.66	16432581.90	16432582.14	0.0263	0.0027

Earth	40278-10-12 10:34 G	16432581.70	16432581.94	16432582.19	0.0263	0.0013	*
Venus	40284-09-04 19:26 G	16434736.13	16434736.31	16434736.49	0.0260	0.0139	
Venus	40285-04-21 17:02 G	16434965.00	16434965.21	16434965.42	0.0262	0.0056	
Venus	40285-12-06 15:22 G	16435194.10	16435194.14	16435194.20	0.0263	0.0255	
Mercury	40289-12-08 07:26 G	16436656.63	16436656.81	16436656.99	0.0279	0.0104	
Mercury	40290-03-07 07:26 G	16436745.63	16436745.81	16436745.98	0.0280	0.0098	
Earth	40294-04-10 03:50 G	16438240.42	16438240.66	16438240.90	0.0300	0.0060	
Moon	40294-04-10 07:12 G	16438240.56	16438240.80	16438241.04	0.0300	0.0076	*
Venus	40298-07-07 17:31 G	16439790.13	16439790.23	16439790.34	0.0303	0.0261	
Venus	40299-02-22 23:31 G	16440020.27	16440020.48	16440020.69	0.0301	0.0043	
Mercury	40302-10-23 20:38 G	16441358.31	16441358.36	16441358.42	0.0285	0.0254	
Mercury	40303-01-20 07:41 G	16441446.70	16441446.82	16441446.94	0.0284	0.0113	
Mercury	40303-04-18 18:43 G	16441535.15	16441535.28	16441535.41	0.0282	0.0028	
Mercury	40303-07-16 05:31 G	16441623.63	16441623.73	16441623.84	0.0281	0.0165	
Earth	40307-10-08 17:02 G	16443169.03	16443169.21	16443169.42	0.0264	0.0164	
Moon	40307-10-08 18:58 G	16443169.08	16443169.29	16443169.50	0.0264	0.0150	*
Moon	40308-10-19 04:34 G	16443545.62	16443545.69	16443545.78	0.0261	0.0246	
Earth	40308-10-19 08:10 G	16443545.74	16443545.84	16443545.94	0.0261	0.0236	*
Venus	40314-03-19 00:14 G	16445522.32	16445522.51	16445522.71	0.0261	0.0110	
Venus	40314-11-02 22:05 G	16445751.22	16445751.42	16445751.62	0.0262	0.0086	
Mercury	40319-04-28 06:43 G	16447388.63	16447388.78	16447388.95	0.0279	0.0154	
Mercury	40319-07-26 06:43 G	16447477.60	16447477.78	16447477.97	0.0281	0.0049	
Mercury	40319-10-23 06:29 G	16447566.70	16447566.77	16447566.86	0.0282	0.0252	
Moon	40324-04-18 23:02 G	16449206.37	16449206.46	16449206.57	0.0301	0.0272	
Earth	40324-04-18 23:46 G	16449206.41	16449206.49	16449206.57	0.0301	0.0284	*
Venus	40328-01-19 02:10 G	16450576.44	16450576.59	16450576.74	0.0302	0.0215	
Venus	40328-09-05 07:41 G	16450806.62	16450806.82	16450807.02	0.0300	0.0087	
Mars	40331-05-14 10:48 G	16451787.69	16451787.95	16451788.22	0.0289	0.0039	
Mercury	40332-06-08 10:19 G	16452178.82	16452178.93	16452179.04	0.0284	0.0151	
Mercury	40332-09-04 21:22 G	16452267.26	16452267.39	16452267.52	0.0283	0.0014	

Mercury	40332-12-02 08:10 G	16452355.73	16452355.84	16452355.96	0.0281	0.0127
Mercury	40333-02-28 19:12 G	16452444.26	16452444.30	16452444.34	0.0280	0.0265
Earth	40337-10-14 16:34 G	16454132.95	16454133.19	16454133.43	0.0263	0.0067
Moon	40337-10-14 19:26 G	16454133.08	16454133.31	16454133.54	0.0263	0.0080 *
Venus	40343-09-29 05:17 G	16456308.52	16456308.72	16456308.93	0.0261	0.0081
Venus	40344-05-15 03:07 G	16456537.44	16456537.63	16456537.83	0.0262	0.0116
Mars	40347-05-05 23:31 G	16457623.28	16457623.48	16457623.72	0.0272	0.0199
Mercury	40348-09-14 06:43 G	16458120.65	16458120.78	16458120.92	0.0279	0.0197
Mercury	40348-12-12 06:43 G	16458209.59	16458209.78	16458209.97	0.0280	0.0004
Mercury	40349-03-11 06:29 G	16458298.65	16458298.77	16458298.90	0.0281	0.0207
Moon	40353-04-12 21:50 G	16459792.15	16459792.41	16459792.66	0.0300	0.0010
Earth	40353-04-12 21:36 G	16459792.16	16459792.40	16459792.64	0.0300	0.0023 *
Venus	40357-07-31 11:31 G	16461362.82	16461362.98	16461363.16	0.0302	0.0174
Venus	40358-03-18 16:48 G	16461593.02	16461593.20	16461593.40	0.0300	0.0129
Mercury	40361-10-26 13:26 G	16462910.96	16462911.06	16462911.15	0.0284	0.0186
Mercury	40362-01-23 00:14 G	16462999.39	16462999.51	16462999.64	0.0283	0.0046
Mercury	40362-04-21 11:17 G	16463087.85	16463087.97	16463088.09	0.0282	0.0094
Mercury	40362-07-18 22:05 G	16463176.35	16463176.42	16463176.49	0.0281	0.0232
Moon	40366-10-09 22:34 G	16464720.20	16464720.44	16464720.68	0.0264	0.0093
Earth	40366-10-10 00:58 G	16464720.32	16464720.54	16464720.77	0.0264	0.0107 *
Venus	40372-08-24 13:41 G	16466866.00	16466866.07	16466866.15	0.0260	0.0243
Venus	40373-04-10 11:02 G	16467094.75	16467094.96	16467095.17	0.0261	0.0051
Venus	40373-11-25 08:53 G	16467323.70	16467323.87	16467324.05	0.0263	0.0147
Mercury	40378-02-01 06:43 G	16468852.69	16468852.78	16468852.87	0.0279	0.0243
Mercury	40378-05-01 06:29 G	16468941.59	16468941.77	16468941.96	0.0280	0.0042
Mercury	40378-07-29 06:29 G	16469030.62	16469030.77	16469030.93	0.0281	0.0161
Earth	40382-04-06 21:50 G	16470378.27	16470378.41	16470378.57	0.0298	0.0235
Moon	40382-04-06 22:34 G	16470378.32	16470378.44	16470378.57	0.0298	0.0251 *
Venus	40387-02-10 21:50 G	16472149.22	16472149.41	16472149.61	0.0301	0.0125
Venus	40387-09-29 02:38 G	16472379.45	16472379.61	16472379.79	0.0300	0.0176

Mercury	40391-03-15 16:19 G	16473643.10	16473643.18	16473643.27	0.0284	0.0218
Mercury	40391-06-12 03:22 G	16473731.52	16473731.64	16473731.77	0.0283	0.0078
Mercury	40391-09-08 14:24 G	16473819.97	16473820.10	16473820.22	0.0282	0.0062
Mercury	40391-12-06 01:12 G	16473908.46	16473908.55	16473908.64	0.0281	0.0199
Earth	40396-10-16 01:26 G	16475684.35	16475684.56	16475684.78	0.0262	0.0126
Moon	40396-10-16 04:19 G	16475684.47	16475684.68	16475684.90	0.0262	0.0138 *
Venus	40402-03-06 18:43 G	16477652.18	16477652.28	16477652.41	0.0260	0.0216
Venus	40402-10-21 16:34 G	16477880.97	16477881.19	16477881.40	0.0262	0.0022
Venus	40403-06-07 14:38 G	16478109.96	16478110.11	16478110.27	0.0263	0.0177
Mercury	40407-09-18 06:43 G	16479673.60	16479673.78	16479673.97	0.0279	0.0083
Mercury	40407-12-16 06:43 G	16479762.61	16479762.78	16479762.95	0.0280	0.0120
Moon	40412-04-14 16:05 G	16481343.94	16481344.17	16481344.40	0.0300	0.0098
Earth	40412-04-14 19:41 G	16481344.09	16481344.32	16481344.54	0.0300	0.0113 *
Venus	40416-08-23 08:38 G	16482935.66	16482935.86	16482936.07	0.0302	0.0080
Venus	40417-04-10 13:26 G	16483165.92	16483166.06	16483166.21	0.0300	0.0219
Mars	40419-10-09 03:50 G	16484077.40	16484077.66	16484077.92	0.0289	0.0059
Mercury	40420-08-01 19:41 G	16484375.27	16484375.32	16484375.38	0.0285	0.0250
Mercury	40420-10-29 06:43 G	16484463.66	16484463.78	16484463.90	0.0284	0.0109
Mercury	40421-01-25 17:46 G	16484552.11	16484552.24	16484552.37	0.0282	0.0032
Mercury	40421-04-24 04:34 G	16484640.59	16484640.69	16484640.79	0.0281	0.0169
Moon	40425-10-11 07:55 G	16486271.59	16486271.83	16486272.08	0.0263	0.0032
Earth	40425-10-11 11:17 G	16486271.73	16486271.97	16486272.22	0.0263	0.0046 *
Venus	40431-09-17 01:12 G	16488438.40	16488438.55	16488438.70	0.0260	0.0183
Venus	40432-05-02 22:48 G	16488667.24	16488667.45	16488667.66	0.0262	0.0011
Venus	40432-12-17 21:07 G	16488896.26	16488896.38	16488896.52	0.0263	0.0210
Mars	40435-10-01 05:02 G	16489913.41	16489913.71	16489914.03	0.0273	0.0084
Mercury	40437-02-04 07:12 G	16490405.63	16490405.80	16490405.97	0.0280	0.0125
Mercury	40437-05-04 07:12 G	16490494.62	16490494.80	16490494.98	0.0281	0.0078
Earth	40441-04-08 20:53 G	16491930.17	16491930.37	16491930.59	0.0299	0.0144
Moon	40441-04-09 00:43 G	16491930.33	16491930.53	16491930.74	0.0299	0.0159 *

Venus	40446-03-05 19:55 G	16493722.12	16493722.33	16493722.54	0.0301	0.0029
Venus	40446-10-22 00:00 G	16493952.42	16493952.50	16493952.60	0.0299	0.0268
Mercury	40449-12-19 23:02 G	16495107.44	16495107.46	16495107.48	0.0285	0.0280
Mercury	40450-03-18 10:05 G	16495195.81	16495195.92	16495196.03	0.0283	0.0139
Mercury	40450-06-14 20:53 G	16495284.24	16495284.37	16495284.50	0.0282	0.0006
Mercury	40450-09-11 07:55 G	16495372.71	16495372.83	16495372.94	0.0281	0.0139
Mercury	40450-12-08 18:43 G	16495461.26	16495461.28	16495461.30	0.0280	0.0276
Earth	40454-10-06 19:26 G	16496859.19	16496859.31	16496859.46	0.0265	0.0221
Moon	40454-10-06 23:17 G	16496859.33	16496859.47	16496859.64	0.0265	0.0206 *
Moon	40455-10-18 11:31 G	16497235.81	16497235.98	16497236.15	0.0262	0.0196
Earth	40455-10-18 12:14 G	16497235.85	16497236.01	16497236.19	0.0262	0.0186 *
Venus	40461-03-29 06:29 G	16499224.60	16499224.77	16499224.94	0.0261	0.0155
Venus	40461-11-13 04:05 G	16499453.47	16499453.67	16499453.89	0.0262	0.0042
Venus	40462-06-30 02:38 G	16499682.54	16499682.61	16499682.71	0.0264	0.0241
Mercury	40466-06-24 07:12 G	16501137.65	16501137.80	16501137.95	0.0279	0.0168
Mercury	40466-09-21 07:12 G	16501226.61	16501226.80	16501226.99	0.0280	0.0034
Mercury	40466-12-19 06:58 G	16501315.70	16501315.79	16501315.90	0.0281	0.0238
Moon	40471-04-17 16:05 G	16502896.00	16502896.17	16502896.36	0.0301	0.0193
Earth	40471-04-17 18:58 G	16502896.11	16502896.29	16502896.47	0.0301	0.0206 *
Venus	40475-01-29 01:12 G	16504278.49	16504278.55	16504278.62	0.0303	0.0287
Venus	40475-09-16 06:58 G	16504508.58	16504508.79	16504509.00	0.0301	0.0018
Mercury	40479-08-05 13:26 G	16505927.96	16505928.06	16505928.17	0.0284	0.0168
Mercury	40479-11-02 00:29 G	16506016.39	16506016.52	16506016.65	0.0283	0.0027
Mercury	40480-01-29 11:17 G	16506104.86	16506104.97	16506105.09	0.0282	0.0112
Mercury	40480-04-26 22:05 G	16506193.37	16506193.42	16506193.48	0.0280	0.0249
Earth	40484-10-12 23:31 G	16507823.23	16507823.48	16507823.72	0.0263	0.0017
Moon	40484-10-12 23:46 G	16507823.25	16507823.49	16507823.73	0.0263	0.0031 *
Venus	40490-10-09 12:43 G	16510010.85	16510011.03	16510011.23	0.0261	0.0123
Venus	40491-05-26 10:48 G	16510239.74	16510239.95	16510240.15	0.0262	0.0074
Mercury	40495-11-11 07:26 G	16511869.69	16511869.81	16511869.94	0.0279	0.0211

Mercury	40496-02-08 07:26 G	16511958.62	16511958.81	16511959.00	0.0280	0.0010
Mercury	40496-05-07 07:26 G	16512047.68	16512047.81	16512047.95	0.0281	0.0196
Earth	40500-04-11 20:38 G	16513482.12	16513482.36	16513482.60	0.0299	0.0052
Moon	40500-04-11 22:34 G	16513482.20	16513482.44	16513482.69	0.0299	0.0065 *
Venus	40504-08-11 12:58 G	16515064.91	16515065.04	16515065.17	0.0302	0.0235
Venus	40505-03-29 18:29 G	16515295.07	16515295.27	16515295.48	0.0300	0.0068
Mars	40508-03-06 05:17 G	16516367.51	16516367.72	16516367.95	0.0288	0.0162
Mercury	40508-12-23 16:48 G	16516660.12	16516660.20	16516660.30	0.0284	0.0197
Mercury	40509-03-22 03:50 G	16516748.53	16516748.66	16516748.79	0.0283	0.0056
Mercury	40509-06-18 14:38 G	16516836.99	16516837.11	16516837.24	0.0281	0.0084
Mercury	40509-09-15 01:41 G	16516925.49	16516925.57	16516925.65	0.0280	0.0220
Moon	40513-10-09 08:10 G	16518410.63	16518410.84	16518411.06	0.0264	0.0142
Earth	40513-10-09 08:24 G	16518410.66	16518410.85	16518411.06	0.0264	0.0157 *
Moon	40514-10-20 20:38 G	16518787.32	16518787.36	16518787.40	0.0262	0.0258
Earth	40514-10-21 00:00 G	16518787.44	16518787.50	16518787.59	0.0262	0.0248
Venus	40520-04-21 18:00 G	16520797.06	16520797.25	16520797.45	0.0261	0.0095
Venus	40520-12-06 16:05 G	16521025.97	16521026.17	16521026.36	0.0263	0.0103
Mars	40524-02-27 09:07 G	16522203.56	16522203.88	16522204.21	0.0274	0.0028
Mercury	40525-03-31 07:12 G	16522601.73	16522601.80	16522601.88	0.0279	0.0256
Mercury	40525-06-28 07:26 G	16522690.62	16522690.81	16522691.00	0.0280	0.0053
Mercury	40525-09-25 07:12 G	16522779.65	16522779.80	16522779.97	0.0281	0.0151
Earth	40530-04-20 18:14 G	16524448.23	16524448.26	16524448.29	0.0301	0.0298
Moon	40530-04-20 19:55 G	16524448.27	16524448.33	16524448.40	0.0301	0.0287 *
Venus	40534-02-22 00:00 G	16525851.34	16525851.50	16525851.67	0.0302	0.0189
Venus	40534-10-10 05:17 G	16526081.53	16526081.72	16526081.92	0.0300	0.0114
Mercury	40538-05-12 20:24 G	16527392.28	16527392.35	16527392.43	0.0285	0.0226
Mercury	40538-08-09 07:26 G	16527480.69	16527480.81	16527480.93	0.0283	0.0085
Mercury	40538-11-05 18:14 G	16527569.13	16527569.26	16527569.39	0.0282	0.0054
Mercury	40539-02-02 05:02 G	16527657.62	16527657.71	16527657.81	0.0281	0.0192
Earth	40543-10-16 11:17 G	16529374.73	16529374.97	16529375.21	0.0262	0.0078

Moon	40543-10-16 14:53 G	16529374.90	16529375.12	16529375.36	0.0262	0.0094 *
Venus	40549-03-18 02:38 G	16531354.58	16531354.61	16531354.65	0.0260	0.0255
Venus	40549-11-02 00:00 G	16531583.29	16531583.50	16531583.70	0.0261	0.0062
Venus	40550-06-18 21:50 G	16531812.24	16531812.41	16531812.60	0.0263	0.0135
Mercury	40554-11-15 07:12 G	16533422.62	16533422.80	16533422.98	0.0280	0.0100
Mercury	40555-02-12 07:12 G	16533511.62	16533511.80	16533511.97	0.0281	0.0104
Moon	40559-04-14 15:22 G	16535033.89	16535034.14	16535034.39	0.0300	0.0024
Earth	40559-04-14 17:31 G	16535033.99	16535034.23	16535034.47	0.0300	0.0036 *
Venus	40563-09-04 10:34 G	16536637.76	16536637.94	16536638.13	0.0302	0.0141
Venus	40564-04-21 15:50 G	16536867.99	16536868.16	16536868.34	0.0300	0.0161
Mercury	40567-09-29 23:46 G	16538124.44	16538124.49	16538124.54	0.0284	0.0256
Mercury	40567-12-27 10:48 G	16538212.83	16538212.95	16538213.06	0.0283	0.0115
Mercury	40568-03-24 21:36 G	16538301.27	16538301.40	16538301.53	0.0282	0.0024
Mercury	40568-06-21 08:24 G	16538389.75	16538389.85	16538389.96	0.0281	0.0163
Moon	40572-10-10 17:02 G	16539961.97	16539962.21	16539962.45	0.0264	0.0080
Earth	40572-10-10 20:38 G	16539962.13	16539962.36	16539962.59	0.0264	0.0095 *
Venus	40578-09-28 07:26 G	16542140.71	16542140.81	16542140.91	0.0260	0.0228
Venus	40579-05-15 04:34 G	16542369.48	16542369.69	16542369.90	0.0262	0.0035
Venus	40579-12-30 02:38 G	16542598.45	16542598.61	16542598.78	0.0263	0.0163
Mercury	40584-04-03 06:14 G	16544154.60	16544154.76	16544154.93	0.0279	0.0151
Mercury	40584-07-01 06:29 G	16544243.58	16544243.77	16544243.95	0.0280	0.0053
Mercury	40584-09-28 06:14 G	16544332.69	16544332.76	16544332.84	0.0282	0.0258
Earth	40588-04-07 16:19 G	16545620.02	16545620.18	16545620.34	0.0298	0.0225
Moon	40588-04-07 18:29 G	16545620.13	16545620.27	16545620.41	0.0298	0.0239 *
Venus	40593-03-16 20:53 G	16547424.17	16547424.37	16547424.57	0.0302	0.0095
Venus	40593-11-02 01:41 G	16547654.43	16547654.57	16547654.73	0.0300	0.0206
Mars	40596-08-01 03:50 G	16548657.58	16548657.66	16548657.75	0.0288	0.0270
Mercury	40597-05-15 13:55 G	16548944.98	16548945.08	16548945.20	0.0284	0.0147
Mercury	40597-08-12 00:58 G	16549033.41	16549033.54	16549033.67	0.0283	0.0007
Mercury	40597-11-08 11:46 G	16549121.88	16549121.99	16549122.11	0.0281	0.0133

Mercury	40598-02-04 22:34 G	16549210.41	16549210.44	16549210.48	0.0280	0.0270
Moon	40601-10-07 07:41 G	16550549.79	16550549.82	16550549.89	0.0265	0.0259
Earth	40602-10-18 21:50 G	16550926.21	16550926.41	16550926.63	0.0262	0.0138
Moon	40602-10-18 23:31 G	16550926.27	16550926.48	16550926.69	0.0262	0.0149 *
Venus	40608-04-10 12:14 G	16552926.88	16552927.01	16552927.16	0.0260	0.0198
Venus	40608-11-25 09:36 G	16553155.69	16553155.90	16553156.12	0.0261	0.0007
Venus	40609-07-12 07:55 G	16553384.69	16553384.83	16553384.97	0.0263	0.0194
Mars	40612-07-25 01:26 G	16554493.27	16554493.56	16554493.85	0.0274	0.0124
Mercury	40613-08-22 05:31 G	16554886.60	16554886.73	16554886.87	0.0279	0.0201
Mercury	40613-11-19 05:46 G	16554975.55	16554975.74	16554975.93	0.0280	0.0005
Mercury	40614-02-16 05:31 G	16555064.61	16555064.73	16555064.86	0.0282	0.0208
Moon	40618-04-17 07:26 G	16556585.59	16556585.81	16556586.04	0.0301	0.0105
Earth	40618-04-17 11:02 G	16556585.74	16556585.96	16556586.19	0.0301	0.0118 *
Venus	40622-09-28 06:29 G	16558210.56	16558210.77	16558210.97	0.0302	0.0050
Venus	40623-05-16 11:02 G	16558440.86	16558440.96	16558441.08	0.0299	0.0250
Mercury	40626-10-03 17:02 G	16559677.11	16559677.21	16559677.31	0.0284	0.0180
Mercury	40626-12-31 04:05 G	16559765.54	16559765.67	16559765.80	0.0282	0.0039
Mercury	40627-03-29 14:53 G	16559854.00	16559854.12	16559854.24	0.0281	0.0100
Mercury	40627-06-26 01:41 G	16559942.51	16559942.57	16559942.64	0.0280	0.0237
Moon	40631-10-14 04:34 G	16561513.45	16561513.69	16561513.93	0.0263	0.0023
Earth	40631-10-14 06:14 G	16561513.52	16561513.76	16561514.01	0.0263	0.0037 *
Venus	40637-10-21 16:05 G	16563713.02	16563713.17	16563713.34	0.0260	0.0173
Venus	40638-06-07 13:26 G	16563941.85	16563942.06	16563942.27	0.0262	0.0022
Venus	40639-01-22 11:31 G	16564170.87	16564170.98	16564171.10	0.0263	0.0220
Mercury	40643-01-09 03:50 G	16565618.60	16565618.66	16565618.74	0.0279	0.0258
Mercury	40643-04-08 04:05 G	16565707.48	16565707.67	16565707.85	0.0280	0.0056
Mercury	40643-07-06 04:05 G	16565796.51	16565796.67	16565796.83	0.0281	0.0149
Earth	40647-04-11 05:46 G	16567171.53	16567171.74	16567171.95	0.0298	0.0153
Moon	40647-04-11 09:22 G	16567171.69	16567171.89	16567172.09	0.0298	0.0167 *
Venus	40652-04-09 14:24 G	16568996.89	16568997.10	16568997.31	0.0301	0.0009

Venus	40652-11-25 19:12 G	16569227.25	16569227.30	16569227.35	0.0299	0.0290
Mars	40654-11-10 00:29 G	16569941.37	16569941.52	16569941.68	0.0291	0.0236
Mercury	40656-02-20 20:10 G	16570409.25	16570409.34	16570409.42	0.0285	0.0216
Mercury	40656-05-19 06:58 G	16570497.67	16570497.79	16570497.92	0.0283	0.0075
Mercury	40656-08-15 17:46 G	16570586.12	16570586.24	16570586.37	0.0282	0.0067
Mercury	40656-11-12 04:34 G	16570674.61	16570674.69	16570674.79	0.0281	0.0204
Earth	40660-10-08 13:41 G	16572100.93	16572101.07	16572101.22	0.0264	0.0215
Moon	40660-10-08 16:05 G	16572101.02	16572101.17	16572101.34	0.0264	0.0202 *
Moon	40661-10-20 02:38 G	16572477.46	16572477.61	16572477.78	0.0262	0.0201
Earth	40661-10-20 05:46 G	16572477.58	16572477.74	16572477.92	0.0262	0.0193 *
Venus	40667-05-03 20:24 G	16574499.17	16574499.35	16574499.53	0.0260	0.0143
Venus	40667-12-18 17:31 G	16574728.02	16574728.23	16574728.44	0.0261	0.0051
Venus	40668-08-03 15:50 G	16574957.10	16574957.16	16574957.23	0.0263	0.0249
Mercury	40672-08-25 02:24 G	16576439.43	16576439.60	16576439.78	0.0279	0.0113
Mercury	40672-11-22 02:24 G	16576528.42	16576528.60	16576528.78	0.0281	0.0091
Moon	40677-04-18 20:53 G	16578137.19	16578137.37	16578137.57	0.0301	0.0177
Earth	40677-04-18 21:50 G	16578137.22	16578137.41	16578137.60	0.0301	0.0187 *
Venus	40681-03-04 15:50 G	16579553.08	16579553.16	16579553.26	0.0303	0.0273
Venus	40681-10-20 22:19 G	16579783.22	16579783.43	16579783.63	0.0301	0.0034
Mercury	40685-07-09 22:48 G	16581141.39	16581141.45	16581141.51	0.0285	0.0253
Mercury	40685-10-06 09:50 G	16581229.79	16581229.91	16581230.02	0.0283	0.0112
Mercury	40686-01-02 20:38 G	16581318.23	16581318.36	16581318.49	0.0282	0.0029
Mercury	40686-04-01 07:26 G	16581406.71	16581406.81	16581406.92	0.0281	0.0167
Earth	40690-10-15 12:58 G	16583064.79	16583065.04	16583065.29	0.0263	0.0016
Moon	40690-10-15 15:07 G	16583064.89	16583065.13	16583065.37	0.0263	0.0029 *
Venus	40696-11-12 22:48 G	16585285.27	16585285.45	16585285.64	0.0260	0.0120
Venus	40697-06-29 20:10 G	16585514.13	16585514.34	16585514.54	0.0262	0.0075
Mars	40700-12-19 16:19 G	16586781.94	16586782.18	16586782.42	0.0274	0.0184
Mercury	40702-01-13 00:00 G	16587171.35	16587171.50	16587171.65	0.0279	0.0177
Mercury	40702-04-12 00:00 G	16587260.31	16587260.50	16587260.69	0.0280	0.0027

Mercury	40702-07-10 00:00 G	16587349.40	16587349.50	16587349.61	0.0281	0.0231
Moon	40706-04-13 13:41 G	16588722.83	16588723.07	16588723.31	0.0299	0.0101
Earth	40706-04-13 13:41 G	16588722.84	16588723.07	16588723.31	0.0299	0.0090 *
Venus	40710-09-15 22:19 G	16590339.30	16590339.43	16590339.56	0.0303	0.0234
Venus	40711-05-04 04:34 G	16590569.49	16590569.69	16590569.90	0.0301	0.0071
Mercury	40715-02-24 12:29 G	16591961.91	16591962.02	16591962.13	0.0284	0.0152
Mercury	40715-05-23 23:17 G	16592050.34	16592050.47	16592050.60	0.0283	0.0011
Mercury	40715-08-20 10:05 G	16592138.81	16592138.92	16592139.04	0.0282	0.0130
Mercury	40715-11-16 21:07 G	16592227.34	16592227.38	16592227.42	0.0281	0.0267
Moon	40719-10-11 16:48 G	16593652.00	16593652.20	16593652.42	0.0264	0.0149
Earth	40719-10-11 18:58 G	16593652.10	16593652.29	16593652.49	0.0264	0.0163 *
Moon	40720-10-22 07:12 G	16594028.75	16594028.80	16594028.89	0.0261	0.0250
Earth	40720-10-22 10:19 G	16594028.85	16594028.93	16594029.03	0.0261	0.0242 *
Venus	40726-05-27 02:10 G	16596071.39	16596071.59	16596071.79	0.0260	0.0092
Venus	40727-01-10 23:17 G	16596300.28	16596300.47	16596300.67	0.0261	0.0102
Mercury	40731-06-01 21:50 G	16597903.31	16597903.41	16597903.50	0.0278	0.0239
Mercury	40731-08-29 21:50 G	16597992.22	16597992.41	16597992.60	0.0280	0.0036
Mercury	40731-11-26 21:36 G	16598081.26	16598081.40	16598081.56	0.0281	0.0168
Earth	40736-04-21 02:24 G	16599688.48	16599688.60	16599688.75	0.0301	0.0248
Moon	40736-04-21 05:46 G	16599688.61	16599688.74	16599688.90	0.0301	0.0238 *
Venus	40740-03-28 03:50 G	16601125.51	16601125.66	16601125.83	0.0303	0.0199
Venus	40740-11-13 10:05 G	16601355.72	16601355.92	16601356.12	0.0301	0.0107
Mars	40743-04-06 21:07 G	16602230.18	16602230.38	16602230.59	0.0291	0.0184
Mercury	40744-07-13 14:24 G	16602694.02	16602694.10	16602694.20	0.0284	0.0196
Mercury	40744-10-10 01:26 G	16602782.44	16602782.56	16602782.69	0.0283	0.0054
Mercury	40745-01-06 12:29 G	16602870.90	16602871.02	16602871.14	0.0282	0.0086
Mercury	40745-04-04 23:17 G	16602959.40	16602959.47	16602959.55	0.0281	0.0225
Earth	40749-10-17 15:36 G	16604615.91	16604616.15	16604616.39	0.0262	0.0063
Moon	40749-10-17 18:58 G	16604616.05	16604616.29	16604616.53	0.0262	0.0076 *
Venus	40755-12-07 03:36 G	16606857.45	16606857.65	16606857.86	0.0260	0.0071

Venus	40756-07-23 00:43 G	16607086.35	16607086.53	16607086.72	0.0262	0.0124
Mercury	40761-01-15 18:29 G	16608724.09	16608724.27	16608724.45	0.0279	0.0108
Mercury	40761-04-14 18:29 G	16608813.09	16608813.27	16608813.45	0.0280	0.0096
Moon	40765-04-14 11:31 G	16610273.74	16610273.98	16610274.22	0.0299	0.0045
Earth	40765-04-14 15:22 G	16610273.90	16610274.14	16610274.38	0.0299	0.0037 *
Venus	40769-10-08 08:10 G	16611911.67	16611911.84	16611912.02	0.0303	0.0164
Venus	40770-05-26 14:24 G	16612141.92	16612142.10	16612142.29	0.0301	0.0141
Mercury	40773-11-30 16:48 G	16613426.13	16613426.20	16613426.27	0.0285	0.0240
Mercury	40774-02-27 03:50 G	16613514.54	16613514.66	16613514.78	0.0284	0.0098
Mercury	40774-05-26 14:38 G	16613602.98	16613603.11	16613603.24	0.0283	0.0044
Mercury	40774-08-23 01:41 G	16613691.47	16613691.57	16613691.67	0.0282	0.0183
Moon	40778-10-12 16:34 G	16615202.97	16615203.19	16615203.42	0.0264	0.0103
Earth	40778-10-12 20:10 G	16615203.12	16615203.34	16615203.56	0.0264	0.0118 *
Venus	40784-11-01 09:07 G	16617414.81	16617414.88	16617414.98	0.0259	0.0236
Venus	40785-06-18 05:46 G	16617643.53	16617643.74	16617643.95	0.0260	0.0045
Venus	40786-02-02 02:38 G	16617872.45	16617872.61	16617872.80	0.0261	0.0151
Mars	40789-05-14 12:14 G	16619069.83	16619070.01	16619070.23	0.0273	0.0215
Mercury	40790-06-04 15:22 G	16619456.00	16619456.14	16619456.30	0.0278	0.0176
Mercury	40790-09-01 15:36 G	16619544.96	16619545.15	16619545.34	0.0280	0.0028
Mercury	40790-11-29 15:22 G	16619634.04	16619634.14	16619634.25	0.0281	0.0232
Earth	40795-04-23 01:55 G	16621239.55	16621239.58	16621239.62	0.0302	0.0297
Moon	40795-04-23 04:05 G	16621239.62	16621239.67	16621239.74	0.0302	0.0292 *
Venus	40799-04-20 12:29 G	16622697.84	16622698.02	16622698.22	0.0303	0.0132
Venus	40799-12-06 18:43 G	16622928.11	16622928.28	16622928.45	0.0301	0.0173
Mercury	40803-07-17 05:31 G	16624246.63	16624246.73	16624246.85	0.0284	0.0146
Mercury	40803-10-13 16:34 G	16624335.06	16624335.19	16624335.32	0.0283	0.0007
Mercury	40804-01-10 03:36 G	16624423.53	16624423.65	16624423.76	0.0282	0.0136
Mercury	40804-04-07 14:24 G	16624512.08	16624512.10	16624512.12	0.0280	0.0274
Moon	40808-10-18 14:10 G	16626166.86	16626167.09	16626167.32	0.0262	0.0115
Earth	40808-10-18 14:38 G	16626166.90	16626167.11	16626167.35	0.0262	0.0106 *

Venus	40814-05-14 10:05 G	16628200.81	16628200.92	16628201.04	0.0259	0.0216
Venus	40814-12-29 06:29 G	16628429.56	16628429.77	16628429.98	0.0260	0.0025
Venus	40815-08-15 03:36 G	16628658.49	16628658.65	16628658.81	0.0262	0.0170
Mercury	40819-10-22 11:46 G	16630187.91	16630187.99	16630188.07	0.0278	0.0250
Mercury	40820-01-19 11:46 G	16630276.80	16630276.99	16630277.18	0.0279	0.0048
Mercury	40820-04-17 11:31 G	16630365.83	16630365.98	16630366.14	0.0280	0.0156
Moon	40824-04-15 11:17 G	16631824.73	16631824.97	16631825.21	0.0299	0.0006
Earth	40824-04-15 12:14 G	16631824.76	16631825.01	16631825.25	0.0299	0.0008 *
Venus	40828-10-30 14:53 G	16633483.93	16633484.12	16633484.33	0.0303	0.0101
Venus	40829-06-17 20:53 G	16633714.22	16633714.37	16633714.53	0.0301	0.0204
Mars	40831-08-30 21:22 G	16634518.17	16634518.39	16634518.61	0.0292	0.0164
Mercury	40832-12-03 07:26 G	16634978.72	16634978.81	16634978.90	0.0285	0.0195
Mercury	40833-03-01 18:29 G	16635067.14	16635067.27	16635067.40	0.0284	0.0053
Mercury	40833-05-29 05:17 G	16635155.60	16635155.72	16635155.85	0.0283	0.0089
Mercury	40833-08-25 16:19 G	16635244.11	16635244.18	16635244.26	0.0281	0.0228
Earth	40837-10-13 17:46 G	16636754.01	16636754.24	16636754.48	0.0264	0.0078
Moon	40837-10-13 18:29 G	16636754.04	16636754.27	16636754.51	0.0264	0.0065 *
Venus	40843-11-24 11:46 G	16638986.85	16638986.99	16638987.13	0.0259	0.0191
Venus	40844-07-10 07:55 G	16639215.62	16639215.83	16639216.04	0.0260	0.0001
Venus	40845-02-24 05:02 G	16639444.57	16639444.71	16639444.85	0.0261	0.0195
Mercury	40849-06-07 08:10 G	16641008.68	16641008.84	16641009.02	0.0278	0.0120
Mercury	40849-09-04 08:10 G	16641097.66	16641097.84	16641098.03	0.0280	0.0084
Moon	40853-04-09 00:00 G	16642410.40	16642410.50	16642410.61	0.0298	0.0271
Earth	40853-04-09 00:14 G	16642410.42	16642410.51	16642410.61	0.0298	0.0271 *
Venus	40858-05-12 17:46 G	16644270.04	16644270.24	16644270.45	0.0303	0.0072
Venus	40858-12-28 23:31 G	16644500.36	16644500.48	16644500.63	0.0301	0.0233
Mercury	40862-04-22 09:07 G	16645710.82	16645710.88	16645710.94	0.0286	0.0247
Mercury	40862-07-19 19:55 G	16645799.22	16645799.33	16645799.46	0.0284	0.0105
Mercury	40862-10-16 06:58 G	16645887.66	16645887.79	16645887.92	0.0283	0.0039
Mercury	40863-01-12 18:00 G	16645976.15	16645976.25	16645976.35	0.0282	0.0178

Moon	40866-10-08 16:19 G	16647341.11	16647341.18	16647341.26	0.0265	0.0253
Moon	40867-10-20 07:12 G	16647717.60	16647717.80	16647718.00	0.0262	0.0150
Earth	40867-10-20 11:02 G	16647717.76	16647717.96	16647718.17	0.0262	0.0144 *
Venus	40873-06-05 11:31 G	16649772.83	16649772.98	16649773.15	0.0259	0.0173
Venus	40874-01-20 07:55 G	16650001.62	16650001.83	16650002.04	0.0260	0.0018
Venus	40874-09-06 05:02 G	16650230.59	16650230.71	16650230.84	0.0262	0.0214
Mars	40877-10-06 13:26 G	16651356.89	16651357.06	16651357.27	0.0273	0.0221
Mercury	40878-10-25 04:05 G	16651740.54	16651740.67	16651740.81	0.0278	0.0198
Mercury	40879-01-22 04:05 G	16651829.48	16651829.67	16651829.86	0.0279	0.0004
Mercury	40879-04-21 03:50 G	16651918.54	16651918.66	16651918.79	0.0280	0.0207
Earth	40883-04-17 05:17 G	16653375.48	16653375.72	16653375.96	0.0299	0.0046
Moon	40883-04-17 08:38 G	16653375.63	16653375.86	16653376.10	0.0299	0.0052 *
Venus	40887-11-22 19:26 G	16655056.11	16655056.31	16655056.52	0.0303	0.0043
Venus	40888-07-10 01:26 G	16655286.46	16655286.56	16655286.66	0.0301	0.0261
Mercury	40891-12-06 21:36 G	16656531.30	16656531.40	16656531.51	0.0285	0.0156
Mercury	40892-03-04 08:38 G	16656619.73	16656619.86	16656619.99	0.0284	0.0013
Mercury	40892-05-31 19:41 G	16656708.20	16656708.32	16656708.43	0.0283	0.0128
Mercury	40892-08-28 06:29 G	16656796.74	16656796.77	16656796.81	0.0281	0.0268
Earth	40896-10-14 13:26 G	16658304.82	16658305.06	16658305.31	0.0264	0.0040
Moon	40896-10-14 17:17 G	16658304.98	16658305.22	16658305.47	0.0264	0.0030 *
Venus	40902-12-17 12:43 G	16660558.86	16660559.03	16660559.21	0.0259	0.0149
Venus	40903-08-03 09:07 G	16660787.67	16660787.88	16660788.09	0.0260	0.0043
Venus	40904-03-19 06:14 G	16661016.68	16661016.76	16661016.85	0.0261	0.0238
Mercury	40908-03-14 00:29 G	16662472.49	16662472.52	16662472.58	0.0277	0.0268
Mercury	40908-06-11 00:43 G	16662561.34	16662561.53	16662561.71	0.0278	0.0068
Mercury	40908-09-08 00:29 G	16662650.35	16662650.52	16662650.69	0.0280	0.0135
Moon	40912-04-10 13:12 G	16663960.90	16663961.05	16663961.21	0.0298	0.0228
Earth	40912-04-10 16:34 G	16663961.05	16663961.19	16663961.35	0.0298	0.0234 *
Venus	40917-06-04 21:36 G	16665842.19	16665842.40	16665842.61	0.0303	0.0016
Venus	40918-01-21 03:22 G	16666072.59	16666072.64	16666072.70	0.0301	0.0288

Mars	40920-01-24 09:50 G	16666805.70	16666805.91	16666806.13	0.0292	0.0169
Mercury	40921-04-25 23:02 G	16667263.37	16667263.46	16667263.55	0.0286	0.0210
Mercury	40921-07-23 10:05 G	16667351.79	16667351.92	16667352.04	0.0284	0.0067
Mercury	40921-10-19 20:53 G	16667440.25	16667440.37	16667440.50	0.0283	0.0076
Mercury	40922-01-16 07:55 G	16667528.75	16667528.83	16667528.91	0.0282	0.0215
Jupiter	40925-06-18 04:05 G	16668777.22	16668777.67	16668778.12	0.0266	0.0074
Moon	40925-10-10 08:10 G	16668891.71	16668891.84	16668891.98	0.0265	0.0220
Earth	40925-10-10 12:00 G	16668891.88	16668892.00	16668892.12	0.0265	0.0231 *
Moon	40926-10-22 05:17 G	16669268.55	16669268.72	16669268.89	0.0262	0.0181
Earth	40926-10-22 05:17 G	16669268.55	16669268.72	16669268.91	0.0262	0.0180 *
Venus	40932-06-28 12:43 G	16671344.85	16671345.03	16671345.22	0.0259	0.0130
Venus	40933-02-12 09:07 G	16671573.67	16671573.88	16671574.09	0.0260	0.0062
Venus	40933-09-29 06:14 G	16671802.73	16671802.76	16671802.81	0.0262	0.0257
Mercury	40937-10-28 20:10 G	16673293.19	16673293.34	16673293.51	0.0278	0.0147
Mercury	40938-01-25 20:10 G	16673382.16	16673382.34	16673382.53	0.0279	0.0055
Mercury	40938-04-24 19:55 G	16673471.27	16673471.33	16673471.41	0.0280	0.0259
Earth	40942-04-18 21:07 G	16674926.15	16674926.38	16674926.61	0.0299	0.0083
Moon	40942-04-18 22:48 G	16674926.22	16674926.45	16674926.70	0.0299	0.0092 *
Venus	40946-04-29 15:07 G	16676398.09	16676398.13	16676398.18	0.0304	0.0296
Venus	40946-12-15 22:34 G	16676628.23	16676628.44	16676628.65	0.0302	0.0013
Mercury	40950-09-13 00:14 G	16677995.47	16677995.51	16677995.56	0.0286	0.0266
Mercury	40950-12-10 11:31 G	16678083.86	16678083.98	16678084.09	0.0285	0.0121
Mercury	40951-03-08 22:34 G	16678172.31	16678172.44	16678172.57	0.0284	0.0023
Mercury	40951-06-05 09:22 G	16678260.79	16678260.89	16678261.00	0.0283	0.0164
Earth	40955-10-17 07:26 G	16679855.56	16679855.81	16679856.06	0.0264	0.0004
Moon	40955-10-17 07:41 G	16679855.56	16679855.82	16679856.07	0.0264	0.0003 *
Venus	40962-01-08 13:55 G	16682130.88	16682131.08	16682131.27	0.0259	0.0107
Venus	40962-08-25 10:05 G	16682359.72	16682359.92	16682360.13	0.0260	0.0085
Mars	40966-03-01 16:19 G	16683644.00	16683644.18	16683644.38	0.0272	0.0220
Mercury	40967-03-17 17:02 G	16684025.09	16684025.21	16684025.33	0.0277	0.0216

Mercury	40967-06-14 16:48 G	16684114.01	16684114.20	16684114.39	0.0278	0.0016
Mercury	40967-09-11 16:19 G	16684203.05	16684203.18	16684203.33	0.0279	0.0187
Moon	40971-04-12 07:12 G	16685511.63	16685511.80	16685511.99	0.0298	0.0190
Earth	40971-04-12 08:24 G	16685511.68	16685511.85	16685512.04	0.0298	0.0197 *
Venus	40975-11-09 17:17 G	16687184.14	16687184.22	16687184.33	0.0304	0.0271
Venus	40976-06-27 00:43 G	16687414.32	16687414.53	16687414.74	0.0303	0.0040
Mercury	40980-04-28 12:43 G	16688815.94	16688816.03	16688816.14	0.0286	0.0176
Mercury	40980-07-26 00:00 G	16688904.37	16688904.50	16688904.62	0.0284	0.0033
Mercury	40980-10-22 10:48 G	16688992.83	16688992.95	16688993.07	0.0283	0.0111
Mercury	40981-01-18 21:50 G	16689081.36	16689081.41	16689081.47	0.0282	0.0251
Moon	40984-10-11 05:31 G	16690442.56	16690442.73	16690442.90	0.0265	0.0187
Earth	40984-10-11 06:00 G	16690442.59	16690442.75	16690442.92	0.0265	0.0195 *
Earth	40985-10-22 23:31 G	16690819.35	16690819.48	16690819.63	0.0262	0.0216
Moon	40985-10-23 03:36 G	16690819.51	16690819.65	16690819.79	0.0262	0.0211 *
Venus	40991-07-21 14:10 G	16692916.89	16692917.09	16692917.29	0.0259	0.0088
Venus	40992-03-06 10:19 G	16693145.74	16693145.93	16693146.13	0.0260	0.0105
Mercury	40996-10-31 12:43 G	16694845.86	16694846.03	16694846.22	0.0278	0.0093
Mercury	40997-01-28 12:29 G	16694934.85	16694935.02	16694935.20	0.0279	0.0110

42ND MILLENNIUM CE

This is a list of transits visible from Saturn in the 42nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	41001-04-20 11:02 G		16696476.74	16696476.96	16696477.19	0.0299	0.0136	

Earth	41001-04-20 13:55 G	16696476.86	16696477.08	16696477.31	0.0299	0.0123	*
Venus	41005-05-22 18:58 G	16697970.17	16697970.29	16697970.42	0.0304	0.0240	
Venus	41006-01-08 02:10 G	16698200.38	16698200.59	16698200.79	0.0302	0.0069	
Mars	41008-06-18 16:34 G	16699093.00	16699093.19	16699093.41	0.0293	0.0186	
Mercury	41009-09-16 14:10 G	16699548.02	16699548.09	16699548.17	0.0286	0.0230	
Mercury	41009-12-14 01:26 G	16699636.43	16699636.56	16699636.68	0.0285	0.0085	
Mercury	41010-03-12 12:29 G	16699724.89	16699725.02	16699725.14	0.0284	0.0059	
Mercury	41010-06-08 23:17 G	16699813.38	16699813.47	16699813.57	0.0283	0.0200	
Moon	41014-10-18 21:50 G	16701406.17	16701406.41	16701406.66	0.0264	0.0032	
Earth	41014-10-19 01:26 G	16701406.32	16701406.56	16701406.81	0.0264	0.0034	*
Venus	41020-06-16 19:41 G	16703474.29	16703474.32	16703474.37	0.0258	0.0253	
Venus	41021-01-31 15:36 G	16703702.94	16703703.15	16703703.36	0.0259	0.0064	
Venus	41021-09-17 12:00 G	16703931.82	16703932.00	16703932.19	0.0260	0.0130	
Mercury	41026-03-21 09:50 G	16705577.76	16705577.91	16705578.07	0.0277	0.0159	
Mercury	41026-06-18 09:36 G	16705666.72	16705666.90	16705667.09	0.0278	0.0042	
Mercury	41026-09-15 09:22 G	16705755.81	16705755.89	16705755.99	0.0279	0.0244	
Earth	41030-04-14 02:38 G	16707062.41	16707062.61	16707062.83	0.0297	0.0155	
Moon	41030-04-14 05:46 G	16707062.54	16707062.74	16707062.95	0.0297	0.0143	*
Venus	41034-12-02 21:36 G	16708756.25	16708756.40	16708756.55	0.0304	0.0213	
Venus	41035-07-21 04:34 G	16708986.50	16708986.69	16708986.89	0.0303	0.0097	
Mercury	41039-02-03 15:36 G	16710280.14	16710280.15	16710280.17	0.0287	0.0285	
Mercury	41039-05-03 02:53 G	16710368.50	16710368.62	16710368.73	0.0286	0.0139	
Mercury	41039-07-30 13:55 G	16710456.95	16710457.08	16710457.21	0.0285	0.0009	
Mercury	41039-10-27 00:43 G	16710545.43	16710545.53	16710545.65	0.0283	0.0148	
Earth	41043-10-14 00:43 G	16711993.33	16711993.53	16711993.73	0.0265	0.0158	
Moon	41043-10-14 03:50 G	16711993.47	16711993.66	16711993.87	0.0265	0.0152	*
Earth	41044-10-24 18:29 G	16712370.22	16712370.27	16712370.34	0.0262	0.0254	
Moon	41044-10-24 19:55 G	16712370.24	16712370.33	16712370.42	0.0262	0.0244	*
Venus	41049-12-27 20:38 G	16714260.28	16714260.36	16714260.46	0.0258	0.0232	
Venus	41050-08-13 16:19 G	16714488.97	16714489.18	16714489.40	0.0259	0.0043	

Venus	41051-03-30 12:43 G	16714717.86	16714718.03	16714718.21	0.0261	0.0151
Mars	41054-07-25 23:46 G	16715931.33	16715931.49	16715931.66	0.0272	0.0234
Mercury	41055-08-08 06:14 G	16716309.67	16716309.76	16716309.87	0.0277	0.0232
Mercury	41055-11-05 06:14 G	16716398.57	16716398.76	16716398.95	0.0278	0.0032
Mercury	41056-02-02 05:46 G	16716487.60	16716487.74	16716487.90	0.0279	0.0170
Moon	41060-04-21 06:14 G	16718027.57	16718027.76	16718027.95	0.0299	0.0182
Earth	41060-04-21 09:07 G	16718027.68	16718027.88	16718028.08	0.0299	0.0167 *
Venus	41064-06-13 23:46 G	16719542.33	16719542.49	16719542.67	0.0303	0.0182
Venus	41065-01-30 06:43 G	16719772.59	16719772.78	16719772.97	0.0302	0.0128
Mercury	41068-09-19 04:19 G	16721100.59	16721100.68	16721100.78	0.0286	0.0191
Mercury	41068-12-16 15:22 G	16721189.02	16721189.14	16721189.27	0.0285	0.0047
Mercury	41069-03-15 02:24 G	16721277.48	16721277.60	16721277.73	0.0284	0.0098
Mercury	41069-06-11 13:26 G	16721366.00	16721366.06	16721366.13	0.0283	0.0239
Moon	41073-10-19 19:41 G	16722957.09	16722957.32	16722957.56	0.0264	0.0070
Earth	41073-10-19 21:22 G	16722957.15	16722957.39	16722957.63	0.0264	0.0073 *
Venus	41079-07-09 22:34 G	16725046.33	16725046.44	16725046.58	0.0258	0.0209
Venus	41080-02-23 18:29 G	16725275.06	16725275.27	16725275.49	0.0259	0.0019
Venus	41080-10-09 15:22 G	16725503.98	16725504.14	16725504.29	0.0261	0.0176
Mercury	41085-03-24 03:50 G	16727130.48	16727130.66	16727130.84	0.0277	0.0093
Mercury	41085-06-21 03:36 G	16727219.48	16727219.65	16727219.83	0.0278	0.0108
Earth	41089-04-15 00:43 G	16728613.30	16728613.53	16728613.75	0.0297	0.0106
Moon	41089-04-15 03:22 G	16728613.40	16728613.64	16728613.88	0.0297	0.0092 *
Venus	41093-12-25 03:50 G	16730328.48	16730328.66	16730328.85	0.0304	0.0151
Venus	41094-08-12 10:34 G	16730558.77	16730558.94	16730559.13	0.0302	0.0158
Mars	41096-11-11 07:41 G	16731380.62	16731380.82	16731381.04	0.0293	0.0183
Mercury	41098-02-06 06:00 G	16731832.69	16731832.75	16731832.82	0.0287	0.0243
Mercury	41098-05-05 17:02 G	16731921.09	16731921.21	16731921.34	0.0286	0.0097
Mercury	41098-08-02 04:05 G	16732009.55	16732009.67	16732009.80	0.0285	0.0048
Mercury	41098-10-29 15:07 G	16732098.04	16732098.13	16732098.23	0.0283	0.0190
Earth	41102-10-15 21:22 G	16733544.18	16733544.39	16733544.62	0.0265	0.0116

Moon	41102-10-15 23:31 G	16733544.26	16733544.48	16733544.72	0.0265	0.0113	*
Venus	41109-01-20 00:29 G	16735832.38	16735832.52	16735832.68	0.0259	0.0186	
Venus	41109-09-05 20:38 G	16736061.14	16736061.36	16736061.57	0.0260	0.0006	
Venus	41110-04-22 17:17 G	16736290.08	16736290.22	16736290.36	0.0261	0.0199	
Mercury	41114-08-12 01:26 G	16737862.40	16737862.56	16737862.72	0.0277	0.0158	
Mercury	41114-11-09 01:12 G	16737951.36	16737951.55	16737951.73	0.0278	0.0042	
Mercury	41115-02-06 00:43 G	16738040.44	16738040.53	16738040.62	0.0279	0.0243	
Earth	41119-04-24 09:36 G	16739578.75	16739578.90	16739579.08	0.0299	0.0223	
Moon	41119-04-24 11:02 G	16739578.83	16739578.96	16739579.11	0.0299	0.0239	*
Venus	41123-07-08 07:55 G	16741114.64	16741114.83	16741115.03	0.0303	0.0116	
Venus	41124-02-23 14:24 G	16741344.94	16741345.10	16741345.27	0.0302	0.0192	
Mercury	41127-09-23 18:58 G	16742653.18	16742653.29	16742653.40	0.0286	0.0146	
Mercury	41127-12-21 06:00 G	16742741.62	16742741.75	16742741.88	0.0285	0.0004	
Mercury	41128-03-18 17:02 G	16742830.10	16742830.21	16742830.32	0.0284	0.0142	
Earth	41132-10-21 19:26 G	16744508.09	16744508.31	16744508.53	0.0264	0.0116	
Moon	41132-10-21 22:05 G	16744508.20	16744508.42	16744508.64	0.0264	0.0110	*
Venus	41138-08-02 03:22 G	16746618.48	16746618.64	16746618.81	0.0259	0.0161	
Venus	41139-03-18 23:31 G	16746847.27	16746847.48	16746847.69	0.0260	0.0031	
Venus	41139-11-02 20:24 G	16747076.25	16747076.35	16747076.46	0.0261	0.0226	
Mercury	41143-12-29 23:31 G	16748594.37	16748594.48	16748594.61	0.0276	0.0214	
Mercury	41144-03-27 23:17 G	16748683.28	16748683.47	16748683.66	0.0277	0.0016	
Mercury	41144-06-24 23:02 G	16748772.32	16748772.46	16748772.60	0.0278	0.0186	
Moon	41148-04-17 01:12 G	16750164.31	16750164.55	16750164.80	0.0297	0.0032	
Earth	41148-04-17 03:22 G	16750164.41	16750164.64	16750164.89	0.0297	0.0048	*
Venus	41153-01-17 12:58 G	16751900.84	16751901.04	16751901.24	0.0304	0.0083	
Venus	41153-09-04 19:12 G	16752131.17	16752131.30	16752131.45	0.0302	0.0225	
Mercury	41157-02-09 20:53 G	16753385.28	16753385.37	16753385.47	0.0287	0.0194	
Mercury	41157-05-09 08:10 G	16753473.71	16753473.84	16753473.96	0.0286	0.0049	
Mercury	41157-08-05 19:12 G	16753562.18	16753562.30	16753562.42	0.0284	0.0096	
Mercury	41157-11-02 06:14 G	16753650.69	16753650.76	16753650.83	0.0283	0.0239	

Moon	41161-10-16 18:43 G	16755095.04	16755095.28	16755095.53	0.0265	0.0072
Earth	41161-10-16 21:22 G	16755095.15	16755095.39	16755095.63	0.0265	0.0070 *
Venus	41168-02-12 06:29 G	16757404.59	16757404.77	16757404.95	0.0259	0.0135
Venus	41168-09-28 02:38 G	16757633.41	16757633.61	16757633.82	0.0260	0.0058
Venus	41169-05-14 23:31 G	16757862.44	16757862.48	16757862.54	0.0261	0.0252
Mercury	41173-05-17 21:50 G	16759326.39	16759326.41	16759326.45	0.0276	0.0272
Mercury	41173-08-14 21:36 G	16759415.22	16759415.40	16759415.59	0.0277	0.0074
Mercury	41173-11-11 21:07 G	16759504.22	16759504.38	16759504.56	0.0278	0.0128
Moon	41177-04-11 03:50 G	16760750.64	16760750.66	16760750.68	0.0295	0.0294
Earth	41178-04-25 15:50 G	16761130.09	16761130.16	16761130.23	0.0300	0.0286
Venus	41182-07-30 19:12 G	16762687.09	16762687.30	16762687.51	0.0303	0.0043
Venus	41183-03-18 01:26 G	16762917.46	16762917.56	16762917.66	0.0301	0.0263
Mars	41185-04-07 12:14 G	16763668.79	16763669.01	16763669.23	0.0293	0.0160
Mercury	41186-06-29 23:02 G	16764117.39	16764117.46	16764117.53	0.0287	0.0239
Mercury	41186-09-26 10:19 G	16764205.81	16764205.93	16764206.05	0.0286	0.0093
Mercury	41186-12-23 21:22 G	16764294.26	16764294.39	16764294.52	0.0285	0.0052
Mercury	41187-03-22 08:24 G	16764382.76	16764382.85	16764382.94	0.0284	0.0195
Earth	41190-10-11 22:19 G	16765682.38	16765682.43	16765682.50	0.0268	0.0259
Moon	41190-10-12 01:12 G	16765682.49	16765682.55	16765682.62	0.0268	0.0257 *
Earth	41191-10-23 20:53 G	16766059.18	16766059.37	16766059.56	0.0264	0.0165
Moon	41191-10-24 00:00 G	16766059.30	16766059.50	16766059.71	0.0264	0.0157 *
Venus	41197-08-24 10:19 G	16768190.74	16768190.93	16768191.12	0.0259	0.0109
Venus	41198-04-10 06:29 G	16768419.57	16768419.77	16768419.98	0.0260	0.0085
Mars	41201-03-24 13:12 G	16769499.00	16769499.05	16769499.14	0.0269	0.0263
Mercury	41203-01-01 20:53 G	16770147.20	16770147.37	16770147.54	0.0276	0.0122
Mercury	41203-03-31 20:24 G	16770236.17	16770236.35	16770236.54	0.0277	0.0078
Mercury	41203-06-28 20:10 G	16770325.33	16770325.34	16770325.35	0.0279	0.0278
Moon	41207-04-19 09:36 G	16771715.66	16771715.90	16771716.14	0.0297	0.0039
Earth	41207-04-19 13:12 G	16771715.81	16771716.05	16771716.29	0.0298	0.0022 *
Venus	41212-02-10 02:10 G	16773473.38	16773473.59	16773473.80	0.0303	0.0006

Venus	41212-09-27 08:10 G	16773703.83	16773703.84	16773703.86	0.0301	0.0300
Mercury	41215-11-17 01:26 G	16774849.54	16774849.56	16774849.59	0.0288	0.0283
Mercury	41216-02-13 12:43 G	16774937.91	16774938.03	16774938.14	0.0287	0.0135
Mercury	41216-05-11 23:46 G	16775026.36	16775026.49	16775026.62	0.0285	0.0010
Mercury	41216-08-08 10:48 G	16775114.84	16775114.95	16775115.06	0.0284	0.0154
Moon	41220-10-17 21:22 G	16776646.15	16776646.39	16776646.64	0.0265	0.0025
Earth	41220-10-18 00:43 G	16776646.28	16776646.53	16776646.78	0.0265	0.0018 *
Venus	41227-03-06 14:24 G	16778976.90	16778977.10	16778977.31	0.0259	0.0081
Venus	41227-10-21 11:02 G	16779205.77	16779205.96	16779206.16	0.0260	0.0113
Mercury	41232-05-20 19:55 G	16780879.19	16780879.33	16780879.48	0.0276	0.0174
Mercury	41232-08-17 19:41 G	16780968.13	16780968.32	16780968.51	0.0278	0.0025
Mercury	41232-11-14 19:12 G	16781057.20	16781057.30	16781057.41	0.0279	0.0227
Earth	41236-04-12 12:43 G	16782301.90	16782302.03	16782302.18	0.0296	0.0238
Moon	41236-04-12 16:05 G	16782302.01	16782302.17	16782302.34	0.0296	0.0220 *
Venus	41241-01-04 02:24 G	16784029.52	16784029.60	16784029.70	0.0304	0.0273
Venus	41241-08-22 09:50 G	16784259.70	16784259.91	16784260.12	0.0302	0.0038
Mercury	41245-07-02 15:07 G	16785670.03	16785670.13	16785670.23	0.0287	0.0176
Mercury	41245-09-29 02:10 G	16785758.47	16785758.59	16785758.72	0.0285	0.0031
Mercury	41245-12-26 13:12 G	16785846.94	16785847.05	16785847.17	0.0284	0.0114
Mercury	41246-03-25 00:14 G	16785935.46	16785935.51	16785935.57	0.0283	0.0257
Earth	41249-10-13 03:22 G	16787233.49	16787233.64	16787233.81	0.0267	0.0204
Moon	41249-10-13 06:29 G	16787233.62	16787233.77	16787233.94	0.0267	0.0206 *
Moon	41250-10-25 00:14 G	16787610.36	16787610.51	16787610.68	0.0264	0.0206
Earth	41250-10-25 01:26 G	16787610.44	16787610.56	16787610.71	0.0264	0.0220 *
Venus	41256-01-30 23:02 G	16789534.40	16789534.46	16789534.54	0.0259	0.0244
Venus	41256-09-15 19:12 G	16789763.09	16789763.30	16789763.51	0.0260	0.0053
Venus	41257-05-02 15:50 G	16789991.98	16789992.16	16789992.34	0.0261	0.0142
Mercury	41261-10-07 19:41 G	16791611.21	16791611.32	16791611.44	0.0276	0.0218
Mercury	41262-01-04 19:26 G	16791700.12	16791700.31	16791700.50	0.0277	0.0020
Mercury	41262-04-03 18:58 G	16791789.15	16791789.29	16791789.44	0.0278	0.0181

Earth	41266-04-21 03:50 G	16793267.43	16793267.66	16793267.89	0.0298	0.0100
Moon	41266-04-21 04:05 G	16793267.46	16793267.67	16793267.89	0.0298	0.0117 *
Venus	41270-07-17 11:31 G	16794815.85	16794815.98	16794816.12	0.0304	0.0232
Venus	41271-03-04 18:43 G	16795046.08	16795046.28	16795046.48	0.0303	0.0079
Mars	41273-09-01 12:58 G	16795957.79	16795958.04	16795958.30	0.0293	0.0090
Mercury	41274-11-19 18:00 G	16796402.17	16796402.25	16796402.33	0.0287	0.0215
Mercury	41275-02-16 05:02 G	16796490.59	16796490.71	16796490.84	0.0286	0.0068
Mercury	41275-05-15 16:05 G	16796579.05	16796579.17	16796579.30	0.0285	0.0078
Mercury	41275-08-12 03:07 G	16796667.56	16796667.63	16796667.72	0.0284	0.0221
Earth	41279-10-20 07:26 G	16798197.56	16798197.81	16798198.05	0.0265	0.0039
Moon	41279-10-20 08:38 G	16798197.62	16798197.86	16798198.10	0.0265	0.0029 *
Venus	41285-08-12 03:50 G	16800320.56	16800320.66	16800320.79	0.0259	0.0215
Venus	41286-03-29 00:14 G	16800549.30	16800549.51	16800549.72	0.0260	0.0023
Venus	41286-11-12 20:53 G	16800778.22	16800778.37	16800778.54	0.0261	0.0173
Mars	41289-08-19 05:02 G	16801788.47	16801788.71	16801788.98	0.0269	0.0170
Mercury	41291-02-24 19:41 G	16802343.27	16802343.32	16802343.37	0.0276	0.0264
Mercury	41291-05-24 19:12 G	16802432.12	16802432.30	16802432.49	0.0277	0.0066
Mercury	41291-08-21 18:58 G	16802521.12	16802521.29	16802521.46	0.0278	0.0135
Moon	41295-04-15 05:46 G	16803853.52	16803853.74	16803853.96	0.0296	0.0139
Earth	41295-04-15 06:43 G	16803853.57	16803853.78	16803853.99	0.0296	0.0155 *
Venus	41300-01-27 21:36 G	16805602.24	16805602.40	16805602.57	0.0303	0.0182
Venus	41300-09-15 04:34 G	16805832.50	16805832.69	16805832.88	0.0302	0.0127
Mercury	41304-04-08 20:53 G	16807134.31	16807134.37	16807134.43	0.0287	0.0250
Mercury	41304-07-06 07:55 G	16807222.72	16807222.83	16807222.96	0.0286	0.0104
Mercury	41304-10-02 19:12 G	16807311.17	16807311.30	16807311.43	0.0285	0.0042
Mercury	41304-12-30 06:00 G	16807399.66	16807399.75	16807399.85	0.0284	0.0186
Moon	41308-10-15 10:48 G	16808784.75	16808784.95	16808785.17	0.0267	0.0150
Earth	41308-10-15 12:00 G	16808784.80	16808785.00	16808785.22	0.0267	0.0145 *
Moon	41309-10-27 06:00 G	16809161.73	16809161.75	16809161.77	0.0264	0.0262
Venus	41315-02-23 09:22 G	16811106.74	16811106.89	16811107.03	0.0259	0.0187

Venus	41315-10-10 05:46 G	16811335.52	16811335.74	16811335.95	0.0260	0.0008
Venus	41316-05-26 02:38 G	16811564.48	16811564.61	16811564.75	0.0261	0.0202
Mercury	41320-10-11 19:41 G	16813164.14	16813164.32	16813164.49	0.0276	0.0107
Mercury	41321-01-08 19:12 G	16813253.12	16813253.30	16813253.48	0.0278	0.0094
Earth	41325-04-23 23:31 G	16814819.31	16814819.48	16814819.68	0.0298	0.0188
Moon	41325-04-24 03:07 G	16814819.47	16814819.63	16814819.81	0.0298	0.0204 *
Venus	41329-08-10 07:41 G	16816388.64	16816388.82	16816389.02	0.0303	0.0139
Venus	41330-03-28 14:24 G	16816618.93	16816619.10	16816619.28	0.0302	0.0171
Mercury	41333-08-27 00:00 G	16817866.49	16817866.50	16817866.51	0.0288	0.0286
Mercury	41333-11-23 11:02 G	16817954.85	16817954.96	16817955.08	0.0287	0.0139
Mercury	41334-02-19 22:19 G	16818043.30	16818043.43	16818043.56	0.0285	0.0011
Mercury	41334-05-19 09:07 G	16818131.78	16818131.88	16818132.00	0.0284	0.0152
Earth	41338-10-22 16:48 G	16819748.98	16819749.20	16819749.43	0.0265	0.0099
Moon	41338-10-22 20:38 G	16819749.13	16819749.36	16819749.60	0.0265	0.0087 *
Venus	41344-09-04 14:53 G	16821892.95	16821893.12	16821893.29	0.0259	0.0155
Venus	41345-04-21 11:17 G	16822121.76	16822121.97	16822122.19	0.0260	0.0039
Venus	41345-12-06 08:24 G	16822350.77	16822350.85	16822350.95	0.0261	0.0235
Mercury	41350-02-28 19:41 G	16823896.16	16823896.32	16823896.48	0.0277	0.0150
Mercury	41350-05-28 19:26 G	16823985.12	16823985.31	16823985.50	0.0278	0.0050
Mercury	41350-08-25 18:58 G	16824074.22	16824074.29	16824074.38	0.0279	0.0252
Moon	41354-04-18 00:14 G	16825405.27	16825405.51	16825405.75	0.0296	0.0051
Earth	41354-04-18 03:36 G	16825405.42	16825405.65	16825405.89	0.0296	0.0067 *
Venus	41359-02-20 18:58 G	16827175.09	16827175.29	16827175.49	0.0303	0.0087
Venus	41359-10-09 01:12 G	16827405.41	16827405.55	16827405.70	0.0301	0.0221
Mars	41362-01-28 07:26 G	16828247.54	16828247.81	16828248.08	0.0292	0.0002
Mercury	41363-04-12 14:24 G	16828687.00	16828687.10	16828687.20	0.0286	0.0170
Mercury	41363-07-10 01:26 G	16828775.43	16828775.56	16828775.69	0.0285	0.0024
Mercury	41363-10-06 12:29 G	16828863.90	16828864.02	16828864.14	0.0284	0.0120
Mercury	41364-01-02 23:31 G	16828952.43	16828952.48	16828952.52	0.0283	0.0263
Moon	41367-10-17 19:41 G	16830336.10	16830336.32	16830336.56	0.0267	0.0090

Earth	41367-10-17 23:31 G	16830336.24	16830336.48	16830336.72	0.0267	0.0082	*
Venus	41374-03-17 20:10 G	16832679.16	16832679.34	16832679.53	0.0260	0.0127	
Venus	41374-11-01 16:48 G	16832908.00	16832908.20	16832908.41	0.0261	0.0068	
Mars	41378-01-15 09:36 G	16834078.58	16834078.90	16834079.21	0.0270	0.0062	
Mercury	41379-07-18 19:55 G	16834628.20	16834628.33	16834628.47	0.0276	0.0191	
Mercury	41379-10-15 19:41 G	16834717.13	16834717.32	16834717.52	0.0277	0.0011	
Mercury	41380-01-12 19:26 G	16834806.19	16834806.31	16834806.43	0.0278	0.0211	
Earth	41384-04-25 22:19 G	16836371.36	16836371.43	16836371.52	0.0298	0.0280	
Moon	41384-04-26 00:58 G	16836371.51	16836371.54	16836371.58	0.0298	0.0295	*
Venus	41388-09-02 06:14 G	16837961.55	16837961.76	16837961.97	0.0303	0.0040	
Venus	41389-04-20 12:29 G	16838191.93	16838192.02	16838192.12	0.0301	0.0266	
Mercury	41392-08-29 17:46 G	16839419.15	16839419.24	16839419.33	0.0287	0.0202	
Mercury	41392-11-26 04:48 G	16839507.57	16839507.70	16839507.83	0.0286	0.0056	
Mercury	41393-02-22 15:50 G	16839596.04	16839596.16	16839596.28	0.0285	0.0089	
Mercury	41393-05-22 02:53 G	16839684.55	16839684.62	16839684.69	0.0283	0.0233	
Earth	41396-10-12 04:19 G	16840923.68	16840923.68	16840923.70	0.0268	0.0268	
Moon	41396-10-12 07:41 G	16840923.82	16840923.82	16840923.85	0.0268	0.0268	
Earth	41397-10-24 04:34 G	16841300.50	16841300.69	16841300.89	0.0265	0.0162	
Moon	41397-10-24 05:17 G	16841300.52	16841300.72	16841300.94	0.0265	0.0150	*
Venus	41403-09-29 02:10 G	16843465.40	16843465.59	16843465.79	0.0260	0.0095	
Venus	41404-05-14 23:02 G	16843694.26	16843694.46	16843694.66	0.0261	0.0100	
Mercury	41408-12-05 20:24 G	16845360.25	16845360.35	16845360.45	0.0276	0.0232	
Mercury	41409-03-04 20:10 G	16845449.15	16845449.34	16845449.53	0.0277	0.0033	
Mercury	41409-06-01 19:41 G	16845538.18	16845538.32	16845538.48	0.0279	0.0169	
Moon	41413-04-21 00:29 G	16846957.28	16846957.52	16846957.75	0.0297	0.0040	
Earth	41413-04-21 02:38 G	16846957.37	16846957.61	16846957.86	0.0297	0.0025	*
Venus	41417-07-29 10:48 G	16848517.92	16848517.95	16848517.98	0.0304	0.0299	
Venus	41418-03-16 17:46 G	16848748.03	16848748.24	16848748.46	0.0302	0.0014	
Mercury	41422-01-17 20:53 G	16850151.30	16850151.37	16850151.45	0.0287	0.0233	
Mercury	41422-04-16 08:10 G	16850239.72	16850239.84	16850239.96	0.0286	0.0086	

Mercury	41422-07-13 19:12 G	16850328.17	16850328.30	16850328.43	0.0284	0.0059
Mercury	41422-10-10 06:14 G	16850416.67	16850416.76	16850416.85	0.0283	0.0202
Moon	41426-10-20 10:34 G	16851887.70	16851887.94	16851888.18	0.0266	0.0024
Earth	41426-10-20 12:00 G	16851887.75	16851888.00	16851888.25	0.0266	0.0018 *
Venus	41432-08-24 11:17 G	16854022.96	16854022.97	16854023.00	0.0259	0.0258
Venus	41433-04-10 07:41 G	16854251.61	16854251.82	16854252.02	0.0260	0.0066
Venus	41433-11-25 04:19 G	16854480.50	16854480.68	16854480.87	0.0261	0.0130
Mercury	41438-04-24 20:24 G	16856092.35	16856092.35	16856092.36	0.0276	0.0275
Mercury	41438-07-22 20:10 G	16856181.16	16856181.34	16856181.53	0.0277	0.0076
Mercury	41438-10-19 19:55 G	16856270.16	16856270.33	16856270.50	0.0278	0.0125
Earth	41442-04-15 07:26 G	16857543.66	16857543.81	16857543.96	0.0295	0.0227
Moon	41442-04-15 09:22 G	16857543.73	16857543.89	16857544.08	0.0295	0.0210 *
Venus	41447-02-08 22:05 G	16859304.30	16859304.42	16859304.54	0.0304	0.0251
Venus	41447-09-27 05:02 G	16859534.50	16859534.71	16859534.91	0.0302	0.0059
Mars	41450-06-26 09:36 G	16860537.66	16860537.90	16860538.15	0.0292	0.0118
Mercury	41451-06-07 00:29 G	16860883.47	16860883.52	16860883.57	0.0288	0.0264
Mercury	41451-09-03 11:31 G	16860971.87	16860971.98	16860972.10	0.0286	0.0117
Mercury	41451-11-30 22:34 G	16861060.32	16861060.44	16861060.57	0.0285	0.0031
Mercury	41452-02-27 09:36 G	16861148.80	16861148.90	16861149.01	0.0284	0.0173
Earth	41455-10-15 17:46 G	16862475.09	16862475.24	16862475.41	0.0268	0.0203
Moon	41455-10-15 19:55 G	16862475.18	16862475.33	16862475.51	0.0268	0.0203 *
Moon	41456-10-26 13:41 G	16862851.93	16862852.07	16862852.23	0.0264	0.0211
Earth	41456-10-26 16:34 G	16862852.08	16862852.19	16862852.33	0.0264	0.0225 *
Venus	41462-03-06 16:34 G	16864809.10	16864809.19	16864809.31	0.0259	0.0227
Venus	41462-10-21 13:12 G	16865037.84	16865038.05	16865038.26	0.0260	0.0034
Venus	41463-06-07 10:05 G	16865266.76	16865266.92	16865267.09	0.0261	0.0161
Mars	41466-06-13 12:14 G	16866368.69	16866369.01	16866369.33	0.0270	0.0048
Mercury	41467-12-09 20:10 G	16866913.17	16866913.34	16866913.51	0.0277	0.0121
Mercury	41468-03-07 19:55 G	16867002.15	16867002.33	16867002.51	0.0278	0.0081
Earth	41472-04-23 00:14 G	16868509.29	16868509.51	16868509.74	0.0298	0.0114

Moon	41472-04-23 01:41 G	16868509.36	16868509.57	16868509.79	0.0298	0.0131	*
Venus	41476-08-21 09:22 G	16870090.74	16870090.89	16870091.06	0.0303	0.0200	
Venus	41477-04-08 16:34 G	16870320.99	16870321.19	16870321.38	0.0302	0.0110	
Mercury	41481-01-20 14:53 G	16871704.02	16871704.12	16871704.24	0.0286	0.0147	
Mercury	41481-04-19 02:10 G	16871792.46	16871792.59	16871792.71	0.0285	0.0009	
Mercury	41481-07-16 12:58 G	16871880.93	16871881.04	16871881.16	0.0284	0.0143	
Earth	41485-10-22 00:43 G	16873439.29	16873439.53	16873439.77	0.0265	0.0046	
Moon	41485-10-22 03:07 G	16873439.40	16873439.63	16873439.87	0.0265	0.0038	*
Venus	41491-09-16 21:50 G	16875595.28	16875595.41	16875595.55	0.0259	0.0199	
Venus	41492-05-02 18:14 G	16875824.05	16875824.26	16875824.47	0.0260	0.0006	
Venus	41492-12-17 14:53 G	16876052.99	16876053.12	16876053.28	0.0261	0.0191	
Mercury	41497-04-27 19:41 G	16877645.17	16877645.32	16877645.48	0.0276	0.0168	
Mercury	41497-07-25 19:26 G	16877734.12	16877734.31	16877734.50	0.0278	0.0034	
Mercury	41497-10-22 19:12 G	16877823.21	16877823.30	16877823.40	0.0279	0.0236	
Moon	41501-04-18 00:43 G	16879095.31	16879095.53	16879095.76	0.0295	0.0127	
Earth	41501-04-18 02:53 G	16879095.42	16879095.62	16879095.84	0.0295	0.0145	*
Venus	41506-03-04 20:10 G	16880877.16	16880877.34	16880877.53	0.0303	0.0152	
Venus	41506-10-21 02:53 G	16881107.44	16881107.62	16881107.80	0.0302	0.0157	
Mercury	41510-06-10 18:14 G	16882436.16	16882436.26	16882436.36	0.0287	0.0179	
Mercury	41510-09-07 05:17 G	16882524.60	16882524.72	16882524.85	0.0286	0.0034	
Mercury	41510-12-04 16:19 G	16882613.06	16882613.18	16882613.30	0.0284	0.0112	
Mercury	41511-03-03 03:22 G	16882701.59	16882701.64	16882701.70	0.0283	0.0254	
Moon	41514-10-18 04:05 G	16884026.47	16884026.67	16884026.89	0.0267	0.0143	
Earth	41514-10-18 06:43 G	16884026.58	16884026.78	16884027.00	0.0267	0.0138	*
Venus	41521-03-30 02:53 G	16886381.46	16886381.62	16886381.79	0.0259	0.0168	
Venus	41521-11-13 23:17 G	16886610.26	16886610.47	16886610.69	0.0260	0.0025	
Venus	41522-06-30 20:10 G	16886839.24	16886839.34	16886839.46	0.0261	0.0222	
Mercury	41526-09-15 19:12 G	16888377.19	16888377.30	16888377.42	0.0276	0.0216	
Mercury	41526-12-13 18:58 G	16888466.10	16888466.29	16888466.48	0.0277	0.0016	
Mercury	41527-03-12 18:43 G	16888555.14	16888555.28	16888555.42	0.0279	0.0187	

Earth	41531-04-26 18:29 G	16890061.09	16890061.27	16890061.45	0.0298	0.0197
Moon	41531-04-26 22:05 G	16890061.26	16890061.42	16890061.60	0.0298	0.0215 *
Venus	41535-09-15 06:14 G	16891663.57	16891663.76	16891663.96	0.0303	0.0105
Venus	41536-05-02 12:43 G	16891893.89	16891894.03	16891894.19	0.0302	0.0204
Mars	41538-11-22 08:38 G	16892827.70	16892827.86	16892828.05	0.0291	0.0218
Mercury	41539-10-28 21:22 G	16893168.31	16893168.39	16893168.48	0.0287	0.0212
Mercury	41540-01-25 08:24 G	16893256.73	16893256.85	16893256.98	0.0285	0.0066
Mercury	41540-04-22 19:26 G	16893345.19	16893345.31	16893345.44	0.0284	0.0080
Mercury	41540-07-20 06:29 G	16893433.69	16893433.77	16893433.85	0.0283	0.0222
Earth	41544-10-24 11:46 G	16894990.76	16894990.99	16894991.22	0.0265	0.0107
Moon	41544-10-24 15:07 G	16894990.90	16894991.13	16894991.37	0.0265	0.0097 *
Venus	41550-10-10 07:12 G	16897167.62	16897167.80	16897167.98	0.0259	0.0142
Venus	41551-05-27 03:36 G	16897396.44	16897396.65	16897396.86	0.0260	0.0052
Venus	41552-01-11 00:29 G	16897625.46	16897625.52	16897625.59	0.0262	0.0248
Mars	41554-11-08 23:31 G	16898658.21	16898658.48	16898658.78	0.0271	0.0136
Mercury	41556-02-02 18:00 G	16899109.22	16899109.25	16899109.29	0.0276	0.0270
Mercury	41556-05-01 17:46 G	16899198.06	16899198.24	16899198.43	0.0277	0.0070
Mercury	41556-07-29 17:31 G	16899287.06	16899287.23	16899287.40	0.0278	0.0132
Moon	41560-04-19 14:38 G	16900646.88	16900647.11	16900647.35	0.0296	0.0053
Earth	41560-04-19 18:00 G	16900647.02	16900647.25	16900647.49	0.0296	0.0069 *
Venus	41565-03-27 15:50 G	16902449.95	16902450.16	16902450.36	0.0303	0.0060
Venus	41565-11-12 22:05 G	16902680.31	16902680.42	16902680.54	0.0302	0.0248
Mercury	41569-03-17 00:29 G	16903900.46	16903900.52	16903900.59	0.0288	0.0247
Mercury	41569-06-13 11:46 G	16903988.87	16903988.99	16903989.11	0.0286	0.0100
Mercury	41569-09-09 22:48 G	16904077.32	16904077.45	16904077.57	0.0285	0.0046
Mercury	41569-12-07 09:36 G	16904165.81	16904165.90	16904166.00	0.0284	0.0190
Moon	41573-10-19 14:24 G	16905577.88	16905578.10	16905578.34	0.0267	0.0086
Earth	41573-10-19 17:46 G	16905578.01	16905578.24	16905578.49	0.0267	0.0077 *
Venus	41580-04-21 11:17 G	16907953.79	16907953.97	16907954.17	0.0259	0.0112
Venus	41580-12-06 07:41 G	16908182.62	16908182.82	16908183.03	0.0260	0.0082

Mercury	41585-09-18 16:34 G	16909930.02	16909930.19	16909930.36	0.0277	0.0124
Mercury	41585-12-16 16:19 G	16910019.00	16910019.18	16910019.37	0.0278	0.0078
Earth	41590-04-28 07:41 G	16911612.73	16911612.82	16911612.93	0.0299	0.0271
Moon	41590-04-28 08:10 G	16911612.77	16911612.84	16911612.92	0.0299	0.0285 *
Venus	41594-10-08 00:29 G	16913236.31	16913236.52	16913236.73	0.0303	0.0017
Venus	41595-05-26 06:29 G	16913466.73	16913466.77	16913466.83	0.0301	0.0292
Mercury	41598-08-04 03:22 G	16914632.63	16914632.64	16914632.66	0.0287	0.0284
Mercury	41598-10-31 14:24 G	16914720.99	16914721.10	16914721.22	0.0286	0.0137
Mercury	41599-01-28 01:41 G	16914809.44	16914809.57	16914809.69	0.0285	0.0013
Mercury	41599-04-26 12:29 G	16914897.92	16914898.02	16914898.13	0.0284	0.0154
Earth	41602-10-14 20:24 G	16916165.34	16916165.35	16916165.38	0.0268	0.0267
Moon	41603-10-26 18:58 G	16916542.09	16916542.29	16916542.51	0.0264	0.0151
Earth	41603-10-26 20:10 G	16916542.15	16916542.34	16916542.54	0.0264	0.0164 *
Venus	41609-11-01 14:53 G	16918739.92	16918740.12	16918740.32	0.0259	0.0087
Venus	41610-06-18 11:02 G	16918968.77	16918968.96	16918969.16	0.0260	0.0107
Mercury	41615-02-05 14:38 G	16920661.97	16920662.11	16920662.26	0.0276	0.0183
Mercury	41615-05-05 14:24 G	16920750.91	16920751.10	16920751.30	0.0277	0.0020
Mercury	41615-08-02 14:10 G	16920839.98	16920840.09	16920840.21	0.0279	0.0221
Earth	41619-04-22 04:19 G	16922198.44	16922198.68	16922198.92	0.0296	0.0002
Moon	41619-04-22 04:48 G	16922198.46	16922198.70	16922198.93	0.0296	0.0014 *
Venus	41623-09-02 00:00 G	16923792.44	16923792.50	16923792.57	0.0304	0.0286
Venus	41624-04-19 07:41 G	16924022.62	16924022.82	16924023.04	0.0303	0.0027
Mercury	41628-03-19 17:17 G	16925453.12	16925453.22	16925453.32	0.0287	0.0176
Mercury	41628-06-16 04:19 G	16925541.55	16925541.68	16925541.81	0.0286	0.0030
Mercury	41628-09-12 15:22 G	16925630.02	16925630.14	16925630.26	0.0285	0.0116
Mercury	41628-12-10 02:24 G	16925718.55	16925718.60	16925718.65	0.0283	0.0259
Earth	41632-10-21 01:26 G	16927129.31	16927129.56	16927129.80	0.0266	0.0021
Moon	41632-10-21 02:10 G	16927129.36	16927129.59	16927129.83	0.0266	0.0031 *
Venus	41638-09-27 22:19 G	16929297.39	16929297.43	16929297.50	0.0258	0.0249
Venus	41639-05-14 18:14 G	16929526.05	16929526.26	16929526.47	0.0259	0.0058

Venus	41639-12-29 14:24 G	16929754.92	16929755.10	16929755.28	0.0260	0.0135
Mars	41643-04-04 16:48 G	16930946.99	16930947.20	16930947.44	0.0270	0.0194
Mercury	41644-06-24 12:29 G	16931393.94	16931394.02	16931394.12	0.0276	0.0243
Mercury	41644-09-21 12:29 G	16931482.83	16931483.02	16931483.21	0.0277	0.0043
Mercury	41644-12-19 12:14 G	16931571.85	16931572.01	16931572.17	0.0278	0.0159
Moon	41648-04-15 00:14 G	16932784.39	16932784.51	16932784.65	0.0295	0.0252
Earth	41648-04-15 01:12 G	16932784.45	16932784.55	16932784.66	0.0295	0.0266 *
Venus	41653-03-14 06:43 G	16934578.67	16934578.78	16934578.91	0.0304	0.0248
Venus	41653-10-30 14:24 G	16934808.90	16934809.10	16934809.31	0.0303	0.0065
Mercury	41657-08-06 19:41 G	16936185.24	16936185.32	16936185.40	0.0287	0.0218
Mercury	41657-11-03 06:43 G	16936273.66	16936273.78	16936273.91	0.0286	0.0071
Mercury	41658-01-30 17:46 G	16936362.12	16936362.24	16936362.37	0.0285	0.0075
Mercury	41658-04-29 04:48 G	16936450.62	16936450.70	16936450.78	0.0283	0.0219
Moon	41661-10-16 02:10 G	16937716.46	16937716.59	16937716.76	0.0267	0.0218
Earth	41661-10-16 02:38 G	16937716.48	16937716.61	16937716.77	0.0267	0.0213 *
Moon	41662-10-27 21:50 G	16938093.26	16938093.41	16938093.57	0.0264	0.0200
Earth	41662-10-28 01:26 G	16938093.43	16938093.56	16938093.71	0.0264	0.0216 *
Venus	41668-04-09 00:43 G	16940083.44	16940083.53	16940083.64	0.0259	0.0226
Venus	41668-11-23 20:24 G	16940312.14	16940312.35	16940312.57	0.0259	0.0035
Venus	41669-07-10 16:34 G	16940541.03	16940541.19	16940541.36	0.0260	0.0159
Mercury	41674-02-08 09:50 G	16942214.74	16942214.91	16942215.09	0.0277	0.0109
Mercury	41674-05-08 09:36 G	16942303.72	16942303.90	16942304.08	0.0278	0.0093
Earth	41678-04-23 08:10 G	16943749.60	16943749.84	16943750.08	0.0297	0.0056
Moon	41678-04-23 11:46 G	16943749.75	16943749.99	16943750.22	0.0297	0.0069 *
Venus	41682-09-24 12:29 G	16945364.87	16945365.02	16945365.17	0.0304	0.0209
Venus	41683-05-12 20:10 G	16945595.14	16945595.34	16945595.54	0.0303	0.0103
Mars	41685-07-25 16:34 G	16946400.08	16946400.19	16946400.33	0.0295	0.0257
Mercury	41686-12-24 22:05 G	16946917.37	16946917.42	16946917.47	0.0288	0.0263
Mercury	41687-03-23 09:07 G	16947005.77	16947005.88	16947006.00	0.0287	0.0114
Mercury	41687-06-19 20:24 G	16947094.22	16947094.35	16947094.47	0.0286	0.0034

Mercury	41687-09-16 07:12 G	16947182.70	16947182.80	16947182.91	0.0284	0.0178
Earth	41691-10-23 05:31 G	16948680.48	16948680.73	16948680.98	0.0266	0.0031
Moon	41691-10-23 09:07 G	16948680.63	16948680.88	16948681.13	0.0266	0.0019 *
Venus	41697-10-20 03:36 G	16950869.52	16950869.65	16950869.79	0.0258	0.0198
Venus	41698-06-05 23:02 G	16951098.25	16951098.46	16951098.68	0.0259	0.0009
Venus	41699-01-20 18:58 G	16951327.16	16951327.29	16951327.45	0.0260	0.0186
Mercury	41703-06-29 07:12 G	16952946.66	16952946.80	16952946.96	0.0276	0.0172
Mercury	41703-09-26 07:12 G	16953035.60	16953035.80	16953035.99	0.0277	0.0029
Mercury	41703-12-24 06:29 G	16953124.68	16953124.77	16953124.89	0.0278	0.0232
Moon	41707-04-17 23:02 G	16954335.29	16954335.46	16954335.64	0.0295	0.0200
Earth	41707-04-18 02:24 G	16954335.45	16954335.60	16954335.78	0.0295	0.0215 *
Venus	41712-04-06 17:31 G	16956151.06	16956151.23	16956151.40	0.0304	0.0176
Venus	41712-11-23 00:58 G	16956381.36	16956381.54	16956381.73	0.0303	0.0137
Mercury	41716-08-10 11:02 G	16957737.86	16957737.96	16957738.07	0.0287	0.0162
Mercury	41716-11-06 22:19 G	16957826.30	16957826.43	16957826.56	0.0286	0.0015
Mercury	41717-02-03 09:22 G	16957914.78	16957914.89	16957915.01	0.0285	0.0131
Mercury	41717-05-02 20:24 G	16958003.32	16958003.35	16958003.38	0.0283	0.0274
Moon	41720-10-18 01:41 G	16959267.39	16959267.57	16959267.76	0.0267	0.0172
Earth	41720-10-18 05:02 G	16959267.53	16959267.71	16959267.92	0.0267	0.0164 *
Moon	41721-10-30 02:53 G	16959644.55	16959644.62	16959644.70	0.0264	0.0249
Earth	41721-10-30 03:07 G	16959644.62	16959644.63	16959644.67	0.0264	0.0263 *
Venus	41727-05-03 05:02 G	16961655.56	16961655.71	16961655.87	0.0258	0.0177
Venus	41727-12-18 00:29 G	16961884.31	16961884.52	16961884.73	0.0259	0.0014
Venus	41728-08-02 20:24 G	16962113.23	16962113.35	16962113.49	0.0260	0.0208
Mars	41731-08-29 13:41 G	16963234.90	16963235.07	16963235.25	0.0270	0.0226
Mercury	41732-11-15 04:05 G	16963678.58	16963678.67	16963678.76	0.0275	0.0243
Mercury	41733-02-12 03:50 G	16963767.47	16963767.66	16963767.85	0.0277	0.0044
Mercury	41733-05-12 03:22 G	16963856.49	16963856.64	16963856.80	0.0278	0.0158
Earth	41737-04-25 06:43 G	16965300.56	16965300.78	16965301.01	0.0297	0.0104
Moon	41737-04-25 08:24 G	16965300.62	16965300.85	16965301.08	0.0297	0.0115 *

Venus	41741-10-17 20:53 G	16966937.18	16966937.37	16966937.56	0.0304	0.0141
Venus	41742-06-05 04:19 G	16967167.51	16967167.68	16967167.86	0.0303	0.0172
Mercury	41745-12-28 13:12 G	16968469.96	16968470.05	16968470.14	0.0288	0.0211
Mercury	41746-03-27 00:14 G	16968558.39	16968558.51	16968558.64	0.0287	0.0063
Mercury	41746-06-23 11:31 G	16968646.85	16968646.98	16968647.10	0.0285	0.0085
Mercury	41746-09-19 22:19 G	16968735.36	16968735.43	16968735.51	0.0284	0.0230
Earth	41750-10-25 06:00 G	16970231.51	16970231.75	16970231.99	0.0266	0.0077
Moon	41750-10-25 06:58 G	16970231.55	16970231.79	16970232.05	0.0266	0.0065 *
Venus	41756-11-12 06:58 G	16972441.62	16972441.79	16972441.96	0.0258	0.0151
Venus	41757-06-29 02:24 G	16972670.39	16972670.60	16972670.81	0.0259	0.0039
Venus	41758-02-12 22:19 G	16972899.35	16972899.43	16972899.53	0.0260	0.0233
Mercury	41762-07-02 00:43 G	16974499.36	16974499.53	16974499.71	0.0276	0.0111
Mercury	41762-09-29 00:14 G	16974588.34	16974588.51	16974588.70	0.0277	0.0090
Moon	41766-04-18 21:50 G	16975886.22	16975886.41	16975886.61	0.0295	0.0159
Earth	41766-04-18 22:34 G	16975886.26	16975886.44	16975886.65	0.0295	0.0171 *
Venus	41771-04-30 00:43 G	16977723.33	16977723.53	16977723.72	0.0304	0.0111
Venus	41771-12-16 07:55 G	16977953.68	16977953.83	16977953.99	0.0303	0.0202
Mars	41773-12-19 17:17 G	16978688.08	16978688.22	16978688.39	0.0295	0.0240
Mercury	41775-05-17 14:38 G	16979202.07	16979202.11	16979202.17	0.0288	0.0264
Mercury	41775-08-14 01:55 G	16979290.47	16979290.58	16979290.70	0.0287	0.0114
Mercury	41775-11-10 13:12 G	16979378.92	16979379.05	16979379.18	0.0286	0.0034
Mercury	41776-02-07 00:00 G	16979467.41	16979467.50	16979467.61	0.0285	0.0180
Moon	41779-10-20 02:38 G	16980818.41	16980818.61	16980818.83	0.0267	0.0130
Earth	41779-10-20 04:05 G	16980818.46	16980818.67	16980818.90	0.0267	0.0120 *
Venus	41786-05-25 07:41 G	16983227.64	16983227.82	16983228.01	0.0258	0.0131
Venus	41787-01-09 03:07 G	16983456.42	16983456.63	16983456.84	0.0259	0.0060
Venus	41787-08-25 23:02 G	16983685.42	16983685.46	16983685.51	0.0260	0.0253
Mercury	41791-11-18 21:07 G	16985231.24	16985231.38	16985231.53	0.0275	0.0184
Mercury	41792-02-15 20:53 G	16985320.18	16985320.37	16985320.56	0.0277	0.0016
Mercury	41792-05-14 20:24 G	16985409.24	16985409.35	16985409.47	0.0278	0.0217

Moon	41796-04-25 23:17 G	16986851.26	16986851.47	16986851.69	0.0297	0.0154
Earth	41796-04-26 02:10 G	16986851.39	16986851.59	16986851.81	0.0297	0.0148 *
Venus	41800-11-10 03:07 G	16988509.42	16988509.63	16988509.83	0.0304	0.0078
Venus	41801-06-28 10:19 G	16988739.81	16988739.93	16988740.07	0.0303	0.0234
Mercury	41805-01-01 03:36 G	16990022.55	16990022.65	16990022.76	0.0288	0.0166
Mercury	41805-03-30 14:53 G	16990110.99	16990111.12	16990111.25	0.0287	0.0018
Mercury	41805-06-27 01:55 G	16990199.47	16990199.58	16990199.70	0.0285	0.0129
Mercury	41805-09-23 12:58 G	16990288.01	16990288.04	16990288.07	0.0284	0.0274
Moon	41809-10-27 00:14 G	16991782.28	16991782.51	16991782.75	0.0266	0.0104
Earth	41809-10-27 03:22 G	16991782.42	16991782.64	16991782.87	0.0266	0.0119 *
Venus	41815-12-06 09:07 G	16994013.69	16994013.88	16994014.08	0.0258	0.0107
Venus	41816-07-22 04:34 G	16994242.49	16994242.69	16994242.89	0.0259	0.0085
Mars	41820-01-23 00:58 G	16995522.40	16995522.54	16995522.70	0.0269	0.0236
Mercury	41821-04-07 18:00 G	16995963.18	16995963.25	16995963.33	0.0274	0.0252
Mercury	41821-07-05 17:31 G	16996052.05	16996052.23	16996052.42	0.0276	0.0054
Mercury	41821-10-02 17:17 G	16996141.05	16996141.22	16996141.38	0.0277	0.0146
Earth	41825-04-20 16:34 G	16997436.97	16997437.19	16997437.41	0.0295	0.0129
Moon	41825-04-20 19:55 G	16997437.11	16997437.33	16997437.55	0.0295	0.0122 *
Venus	41830-05-23 05:02 G	16999295.50	16999295.71	16999295.92	0.0304	0.0052
Venus	41831-01-08 12:14 G	16999525.92	16999526.01	16999526.13	0.0303	0.0261
Mercury	41834-05-21 04:48 G	17000754.63	17000754.70	17000754.79	0.0288	0.0224
Mercury	41834-08-17 16:05 G	17000843.05	17000843.17	17000843.30	0.0287	0.0074
Mercury	41834-11-14 03:22 G	17000931.51	17000931.64	17000931.76	0.0286	0.0074
Mercury	41835-02-10 14:24 G	17001020.02	17001020.10	17001020.18	0.0285	0.0220
Earth	41838-10-22 00:00 G	17002369.27	17002369.50	17002369.74	0.0267	0.0080
Moon	41838-10-22 03:07 G	17002369.41	17002369.63	17002369.86	0.0267	0.0093 *
Venus	41845-06-17 09:22 G	17004799.70	17004799.89	17004800.10	0.0258	0.0088
Venus	41846-02-01 04:48 G	17005028.51	17005028.70	17005028.90	0.0259	0.0104
Mercury	41850-11-22 13:41 G	17006783.90	17006784.07	17006784.24	0.0275	0.0130
Mercury	41851-02-19 13:12 G	17006872.87	17006873.05	17006873.24	0.0276	0.0070

Mercury	41851-05-19 12:43 G	17006962.00	17006962.03	17006962.08	0.0278	0.0271
Moon	41855-04-28 15:50 G	17008401.99	17008402.16	17008402.35	0.0297	0.0190
Earth	41855-04-28 18:43 G	17008402.10	17008402.28	17008402.47	0.0297	0.0187 *
Venus	41859-12-03 06:43 G	17010081.57	17010081.78	17010081.99	0.0304	0.0022
Venus	41860-07-20 13:55 G	17010312.04	17010312.08	17010312.15	0.0303	0.0291
Mars	41862-05-15 03:22 G	17010975.51	17010975.64	17010975.79	0.0296	0.0251
Mercury	41863-10-08 06:14 G	17011486.74	17011486.76	17011486.80	0.0289	0.0279
Mercury	41864-01-04 17:31 G	17011575.12	17011575.23	17011575.35	0.0288	0.0129
Mercury	41864-04-02 04:48 G	17011663.57	17011663.70	17011663.83	0.0287	0.0021
Mercury	41864-06-29 15:50 G	17011752.06	17011752.16	17011752.27	0.0285	0.0168
Moon	41868-10-27 19:55 G	17013333.14	17013333.33	17013333.54	0.0266	0.0144
Earth	41868-10-27 22:19 G	17013333.24	17013333.43	17013333.64	0.0266	0.0158 *
Venus	41874-05-13 15:36 G	17015357.12	17015357.15	17015357.20	0.0257	0.0252
Venus	41874-12-28 10:34 G	17015585.74	17015585.94	17015586.15	0.0258	0.0064
Venus	41875-08-14 06:00 G	17015814.57	17015814.75	17015814.94	0.0259	0.0128
Mercury	41880-04-10 10:34 G	17017515.81	17017515.94	17017516.07	0.0274	0.0197
Mercury	41880-07-08 10:05 G	17017604.73	17017604.92	17017605.11	0.0276	0.0002
Mercury	41880-10-05 09:22 G	17017693.77	17017693.89	17017694.03	0.0277	0.0201
Earth	41884-04-21 09:22 G	17018987.66	17018987.89	17018988.12	0.0295	0.0090
Moon	41884-04-21 11:17 G	17018987.74	17018987.97	17018988.21	0.0295	0.0088 *
Venus	41889-06-14 08:53 G	17020867.66	17020867.87	17020868.08	0.0304	0.0008
Mercury	41893-05-23 18:43 G	17022307.19	17022307.28	17022307.38	0.0289	0.0187
Mercury	41893-08-20 06:00 G	17022395.63	17022395.75	17022395.88	0.0287	0.0038
Mercury	41893-11-16 17:17 G	17022484.10	17022484.22	17022484.34	0.0286	0.0112
Mercury	41894-02-13 04:19 G	17022572.63	17022572.68	17022572.74	0.0285	0.0257
Earth	41897-10-22 18:43 G	17023920.03	17023920.28	17023920.52	0.0267	0.0041
Moon	41897-10-22 21:07 G	17023920.14	17023920.38	17023920.63	0.0267	0.0057 *
Venus	41903-11-24 16:05 G	17026143.09	17026143.17	17026143.27	0.0258	0.0232
Venus	41904-07-10 11:02 G	17026371.75	17026371.96	17026372.17	0.0258	0.0043
Venus	41905-02-24 06:14 G	17026600.59	17026600.76	17026600.94	0.0259	0.0149

Mars	41908-06-17 06:00 G	17027809.62	17027809.75	17027809.87	0.0269	0.0246
Mercury	41909-08-29 06:43 G	17028247.77	17028247.78	17028247.82	0.0274	0.0271
Mercury	41909-11-26 06:29 G	17028336.58	17028336.77	17028336.95	0.0275	0.0074
Mercury	41910-02-23 06:00 G	17028425.58	17028425.75	17028425.92	0.0276	0.0125
Earth	41914-04-30 11:31 G	17029952.83	17029952.98	17029953.14	0.0297	0.0227
Moon	41914-04-30 13:41 G	17029952.92	17029953.07	17029953.23	0.0297	0.0223 *
Venus	41918-05-10 01:55 G	17031423.50	17031423.58	17031423.66	0.0305	0.0280
Venus	41918-12-26 10:05 G	17031653.72	17031653.92	17031654.13	0.0304	0.0036
Mercury	41922-10-11 20:10 G	17033039.27	17033039.34	17033039.41	0.0289	0.0244
Mercury	41923-01-08 07:26 G	17033127.69	17033127.81	17033127.93	0.0288	0.0093
Mercury	41923-04-06 18:43 G	17033216.15	17033216.28	17033216.40	0.0287	0.0057
Mercury	41923-07-04 05:46 G	17033304.65	17033304.74	17033304.83	0.0286	0.0204
Moon	41926-10-18 11:46 G	17034506.93	17034506.99	17034507.05	0.0270	0.0259
Earth	41926-10-18 13:41 G	17034506.98	17034507.07	17034507.18	0.0270	0.0244 *
Earth	41927-10-30 16:19 G	17034884.02	17034884.18	17034884.35	0.0266	0.0195
Moon	41927-10-30 18:29 G	17034884.11	17034884.27	17034884.46	0.0266	0.0183 *
Venus	41933-06-05 17:17 G	17036929.10	17036929.22	17036929.35	0.0258	0.0210
Venus	41934-01-20 12:14 G	17037157.80	17037158.01	17037158.22	0.0258	0.0020
Venus	41934-09-06 07:26 G	17037386.66	17037386.81	17037386.98	0.0259	0.0172
Mercury	41939-04-15 03:22 G	17039068.48	17039068.64	17039068.81	0.0274	0.0141
Mercury	41939-07-13 02:53 G	17039157.43	17039157.62	17039157.81	0.0275	0.0057
Mercury	41939-10-10 02:24 G	17039246.53	17039246.60	17039246.67	0.0277	0.0257
Moon	41943-04-23 23:31 G	17040538.24	17040538.48	17040538.73	0.0295	0.0056
Earth	41943-04-24 02:38 G	17040538.38	17040538.61	17040538.85	0.0295	0.0049 *
Venus	41947-11-20 03:36 G	17042209.55	17042209.65	17042209.78	0.0305	0.0255
Venus	41948-07-07 12:00 G	17042439.80	17042440.00	17042440.21	0.0304	0.0062
Mars	41950-10-08 08:38 G	17043262.75	17043262.86	17043262.98	0.0297	0.0265
Mercury	41952-05-27 08:38 G	17043859.75	17043859.86	17043859.97	0.0289	0.0151
Mercury	41952-08-23 19:55 G	17043948.20	17043948.33	17043948.46	0.0287	0.0003
Mercury	41952-11-20 06:58 G	17044036.68	17044036.79	17044036.90	0.0286	0.0148

Moon	41956-10-24 09:50 G	17045470.66	17045470.91	17045471.17	0.0267	0.0018
Earth	41956-10-24 12:43 G	17045470.78	17045471.03	17045471.28	0.0267	0.0004 *
Venus	41962-12-16 17:46 G	17047715.10	17047715.24	17047715.39	0.0258	0.0189
Venus	41963-08-02 12:43 G	17047943.82	17047944.03	17047944.24	0.0258	0.0002
Venus	41964-03-18 08:10 G	17048172.70	17048172.84	17048172.99	0.0259	0.0193
Mercury	41968-09-01 00:00 G	17049800.39	17049800.50	17049800.63	0.0274	0.0212
Mercury	41968-11-28 23:31 G	17049889.29	17049889.48	17049889.67	0.0275	0.0015
Mercury	41969-02-25 22:48 G	17049978.32	17049978.45	17049978.60	0.0276	0.0185
Earth	41973-05-01 06:00 G	17051503.65	17051503.75	17051503.85	0.0297	0.0270
Moon	41973-05-01 09:07 G	17051503.78	17051503.88	17051504.01	0.0297	0.0261 *
Venus	41977-06-01 06:29 G	17052995.63	17052995.77	17052995.91	0.0304	0.0222
Venus	41978-01-17 14:24 G	17053225.91	17053226.10	17053226.31	0.0304	0.0095
Mercury	41981-10-14 10:05 G	17054591.83	17054591.92	17054592.01	0.0289	0.0206
Mercury	41982-01-10 21:22 G	17054680.26	17054680.39	17054680.51	0.0288	0.0055
Mercury	41982-04-09 08:24 G	17054768.73	17054768.85	17054768.98	0.0287	0.0095
Mercury	41982-07-06 19:41 G	17054857.25	17054857.32	17054857.39	0.0285	0.0241
Earth	41985-10-19 07:55 G	17056057.68	17056057.83	17056058.00	0.0270	0.0205
Moon	41985-10-19 10:34 G	17056057.81	17056057.94	17056058.09	0.0270	0.0220 *
Earth	41986-10-31 10:48 G	17056434.84	17056434.95	17056435.07	0.0266	0.0234
Moon	41986-10-31 14:10 G	17056434.96	17056435.09	17056435.23	0.0266	0.0223 *
Venus	41992-06-27 19:12 G	17058501.15	17058501.30	17058501.47	0.0258	0.0167
Venus	41993-02-11 14:24 G	17058729.89	17058730.10	17058730.31	0.0258	0.0024
Venus	41993-09-28 09:50 G	17058958.81	17058958.91	17058959.04	0.0259	0.0217
Mars	41996-11-09 21:07 G	17060097.34	17060097.38	17060097.46	0.0268	0.0263
Mercury	41998-01-18 21:36 G	17060532.40	17060532.40	17060532.41	0.0273	0.0273
Mercury	41998-04-17 21:07 G	17060621.19	17060621.38	17060621.56	0.0274	0.0077
Mercury	41998-07-15 20:24 G	17060710.18	17060710.35	17060710.53	0.0275	0.0121

43RD MILLENNIUM CE

This is a list of transits visible from Saturn in the 43rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	42002-04-24 20:38	G	17062089.13	17062089.36	17062089.60	0.0295	0.0015	
Earth	42002-04-24 23:17	G	17062089.23	17062089.47	17062089.71	0.0295	0.0002	*
Venus	42006-12-12 09:07	G	17063781.72	17063781.88	17063782.04	0.0305	0.0195	
Venus	42007-07-30 17:02	G	17064012.03	17064012.21	17064012.41	0.0304	0.0122	
Mercury	42011-03-03 11:17	G	17065323.93	17065323.97	17065324.03	0.0290	0.0264	
Mercury	42011-05-30 22:48	G	17065412.33	17065412.45	17065412.57	0.0289	0.0112	
Mercury	42011-08-27 09:50	G	17065500.79	17065500.91	17065501.04	0.0287	0.0039	
Mercury	42011-11-23 21:07	G	17065589.28	17065589.38	17065589.48	0.0286	0.0187	
Moon	42015-10-26 04:48	G	17067021.46	17067021.70	17067021.94	0.0267	0.0024	
Earth	42015-10-26 07:41	G	17067021.58	17067021.82	17067022.07	0.0267	0.0036	*
Venus	42022-01-07 20:24	G	17069287.18	17069287.35	17069287.54	0.0258	0.0145	
Venus	42022-08-24 15:36	G	17069515.94	17069516.15	17069516.36	0.0259	0.0047	
Venus	42023-04-10 11:17	G	17069744.90	17069744.97	17069745.06	0.0260	0.0239	
Mercury	42027-09-04 18:14	G	17071353.10	17071353.26	17071353.43	0.0274	0.0144	
Mercury	42027-12-02 17:46	G	17071442.05	17071442.24	17071442.43	0.0275	0.0053	
Mercury	42028-02-29 16:48	G	17071531.14	17071531.20	17071531.29	0.0277	0.0253	
Earth	42031-04-18 19:41	G	17072675.23	17072675.32	17072675.42	0.0292	0.0268	
Moon	42031-04-18 21:36	G	17072675.33	17072675.40	17072675.49	0.0292	0.0276	*
Venus	42036-06-23 12:43	G	17074567.85	17074568.03	17074568.21	0.0304	0.0159	
Venus	42037-02-08 20:24	G	17074798.18	17074798.35	17074798.54	0.0303	0.0157	
Mars	42039-03-02 20:10	G	17075550.24	17075550.34	17075550.45	0.0297	0.0272	
Mercury	42040-10-17 00:14	G	17076144.41	17076144.51	17076144.62	0.0289	0.0165	

Mercury	42041-01-13 11:31 G	17076232.85	17076232.98	17076233.11	0.0288	0.0015
Mercury	42041-04-11 22:48 G	17076321.34	17076321.45	17076321.56	0.0287	0.0135
Mercury	42041-07-09 10:05 G	17076409.90	17076409.92	17076409.93	0.0285	0.0283
Earth	42044-10-20 03:50 G	17077608.47	17077608.66	17077608.86	0.0270	0.0164
Moon	42044-10-20 06:58 G	17077608.60	17077608.79	17077608.98	0.0270	0.0177 *
Venus	42051-07-20 22:34 G	17080073.26	17080073.44	17080073.63	0.0258	0.0121
Venus	42052-03-05 17:46 G	17080302.04	17080302.24	17080302.45	0.0259	0.0071
Mercury	42057-01-21 16:19 G	17082085.06	17082085.18	17082085.31	0.0273	0.0202
Mercury	42057-04-20 15:50 G	17082173.96	17082174.16	17082174.35	0.0274	0.0007
Mercury	42057-07-18 14:53 G	17082263.00	17082263.12	17082263.27	0.0276	0.0193
Earth	42061-04-25 23:31 G	17083640.24	17083640.48	17083640.72	0.0295	0.0052
Moon	42061-04-26 01:41 G	17083640.34	17083640.57	17083640.80	0.0295	0.0038 *
Venus	42066-01-03 17:02 G	17085354.02	17085354.21	17085354.40	0.0305	0.0128
Venus	42066-08-22 00:58 G	17085584.37	17085584.54	17085584.70	0.0304	0.0187
Mercury	42070-03-06 01:55 G	17086876.50	17086876.58	17086876.67	0.0290	0.0218
Mercury	42070-06-02 13:12 G	17086964.93	17086965.05	17086965.18	0.0289	0.0067
Mercury	42070-08-30 00:29 G	17087053.40	17087053.52	17087053.65	0.0287	0.0084
Mercury	42070-11-26 11:46 G	17087141.91	17087141.99	17087142.06	0.0286	0.0232
Earth	42074-10-27 05:17 G	17088572.48	17088572.72	17088572.95	0.0267	0.0080
Moon	42074-10-27 06:58 G	17088572.56	17088572.79	17088573.02	0.0267	0.0073 *
Venus	42081-01-30 00:43 G	17090859.34	17090859.53	17090859.73	0.0258	0.0097
Venus	42081-09-15 20:10 G	17091088.14	17091088.34	17091088.54	0.0259	0.0095
Mercury	42086-06-10 14:10 G	17092817.05	17092817.09	17092817.15	0.0273	0.0263
Mercury	42086-09-07 13:41 G	17092905.89	17092906.07	17092906.26	0.0275	0.0067
Mercury	42086-12-05 12:58 G	17092994.88	17092995.04	17092995.22	0.0276	0.0132
Moon	42090-04-19 20:38 G	17094226.20	17094226.36	17094226.52	0.0293	0.0222
Earth	42090-04-19 23:02 G	17094226.29	17094226.46	17094226.63	0.0293	0.0210 *
Venus	42095-07-16 22:34 G	17096140.24	17096140.44	17096140.64	0.0304	0.0089
Venus	42096-03-03 06:14 G	17096370.62	17096370.76	17096370.90	0.0303	0.0225
Mercury	42099-07-24 03:50 G	17097608.62	17097608.66	17097608.71	0.0290	0.0267

Mercury	42099-10-20 15:07 G	17097697.02	17097697.13	17097697.25	0.0289	0.0115
Mercury	42100-01-17 02:24 G	17097785.47	17097785.60	17097785.73	0.0288	0.0036
Mercury	42100-04-15 13:41 G	17097873.97	17097874.07	17097874.17	0.0286	0.0185
Moon	42103-10-23 01:26 G	17099159.35	17099159.56	17099159.80	0.0270	0.0129
Earth	42103-10-23 02:53 G	17099159.40	17099159.62	17099159.85	0.0270	0.0118 *
Venus	42110-08-13 03:50 G	17101645.46	17101645.66	17101645.87	0.0258	0.0072
Venus	42111-03-29 23:17 G	17101874.28	17101874.47	17101874.66	0.0259	0.0121
Mercury	42116-01-26 12:29 G	17103637.85	17103638.02	17103638.20	0.0274	0.0119
Mercury	42116-04-24 12:00 G	17103726.82	17103727.00	17103727.18	0.0275	0.0078
Earth	42120-04-28 05:31 G	17105191.51	17105191.73	17105191.96	0.0295	0.0115
Moon	42120-04-28 08:53 G	17105191.65	17105191.87	17105192.11	0.0295	0.0101 *
Venus	42125-01-27 04:19 G	17106926.47	17106926.68	17106926.89	0.0304	0.0055
Venus	42125-09-14 11:46 G	17107156.89	17107156.99	17107157.10	0.0303	0.0259
Mars	42127-07-28 00:29 G	17107838.37	17107838.52	17107838.69	0.0297	0.0239
Mercury	42129-03-09 17:17 G	17108429.12	17108429.22	17108429.33	0.0289	0.0163
Mercury	42129-06-06 04:34 G	17108517.56	17108517.69	17108517.82	0.0288	0.0012
Mercury	42129-09-02 15:36 G	17108606.04	17108606.15	17108606.27	0.0287	0.0138
Mercury	42129-11-30 02:53 G	17108694.62	17108694.62	17108694.62	0.0286	0.0286
Earth	42133-10-29 05:46 G	17110123.53	17110123.74	17110123.96	0.0267	0.0128
Moon	42133-10-29 09:22 G	17110123.67	17110123.89	17110124.11	0.0267	0.0123 *
Venus	42139-07-09 11:31 G	17112202.91	17112202.98	17112203.08	0.0258	0.0236
Venus	42140-02-23 06:58 G	17112431.58	17112431.79	17112432.00	0.0258	0.0045
Venus	42140-10-09 02:38 G	17112660.44	17112660.61	17112660.79	0.0259	0.0148
Mars	42143-07-10 17:46 G	17113665.06	17113665.24	17113665.45	0.0266	0.0209
Mercury	42145-06-14 11:17 G	17114369.82	17114369.97	17114370.12	0.0274	0.0174
Mercury	42145-09-11 10:34 G	17114458.75	17114458.94	17114459.13	0.0275	0.0024
Mercury	42145-12-09 09:50 G	17114547.81	17114547.91	17114548.03	0.0276	0.0222
Moon	42149-04-22 03:50 G	17115777.47	17115777.66	17115777.88	0.0293	0.0157
Earth	42149-04-22 07:12 G	17115777.60	17115777.80	17115778.03	0.0293	0.0144 *
Venus	42154-08-09 12:00 G	17117712.79	17117713.00	17117713.21	0.0304	0.0011

Venus	42155-03-27 19:12 G	17117943.29	17117943.30	17117943.32	0.0302	0.0302
Mercury	42158-07-27 19:41 G	17119161.23	17119161.32	17119161.41	0.0289	0.0207
Mercury	42158-10-24 06:58 G	17119249.66	17119249.79	17119249.92	0.0288	0.0055
Mercury	42159-01-20 18:14 G	17119338.14	17119338.26	17119338.38	0.0287	0.0095
Mercury	42159-04-19 05:17 G	17119426.66	17119426.72	17119426.79	0.0286	0.0244
Moon	42162-10-24 02:24 G	17120710.37	17120710.60	17120710.84	0.0270	0.0076
Earth	42162-10-24 06:00 G	17120710.52	17120710.75	17120711.00	0.0270	0.0066 *
Venus	42169-01-18 15:36 G	17122989.04	17122989.15	17122989.28	0.0258	0.0211
Venus	42169-09-04 11:02 G	17123217.75	17123217.96	17123218.17	0.0259	0.0019
Venus	42170-04-21 06:29 G	17123446.63	17123446.77	17123446.94	0.0259	0.0176
Mercury	42174-11-01 10:34 G	17125101.84	17125101.94	17125102.06	0.0273	0.0220
Mercury	42175-01-29 10:05 G	17125190.73	17125190.92	17125191.12	0.0274	0.0025
Mercury	42175-04-28 09:22 G	17125279.75	17125279.89	17125280.05	0.0275	0.0175
Earth	42179-04-30 17:17 G	17126743.04	17126743.22	17126743.41	0.0295	0.0189
Moon	42179-04-30 17:31 G	17126743.04	17126743.23	17126743.44	0.0295	0.0174 *
Venus	42183-07-04 11:31 G	17128268.92	17128268.98	17128269.06	0.0305	0.0288
Venus	42184-02-19 19:41 G	17128499.11	17128499.32	17128499.53	0.0304	0.0030
Mercury	42187-12-14 22:05 G	17129893.36	17129893.42	17129893.49	0.0290	0.0250
Mercury	42188-03-12 09:22 G	17129981.77	17129981.89	17129982.02	0.0289	0.0098
Mercury	42188-06-08 20:38 G	17130070.24	17130070.36	17130070.49	0.0288	0.0054
Mercury	42188-09-05 07:55 G	17130158.74	17130158.83	17130158.92	0.0287	0.0202
Earth	42191-10-19 03:36 G	17131297.62	17131297.65	17131297.70	0.0271	0.0268
Earth	42192-10-30 10:34 G	17131674.78	17131674.94	17131675.13	0.0267	0.0184
Moon	42192-10-30 11:17 G	17131674.78	17131674.97	17131675.16	0.0267	0.0179 *
Venus	42198-07-31 19:55 G	17133775.18	17133775.33	17133775.48	0.0258	0.0182
Venus	42199-03-17 15:22 G	17134003.92	17134004.14	17134004.35	0.0259	0.0010
Venus	42199-11-01 11:02 G	17134232.85	17134232.96	17134233.11	0.0260	0.0205
Mercury	42204-03-21 10:05 G	17135833.90	17135833.92	17135833.97	0.0273	0.0269
Mercury	42204-06-18 09:36 G	17135922.72	17135922.90	17135923.09	0.0274	0.0073
Mercury	42204-09-15 09:07 G	17136011.71	17136011.88	17136012.05	0.0275	0.0126

Earth	42208-04-24 22:05 G	17137329.18	17137329.42	17137329.66	0.0293	0.0066
Moon	42208-04-24 21:50 G	17137329.19	17137329.41	17137329.64	0.0293	0.0081 *
Venus	42213-01-14 21:07 G	17139055.26	17139055.38	17139055.51	0.0304	0.0239
Venus	42213-09-02 05:02 G	17139285.51	17139285.71	17139285.92	0.0303	0.0077
Mars	42215-12-23 03:07 G	17140127.42	17140127.63	17140127.85	0.0296	0.0172
Mercury	42217-05-04 00:43 G	17140625.53	17140625.53	17140625.54	0.0290	0.0289
Mercury	42217-07-31 12:14 G	17140713.90	17140714.01	17140714.12	0.0289	0.0136
Mercury	42217-10-27 23:31 G	17140802.35	17140802.48	17140802.61	0.0288	0.0016
Mercury	42218-01-24 10:34 G	17140890.84	17140890.94	17140891.05	0.0286	0.0164
Moon	42221-10-26 12:14 G	17142261.77	17142262.01	17142262.25	0.0269	0.0016
Earth	42221-10-26 12:58 G	17142261.80	17142262.04	17142262.29	0.0269	0.0009 *
Venus	42228-02-12 00:29 G	17144561.36	17144561.52	17144561.70	0.0259	0.0155
Venus	42228-09-27 20:10 G	17144790.13	17144790.34	17144790.55	0.0259	0.0039
Venus	42229-05-14 16:05 G	17145019.09	17145019.17	17145019.27	0.0260	0.0233
Mars	42231-12-06 08:10 G	17145954.56	17145954.84	17145955.14	0.0266	0.0123
Mercury	42233-11-05 09:36 G	17146654.73	17146654.90	17146655.08	0.0274	0.0116
Mercury	42234-02-02 09:07 G	17146743.70	17146743.88	17146744.06	0.0275	0.0082
Moon	42238-05-03 06:29 G	17148294.66	17148294.77	17148294.91	0.0295	0.0254
Earth	42238-05-03 09:50 G	17148294.83	17148294.91	17148295.02	0.0295	0.0270 *
Venus	42242-07-28 06:43 G	17149841.62	17149841.78	17149841.94	0.0304	0.0196
Venus	42243-03-15 14:38 G	17150071.91	17150072.11	17150072.30	0.0304	0.0120
Mercury	42246-12-18 15:07 G	17151446.03	17151446.13	17151446.23	0.0290	0.0174
Mercury	42247-03-17 02:24 G	17151534.47	17151534.60	17151534.73	0.0288	0.0022
Mercury	42247-06-13 13:26 G	17151622.95	17151623.06	17151623.18	0.0287	0.0129
Mercury	42247-09-10 00:43 G	17151711.50	17151711.53	17151711.56	0.0286	0.0276
Earth	42250-10-21 13:26 G	17152848.90	17152849.06	17152849.22	0.0271	0.0206
Moon	42250-10-21 14:10 G	17152848.94	17152849.09	17152849.25	0.0271	0.0217 *
Moon	42251-11-02 16:19 G	17153226.09	17153226.18	17153226.29	0.0267	0.0242
Earth	42251-11-02 19:41 G	17153226.23	17153226.32	17153226.43	0.0267	0.0243 *
Venus	42257-08-24 05:46 G	17155347.55	17155347.74	17155347.92	0.0258	0.0124

Venus	42258-04-10 01:26 G	17155576.35	17155576.56	17155576.76	0.0259	0.0069
Mercury	42263-03-25 09:50 G	17157386.75	17157386.91	17157387.06	0.0274	0.0159
Mercury	42263-06-22 09:07 G	17157475.69	17157475.88	17157476.07	0.0275	0.0038
Mercury	42263-09-19 08:24 G	17157564.76	17157564.85	17157564.95	0.0276	0.0238
Earth	42267-04-27 16:34 G	17158880.95	17158881.19	17158881.43	0.0294	0.0018
Moon	42267-04-27 20:10 G	17158881.10	17158881.34	17158881.58	0.0294	0.0003 *
Venus	42272-02-07 18:00 G	17160628.06	17160628.25	17160628.43	0.0304	0.0144
Venus	42272-09-25 01:26 G	17160858.39	17160858.56	17160858.74	0.0303	0.0171
Mercury	42276-05-06 18:14 G	17162178.17	17162178.26	17162178.35	0.0289	0.0208
Mercury	42276-08-03 05:31 G	17162266.60	17162266.73	17162266.86	0.0288	0.0056
Mercury	42276-10-30 16:48 G	17162355.08	17162355.20	17162355.32	0.0287	0.0095
Mercury	42277-01-27 03:50 G	17162443.60	17162443.66	17162443.73	0.0286	0.0243
Earth	42280-10-27 23:46 G	17163813.25	17163813.49	17163813.74	0.0269	0.0056
Moon	42280-10-28 03:07 G	17163813.40	17163813.63	17163813.88	0.0269	0.0050 *
Venus	42287-03-06 11:02 G	17166133.76	17166133.96	17166134.16	0.0259	0.0095
Venus	42287-10-21 06:58 G	17166362.59	17166362.79	17166362.99	0.0260	0.0099
Mercury	42292-08-11 10:05 G	17168118.79	17168118.92	17168119.06	0.0273	0.0199
Mercury	42292-11-08 09:36 G	17168207.71	17168207.90	17168208.09	0.0274	0.0002
Mercury	42293-02-05 08:53 G	17168296.74	17168296.87	17168297.01	0.0276	0.0197
Moon	42296-04-20 21:50 G	17169467.29	17169467.41	17169467.56	0.0291	0.0243
Earth	42296-04-21 01:41 G	17169467.43	17169467.57	17169467.74	0.0291	0.0226 *
Venus	42301-08-21 04:48 G	17171414.51	17171414.70	17171414.91	0.0304	0.0097
Venus	42302-04-08 12:14 G	17171644.87	17171645.01	17171645.16	0.0303	0.0218
Mars	42304-05-19 23:17 G	17172417.21	17172417.47	17172417.73	0.0296	0.0065
Mercury	42305-09-24 21:22 G	17172910.33	17172910.39	17172910.46	0.0290	0.0243
Mercury	42305-12-22 08:38 G	17172998.74	17172998.86	17172998.99	0.0289	0.0091
Mercury	42306-03-20 19:55 G	17173087.21	17173087.33	17173087.46	0.0288	0.0061
Mercury	42306-06-17 07:12 G	17173175.71	17173175.80	17173175.89	0.0286	0.0210
Moon	42309-10-23 22:34 G	17174400.24	17174400.44	17174400.66	0.0271	0.0148
Earth	42309-10-24 01:55 G	17174400.38	17174400.58	17174400.81	0.0271	0.0140 *

Venus	42316-01-31 21:07 G	17176691.35	17176691.38	17176691.41	0.0258	0.0255
Venus	42316-09-16 16:48 G	17176919.99	17176920.20	17176920.40	0.0259	0.0063
Venus	42317-05-03 12:29 G	17177148.84	17177149.02	17177149.21	0.0259	0.0131
Mars	42320-05-03 09:36 G	17178244.57	17178244.90	17178245.22	0.0267	0.0018
Mercury	42321-12-30 10:19 G	17178850.85	17178850.93	17178851.02	0.0273	0.0242
Mercury	42322-03-29 09:50 G	17178939.72	17178939.91	17178940.10	0.0275	0.0045
Mercury	42322-06-26 09:07 G	17179028.73	17179028.88	17179029.04	0.0276	0.0154
Earth	42326-04-30 13:41 G	17180432.85	17180433.07	17180433.30	0.0294	0.0108
Moon	42326-04-30 16:19 G	17180432.94	17180433.18	17180433.42	0.0294	0.0091 *
Venus	42331-03-03 16:19 G	17182200.98	17182201.18	17182201.39	0.0304	0.0045
Venus	42331-10-19 23:31 G	17182431.39	17182431.48	17182431.58	0.0303	0.0269
Mercury	42335-02-12 00:43 G	17183642.50	17183642.53	17183642.57	0.0290	0.0274
Mercury	42335-05-11 12:00 G	17183730.89	17183731.00	17183731.12	0.0289	0.0122
Mercury	42335-08-07 23:17 G	17183819.35	17183819.47	17183819.60	0.0287	0.0031
Mercury	42335-11-04 10:34 G	17183907.84	17183907.94	17183908.04	0.0286	0.0179
Earth	42339-10-31 12:58 G	17185364.83	17185365.04	17185365.27	0.0268	0.0123
Moon	42339-10-31 15:36 G	17185364.93	17185365.15	17185365.39	0.0268	0.0120 *
Venus	42345-08-13 02:38 G	17187477.52	17187477.61	17187477.72	0.0259	0.0226
Venus	42346-03-29 22:19 G	17187706.22	17187706.43	17187706.64	0.0259	0.0034
Venus	42346-11-13 18:14 G	17187935.10	17187935.26	17187935.44	0.0260	0.0161
Mercury	42351-08-16 10:05 G	17189671.74	17189671.92	17189672.11	0.0274	0.0086
Mercury	42351-11-13 09:36 G	17189760.73	17189760.90	17189761.08	0.0275	0.0113
Jupiter	42354-09-10 03:22 G	17190792.22	17190792.64	17190793.09	0.0289	0.0091
Moon	42355-04-24 20:53 G	17191019.17	17191019.37	17191019.57	0.0292	0.0156
Earth	42355-04-24 22:34 G	17191019.23	17191019.44	17191019.66	0.0292	0.0141 *
Venus	42360-09-13 04:05 G	17192987.46	17192987.67	17192987.88	0.0304	0.0006
Mercury	42364-09-27 15:36 G	17194463.04	17194463.15	17194463.26	0.0289	0.0153
Mercury	42364-12-25 02:53 G	17194551.49	17194551.62	17194551.74	0.0288	0.0009
Mercury	42365-03-23 13:55 G	17194639.97	17194640.08	17194640.19	0.0287	0.0149
Moon	42368-10-25 14:24 G	17195951.87	17195952.10	17195952.33	0.0270	0.0077

Earth	42368-10-25 16:48 G	17195951.97	17195952.20	17195952.45	0.0270	0.0070	*
Venus	42375-02-23 08:10 G	17198263.71	17198263.84	17198263.99	0.0258	0.0194	
Venus	42375-10-10 04:05 G	17198492.46	17198492.67	17198492.88	0.0259	0.0001	
Venus	42376-05-26 00:00 G	17198721.37	17198721.50	17198721.65	0.0260	0.0193	
Mercury	42381-01-02 10:19 G	17200403.77	17200403.93	17200404.11	0.0274	0.0128	
Mercury	42381-04-01 09:50 G	17200492.73	17200492.91	17200493.10	0.0275	0.0071	
Mercury	42381-06-29 09:22 G	17200581.86	17200581.89	17200581.92	0.0276	0.0271	
Moon	42385-05-02 09:50 G	17201984.72	17201984.91	17201985.11	0.0295	0.0180	
Earth	42385-05-02 11:46 G	17201984.82	17201984.99	17201985.18	0.0295	0.0198	*
Venus	42389-08-08 07:41 G	17203543.73	17203543.82	17203543.94	0.0304	0.0260	
Venus	42390-03-26 15:50 G	17203773.96	17203774.16	17203774.37	0.0303	0.0058	
Mars	42392-10-15 04:48 G	17204707.43	17204707.70	17204707.96	0.0295	0.0049	
Mercury	42394-02-14 18:58 G	17205195.19	17205195.29	17205195.39	0.0289	0.0183	
Mercury	42394-05-14 06:14 G	17205283.63	17205283.76	17205283.89	0.0288	0.0032	
Mercury	42394-08-10 17:17 G	17205372.11	17205372.22	17205372.34	0.0287	0.0119	
Mercury	42394-11-07 04:19 G	17205460.64	17205460.68	17205460.73	0.0285	0.0267	
Earth	42397-10-20 19:12 G	17206539.26	17206539.30	17206539.36	0.0272	0.0266	
Moon	42398-11-02 00:58 G	17206916.38	17206916.54	17206916.73	0.0268	0.0190	
Earth	42398-11-02 03:22 G	17206916.46	17206916.64	17206916.81	0.0268	0.0189	*
Venus	42404-09-04 13:55 G	17209049.92	17209050.08	17209050.25	0.0259	0.0165	
Venus	42405-04-21 09:36 G	17209278.69	17209278.90	17209279.11	0.0259	0.0028	
Venus	42405-12-06 05:31 G	17209507.63	17209507.73	17209507.85	0.0260	0.0224	
Mars	42408-09-28 10:48 G	17210534.65	17210534.95	17210535.26	0.0267	0.0088	
Mercury	42410-05-22 10:19 G	17211135.79	17211135.93	17211136.09	0.0274	0.0172	
Mercury	42410-08-19 09:50 G	17211224.72	17211224.91	17211225.10	0.0275	0.0027	
Mercury	42410-11-16 09:07 G	17211313.78	17211313.88	17211314.00	0.0276	0.0227	
Earth	42414-04-26 18:43 G	17212571.04	17212571.28	17212571.52	0.0292	0.0056	
Moon	42414-04-26 20:38 G	17212571.14	17212571.36	17212571.60	0.0292	0.0071	*
Venus	42419-02-18 18:58 G	17214330.14	17214330.29	17214330.44	0.0304	0.0209	
Venus	42419-10-07 02:38 G	17214560.42	17214560.61	17214560.81	0.0303	0.0107	

Mercury	42423-07-04 22:19 G	17215927.34	17215927.43	17215927.51	0.0290	0.0217
Mercury	42423-10-01 09:22 G	17216015.77	17216015.89	17216016.02	0.0289	0.0065
Mercury	42423-12-28 20:38 G	17216104.24	17216104.36	17216104.48	0.0287	0.0086
Mercury	42424-03-26 07:41 G	17216192.76	17216192.82	17216192.90	0.0286	0.0235
Earth	42427-10-28 07:26 G	17217503.56	17217503.81	17217504.06	0.0269	0.0002
Moon	42427-10-28 08:53 G	17217503.63	17217503.87	17217504.11	0.0269	0.0006 *
Venus	42434-03-17 19:12 G	17219836.11	17219836.30	17219836.48	0.0258	0.0133
Venus	42434-11-01 14:53 G	17220064.91	17220065.12	17220065.33	0.0259	0.0060
Venus	42435-06-18 10:48 G	17220293.92	17220293.95	17220294.00	0.0260	0.0255
Mercury	42439-10-09 10:05 G	17221867.81	17221867.92	17221868.04	0.0274	0.0217
Mercury	42440-01-06 09:36 G	17221956.71	17221956.90	17221957.09	0.0275	0.0020
Mercury	42440-04-04 09:07 G	17222045.74	17222045.88	17222046.02	0.0276	0.0180
Moon	42444-05-04 03:22 G	17223536.55	17223536.64	17223536.75	0.0296	0.0266
Earth	42444-05-04 06:58 G	17223536.73	17223536.79	17223536.87	0.0296	0.0282 *
Venus	42448-08-31 05:46 G	17225116.57	17225116.74	17225116.92	0.0304	0.0160
Venus	42449-04-18 13:26 G	17225346.89	17225347.06	17225347.25	0.0303	0.0157
Mercury	42452-11-21 01:26 G	17226659.50	17226659.56	17226659.63	0.0290	0.0249
Mercury	42453-02-17 12:43 G	17226747.91	17226748.03	17226748.15	0.0288	0.0097
Mercury	42453-05-17 00:00 G	17226836.37	17226836.50	17226836.63	0.0287	0.0054
Mercury	42453-08-13 11:02 G	17226924.88	17226924.96	17226925.05	0.0286	0.0204
Moon	42456-10-22 08:53 G	17228090.71	17228090.87	17228091.04	0.0271	0.0207
Earth	42456-10-22 09:36 G	17228090.74	17228090.90	17228091.08	0.0271	0.0197 *
Moon	42457-11-03 12:43 G	17228467.97	17228468.03	17228468.10	0.0267	0.0256
Earth	42457-11-03 16:19 G	17228468.11	17228468.18	17228468.26	0.0267	0.0253
Venus	42463-09-28 00:00 G	17230622.31	17230622.50	17230622.70	0.0259	0.0105
Venus	42464-05-13 19:41 G	17230851.12	17230851.32	17230851.52	0.0259	0.0088
Mercury	42469-02-25 09:36 G	17232599.86	17232599.90	17232599.94	0.0273	0.0266
Mercury	42469-05-25 09:07 G	17232688.69	17232688.88	17232689.07	0.0274	0.0068
Mercury	42469-08-22 08:24 G	17232777.69	17232777.85	17232778.03	0.0275	0.0131
Earth	42473-04-28 11:46 G	17234122.75	17234122.99	17234123.23	0.0293	0.0023

Moon	42473-04-28 15:22 G	17234122.89	17234123.14	17234123.38	0.0293	0.0009 *
Venus	42478-03-13 16:05 G	17235902.98	17235903.17	17235903.37	0.0304	0.0111
Venus	42478-10-29 23:46 G	17236133.34	17236133.49	17236133.65	0.0303	0.0204
Mars	42481-03-12 04:19 G	17236997.47	17236997.68	17236997.92	0.0295	0.0159
Mercury	42482-04-10 04:34 G	17237391.67	17237391.69	17237391.72	0.0290	0.0285
Mercury	42482-07-07 15:50 G	17237480.05	17237480.16	17237480.28	0.0289	0.0132
Mercury	42482-10-04 03:07 G	17237568.50	17237568.63	17237568.76	0.0288	0.0022
Mercury	42482-12-31 14:24 G	17237657.00	17237657.10	17237657.20	0.0287	0.0170
Earth	42486-10-29 20:24 G	17239055.11	17239055.35	17239055.59	0.0269	0.0064
Moon	42486-10-30 00:00 G	17239055.26	17239055.50	17239055.75	0.0269	0.0059 *
Venus	42493-04-09 04:34 G	17241408.49	17241408.69	17241408.89	0.0258	0.0074
Venus	42493-11-24 00:14 G	17241637.32	17241637.51	17241637.70	0.0259	0.0119
Mars	42497-02-22 22:48 G	17242824.22	17242824.45	17242824.71	0.0267	0.0172
Mercury	42498-10-12 08:10 G	17243420.67	17243420.84	17243421.02	0.0274	0.0119
Mercury	42499-01-09 07:41 G	17243509.64	17243509.82	17243510.01	0.0275	0.0080
Moon	42502-04-23 12:58 G	17244708.92	17244709.04	17244709.18	0.0292	0.0244
Earth	42502-04-23 16:48 G	17244709.06	17244709.20	17244709.35	0.0292	0.0228 *
Venus	42507-09-25 01:12 G	17246689.34	17246689.55	17246689.76	0.0304	0.0067
Venus	42508-05-12 08:53 G	17246919.75	17246919.87	17246919.99	0.0303	0.0248
Mercury	42511-11-25 18:43 G	17248212.18	17248212.28	17248212.39	0.0289	0.0169
Mercury	42512-02-22 06:00 G	17248300.63	17248300.75	17248300.88	0.0288	0.0018
Mercury	42512-05-20 17:17 G	17248389.11	17248389.22	17248389.33	0.0287	0.0134
Mercury	42512-08-17 04:19 G	17248477.67	17248477.68	17248477.70	0.0285	0.0282
Moon	42515-10-25 17:31 G	17249642.03	17249642.23	17249642.45	0.0270	0.0144
Earth	42515-10-25 21:22 G	17249642.18	17249642.39	17249642.61	0.0270	0.0133 *
Venus	42522-03-06 13:12 G	17251965.98	17251966.05	17251966.14	0.0258	0.0238
Venus	42522-10-21 08:38 G	17252194.65	17252194.86	17252195.07	0.0259	0.0047
Venus	42523-06-07 04:19 G	17252423.50	17252423.68	17252423.85	0.0259	0.0146
Mercury	42528-03-01 06:58 G	17254152.64	17254152.79	17254152.94	0.0274	0.0174
Mercury	42528-05-29 06:29 G	17254241.58	17254241.77	17254241.96	0.0275	0.0025

Mercury	42528-08-26 05:46 G	17254330.64	17254330.74	17254330.86	0.0276	0.0225
Earth	42532-04-30 23:17 G	17255674.25	17255674.47	17255674.71	0.0294	0.0094
Moon	42532-05-01 00:00 G	17255674.27	17255674.50	17255674.75	0.0294	0.0079 *
Venus	42537-04-06 09:36 G	17257475.69	17257475.90	17257476.11	0.0304	0.0021
Venus	42537-11-22 17:02 G	17257706.17	17257706.21	17257706.27	0.0303	0.0293
Mercury	42541-04-13 21:36 G	17258944.32	17258944.40	17258944.49	0.0290	0.0208
Mercury	42541-07-11 08:53 G	17259032.75	17259032.87	17259033.00	0.0289	0.0055
Mercury	42541-10-07 20:10 G	17259121.22	17259121.34	17259121.46	0.0287	0.0097
Mercury	42542-01-04 07:26 G	17259209.74	17259209.81	17259209.87	0.0286	0.0246
Earth	42545-11-01 06:00 G	17260606.54	17260606.75	17260606.97	0.0268	0.0125
Moon	42545-11-01 07:12 G	17260606.58	17260606.80	17260607.04	0.0268	0.0121 *
Venus	42551-09-16 17:02 G	17262752.09	17262752.21	17262752.33	0.0258	0.0209
Venus	42552-05-02 12:14 G	17262980.79	17262981.01	17262981.22	0.0258	0.0019
Venus	42552-12-17 07:26 G	17263209.67	17263209.81	17263209.98	0.0259	0.0175
Mercury	42557-07-19 05:02 G	17264884.62	17264884.71	17264884.83	0.0273	0.0230
Mercury	42557-10-16 04:48 G	17264973.51	17264973.70	17264973.89	0.0274	0.0032
Mercury	42558-01-13 04:05 G	17265062.53	17265062.67	17265062.83	0.0275	0.0167
Earth	42561-04-25 00:58 G	17266260.34	17266260.54	17266260.74	0.0292	0.0165
Moon	42561-04-25 00:58 G	17266260.36	17266260.54	17266260.72	0.0292	0.0181 *
Venus	42566-03-01 08:38 G	17268031.83	17268031.86	17268031.91	0.0305	0.0298
Venus	42566-10-17 17:02 G	17268262.00	17268262.21	17268262.42	0.0304	0.0020
Mars	42569-08-07 12:00 G	17269286.85	17269287.00	17269287.18	0.0295	0.0232
Mercury	42570-09-01 00:00 G	17269676.44	17269676.50	17269676.57	0.0290	0.0250
Mercury	42570-11-28 11:31 G	17269764.86	17269764.98	17269765.10	0.0289	0.0097
Mercury	42571-02-24 22:48 G	17269853.32	17269853.45	17269853.57	0.0288	0.0056
Mercury	42571-05-24 09:50 G	17269941.82	17269941.91	17269942.00	0.0286	0.0205
Jupiter	42573-11-13 13:41 G	17270845.81	17270846.07	17270846.36	0.0274	0.0221
Moon	42574-10-27 04:34 G	17271193.46	17271193.69	17271193.92	0.0270	0.0081
Earth	42574-10-27 05:46 G	17271193.50	17271193.74	17271193.98	0.0270	0.0074 *
Venus	42581-03-28 19:41 G	17273538.18	17273538.32	17273538.48	0.0258	0.0185

Venus	42581-11-12 15:07 G	17273766.92	17273767.13	17273767.34	0.0259	0.0007
Venus	42582-06-29 10:34 G	17273995.81	17273995.94	17273996.08	0.0259	0.0199
Mars	42585-07-20 15:07 G	17275113.00	17275113.13	17275113.31	0.0267	0.0233
Mercury	42587-03-05 02:53 G	17275705.43	17275705.62	17275705.80	0.0274	0.0093
Mercury	42587-06-02 02:10 G	17275794.42	17275794.59	17275794.77	0.0275	0.0106
Moon	42591-05-03 02:10 G	17277225.38	17277225.59	17277225.82	0.0294	0.0138
Earth	42591-05-03 05:46 G	17277225.54	17277225.74	17277225.95	0.0294	0.0156 *
Venus	42595-09-11 14:53 G	17278818.02	17278818.12	17278818.24	0.0305	0.0257
Venus	42596-04-28 23:31 G	17279048.28	17279048.48	17279048.69	0.0304	0.0061
Mercury	42600-04-17 13:55 G	17280496.97	17280497.08	17280497.19	0.0290	0.0140
Mercury	42600-07-15 01:12 G	17280585.42	17280585.55	17280585.68	0.0288	0.0012
Mercury	42600-10-11 12:14 G	17280673.91	17280674.01	17280674.12	0.0287	0.0163
Moon	42604-11-03 08:10 G	17282157.67	17282157.84	17282158.04	0.0268	0.0180
Earth	42604-11-03 11:31 G	17282157.81	17282157.98	17282158.17	0.0268	0.0179 *
Venus	42610-10-09 22:34 G	17284324.28	17284324.44	17284324.62	0.0258	0.0158
Venus	42611-05-26 17:46 G	17284553.03	17284553.24	17284553.46	0.0258	0.0034
Venus	42612-01-10 12:58 G	17284781.96	17284782.04	17284782.16	0.0259	0.0227
Mercury	42616-07-23 00:29 G	17286437.36	17286437.52	17286437.68	0.0273	0.0155
Mercury	42616-10-19 23:46 G	17286526.31	17286526.49	17286526.69	0.0274	0.0044
Mercury	42617-01-16 23:17 G	17286615.38	17286615.47	17286615.56	0.0276	0.0243
Earth	42620-04-27 03:36 G	17287811.43	17287811.65	17287811.88	0.0292	0.0110
Moon	42620-04-27 07:26 G	17287811.59	17287811.81	17287812.03	0.0292	0.0127 *
Venus	42625-03-24 20:24 G	17289604.21	17289604.35	17289604.50	0.0305	0.0222
Venus	42625-11-10 04:48 G	17289834.50	17289834.70	17289834.90	0.0304	0.0096
Mercury	42629-09-04 15:50 G	17291229.07	17291229.16	17291229.26	0.0290	0.0189
Mercury	42629-12-02 03:07 G	17291317.51	17291317.63	17291317.76	0.0289	0.0037
Mercury	42630-02-28 14:24 G	17291405.99	17291406.10	17291406.22	0.0287	0.0116
Mercury	42630-05-28 01:41 G	17291494.52	17291494.57	17291494.62	0.0286	0.0265
Earth	42633-10-29 09:36 G	17292744.65	17292744.90	17292745.14	0.0269	0.0022
Moon	42633-10-29 12:58 G	17292744.79	17292745.04	17292745.28	0.0269	0.0025 *

Venus	42640-04-21 00:29 G	17295110.34	17295110.52	17295110.71	0.0258	0.0135
Venus	42640-12-05 19:41 G	17295339.11	17295339.32	17295339.53	0.0258	0.0057
Venus	42641-07-22 14:53 G	17295568.07	17295568.12	17295568.18	0.0259	0.0249
Mercury	42645-12-09 21:22 G	17297169.29	17297169.39	17297169.52	0.0273	0.0222
Mercury	42646-03-08 21:07 G	17297258.19	17297258.38	17297258.57	0.0274	0.0025
Mercury	42646-06-05 20:24 G	17297347.21	17297347.35	17297347.50	0.0275	0.0175
Moon	42650-05-05 03:50 G	17298776.49	17298776.66	17298776.85	0.0295	0.0192
Earth	42650-05-05 05:46 G	17298776.58	17298776.74	17298776.93	0.0295	0.0208 *
Venus	42654-10-05 00:58 G	17300390.38	17300390.54	17300390.71	0.0305	0.0185
Venus	42655-05-23 09:36 G	17300620.72	17300620.90	17300621.09	0.0304	0.0134
Mars	42658-01-01 23:17 G	17301575.38	17301575.47	17301575.59	0.0296	0.0270
Mercury	42659-01-22 18:00 G	17301961.18	17301961.25	17301961.32	0.0291	0.0237
Mercury	42659-04-21 05:17 G	17302049.60	17302049.72	17302049.85	0.0289	0.0083
Mercury	42659-07-18 16:34 G	17302138.07	17302138.19	17302138.32	0.0288	0.0070
Mercury	42659-10-15 03:50 G	17302226.58	17302226.66	17302226.74	0.0287	0.0220
Moon	42662-10-24 02:38 G	17303331.49	17303331.61	17303331.74	0.0272	0.0232
Earth	42662-10-24 05:46 G	17303331.62	17303331.74	17303331.89	0.0272	0.0228 *
Moon	42663-11-05 10:48 G	17303708.85	17303708.95	17303709.08	0.0268	0.0234
Earth	42663-11-05 13:41 G	17303708.94	17303709.07	17303709.20	0.0268	0.0228 *
Venus	42669-11-01 02:24 G	17305896.42	17305896.60	17305896.80	0.0258	0.0110
Venus	42670-06-17 21:36 G	17306125.20	17306125.40	17306125.60	0.0258	0.0082
Mars	42673-12-14 14:10 G	17307401.02	17307401.09	17307401.18	0.0266	0.0258
Mercury	42675-07-26 18:14 G	17307990.08	17307990.26	17307990.45	0.0273	0.0090
Mercury	42675-10-23 17:31 G	17308079.06	17308079.23	17308079.41	0.0274	0.0108
Earth	42679-04-29 01:41 G	17309362.34	17309362.57	17309362.81	0.0292	0.0063
Moon	42679-04-29 02:53 G	17309362.38	17309362.62	17309362.86	0.0292	0.0078 *
Venus	42684-04-16 04:48 G	17311176.53	17311176.70	17311176.89	0.0305	0.0154
Venus	42684-12-02 13:12 G	17311406.88	17311407.05	17311407.23	0.0304	0.0165
Mercury	42688-09-07 06:58 G	17312781.68	17312781.79	17312781.90	0.0290	0.0137
Mercury	42688-12-04 18:14 G	17312870.13	17312870.26	17312870.39	0.0289	0.0017

Mercury	42689-03-03 05:31 G	17312958.63	17312958.73	17312958.83	0.0287	0.0168
Earth	42692-10-30 09:36 G	17314295.65	17314295.90	17314296.15	0.0269	0.0025
Moon	42692-10-30 12:00 G	17314295.75	17314296.00	17314296.25	0.0269	0.0026 *
Venus	42699-05-14 03:36 G	17316682.46	17316682.65	17316682.86	0.0258	0.0088
Venus	42699-12-28 22:34 G	17316911.25	17316911.44	17316911.64	0.0258	0.0104
Mercury	42704-12-13 15:07 G	17318721.97	17318722.13	17318722.29	0.0273	0.0160
Mercury	42705-03-12 14:24 G	17318810.91	17318811.10	17318811.29	0.0274	0.0037
Mercury	42705-06-09 13:41 G	17318899.98	17318900.07	17318900.17	0.0275	0.0236
Earth	42709-05-07 01:55 G	17320327.47	17320327.58	17320327.72	0.0295	0.0253
Moon	42709-05-07 04:48 G	17320327.58	17320327.70	17320327.85	0.0295	0.0241 *
Venus	42713-10-28 07:41 G	17321962.64	17321962.82	17321963.02	0.0305	0.0120
Venus	42714-06-15 16:19 G	17322193.02	17322193.18	17322193.34	0.0304	0.0199
Mercury	42718-01-26 08:38 G	17323513.76	17323513.86	17323513.96	0.0291	0.0190
Mercury	42718-04-24 19:55 G	17323602.21	17323602.33	17323602.46	0.0289	0.0036
Mercury	42718-07-22 07:12 G	17323690.69	17323690.80	17323690.92	0.0288	0.0117
Mercury	42718-10-18 18:29 G	17323779.23	17323779.27	17323779.31	0.0287	0.0267
Moon	42721-10-26 01:55 G	17324882.41	17324882.58	17324882.76	0.0272	0.0186
Earth	42721-10-26 04:19 G	17324882.51	17324882.68	17324882.87	0.0272	0.0183 *
Venus	42728-04-09 10:05 G	17327239.90	17327239.92	17327239.97	0.0257	0.0253
Venus	42728-11-24 05:02 G	17327468.50	17327468.71	17327468.92	0.0257	0.0063
Venus	42729-07-10 23:46 G	17327697.31	17327697.49	17327697.68	0.0258	0.0128
Mercury	42734-05-02 11:46 G	17329453.89	17329453.99	17329454.10	0.0272	0.0228
Mercury	42734-07-30 11:02 G	17329542.77	17329542.96	17329543.16	0.0273	0.0034
Mercury	42734-10-27 10:19 G	17329631.79	17329631.93	17329632.09	0.0274	0.0166
Moon	42738-04-30 16:34 G	17330912.95	17330913.19	17330913.44	0.0292	0.0033
Earth	42738-04-30 19:55 G	17330913.09	17330913.33	17330913.57	0.0292	0.0021 *
Venus	42743-05-10 10:19 G	17332748.73	17332748.93	17332749.13	0.0305	0.0092
Venus	42743-12-26 18:43 G	17332979.15	17332979.28	17332979.42	0.0304	0.0227
Mars	42746-05-28 16:48 G	17333863.11	17333863.20	17333863.31	0.0296	0.0276
Mercury	42747-06-15 09:50 G	17334245.85	17334245.91	17334245.98	0.0291	0.0248

Mercury	42747-09-11 21:22 G	17334334.27	17334334.39	17334334.51	0.0290	0.0093
Mercury	42747-12-09 08:38 G	17334422.74	17334422.86	17334422.99	0.0289	0.0061
Mercury	42748-03-06 19:55 G	17334511.25	17334511.33	17334511.42	0.0287	0.0212
Moon	42751-11-02 04:05 G	17335846.43	17335846.67	17335846.92	0.0269	0.0074
Earth	42751-11-02 06:29 G	17335846.54	17335846.77	17335847.02	0.0269	0.0068 *
Venus	42757-10-20 10:48 G	17338025.87	17338025.95	17338026.05	0.0257	0.0233
Venus	42758-06-06 05:31 G	17338254.52	17338254.73	17338254.95	0.0258	0.0043
Venus	42759-01-21 00:14 G	17338483.34	17338483.51	17338483.69	0.0258	0.0149
Mercury	42763-12-17 07:41 G	17340274.64	17340274.82	17340275.00	0.0273	0.0105
Mercury	42764-03-15 06:58 G	17340363.61	17340363.79	17340363.97	0.0274	0.0092
Earth	42767-04-24 17:17 G	17341499.19	17341499.22	17341499.26	0.0290	0.0286
Earth	42768-05-07 19:26 G	17341878.29	17341878.31	17341878.34	0.0295	0.0293
Moon	42768-05-07 22:19 G	17341878.37	17341878.43	17341878.50	0.0295	0.0284
Venus	42772-11-19 12:43 G	17343534.83	17343535.03	17343535.24	0.0305	0.0059
Venus	42773-07-07 21:07 G	17343765.27	17343765.38	17343765.49	0.0304	0.0259
Mercury	42777-01-28 22:48 G	17345066.34	17345066.45	17345066.56	0.0291	0.0148
Mercury	42777-04-27 10:19 G	17345154.80	17345154.93	17345155.06	0.0289	0.0010
Mercury	42777-07-24 21:22 G	17345243.29	17345243.39	17345243.50	0.0288	0.0160
Earth	42780-10-27 00:14 G	17346433.30	17346433.51	17346433.72	0.0272	0.0141
Moon	42780-10-27 02:10 G	17346433.39	17346433.59	17346433.80	0.0272	0.0140 *
Venus	42787-05-02 12:00 G	17348811.89	17348812.00	17348812.13	0.0257	0.0210
Venus	42787-12-17 06:43 G	17349040.57	17349040.78	17349040.99	0.0257	0.0020
Venus	42788-08-02 01:12 G	17349269.40	17349269.55	17349269.72	0.0258	0.0172
Mercury	42793-05-05 04:34 G	17351006.55	17351006.69	17351006.84	0.0272	0.0172
Mercury	42793-08-02 03:50 G	17351095.47	17351095.66	17351095.85	0.0273	0.0023
Mercury	42793-10-30 02:53 G	17351184.52	17351184.62	17351184.74	0.0274	0.0221
Moon	42797-05-01 11:02 G	17352463.72	17352463.96	17352464.20	0.0292	0.0011
Earth	42797-05-01 13:12 G	17352463.80	17352464.05	17352464.29	0.0292	0.0019 *
Venus	42802-06-01 14:24 G	17354320.89	17354321.10	17354321.31	0.0305	0.0033
Venus	42803-01-17 22:34 G	17354551.38	17354551.44	17354551.52	0.0304	0.0285

Mercury	42806-06-18 00:00 G	17355798.41	17355798.50	17355798.59	0.0291	0.0209
Mercury	42806-09-14 11:17 G	17355886.85	17355886.97	17355887.10	0.0290	0.0054
Mercury	42806-12-11 22:34 G	17355975.32	17355975.44	17355975.57	0.0289	0.0100
Mercury	42807-03-10 09:50 G	17356063.85	17356063.91	17356063.97	0.0287	0.0251
Moon	42810-11-02 22:05 G	17357397.21	17357397.42	17357397.64	0.0269	0.0117
Earth	42810-11-03 01:12 G	17357397.33	17357397.55	17357397.78	0.0269	0.0107 *
Venus	42816-11-11 12:14 G	17359597.88	17359598.01	17359598.16	0.0257	0.0189
Venus	42817-06-28 06:58 G	17359826.58	17359826.79	17359827.00	0.0258	0.0002
Venus	42818-02-12 01:26 G	17360055.43	17360055.56	17360055.72	0.0258	0.0193
Mars	42820-08-12 02:38 G	17360967.57	17360967.61	17360967.69	0.0264	0.0259
Mercury	42822-09-22 00:58 G	17361738.47	17361738.54	17361738.63	0.0272	0.0245
Mercury	42822-12-20 00:14 G	17361827.32	17361827.51	17361827.70	0.0273	0.0050
Mercury	42823-03-18 23:31 G	17361916.32	17361916.48	17361916.64	0.0274	0.0146
Earth	42826-04-25 09:22 G	17363049.78	17363049.89	17363050.03	0.0290	0.0248
Moon	42826-04-25 11:46 G	17363049.87	17363049.99	17363050.10	0.0290	0.0257 *
Venus	42831-12-12 16:19 G	17365106.97	17365107.18	17365107.39	0.0305	0.0002
Mars	42834-10-20 23:17 G	17366150.36	17366150.47	17366150.61	0.0297	0.0261
Mercury	42835-11-05 01:12 G	17366530.51	17366530.55	17366530.60	0.0292	0.0267
Mercury	42836-02-01 12:43 G	17366618.91	17366619.03	17366619.15	0.0291	0.0111
Mercury	42836-04-30 00:00 G	17366707.38	17366707.50	17366707.63	0.0289	0.0045
Mercury	42836-07-27 11:17 G	17366795.88	17366795.97	17366796.07	0.0288	0.0197
Earth	42839-10-28 18:29 G	17367984.05	17367984.27	17367984.50	0.0272	0.0102
Moon	42839-10-28 22:05 G	17367984.18	17367984.42	17367984.65	0.0272	0.0097 *
Venus	42846-05-24 13:41 G	17370383.91	17370384.07	17370384.23	0.0257	0.0167
Venus	42847-01-08 08:10 G	17370612.63	17370612.84	17370613.05	0.0258	0.0024
Venus	42847-08-25 02:53 G	17370841.51	17370841.62	17370841.74	0.0258	0.0215
Mercury	42852-05-07 21:07 G	17372559.21	17372559.38	17372559.56	0.0272	0.0117
Mercury	42852-08-04 20:24 G	17372648.17	17372648.35	17372648.54	0.0273	0.0079
Earth	42856-05-02 05:46 G	17374014.50	17374014.74	17374014.98	0.0292	0.0059
Moon	42856-05-02 08:10 G	17374014.61	17374014.84	17374015.07	0.0292	0.0056 *

Venus	42860-11-05 08:53 G	17375662.83	17375662.87	17375662.92	0.0306	0.0297
Venus	42861-06-23 18:00 G	17375893.04	17375893.25	17375893.46	0.0305	0.0024
Mercury	42865-06-20 13:41 G	17377350.97	17377351.07	17377351.18	0.0291	0.0172
Mercury	42865-09-17 01:12 G	17377439.42	17377439.55	17377439.68	0.0290	0.0016
Mercury	42865-12-14 12:29 G	17377527.91	17377528.02	17377528.14	0.0289	0.0138
Earth	42869-11-03 19:26 G	17378948.11	17378948.31	17378948.53	0.0269	0.0147
Moon	42869-11-03 20:24 G	17378948.17	17378948.35	17378948.55	0.0269	0.0159 *
Venus	42875-12-04 14:10 G	17381169.91	17381170.09	17381170.26	0.0257	0.0146
Venus	42876-07-20 08:38 G	17381398.65	17381398.86	17381399.07	0.0258	0.0045
Venus	42877-03-06 03:22 G	17381627.56	17381627.64	17381627.73	0.0258	0.0236
Mercury	42881-09-24 18:14 G	17383291.12	17383291.26	17383291.40	0.0272	0.0186
Mercury	42881-12-22 17:17 G	17383380.03	17383380.22	17383380.41	0.0273	0.0008
Mercury	42882-03-21 16:19 G	17383469.06	17383469.18	17383469.31	0.0274	0.0205
Moon	42885-04-26 01:12 G	17384600.39	17384600.55	17384600.73	0.0290	0.0211
Earth	42885-04-26 03:50 G	17384600.50	17384600.66	17384600.84	0.0290	0.0206 *
Venus	42890-05-18 11:46 G	17386448.89	17386448.99	17386449.09	0.0305	0.0263
Venus	42891-01-03 20:38 G	17386679.15	17386679.36	17386679.56	0.0304	0.0057
Mercury	42894-11-07 15:07 G	17388083.05	17388083.13	17388083.21	0.0292	0.0230
Mercury	42895-02-04 02:38 G	17388171.48	17388171.61	17388171.73	0.0291	0.0073
Mercury	42895-05-03 13:55 G	17388259.96	17388260.08	17388260.21	0.0289	0.0082
Mercury	42895-07-31 01:12 G	17388348.48	17388348.55	17388348.63	0.0288	0.0235
Moon	42898-10-29 11:46 G	17389534.74	17389534.99	17389535.24	0.0272	0.0052
Earth	42898-10-29 12:29 G	17389534.79	17389535.02	17389535.27	0.0272	0.0063 *
Venus	42905-06-16 15:36 G	17391955.96	17391956.15	17391956.34	0.0257	0.0123
Venus	42906-01-31 10:05 G	17392184.72	17392184.92	17392185.13	0.0258	0.0068
Mars	42909-01-05 20:10 G	17393255.22	17393255.34	17393255.49	0.0263	0.0239
Mercury	42911-02-12 15:22 G	17394023.08	17394023.14	17394023.23	0.0271	0.0249
Mercury	42911-05-12 14:38 G	17394111.92	17394112.11	17394112.30	0.0272	0.0055
Mercury	42911-08-09 13:41 G	17394200.91	17394201.07	17394201.24	0.0273	0.0140
Earth	42915-05-05 00:43 G	17395565.31	17395565.53	17395565.76	0.0292	0.0104

Moon	42915-05-05 04:05 G	17395565.44	17395565.67	17395565.90	0.0292	0.0102	*
Venus	42919-11-29 13:12 G	17397234.93	17397235.05	17397235.19	0.0305	0.0239	
Venus	42920-07-16 22:19 G	17397465.23	17397465.43	17397465.63	0.0305	0.0083	
Mars	42923-03-16 06:14 G	17398437.63	17398437.76	17398437.91	0.0297	0.0252	
Mercury	42924-03-27 16:19 G	17398815.17	17398815.18	17398815.19	0.0293	0.0291	
Mercury	42924-06-24 03:50 G	17398903.54	17398903.66	17398903.77	0.0291	0.0134	
Mercury	42924-09-20 15:07 G	17398992.00	17398992.13	17398992.26	0.0290	0.0023	
Mercury	42924-12-18 02:24 G	17399080.50	17399080.60	17399080.71	0.0289	0.0177	
Earth	42928-11-05 14:10 G	17400498.92	17400499.09	17400499.27	0.0270	0.0187	
Moon	42928-11-05 18:00 G	17400499.09	17400499.25	17400499.41	0.0270	0.0201	*
Venus	42934-12-27 16:19 G	17402741.99	17402742.18	17402742.38	0.0257	0.0102	
Venus	42935-08-13 11:02 G	17402970.76	17402970.96	17402971.16	0.0258	0.0090	
Mercury	42940-09-28 12:00 G	17404843.83	17404844.00	17404844.17	0.0272	0.0122	
Mercury	42940-12-26 11:02 G	17404932.78	17404932.96	17404933.15	0.0273	0.0073	
Mercury	42941-03-25 10:05 G	17405021.90	17405021.92	17405021.96	0.0274	0.0270	
Moon	42944-04-27 21:22 G	17406151.21	17406151.39	17406151.60	0.0290	0.0162	
Earth	42944-04-28 00:29 G	17406151.32	17406151.52	17406151.73	0.0290	0.0159	*
Venus	42949-06-10 17:17 G	17408021.07	17408021.22	17408021.38	0.0305	0.0202	
Venus	42950-01-27 01:55 G	17408251.39	17408251.58	17408251.78	0.0304	0.0118	
Mercury	42953-11-11 05:17 G	17409635.62	17409635.72	17409635.82	0.0292	0.0189	
Mercury	42954-02-07 16:48 G	17409724.07	17409724.20	17409724.32	0.0291	0.0033	
Mercury	42954-05-07 04:05 G	17409812.55	17409812.67	17409812.79	0.0289	0.0123	
Mercury	42954-08-03 15:22 G	17409901.11	17409901.14	17409901.18	0.0288	0.0276	
Moon	42957-10-31 04:19 G	17411085.43	17411085.68	17411085.92	0.0272	0.0008	
Earth	42957-10-31 07:55 G	17411085.59	17411085.83	17411086.08	0.0272	0.0021	*
Venus	42964-07-08 18:29 G	17413528.07	17413528.27	17413528.47	0.0258	0.0078	
Venus	42965-02-22 12:58 G	17413756.86	17413757.04	17413757.24	0.0258	0.0114	
Mercury	42970-02-15 09:50 G	17415575.78	17415575.91	17415576.06	0.0271	0.0180	
Mercury	42970-05-15 09:07 G	17415664.69	17415664.88	17415665.07	0.0272	0.0014	
Mercury	42970-08-12 07:55 G	17415753.72	17415753.83	17415753.96	0.0273	0.0210	

Moon	42974-05-05 23:02 G	17417116.26	17417116.46	17417116.68	0.0292	0.0159
Earth	42974-05-06 00:14 G	17417116.30	17417116.51	17417116.72	0.0292	0.0155 *
Venus	42978-12-21 20:38 G	17418807.19	17418807.36	17418807.54	0.0305	0.0173
Venus	42979-08-09 05:17 G	17419037.54	17419037.72	17419037.91	0.0305	0.0148
Mercury	42983-03-31 06:43 G	17420367.71	17420367.78	17420367.85	0.0293	0.0247
Mercury	42983-06-27 18:14 G	17420456.14	17420456.26	17420456.38	0.0291	0.0089
Mercury	42983-09-24 05:31 G	17420544.61	17420544.73	17420544.86	0.0290	0.0067
Mercury	42983-12-21 16:48 G	17420633.12	17420633.20	17420633.29	0.0289	0.0221
Earth	42986-10-25 21:22 G	17421672.28	17421672.39	17421672.51	0.0274	0.0241
Moon	42986-10-26 01:12 G	17421672.42	17421672.55	17421672.69	0.0274	0.0228 *
Earth	42987-11-07 10:48 G	17422049.83	17422049.95	17422050.08	0.0270	0.0230
Moon	42987-11-07 11:17 G	17422049.87	17422049.97	17422050.08	0.0270	0.0244 *
Venus	42993-06-04 01:26 G	17424085.50	17424085.56	17424085.63	0.0257	0.0245
Venus	42994-01-18 20:10 G	17424314.13	17424314.34	17424314.55	0.0258	0.0054
Venus	42994-09-04 14:53 G	17424542.95	17424543.12	17424543.30	0.0258	0.0138
Mars	42997-05-31 21:50 G	17425543.21	17425543.41	17425543.63	0.0263	0.0200
Mercury	42999-07-05 07:41 G	17426307.75	17426307.82	17426307.92	0.0271	0.0241
Mercury	42999-10-02 06:58 G	17426396.60	17426396.79	17426396.98	0.0272	0.0047
Mercury	42999-12-30 06:00 G	17426485.59	17426485.75	17426485.91	0.0273	0.0148

44TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 44th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Earth	43003-05-01 01:41 G	17427702.35	17427702.57	17427702.80	0.0290	0.0104
Moon	43003-05-01 03:22 G	17427702.43	17427702.64	17427702.87	0.0290	0.0101 *
Venus	43008-07-04 01:41 G	17429593.38	17429593.57	17429593.75	0.0305	0.0135
Venus	43009-02-19 09:50 G	17429823.75	17429823.91	17429824.09	0.0304	0.0186
Mars	43011-08-10 00:29 G	17430725.39	17430725.52	17430725.66	0.0297	0.0258
Mercury	43012-11-14 19:55 G	17431188.22	17431188.33	17431188.44	0.0291	0.0142
Mercury	43013-02-11 07:12 G	17431276.68	17431276.80	17431276.93	0.0290	0.0017
Mercury	43013-05-10 18:43 G	17431365.17	17431365.28	17431365.38	0.0289	0.0170
Earth	43016-11-02 05:31 G	17432636.49	17432636.73	17432636.98	0.0272	0.0026
Moon	43016-11-02 05:31 G	17432636.49	17432636.73	17432636.97	0.0272	0.0040 *
Venus	43022-12-16 04:05 G	17434871.57	17434871.67	17434871.79	0.0258	0.0222
Venus	43023-08-01 23:02 G	17435100.24	17435100.46	17435100.67	0.0258	0.0030
Venus	43024-03-17 17:31 G	17435329.08	17435329.23	17435329.41	0.0258	0.0164
Mercury	43029-02-19 05:31 G	17437128.56	17437128.73	17437128.92	0.0271	0.0101
Mercury	43029-05-19 04:48 G	17437217.52	17437217.70	17437217.88	0.0272	0.0094
Moon	43033-05-07 23:46 G	17438667.34	17438667.49	17438667.65	0.0292	0.0223
Earth	43033-05-08 03:36 G	17438667.49	17438667.65	17438667.82	0.0292	0.0214 *
Venus	43038-01-14 06:29 G	17440379.57	17440379.77	17440379.97	0.0305	0.0102
Venus	43038-09-01 14:53 G	17440609.98	17440610.12	17440610.27	0.0304	0.0218
Mercury	43042-04-03 21:36 G	17441920.31	17441920.40	17441920.50	0.0292	0.0195
Mercury	43042-07-01 09:07 G	17442008.75	17442008.88	17442009.01	0.0291	0.0038
Mercury	43042-09-27 20:24 G	17442097.24	17442097.35	17442097.47	0.0290	0.0119
Mercury	43042-12-25 07:55 G	17442185.79	17442185.83	17442185.87	0.0289	0.0272
Moon	43045-10-27 20:24 G	17443223.17	17443223.35	17443223.55	0.0274	0.0178
Earth	43045-10-27 20:53 G	17443223.20	17443223.37	17443223.55	0.0274	0.0193 *
Venus	43052-06-27 06:43 G	17445657.64	17445657.78	17445657.91	0.0258	0.0196
Venus	43053-02-11 01:26 G	17445886.35	17445886.56	17445886.77	0.0258	0.0005
Venus	43053-09-27 20:24 G	17446115.21	17446115.35	17446115.50	0.0258	0.0189
Mercury	43058-07-09 04:19 G	17447860.52	17447860.68	17447860.83	0.0271	0.0157
Mercury	43058-10-06 03:22 G	17447949.45	17447949.64	17447949.83	0.0272	0.0038

Mercury	43059-01-03 02:10 G	17448038.50	17448038.59	17448038.70	0.0273	0.0234
Earth	43062-05-02 08:10 G	17449253.60	17449253.84	17449254.08	0.0290	0.0041
Moon	43062-05-02 12:00 G	17449253.75	17449254.00	17449254.24	0.0290	0.0033 *
Venus	43067-07-27 13:41 G	17451165.86	17451166.07	17451166.28	0.0304	0.0059
Venus	43068-03-13 21:50 G	17451396.31	17451396.41	17451396.52	0.0304	0.0260
Mercury	43071-08-21 23:46 G	17452652.42	17452652.49	17452652.56	0.0292	0.0242
Mercury	43071-11-18 11:17 G	17452740.85	17452740.97	17452741.09	0.0291	0.0084
Mercury	43072-02-14 22:48 G	17452829.32	17452829.45	17452829.57	0.0290	0.0072
Mercury	43072-05-13 10:05 G	17452917.84	17452917.92	17452918.00	0.0289	0.0226
Earth	43075-11-04 06:58 G	17454187.55	17454187.79	17454188.03	0.0272	0.0075
Moon	43075-11-04 10:48 G	17454187.72	17454187.95	17454188.18	0.0272	0.0091 *
Venus	43082-01-07 10:05 G	17456443.77	17456443.92	17456444.09	0.0258	0.0171
Venus	43082-08-24 05:02 G	17456672.50	17456672.71	17456672.93	0.0258	0.0022
Venus	43083-04-10 00:14 G	17456901.39	17456901.51	17456901.63	0.0259	0.0215
Mars	43085-10-26 19:12 G	17457832.04	17457832.30	17457832.58	0.0263	0.0139
Mercury	43087-11-26 03:36 G	17458592.53	17458592.65	17458592.78	0.0271	0.0204
Mercury	43088-02-23 02:38 G	17458681.42	17458681.61	17458681.81	0.0272	0.0011
Mercury	43088-05-22 01:41 G	17458770.43	17458770.57	17458770.71	0.0273	0.0185
Moon	43091-04-26 13:41 G	17459840.02	17459840.07	17459840.14	0.0287	0.0277
Earth	43091-04-26 16:48 G	17459840.18	17459840.20	17459840.26	0.0287	0.0283
Earth	43092-05-09 12:43 G	17460218.99	17460219.03	17460219.10	0.0292	0.0283
Venus	43097-02-05 20:24 G	17461952.14	17461952.35	17461952.56	0.0305	0.0022
Venus	43097-09-24 04:19 G	17462182.64	17462182.68	17462182.73	0.0304	0.0296
Mercury	43101-01-09 01:55 G	17463384.58	17463384.58	17463384.59	0.0293	0.0292
Mercury	43101-04-07 13:26 G	17463472.95	17463473.06	17463473.18	0.0292	0.0133
Mercury	43101-07-05 00:58 G	17463561.41	17463561.54	17463561.67	0.0291	0.0025
Mercury	43101-10-01 12:14 G	17463649.91	17463650.01	17463650.11	0.0289	0.0179
Moon	43104-10-29 20:24 G	17464774.14	17464774.35	17464774.58	0.0274	0.0125
Earth	43104-10-30 00:14 G	17464774.30	17464774.51	17464774.72	0.0274	0.0139 *
Venus	43111-07-21 13:26 G	17467229.89	17467230.06	17467230.24	0.0258	0.0143

Venus	43112-03-06 08:38 G	17467458.65	17467458.86	17467459.07	0.0258	0.0049
Venus	43112-10-21 03:50 G	17467687.60	17467687.66	17467687.74	0.0259	0.0243
Mercury	43117-04-15 02:38 G	17469324.56	17469324.61	17469324.69	0.0271	0.0255
Mercury	43117-07-13 01:55 G	17469413.39	17469413.58	17469413.77	0.0272	0.0061
Mercury	43117-10-10 00:58 G	17469502.38	17469502.54	17469502.71	0.0273	0.0134
Moon	43121-05-04 19:41 G	17470805.07	17470805.32	17470805.57	0.0290	0.0041
Earth	43121-05-04 19:41 G	17470805.08	17470805.32	17470805.57	0.0290	0.0031 *
Venus	43126-01-01 20:38 G	17472508.32	17472508.36	17472508.41	0.0304	0.0295
Venus	43126-08-20 05:02 G	17472738.51	17472738.71	17472738.92	0.0304	0.0026
Mercury	43130-08-25 16:05 G	17474205.07	17474205.17	17474205.27	0.0292	0.0175
Mercury	43130-11-22 03:22 G	17474293.52	17474293.64	17474293.77	0.0290	0.0019
Mercury	43131-02-18 14:38 G	17474382.01	17474382.11	17474382.23	0.0289	0.0139
Earth	43134-11-06 11:46 G	17475738.79	17475738.99	17475739.22	0.0272	0.0132
Moon	43134-11-06 13:26 G	17475738.85	17475739.06	17475739.28	0.0272	0.0145 *
Venus	43141-01-30 17:46 G	17478016.06	17478016.24	17478016.44	0.0258	0.0117
Venus	43141-09-16 12:58 G	17478244.84	17478245.04	17478245.25	0.0259	0.0077
Mercury	43146-11-30 01:55 G	17480145.40	17480145.58	17480145.75	0.0271	0.0106
Mercury	43147-02-27 00:58 G	17480234.36	17480234.54	17480234.72	0.0272	0.0089
Earth	43150-04-29 06:14 G	17481391.61	17481391.76	17481391.94	0.0287	0.0211
Moon	43150-04-29 06:29 G	17481391.61	17481391.77	17481391.94	0.0287	0.0204 *
Venus	43155-07-15 05:46 G	17483294.63	17483294.74	17483294.86	0.0304	0.0252
Venus	43156-03-01 13:55 G	17483524.88	17483525.08	17483525.29	0.0304	0.0068
Mars	43158-04-11 23:46 G	17484296.37	17484296.49	17484296.61	0.0300	0.0267
Mercury	43160-01-12 18:43 G	17484937.19	17484937.28	17484937.36	0.0292	0.0217
Mercury	43160-04-10 06:00 G	17485025.63	17485025.75	17485025.88	0.0291	0.0060
Mercury	43160-07-07 17:31 G	17485114.11	17485114.23	17485114.35	0.0290	0.0097
Mercury	43160-10-04 04:48 G	17485202.64	17485202.70	17485202.76	0.0289	0.0251
Moon	43163-11-01 06:29 G	17486325.54	17486325.77	17486326.00	0.0274	0.0065
Earth	43163-11-01 08:10 G	17486325.61	17486325.84	17486326.08	0.0274	0.0079 *
Venus	43170-08-12 22:05 G	17488802.22	17488802.42	17488802.62	0.0258	0.0087

Venus	43171-03-29 17:17 G	17489031.03	17489031.22	17489031.42	0.0258	0.0107
Mars	43174-03-24 05:46 G	17490121.43	17490121.74	17490122.06	0.0264	0.0055
Mercury	43176-04-18 01:26 G	17490877.41	17490877.56	17490877.73	0.0271	0.0151
Mercury	43176-07-16 00:43 G	17490966.34	17490966.53	17490966.72	0.0272	0.0044
Mercury	43176-10-12 23:46 G	17491055.40	17491055.49	17491055.58	0.0273	0.0240
Moon	43180-05-06 08:38 G	17492356.64	17492356.86	17492357.09	0.0291	0.0124
Earth	43180-05-06 12:14 G	17492356.78	17492357.01	17492357.23	0.0291	0.0111 *
Venus	43185-01-24 16:05 G	17494081.02	17494081.17	17494081.33	0.0304	0.0202
Venus	43185-09-12 00:14 G	17494311.32	17494311.51	17494311.71	0.0304	0.0118
Mercury	43189-05-31 21:36 G	17495669.34	17495669.40	17495669.46	0.0292	0.0254
Mercury	43189-08-28 09:07 G	17495757.76	17495757.88	17495758.00	0.0291	0.0097
Mercury	43189-11-24 20:24 G	17495846.23	17495846.35	17495846.48	0.0290	0.0060
Mercury	43190-02-21 07:41 G	17495934.74	17495934.82	17495934.91	0.0289	0.0214
Moon	43192-10-26 06:29 G	17496912.77	17496912.77	17496912.78	0.0276	0.0276
Moon	43193-11-07 18:14 G	17497290.10	17497290.26	17497290.43	0.0271	0.0204
Earth	43193-11-07 20:53 G	17497290.21	17497290.37	17497290.55	0.0271	0.0193 *
Venus	43199-07-09 07:55 G	17499359.79	17499359.83	17499359.88	0.0259	0.0252
Venus	43200-02-23 03:22 G	17499588.43	17499588.64	17499588.85	0.0259	0.0059
Venus	43200-10-08 22:34 G	17499817.27	17499817.44	17499817.63	0.0259	0.0136
Mercury	43205-09-05 01:55 G	17501609.45	17501609.58	17501609.72	0.0271	0.0192
Mercury	43205-12-03 00:58 G	17501698.35	17501698.54	17501698.74	0.0272	0.0005
Mercury	43206-03-02 00:00 G	17501787.38	17501787.50	17501787.64	0.0273	0.0199
Jupiter	43208-07-13 00:43 G	17502651.10	17502651.53	17502651.98	0.0284	0.0074
Earth	43209-04-30 23:46 G	17502943.28	17502943.49	17502943.72	0.0288	0.0131
Moon	43209-05-01 02:53 G	17502943.42	17502943.62	17502943.85	0.0288	0.0124 *
Venus	43214-08-07 02:24 G	17504867.43	17504867.60	17504867.79	0.0304	0.0155
Venus	43215-03-25 10:34 G	17505097.77	17505097.94	17505098.12	0.0304	0.0164
Mercury	43219-01-15 12:00 G	17506489.89	17506490.00	17506490.12	0.0292	0.0135
Mercury	43219-04-13 23:31 G	17506578.35	17506578.48	17506578.61	0.0291	0.0023
Mercury	43219-07-11 10:48 G	17506666.85	17506666.95	17506667.05	0.0289	0.0177

Earth	43222-11-02 19:41 G	17507877.07	17507877.32	17507877.56	0.0273	0.0014
Moon	43222-11-02 21:50 G	17507877.17	17507877.41	17507877.65	0.0273	0.0004 *
Venus	43229-01-18 12:29 G	17510145.93	17510146.02	17510146.14	0.0258	0.0222
Venus	43229-09-04 08:10 G	17510374.63	17510374.84	17510375.05	0.0258	0.0028
Venus	43230-04-21 03:22 G	17510603.49	17510603.64	17510603.81	0.0259	0.0167
Mercury	43235-01-23 01:41 G	17512341.49	17512341.57	17512341.68	0.0271	0.0236
Mercury	43235-04-22 00:58 G	17512430.35	17512430.54	17512430.74	0.0272	0.0042
Mercury	43235-07-20 00:00 G	17512519.35	17512519.50	17512519.67	0.0273	0.0155
Moon	43239-05-09 04:34 G	17513908.53	17513908.69	17513908.87	0.0291	0.0208
Earth	43239-05-09 07:12 G	17513908.63	17513908.80	17513908.98	0.0291	0.0197 *
Venus	43244-02-17 14:10 G	17515653.89	17515654.09	17515654.29	0.0304	0.0103
Venus	43244-10-04 21:50 G	17515884.28	17515884.41	17515884.57	0.0304	0.0217
Mars	43246-09-06 22:48 G	17516586.24	17516586.45	17516586.69	0.0299	0.0162
Mercury	43248-06-03 15:22 G	17517222.04	17517222.14	17517222.25	0.0291	0.0167
Mercury	43248-08-31 02:53 G	17517310.49	17517310.62	17517310.74	0.0290	0.0013
Mercury	43248-11-27 14:10 G	17517398.98	17517399.09	17517399.20	0.0289	0.0145
Moon	43251-10-28 15:50 G	17518464.00	17518464.16	17518464.34	0.0275	0.0204
Earth	43251-10-28 18:00 G	17518464.12	17518464.25	17518464.41	0.0275	0.0220 *
Moon	43252-11-09 06:14 G	17518841.76	17518841.76	17518841.77	0.0271	0.0271
Earth	43252-11-09 09:36 G	17518841.83	17518841.90	17518841.97	0.0271	0.0258
Venus	43258-07-31 18:14 G	17520932.13	17520932.26	17520932.41	0.0259	0.0192
Venus	43259-03-17 13:41 G	17521160.86	17521161.07	17521161.29	0.0259	0.0004
Venus	43259-11-01 09:22 G	17521389.75	17521389.89	17521390.03	0.0259	0.0196
Mars	43262-08-19 04:19 G	17522411.37	17522411.68	17522412.01	0.0264	0.0046
Mercury	43264-09-08 01:26 G	17523162.38	17523162.56	17523162.75	0.0272	0.0082
Mercury	43264-12-06 00:29 G	17523251.35	17523251.52	17523251.70	0.0273	0.0115
Earth	43268-05-02 19:41 G	17524495.08	17524495.32	17524495.56	0.0289	0.0047
Moon	43268-05-02 22:34 G	17524495.19	17524495.44	17524495.69	0.0289	0.0041 *
Venus	43273-08-30 01:41 G	17526440.36	17526440.57	17526440.78	0.0304	0.0052
Venus	43274-04-17 09:36 G	17526670.80	17526670.90	17526671.00	0.0304	0.0266

Mercury	43277-10-21 18:29 G	17527954.18	17527954.27	17527954.37	0.0292	0.0202
Mercury	43278-01-18 06:00 G	17528042.62	17528042.75	17528042.88	0.0291	0.0045
Mercury	43278-04-16 17:17 G	17528131.10	17528131.22	17528131.34	0.0290	0.0111
Mercury	43278-07-14 04:34 G	17528219.65	17528219.69	17528219.74	0.0289	0.0265
Earth	43281-11-04 09:50 G	17529428.67	17529428.91	17529429.16	0.0273	0.0057
Moon	43281-11-04 13:26 G	17529428.82	17529429.06	17529429.31	0.0273	0.0073 *
Venus	43288-02-10 23:31 G	17531718.32	17531718.48	17531718.65	0.0258	0.0160
Venus	43288-09-26 18:58 G	17531947.08	17531947.29	17531947.50	0.0258	0.0034
Venus	43289-05-13 14:24 G	17532176.01	17532176.10	17532176.21	0.0259	0.0228
Mercury	43294-01-26 01:41 G	17533894.40	17533894.57	17533894.74	0.0272	0.0124
Mercury	43294-04-25 00:58 G	17533983.35	17533983.54	17533983.72	0.0273	0.0072
Mercury	43294-07-22 23:46 G	17534072.47	17534072.49	17534072.53	0.0274	0.0270
Moon	43297-04-27 06:29 G	17535081.73	17535081.77	17535081.84	0.0287	0.0278
Earth	43297-04-27 09:07 G	17535081.85	17535081.88	17535081.93	0.0287	0.0283
Earth	43298-05-11 03:50 G	17535460.62	17535460.66	17535460.73	0.0292	0.0285
Venus	43303-03-13 13:12 G	17537226.84	17537227.05	17537227.26	0.0304	0.0006
Mercury	43307-03-11 21:50 G	17538686.34	17538686.41	17538686.49	0.0292	0.0234
Mercury	43307-06-08 09:22 G	17538774.77	17538774.89	17538775.02	0.0291	0.0076
Mercury	43307-09-04 20:53 G	17538863.24	17538863.37	17538863.49	0.0290	0.0081
Mercury	43307-12-02 07:55 G	17538951.76	17538951.83	17538951.91	0.0288	0.0235
Moon	43310-10-31 06:14 G	17540015.55	17540015.76	17540015.98	0.0274	0.0132
Earth	43310-10-31 10:05 G	17540015.71	17540015.92	17540016.13	0.0274	0.0148 *
Venus	43317-08-24 05:17 G	17542504.54	17542504.72	17542504.91	0.0259	0.0130
Venus	43318-04-10 00:43 G	17542733.32	17542733.53	17542733.73	0.0259	0.0064
Venus	43318-11-24 20:10 G	17542962.33	17542962.34	17542962.36	0.0259	0.0259
Mercury	43323-06-16 01:55 G	17544626.43	17544626.58	17544626.73	0.0271	0.0166
Mercury	43323-09-13 00:58 G	17544715.35	17544715.54	17544715.73	0.0272	0.0029
Mercury	43323-12-11 00:00 G	17544804.40	17544804.50	17544804.62	0.0273	0.0226
Moon	43327-05-06 13:26 G	17546046.82	17546047.06	17546047.31	0.0289	0.0046
Earth	43327-05-06 14:53 G	17546046.88	17546047.12	17546047.36	0.0289	0.0036 *

Venus	43332-02-05 16:19 G	17547783.09	17547783.18	17547783.29	0.0304	0.0267
Venus	43332-09-23 00:43 G	17548013.33	17548013.53	17548013.74	0.0304	0.0053
Mars	43335-02-03 05:17 G	17548876.46	17548876.72	17548876.99	0.0299	0.0040
Mercury	43336-07-29 01:12 G	17549418.51	17549418.55	17549418.60	0.0293	0.0267
Mercury	43336-10-25 12:43 G	17549506.91	17549507.03	17549507.15	0.0291	0.0109
Mercury	43337-01-22 00:14 G	17549595.38	17549595.51	17549595.63	0.0290	0.0049
Mercury	43337-04-20 11:17 G	17549683.89	17549683.97	17549684.07	0.0289	0.0204
Earth	43340-11-07 01:41 G	17550980.36	17550980.57	17550980.79	0.0272	0.0129
Moon	43340-11-07 01:41 G	17550980.36	17550980.57	17550980.79	0.0272	0.0143 *
Venus	43347-03-06 10:34 G	17553290.74	17553290.94	17553291.13	0.0258	0.0098
Venus	43347-10-21 05:46 G	17553519.55	17553519.74	17553519.95	0.0258	0.0097
Mars	43351-01-15 01:12 G	17554701.29	17554701.55	17554701.83	0.0265	0.0140
Mercury	43352-11-02 01:41 G	17555358.46	17555358.57	17555358.70	0.0271	0.0211
Mercury	43353-01-30 00:58 G	17555447.35	17555447.54	17555447.73	0.0272	0.0015
Mercury	43353-04-29 00:00 G	17555536.37	17555536.50	17555536.65	0.0273	0.0182
Earth	43356-04-30 02:53 G	17556633.46	17556633.62	17556633.80	0.0288	0.0204
Moon	43356-04-30 04:34 G	17556633.53	17556633.69	17556633.88	0.0288	0.0197 *
Venus	43361-08-18 04:05 G	17558569.52	17558569.67	17558569.82	0.0304	0.0217
Venus	43362-04-05 12:14 G	17558799.81	17558800.01	17558800.21	0.0304	0.0103
Mercury	43366-03-14 16:05 G	17560239.06	17560239.17	17560239.28	0.0291	0.0141
Mercury	43366-06-11 03:36 G	17560327.52	17560327.65	17560327.78	0.0290	0.0018
Mercury	43366-09-07 14:53 G	17560416.02	17560416.12	17560416.22	0.0289	0.0171
Earth	43369-11-02 02:10 G	17561567.35	17561567.59	17561567.83	0.0274	0.0075
Moon	43369-11-02 02:24 G	17561567.37	17561567.60	17561567.83	0.0274	0.0060 *
Venus	43376-09-15 16:05 G	17564076.96	17564077.17	17564077.37	0.0259	0.0068
Venus	43377-05-02 11:17 G	17564305.79	17564305.97	17564306.16	0.0259	0.0126
Mercury	43382-03-22 01:41 G	17566090.51	17566090.57	17566090.64	0.0271	0.0255
Mercury	43382-06-19 00:58 G	17566179.35	17566179.54	17566179.73	0.0272	0.0060
Mercury	43382-09-16 00:00 G	17566268.34	17566268.50	17566268.67	0.0273	0.0137
Moon	43386-05-08 04:48 G	17567598.49	17567598.70	17567598.93	0.0290	0.0131

Earth	43386-05-08 08:53 G	17567598.65	17567598.87	17567599.09	0.0290	0.0117	*
Venus	43391-02-28 14:53 G	17569355.94	17569356.12	17569356.29	0.0304	0.0165	
Venus	43391-10-16 23:02 G	17569586.28	17569586.46	17569586.64	0.0304	0.0154	
Mercury	43395-08-01 19:12 G	17570971.20	17570971.30	17570971.41	0.0292	0.0176	
Mercury	43395-10-29 06:43 G	17571059.65	17571059.78	17571059.91	0.0291	0.0018	
Mercury	43396-01-25 18:00 G	17571148.14	17571148.25	17571148.37	0.0290	0.0138	
Moon	43398-10-28 00:00 G	17572154.46	17572154.50	17572154.56	0.0276	0.0270	
Moon	43399-11-09 12:43 G	17572531.88	17572532.03	17572532.19	0.0271	0.0212	
Earth	43399-11-09 16:34 G	17572532.03	17572532.19	17572532.36	0.0271	0.0199	*
Venus	43405-08-13 01:12 G	17574634.47	17574634.55	17574634.66	0.0258	0.0229	
Venus	43406-03-29 20:38 G	17574863.15	17574863.36	17574863.57	0.0258	0.0036	
Venus	43406-11-13 15:50 G	17575092.00	17575092.16	17575092.34	0.0258	0.0158	
Mercury	43411-11-07 00:14 G	17576911.34	17576911.51	17576911.69	0.0272	0.0109	
Mercury	43412-02-03 23:17 G	17577000.29	17577000.47	17577000.66	0.0273	0.0088	
Earth	43415-05-03 17:17 G	17578185.01	17578185.22	17578185.44	0.0288	0.0130	
Moon	43415-05-03 21:07 G	17578185.15	17578185.38	17578185.60	0.0288	0.0119	*
Venus	43420-09-11 00:29 G	17580142.33	17580142.52	17580142.72	0.0305	0.0120	
Venus	43421-04-29 08:53 G	17580372.72	17580372.87	17580373.03	0.0304	0.0201	
Mars	43423-07-02 07:26 G	17581166.56	17581166.81	17581167.08	0.0298	0.0068	
Mercury	43424-12-19 22:19 G	17581703.35	17581703.43	17581703.52	0.0292	0.0211	
Mercury	43425-03-18 09:50 G	17581791.78	17581791.91	17581792.04	0.0291	0.0053	
Mercury	43425-06-14 21:07 G	17581880.26	17581880.38	17581880.50	0.0290	0.0103	
Mercury	43425-09-11 08:24 G	17581968.80	17581968.85	17581968.91	0.0288	0.0257	
Jupiter	43427-10-09 21:50 G	17582727.00	17582727.41	17582727.85	0.0278	0.0114	
Earth	43428-11-04 16:34 G	17583118.94	17583119.19	17583119.44	0.0273	0.0004	
Moon	43428-11-04 20:10 G	17583119.09	17583119.34	17583119.58	0.0273	0.0010	*
Venus	43435-02-23 06:14 G	17585420.64	17585420.76	17585420.90	0.0258	0.0201	
Venus	43435-10-10 01:41 G	17585649.35	17585649.57	17585649.78	0.0258	0.0008	
Venus	43436-05-25 20:38 G	17585878.22	17585878.36	17585878.52	0.0259	0.0186	
Mars	43439-06-12 14:10 G	17586990.94	17586991.09	17586991.27	0.0265	0.0226	

Mercury	43441-03-25 23:31 G	17587643.33	17587643.48	17587643.64	0.0271	0.0158
Mercury	43441-06-22 22:48 G	17587732.26	17587732.45	17587732.64	0.0272	0.0037
Mercury	43441-09-19 21:36 G	17587821.32	17587821.40	17587821.51	0.0273	0.0236
Moon	43445-05-10 21:22 G	17589150.23	17589150.39	17589150.56	0.0291	0.0205
Earth	43445-05-10 22:05 G	17589150.24	17589150.42	17589150.60	0.0291	0.0191 *
Venus	43450-03-24 10:19 G	17590928.72	17590928.93	17590929.13	0.0304	0.0070
Venus	43450-11-09 18:14 G	17591159.16	17591159.26	17591159.39	0.0304	0.0250
Mercury	43454-05-09 01:26 G	17592435.49	17592435.56	17592435.62	0.0293	0.0249
Mercury	43454-08-05 12:43 G	17592523.91	17592524.03	17592524.16	0.0291	0.0091
Mercury	43454-11-02 00:14 G	17592612.38	17592612.51	17592612.64	0.0290	0.0067
Mercury	43455-01-29 11:31 G	17592700.90	17592700.98	17592701.06	0.0289	0.0222
Moon	43457-10-30 10:48 G	17593705.79	17593705.95	17593706.13	0.0275	0.0200
Earth	43457-10-30 14:10 G	17593705.95	17593706.09	17593706.26	0.0275	0.0214 *
Earth	43458-11-12 05:17 G	17594083.69	17594083.72	17594083.78	0.0271	0.0266
Venus	43464-09-04 10:34 G	17596206.78	17596206.94	17596207.10	0.0258	0.0170
Venus	43465-04-21 05:31 G	17596435.52	17596435.73	17596435.95	0.0258	0.0023
Venus	43465-12-06 00:43 G	17596664.42	17596664.53	17596664.65	0.0258	0.0216
Mercury	43470-08-12 22:19 G	17598375.32	17598375.43	17598375.56	0.0271	0.0210
Mercury	43470-11-09 21:36 G	17598464.21	17598464.40	17598464.59	0.0272	0.0015
Mercury	43471-02-06 20:38 G	17598553.22	17598553.36	17598553.51	0.0273	0.0182
Earth	43474-05-05 04:05 G	17599736.43	17599736.67	17599736.91	0.0289	0.0061
Moon	43474-05-05 04:19 G	17599736.44	17599736.68	17599736.93	0.0289	0.0050 *
Venus	43479-10-04 18:29 G	17601715.06	17601715.27	17601715.48	0.0305	0.0028
Venus	43480-05-22 02:38 G	17601945.57	17601945.61	17601945.68	0.0304	0.0292
Mercury	43483-09-26 03:50 G	17603167.66	17603167.66	17603167.68	0.0293	0.0291
Mercury	43483-12-23 15:36 G	17603256.03	17603256.15	17603256.26	0.0292	0.0131
Mercury	43484-03-21 02:53 G	17603344.49	17603344.62	17603344.75	0.0290	0.0027
Mercury	43484-06-17 14:10 G	17603433.00	17603433.09	17603433.19	0.0289	0.0182
Earth	43487-11-07 03:50 G	17604670.42	17604670.66	17604670.90	0.0272	0.0061
Moon	43487-11-07 05:46 G	17604670.50	17604670.74	17604670.99	0.0272	0.0074 *

Venus	43494-03-17 14:24 G	17606992.93	17606993.10	17606993.28	0.0258	0.0143
Venus	43494-11-01 09:36 G	17607221.69	17607221.90	17607222.11	0.0258	0.0050
Venus	43495-06-18 04:34 G	17607450.63	17607450.69	17607450.77	0.0259	0.0243
Mars	43497-09-16 04:19 G	17608271.63	17608271.68	17608271.76	0.0263	0.0257
Mercury	43499-12-30 21:07 G	17609107.34	17609107.38	17609107.42	0.0271	0.0265
Mercury	43500-03-29 20:10 G	17609196.15	17609196.34	17609196.53	0.0272	0.0071
Mercury	43500-06-26 19:12 G	17609285.13	17609285.30	17609285.48	0.0273	0.0125
Earth	43504-05-13 06:14 G	17610701.65	17610701.76	17610701.87	0.0291	0.0257
Moon	43504-05-13 09:22 G	17610701.82	17610701.89	17610701.98	0.0291	0.0273 *
Venus	43508-08-29 17:02 G	17612271.20	17612271.21	17612271.23	0.0304	0.0303
Venus	43509-04-17 01:55 G	17612501.37	17612501.58	17612501.79	0.0304	0.0017
Mars	43511-11-27 15:50 G	17613455.92	17613456.16	17613456.40	0.0299	0.0144
Mercury	43513-05-12 18:14 G	17613988.15	17613988.26	17613988.36	0.0292	0.0174
Mercury	43513-08-09 05:31 G	17614076.60	17614076.73	17614076.86	0.0291	0.0016
Mercury	43513-11-05 16:48 G	17614165.10	17614165.20	17614165.32	0.0290	0.0142
Moon	43516-11-01 21:36 G	17615257.20	17615257.40	17615257.62	0.0275	0.0136
Earth	43516-11-02 00:00 G	17615257.30	17615257.50	17615257.72	0.0275	0.0150 *
Venus	43523-09-28 18:00 G	17617779.06	17617779.25	17617779.44	0.0258	0.0114
Venus	43524-05-14 12:43 G	17618007.83	17618008.03	17618008.24	0.0258	0.0078
Mercury	43529-08-16 18:14 G	17619928.10	17619928.26	17619928.44	0.0271	0.0129
Mercury	43529-11-13 17:17 G	17620017.04	17620017.22	17620017.42	0.0272	0.0067
Mercury	43530-02-10 16:34 G	17620106.15	17620106.19	17620106.24	0.0273	0.0264
Moon	43533-05-07 05:31 G	17621287.49	17621287.73	17621287.98	0.0289	0.0012
Earth	43533-05-07 08:53 G	17621287.63	17621287.87	17621288.11	0.0289	0.0003 *
Venus	43538-03-11 23:17 G	17623057.38	17623057.47	17623057.58	0.0305	0.0267
Venus	43538-10-28 08:10 G	17623287.63	17623287.84	17623288.05	0.0305	0.0054
Mercury	43542-09-29 20:10 G	17624720.26	17624720.34	17624720.43	0.0293	0.0222
Mercury	43542-12-27 07:41 G	17624808.70	17624808.82	17624808.95	0.0291	0.0063
Mercury	43543-03-25 19:12 G	17624897.18	17624897.30	17624897.42	0.0290	0.0095
Mercury	43543-06-22 06:29 G	17624985.71	17624985.77	17624985.83	0.0289	0.0250

Moon	43546-11-09 08:38 G	17626221.64	17626221.86	17626222.09	0.0272	0.0131
Earth	43546-11-09 10:48 G	17626221.73	17626221.95	17626222.18	0.0272	0.0120 *
Venus	43553-04-09 20:38 G	17628565.16	17628565.36	17628565.56	0.0258	0.0089
Venus	43553-11-24 15:36 G	17628793.95	17628794.15	17628794.34	0.0258	0.0103
Mercury	43559-01-03 16:19 G	17630660.05	17630660.18	17630660.32	0.0271	0.0189
Mercury	43559-04-02 15:22 G	17630748.95	17630749.14	17630749.34	0.0272	0.0007
Mercury	43559-06-30 14:24 G	17630837.98	17630838.10	17630838.23	0.0273	0.0202
Earth	43562-05-01 14:38 G	17631874.01	17631874.11	17631874.23	0.0287	0.0254
Moon	43562-05-01 18:00 G	17631874.13	17631874.25	17631874.38	0.0287	0.0243 *
Venus	43567-09-22 05:17 G	17633843.58	17633843.72	17633843.86	0.0305	0.0226
Venus	43568-05-09 14:10 G	17634073.89	17634074.09	17634074.29	0.0304	0.0096
Mercury	43572-02-16 22:19 G	17635452.39	17635452.43	17635452.49	0.0293	0.0269
Mercury	43572-05-15 10:05 G	17635540.80	17635540.92	17635541.04	0.0292	0.0109
Mercury	43572-08-11 21:22 G	17635629.27	17635629.39	17635629.52	0.0291	0.0051
Mercury	43572-11-08 08:53 G	17635717.78	17635717.87	17635717.96	0.0290	0.0206
Earth	43575-11-04 05:17 G	17636808.50	17636808.72	17636808.96	0.0275	0.0093
Moon	43575-11-04 07:26 G	17636808.58	17636808.81	17636809.04	0.0275	0.0078 *
Venus	43582-03-06 04:19 G	17639122.66	17639122.68	17639122.72	0.0258	0.0254
Venus	43582-10-20 23:17 G	17639351.26	17639351.47	17639351.68	0.0257	0.0063
Venus	43583-06-06 18:00 G	17639580.07	17639580.25	17639580.44	0.0258	0.0130
Mars	43586-02-10 14:10 G	17640559.93	17640560.09	17640560.28	0.0262	0.0217
Mercury	43588-05-22 14:10 G	17641392.02	17641392.09	17641392.16	0.0270	0.0249
Mercury	43588-08-19 12:58 G	17641480.86	17641481.04	17641481.23	0.0271	0.0057
Mercury	43588-11-16 12:00 G	17641569.84	17641570.00	17641570.17	0.0272	0.0139
Moon	43592-05-08 06:58 G	17642838.56	17642838.79	17642839.02	0.0289	0.0064
Earth	43592-05-08 09:07 G	17642838.65	17642838.88	17642839.13	0.0289	0.0050 *
Venus	43597-04-03 09:07 G	17644629.72	17644629.88	17644630.05	0.0305	0.0195
Venus	43597-11-19 18:00 G	17644860.06	17644860.25	17644860.44	0.0305	0.0128
Mars	43600-04-22 01:26 G	17645744.36	17645744.56	17645744.79	0.0299	0.0180
Mercury	43601-10-02 11:31 G	17646272.88	17646272.98	17646273.09	0.0293	0.0165

Mercury	43601-12-29 23:02 G	17646361.33	17646361.46	17646361.59	0.0291	0.0009
Mercury	43602-03-28 10:34 G	17646449.83	17646449.94	17646450.05	0.0290	0.0152
Moon	43605-11-10 09:22 G	17647772.72	17647772.89	17647773.08	0.0272	0.0183
Earth	43605-11-10 13:12 G	17647772.86	17647773.05	17647773.24	0.0272	0.0171 *
Venus	43611-09-16 06:14 G	17649908.67	17649908.76	17649908.86	0.0258	0.0231
Venus	43612-05-02 00:58 G	17650137.33	17650137.54	17650137.75	0.0258	0.0039
Venus	43612-12-16 19:26 G	17650366.15	17650366.31	17650366.49	0.0258	0.0153
Mercury	43618-01-06 10:19 G	17652212.76	17652212.93	17652213.10	0.0271	0.0122
Mercury	43618-04-05 09:22 G	17652301.71	17652301.89	17652302.08	0.0272	0.0072
Mercury	43618-07-03 08:10 G	17652390.82	17652390.84	17652390.88	0.0273	0.0269
Earth	43621-05-02 12:14 G	17653424.85	17653425.01	17653425.19	0.0287	0.0207
Moon	43621-05-02 14:24 G	17653424.92	17653425.10	17653425.29	0.0287	0.0193 *
Venus	43626-10-14 13:12 G	17655415.88	17655416.05	17655416.24	0.0305	0.0158
Venus	43627-06-01 22:19 G	17655646.25	17655646.43	17655646.61	0.0305	0.0165
Mercury	43631-02-19 13:26 G	17657004.98	17657005.06	17657005.15	0.0293	0.0216
Mercury	43631-05-19 00:58 G	17657093.42	17657093.54	17657093.67	0.0292	0.0056
Mercury	43631-08-15 12:29 G	17657181.90	17657182.02	17657182.14	0.0291	0.0102
Mercury	43631-11-11 23:46 G	17657270.44	17657270.49	17657270.55	0.0290	0.0259
Earth	43634-11-05 06:00 G	17658359.50	17658359.75	17658359.99	0.0275	0.0042
Moon	43634-11-05 09:36 G	17658359.65	17658359.90	17658360.15	0.0275	0.0028 *
Venus	43641-03-28 07:55 G	17660694.71	17660694.83	17660694.96	0.0257	0.0206
Venus	43641-11-12 02:38 G	17660923.40	17660923.61	17660923.83	0.0257	0.0016
Venus	43642-06-28 21:22 G	17661152.24	17661152.39	17661152.54	0.0258	0.0177
Mercury	43647-05-26 07:26 G	17662944.68	17662944.81	17662944.96	0.0270	0.0187
Mercury	43647-08-23 06:29 G	17663033.58	17663033.77	17663033.97	0.0271	0.0007
Mercury	43647-11-20 05:31 G	17663122.60	17663122.73	17663122.86	0.0272	0.0201
Earth	43651-05-10 05:17 G	17664389.50	17664389.72	17664389.96	0.0289	0.0096
Moon	43651-05-10 07:41 G	17664389.60	17664389.82	17664390.04	0.0289	0.0112 *
Venus	43656-04-25 16:05 G	17666201.98	17666202.17	17666202.36	0.0305	0.0129
Venus	43656-12-12 00:43 G	17666432.38	17666432.53	17666432.70	0.0305	0.0194

Mercury	43660-07-08 14:38 G	17667737.08	17667737.11	17667737.16	0.0294	0.0277
Mercury	43660-10-05 02:24 G	17667825.48	17667825.60	17667825.72	0.0293	0.0115
Mercury	43661-01-01 13:55 G	17667913.95	17667914.08	17667914.20	0.0291	0.0045
Mercury	43661-03-31 01:12 G	17668002.46	17668002.55	17668002.64	0.0290	0.0201
Moon	43663-10-30 13:26 G	17668945.98	17668946.06	17668946.15	0.0277	0.0258
Earth	43663-10-30 16:34 G	17668946.16	17668946.19	17668946.24	0.0277	0.0272
Earth	43664-11-11 11:31 G	17669323.83	17669323.98	17669324.13	0.0272	0.0217
Moon	43664-11-11 11:46 G	17669323.87	17669323.99	17669324.13	0.0272	0.0226 *
Venus	43670-10-08 08:53 G	17671480.73	17671480.87	17671481.03	0.0257	0.0185
Venus	43671-05-25 03:36 G	17671709.44	17671709.65	17671709.86	0.0257	0.0007
Venus	43672-01-08 22:05 G	17671938.29	17671938.42	17671938.56	0.0258	0.0199
Mars	43674-07-06 08:38 G	17672847.65	17672847.86	17672848.09	0.0262	0.0190
Mercury	43676-10-12 04:34 G	17673676.63	17673676.69	17673676.75	0.0270	0.0255
Mercury	43677-01-09 03:36 G	17673765.46	17673765.65	17673765.84	0.0271	0.0063
Mercury	43677-04-08 02:24 G	17673854.44	17673854.60	17673854.77	0.0272	0.0132
Moon	43680-05-03 04:05 G	17674975.46	17674975.67	17674975.89	0.0287	0.0148
Earth	43680-05-03 06:58 G	17674975.60	17674975.79	17674976.00	0.0287	0.0165 *
Venus	43685-11-05 18:58 G	17676988.09	17676988.29	17676988.49	0.0305	0.0095
Venus	43686-06-24 03:36 G	17677218.52	17677218.65	17677218.79	0.0304	0.0227
Mars	43688-09-14 16:48 G	17678031.99	17678032.20	17678032.42	0.0299	0.0180
Mercury	43690-02-22 03:50 G	17678557.56	17678557.66	17678557.76	0.0293	0.0172
Mercury	43690-05-21 15:22 G	17678646.01	17678646.14	17678646.27	0.0292	0.0012
Mercury	43690-08-18 02:38 G	17678734.51	17678734.61	17678734.73	0.0291	0.0147
Moon	43693-11-06 01:26 G	17679910.31	17679910.56	17679910.82	0.0275	0.0012
Earth	43693-11-06 02:38 G	17679910.36	17679910.61	17679910.85	0.0275	0.0005 *
Venus	43700-04-20 10:19 G	17682266.76	17682266.93	17682267.09	0.0257	0.0162
Venus	43700-12-05 04:48 G	17682495.49	17682495.70	17682495.91	0.0257	0.0030
Venus	43701-07-21 23:17 G	17682724.37	17682724.47	17682724.58	0.0258	0.0222
Mercury	43706-05-30 00:29 G	17684497.35	17684497.52	17684497.69	0.0270	0.0129
Mercury	43706-08-26 23:31 G	17684586.29	17684586.48	17684586.66	0.0271	0.0064

Mercury	43706-11-23 22:05 G	17684675.38	17684675.42	17684675.49	0.0272	0.0259
Earth	43710-05-11 22:48 G	17685940.24	17685940.45	17685940.67	0.0289	0.0137
Moon	43710-05-12 01:55 G	17685940.38	17685940.58	17685940.80	0.0289	0.0154 *
Venus	43715-05-19 20:10 G	17687774.14	17687774.34	17687774.55	0.0305	0.0071
Venus	43716-01-05 05:02 G	17688004.60	17688004.71	17688004.83	0.0305	0.0253
Mercury	43719-07-13 04:48 G	17689289.63	17689289.70	17689289.77	0.0294	0.0236
Mercury	43719-10-09 16:19 G	17689378.06	17689378.18	17689378.31	0.0293	0.0075
Mercury	43720-01-06 03:50 G	17689466.54	17689466.66	17689466.78	0.0291	0.0084
Mercury	43720-04-03 15:22 G	17689555.07	17689555.14	17689555.21	0.0290	0.0242
Earth	43722-11-01 11:17 G	17690496.85	17690496.97	17690497.12	0.0277	0.0231
Moon	43722-11-01 12:58 G	17690496.90	17690497.04	17690497.19	0.0277	0.0221 *
Earth	43723-11-14 06:29 G	17690874.69	17690874.77	17690874.84	0.0272	0.0258
Moon	43723-11-14 10:05 G	17690874.87	17690874.92	17690874.99	0.0272	0.0262
Venus	43729-10-31 10:34 G	17693052.77	17693052.94	17693053.12	0.0257	0.0141
Venus	43730-06-17 05:02 G	17693281.50	17693281.71	17693281.92	0.0257	0.0051
Venus	43731-01-31 23:17 G	17693510.41	17693510.47	17693510.55	0.0258	0.0243
Mercury	43735-10-16 21:07 G	17695229.26	17695229.38	17695229.52	0.0270	0.0200
Mercury	43736-01-13 20:10 G	17695318.15	17695318.34	17695318.53	0.0271	0.0008
Mercury	43736-04-11 18:58 G	17695407.16	17695407.29	17695407.43	0.0272	0.0187
Moon	43739-05-05 21:22 G	17696526.17	17696526.39	17696526.61	0.0287	0.0109
Earth	43739-05-06 00:00 G	17696526.28	17696526.50	17696526.72	0.0287	0.0125 *
Venus	43744-11-28 23:02 G	17698560.25	17698560.46	17698560.66	0.0305	0.0037
Venus	43745-07-17 07:26 G	17698790.75	17698790.81	17698790.89	0.0304	0.0286
Mercury	43749-02-25 17:46 G	17700110.12	17700110.24	17700110.35	0.0293	0.0133
Mercury	43749-05-25 05:17 G	17700198.59	17700198.72	17700198.85	0.0292	0.0028
Mercury	43749-08-21 16:34 G	17700287.10	17700287.19	17700287.29	0.0291	0.0186
Moon	43752-11-07 17:02 G	17701460.97	17701461.21	17701461.46	0.0275	0.0046
Earth	43752-11-07 20:53 G	17701461.13	17701461.37	17701461.62	0.0275	0.0042 *
Venus	43759-05-13 11:31 G	17703838.79	17703838.98	17703839.17	0.0257	0.0119
Venus	43759-12-28 06:00 G	17704067.55	17704067.75	17704067.96	0.0257	0.0073

Mars	43762-11-29 22:34 G	17705135.22	17705135.44	17705135.69	0.0261	0.0176
Mercury	43765-03-04 18:14 G	17705961.24	17705961.26	17705961.30	0.0269	0.0264
Mercury	43765-06-01 17:17 G	17706050.03	17706050.22	17706050.40	0.0270	0.0074
Mercury	43765-08-29 15:50 G	17706139.00	17706139.16	17706139.34	0.0271	0.0120
Moon	43769-05-12 13:55 G	17707490.90	17707491.08	17707491.28	0.0289	0.0189
Earth	43769-05-12 15:36 G	17707490.97	17707491.15	17707491.36	0.0289	0.0178 *
Venus	43774-06-10 23:46 G	17709346.28	17709346.49	17709346.70	0.0305	0.0013
Mars	43777-02-07 19:41 G	17710319.10	17710319.32	17710319.55	0.0300	0.0166
Mercury	43778-07-15 18:29 G	17710842.18	17710842.27	17710842.37	0.0294	0.0200
Mercury	43778-10-12 06:00 G	17710930.63	17710930.75	17710930.88	0.0293	0.0040
Mercury	43779-01-08 17:31 G	17711019.12	17711019.23	17711019.35	0.0292	0.0122
Mercury	43779-04-07 05:02 G	17711107.68	17711107.71	17711107.74	0.0290	0.0279
Earth	43781-11-02 04:34 G	17712047.52	17712047.69	17712047.87	0.0277	0.0192
Moon	43781-11-02 08:10 G	17712047.66	17712047.84	17712048.03	0.0277	0.0185 *
Venus	43788-11-22 11:31 G	17714624.79	17714624.98	17714625.19	0.0257	0.0099
Venus	43789-07-09 06:14 G	17714853.56	17714853.76	17714853.96	0.0257	0.0094
Mercury	43794-10-19 13:55 G	17716781.92	17716782.08	17716782.25	0.0270	0.0144
Mercury	43795-01-16 12:43 G	17716870.85	17716871.03	17716871.23	0.0271	0.0049
Mercury	43795-04-15 11:46 G	17716959.91	17716959.99	17716960.07	0.0272	0.0243
Earth	43798-05-06 17:02 G	17718076.98	17718077.21	17718077.45	0.0287	0.0084
Moon	43798-05-06 19:26 G	17718077.08	17718077.31	17718077.54	0.0287	0.0072 *
Venus	43803-05-06 17:17 G	17719902.21	17719902.22	17719902.26	0.0305	0.0302
Venus	43803-12-23 02:24 G	17720132.39	17720132.60	17720132.81	0.0305	0.0020
Mercury	43807-12-03 19:41 G	17721574.27	17721574.32	17721574.38	0.0294	0.0260
Mercury	43808-03-01 07:26 G	17721662.69	17721662.81	17721662.93	0.0293	0.0098
Mercury	43808-05-28 18:58 G	17721751.16	17721751.29	17721751.41	0.0292	0.0063
Mercury	43808-08-25 06:14 G	17721839.69	17721839.76	17721839.85	0.0291	0.0222
Earth	43811-11-10 13:41 G	17723011.83	17723012.07	17723012.31	0.0275	0.0081
Moon	43811-11-10 13:41 G	17723011.85	17723012.07	17723012.30	0.0275	0.0080 *
Venus	43818-06-05 12:43 G	17725410.83	17725411.03	17725411.24	0.0257	0.0077

Venus	43819-01-20 07:12 G	17725639.61	17725639.80	17725639.99	0.0257	0.0116
Mercury	43824-03-08 11:17 G	17727513.85	17727513.97	17727514.09	0.0269	0.0208
Mercury	43824-06-05 10:05 G	17727602.73	17727602.92	17727603.11	0.0270	0.0017
Mercury	43824-09-02 08:53 G	17727691.73	17727691.87	17727692.02	0.0271	0.0176
Moon	43828-05-14 05:46 G	17729041.60	17729041.74	17729041.90	0.0289	0.0226
Earth	43828-05-14 09:22 G	17729041.74	17729041.89	17729042.06	0.0289	0.0218 *
Venus	43832-11-15 18:29 G	17730688.20	17730688.27	17730688.36	0.0305	0.0278
Venus	43833-07-04 03:36 G	17730918.44	17730918.65	17730918.86	0.0305	0.0045
Mercury	43837-07-19 08:24 G	17732394.74	17732394.85	17732394.96	0.0294	0.0162
Mercury	43837-10-15 19:55 G	17732483.20	17732483.33	17732483.46	0.0293	0.0002
Mercury	43838-01-12 07:26 G	17732571.70	17732571.81	17732571.92	0.0292	0.0159
Moon	43840-11-03 21:36 G	17733598.20	17733598.40	17733598.63	0.0277	0.0151
Earth	43840-11-03 21:50 G	17733598.22	17733598.41	17733598.63	0.0277	0.0153 *
Venus	43847-05-01 18:29 G	17735968.21	17735968.27	17735968.33	0.0258	0.0247
Venus	43847-12-16 12:58 G	17736196.84	17736197.04	17736197.25	0.0257	0.0055
Venus	43848-08-01 07:26 G	17736425.64	17736425.81	17736426.00	0.0257	0.0138
Mars	43851-04-25 11:31 G	17737422.73	17737422.98	17737423.24	0.0261	0.0156
Mercury	43853-10-23 07:12 G	17738334.62	17738334.80	17738334.98	0.0270	0.0084
Mercury	43854-01-20 06:00 G	17738423.57	17738423.75	17738423.93	0.0271	0.0108
Earth	43857-05-08 12:00 G	17739627.76	17739628.00	17739628.24	0.0287	0.0041
Moon	43857-05-08 15:07 G	17739627.89	17739628.13	17739628.38	0.0287	0.0032 *
Venus	43862-05-28 22:05 G	17741474.30	17741474.42	17741474.55	0.0305	0.0243
Venus	43863-01-14 06:58 G	17741704.59	17741704.79	17741705.00	0.0305	0.0081
Mars	43865-07-04 01:41 G	17742606.35	17742606.57	17742606.82	0.0300	0.0152
Mercury	43866-12-06 09:36 G	17743126.82	17743126.90	17743126.99	0.0294	0.0221
Mercury	43867-03-04 21:22 G	17743215.26	17743215.39	17743215.51	0.0293	0.0059
Mercury	43867-06-01 08:53 G	17743303.75	17743303.87	17743303.99	0.0292	0.0102
Mercury	43867-08-28 20:10 G	17743392.29	17743392.34	17743392.40	0.0291	0.0260
Earth	43870-11-11 07:12 G	17744562.58	17744562.80	17744563.03	0.0275	0.0121
Moon	43870-11-11 10:48 G	17744562.73	17744562.95	17744563.18	0.0275	0.0115 *

Venus	43876-11-10 19:55 G	17746754.24	17746754.33	17746754.44	0.0258	0.0226
Venus	43877-06-27 14:38 G	17746982.90	17746983.11	17746983.32	0.0258	0.0033
Venus	43878-02-11 09:07 G	17747211.72	17747211.88	17747212.05	0.0258	0.0160
Mercury	43883-03-12 05:02 G	17749066.55	17749066.71	17749066.87	0.0269	0.0144
Mercury	43883-06-09 03:50 G	17749155.47	17749155.66	17749155.85	0.0270	0.0047
Mercury	43883-09-06 02:24 G	17749244.52	17749244.60	17749244.70	0.0271	0.0241
Moon	43886-05-02 15:22 G	17750214.10	17750214.14	17750214.20	0.0284	0.0276
Earth	43887-05-16 06:14 G	17750592.67	17750592.76	17750592.86	0.0289	0.0265
Moon	43887-05-16 07:12 G	17750592.72	17750592.80	17750592.89	0.0289	0.0268 *
Venus	43891-12-09 00:14 G	17752260.37	17752260.51	17752260.66	0.0305	0.0217
Venus	43892-07-26 08:53 G	17752490.68	17752490.87	17752491.07	0.0305	0.0107
Mercury	43896-04-24 10:48 G	17753858.92	17753858.95	17753858.98	0.0295	0.0285
Mercury	43896-07-21 22:19 G	17753947.32	17753947.43	17753947.55	0.0294	0.0122
Mercury	43896-10-18 10:05 G	17754035.79	17754035.92	17754036.04	0.0293	0.0041
Mercury	43897-01-14 21:36 G	17754124.30	17754124.40	17754124.49	0.0292	0.0200
Moon	43899-11-05 12:43 G	17755148.81	17755149.03	17755149.26	0.0277	0.0115
Earth	43899-11-05 16:34 G	17755148.96	17755149.19	17755149.41	0.0277	0.0113 *
Venus	43906-05-24 20:38 G	17757540.24	17757540.36	17757540.50	0.0258	0.0203
Venus	43907-01-08 15:22 G	17757768.93	17757769.14	17757769.36	0.0258	0.0012
Venus	43907-08-25 09:50 G	17757997.77	17757997.91	17757998.07	0.0258	0.0183
Mercury	43912-07-30 02:24 G	17759798.49	17759798.60	17759798.73	0.0269	0.0208
Mercury	43912-10-27 01:12 G	17759887.36	17759887.55	17759887.75	0.0270	0.0018
Mercury	43913-01-24 00:00 G	17759976.36	17759976.50	17759976.65	0.0271	0.0176
Moon	43916-05-10 09:07 G	17761178.62	17761178.88	17761179.13	0.0287	0.0013
Earth	43916-05-10 10:19 G	17761178.69	17761178.93	17761179.17	0.0287	0.0009 *
Venus	43921-06-21 04:48 G	17763046.54	17763046.70	17763046.88	0.0305	0.0179
Venus	43922-02-06 13:41 G	17763276.89	17763277.07	17763277.26	0.0305	0.0144
Mercury	43925-12-10 00:00 G	17764679.40	17764679.50	17764679.60	0.0294	0.0176
Mercury	43926-03-08 11:31 G	17764767.86	17764767.98	17764768.11	0.0293	0.0018
Mercury	43926-06-04 23:02 G	17764856.35	17764856.46	17764856.58	0.0292	0.0147

Earth	43929-11-13 03:22 G	17766113.45	17766113.64	17766113.84	0.0275	0.0164
Moon	43929-11-13 04:48 G	17766113.49	17766113.70	17766113.91	0.0275	0.0156 *
Venus	43935-12-04 23:02 G	17768326.31	17768326.46	17768326.62	0.0258	0.0180
Venus	43936-07-20 17:46 G	17768555.03	17768555.24	17768555.46	0.0258	0.0015
Venus	43937-03-06 12:14 G	17768783.90	17768784.01	17768784.15	0.0258	0.0207
Mars	43939-09-19 14:38 G	17769710.84	17769711.11	17769711.40	0.0261	0.0119
Mercury	43941-12-17 00:58 G	17770530.51	17770530.54	17770530.58	0.0268	0.0262
Mercury	43942-03-15 23:46 G	17770619.30	17770619.49	17770619.68	0.0269	0.0072
Mercury	43942-06-12 22:34 G	17770708.27	17770708.44	17770708.61	0.0270	0.0119
Earth	43945-05-04 18:43 G	17771765.16	17771765.28	17771765.43	0.0284	0.0235
Moon	43945-05-04 20:10 G	17771765.20	17771765.34	17771765.48	0.0284	0.0227 *
Venus	43951-01-01 08:53 G	17773832.69	17773832.87	17773833.06	0.0305	0.0148
Venus	43951-08-19 17:31 G	17774063.06	17774063.23	17774063.40	0.0305	0.0175
Mars	43953-11-27 16:05 G	17774893.95	17774894.17	17774894.40	0.0300	0.0164
Mercury	43955-04-29 01:26 G	17775411.49	17775411.56	17775411.64	0.0295	0.0235
Mercury	43955-07-26 13:12 G	17775499.92	17775500.05	17775500.17	0.0294	0.0072
Mercury	43955-10-23 00:43 G	17775588.41	17775588.53	17775588.65	0.0293	0.0089
Mercury	43956-01-19 12:14 G	17775676.94	17775677.01	17775677.07	0.0291	0.0249
Moon	43958-11-07 12:43 G	17776699.81	17776700.03	17776700.27	0.0277	0.0071
Earth	43958-11-07 14:10 G	17776699.86	17776700.09	17776700.34	0.0277	0.0066 *
Venus	43965-06-16 00:29 G	17779112.36	17779112.52	17779112.70	0.0258	0.0156
Venus	43966-01-30 19:41 G	17779341.10	17779341.32	17779341.53	0.0258	0.0038
Venus	43966-09-16 14:10 G	17779570.01	17779570.09	17779570.19	0.0258	0.0231
Mercury	43971-08-02 22:05 G	17781351.25	17781351.42	17781351.59	0.0269	0.0130
Mercury	43971-10-30 20:53 G	17781440.18	17781440.37	17781440.56	0.0270	0.0061
Mercury	43972-01-27 19:26 G	17781529.26	17781529.31	17781529.38	0.0271	0.0255
Moon	43975-05-12 10:19 G	17782729.70	17782729.93	17782730.17	0.0287	0.0069
Earth	43975-05-12 13:55 G	17782729.85	17782730.08	17782730.32	0.0287	0.0067 *
Venus	43980-07-13 15:22 G	17784618.94	17784619.14	17784619.34	0.0304	0.0106
Venus	43981-02-28 23:46 G	17784849.35	17784849.49	17784849.64	0.0304	0.0217

Mercury	43984-09-15 03:22 G	17786143.62	17786143.64	17786143.67	0.0295	0.0286
Mercury	43984-12-12 15:07 G	17786232.01	17786232.13	17786232.25	0.0294	0.0123
Mercury	43985-03-11 02:38 G	17786320.48	17786320.61	17786320.74	0.0292	0.0039
Mercury	43985-06-07 14:10 G	17786409.00	17786409.09	17786409.18	0.0291	0.0199
Moon	43988-11-13 23:46 G	17787664.33	17787664.49	17787664.67	0.0275	0.0200
Earth	43988-11-14 02:53 G	17787664.47	17787664.62	17787664.78	0.0275	0.0212 *
Venus	43994-12-27 03:50 G	17789898.48	17789898.66	17789898.85	0.0258	0.0131
Venus	43995-08-12 22:48 G	17790127.24	17790127.45	17790127.66	0.0258	0.0063
Venus	43996-03-28 17:46 G	17790356.22	17790356.24	17790356.26	0.0258	0.0257
Mercury	44000-12-19 21:07 G	17792083.24	17792083.38	17792083.52	0.0268	0.0181

45TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 45th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	44001-03-18 19:55 G	17792172.14	17792172.33	17792172.52	0.0269	0.0010		
Mercury	44001-06-15 18:29 G	17792261.15	17792261.27	17792261.40	0.0270	0.0203		
Earth	44004-05-06 00:14 G	17793316.33	17793316.51	17793316.71	0.0284	0.0175		
Moon	44004-05-06 04:05 G	17793316.48	17793316.67	17793316.87	0.0284	0.0167 *		
Venus	44010-01-23 20:53 G	17795405.16	17795405.37	17795405.57	0.0305	0.0071		
Venus	44010-09-11 05:02 G	17795635.60	17795635.71	17795635.84	0.0305	0.0252		
Mercury	44014-05-01 16:48 G	17796964.11	17796964.20	17796964.31	0.0294	0.0177		
Mercury	44014-07-29 04:34 G	17797052.56	17797052.69	17797052.82	0.0293	0.0013		
Mercury	44014-10-25 16:05 G	17797141.06	17797141.17	17797141.28	0.0292	0.0148		

Earth	44017-11-08 16:05 G	17798250.92	17798251.17	17798251.42	0.0277	0.0013
Moon	44017-11-08 19:12 G	17798251.05	17798251.30	17798251.54	0.0277	0.0022 *
Venus	44024-07-08 06:29 G	17800684.58	17800684.77	17800684.97	0.0258	0.0105
Venus	44025-02-22 01:26 G	17800913.37	17800913.56	17800913.77	0.0258	0.0090
Mars	44028-02-13 06:58 G	17801999.49	17801999.79	17802000.11	0.0262	0.0061
Mercury	44030-05-08 20:10 G	17802815.25	17802815.34	17802815.43	0.0268	0.0233
Mercury	44030-08-05 18:43 G	17802904.09	17802904.28	17802904.48	0.0269	0.0043
Mercury	44030-11-02 17:31 G	17802993.07	17802993.23	17802993.39	0.0270	0.0150
Moon	44034-05-13 20:53 G	17804281.17	17804281.37	17804281.58	0.0287	0.0134
Earth	44034-05-13 22:05 G	17804281.21	17804281.42	17804281.64	0.0287	0.0133 *
Venus	44039-08-06 05:17 G	17806191.51	17806191.72	17806191.93	0.0304	0.0026
Venus	44040-03-23 13:26 G	17806422.02	17806422.06	17806422.11	0.0304	0.0297
Mars	44042-04-23 07:41 G	17807182.63	17807182.82	17807183.01	0.0300	0.0211
Mercury	44043-09-18 19:26 G	17807696.22	17807696.31	17807696.39	0.0294	0.0221
Mercury	44043-12-16 06:58 G	17807784.67	17807784.79	17807784.92	0.0293	0.0058
Mercury	44044-03-13 18:29 G	17807873.15	17807873.27	17807873.39	0.0292	0.0104
Mercury	44044-06-10 06:00 G	17807961.70	17807961.75	17807961.80	0.0291	0.0262
Moon	44046-11-03 02:38 G	17808837.51	17808837.61	17808837.74	0.0279	0.0248
Earth	44046-11-03 06:14 G	17808837.65	17808837.76	17808837.90	0.0279	0.0240 *
Moon	44047-11-16 03:36 G	17809215.57	17809215.65	17809215.75	0.0274	0.0254
Earth	44047-11-16 06:43 G	17809215.73	17809215.78	17809215.84	0.0274	0.0267 *
Venus	44054-01-18 10:48 G	17811470.75	17811470.95	17811471.15	0.0258	0.0078
Venus	44054-09-04 05:46 G	17811699.55	17811699.74	17811699.93	0.0258	0.0117
Mercury	44059-12-23 18:43 G	17813636.09	17813636.28	17813636.46	0.0269	0.0087
Mercury	44060-03-21 17:31 G	17813725.05	17813725.23	17813725.40	0.0270	0.0105
Jupiter	44062-05-28 01:55 G	17814522.12	17814522.58	17814523.04	0.0280	0.0016
Earth	44063-05-08 11:31 G	17814867.76	17814867.98	17814868.21	0.0284	0.0106
Moon	44063-05-08 12:29 G	17814867.79	17814868.02	17814868.26	0.0284	0.0102 *
Venus	44069-02-15 13:12 G	17816977.84	17816978.05	17816978.26	0.0304	0.0016
Mercury	44073-02-04 21:36 G	17818428.35	17818428.40	17818428.45	0.0295	0.0269

Mercury	44073-05-04 09:22 G	17818516.77	17818516.89	17818517.01	0.0294	0.0105
Mercury	44073-07-31 20:53 G	17818605.25	17818605.37	17818605.50	0.0293	0.0057
Mercury	44073-10-28 08:24 G	17818693.77	17818693.85	17818693.94	0.0292	0.0217
Earth	44076-11-09 22:19 G	17819802.19	17819802.43	17819802.68	0.0277	0.0046
Moon	44076-11-10 01:26 G	17819802.31	17819802.56	17819802.81	0.0277	0.0034 *
Venus	44082-12-14 18:43 G	17822028.23	17822028.28	17822028.37	0.0259	0.0244
Venus	44083-07-31 14:24 G	17822256.89	17822257.10	17822257.31	0.0258	0.0049
Venus	44084-03-16 09:22 G	17822485.72	17822485.89	17822486.07	0.0258	0.0146
Mercury	44089-05-11 18:14 G	17824368.09	17824368.26	17824368.43	0.0269	0.0134
Mercury	44089-08-08 17:02 G	17824457.02	17824457.21	17824457.40	0.0270	0.0058
Mercury	44089-11-05 15:50 G	17824546.09	17824546.16	17824546.23	0.0271	0.0251
Earth	44093-05-15 11:17 G	17825832.82	17825832.97	17825833.15	0.0288	0.0209
Moon	44093-05-15 14:10 G	17825832.94	17825833.09	17825833.27	0.0288	0.0208 *
Venus	44098-01-10 14:24 G	17827533.99	17827534.10	17827534.21	0.0304	0.0257
Venus	44098-08-28 22:34 G	17827764.24	17827764.44	17827764.65	0.0304	0.0065
Mercury	44102-09-22 12:14 G	17829248.90	17829249.01	17829249.12	0.0294	0.0145
Mercury	44102-12-19 23:46 G	17829337.36	17829337.49	17829337.62	0.0293	0.0018
Mercury	44103-03-18 11:17 G	17829425.87	17829425.97	17829426.07	0.0291	0.0178
Moon	44105-11-05 12:29 G	17830388.86	17830389.02	17830389.21	0.0279	0.0188
Earth	44105-11-05 14:53 G	17830388.95	17830389.12	17830389.33	0.0279	0.0177 *
Venus	44112-06-27 00:14 G	17832814.40	17832814.51	17832814.63	0.0259	0.0215
Venus	44113-02-10 19:41 G	17833043.10	17833043.32	17833043.53	0.0259	0.0021
Venus	44113-09-27 14:38 G	17833271.96	17833272.11	17833272.27	0.0259	0.0175
Mars	44116-07-10 19:12 G	17834288.99	17834289.30	17834289.62	0.0262	0.0024
Mercury	44118-09-29 18:29 G	17835100.13	17835100.27	17835100.42	0.0269	0.0176
Mercury	44118-12-27 17:17 G	17835189.03	17835189.22	17835189.41	0.0269	0.0016
Mercury	44119-03-26 15:50 G	17835278.05	17835278.16	17835278.29	0.0270	0.0210
Moon	44122-05-10 23:17 G	17836419.22	17836419.47	17836419.72	0.0285	0.0031
Earth	44122-05-11 02:38 G	17836419.37	17836419.61	17836419.85	0.0285	0.0030 *
Venus	44127-07-25 00:29 G	17838320.37	17838320.52	17838320.67	0.0304	0.0210

Venus	44128-03-11 08:24 G	17838550.66	17838550.85	17838551.05	0.0304	0.0111
Mars	44130-09-18 15:36 G	17839472.13	17839472.15	17839472.18	0.0300	0.0298
Mercury	44132-02-09 14:53 G	17839981.02	17839981.12	17839981.22	0.0294	0.0186
Mercury	44132-05-08 02:24 G	17840069.48	17840069.60	17840069.73	0.0293	0.0025
Mercury	44132-08-04 13:55 G	17840157.97	17840158.08	17840158.20	0.0292	0.0138
Moon	44135-11-13 07:26 G	17841353.57	17841353.81	17841354.05	0.0276	0.0097
Earth	44135-11-13 09:07 G	17841353.66	17841353.88	17841354.12	0.0276	0.0113 *
Venus	44142-01-07 04:19 G	17843600.54	17843600.68	17843600.84	0.0259	0.0185
Venus	44142-08-23 23:46 G	17843829.28	17843829.49	17843829.71	0.0258	0.0012
Venus	44143-04-09 18:58 G	17844058.17	17844058.29	17844058.43	0.0258	0.0205
Mercury	44148-02-16 18:14 G	17845832.16	17845832.26	17845832.38	0.0269	0.0220
Mercury	44148-05-15 17:17 G	17845921.03	17845921.22	17845921.41	0.0270	0.0028
Mercury	44148-08-12 15:50 G	17846010.02	17846010.16	17846010.32	0.0271	0.0166
Earth	44151-05-05 19:26 G	17847006.22	17847006.31	17847006.41	0.0283	0.0260
Moon	44151-05-05 22:48 G	17847006.36	17847006.45	17847006.55	0.0283	0.0257 *
Moon	44152-05-18 08:10 G	17847384.83	17847384.84	17847384.88	0.0288	0.0287
Venus	44157-02-03 11:31 G	17849106.81	17849106.98	17849107.16	0.0304	0.0159
Venus	44157-09-21 19:41 G	17849337.15	17849337.32	17849337.50	0.0304	0.0163
Mercury	44161-06-28 18:00 G	17850713.17	17850713.25	17850713.34	0.0294	0.0221
Mercury	44161-09-25 05:46 G	17850801.61	17850801.74	17850801.86	0.0293	0.0058
Mercury	44161-12-22 17:17 G	17850890.10	17850890.22	17850890.34	0.0292	0.0103
Mercury	44162-03-21 04:48 G	17850978.64	17850978.70	17850978.75	0.0291	0.0262
Earth	44164-11-07 04:19 G	17851940.46	17851940.68	17851940.92	0.0278	0.0106
Moon	44164-11-07 06:14 G	17851940.55	17851940.76	17851940.98	0.0278	0.0118 *
Venus	44171-07-20 10:05 G	17854386.76	17854386.92	17854387.10	0.0259	0.0155
Venus	44172-03-05 05:31 G	17854615.52	17854615.73	17854615.95	0.0259	0.0041
Venus	44172-10-20 00:43 G	17854844.46	17854844.53	17854844.63	0.0259	0.0236
Mercury	44177-07-05 18:58 G	17856564.25	17856564.29	17856564.35	0.0268	0.0258
Mercury	44177-10-02 17:46 G	17856653.06	17856653.24	17856653.43	0.0269	0.0067
Mercury	44177-12-30 16:34 G	17856742.02	17856742.19	17856742.37	0.0270	0.0126

Moon	44181-05-12 18:00 G	17857971.02	17857971.25	17857971.49	0.0285	0.0049
Earth	44181-05-12 20:53 G	17857971.13	17857971.37	17857971.61	0.0285	0.0051 *
Venus	44186-08-16 22:34 G	17859893.24	17859893.44	17859893.63	0.0304	0.0109
Venus	44187-04-04 06:29 G	17860123.62	17860123.77	17860123.92	0.0304	0.0212
Mars	44188-12-25 04:05 G	17860754.58	17860754.67	17860754.80	0.0302	0.0275
Mercury	44190-11-15 21:07 G	17861445.32	17861445.38	17861445.44	0.0295	0.0260
Mercury	44191-02-12 08:38 G	17861533.74	17861533.86	17861533.98	0.0294	0.0096
Mercury	44191-05-11 20:10 G	17861622.22	17861622.34	17861622.47	0.0293	0.0066
Mercury	44191-08-08 07:41 G	17861710.74	17861710.82	17861710.90	0.0291	0.0225
Moon	44194-11-14 19:26 G	17862905.13	17862905.31	17862905.52	0.0276	0.0168
Earth	44194-11-14 23:17 G	17862905.29	17862905.47	17862905.66	0.0276	0.0183 *
Venus	44201-01-30 15:07 G	17865172.94	17865173.13	17865173.32	0.0259	0.0123
Venus	44201-09-16 10:34 G	17865401.73	17865401.94	17865402.14	0.0258	0.0072
Mars	44204-12-06 13:55 G	17866578.81	17866579.08	17866579.38	0.0262	0.0116
Mercury	44207-02-20 17:46 G	17867385.07	17867385.24	17867385.43	0.0269	0.0111
Mercury	44207-05-20 16:48 G	17867474.02	17867474.20	17867474.38	0.0270	0.0083
Earth	44210-05-08 13:26 G	17868557.87	17868558.06	17868558.25	0.0284	0.0181
Moon	44210-05-08 16:05 G	17868557.98	17868558.17	17868558.37	0.0284	0.0178 *
Venus	44216-02-28 10:05 G	17870679.71	17870679.92	17870680.13	0.0304	0.0057
Venus	44216-10-15 18:00 G	17870910.16	17870910.25	17870910.36	0.0304	0.0264
Mercury	44220-04-05 00:14 G	17872177.51	17872177.51	17872177.53	0.0295	0.0293
Mercury	44220-07-02 12:00 G	17872265.89	17872266.00	17872266.12	0.0293	0.0129
Mercury	44220-09-28 23:31 G	17872354.36	17872354.48	17872354.61	0.0292	0.0035
Mercury	44220-12-26 11:02 G	17872442.87	17872442.96	17872443.06	0.0291	0.0194
Earth	44223-11-10 20:10 G	17873492.10	17873492.34	17873492.59	0.0277	0.0032
Moon	44223-11-10 23:46 G	17873492.25	17873492.49	17873492.74	0.0277	0.0044 *
Venus	44230-08-12 21:07 G	17875959.18	17875959.38	17875959.58	0.0259	0.0092
Venus	44231-03-29 16:19 G	17876187.99	17876188.18	17876188.38	0.0259	0.0103
Mercury	44236-07-09 18:14 G	17878117.11	17878117.26	17878117.43	0.0269	0.0150
Mercury	44236-10-06 17:17 G	17878206.03	17878206.22	17878206.41	0.0270	0.0043

Mercury	44237-01-03 16:05 G	17878295.08	17878295.17	17878295.27	0.0271	0.0238
Earth	44240-05-15 15:36 G	17879522.95	17879523.15	17879523.38	0.0286	0.0135
Moon	44240-05-15 17:02 G	17879523.00	17879523.21	17879523.42	0.0286	0.0130 *
Venus	44245-09-09 22:05 G	17881466.21	17881466.42	17881466.63	0.0304	0.0007
Mercury	44249-11-19 15:22 G	17882998.03	17882998.14	17882998.25	0.0294	0.0163
Mercury	44250-02-16 02:53 G	17883086.49	17883086.62	17883086.75	0.0293	0.0003
Mercury	44250-05-15 14:24 G	17883174.99	17883175.10	17883175.21	0.0292	0.0160
Moon	44252-11-04 11:02 G	17884078.88	17884078.96	17884079.04	0.0280	0.0263
Earth	44252-11-04 14:24 G	17884079.01	17884079.10	17884079.21	0.0280	0.0255 *
Moon	44253-11-17 14:53 G	17884457.01	17884457.12	17884457.23	0.0275	0.0243
Earth	44253-11-17 15:22 G	17884457.06	17884457.14	17884457.23	0.0275	0.0256 *
Venus	44259-07-09 06:29 G	17886516.74	17886516.77	17886516.81	0.0259	0.0255
Venus	44260-02-23 01:55 G	17886745.38	17886745.58	17886745.80	0.0258	0.0061
Venus	44260-10-08 21:22 G	17886974.21	17886974.39	17886974.58	0.0258	0.0135
Mercury	44265-11-26 18:29 G	17888849.14	17888849.27	17888849.41	0.0269	0.0192
Mercury	44266-02-23 17:17 G	17888938.03	17888938.22	17888938.42	0.0270	0.0007
Mercury	44266-05-23 16:19 G	17889027.05	17889027.18	17889027.31	0.0271	0.0194
Moon	44269-05-10 06:14 G	17890109.53	17890109.76	17890110.00	0.0285	0.0101
Earth	44269-05-10 07:12 G	17890109.58	17890109.80	17890110.03	0.0285	0.0102 *
Venus	44274-08-05 01:12 G	17892022.47	17892022.55	17892022.64	0.0304	0.0274
Venus	44275-03-23 09:07 G	17892252.68	17892252.88	17892253.09	0.0304	0.0047
Mars	44277-05-23 13:26 G	17893044.84	17893045.06	17893045.31	0.0301	0.0153
Mercury	44279-04-08 18:43 G	17893730.18	17893730.28	17893730.37	0.0294	0.0197
Mercury	44279-07-06 06:14 G	17893818.63	17893818.76	17893818.89	0.0293	0.0034
Mercury	44279-10-02 17:46 G	17893907.12	17893907.24	17893907.35	0.0292	0.0127
Mercury	44279-12-30 05:02 G	17893995.70	17893995.71	17893995.74	0.0291	0.0285
Jupiter	44281-08-16 03:07 G	17894590.21	17894590.63	17894591.06	0.0282	0.0119
Earth	44282-11-12 12:58 G	17895043.79	17895044.04	17895044.28	0.0277	0.0043
Moon	44282-11-12 14:10 G	17895043.83	17895044.09	17895044.34	0.0277	0.0032 *
Venus	44289-01-18 12:29 G	17897302.92	17897303.02	17897303.13	0.0259	0.0224

Venus	44289-09-04 07:55 G	17897531.62	17897531.83	17897532.04	0.0259	0.0029
Venus	44290-04-21 03:07 G	17897760.47	17897760.63	17897760.80	0.0259	0.0166
Mars	44293-05-03 12:14 G	17898868.84	17898869.01	17898869.21	0.0263	0.0214
Mercury	44295-04-15 18:58 G	17899581.19	17899581.29	17899581.38	0.0269	0.0234
Mercury	44295-07-13 17:31 G	17899670.04	17899670.23	17899670.43	0.0270	0.0043
Mercury	44295-10-10 16:19 G	17899759.03	17899759.18	17899759.35	0.0271	0.0152
Earth	44299-05-18 09:22 G	17901074.74	17901074.89	17901075.06	0.0287	0.0215
Moon	44299-05-18 12:58 G	17901074.88	17901075.04	17901075.21	0.0287	0.0211 *
Venus	44304-02-16 12:14 G	17902808.88	17902809.01	17902809.16	0.0304	0.0221
Venus	44304-10-03 20:24 G	17903039.15	17903039.35	17903039.55	0.0304	0.0100
Mercury	44308-08-26 21:50 G	17904462.33	17904462.41	17904462.49	0.0295	0.0232
Mercury	44308-11-23 09:22 G	17904550.77	17904550.89	17904551.02	0.0293	0.0069
Mercury	44309-02-19 20:53 G	17904639.25	17904639.37	17904639.50	0.0292	0.0093
Mercury	44309-05-19 08:24 G	17904727.79	17904727.85	17904727.91	0.0291	0.0252
Moon	44311-11-08 06:29 G	17905630.61	17905630.77	17905630.96	0.0279	0.0187
Earth	44311-11-08 07:55 G	17905630.65	17905630.83	17905631.03	0.0279	0.0177 *
Venus	44318-08-01 17:02 G	17908089.08	17908089.21	17908089.36	0.0259	0.0193
Venus	44319-03-18 12:29 G	17908317.81	17908318.02	17908318.24	0.0258	0.0007
Venus	44319-11-02 07:55 G	17908546.70	17908546.83	17908546.97	0.0258	0.0197
Mercury	44324-11-30 17:02 G	17910402.03	17910402.21	17910402.40	0.0269	0.0090
Mercury	44325-02-27 16:05 G	17910490.99	17910491.17	17910491.35	0.0270	0.0104
Moon	44328-05-12 18:58 G	17911661.05	17911661.29	17911661.53	0.0285	0.0026
Earth	44328-05-12 22:34 G	17911661.20	17911661.44	17911661.68	0.0285	0.0026 *
Venus	44333-08-28 22:48 G	17913595.28	17913595.45	17913595.63	0.0304	0.0174
Venus	44334-04-16 06:58 G	17913825.61	17913825.79	17913825.98	0.0304	0.0149
Mercury	44338-01-14 00:58 G	17915194.49	17915194.54	17915194.59	0.0295	0.0268
Mercury	44338-04-12 12:29 G	17915282.91	17915283.02	17915283.14	0.0293	0.0105
Mercury	44338-07-10 00:14 G	17915371.38	17915371.51	17915371.63	0.0292	0.0058
Mercury	44338-10-06 11:31 G	17915459.90	17915459.98	17915460.07	0.0291	0.0218
Moon	44341-11-15 01:55 G	17916595.35	17916595.58	17916595.82	0.0276	0.0104

Earth	44341-11-15 05:02 G	17916595.49	17916595.71	17916595.93	0.0276	0.0118	*
Venus	44348-02-11 22:48 G	17918875.28	17918875.45	17918875.61	0.0259	0.0162	
Venus	44348-09-27 18:00 G	17919104.04	17919104.25	17919104.46	0.0259	0.0033	
Venus	44349-05-14 12:58 G	17919332.95	17919333.04	17919333.15	0.0259	0.0227	
Mars	44351-08-10 00:14 G	17920150.40	17920150.51	17920150.66	0.0261	0.0238	
Mercury	44354-04-19 17:02 G	17921134.04	17921134.21	17921134.38	0.0269	0.0135	
Mercury	44354-07-17 15:50 G	17921222.97	17921223.16	17921223.35	0.0270	0.0059	
Mercury	44354-10-14 14:38 G	17921312.05	17921312.11	17921312.18	0.0271	0.0254	
Earth	44357-05-07 14:38 G	17922248.02	17922248.11	17922248.21	0.0283	0.0259	
Moon	44357-05-07 18:14 G	17922248.17	17922248.26	17922248.38	0.0283	0.0254	*
Moon	44358-05-21 01:41 G	17922626.57	17922626.57	17922626.59	0.0288	0.0288	
Venus	44363-03-11 08:53 G	17924381.68	17924381.87	17924382.07	0.0304	0.0122	
Venus	44363-10-27 17:17 G	17924612.06	17924612.22	17924612.38	0.0304	0.0199	
Mars	44365-10-19 14:24 G	17925334.84	17925335.10	17925335.38	0.0301	0.0043	
Mercury	44367-08-30 15:36 G	17926015.04	17926015.15	17926015.26	0.0294	0.0141	
Mercury	44367-11-27 03:07 G	17926103.51	17926103.63	17926103.76	0.0293	0.0024	
Mercury	44368-02-23 14:38 G	17926192.01	17926192.11	17926192.21	0.0292	0.0182	
Earth	44370-11-09 23:46 G	17927182.26	17927182.49	17927182.72	0.0278	0.0101	
Moon	44370-11-10 02:38 G	17927182.40	17927182.61	17927182.84	0.0278	0.0114	*
Venus	44377-08-24 02:53 G	17929661.44	17929661.62	17929661.81	0.0258	0.0131	
Venus	44378-04-09 22:05 G	17929890.21	17929890.42	17929890.63	0.0258	0.0063	
Venus	44378-11-24 17:17 G	17930119.21	17930119.22	17930119.24	0.0258	0.0257	
Mercury	44383-09-06 15:50 G	17931866.03	17931866.16	17931866.31	0.0269	0.0185	
Mercury	44383-12-04 14:53 G	17931954.93	17931955.12	17931955.31	0.0270	0.0008	
Mercury	44384-03-02 13:41 G	17932043.95	17932044.07	17932044.20	0.0271	0.0202	
Moon	44387-05-15 08:38 G	17933212.62	17933212.86	17933213.09	0.0286	0.0043	
Earth	44387-05-15 10:05 G	17933212.68	17933212.92	17933213.16	0.0286	0.0045	*
Venus	44392-09-20 17:31 G	17935168.03	17935168.23	17935168.44	0.0304	0.0079	
Venus	44393-05-09 01:55 G	17935398.46	17935398.58	17935398.71	0.0304	0.0243	
Mercury	44397-01-16 18:14 G	17936747.17	17936747.26	17936747.37	0.0294	0.0183	

Mercury	44397-04-15 06:00 G	17936835.62	17936835.75	17936835.88	0.0293	0.0019
Mercury	44397-07-12 17:31 G	17936924.12	17936924.23	17936924.34	0.0292	0.0142
Moon	44400-11-16 14:38 G	17938146.93	17938147.11	17938147.30	0.0275	0.0172
Earth	44400-11-16 17:46 G	17938147.07	17938147.24	17938147.43	0.0275	0.0187 *
Venus	44407-03-06 07:26 G	17940447.61	17940447.81	17940448.01	0.0258	0.0103
Venus	44407-10-21 02:24 G	17940676.41	17940676.60	17940676.81	0.0258	0.0093
Mercury	44413-01-23 15:07 G	17942598.04	17942598.13	17942598.22	0.0269	0.0236
Mercury	44413-04-22 13:55 G	17942686.89	17942687.08	17942687.27	0.0269	0.0044
Mercury	44413-07-20 12:43 G	17942775.87	17942776.03	17942776.19	0.0270	0.0150
Earth	44416-05-08 23:02 G	17943799.29	17943799.46	17943799.64	0.0283	0.0196
Moon	44416-05-09 00:14 G	17943799.34	17943799.51	17943799.70	0.0283	0.0194 *
Venus	44422-04-03 02:24 G	17945954.39	17945954.60	17945954.81	0.0304	0.0030
Venus	44422-11-19 10:34 G	17946184.89	17946184.94	17946185.01	0.0304	0.0291
Mercury	44426-06-05 21:07 G	17947479.30	17947479.38	17947479.47	0.0295	0.0223
Mercury	44426-09-02 08:53 G	17947567.74	17947567.87	17947567.99	0.0294	0.0059
Mercury	44426-11-29 20:24 G	17947656.23	17947656.35	17947656.47	0.0293	0.0103
Mercury	44427-02-26 07:41 G	17947744.77	17947744.82	17947744.88	0.0291	0.0264
Earth	44429-11-11 12:29 G	17948733.77	17948734.02	17948734.26	0.0278	0.0031
Moon	44429-11-11 15:22 G	17948733.89	17948734.14	17948734.39	0.0278	0.0044 *
Venus	44436-09-15 11:02 G	17951233.76	17951233.96	17951234.17	0.0258	0.0073
Venus	44437-05-02 06:00 G	17951462.57	17951462.75	17951462.94	0.0258	0.0121
Mars	44440-01-04 00:29 G	17952439.31	17952439.52	17952439.76	0.0261	0.0179
Mercury	44442-09-09 12:29 G	17953418.84	17953419.02	17953419.20	0.0269	0.0099
Mercury	44442-12-07 11:17 G	17953507.79	17953507.97	17953508.15	0.0270	0.0094
Earth	44446-05-16 16:48 G	17954763.98	17954764.20	17954764.43	0.0286	0.0108
Moon	44446-05-16 19:41 G	17954764.10	17954764.32	17954764.55	0.0286	0.0102 *
Venus	44451-10-14 09:07 G	17956740.67	17956740.88	17956741.09	0.0305	0.0009
Mars	44454-03-15 21:36 G	17957624.13	17957624.40	17957624.67	0.0301	0.0033
Mercury	44455-10-23 23:17 G	17958211.43	17958211.47	17958211.52	0.0295	0.0271
Mercury	44456-01-20 11:02 G	17958299.84	17958299.96	17958300.08	0.0294	0.0106

Mercury	44456-04-17 22:34 G	17958388.32	17958388.44	17958388.57	0.0293	0.0058
Mercury	44456-07-15 10:05 G	17958476.84	17958476.92	17958477.01	0.0292	0.0217
Moon	44458-11-05 22:48 G	17959320.41	17959320.45	17959320.49	0.0280	0.0275
Earth	44458-11-06 01:12 G	17959320.48	17959320.55	17959320.64	0.0280	0.0263 *
Earth	44459-11-19 03:07 G	17959698.54	17959698.63	17959698.74	0.0275	0.0251
Moon	44459-11-19 04:34 G	17959698.57	17959698.69	17959698.81	0.0275	0.0236 *
Venus	44465-08-11 19:12 G	17961791.23	17961791.30	17961791.39	0.0259	0.0241
Venus	44466-03-28 14:24 G	17962019.90	17962020.10	17962020.32	0.0258	0.0047
Venus	44466-11-12 09:22 G	17962248.72	17962248.89	17962249.07	0.0258	0.0148
Mercury	44472-01-27 10:48 G	17964150.80	17964150.95	17964151.12	0.0269	0.0155
Mercury	44472-04-25 09:50 G	17964239.72	17964239.91	17964240.10	0.0270	0.0038
Mercury	44472-07-23 08:24 G	17964328.76	17964328.85	17964328.96	0.0271	0.0232
Moon	44475-05-11 00:00 G	17965350.29	17965350.50	17965350.72	0.0284	0.0144
Earth	44475-05-11 03:22 G	17965350.44	17965350.64	17965350.86	0.0284	0.0138 *
Venus	44480-09-07 07:41 G	17967296.73	17967296.82	17967296.92	0.0304	0.0269
Venus	44481-04-25 16:05 G	17967526.96	17967527.17	17967527.38	0.0304	0.0053
Mercury	44485-06-08 13:26 G	17969031.95	17969032.06	17969032.17	0.0294	0.0152
Mercury	44485-09-05 01:12 G	17969120.42	17969120.55	17969120.67	0.0293	0.0016
Mercury	44485-12-02 12:29 G	17969208.92	17969209.02	17969209.13	0.0292	0.0174
Moon	44488-11-12 18:29 G	17970285.01	17970285.27	17970285.52	0.0278	0.0018
Earth	44488-11-12 20:10 G	17970285.09	17970285.34	17970285.58	0.0278	0.0033 *
Venus	44495-02-21 22:19 G	17972577.32	17972577.43	17972577.56	0.0258	0.0213
Venus	44495-10-08 17:31 G	17972806.02	17972806.23	17972806.44	0.0258	0.0019
Venus	44496-05-24 12:00 G	17973034.86	17973035.00	17973035.17	0.0258	0.0175
Mercury	44501-06-16 08:38 G	17974882.76	17974882.86	17974882.99	0.0268	0.0214
Mercury	44501-09-13 07:41 G	17974971.62	17974971.82	17974972.01	0.0269	0.0024
Mercury	44501-12-11 06:14 G	17975060.62	17975060.76	17975060.91	0.0270	0.0170
Earth	44505-05-18 18:29 G	17976315.07	17976315.27	17976315.47	0.0286	0.0163
Moon	44505-05-18 21:07 G	17976315.18	17976315.38	17976315.60	0.0286	0.0153 *
Venus	44510-03-21 12:00 G	17978082.88	17978083.00	17978083.14	0.0304	0.0237

Venus	44510-11-06 20:38 G	17978313.16	17978313.36	17978313.56	0.0305	0.0086
Mercury	44514-10-27 15:22 G	17979764.05	17979764.14	17979764.23	0.0295	0.0206
Mercury	44515-01-24 02:53 G	17979852.50	17979852.62	17979852.75	0.0294	0.0042
Mercury	44515-04-22 14:24 G	17979940.99	17979941.10	17979941.22	0.0293	0.0122
Mercury	44515-07-20 01:55 G	17980029.56	17980029.58	17980029.61	0.0292	0.0282
Earth	44517-11-08 06:58 G	17980871.63	17980871.79	17980871.96	0.0280	0.0203
Moon	44517-11-08 08:24 G	17980871.71	17980871.85	17980872.01	0.0280	0.0216 *
Venus	44524-09-04 00:58 G	17983363.40	17983363.54	17983363.69	0.0258	0.0188
Venus	44525-04-20 19:55 G	17983592.11	17983592.33	17983592.54	0.0258	0.0007
Venus	44525-12-05 14:24 G	17983820.98	17983821.10	17983821.25	0.0258	0.0200
Mars	44528-05-30 11:31 G	17984727.72	17984727.98	17984728.26	0.0261	0.0132
Mercury	44531-01-31 05:31 G	17985703.55	17985703.73	17985703.92	0.0269	0.0084
Mercury	44531-04-30 04:19 G	17985792.50	17985792.68	17985792.86	0.0270	0.0109
Moon	44534-05-13 00:43 G	17986901.31	17986901.53	17986901.75	0.0284	0.0096
Earth	44534-05-13 02:53 G	17986901.39	17986901.62	17986901.86	0.0284	0.0087 *
Venus	44539-10-01 17:31 G	17988869.07	17988869.23	17988869.39	0.0304	0.0196
Venus	44540-05-19 02:10 G	17989099.40	17989099.59	17989099.79	0.0304	0.0127
Mars	44542-08-10 07:55 G	17989912.57	17989912.83	17989913.10	0.0301	0.0067
Mercury	44544-03-15 17:17 G	17990496.16	17990496.22	17990496.28	0.0295	0.0257
Mercury	44544-06-12 05:02 G	17990584.59	17990584.71	17990584.83	0.0294	0.0091
Mercury	44544-09-08 16:34 G	17990673.07	17990673.19	17990673.32	0.0293	0.0073
Mercury	44544-12-06 04:05 G	17990761.60	17990761.67	17990761.75	0.0292	0.0234
Moon	44547-11-15 19:55 G	17991836.10	17991836.33	17991836.57	0.0277	0.0073
Earth	44547-11-15 23:31 G	17991836.25	17991836.48	17991836.71	0.0277	0.0089 *
Venus	44554-03-17 03:22 G	17994149.47	17994149.64	17994149.80	0.0258	0.0162
Venus	44554-10-31 22:05 G	17994378.21	17994378.42	17994378.64	0.0258	0.0032
Venus	44555-06-17 16:34 G	17994607.10	17994607.19	17994607.30	0.0258	0.0225
Mercury	44560-06-19 03:07 G	17996435.47	17996435.63	17996435.79	0.0268	0.0145
Mercury	44560-09-16 01:55 G	17996524.39	17996524.58	17996524.77	0.0269	0.0046
Mercury	44560-12-14 00:14 G	17996613.44	17996613.51	17996613.61	0.0270	0.0239

Moon	44564-05-19 14:38 G	17997865.94	17997866.11	17997866.30	0.0286	0.0198
Earth	44564-05-19 16:48 G	17997866.05	17997866.20	17997866.38	0.0286	0.0213 *
Venus	44569-04-12 20:24 G	17999655.18	17999655.35	17999655.53	0.0305	0.0168
Venus	44569-11-29 05:02 G	17999885.54	17999885.71	17999885.90	0.0305	0.0156
Mercury	44573-10-30 06:14 G	18001316.66	18001316.76	18001316.87	0.0295	0.0152
Mercury	44574-01-26 18:00 G	18001405.12	18001405.25	18001405.38	0.0294	0.0013
Mercury	44574-04-25 05:31 G	18001493.63	18001493.73	18001493.83	0.0293	0.0176
Earth	44576-11-09 07:41 G	18002422.62	18002422.82	18002423.03	0.0280	0.0150
Moon	44576-11-09 11:02 G	18002422.77	18002422.96	18002423.17	0.0280	0.0165 *
Venus	44583-09-27 04:34 G	18004935.52	18004935.69	18004935.88	0.0258	0.0139
Venus	44584-05-12 23:31 G	18005164.27	18005164.48	18005164.69	0.0258	0.0055
Venus	44584-12-27 18:14 G	18005393.21	18005393.26	18005393.31	0.0258	0.0248
Mercury	44589-11-06 00:29 G	18007167.41	18007167.52	18007167.65	0.0268	0.0210
Mercury	44590-02-02 23:17 G	18007256.27	18007256.47	18007256.66	0.0269	0.0020
Mercury	44590-05-02 21:50 G	18007345.27	18007345.41	18007345.56	0.0270	0.0173
Earth	44593-05-13 22:48 G	18008452.21	18008452.45	18008452.70	0.0284	0.0042
Moon	44593-05-14 01:12 G	18008452.32	18008452.55	18008452.78	0.0284	0.0053 *
Venus	44598-10-24 00:14 G	18010441.32	18010441.51	18010441.70	0.0304	0.0132
Venus	44599-06-11 08:53 G	18010671.71	18010671.87	18010672.04	0.0305	0.0192
Mercury	44603-03-20 07:55 G	18012048.74	18012048.83	18012048.92	0.0295	0.0207
Mercury	44603-06-16 19:41 G	18012137.19	18012137.32	18012137.45	0.0294	0.0041
Mercury	44603-09-13 07:12 G	18012225.69	18012225.80	18012225.92	0.0293	0.0123
Mercury	44603-12-10 18:43 G	18012314.26	18012314.28	18012314.31	0.0292	0.0284
Moon	44606-11-17 22:05 G	18013387.22	18013387.42	18013387.64	0.0277	0.0126
Earth	44606-11-17 22:34 G	18013387.23	18013387.44	18013387.66	0.0277	0.0138 *
Venus	44613-04-09 06:29 G	18015721.58	18015721.77	18015721.97	0.0258	0.0115
Venus	44613-11-24 01:12 G	18015950.35	18015950.55	18015950.76	0.0258	0.0080
Mars	44616-10-24 10:34 G	18017015.67	18017015.94	18017016.25	0.0260	0.0107
Mercury	44619-06-23 20:38 G	18017988.17	18017988.36	18017988.54	0.0268	0.0084
Mercury	44619-09-20 19:12 G	18018077.12	18018077.30	18018077.48	0.0269	0.0107

Moon	44623-05-22 08:38 G	18019416.74	18019416.86	18019417.00	0.0286	0.0240
Earth	44623-05-22 12:00 G	18019416.89	18019417.00	18019417.11	0.0286	0.0256 *
Venus	44628-05-06 01:55 G	18021227.39	18021227.58	18021227.78	0.0305	0.0106
Venus	44628-12-22 10:34 G	18021457.80	18021457.94	18021458.09	0.0305	0.0220
Mars	44631-01-03 19:12 G	18022200.04	18022200.30	18022200.57	0.0302	0.0070
Mercury	44632-08-06 08:53 G	18022780.83	18022780.87	18022780.92	0.0296	0.0272
Mercury	44632-11-02 20:38 G	18022869.24	18022869.36	18022869.48	0.0295	0.0106
Mercury	44633-01-30 08:24 G	18022957.72	18022957.85	18022957.98	0.0294	0.0060
Mercury	44633-04-28 19:55 G	18023046.25	18023046.33	18023046.41	0.0293	0.0222
Earth	44635-11-12 05:02 G	18023973.48	18023973.71	18023973.94	0.0280	0.0104
Moon	44635-11-12 05:17 G	18023973.49	18023973.72	18023973.95	0.0280	0.0118 *
Venus	44642-10-20 07:12 G	18026507.61	18026507.80	18026508.01	0.0258	0.0093
Venus	44643-06-06 01:55 G	18026736.39	18026736.58	18026736.78	0.0258	0.0101
Mercury	44648-11-09 17:46 G	18028720.08	18028720.24	18028720.40	0.0268	0.0150
Mercury	44649-02-06 16:19 G	18028808.99	18028809.18	18028809.37	0.0269	0.0040
Mercury	44649-05-06 14:38 G	18028898.03	18028898.11	18028898.22	0.0270	0.0233
Earth	44652-05-15 17:31 G	18030002.98	18030003.23	18030003.47	0.0284	0.0005
Moon	44652-05-15 20:38 G	18030003.11	18030003.36	18030003.61	0.0284	0.0012 *
Venus	44657-11-16 05:17 G	18032013.52	18032013.72	18032013.93	0.0304	0.0070
Venus	44658-07-04 14:10 G	18032243.97	18032244.09	18032244.20	0.0305	0.0254
Mercury	44662-03-22 22:05 G	18033601.32	18033601.42	18033601.53	0.0295	0.0164
Mercury	44662-06-19 09:50 G	18033689.78	18033689.91	18033690.04	0.0294	0.0002
Mercury	44662-09-15 21:22 G	18033778.29	18033778.39	18033778.50	0.0293	0.0166
Earth	44665-11-18 18:29 G	18034938.09	18034938.27	18034938.46	0.0277	0.0183
Moon	44665-11-18 22:05 G	18034938.22	18034938.42	18034938.61	0.0277	0.0169 *
Venus	44672-05-01 08:53 G	18037293.66	18037293.87	18037294.07	0.0258	0.0070
Venus	44672-12-16 03:22 G	18037522.46	18037522.64	18037522.83	0.0257	0.0124
Mercury	44678-03-29 15:07 G	18039452.02	18039452.13	18039452.25	0.0267	0.0213
Mercury	44678-06-26 13:41 G	18039540.87	18039541.07	18039541.26	0.0268	0.0025
Mercury	44678-09-23 12:14 G	18039629.86	18039630.01	18039630.16	0.0268	0.0166

Moon	44681-05-09 21:07 G	18040589.29	18040589.38	18040589.48	0.0281	0.0256
Earth	44681-05-10 00:29 G	18040589.40	18040589.52	18040589.64	0.0281	0.0244 *
Moon	44682-05-23 06:14 G	18040967.75	18040967.76	18040967.80	0.0286	0.0284
Venus	44687-05-29 05:46 G	18042799.53	18042799.74	18042799.95	0.0305	0.0048
Venus	44688-01-14 14:24 G	18043030.02	18043030.10	18043030.19	0.0305	0.0278
Mercury	44691-08-09 22:48 G	18044333.38	18044333.45	18044333.53	0.0296	0.0233
Mercury	44691-11-06 10:34 G	18044421.82	18044421.94	18044422.07	0.0295	0.0066
Mercury	44692-02-02 22:19 G	18044510.31	18044510.43	18044510.55	0.0294	0.0099
Mercury	44692-05-01 09:50 G	18044598.86	18044598.91	18044598.97	0.0293	0.0262
Moon	44694-11-12 19:41 G	18045524.08	18045524.32	18045524.56	0.0280	0.0078
Earth	44694-11-12 23:17 G	18045524.23	18045524.47	18045524.71	0.0280	0.0062 *
Venus	44701-03-28 14:10 G	18047851.02	18047851.09	18047851.16	0.0258	0.0243
Venus	44701-11-12 09:07 G	18048079.67	18048079.88	18048080.09	0.0258	0.0048
Venus	44702-06-29 03:50 G	18048308.49	18048308.66	18048308.84	0.0257	0.0145
Mars	44705-03-20 02:38 G	18049303.32	18049303.61	18049303.91	0.0260	0.0083
Mercury	44707-11-14 10:34 G	18050272.77	18050272.94	18050273.13	0.0268	0.0093
Mercury	44708-02-11 09:07 G	18050361.71	18050361.88	18050362.07	0.0269	0.0098
Moon	44711-05-18 10:05 G	18051553.67	18051553.92	18051554.17	0.0284	0.0028
Earth	44711-05-18 10:48 G	18051553.72	18051553.95	18051554.20	0.0284	0.0043 *
Venus	44716-12-09 09:07 G	18053585.67	18053585.88	18053586.09	0.0304	0.0013
Mars	44719-05-30 00:14 G	18054487.25	18054487.51	18054487.78	0.0302	0.0055
Mercury	44720-12-28 00:00 G	18055065.49	18055065.50	18055065.52	0.0296	0.0294
Mercury	44721-03-26 12:00 G	18055153.88	18055154.00	18055154.11	0.0295	0.0126
Mercury	44721-06-22 23:46 G	18055242.36	18055242.49	18055242.61	0.0294	0.0041
Mercury	44721-09-19 11:17 G	18055330.88	18055330.97	18055331.06	0.0293	0.0204
Earth	44724-11-20 12:14 G	18056488.87	18056489.01	18056489.16	0.0277	0.0223
Moon	44724-11-20 13:55 G	18056488.93	18056489.08	18056489.26	0.0277	0.0212 *
Venus	44730-10-08 15:22 G	18058637.04	18058637.14	18058637.26	0.0258	0.0222
Venus	44731-05-25 10:34 G	18058865.73	18058865.94	18058866.15	0.0258	0.0026
Venus	44732-01-09 05:02 G	18059094.55	18059094.71	18059094.87	0.0258	0.0168

Mercury	44737-04-02 08:10 G	18061004.69	18061004.84	18061005.00	0.0267	0.0155
Mercury	44737-06-30 06:43 G	18061093.59	18061093.78	18061093.97	0.0267	0.0034
Mercury	44737-09-27 05:17 G	18061182.62	18061182.72	18061182.82	0.0268	0.0225
Earth	44740-05-11 18:43 G	18062140.12	18062140.28	18062140.45	0.0281	0.0203
Moon	44740-05-11 19:55 G	18062140.19	18062140.33	18062140.48	0.0281	0.0218 *
Venus	44746-06-21 09:50 G	18064371.70	18064371.91	18064372.13	0.0305	0.0013
Mercury	44750-08-13 12:43 G	18065885.94	18065886.03	18065886.13	0.0296	0.0194
Mercury	44750-11-10 00:29 G	18065974.39	18065974.52	18065974.65	0.0295	0.0027
Mercury	44751-02-06 12:14 G	18066062.89	18066063.01	18066063.12	0.0294	0.0139
Moon	44753-11-14 15:36 G	18067074.91	18067075.15	18067075.39	0.0280	0.0035
Earth	44753-11-14 16:48 G	18067074.95	18067075.20	18067075.45	0.0280	0.0022 *
Venus	44760-04-19 15:36 G	18069423.02	18069423.15	18069423.28	0.0258	0.0200
Venus	44760-12-04 10:48 G	18069651.73	18069651.95	18069652.16	0.0258	0.0005
Venus	44761-07-21 05:02 G	18069880.58	18069880.71	18069880.87	0.0258	0.0190
Mercury	44766-08-20 05:31 G	18071736.62	18071736.73	18071736.84	0.0267	0.0220
Mercury	44766-11-17 03:50 G	18071825.47	18071825.66	18071825.86	0.0268	0.0033
Mercury	44767-02-14 02:24 G	18071914.45	18071914.60	18071914.76	0.0269	0.0158
Moon	44770-05-19 02:10 G	18073104.36	18073104.59	18073104.83	0.0284	0.0070
Earth	44770-05-19 06:00 G	18073104.52	18073104.75	18073104.98	0.0284	0.0086 *
Venus	44775-05-16 04:48 G	18074927.62	18074927.70	18074927.79	0.0304	0.0277
Venus	44776-01-01 13:12 G	18075157.84	18075158.05	18075158.26	0.0304	0.0046
Mercury	44779-12-31 13:55 G	18076618.02	18076618.08	18076618.14	0.0296	0.0256
Mercury	44780-03-29 01:41 G	18076706.45	18076706.57	18076706.69	0.0295	0.0088
Mercury	44780-06-25 13:26 G	18076794.94	18076795.06	18076795.18	0.0294	0.0078
Mercury	44780-09-22 00:58 G	18076883.47	18076883.54	18076883.62	0.0293	0.0242
Earth	44782-11-08 21:22 G	18077661.33	18077661.39	18077661.47	0.0283	0.0269
Moon	44782-11-08 21:36 G	18077661.40	18077661.40	18077661.44	0.0283	0.0282 *
Moon	44783-11-22 02:24 G	18078039.50	18078039.60	18078039.70	0.0278	0.0255
Earth	44783-11-22 05:17 G	18078039.65	18078039.72	18078039.81	0.0278	0.0263 *
Venus	44789-10-30 17:17 G	18080209.07	18080209.22	18080209.38	0.0259	0.0178

Venus	44790-06-16 12:14 G	18080437.80	18080438.01	18080438.23	0.0258	0.0019
Venus	44791-01-31 06:43 G	18080666.67	18080666.78	18080666.91	0.0258	0.0212
Mars	44793-08-12 22:19 G	18081591.13	18081591.43	18081591.74	0.0260	0.0058
Mercury	44796-04-05 01:41 G	18082557.39	18082557.57	18082557.76	0.0267	0.0093
Mercury	44796-07-03 00:14 G	18082646.33	18082646.51	18082646.69	0.0268	0.0096
Earth	44799-05-13 14:38 G	18083690.92	18083691.11	18083691.32	0.0281	0.0159
Moon	44799-05-13 18:43 G	18083691.09	18083691.28	18083691.47	0.0281	0.0175 *
Venus	44804-11-25 06:14 G	18085713.65	18085713.76	18085713.88	0.0304	0.0252
Venus	44805-07-13 14:38 G	18085943.91	18085944.11	18085944.31	0.0305	0.0072
Mars	44807-10-22 00:43 G	18086774.26	18086774.53	18086774.80	0.0303	0.0044
Mercury	44809-08-16 02:38 G	18087438.50	18087438.61	18087438.72	0.0296	0.0155
Mercury	44809-11-12 14:24 G	18087526.97	18087527.10	18087527.23	0.0295	0.0013
Mercury	44810-02-09 01:55 G	18087615.49	18087615.58	18087615.69	0.0294	0.0178
Earth	44812-11-15 10:19 G	18088625.69	18088625.93	18088626.18	0.0280	0.0019
Moon	44812-11-15 13:55 G	18088625.84	18088626.08	18088626.32	0.0280	0.0010 *
Venus	44819-05-12 17:17 G	18090995.06	18090995.22	18090995.40	0.0258	0.0157
Venus	44819-12-27 12:43 G	18091223.82	18091224.03	18091224.24	0.0258	0.0040
Venus	44820-08-12 07:12 G	18091452.72	18091452.80	18091452.90	0.0258	0.0234
Mercury	44825-08-22 23:17 G	18093289.32	18093289.47	18093289.63	0.0267	0.0156
Mercury	44825-11-19 21:50 G	18093378.21	18093378.41	18093378.60	0.0268	0.0033
Mercury	44826-02-16 20:10 G	18093467.24	18093467.34	18093467.45	0.0269	0.0223
Moon	44829-05-20 02:38 G	18094655.40	18094655.61	18094655.83	0.0284	0.0119
Earth	44829-05-20 03:07 G	18094655.41	18094655.63	18094655.84	0.0284	0.0133 *
Venus	44834-06-07 10:48 G	18096499.81	18096499.95	18096500.10	0.0304	0.0215
Venus	44835-01-23 19:12 G	18096730.11	18096730.30	18096730.50	0.0304	0.0109
Mercury	44839-01-03 04:05 G	18098170.59	18098170.67	18098170.76	0.0296	0.0213
Mercury	44839-04-01 15:50 G	18098259.04	18098259.16	18098259.29	0.0295	0.0046
Mercury	44839-06-29 03:36 G	18098347.53	18098347.65	18098347.77	0.0294	0.0121
Mercury	44839-09-25 15:22 G	18098436.11	18098436.14	18098436.16	0.0293	0.0284
Moon	44841-11-09 12:43 G	18099211.90	18099212.03	18099212.17	0.0283	0.0236

Earth	44841-11-09 16:34 G	18099212.05	18099212.19	18099212.34	0.0283	0.0227	*
Venus	44848-11-21 19:41 G	18101781.14	18101781.32	18101781.51	0.0259	0.0133	
Venus	44849-07-08 14:53 G	18102009.91	18102010.12	18102010.33	0.0258	0.0063	
Venus	44850-02-22 09:22 G	18102238.89	18102238.89	18102238.92	0.0258	0.0257	
Mercury	44855-01-09 21:50 G	18104021.29	18104021.41	18104021.52	0.0266	0.0211	
Mercury	44855-04-08 20:10 G	18104110.15	18104110.34	18104110.53	0.0267	0.0024	
Mercury	44855-07-06 18:29 G	18104199.13	18104199.27	18104199.43	0.0268	0.0166	
Moon	44858-05-14 13:55 G	18105241.86	18105242.08	18105242.31	0.0281	0.0124	
Earth	44858-05-14 14:24 G	18105241.87	18105242.10	18105242.32	0.0281	0.0109	*
Venus	44863-12-18 13:41 G	18107285.91	18107286.07	18107286.24	0.0304	0.0186	
Venus	44864-08-04 21:50 G	18107516.22	18107516.41	18107516.60	0.0305	0.0137	
Mercury	44868-05-22 05:02 G	18108902.68	18108902.71	18108902.76	0.0297	0.0278	
Mercury	44868-08-18 17:02 G	18108991.09	18108991.21	18108991.33	0.0296	0.0109	
Mercury	44868-11-15 04:48 G	18109079.57	18109079.70	18109079.82	0.0295	0.0058	
Mercury	44869-02-11 16:19 G	18109168.10	18109168.18	18109168.27	0.0294	0.0223	
Earth	44871-11-17 06:14 G	18110176.52	18110176.76	18110177.00	0.0280	0.0062	
Moon	44871-11-17 08:10 G	18110176.59	18110176.84	18110177.09	0.0280	0.0058	*
Venus	44878-06-03 20:38 G	18112567.17	18112567.36	18112567.55	0.0258	0.0110	
Venus	44879-01-18 15:50 G	18112795.96	18112796.16	18112796.36	0.0258	0.0086	
Mars	44882-01-05 22:48 G	18113879.14	18113879.45	18113879.77	0.0260	0.0022	
Mercury	44884-08-25 18:14 G	18114842.07	18114842.26	18114842.44	0.0267	0.0084	
Mercury	44884-11-22 16:34 G	18114931.02	18114931.19	18114931.37	0.0268	0.0106	
Earth	44888-05-21 03:50 G	18116206.49	18116206.66	18116206.86	0.0284	0.0187	
Moon	44888-05-21 07:55 G	18116206.64	18116206.83	18116207.02	0.0284	0.0174	*
Venus	44893-06-29 19:12 G	18118072.13	18118072.30	18118072.49	0.0304	0.0147	
Venus	44894-02-15 03:36 G	18118302.48	18118302.65	18118302.82	0.0304	0.0177	
Mars	44896-03-15 20:38 G	18119062.10	18119062.36	18119062.63	0.0302	0.0058	
Mercury	44898-01-05 18:43 G	18119723.18	18119723.28	18119723.39	0.0296	0.0163	
Mercury	44898-04-04 06:29 G	18119811.65	18119811.77	18119811.90	0.0295	0.0009	
Mercury	44898-07-01 18:14 G	18119900.16	18119900.26	18119900.36	0.0294	0.0170	

Moon	44900-11-11 12:29 G	18120762.84	18120763.02	18120763.20	0.0282	0.0187
Earth	44900-11-11 13:41 G	18120762.90	18120763.07	18120763.27	0.0282	0.0182 *
Venus	44907-12-15 23:17 G	18123353.28	18123353.47	18123353.68	0.0259	0.0086
Venus	44908-07-31 18:43 G	18123582.09	18123582.28	18123582.47	0.0258	0.0111
Mercury	44914-01-13 16:48 G	18125574.05	18125574.20	18125574.38	0.0266	0.0137
Mercury	44914-04-12 15:22 G	18125662.95	18125663.14	18125663.33	0.0267	0.0053
Mercury	44914-07-10 13:41 G	18125752.00	18125752.07	18125752.16	0.0268	0.0243
Moon	44917-05-16 13:41 G	18126792.84	18126793.07	18126793.31	0.0281	0.0067
Earth	44917-05-16 17:31 G	18126792.99	18126793.23	18126793.47	0.0281	0.0054 *
Venus	44923-01-11 00:29 G	18128858.32	18128858.52	18128858.71	0.0304	0.0112
Venus	44923-08-29 08:10 G	18129088.70	18129088.84	18129089.00	0.0304	0.0211
Mercury	44927-05-26 20:24 G	18130455.27	18130455.35	18130455.43	0.0297	0.0221
Mercury	44927-08-23 08:10 G	18130543.71	18130543.84	18130543.97	0.0296	0.0053
Mercury	44927-11-19 19:55 G	18130632.21	18130632.33	18130632.45	0.0295	0.0113
Mercury	44928-02-16 07:26 G	18130720.77	18130720.81	18130720.85	0.0294	0.0277
Moon	44930-11-19 03:07 G	18131727.40	18131727.63	18131727.87	0.0280	0.0114
Earth	44930-11-19 06:00 G	18131727.53	18131727.75	18131727.98	0.0280	0.0112 *
Venus	44936-11-10 05:17 G	18133910.71	18133910.72	18133910.75	0.0259	0.0258
Venus	44937-06-27 01:12 G	18134139.34	18134139.55	18134139.76	0.0259	0.0060
Venus	44938-02-10 20:24 G	18134368.17	18134368.35	18134368.53	0.0258	0.0136
Mercury	44943-06-02 15:36 G	18136306.02	18136306.15	18136306.29	0.0267	0.0191
Mercury	44943-08-30 14:10 G	18136394.90	18136395.09	18136395.28	0.0267	0.0002
Mercury	44943-11-27 12:29 G	18136483.89	18136484.02	18136484.16	0.0268	0.0188
Earth	44947-05-24 09:50 G	18137757.80	18137757.91	18137758.04	0.0284	0.0248
Moon	44947-05-24 11:31 G	18137757.86	18137757.98	18137758.12	0.0284	0.0239 *
Venus	44952-07-23 07:41 G	18139644.62	18139644.82	18139645.03	0.0304	0.0069
Venus	44953-03-10 15:50 G	18139875.05	18139875.16	18139875.27	0.0304	0.0255
Mercury	44956-10-12 22:34 G	18141187.39	18141187.44	18141187.49	0.0296	0.0270
Mercury	44957-01-09 10:19 G	18141275.81	18141275.93	18141276.05	0.0295	0.0102
Mercury	44957-04-07 22:05 G	18141364.30	18141364.42	18141364.55	0.0294	0.0065

Mercury	44957-07-05 09:36 G	18141452.83	18141452.90	18141452.98	0.0293	0.0230
Earth	44959-11-13 15:50 G	18142313.94	18142314.16	18142314.38	0.0282	0.0128
Moon	44959-11-13 18:29 G	18142314.06	18142314.27	18142314.49	0.0282	0.0130 *
Venus	44966-05-23 09:07 G	18144696.79	18144696.88	18144696.98	0.0260	0.0232
Venus	44967-01-07 05:02 G	18144925.50	18144925.71	18144925.92	0.0259	0.0034
Venus	44967-08-24 00:14 G	18145154.35	18145154.51	18145154.68	0.0259	0.0163
Mars	44970-06-02 18:00 G	18146167.94	18146168.25	18146168.56	0.0260	0.0039
Mercury	44972-10-19 15:07 G	18147038.05	18147038.13	18147038.22	0.0266	0.0237
Mercury	44973-01-16 13:41 G	18147126.88	18147127.07	18147127.26	0.0267	0.0050
Mercury	44973-04-15 12:14 G	18147215.84	18147216.01	18147216.17	0.0268	0.0140
Moon	44976-05-18 00:00 G	18148344.27	18148344.50	18148344.74	0.0281	0.0005
Earth	44976-05-18 01:26 G	18148344.32	18148344.56	18148344.81	0.0281	0.0010 *
Venus	44982-02-02 14:38 G	18150430.90	18150431.11	18150431.32	0.0304	0.0029
Venus	44982-09-20 22:19 G	18150661.38	18150661.43	18150661.49	0.0304	0.0293
Mars	44984-08-10 07:26 G	18151350.55	18151350.81	18151351.06	0.0302	0.0108
Mercury	44986-05-29 12:29 G	18152007.91	18152008.02	18152008.12	0.0296	0.0155
Mercury	44986-08-26 00:00 G	18152096.38	18152096.50	18152096.63	0.0295	0.0017
Mercury	44986-11-22 11:46 G	18152184.89	18152184.99	18152185.09	0.0294	0.0179
Moon	44989-11-20 06:58 G	18153278.61	18153278.79	18153278.99	0.0280	0.0173
Earth	44989-11-20 10:05 G	18153278.72	18153278.92	18153279.12	0.0280	0.0168 *
Venus	44995-12-03 11:46 G	18155482.87	18155482.99	18155483.13	0.0259	0.0204
Venus	44996-07-19 07:41 G	18155711.61	18155711.82	18155712.03	0.0259	0.0007
Venus	44997-03-05 02:53 G	18155940.48	18155940.62	18155940.77	0.0258	0.0190

46TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 46th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	45002-06-06 12:43	G	18157858.86	18157859.03	18157859.21	0.0267	0.0101	
Mercury	45002-09-03 11:17	G	18157947.79	18157947.97	18157948.15	0.0268	0.0089	
Earth	45005-05-13 18:58	G	18158931.14	18158931.29	18158931.44	0.0279	0.0219	
Moon	45005-05-13 20:38	G	18158931.23	18158931.36	18158931.51	0.0279	0.0232	*
Venus	45010-12-29 16:05	G	18160987.16	18160987.17	18160987.18	0.0303	0.0302	
Venus	45011-08-16 23:31	G	18161217.27	18161217.48	18161217.69	0.0304	0.0018	
Mercury	45015-10-17 15:07	G	18162740.03	18162740.13	18162740.22	0.0296	0.0196	
Mercury	45016-01-14 02:53	G	18162828.49	18162828.62	18162828.74	0.0295	0.0030	
Mercury	45016-04-11 14:24	G	18162916.99	18162917.10	18162917.22	0.0294	0.0137	
Earth	45018-11-15 23:02	G	18163865.22	18163865.46	18163865.71	0.0282	0.0066	
Moon	45018-11-16 02:24	G	18163865.36	18163865.60	18163865.85	0.0282	0.0068	*
Venus	45025-06-15 16:48	G	18166269.04	18166269.20	18166269.35	0.0260	0.0176	
Venus	45026-01-30 12:29	G	18166497.81	18166498.02	18166498.23	0.0259	0.0022	
Venus	45026-09-16 07:41	G	18166726.71	18166726.82	18166726.94	0.0259	0.0219	
Mercury	45031-10-24 12:58	G	18168590.88	18168591.04	18168591.20	0.0267	0.0143	
Mercury	45032-01-21 11:31	G	18168679.79	18168679.98	18168680.17	0.0267	0.0047	
Mercury	45032-04-19 09:50	G	18168768.83	18168768.91	18168769.00	0.0268	0.0237	
Earth	45035-05-21 13:41	G	18169895.84	18169896.07	18169896.31	0.0282	0.0081	
Moon	45035-05-21 16:05	G	18169895.95	18169896.17	18169896.41	0.0282	0.0073	*
Venus	45040-07-11 01:12	G	18171773.45	18171773.55	18171773.67	0.0303	0.0256	
Venus	45041-02-26 08:38	G	18172003.66	18172003.86	18172004.07	0.0304	0.0064	
Mercury	45045-03-05 17:31	G	18173472.16	18173472.23	18173472.30	0.0297	0.0243	
Mercury	45045-06-02 05:17	G	18173560.60	18173560.72	18173560.84	0.0296	0.0075	
Mercury	45045-08-29 17:02	G	18173649.08	18173649.21	18173649.33	0.0295	0.0092	
Mercury	45045-11-26 04:34	G	18173737.63	18173737.69	18173737.75	0.0294	0.0256	
Earth	45048-11-22 19:12	G	18174830.17	18174830.30	18174830.44	0.0279	0.0232	

Moon	45048-11-22 19:41 G	18174830.21	18174830.32	18174830.46	0.0279	0.0239	*
Venus	45054-12-26 20:10 G	18177055.17	18177055.34	18177055.52	0.0259	0.0146	
Venus	45055-08-12 16:05 G	18177283.96	18177284.17	18177284.38	0.0259	0.0052	
Venus	45056-03-28 11:17 G	18177512.92	18177512.97	18177513.04	0.0258	0.0248	
Mars	45058-10-28 23:02 G	18178457.18	18178457.46	18178457.75	0.0261	0.0111	
Mercury	45061-03-12 12:29 G	18179322.90	18179323.02	18179323.17	0.0267	0.0189	
Mercury	45061-06-09 11:17 G	18179411.77	18179411.97	18179412.16	0.0268	0.0005	
Mercury	45061-09-06 09:36 G	18179500.77	18179500.90	18179501.04	0.0268	0.0192	
Moon	45064-05-15 06:29 G	18180482.56	18180482.77	18180482.97	0.0280	0.0160	
Earth	45064-05-15 08:38 G	18180482.66	18180482.86	18180483.07	0.0280	0.0147	*
Venus	45070-01-21 11:31 G	18182559.83	18182559.98	18182560.14	0.0303	0.0208	
Venus	45070-09-08 18:58 G	18182790.10	18182790.29	18182790.49	0.0304	0.0113	
Mars	45073-01-05 22:48 G	18183640.26	18183640.45	18183640.67	0.0302	0.0201	
Mercury	45074-07-23 20:24 G	18184204.32	18184204.35	18184204.39	0.0296	0.0281	
Mercury	45074-10-20 08:10 G	18184292.73	18184292.84	18184292.96	0.0295	0.0113	
Mercury	45075-01-16 19:55 G	18184381.21	18184381.33	18184381.46	0.0294	0.0055	
Mercury	45075-04-15 07:26 G	18184469.73	18184469.81	18184469.90	0.0293	0.0220	
Moon	45077-11-17 10:19 G	18185416.68	18185416.93	18185417.19	0.0281	0.0006	
Earth	45077-11-17 11:02 G	18185416.71	18185416.96	18185417.20	0.0281	0.0005	*
Venus	45084-07-08 01:55 G	18187841.39	18187841.58	18187841.77	0.0260	0.0116	
Venus	45085-02-21 21:36 G	18188070.20	18188070.40	18188070.61	0.0259	0.0082	
Mercury	45090-07-30 12:58 G	18190054.95	18190055.04	18190055.14	0.0266	0.0229	
Mercury	45090-10-27 11:31 G	18190143.79	18190143.98	18190144.17	0.0267	0.0040	
Mercury	45091-01-24 10:05 G	18190232.76	18190232.92	18190233.08	0.0268	0.0151	
Earth	45094-05-23 05:17 G	18191447.52	18191447.72	18191447.92	0.0282	0.0157	
Moon	45094-05-23 08:38 G	18191447.65	18191447.86	18191448.07	0.0282	0.0147	*
Venus	45099-08-03 21:50 G	18193346.24	18193346.41	18193346.60	0.0303	0.0158	
Venus	45100-03-22 05:17 G	18193576.55	18193576.72	18193576.91	0.0304	0.0164	
Mercury	45104-03-09 11:02 G	18195024.86	18195024.96	18195025.08	0.0296	0.0153	
Mercury	45104-06-05 23:02 G	18195113.33	18195113.46	18195113.58	0.0295	0.0018	

Mercury	45104-09-02 10:34 G	18195201.84	18195201.94	18195202.04	0.0294	0.0180
Earth	45106-11-12 23:31 G	18196003.35	18196003.48	18196003.62	0.0284	0.0236
Moon	45106-11-13 00:14 G	18196003.40	18196003.51	18196003.66	0.0284	0.0238 *
Venus	45114-01-19 06:29 G	18198627.57	18198627.77	18198627.97	0.0259	0.0084
Venus	45114-09-05 02:10 G	18198856.40	18198856.59	18198856.78	0.0259	0.0113
Mercury	45120-03-16 11:31 G	18200875.80	18200875.98	18200876.17	0.0267	0.0083
Mercury	45120-06-13 10:05 G	18200964.75	18200964.92	18200965.10	0.0268	0.0107
Moon	45123-05-18 21:07 G	18202034.15	18202034.38	18202034.61	0.0281	0.0084
Earth	45123-05-19 00:43 G	18202034.29	18202034.53	18202034.76	0.0281	0.0071 *
Venus	45129-02-14 09:22 G	18204132.70	18204132.89	18204133.09	0.0303	0.0107
Venus	45129-10-02 17:02 G	18204363.06	18204363.21	18204363.36	0.0304	0.0215
Mercury	45133-07-27 14:38 G	18205757.01	18205757.11	18205757.20	0.0296	0.0186
Mercury	45133-10-24 02:10 G	18205845.47	18205845.59	18205845.72	0.0295	0.0021
Mercury	45134-01-20 13:55 G	18205933.97	18205934.08	18205934.19	0.0294	0.0147
Jupiter	45135-06-16 00:43 G	18206445.09	18206445.53	18206445.99	0.0287	0.0069
Moon	45136-11-19 23:02 G	18206968.23	18206968.46	18206968.70	0.0280	0.0084
Earth	45136-11-20 03:07 G	18206968.39	18206968.63	18206968.86	0.0280	0.0080 *
Venus	45142-12-15 16:19 G	18209185.13	18209185.18	18209185.24	0.0260	0.0251
Venus	45143-08-01 12:29 G	18209413.82	18209414.02	18209414.23	0.0260	0.0053
Venus	45144-03-17 08:10 G	18209642.67	18209642.84	18209643.02	0.0259	0.0145
Mars	45147-03-26 19:55 G	18210747.15	18210747.33	18210747.53	0.0261	0.0206
Mercury	45149-08-03 12:14 G	18211607.84	18211608.01	18211608.19	0.0267	0.0121
Mercury	45149-10-31 10:48 G	18211696.77	18211696.95	18211697.14	0.0268	0.0069
Mercury	45150-01-28 09:22 G	18211785.85	18211785.89	18211785.94	0.0269	0.0261
Moon	45153-05-25 23:31 G	18212999.34	18212999.48	18212999.63	0.0283	0.0230
Earth	45153-05-25 23:17 G	18212999.35	18212999.47	18212999.60	0.0283	0.0239 *
Venus	45158-08-27 21:07 G	18214919.17	18214919.38	18214919.59	0.0303	0.0053
Venus	45159-04-15 04:34 G	18215149.60	18215149.69	18215149.79	0.0304	0.0268
Mercury	45162-12-14 17:31 G	18216489.15	18216489.23	18216489.32	0.0296	0.0224
Mercury	45163-03-13 05:31 G	18216577.60	18216577.73	18216577.85	0.0295	0.0056

Mercury	45163-06-09 17:02 G	18216666.09	18216666.21	18216666.33	0.0294	0.0111
Mercury	45163-09-06 04:34 G	18216754.65	18216754.69	18216754.74	0.0293	0.0275
Earth	45165-11-14 17:46 G	18217555.04	18217555.24	18217555.45	0.0283	0.0154
Moon	45165-11-14 21:36 G	18217555.20	18217555.40	18217555.61	0.0283	0.0152 *
Venus	45172-06-26 21:22 G	18219971.28	18219971.39	18219971.51	0.0260	0.0219
Venus	45173-02-10 17:31 G	18220200.02	18220200.23	18220200.44	0.0259	0.0020
Venus	45173-09-27 13:12 G	18220428.89	18220429.05	18220429.20	0.0259	0.0177
Mercury	45178-12-21 12:14 G	18222339.86	18222340.01	18222340.17	0.0267	0.0164
Mercury	45179-03-20 10:48 G	18222428.76	18222428.95	18222429.15	0.0268	0.0026
Mercury	45179-06-17 09:22 G	18222517.78	18222517.89	18222518.01	0.0269	0.0217
Earth	45182-05-20 17:17 G	18223585.98	18223586.22	18223586.47	0.0281	0.0009
Moon	45182-05-20 17:31 G	18223586.00	18223586.23	18223586.47	0.0281	0.0004 *
Venus	45188-03-09 07:55 G	18225705.62	18225705.83	18225706.05	0.0304	0.0008
Mercury	45192-05-02 20:53 G	18227221.31	18227221.37	18227221.43	0.0296	0.0257
Mercury	45192-07-30 08:38 G	18227309.74	18227309.86	18227309.99	0.0295	0.0089
Mercury	45192-10-26 20:24 G	18227398.23	18227398.35	18227398.47	0.0294	0.0078
Mercury	45193-01-23 07:55 G	18227486.77	18227486.83	18227486.91	0.0293	0.0242
Moon	45195-11-22 19:12 G	18228520.11	18228520.30	18228520.50	0.0280	0.0166
Earth	45195-11-22 20:53 G	18228520.17	18228520.37	18228520.57	0.0280	0.0159 *
Venus	45202-01-07 03:50 G	18230757.52	18230757.66	18230757.81	0.0260	0.0186
Venus	45202-08-24 00:00 G	18230986.28	18230986.50	18230986.71	0.0259	0.0014
Venus	45203-04-09 19:26 G	18231215.19	18231215.31	18231215.44	0.0259	0.0209
Mars	45205-07-02 02:10 G	18232029.43	18232029.59	18232029.76	0.0260	0.0221
Mercury	45208-05-09 12:58 G	18233071.92	18233072.04	18233072.17	0.0267	0.0203
Mercury	45208-08-06 11:31 G	18233160.78	18233160.98	18233161.17	0.0268	0.0014
Mercury	45208-11-03 09:50 G	18233249.78	18233249.91	18233250.06	0.0268	0.0179
Moon	45211-05-15 15:22 G	18234173.00	18234173.14	18234173.29	0.0279	0.0227
Earth	45211-05-15 15:50 G	18234173.01	18234173.16	18234173.31	0.0279	0.0215 *
Venus	45217-02-01 12:43 G	18236261.94	18236262.03	18236262.13	0.0302	0.0266
Venus	45217-09-19 19:55 G	18236492.13	18236492.33	18236492.54	0.0303	0.0053

Mars	45219-09-10 08:24 G	18237212.74	18237212.85	18237213.00	0.0303	0.0267
Mercury	45221-09-20 00:14 G	18237953.49	18237953.51	18237953.53	0.0297	0.0292
Mercury	45221-12-17 12:00 G	18238041.89	18238042.00	18238042.12	0.0296	0.0123
Mercury	45222-03-15 23:46 G	18238130.36	18238130.49	18238130.62	0.0295	0.0044
Mercury	45222-06-12 11:17 G	18238218.89	18238218.97	18238219.06	0.0294	0.0209
Earth	45224-11-16 13:12 G	18239106.81	18239107.05	18239107.29	0.0282	0.0070
Moon	45224-11-16 14:38 G	18239106.86	18239107.11	18239107.36	0.0282	0.0067 *
Venus	45231-07-20 08:53 G	18241543.70	18241543.87	18241544.04	0.0260	0.0154
Venus	45232-03-05 04:48 G	18241772.49	18241772.70	18241772.91	0.0259	0.0045
Venus	45232-10-20 00:14 G	18242001.44	18242001.51	18242001.59	0.0259	0.0241
Mercury	45237-09-26 12:43 G	18243803.97	18243804.03	18243804.11	0.0266	0.0247
Mercury	45237-12-24 11:17 G	18243892.78	18243892.97	18243893.16	0.0267	0.0058
Mercury	45238-03-23 09:50 G	18243981.74	18243981.91	18243982.08	0.0268	0.0133
Earth	45241-05-22 09:22 G	18245137.66	18245137.89	18245138.13	0.0282	0.0086
Moon	45241-05-22 13:12 G	18245137.82	18245138.05	18245138.28	0.0282	0.0077 *
Venus	45246-08-14 23:02 G	18247048.33	18247048.46	18247048.62	0.0303	0.0220
Venus	45247-04-02 06:43 G	18247278.58	18247278.78	18247278.98	0.0304	0.0101
Mercury	45251-05-06 15:07 G	18248774.03	18248774.13	18248774.24	0.0296	0.0159
Mercury	45251-08-03 02:53 G	18248862.50	18248862.62	18248862.75	0.0295	0.0012
Mercury	45251-10-30 14:38 G	18248951.01	18248951.11	18248951.21	0.0294	0.0174
Earth	45254-11-24 14:38 G	18250071.99	18250072.11	18250072.24	0.0279	0.0238
Moon	45254-11-24 17:17 G	18250072.12	18250072.22	18250072.34	0.0279	0.0248 *
Venus	45261-01-29 15:07 G	18252329.94	18252330.13	18252330.32	0.0260	0.0121
Venus	45261-09-15 10:48 G	18252558.75	18252558.95	18252559.15	0.0259	0.0077
Mercury	45267-05-13 11:31 G	18254624.80	18254624.98	18254625.16	0.0267	0.0099
Mercury	45267-08-10 10:05 G	18254713.74	18254713.92	18254714.10	0.0268	0.0092
Moon	45270-05-17 02:10 G	18255724.39	18255724.59	18255724.80	0.0280	0.0153
Earth	45270-05-17 05:46 G	18255724.54	18255724.74	18255724.96	0.0280	0.0143 *
Venus	45276-02-25 09:50 G	18257834.74	18257834.91	18257835.09	0.0303	0.0167
Venus	45276-10-12 17:17 G	18258065.05	18258065.22	18258065.41	0.0304	0.0154

Mercury	45280-09-22 18:29 G	18259506.17	18259506.27	18259506.36	0.0296	0.0196
Mercury	45280-12-20 06:00 G	18259594.63	18259594.75	18259594.88	0.0295	0.0030
Mercury	45281-03-18 17:46 G	18259683.13	18259683.24	18259683.35	0.0294	0.0139
Moon	45283-11-19 04:34 G	18260658.44	18260658.69	18260658.94	0.0281	0.0017
Earth	45283-11-19 07:12 G	18260658.55	18260658.80	18260659.05	0.0281	0.0011 *
Venus	45290-08-11 19:41 G	18263116.13	18263116.32	18263116.53	0.0259	0.0090
Venus	45291-03-28 15:22 G	18263344.95	18263345.14	18263345.34	0.0259	0.0108
Mars	45293-11-26 15:50 G	18264318.92	18264319.16	18264319.44	0.0260	0.0145
Mercury	45296-09-29 11:02 G	18265356.80	18265356.96	18265357.12	0.0267	0.0147
Mercury	45296-12-27 09:22 G	18265445.71	18265445.89	18265446.09	0.0268	0.0044
Mercury	45297-03-26 07:55 G	18265534.75	18265534.83	18265534.93	0.0268	0.0235
Earth	45300-05-24 21:50 G	18266689.22	18266689.41	18266689.62	0.0283	0.0159
Moon	45300-05-25 00:00 G	18266689.29	18266689.50	18266689.71	0.0283	0.0152 *
Venus	45305-09-07 18:58 G	18268621.10	18268621.29	18268621.49	0.0303	0.0123
Venus	45306-04-26 02:38 G	18268851.46	18268851.61	18268851.77	0.0304	0.0200
Mars	45308-02-06 10:19 G	18269502.69	18269502.93	18269503.16	0.0303	0.0157
Mercury	45310-02-10 21:07 G	18270238.31	18270238.38	18270238.46	0.0297	0.0236
Mercury	45310-05-10 08:53 G	18270326.75	18270326.87	18270327.00	0.0296	0.0068
Mercury	45310-08-06 20:38 G	18270415.24	18270415.36	18270415.48	0.0294	0.0100
Mercury	45310-11-03 08:10 G	18270503.79	18270503.84	18270503.90	0.0293	0.0264
Earth	45312-11-13 19:55 G	18271245.20	18271245.33	18271245.49	0.0283	0.0228
Moon	45312-11-13 22:34 G	18271245.30	18271245.44	18271245.59	0.0283	0.0227 *
Venus	45319-07-09 04:48 G	18273673.68	18273673.70	18273673.74	0.0260	0.0257
Venus	45320-02-23 01:12 G	18273902.34	18273902.55	18273902.75	0.0259	0.0059
Venus	45320-10-08 20:24 G	18274131.18	18274131.35	18274131.54	0.0259	0.0139
Mercury	45326-02-17 10:34 G	18276088.82	18276088.94	18276089.08	0.0267	0.0193
Mercury	45326-05-17 09:22 G	18276177.69	18276177.89	18276178.08	0.0268	0.0007
Mercury	45326-08-14 07:41 G	18276266.69	18276266.82	18276266.96	0.0268	0.0188
Moon	45329-05-19 14:10 G	18277275.87	18277276.09	18277276.32	0.0280	0.0085
Earth	45329-05-19 16:19 G	18277275.95	18277276.18	18277276.42	0.0280	0.0074 *

Venus	45335-03-21 04:34 G	18279407.49	18279407.69	18279407.90	0.0303	0.0072
Venus	45335-11-06 12:29 G	18279637.90	18279638.02	18279638.14	0.0304	0.0250
Mercury	45339-07-01 00:00 G	18280970.46	18280970.50	18280970.55	0.0297	0.0275
Mercury	45339-09-27 12:00 G	18281058.88	18281059.00	18281059.12	0.0296	0.0106
Mercury	45339-12-24 23:31 G	18281147.36	18281147.48	18281147.61	0.0295	0.0063
Mercury	45340-03-22 11:17 G	18281235.89	18281235.97	18281236.05	0.0294	0.0227
Moon	45342-11-21 18:58 G	18282210.06	18282210.29	18282210.52	0.0281	0.0093
Earth	45342-11-21 22:19 G	18282210.20	18282210.43	18282210.67	0.0281	0.0088 *
Venus	45349-01-18 09:07 G	18284459.79	18284459.88	18284459.99	0.0260	0.0227
Venus	45349-09-04 05:17 G	18284688.50	18284688.72	18284688.93	0.0259	0.0029
Venus	45350-04-21 00:29 G	18284917.36	18284917.52	18284917.69	0.0258	0.0168
Mercury	45355-07-07 09:36 G	18286820.83	18286820.90	18286820.98	0.0266	0.0243
Mercury	45355-10-04 08:10 G	18286909.65	18286909.84	18286910.03	0.0267	0.0055
Mercury	45356-01-01 06:29 G	18286998.61	18286998.77	18286998.94	0.0268	0.0136
Moon	45359-05-27 04:34 G	18288240.54	18288240.69	18288240.84	0.0283	0.0223
Earth	45359-05-27 06:43 G	18288240.65	18288240.78	18288240.94	0.0283	0.0225 *
Venus	45364-09-30 11:46 G	18290193.78	18290193.99	18290194.20	0.0304	0.0033
Venus	45365-05-18 19:26 G	18290424.26	18290424.31	18290424.38	0.0304	0.0291
Mercury	45369-02-13 14:10 G	18291790.98	18291791.09	18291791.20	0.0296	0.0154
Mercury	45369-05-13 01:55 G	18291879.45	18291879.58	18291879.71	0.0295	0.0014
Mercury	45369-08-09 13:41 G	18291967.97	18291968.07	18291968.17	0.0294	0.0180
Earth	45371-11-16 08:38 G	18292796.65	18292796.86	18292797.07	0.0283	0.0154
Moon	45371-11-16 12:00 G	18292796.80	18292797.00	18292797.22	0.0283	0.0154 *
Venus	45378-07-31 13:26 G	18295245.93	18295246.06	18295246.21	0.0260	0.0197
Venus	45379-03-17 09:22 G	18295474.68	18295474.89	18295475.10	0.0259	0.0002
Venus	45379-11-01 04:48 G	18295703.56	18295703.70	18295703.84	0.0258	0.0197
Mars	45382-04-23 21:07 G	18296608.09	18296608.38	18296608.69	0.0260	0.0075
Mercury	45385-02-20 07:12 G	18297641.62	18297641.80	18297641.98	0.0267	0.0106
Mercury	45385-05-20 05:31 G	18297730.55	18297730.73	18297730.92	0.0268	0.0084
Earth	45388-05-20 22:05 G	18298827.18	18298827.42	18298827.67	0.0281	0.0014

Moon	45388-05-21 00:14 G	18298827.27	18298827.51	18298827.75	0.0281	0.0021	*
Venus	45394-04-12 19:41 G	18300980.11	18300980.32	18300980.53	0.0303	0.0015	
Mars	45396-07-02 17:46 G	18301791.98	18301792.24	18301792.51	0.0303	0.0084	
Mercury	45398-07-03 16:48 G	18302523.11	18302523.20	18302523.29	0.0297	0.0198	
Mercury	45398-09-30 04:34 G	18302611.56	18302611.69	18302611.82	0.0296	0.0029	
Mercury	45398-12-27 16:19 G	18302700.07	18302700.18	18302700.29	0.0295	0.0138	
Earth	45401-11-24 08:24 G	18303761.65	18303761.85	18303762.06	0.0280	0.0157	
Moon	45401-11-24 08:24 G	18303761.66	18303761.85	18303762.05	0.0280	0.0164	*
Venus	45408-02-11 17:02 G	18306032.05	18306032.21	18306032.38	0.0259	0.0169	
Venus	45408-09-27 12:43 G	18306260.82	18306261.03	18306261.24	0.0259	0.0029	
Venus	45409-05-14 07:41 G	18306489.72	18306489.82	18306489.93	0.0258	0.0224	
Mercury	45414-07-11 05:31 G	18308373.58	18308373.73	18308373.88	0.0266	0.0162	
Mercury	45414-10-08 03:50 G	18308462.47	18308462.66	18308462.85	0.0267	0.0026	
Mercury	45415-01-05 02:10 G	18308551.49	18308551.59	18308551.71	0.0268	0.0217	
Moon	45417-05-16 09:22 G	18309413.82	18309413.89	18309414.00	0.0278	0.0258	
Earth	45417-05-16 11:46 G	18309413.90	18309413.99	18309414.11	0.0278	0.0248	*
Moon	45418-05-29 07:26 G	18309791.80	18309791.81	18309791.83	0.0283	0.0283	
Venus	45423-03-08 17:02 G	18311536.13	18311536.21	18311536.31	0.0303	0.0272	
Venus	45423-10-25 00:43 G	18311766.32	18311766.53	18311766.74	0.0304	0.0049	
Mercury	45427-11-21 18:29 G	18313255.21	18313255.27	18313255.34	0.0297	0.0253	
Mercury	45428-02-18 06:29 G	18313343.65	18313343.77	18313343.89	0.0296	0.0083	
Mercury	45428-05-16 18:14 G	18313432.14	18313432.26	18313432.38	0.0295	0.0085	
Mercury	45428-08-13 05:46 G	18313520.68	18313520.74	18313520.81	0.0294	0.0251	
Moon	45430-11-18 15:50 G	18314347.92	18314348.16	18314348.41	0.0283	0.0084	
Earth	45430-11-18 16:34 G	18314347.95	18314348.19	18314348.42	0.0283	0.0089	*
Venus	45437-08-23 19:55 G	18316818.16	18316818.33	18316818.51	0.0259	0.0142	
Venus	45438-04-09 15:36 G	18317046.94	18317047.15	18317047.36	0.0259	0.0055	
Venus	45438-11-24 10:48 G	18317275.90	18317275.95	18317276.00	0.0258	0.0250	
Mercury	45443-11-28 03:50 G	18319105.56	18319105.66	18319105.78	0.0266	0.0218	
Mercury	45444-02-25 02:24 G	18319194.40	18319194.60	18319194.79	0.0267	0.0030	

Mercury	45444-05-24 00:43 G	18319283.38	18319283.53	18319283.69	0.0268	0.0160
Earth	45447-05-23 23:46 G	18320378.24	18320378.49	18320378.73	0.0281	0.0041
Moon	45447-05-24 03:07 G	18320378.39	18320378.63	18320378.88	0.0281	0.0035 *
Venus	45452-09-17 23:17 G	18322322.34	18322322.47	18322322.61	0.0303	0.0230
Venus	45453-05-06 06:58 G	18322552.59	18322552.79	18322553.00	0.0304	0.0092
Mercury	45457-07-07 08:38 G	18324075.74	18324075.86	18324075.97	0.0297	0.0133
Mercury	45457-10-03 20:24 G	18324164.22	18324164.35	18324164.47	0.0295	0.0037
Mercury	45457-12-31 07:55 G	18324252.74	18324252.83	18324252.93	0.0294	0.0203
Earth	45460-11-25 13:12 G	18325312.90	18325313.05	18325313.21	0.0280	0.0217
Moon	45460-11-25 16:48 G	18325313.07	18325313.20	18325313.35	0.0280	0.0227 *
Venus	45467-03-05 22:48 G	18327604.26	18327604.45	18327604.64	0.0259	0.0116
Venus	45467-10-20 18:00 G	18327833.05	18327833.25	18327833.46	0.0258	0.0082
Mars	45470-09-18 07:55 G	18328896.53	18328896.83	18328897.15	0.0259	0.0035
Mercury	45473-07-14 00:00 G	18329926.32	18329926.50	18329926.69	0.0266	0.0091
Mercury	45473-10-10 22:34 G	18330015.26	18330015.44	18330015.62	0.0267	0.0098
Moon	45476-05-17 07:55 G	18330964.68	18330964.83	18330965.00	0.0278	0.0206
Earth	45476-05-17 11:17 G	18330964.81	18330964.97	18330965.15	0.0278	0.0198 *
Venus	45482-03-31 02:10 G	18333108.43	18333108.59	18333108.75	0.0303	0.0202
Venus	45482-11-16 09:50 G	18333338.72	18333338.91	18333339.11	0.0304	0.0121
Mars	45484-11-26 20:24 G	18334080.08	18334080.35	18334080.62	0.0303	0.0052
Mercury	45486-11-24 09:50 G	18334807.82	18334807.91	18334808.01	0.0297	0.0194
Mercury	45487-02-20 21:36 G	18334896.28	18334896.40	18334896.53	0.0296	0.0026
Mercury	45487-05-20 09:22 G	18334984.78	18334984.89	18334985.01	0.0295	0.0144
Moon	45489-11-19 14:53 G	18335898.88	18335899.12	18335899.37	0.0283	0.0023
Earth	45489-11-19 18:43 G	18335899.04	18335899.28	18335899.53	0.0283	0.0034 *
Venus	45496-09-15 00:29 G	18338390.32	18338390.52	18338390.72	0.0259	0.0091
Venus	45497-05-01 19:41 G	18338619.13	18338619.32	18338619.52	0.0258	0.0106
Mercury	45502-12-01 21:50 G	18340658.26	18340658.41	18340658.57	0.0266	0.0152
Mercury	45503-02-28 20:10 G	18340747.15	18340747.34	18340747.54	0.0267	0.0037
Mercury	45503-05-28 18:29 G	18340836.18	18340836.27	18340836.38	0.0268	0.0227

Moon	45506-05-25 19:55 G	18341929.09	18341929.33	18341929.57	0.0281	0.0088
Earth	45506-05-25 20:38 G	18341929.14	18341929.36	18341929.60	0.0281	0.0088 *
Venus	45511-10-12 06:58 G	18343894.62	18343894.79	18343894.97	0.0303	0.0163
Venus	45512-05-29 14:53 G	18344124.95	18344125.12	18344125.30	0.0304	0.0160
Mercury	45516-04-13 11:46 G	18345539.92	18345539.99	18345540.05	0.0297	0.0249
Mercury	45516-07-10 23:31 G	18345628.36	18345628.48	18345628.60	0.0296	0.0078
Mercury	45516-10-07 11:17 G	18345716.85	18345716.97	18345717.09	0.0295	0.0091
Mercury	45517-01-03 23:02 G	18345805.40	18345805.46	18345805.52	0.0294	0.0257
Earth	45518-11-14 23:46 G	18346485.48	18346485.49	18346485.52	0.0285	0.0285
Moon	45518-11-15 03:22 G	18346485.59	18346485.64	18346485.72	0.0285	0.0275
Earth	45519-11-28 13:41 G	18346864.01	18346864.07	18346864.14	0.0280	0.0269
Venus	45526-03-29 02:38 G	18349176.40	18349176.61	18349176.81	0.0259	0.0067
Venus	45526-11-12 21:36 G	18349405.23	18349405.40	18349405.60	0.0258	0.0130
Mercury	45532-04-19 19:26 G	18351390.20	18351390.31	18351390.43	0.0265	0.0213
Mercury	45532-07-17 17:46 G	18351479.05	18351479.24	18351479.43	0.0266	0.0027
Mercury	45532-10-14 16:05 G	18351568.02	18351568.17	18351568.32	0.0267	0.0162
Earth	45535-05-20 07:26 G	18352515.61	18352515.81	18352516.02	0.0278	0.0153
Moon	45535-05-20 08:53 G	18352515.68	18352515.87	18352516.07	0.0278	0.0155 *
Venus	45541-04-23 08:24 G	18354680.67	18354680.85	18354681.04	0.0304	0.0138
Venus	45541-12-09 16:19 G	18354911.02	18354911.18	18354911.35	0.0304	0.0187
Mercury	45545-11-28 00:29 G	18356360.41	18356360.52	18356360.63	0.0297	0.0145
Mercury	45546-02-24 12:14 G	18356448.89	18356449.01	18356449.14	0.0296	0.0026
Mercury	45546-05-24 00:00 G	18356537.41	18356537.50	18356537.60	0.0295	0.0193
Moon	45548-11-21 16:05 G	18357449.94	18357450.17	18357450.41	0.0283	0.0030
Earth	45548-11-21 16:48 G	18357449.95	18357450.20	18357450.45	0.0283	0.0016 *
Venus	45555-02-22 07:26 G	18359733.74	18359733.81	18359733.89	0.0259	0.0243
Venus	45555-10-09 03:22 G	18359962.43	18359962.64	18359962.85	0.0259	0.0044
Venus	45556-05-24 22:34 G	18360191.27	18360191.44	18360191.61	0.0258	0.0152
Mars	45559-02-12 06:14 G	18361184.45	18361184.76	18361185.08	0.0259	0.0006
Mercury	45561-12-04 15:22 G	18362210.95	18362211.14	18362211.32	0.0266	0.0091

Mercury	45562-03-03 13:26 G	18362299.88	18362300.06	18362300.24	0.0267	0.0097
Moon	45565-05-26 11:31 G	18363479.78	18363479.98	18363480.20	0.0281	0.0138
Earth	45565-05-26 15:36 G	18363479.94	18363480.15	18363480.37	0.0281	0.0131 *
Venus	45570-11-03 12:14 G	18365466.81	18365467.01	18365467.21	0.0303	0.0101
Venus	45571-06-21 20:24 G	18365697.20	18365697.35	18365697.49	0.0304	0.0222
Mars	45573-04-22 10:05 G	18366367.65	18366367.92	18366368.19	0.0303	0.0051
Mercury	45575-04-17 01:55 G	18367092.49	18367092.58	18367092.67	0.0297	0.0204
Mercury	45575-07-14 13:41 G	18367180.95	18367181.07	18367181.20	0.0296	0.0035
Mercury	45575-10-11 01:26 G	18367269.45	18367269.56	18367269.68	0.0295	0.0136
Moon	45577-11-15 20:10 G	18368036.19	18368036.34	18368036.50	0.0285	0.0227
Earth	45577-11-15 20:10 G	18368036.21	18368036.34	18368036.47	0.0285	0.0239 *
Venus	45584-09-03 09:07 G	18370519.78	18370519.88	18370520.00	0.0260	0.0220
Venus	45585-04-20 04:48 G	18370748.49	18370748.70	18370748.92	0.0259	0.0022
Venus	45585-12-05 00:00 G	18370977.35	18370977.50	18370977.66	0.0258	0.0175
Mercury	45591-04-23 12:29 G	18372942.87	18372943.02	18372943.18	0.0265	0.0155
Mercury	45591-07-21 10:48 G	18373031.76	18373031.95	18373032.14	0.0266	0.0032
Mercury	45591-10-18 09:07 G	18373120.77	18373120.88	18373120.99	0.0267	0.0220
Earth	45594-05-21 01:26 G	18374066.34	18374066.56	18374066.79	0.0278	0.0112
Moon	45594-05-21 05:02 G	18374066.49	18374066.71	18374066.94	0.0278	0.0108 *
Venus	45600-05-15 12:43 G	18376252.83	18376253.03	18376253.24	0.0304	0.0078
Venus	45600-12-31 20:38 G	18376483.25	18376483.36	18376483.49	0.0305	0.0247
Mercury	45604-09-03 02:38 G	18377824.56	18377824.61	18377824.66	0.0298	0.0275
Mercury	45604-11-30 14:24 G	18377912.99	18377913.10	18377913.23	0.0297	0.0104
Mercury	45605-02-27 02:24 G	18378001.47	18378001.60	18378001.72	0.0296	0.0068
Mercury	45605-05-26 14:10 G	18378090.01	18378090.09	18378090.16	0.0295	0.0235
Earth	45607-11-23 11:46 G	18379000.75	18379000.99	18379001.23	0.0283	0.0060
Moon	45607-11-23 15:07 G	18379000.90	18379001.13	18379001.37	0.0283	0.0076 *
Venus	45614-03-16 09:22 G	18381305.76	18381305.89	18381306.03	0.0259	0.0198
Venus	45614-10-31 05:17 G	18381534.50	18381534.72	18381534.93	0.0259	0.0005
Venus	45615-06-17 00:00 G	18381763.38	18381763.50	18381763.65	0.0258	0.0197

Mercury	45620-09-09 09:50 G	18383674.81	18383674.91	18383675.02	0.0265	0.0221
Mercury	45620-12-07 08:10 G	18383763.64	18383763.84	18383764.03	0.0266	0.0035
Mercury	45621-03-06 06:14 G	18383852.61	18383852.76	18383852.92	0.0267	0.0154
Earth	45624-05-27 08:53 G	18385030.68	18385030.87	18385031.07	0.0281	0.0172
Moon	45624-05-27 09:07 G	18385030.70	18385030.88	18385031.06	0.0281	0.0183 *
Venus	45629-11-25 16:19 G	18387038.97	18387039.18	18387039.39	0.0303	0.0043
Venus	45630-07-14 00:29 G	18387269.44	18387269.52	18387269.59	0.0304	0.0281
Mercury	45634-04-19 15:50 G	18388645.05	18388645.16	18388645.27	0.0297	0.0164
Mercury	45634-07-17 03:36 G	18388733.53	18388733.65	18388733.78	0.0296	0.0011
Mercury	45634-10-13 15:22 G	18388822.04	18388822.14	18388822.25	0.0295	0.0176
Moon	45636-11-16 10:19 G	18389586.75	18389586.93	18389587.14	0.0285	0.0183
Earth	45636-11-16 14:10 G	18389586.91	18389587.09	18389587.27	0.0285	0.0197 *
Venus	45643-09-26 10:48 G	18392091.80	18392091.95	18392092.11	0.0260	0.0176
Venus	45644-05-12 06:29 G	18392320.56	18392320.77	18392320.99	0.0259	0.0023
Venus	45644-12-27 01:26 G	18392549.46	18392549.56	18392549.68	0.0258	0.0219
Mars	45647-07-08 00:00 G	18393472.19	18393472.50	18393472.81	0.0259	0.0016
Mercury	45650-04-26 05:31 G	18394495.55	18394495.73	18394495.91	0.0265	0.0097
Mercury	45650-07-24 03:50 G	18394584.48	18394584.66	18394584.84	0.0266	0.0090
Moon	45653-05-21 19:12 G	18395617.06	18395617.30	18395617.55	0.0278	0.0063
Earth	45653-05-21 19:41 G	18395617.08	18395617.32	18395617.56	0.0278	0.0071 *
Venus	45659-06-07 16:34 G	18397824.98	18397825.19	18397825.40	0.0304	0.0020
Venus	45660-01-24 00:29 G	18398055.52	18398055.52	18398055.53	0.0305	0.0304
Mars	45661-09-14 06:43 G	18398654.52	18398654.78	18398655.05	0.0304	0.0068
Mercury	45663-09-06 16:19 G	18399377.11	18399377.18	18399377.26	0.0298	0.0236
Mercury	45663-12-04 04:19 G	18399465.56	18399465.68	18399465.81	0.0297	0.0064
Mercury	45664-03-01 16:05 G	18399554.05	18399554.17	18399554.29	0.0296	0.0106
Mercury	45664-05-29 03:50 G	18399642.62	18399642.66	18399642.71	0.0295	0.0274
Earth	45666-11-24 04:48 G	18400551.47	18400551.70	18400551.93	0.0283	0.0100
Moon	45666-11-24 06:29 G	18400551.54	18400551.77	18400552.01	0.0283	0.0115 *
Venus	45673-04-07 10:34 G	18402877.78	18402877.94	18402878.12	0.0259	0.0154

Venus	45673-11-22 06:29 G	18403106.56	18403106.77	18403106.98	0.0258	0.0045
Venus	45674-07-09 01:26 G	18403335.50	18403335.56	18403335.65	0.0258	0.0240
Mercury	45679-09-13 02:53 G	18405227.47	18405227.62	18405227.77	0.0265	0.0163
Mercury	45679-12-11 00:58 G	18405316.35	18405316.54	18405316.73	0.0266	0.0023
Mercury	45680-03-08 23:02 G	18405405.35	18405405.46	18405405.58	0.0267	0.0211
Earth	45683-05-29 02:24 G	18406581.45	18406581.60	18406581.77	0.0281	0.0213
Moon	45683-05-29 06:14 G	18406581.63	18406581.76	18406581.91	0.0281	0.0228 *
Venus	45688-12-17 19:41 G	18408611.12	18408611.32	18408611.54	0.0303	0.0017
Mercury	45693-01-23 17:46 G	18410109.24	18410109.24	18410109.24	0.0298	0.0298
Mercury	45693-04-22 05:31 G	18410197.62	18410197.73	18410197.85	0.0297	0.0126
Mercury	45693-07-19 17:31 G	18410286.10	18410286.23	18410286.36	0.0296	0.0046
Mercury	45693-10-16 05:17 G	18410374.63	18410374.72	18410374.81	0.0295	0.0214
Moon	45695-11-18 05:31 G	18411137.53	18411137.73	18411137.94	0.0285	0.0143
Earth	45695-11-18 07:12 G	18411137.59	18411137.80	18411138.00	0.0285	0.0157 *
Venus	45702-10-19 12:29 G	18413663.84	18413664.02	18413664.21	0.0260	0.0132
Venus	45703-06-05 08:10 G	18413892.64	18413892.84	18413893.05	0.0259	0.0067
Mercury	45709-01-31 00:43 G	18415959.43	18415959.53	18415959.63	0.0264	0.0223
Mercury	45709-04-29 22:48 G	18416048.26	18416048.45	18416048.64	0.0265	0.0038
Mercury	45709-07-27 20:53 G	18416137.21	18416137.37	18416137.53	0.0266	0.0149
Moon	45712-05-23 11:02 G	18417167.72	18417167.96	18417168.21	0.0278	0.0017
Earth	45712-05-23 14:38 G	18417167.87	18417168.11	18417168.35	0.0278	0.0029 *
Venus	45717-11-12 13:26 G	18419166.99	18419167.06	18419167.14	0.0302	0.0281
Venus	45718-06-30 20:53 G	18419397.16	18419397.37	18419397.58	0.0304	0.0040
Mercury	45722-09-10 06:14 G	18420929.67	18420929.76	18420929.86	0.0298	0.0196
Mercury	45722-12-07 18:14 G	18421018.13	18421018.26	18421018.39	0.0297	0.0024
Mercury	45723-03-06 06:00 G	18421106.64	18421106.75	18421106.86	0.0296	0.0146
Moon	45725-11-25 19:26 G	18422102.11	18422102.31	18422102.53	0.0283	0.0155
Earth	45725-11-25 22:34 G	18422102.23	18422102.44	18422102.65	0.0283	0.0141 *
Venus	45732-04-30 12:14 G	18424449.83	18424450.01	18424450.21	0.0259	0.0110
Venus	45732-12-15 08:10 G	18424678.64	18424678.84	18424679.04	0.0259	0.0089

Mars	45735-12-01 16:34 G	18425759.88	18425760.19	18425760.50	0.0259	0.0040
Mercury	45738-09-16 20:24 G	18426780.17	18426780.35	18426780.53	0.0265	0.0101
Mercury	45738-12-14 18:29 G	18426869.09	18426869.27	18426869.45	0.0266	0.0085
Earth	45741-05-18 05:46 G	18427754.67	18427754.74	18427754.83	0.0276	0.0260
Moon	45741-05-18 09:07 G	18427754.80	18427754.88	18427754.99	0.0276	0.0253 *
Earth	45742-05-30 23:02 G	18428132.37	18428132.46	18428132.55	0.0281	0.0258
Moon	45742-05-31 00:00 G	18428132.45	18428132.50	18428132.56	0.0281	0.0272 *
Venus	45747-05-25 17:46 G	18429953.12	18429953.24	18429953.36	0.0302	0.0245
Venus	45748-01-11 00:58 G	18430183.34	18430183.54	18430183.75	0.0303	0.0076
Mars	45750-02-07 14:53 G	18430941.86	18430942.12	18430942.39	0.0303	0.0073
Mercury	45752-01-28 07:41 G	18431661.76	18431661.82	18431661.88	0.0298	0.0256
Mercury	45752-04-25 19:41 G	18431750.20	18431750.32	18431750.44	0.0297	0.0084
Mercury	45752-07-23 07:26 G	18431838.69	18431838.81	18431838.94	0.0296	0.0087
Mercury	45752-10-19 19:12 G	18431927.24	18431927.30	18431927.37	0.0295	0.0255
Earth	45754-11-20 00:58 G	18432688.32	18432688.54	18432688.77	0.0285	0.0116
Moon	45754-11-20 03:50 G	18432688.44	18432688.66	18432688.89	0.0285	0.0100 *
Venus	45761-11-10 14:38 G	18435235.91	18435236.11	18435236.32	0.0260	0.0087
Venus	45762-06-27 10:19 G	18435464.74	18435464.93	18435465.13	0.0259	0.0112
Mercury	45768-02-03 18:29 G	18437512.12	18437512.27	18437512.43	0.0264	0.0158
Mercury	45768-05-02 16:48 G	18437601.00	18437601.20	18437601.39	0.0265	0.0028
Mercury	45768-07-30 14:38 G	18437690.01	18437690.11	18437690.23	0.0266	0.0215
Moon	45771-05-25 11:17 G	18438718.73	18438718.97	18438719.20	0.0278	0.0030
Earth	45771-05-25 12:29 G	18438718.77	18438719.02	18438719.26	0.0278	0.0018 *
Venus	45776-12-04 19:26 G	18440739.18	18440739.31	18440739.47	0.0302	0.0218
Venus	45777-07-23 02:53 G	18440969.42	18440969.62	18440969.82	0.0304	0.0103
Mercury	45781-09-12 20:24 G	18442482.25	18442482.35	18442482.46	0.0298	0.0153
Mercury	45781-12-10 08:24 G	18442570.72	18442570.85	18442570.98	0.0297	0.0020
Mercury	45782-03-08 20:10 G	18442659.24	18442659.34	18442659.44	0.0296	0.0189
Moon	45784-11-26 14:38 G	18443652.94	18443653.11	18443653.29	0.0283	0.0197
Earth	45784-11-26 17:31 G	18443653.05	18443653.23	18443653.42	0.0283	0.0184 *

Venus	45791-05-23 15:07 G	18446021.92	18446022.13	18446022.34	0.0259	0.0064
Venus	45792-01-07 10:48 G	18446250.77	18446250.95	18446251.14	0.0259	0.0135
Mercury	45797-06-22 16:19 G	18448244.08	18448244.18	18448244.30	0.0264	0.0219
Mercury	45797-09-19 14:38 G	18448332.92	18448333.11	18448333.30	0.0265	0.0033
Mercury	45797-12-17 12:43 G	18448421.88	18448422.03	18448422.19	0.0266	0.0154
Earth	45800-05-20 04:48 G	18449305.55	18449305.70	18449305.86	0.0276	0.0212
Moon	45800-05-20 06:14 G	18449305.60	18449305.76	18449305.94	0.0276	0.0202 *
Venus	45806-06-18 00:58 G	18451525.38	18451525.54	18451525.71	0.0302	0.0180
Venus	45807-02-03 08:24 G	18451755.66	18451755.85	18451756.03	0.0303	0.0142
Mercury	45811-01-31 22:19 G	18453214.34	18453214.43	18453214.52	0.0298	0.0208
Mercury	45811-04-30 10:05 G	18453302.80	18453302.92	18453303.05	0.0297	0.0036
Mercury	45811-07-27 21:50 G	18453391.30	18453391.41	18453391.53	0.0296	0.0135
Earth	45813-11-21 21:36 G	18454239.17	18454239.40	18454239.64	0.0285	0.0071
Moon	45813-11-22 00:29 G	18454239.28	18454239.52	18454239.77	0.0285	0.0055 *
Venus	45820-04-18 21:07 G	18456579.32	18456579.38	18456579.48	0.0261	0.0241
Venus	45820-12-03 18:00 G	18456808.04	18456808.25	18456808.46	0.0260	0.0039
Venus	45821-07-20 13:26 G	18457036.91	18457037.06	18457037.24	0.0259	0.0160
Mars	45824-04-26 23:31 G	18458048.19	18458048.48	18458048.79	0.0259	0.0084
Mercury	45827-02-07 13:26 G	18459064.88	18459065.06	18459065.25	0.0265	0.0086
Mercury	45827-05-07 11:31 G	18459153.81	18459153.98	18459154.16	0.0265	0.0101
Earth	45830-05-27 13:55 G	18460269.85	18460270.08	18460270.32	0.0278	0.0071
Moon	45830-05-27 16:48 G	18460269.98	18460270.20	18460270.43	0.0278	0.0085 *
Venus	45835-12-29 05:02 G	18462311.53	18462311.71	18462311.90	0.0302	0.0147
Venus	45836-08-15 12:00 G	18462541.84	18462542.00	18462542.18	0.0303	0.0175
Mars	45838-07-04 04:19 G	18463229.41	18463229.68	18463229.95	0.0304	0.0059
Mercury	45840-06-19 23:31 G	18463946.43	18463946.48	18463946.53	0.0299	0.0272
Mercury	45840-09-16 11:31 G	18464034.86	18464034.98	18464035.10	0.0298	0.0099
Mercury	45840-12-13 23:17 G	18464123.35	18464123.47	18464123.60	0.0297	0.0073
Mercury	45841-03-12 11:02 G	18464211.89	18464211.96	18464212.03	0.0296	0.0242
Earth	45843-11-29 15:36 G	18465204.03	18465204.15	18465204.31	0.0283	0.0233

Moon	45843-11-29 17:31 G	18465204.11	18465204.23	18465204.35	0.0283	0.0243 *
Venus	45849-10-29 22:34 G	18467365.33	18467365.44	18467365.56	0.0260	0.0216
Venus	45850-06-15 19:12 G	18467594.09	18467594.30	18467594.51	0.0259	0.0015
Venus	45851-01-30 14:53 G	18467822.98	18467823.12	18467823.27	0.0259	0.0184
Mercury	45856-06-26 12:00 G	18469796.84	18469797.00	18469797.16	0.0265	0.0142
Mercury	45856-09-23 10:05 G	18469885.73	18469885.92	18469886.11	0.0266	0.0045
Mercury	45856-12-21 08:10 G	18469974.76	18469974.84	18469974.94	0.0266	0.0233
Moon	45859-05-22 05:02 G	18470856.50	18470856.71	18470856.93	0.0276	0.0144
Earth	45859-05-22 08:10 G	18470856.65	18470856.84	18470857.05	0.0276	0.0158 *
Venus	45865-07-10 11:31 G	18473097.78	18473097.98	18473098.17	0.0302	0.0107
Venus	45866-02-25 18:29 G	18473328.13	18473328.27	18473328.42	0.0303	0.0216
Mercury	45870-02-03 13:26 G	18474766.95	18474767.06	18474767.17	0.0298	0.0151
Mercury	45870-05-03 01:12 G	18474855.43	18474855.55	18474855.68	0.0297	0.0024
Mercury	45870-07-30 12:58 G	18474943.95	18474944.04	18474944.14	0.0296	0.0191
Moon	45872-11-22 19:41 G	18475790.07	18475790.32	18475790.58	0.0285	0.0008
Earth	45872-11-22 21:50 G	18475790.17	18475790.41	18475790.66	0.0285	0.0020 *
Venus	45879-05-12 02:10 G	18478151.45	18478151.59	18478151.74	0.0261	0.0190
Venus	45879-12-26 22:48 G	18478380.24	18478380.45	18478380.67	0.0260	0.0013
Venus	45880-08-11 18:43 G	18478609.16	18478609.28	18478609.40	0.0259	0.0211
Mercury	45885-11-13 11:17 G	18480528.84	18480528.97	18480529.11	0.0264	0.0190
Mercury	45886-02-10 09:36 G	18480617.70	18480617.90	18480618.09	0.0265	0.0005
Mercury	45886-05-10 07:26 G	18480706.68	18480706.81	18480706.96	0.0266	0.0184
Earth	45889-05-28 19:41 G	18481821.11	18481821.32	18481821.54	0.0278	0.0130
Moon	45889-05-28 22:34 G	18481821.24	18481821.44	18481821.66	0.0278	0.0146 *
Venus	45895-01-20 17:31 G	18483884.03	18483884.23	18483884.44	0.0302	0.0068
Venus	45895-09-08 00:14 G	18484114.41	18484114.51	18484114.64	0.0303	0.0254
Mercury	45899-06-23 15:07 G	18485499.04	18485499.13	18485499.22	0.0298	0.0208
Mercury	45899-09-20 03:07 G	18485587.50	18485587.63	18485587.75	0.0297	0.0037
Mercury	45899-12-17 14:53 G	18485676.01	18485676.12	18485676.23	0.0296	0.0135
Earth	45901-11-17 23:02 G	18486376.44	18486376.46	18486376.49	0.0288	0.0286

Moon	45901-11-18 01:55 G	18486376.51	18486376.58	18486376.65	0.0288	0.0274
Venus	45908-11-22 04:05 G	18488937.52	18488937.67	18488937.85	0.0261	0.0164
Venus	45909-07-09 00:58 G	18489166.33	18489166.54	18489166.75	0.0260	0.0038
Venus	45910-02-22 20:53 G	18489395.28	18489395.37	18489395.45	0.0259	0.0236
Mars	45912-09-21 13:12 G	18490336.79	18490337.05	18490337.32	0.0259	0.0135
Mercury	45915-04-03 10:19 G	18491260.86	18491260.93	18491261.01	0.0264	0.0241
Mercury	45915-07-01 08:38 G	18491349.67	18491349.86	18491350.05	0.0265	0.0056
Mercury	45915-09-28 06:43 G	18491438.61	18491438.78	18491438.95	0.0266	0.0131
Moon	45918-05-24 12:43 G	18492407.81	18492408.03	18492408.27	0.0277	0.0082
Earth	45918-05-24 15:36 G	18492407.93	18492408.15	18492408.38	0.0277	0.0097 *
Venus	45924-08-03 01:55 G	18494670.37	18494670.58	18494670.79	0.0302	0.0024
Venus	45925-03-21 08:53 G	18494900.84	18494900.87	18494900.91	0.0303	0.0298
Mars	45926-11-28 22:48 G	18495518.17	18495518.45	18495518.73	0.0303	0.0002
Mercury	45928-11-10 17:31 G	18496231.17	18496231.23	18496231.30	0.0298	0.0254
Mercury	45929-02-07 05:31 G	18496319.61	18496319.73	18496319.85	0.0297	0.0081
Mercury	45929-05-06 17:17 G	18496408.10	18496408.22	18496408.35	0.0296	0.0091
Mercury	45929-08-03 05:02 G	18496496.66	18496496.71	18496496.77	0.0295	0.0259
Moon	45931-11-26 00:00 G	18497341.26	18497341.50	18497341.74	0.0285	0.0049
Earth	45931-11-26 03:36 G	18497341.40	18497341.65	18497341.89	0.0285	0.0041 *
Venus	45938-06-04 08:53 G	18499723.69	18499723.87	18499724.06	0.0261	0.0135
Venus	45939-01-19 05:31 G	18499952.52	18499952.73	18499952.94	0.0260	0.0067
Mercury	45944-11-17 08:38 G	18502081.68	18502081.86	18502082.04	0.0265	0.0099
Mercury	45945-02-14 06:43 G	18502170.60	18502170.78	18502170.96	0.0266	0.0088
Moon	45948-05-31 04:19 G	18503372.52	18503372.68	18503372.85	0.0279	0.0212
Earth	45948-05-31 06:00 G	18503372.58	18503372.75	18503372.92	0.0279	0.0197 *
Venus	45953-06-28 03:36 G	18505226.62	18505226.65	18505226.70	0.0301	0.0295
Venus	45954-02-13 09:50 G	18505456.70	18505456.91	18505457.12	0.0302	0.0021
Mercury	45958-06-27 07:41 G	18507051.70	18507051.82	18507051.93	0.0298	0.0133
Mercury	45958-09-23 19:26 G	18507140.19	18507140.31	18507140.44	0.0297	0.0040
Mercury	45958-12-21 07:12 G	18507228.72	18507228.80	18507228.89	0.0296	0.0209

Earth	45960-11-19 07:26 G	18507927.66	18507927.81	18507927.97	0.0287	0.0220
Moon	45960-11-19 10:34 G	18507927.78	18507927.94	18507928.12	0.0287	0.0210 *
Venus	45967-12-15 11:46 G	18510509.80	18510509.99	18510510.19	0.0261	0.0106
Venus	45968-07-31 08:24 G	18510738.66	18510738.85	18510739.05	0.0260	0.0095
Mercury	45974-04-06 07:55 G	18512813.67	18512813.83	18512814.00	0.0265	0.0147
Mercury	45974-07-04 06:14 G	18512902.57	18512902.76	18512902.95	0.0266	0.0040
Mercury	45974-10-01 04:19 G	18512991.59	18512991.68	18512991.78	0.0266	0.0228
Earth	45977-05-26 02:38 G	18513959.37	18513959.61	18513959.86	0.0277	0.0029
Moon	45977-05-26 04:34 G	18513959.45	18513959.69	18513959.93	0.0277	0.0013 *
Venus	45983-01-08 13:12 G	18516012.94	18516013.05	18516013.17	0.0301	0.0250
Venus	45983-08-26 19:26 G	18516243.10	18516243.31	18516243.52	0.0303	0.0068
Mercury	45987-11-14 10:34 G	18517783.84	18517783.94	18517784.04	0.0298	0.0173
Mercury	45988-02-10 22:34 G	18517872.31	18517872.44	18517872.56	0.0297	0.0010
Mercury	45988-05-09 10:19 G	18517960.82	18517960.93	18517961.03	0.0296	0.0169
Earth	45990-11-27 13:26 G	18518892.84	18518893.06	18518893.29	0.0284	0.0108
Moon	45990-11-27 13:55 G	18518892.87	18518893.08	18518893.31	0.0284	0.0113 *
Venus	45997-06-26 17:17 G	18521296.02	18521296.22	18521296.43	0.0261	0.0076
Venus	45998-02-10 13:41 G	18521524.89	18521525.07	18521525.27	0.0260	0.0126

47TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 47th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	46001-02-15 22:48 G	18522626.30	18522626.45	18522626.64	0.0260	0.0216		

Mercury	46003-08-24 08:10 G	18523545.72	18523545.84	18523545.99	0.0265	0.0188
Mercury	46003-11-21 06:29 G	18523634.58	18523634.77	18523634.97	0.0265	0.0007
Mercury	46004-02-18 04:48 G	18523723.57	18523723.70	18523723.84	0.0266	0.0187
Moon	46006-05-21 02:38 G	18524546.49	18524546.61	18524546.76	0.0275	0.0231
Earth	46006-05-21 04:19 G	18524546.58	18524546.68	18524546.80	0.0275	0.0245 *
Earth	46007-06-02 19:26 G	18524924.26	18524924.31	18524924.38	0.0279	0.0270
Venus	46012-07-20 23:17 G	18526799.31	18526799.47	18526799.63	0.0301	0.0199
Venus	46013-03-08 05:31 G	18527029.54	18527029.73	18527029.93	0.0302	0.0118
Mars	46015-04-25 10:34 G	18527807.68	18527807.94	18527808.21	0.0303	0.0091
Mercury	46017-04-02 13:12 G	18528515.96	18528516.05	18528516.14	0.0298	0.0217
Mercury	46017-06-30 01:12 G	18528604.42	18528604.55	18528604.67	0.0297	0.0046
Mercury	46017-09-26 12:58 G	18528692.92	18528693.04	18528693.15	0.0296	0.0126
Mercury	46017-12-24 00:29 G	18528781.52	18528781.52	18528781.54	0.0295	0.0295
Moon	46019-11-21 20:38 G	18529479.14	18529479.36	18529479.59	0.0287	0.0138
Earth	46019-11-21 21:22 G	18529479.19	18529479.39	18529479.61	0.0287	0.0145 *
Venus	46026-05-22 23:46 G	18531853.44	18531853.49	18531853.56	0.0262	0.0248
Venus	46027-01-06 21:07 G	18532082.18	18532082.38	18532082.60	0.0260	0.0045
Venus	46027-08-23 17:46 G	18532311.07	18532311.24	18532311.41	0.0260	0.0156
Mercury	46033-01-10 08:10 G	18534277.76	18534277.84	18534277.94	0.0265	0.0232
Mercury	46033-04-09 06:29 G	18534366.58	18534366.77	18534366.96	0.0265	0.0046
Mercury	46033-07-07 04:34 G	18534455.53	18534455.69	18534455.86	0.0266	0.0143
Earth	46036-05-27 17:02 G	18535510.97	18535511.21	18535511.45	0.0278	0.0045
Moon	46036-05-27 20:38 G	18535511.12	18535511.36	18535511.60	0.0278	0.0061 *
Venus	46042-01-31 09:50 G	18537585.73	18537585.91	18537586.09	0.0302	0.0152
Venus	46042-09-18 16:05 G	18537816.00	18537816.17	18537816.35	0.0303	0.0168
Mercury	46046-08-20 16:19 G	18539248.12	18539248.18	18539248.24	0.0298	0.0254
Mercury	46046-11-17 04:05 G	18539336.55	18539336.67	18539336.80	0.0297	0.0082
Mercury	46047-02-13 16:05 G	18539425.05	18539425.17	18539425.29	0.0296	0.0089
Mercury	46047-05-13 03:36 G	18539513.60	18539513.65	18539513.72	0.0295	0.0258
Earth	46049-11-29 03:50 G	18540444.48	18540444.66	18540444.85	0.0283	0.0183

Moon	46049-11-29 07:12 G	18540444.63	18540444.80	18540445.00	0.0283	0.0187 *
Venus	46055-12-03 06:00 G	18542639.64	18542639.75	18542639.88	0.0262	0.0216
Venus	46056-07-19 03:22 G	18542868.43	18542868.64	18542868.85	0.0261	0.0013
Venus	46057-03-04 23:46 G	18543097.35	18543097.49	18543097.64	0.0260	0.0188
Mars	46059-05-25 12:58 G	18543908.86	18543909.04	18543909.25	0.0260	0.0202
Mercury	46062-08-27 07:12 G	18545098.62	18545098.80	18545098.98	0.0265	0.0084
Mercury	46062-11-24 05:17 G	18545187.55	18545187.72	18545187.90	0.0266	0.0104
Moon	46065-05-22 15:36 G	18546097.95	18546098.15	18546098.35	0.0275	0.0158
Earth	46065-05-22 19:12 G	18546098.11	18546098.30	18546098.49	0.0275	0.0172 *
Venus	46071-08-13 20:53 G	18548372.17	18548372.37	18548372.57	0.0301	0.0098
Venus	46072-03-31 03:07 G	18548602.50	18548602.63	18548602.78	0.0303	0.0221
Mercury	46076-01-07 19:12 G	18549980.28	18549980.30	18549980.32	0.0298	0.0294
Mercury	46076-04-05 07:12 G	18550068.68	18550068.80	18550068.92	0.0297	0.0121
Mercury	46076-07-02 18:58 G	18550157.17	18550157.29	18550157.42	0.0297	0.0051
Mercury	46076-09-29 06:43 G	18550245.70	18550245.78	18550245.87	0.0296	0.0220
Moon	46078-11-23 11:17 G	18551030.73	18551030.97	18551031.22	0.0286	0.0056
Earth	46078-11-23 14:53 G	18551030.88	18551031.12	18551031.36	0.0286	0.0063 *
Venus	46085-06-14 10:48 G	18553425.80	18553425.95	18553426.10	0.0261	0.0184
Venus	46086-01-29 07:41 G	18553654.61	18553654.82	18553655.04	0.0260	0.0020
Venus	46086-09-15 03:50 G	18553883.56	18553883.66	18553883.78	0.0259	0.0219
Mercury	46092-01-14 06:58 G	18555830.62	18555830.79	18555830.96	0.0265	0.0128
Mercury	46092-04-12 05:17 G	18555919.53	18555919.72	18555919.91	0.0266	0.0060
Mercury	46092-07-10 03:36 G	18556008.58	18556008.65	18556008.72	0.0267	0.0249
Earth	46095-05-30 08:10 G	18557062.63	18557062.84	18557063.07	0.0278	0.0122
Moon	46095-05-30 09:07 G	18557062.66	18557062.88	18557063.10	0.0278	0.0135 *
Venus	46101-02-24 07:55 G	18559158.62	18559158.83	18559159.04	0.0302	0.0049
Venus	46101-10-12 14:24 G	18559389.02	18559389.10	18559389.20	0.0303	0.0271
Mars	46103-09-21 17:17 G	18560098.04	18560098.22	18560098.43	0.0303	0.0211
Mercury	46105-08-24 10:34 G	18560800.83	18560800.94	18560801.05	0.0297	0.0155
Mercury	46105-11-20 22:19 G	18560889.30	18560889.43	18560889.56	0.0296	0.0018

Mercury	46106-02-17 10:05 G	18560977.83	18560977.92	18560978.02	0.0296	0.0186
Earth	46108-12-01 21:50 G	18561996.32	18561996.41	18561996.49	0.0283	0.0264
Moon	46108-12-02 00:00 G	18561996.42	18561996.50	18561996.58	0.0283	0.0267 *
Venus	46114-12-26 17:31 G	18564212.05	18564212.23	18564212.40	0.0261	0.0150
Venus	46115-08-12 14:10 G	18564440.89	18564441.09	18564441.31	0.0260	0.0053
Venus	46116-03-28 10:34 G	18564669.89	18564669.94	18564669.99	0.0260	0.0252
Mercury	46121-06-03 07:41 G	18566562.68	18566562.82	18566562.98	0.0265	0.0165
Mercury	46121-08-31 06:00 G	18566651.56	18566651.75	18566651.94	0.0266	0.0022
Mercury	46121-11-28 04:05 G	18566740.56	18566740.67	18566740.80	0.0267	0.0212
Moon	46124-05-25 08:38 G	18567649.64	18567649.86	18567650.09	0.0276	0.0085
Earth	46124-05-25 10:05 G	18567649.70	18567649.92	18567650.15	0.0276	0.0098 *
Venus	46130-09-06 19:41 G	18569945.11	18569945.32	18569945.53	0.0302	0.0007
Mercury	46135-01-11 13:41 G	18571532.97	18571533.07	18571533.17	0.0298	0.0191
Mercury	46135-04-10 01:41 G	18571621.44	18571621.57	18571621.69	0.0297	0.0020
Mercury	46135-07-07 13:26 G	18571709.95	18571710.06	18571710.17	0.0296	0.0151
Moon	46137-11-26 08:24 G	18572582.61	18572582.85	18572583.08	0.0285	0.0031
Earth	46137-11-26 10:34 G	18572582.70	18572582.94	18572583.19	0.0285	0.0024 *
Venus	46144-07-07 22:19 G	18574998.24	18574998.43	18574998.62	0.0261	0.0117
Venus	46145-02-21 18:58 G	18575227.09	18575227.29	18575227.50	0.0260	0.0085
Mars	46147-10-21 03:22 G	18576198.37	18576198.64	18576198.92	0.0259	0.0124
Mercury	46150-10-21 07:41 G	18577294.70	18577294.82	18577294.94	0.0265	0.0209
Mercury	46151-01-18 05:46 G	18577383.55	18577383.74	18577383.94	0.0266	0.0023
Mercury	46151-04-17 04:05 G	18577472.52	18577472.67	18577472.82	0.0266	0.0167
Moon	46154-06-01 20:53 G	18578614.22	18578614.37	18578614.54	0.0279	0.0212
Earth	46154-06-01 23:46 G	18578614.33	18578614.49	18578614.67	0.0279	0.0198 *
Venus	46159-08-01 23:46 G	18580501.40	18580501.49	18580501.61	0.0301	0.0263
Venus	46160-03-19 06:00 G	18580731.54	18580731.75	18580731.96	0.0302	0.0055
Mercury	46164-05-30 16:48 G	18582265.12	18582265.20	18582265.28	0.0298	0.0228
Mercury	46164-08-27 04:48 G	18582353.57	18582353.70	18582353.83	0.0297	0.0055
Mercury	46164-11-23 16:34 G	18582442.07	18582442.19	18582442.31	0.0296	0.0115

Mercury	46165-02-20 04:19 G	18582530.65	18582530.68	18582530.71	0.0295	0.0283
Earth	46166-11-20 21:50 G	18583169.27	18583169.41	18583169.57	0.0287	0.0225
Moon	46166-11-21 00:00 G	18583169.34	18583169.50	18583169.68	0.0287	0.0214 *
Venus	46174-01-18 04:48 G	18585784.50	18585784.70	18585784.90	0.0261	0.0083
Venus	46174-09-04 01:26 G	18586013.37	18586013.56	18586013.75	0.0260	0.0118
Mercury	46180-03-09 08:10 G	18588026.78	18588026.84	18588026.91	0.0265	0.0248
Mercury	46180-06-06 06:29 G	18588115.58	18588115.77	18588115.96	0.0266	0.0062
Mercury	46180-09-03 04:34 G	18588204.52	18588204.69	18588204.86	0.0266	0.0127
Earth	46183-05-27 23:46 G	18589201.25	18589201.49	18589201.73	0.0277	0.0025
Moon	46183-05-28 02:24 G	18589201.37	18589201.60	18589201.84	0.0277	0.0010 *
Venus	46189-02-11 11:17 G	18591287.82	18591287.97	18591288.12	0.0301	0.0207
Venus	46189-09-29 17:17 G	18591518.03	18591518.22	18591518.43	0.0302	0.0111
Mercury	46193-10-17 20:10 G	18592997.28	18592997.34	18592997.40	0.0298	0.0263
Mercury	46194-01-14 08:10 G	18593085.71	18593085.84	18593085.96	0.0297	0.0090
Mercury	46194-04-12 19:55 G	18593174.21	18593174.33	18593174.45	0.0296	0.0081
Mercury	46194-07-10 07:26 G	18593262.75	18593262.81	18593262.89	0.0295	0.0251
Earth	46196-11-28 06:29 G	18594134.54	18594134.77	18594135.00	0.0284	0.0111
Moon	46196-11-28 08:10 G	18594134.63	18594134.84	18594135.06	0.0284	0.0117 *
Venus	46202-12-15 12:29 G	18596341.98	18596342.02	18596342.07	0.0262	0.0254
Venus	46203-08-01 09:50 G	18596570.70	18596570.91	18596571.12	0.0260	0.0051
Venus	46204-03-17 06:14 G	18596799.59	18596799.76	18596799.93	0.0260	0.0150
Mercury	46209-10-25 06:00 G	18598847.57	18598847.75	18598847.93	0.0265	0.0108
Mercury	46210-01-22 04:05 G	18598936.49	18598936.67	18598936.86	0.0266	0.0080
Moon	46212-05-22 18:43 G	18599788.16	18599788.28	18599788.43	0.0275	0.0229
Earth	46212-05-22 21:50 G	18599788.31	18599788.41	18599788.53	0.0275	0.0245 *
Earth	46213-06-04 12:58 G	18600166.00	18600166.04	18600166.10	0.0280	0.0273
Venus	46218-08-25 20:24 G	18602074.19	18602074.35	18602074.54	0.0302	0.0164
Venus	46219-04-13 02:53 G	18602304.45	18602304.62	18602304.81	0.0303	0.0156
Mercury	46223-06-04 11:02 G	18603817.84	18603817.96	18603818.07	0.0298	0.0130
Mercury	46223-08-31 22:48 G	18603906.32	18603906.45	18603906.58	0.0297	0.0042

Mercury	46223-11-28 10:34 G	18603994.85	18603994.94	18603995.03	0.0296	0.0211
Moon	46225-11-23 14:24 G	18604720.88	18604721.10	18604721.34	0.0286	0.0132
Earth	46225-11-23 17:02 G	18604721.00	18604721.21	18604721.43	0.0286	0.0138 *
Venus	46232-06-26 18:43 G	18607128.17	18607128.28	18607128.39	0.0261	0.0221
Venus	46233-02-10 15:36 G	18607356.94	18607357.15	18607357.37	0.0260	0.0019
Venus	46233-09-27 11:46 G	18607585.85	18607585.99	18607586.15	0.0260	0.0183
Mars	46236-03-17 20:24 G	18608488.05	18608488.35	18608488.66	0.0260	0.0040
Mercury	46239-03-14 06:14 G	18609579.60	18609579.76	18609579.92	0.0265	0.0149
Mercury	46239-06-11 04:19 G	18609668.49	18609668.68	18609668.88	0.0266	0.0038
Mercury	46239-09-08 02:24 G	18609757.51	18609757.60	18609757.71	0.0267	0.0228
Earth	46242-05-30 11:17 G	18610752.73	18610752.97	18610753.21	0.0277	0.0046
Moon	46242-05-30 14:38 G	18610752.87	18610753.11	18610753.35	0.0277	0.0062 *
Venus	46248-03-07 06:58 G	18612860.60	18612860.79	18612860.99	0.0301	0.0111
Venus	46248-10-23 13:26 G	18613090.91	18613091.06	18613091.22	0.0303	0.0209
Mars	46250-05-25 11:31 G	18613669.90	18613669.98	18613670.10	0.0303	0.0282
Mercury	46252-10-21 13:55 G	18614549.98	18614550.08	18614550.19	0.0298	0.0168
Mercury	46253-01-18 01:55 G	18614638.45	18614638.58	18614638.71	0.0297	0.0006
Mercury	46253-04-16 13:41 G	18614726.97	18614727.07	18614727.18	0.0296	0.0175
Earth	46255-12-01 23:46 G	18615686.31	18615686.49	18615686.67	0.0284	0.0193
Moon	46255-12-02 03:36 G	18615686.47	18615686.65	18615686.83	0.0284	0.0197 *
Venus	46262-01-06 23:31 G	18617914.34	18617914.48	18617914.63	0.0261	0.0189
Venus	46262-08-23 20:24 G	18618143.13	18618143.35	18618143.56	0.0260	0.0014
Venus	46263-04-09 16:05 G	18618372.06	18618372.17	18618372.30	0.0259	0.0213
Mercury	46268-07-31 05:17 G	18620311.60	18620311.72	18620311.85	0.0264	0.0199
Mercury	46268-10-28 03:22 G	18620400.45	18620400.64	18620400.84	0.0265	0.0014
Mercury	46269-01-25 01:26 G	18620489.43	18620489.56	18620489.71	0.0266	0.0176
Moon	46271-05-25 03:50 G	18621339.48	18621339.66	18621339.86	0.0275	0.0165
Earth	46271-05-25 06:43 G	18621339.61	18621339.78	18621339.98	0.0275	0.0180 *
Venus	46277-09-17 14:10 G	18623646.89	18623647.09	18623647.30	0.0302	0.0072
Venus	46278-05-05 21:07 G	18623877.26	18623877.38	18623877.50	0.0303	0.0250

Mercury	46282-03-10 16:34 G	18625282.10	18625282.19	18625282.28	0.0298	0.0214
Mercury	46282-06-07 04:34 G	18625370.56	18625370.69	18625370.81	0.0297	0.0042
Mercury	46282-09-03 16:19 G	18625459.06	18625459.18	18625459.29	0.0296	0.0130
Moon	46284-11-25 05:02 G	18626272.48	18626272.71	18626272.96	0.0286	0.0054
Earth	46284-11-25 08:38 G	18626272.62	18626272.86	18626273.10	0.0286	0.0057 *
Venus	46291-07-20 04:34 G	18628700.53	18628700.69	18628700.87	0.0261	0.0158
Venus	46292-03-05 01:26 G	18628929.35	18628929.56	18628929.77	0.0260	0.0045
Venus	46292-10-19 21:22 G	18629158.32	18629158.39	18629158.46	0.0259	0.0243
Mercury	46297-12-18 04:48 G	18631043.64	18631043.70	18631043.78	0.0265	0.0245
Mercury	46298-03-17 03:07 G	18631132.44	18631132.63	18631132.82	0.0265	0.0059
Mercury	46298-06-14 01:12 G	18631221.39	18631221.55	18631221.72	0.0266	0.0129
Moon	46301-06-01 17:02 G	18632304.00	18632304.21	18632304.45	0.0278	0.0125
Earth	46301-06-01 18:43 G	18632304.06	18632304.28	18632304.51	0.0278	0.0111 *
Venus	46307-03-31 23:31 G	18634433.27	18634433.48	18634433.69	0.0302	0.0022
Venus	46307-11-17 06:14 G	18634663.74	18634663.76	18634663.80	0.0303	0.0299
Mercury	46311-07-29 19:12 G	18636014.24	18636014.30	18636014.37	0.0298	0.0255
Mercury	46311-10-26 07:12 G	18636102.68	18636102.80	18636102.93	0.0298	0.0082
Mercury	46312-01-22 19:12 G	18636191.18	18636191.30	18636191.42	0.0297	0.0091
Mercury	46312-04-20 06:58 G	18636279.73	18636279.79	18636279.85	0.0296	0.0260
Earth	46314-12-04 13:26 G	18637238.00	18637238.06	18637238.14	0.0283	0.0270
Moon	46314-12-04 13:26 G	18637238.00	18637238.06	18637238.15	0.0283	0.0269 *
Venus	46321-01-30 08:53 G	18639486.69	18639486.87	18639487.06	0.0261	0.0128
Venus	46321-09-16 05:17 G	18639715.52	18639715.72	18639715.93	0.0260	0.0074
Mars	46324-08-12 22:34 G	18640777.14	18640777.44	18640777.76	0.0259	0.0021
Mercury	46327-08-05 01:55 G	18641864.40	18641864.58	18641864.75	0.0264	0.0112
Mercury	46327-11-02 00:00 G	18641953.31	18641953.50	18641953.69	0.0265	0.0075
Mercury	46328-01-29 22:19 G	18642042.40	18642042.43	18642042.45	0.0266	0.0264
Earth	46330-05-27 12:29 G	18642890.81	18642891.02	18642891.25	0.0275	0.0119
Moon	46330-05-27 14:10 G	18642890.87	18642891.09	18642891.31	0.0275	0.0105 *
Venus	46336-10-11 05:02 G	18645219.50	18645219.71	18645219.92	0.0303	0.0014

Mars	46338-10-20 13:41 G	18645958.87	18645959.07	18645959.28	0.0304	0.0208
Mercury	46341-03-14 09:07 G	18646834.77	18646834.88	18646835.00	0.0298	0.0135
Mercury	46341-06-10 21:07 G	18646923.25	18646923.38	18646923.51	0.0297	0.0038
Mercury	46341-09-07 08:53 G	18647011.78	18647011.87	18647011.96	0.0296	0.0209
Earth	46343-11-28 19:26 G	18647824.07	18647824.31	18647824.56	0.0286	0.0016
Moon	46343-11-28 19:55 G	18647824.09	18647824.33	18647824.56	0.0286	0.0018 *
Venus	46350-08-12 12:43 G	18650272.84	18650273.03	18650273.23	0.0260	0.0098
Venus	46351-03-29 09:07 G	18650501.69	18650501.88	18650502.08	0.0260	0.0103
Mercury	46356-12-22 00:58 G	18652596.39	18652596.54	18652596.69	0.0265	0.0163
Mercury	46357-03-20 23:02 G	18652685.27	18652685.46	18652685.65	0.0265	0.0024
Mercury	46357-06-17 21:07 G	18652774.27	18652774.38	18652774.50	0.0266	0.0212
Moon	46360-06-02 18:29 G	18653855.10	18653855.27	18653855.46	0.0278	0.0182
Earth	46360-06-02 22:05 G	18653855.24	18653855.42	18653855.63	0.0278	0.0169 *
Venus	46365-09-05 06:00 G	18655775.65	18655775.75	18655775.86	0.0301	0.0258
Venus	46366-04-23 12:14 G	18656005.80	18656006.01	18656006.21	0.0302	0.0059
Mercury	46370-08-01 11:31 G	18657566.88	18657566.98	18657567.08	0.0298	0.0182
Mercury	46370-10-28 23:31 G	18657655.35	18657655.48	18657655.61	0.0297	0.0009
Mercury	46371-01-25 11:17 G	18657743.87	18657743.97	18657744.08	0.0297	0.0163
Moon	46372-11-22 00:29 G	18658410.38	18658410.52	18658410.68	0.0288	0.0236
Earth	46372-11-22 00:58 G	18658410.41	18658410.54	18658410.68	0.0288	0.0241 *
Venus	46380-02-22 16:34 G	18661058.98	18661059.19	18661059.39	0.0260	0.0071
Venus	46380-10-08 12:29 G	18661287.84	18661288.02	18661288.21	0.0259	0.0130
Mercury	46386-05-10 23:17 G	18663328.37	18663328.47	18663328.58	0.0264	0.0218
Mercury	46386-08-07 21:22 G	18663417.19	18663417.39	18663417.58	0.0264	0.0034
Mercury	46386-11-04 19:12 G	18663506.15	18663506.30	18663506.46	0.0265	0.0153
Earth	46389-05-28 13:55 G	18664441.85	18664442.08	18664442.32	0.0275	0.0066
Moon	46389-05-28 17:31 G	18664441.99	18664442.23	18664442.47	0.0275	0.0051 *
Venus	46395-03-18 09:07 G	18666561.75	18666561.88	18666562.02	0.0302	0.0229
Venus	46395-11-03 15:36 G	18666791.95	18666792.15	18666792.36	0.0303	0.0090
Mercury	46399-12-19 12:58 G	18668298.97	18668299.04	18668299.12	0.0299	0.0243

Mercury	46400-03-17 00:58 G	18668387.42	18668387.54	18668387.67	0.0298	0.0069
Mercury	46400-06-13 12:58 G	18668475.92	18668476.04	18668476.16	0.0297	0.0104
Mercury	46400-09-10 00:43 G	18668564.49	18668564.53	18668564.58	0.0296	0.0275
Earth	46402-11-30 01:12 G	18669375.31	18669375.55	18669375.79	0.0285	0.0079
Moon	46402-11-30 04:34 G	18669375.46	18669375.69	18669375.93	0.0285	0.0079 *
Venus	46409-01-17 22:05 G	18671616.35	18671616.42	18671616.48	0.0261	0.0247
Venus	46409-09-03 18:43 G	18671845.08	18671845.28	18671845.50	0.0260	0.0045
Venus	46410-04-20 14:53 G	18672073.96	18672074.12	18672074.29	0.0259	0.0157
Mars	46413-01-06 13:55 G	18673065.79	18673066.08	18673066.38	0.0259	0.0072
Mercury	46415-12-25 19:41 G	18674149.14	18674149.32	18674149.50	0.0265	0.0090
Mercury	46416-03-23 17:46 G	18674238.06	18674238.24	18674238.42	0.0265	0.0097
Moon	46418-05-23 06:29 G	18675028.76	18675028.77	18675028.79	0.0274	0.0273
Earth	46419-06-04 22:05 G	18675406.28	18675406.42	18675406.57	0.0278	0.0221
Moon	46419-06-04 21:50 G	18675406.29	18675406.41	18675406.55	0.0278	0.0230 *
Venus	46424-09-27 15:22 G	18677347.98	18677348.14	18677348.31	0.0301	0.0187
Venus	46425-05-15 21:50 G	18677578.23	18677578.41	18677578.60	0.0303	0.0132
Mars	46427-03-15 22:34 G	18678247.22	18678247.44	18678247.68	0.0304	0.0172
Mercury	46429-05-07 14:53 G	18679031.11	18679031.12	18679031.14	0.0299	0.0296
Mercury	46429-08-04 02:53 G	18679119.51	18679119.62	18679119.74	0.0298	0.0121
Mercury	46429-10-31 14:53 G	18679208.00	18679208.12	18679208.25	0.0297	0.0054
Mercury	46430-01-28 02:38 G	18679296.54	18679296.61	18679296.70	0.0296	0.0225
Moon	46431-11-24 00:58 G	18679961.35	18679961.54	18679961.74	0.0288	0.0179
Earth	46431-11-24 04:34 G	18679961.50	18679961.69	18679961.89	0.0288	0.0181 *
Venus	46438-07-31 00:58 G	18682402.44	18682402.54	18682402.66	0.0261	0.0221
Venus	46439-03-16 21:50 G	18682631.20	18682631.41	18682631.62	0.0260	0.0018
Venus	46439-10-31 17:31 G	18682860.09	18682860.23	18682860.39	0.0259	0.0182
Mercury	46445-05-13 17:31 G	18684881.08	18684881.23	18684881.40	0.0264	0.0149
Mercury	46445-08-10 15:36 G	18684969.96	18684970.15	18684970.35	0.0264	0.0037
Mercury	46445-11-07 13:41 G	18685058.97	18685059.07	18685059.18	0.0265	0.0223
Earth	46448-05-29 12:29 G	18685992.78	18685993.02	18685993.26	0.0275	0.0017

Moon	46448-05-29 12:58 G	18685992.78	18685993.04	18685993.29	0.0275	0.0006 *
Venus	46454-04-09 16:34 G	18688134.02	18688134.19	18688134.37	0.0302	0.0163
Venus	46454-11-25 23:17 G	18688364.29	18688364.47	18688364.65	0.0303	0.0158
Mercury	46458-12-22 03:50 G	18689851.57	18689851.66	18689851.76	0.0299	0.0189
Mercury	46459-03-20 15:50 G	18689940.04	18689940.16	18689940.29	0.0298	0.0017
Mercury	46459-06-17 03:50 G	18690028.55	18690028.66	18690028.77	0.0297	0.0158
Earth	46461-12-01 01:12 G	18690926.34	18690926.55	18690926.78	0.0286	0.0133
Moon	46461-12-01 03:07 G	18690926.41	18690926.63	18690926.86	0.0286	0.0131 *
Venus	46468-02-10 02:24 G	18693188.46	18693188.60	18693188.74	0.0261	0.0196
Venus	46468-09-25 23:02 G	18693417.25	18693417.46	18693417.67	0.0260	0.0006
Venus	46469-05-12 18:43 G	18693646.16	18693646.28	18693646.42	0.0259	0.0206
Mercury	46474-09-30 15:36 G	18695613.04	18695613.15	18695613.27	0.0264	0.0209
Mercury	46474-12-28 13:41 G	18695701.87	18695702.07	18695702.26	0.0264	0.0025
Mercury	46475-03-27 11:31 G	18695790.83	18695790.98	18695791.14	0.0265	0.0162
Moon	46477-05-24 06:00 G	18696579.63	18696579.75	18696579.88	0.0273	0.0230
Earth	46477-05-24 06:43 G	18696579.67	18696579.78	18696579.89	0.0273	0.0243 *
Earth	46478-06-05 18:14 G	18696957.20	18696957.26	18696957.33	0.0278	0.0267
Moon	46478-06-05 21:22 G	18696957.36	18696957.39	18696957.45	0.0278	0.0274
Venus	46483-10-20 21:22 G	18698920.20	18698920.39	18698920.58	0.0301	0.0124
Venus	46484-06-07 04:05 G	18699150.52	18699150.67	18699150.83	0.0303	0.0196
Mercury	46488-05-10 05:31 G	18700583.66	18700583.73	18700583.80	0.0299	0.0246
Mercury	46488-08-06 17:31 G	18700672.11	18700672.23	18700672.36	0.0298	0.0071
Mercury	46488-11-03 05:31 G	18700760.61	18700760.73	18700760.85	0.0297	0.0103
Mercury	46489-01-30 17:17 G	18700849.18	18700849.22	18700849.27	0.0296	0.0274
Moon	46490-11-25 01:26 G	18701512.35	18701512.56	18701512.77	0.0288	0.0132
Earth	46490-11-25 02:53 G	18701512.40	18701512.62	18701512.84	0.0288	0.0131 *
Venus	46497-08-22 04:34 G	18703974.54	18703974.69	18703974.85	0.0261	0.0172
Venus	46498-04-08 01:12 G	18704203.34	18704203.55	18704203.76	0.0260	0.0031
Venus	46498-11-22 20:53 G	18704432.29	18704432.37	18704432.48	0.0259	0.0230
Mars	46501-06-02 16:48 G	18705353.92	18705354.20	18705354.49	0.0258	0.0104

Mercury	46504-05-17 11:17 G	18706433.79	18706433.97	18706434.16	0.0264	0.0086
Mercury	46504-08-14 09:22 G	18706522.71	18706522.89	18706523.07	0.0264	0.0099
Moon	46507-06-01 04:48 G	18707543.46	18707543.70	18707543.95	0.0275	0.0037
Earth	46507-06-01 08:10 G	18707543.60	18707543.84	18707544.09	0.0275	0.0028 *
Venus	46513-05-02 21:50 G	18709706.22	18709706.41	18709706.62	0.0302	0.0101
Venus	46513-12-19 04:48 G	18709936.56	18709936.70	18709936.84	0.0303	0.0221
Mars	46515-08-09 02:24 G	18710534.39	18710534.60	18710534.84	0.0304	0.0175
Mercury	46517-12-25 18:14 G	18711404.15	18711404.26	18711404.37	0.0299	0.0142
Mercury	46518-03-24 06:14 G	18711492.63	18711492.76	18711492.89	0.0298	0.0032
Mercury	46518-06-20 18:00 G	18711581.17	18711581.25	18711581.35	0.0297	0.0205
Moon	46520-12-02 18:58 G	18712477.09	18712477.29	18712477.50	0.0286	0.0172
Earth	46520-12-02 21:36 G	18712477.22	18712477.40	18712477.60	0.0286	0.0181 *
Venus	46527-03-05 04:48 G	18714760.53	18714760.70	18714760.88	0.0261	0.0150
Venus	46527-10-20 01:41 G	18714989.36	18714989.57	18714989.77	0.0260	0.0053
Venus	46528-06-04 21:07 G	18715218.35	18715218.38	18715218.44	0.0259	0.0252
Mercury	46533-10-04 08:53 G	18717165.71	18717165.87	18717166.03	0.0264	0.0149
Mercury	46534-01-01 06:43 G	18717254.59	18717254.78	18717254.98	0.0264	0.0037
Mercury	46534-03-31 04:48 G	18717343.60	18717343.70	18717343.81	0.0265	0.0223
Earth	46536-05-26 01:26 G	18718130.41	18718130.56	18718130.74	0.0273	0.0201
Moon	46536-05-26 05:02 G	18718130.55	18718130.71	18718130.90	0.0273	0.0188 *
Venus	46542-11-13 01:41 G	18720492.37	18720492.57	18720492.78	0.0302	0.0065
Venus	46543-07-01 08:38 G	18720722.75	18720722.86	18720722.97	0.0303	0.0256
Mercury	46547-05-14 19:26 G	18722136.22	18722136.31	18722136.41	0.0299	0.0205
Mercury	46547-08-11 07:41 G	18722224.69	18722224.82	18722224.94	0.0298	0.0030
Mercury	46547-11-07 19:26 G	18722313.20	18722313.31	18722313.42	0.0297	0.0144
Earth	46549-11-26 21:07 G	18723063.15	18723063.38	18723063.62	0.0288	0.0088
Moon	46549-11-27 00:29 G	18723063.29	18723063.52	18723063.75	0.0288	0.0094 *
Venus	46556-09-14 06:43 G	18725546.60	18725546.78	18725546.97	0.0261	0.0127
Venus	46557-05-01 03:22 G	18725775.43	18725775.64	18725775.84	0.0260	0.0076
Mercury	46563-02-21 06:43 G	18727897.66	18727897.78	18727897.89	0.0263	0.0209

Mercury	46563-05-21 04:34 G	18727986.49	18727986.69	18727986.88	0.0264	0.0026
Mercury	46563-08-18 02:10 G	18728075.45	18728075.59	18728075.76	0.0264	0.0160
Moon	46566-06-02 00:58 G	18729094.32	18729094.54	18729094.77	0.0275	0.0075
Earth	46566-06-02 02:53 G	18729094.38	18729094.62	18729094.85	0.0275	0.0068 *
Venus	46572-05-25 01:55 G	18731278.37	18731278.58	18731278.78	0.0302	0.0043
Venus	46573-01-10 08:38 G	18731508.78	18731508.86	18731508.94	0.0303	0.0279
Mercury	46576-09-30 19:55 G	18732868.29	18732868.33	18732868.38	0.0300	0.0280
Mercury	46576-12-28 08:10 G	18732956.72	18732956.84	18732956.96	0.0299	0.0103
Mercury	46577-03-26 20:10 G	18733045.21	18733045.34	18733045.46	0.0298	0.0072
Mercury	46577-06-23 07:55 G	18733133.76	18733133.83	18733133.91	0.0297	0.0244
Moon	46579-12-04 12:00 G	18734027.85	18734028.00	18734028.17	0.0286	0.0210
Earth	46579-12-04 14:53 G	18734027.98	18734028.12	18734028.29	0.0286	0.0222 *
Venus	46586-03-27 06:29 G	18736332.57	18736332.77	18736332.96	0.0261	0.0105
Venus	46586-11-11 02:53 G	18736561.43	18736561.62	18736561.83	0.0260	0.0098
Mars	46589-10-26 08:53 G	18737641.61	18737641.87	18737642.15	0.0258	0.0127
Mercury	46592-10-07 01:41 G	18738718.40	18738718.57	18738718.76	0.0264	0.0092
Mercury	46593-01-03 23:46 G	18738807.31	18738807.49	18738807.67	0.0264	0.0093
Earth	46595-05-27 19:41 G	18739681.13	18739681.32	18739681.52	0.0273	0.0161
Moon	46595-05-27 21:22 G	18739681.18	18739681.39	18739681.60	0.0273	0.0151 *
Venus	46601-12-06 05:31 G	18742064.52	18742064.73	18742064.94	0.0302	0.0008
Mars	46604-01-02 06:43 G	18742821.57	18742821.78	18742822.02	0.0304	0.0183
Mercury	46606-05-18 09:22 G	18743688.79	18743688.89	18743689.00	0.0299	0.0165
Mercury	46606-08-14 21:22 G	18743777.26	18743777.39	18743777.52	0.0298	0.0012
Mercury	46606-11-11 09:22 G	18743865.79	18743865.89	18743865.99	0.0297	0.0183
Earth	46608-11-28 14:24 G	18744613.86	18744614.10	18744614.34	0.0288	0.0047
Moon	46608-11-28 16:34 G	18744613.95	18744614.19	18744614.45	0.0288	0.0059 *
Venus	46615-10-08 08:10 G	18747118.64	18747118.84	18747119.05	0.0261	0.0083
Venus	46616-05-24 04:34 G	18747347.51	18747347.69	18747347.89	0.0260	0.0120
Mercury	46622-02-24 23:31 G	18749450.33	18749450.48	18749450.65	0.0263	0.0152
Mercury	46622-05-24 21:36 G	18749539.21	18749539.40	18749539.59	0.0264	0.0032

Mercury	46622-08-21 19:26 G	18749628.21	18749628.31	18749628.42	0.0264	0.0217
Earth	46625-06-03 21:22 G	18750645.18	18750645.39	18750645.62	0.0275	0.0110
Moon	46625-06-04 00:29 G	18750645.31	18750645.52	18750645.74	0.0275	0.0112 *
Venus	46630-10-31 00:14 G	18752620.50	18752620.51	18752620.53	0.0300	0.0299
Venus	46631-06-18 06:00 G	18752850.54	18752850.75	18752850.96	0.0302	0.0017
Mercury	46635-10-05 09:50 G	18754420.84	18754420.91	18754420.99	0.0300	0.0240
Mercury	46636-01-01 21:50 G	18754509.29	18754509.41	18754509.54	0.0299	0.0064
Mercury	46636-03-30 09:50 G	18754597.79	18754597.91	18754598.03	0.0298	0.0111
Mercury	46636-06-26 21:36 G	18754686.37	18754686.40	18754686.44	0.0297	0.0283
Earth	46638-12-06 07:41 G	18755578.73	18755578.82	18755578.92	0.0286	0.0261
Moon	46638-12-06 09:50 G	18755578.79	18755578.91	18755579.03	0.0286	0.0246 *
Venus	46645-04-19 07:26 G	18757904.61	18757904.81	18757905.02	0.0261	0.0062
Venus	46645-12-04 04:19 G	18758133.50	18758133.68	18758133.86	0.0260	0.0141
Mercury	46651-07-14 21:22 G	18760182.28	18760182.39	18760182.50	0.0263	0.0215
Mercury	46651-10-11 18:58 G	18760271.10	18760271.29	18760271.49	0.0264	0.0033
Mercury	46652-01-08 16:48 G	18760360.05	18760360.20	18760360.36	0.0264	0.0153
Moon	46654-05-29 11:31 G	18761231.77	18761231.98	18761232.21	0.0273	0.0117
Earth	46654-05-29 15:07 G	18761231.91	18761232.13	18761232.35	0.0273	0.0120 *
Venus	46660-05-12 03:50 G	18763406.57	18763406.66	18763406.76	0.0300	0.0265
Venus	46660-12-28 09:36 G	18763636.69	18763636.90	18763637.11	0.0302	0.0051
Mercury	46665-05-20 23:17 G	18765241.35	18765241.47	18765241.58	0.0299	0.0126
Mercury	46665-08-17 11:17 G	18765329.84	18765329.97	18765330.09	0.0298	0.0050
Mercury	46665-11-13 23:02 G	18765418.38	18765418.46	18765418.55	0.0297	0.0222
Moon	46667-11-30 03:50 G	18766164.41	18766164.66	18766164.92	0.0288	0.0025
Earth	46667-11-30 06:58 G	18766164.54	18766164.79	18766165.04	0.0288	0.0008 *
Venus	46674-03-15 12:00 G	18768461.93	18768462.00	18768462.09	0.0262	0.0244
Venus	46674-10-30 09:36 G	18768690.70	18768690.90	18768691.12	0.0261	0.0038
Venus	46675-06-16 06:14 G	18768919.60	18768919.76	18768919.93	0.0260	0.0164
Mars	46678-03-22 06:29 G	18769929.54	18769929.77	18769930.03	0.0258	0.0157
Mercury	46681-02-27 17:02 G	18771003.03	18771003.21	18771003.40	0.0263	0.0091

Mercury	46681-05-27 14:53 G	18771091.94	18771092.12	18771092.31	0.0264	0.0093
Earth	46684-06-04 17:46 G	18772196.04	18772196.24	18772196.44	0.0275	0.0153
Moon	46684-06-04 20:10 G	18772196.14	18772196.34	18772196.56	0.0275	0.0149 *
Venus	46689-11-22 05:17 G	18774192.60	18774192.72	18774192.85	0.0300	0.0238
Venus	46690-07-10 11:02 G	18774422.76	18774422.96	18774423.16	0.0302	0.0078
Mars	46692-05-26 03:50 G	18775108.44	18775108.66	18775108.87	0.0304	0.0195
Mercury	46694-10-07 23:46 G	18775973.40	18775973.49	18775973.59	0.0300	0.0198
Mercury	46695-01-04 12:00 G	18776061.87	18776062.00	18776062.13	0.0299	0.0023
Mercury	46695-04-02 23:46 G	18776150.39	18776150.49	18776150.61	0.0298	0.0153
Moon	46697-12-07 05:02 G	18777129.70	18777129.71	18777129.73	0.0286	0.0285
Venus	46703-09-26 11:46 G	18779247.88	18779247.99	18779248.11	0.0262	0.0221
Venus	46704-05-12 09:22 G	18779476.68	18779476.89	18779477.10	0.0261	0.0016
Venus	46704-12-27 06:00 G	18779705.61	18779705.75	18779705.90	0.0260	0.0186
Mercury	46710-07-18 14:53 G	18781734.96	18781735.12	18781735.28	0.0263	0.0153
Mercury	46710-10-15 12:43 G	18781823.84	18781824.03	18781824.22	0.0264	0.0031
Mercury	46711-01-12 10:19 G	18781912.83	18781912.93	18781913.05	0.0265	0.0217
Moon	46713-05-31 10:05 G	18782782.69	18782782.92	18782783.15	0.0273	0.0077
Earth	46713-05-31 12:14 G	18782782.78	18782783.01	18782783.25	0.0273	0.0075 *
Venus	46719-06-05 10:05 G	18784978.77	18784978.92	18784979.08	0.0300	0.0202
Venus	46720-01-21 15:36 G	18785208.96	18785209.15	18785209.35	0.0302	0.0115
Mercury	46724-02-26 01:26 G	18786705.50	18786705.56	18786705.62	0.0299	0.0257
Mercury	46724-05-24 13:26 G	18786793.94	18786794.06	18786794.19	0.0299	0.0081
Mercury	46724-08-21 01:26 G	18786882.44	18786882.56	18786882.68	0.0298	0.0094
Mercury	46724-11-17 13:26 G	18786971.00	18786971.06	18786971.11	0.0297	0.0266
Moon	46726-12-01 23:02 G	18787715.22	18787715.46	18787715.70	0.0288	0.0018
Earth	46726-12-02 01:41 G	18787715.33	18787715.57	18787715.82	0.0288	0.0035 *
Venus	46733-04-07 14:10 G	18790033.96	18790034.09	18790034.24	0.0262	0.0198
Venus	46733-11-22 12:00 G	18790262.79	18790263.00	18790263.22	0.0261	0.0009
Venus	46734-07-09 08:38 G	18790491.74	18790491.86	18790491.99	0.0260	0.0210
Mercury	46739-12-05 13:26 G	18792466.95	18792467.06	18792467.18	0.0263	0.0207

Mercury	46740-03-03 11:17 G	18792555.78	18792555.97	18792556.17	0.0263	0.0024
Mercury	46740-05-31 09:07 G	18792644.73	18792644.88	18792645.04	0.0264	0.0161
Moon	46743-06-07 14:38 G	18793746.94	18793747.11	18793747.30	0.0275	0.0192
Earth	46743-06-07 17:17 G	18793747.06	18793747.22	18793747.39	0.0275	0.0202 *
Venus	46748-12-15 12:58 G	18795764.87	18795765.04	18795765.22	0.0300	0.0171
Venus	46749-08-02 18:29 G	18795995.09	18795995.27	18795995.46	0.0302	0.0146
Mercury	46753-10-11 14:24 G	18797525.99	18797526.10	18797526.21	0.0299	0.0149
Mercury	46754-01-08 02:24 G	18797614.47	18797614.60	18797614.73	0.0299	0.0027
Mercury	46754-04-06 14:24 G	18797703.01	18797703.10	18797703.19	0.0298	0.0200
Earth	46755-11-25 19:12 G	18798301.19	18798301.30	18798301.43	0.0291	0.0252
Moon	46755-11-25 21:22 G	18798301.31	18798301.39	18798301.50	0.0291	0.0267 *
Venus	46762-10-18 14:24 G	18800819.96	18800820.10	18800820.27	0.0262	0.0175
Venus	46763-06-04 12:14 G	18801048.80	18801049.01	18801049.23	0.0261	0.0032
Venus	46764-01-19 08:53 G	18801277.79	18801277.87	18801277.97	0.0260	0.0234
Mars	46766-08-16 04:48 G	18802217.49	18802217.70	18802217.92	0.0259	0.0186
Mercury	46769-07-21 09:22 G	18803287.71	18803287.89	18803288.08	0.0263	0.0083
Mercury	46769-10-18 07:12 G	18803376.62	18803376.80	18803376.98	0.0264	0.0101
Earth	46772-06-01 12:43 G	18804333.78	18804334.03	18804334.27	0.0274	0.0025
Moon	46772-06-01 14:53 G	18804333.88	18804334.12	18804334.35	0.0274	0.0031 *
Venus	46778-06-27 18:43 G	18806551.09	18806551.28	18806551.47	0.0300	0.0133
Venus	46779-02-13 00:29 G	18806781.36	18806781.52	18806781.69	0.0302	0.0184
Mars	46780-10-20 01:41 G	18807396.35	18807396.57	18807396.81	0.0304	0.0172
Mercury	46783-02-28 16:19 G	18808258.09	18808258.18	18808258.27	0.0299	0.0203
Mercury	46783-05-28 04:19 G	18808346.55	18808346.68	18808346.81	0.0298	0.0027
Mercury	46783-08-24 16:19 G	18808435.07	18808435.18	18808435.29	0.0298	0.0147
Earth	46785-12-03 00:29 G	18809266.28	18809266.52	18809266.76	0.0288	0.0084
Moon	46785-12-03 02:10 G	18809266.36	18809266.59	18809266.83	0.0288	0.0070 *
Venus	46792-04-29 18:00 G	18811606.08	18811606.25	18811606.44	0.0262	0.0148
Venus	46792-12-14 15:50 G	18811834.96	18811835.16	18811835.37	0.0261	0.0059
Venus	46793-07-31 12:29 G	18812064.02	18812064.02	18812064.03	0.0260	0.0260

Mercury	46798-12-08 08:38 G	18814019.70	18814019.86	18814020.03	0.0263	0.0133
Mercury	46799-03-07 06:29 G	18814108.58	18814108.77	18814108.96	0.0264	0.0051
Mercury	46799-06-04 04:05 G	18814197.60	18814197.67	18814197.77	0.0264	0.0238
Moon	46801-05-27 11:31 G	18814920.87	18814920.98	18814921.10	0.0271	0.0241
Earth	46801-05-27 13:12 G	18814920.95	18814921.05	18814921.16	0.0271	0.0242 *
Moon	46802-06-08 17:02 G	18815298.11	18815298.21	18815298.32	0.0275	0.0245
Earth	46802-06-08 20:24 G	18815298.27	18815298.35	18815298.44	0.0275	0.0257 *
Venus	46808-01-08 00:00 G	18817337.30	18817337.50	18817337.70	0.0300	0.0096
Venus	46808-08-25 05:31 G	18817567.59	18817567.73	18817567.87	0.0302	0.0221
Mercury	46812-07-17 17:46 G	18818990.18	18818990.24	18818990.30	0.0300	0.0265
Mercury	46812-10-14 05:46 G	18819078.62	18819078.74	18819078.86	0.0299	0.0088
Mercury	46813-01-10 17:46 G	18819167.12	18819167.24	18819167.36	0.0298	0.0087
Mercury	46813-04-09 05:46 G	18819255.68	18819255.74	18819255.80	0.0297	0.0260
Moon	46814-11-26 18:43 G	18819852.12	18819852.28	18819852.47	0.0290	0.0212
Earth	46814-11-26 21:07 G	18819852.20	18819852.38	18819852.56	0.0290	0.0197 *
Venus	46821-11-09 19:26 G	18822392.13	18822392.31	18822392.50	0.0262	0.0122
Venus	46822-06-26 17:02 G	18822621.01	18822621.21	18822621.42	0.0261	0.0084
Mars	46824-11-21 12:58 G	18823499.95	18823500.04	18823500.18	0.0259	0.0240
Mercury	46828-04-26 07:12 G	18824751.67	18824751.80	18824751.94	0.0263	0.0187
Mercury	46828-07-24 05:17 G	18824840.52	18824840.72	18824840.91	0.0264	0.0005
Mercury	46828-10-21 02:53 G	18824929.49	18824929.62	18824929.77	0.0264	0.0183
Earth	46831-06-03 17:31 G	18825884.99	18825885.23	18825885.47	0.0274	0.0032
Moon	46831-06-03 20:53 G	18825885.13	18825885.37	18825885.62	0.0274	0.0026 *
Venus	46837-07-20 07:12 G	18828123.59	18828123.80	18828124.01	0.0301	0.0054
Venus	46838-03-07 12:43 G	18828353.94	18828354.03	18828354.14	0.0302	0.0264
Mercury	46842-03-03 08:10 G	18829810.72	18829810.84	18829810.95	0.0299	0.0137
Mercury	46842-05-30 20:10 G	18829899.21	18829899.34	18829899.46	0.0298	0.0039
Mercury	46842-08-27 07:55 G	18829987.75	18829987.83	18829987.92	0.0297	0.0212
Earth	46844-12-04 03:50 G	18830817.45	18830817.66	18830817.88	0.0287	0.0141
Moon	46844-12-04 07:12 G	18830817.59	18830817.80	18830818.03	0.0287	0.0128 *

Venus	46851-05-22 23:46 G	18833178.30	18833178.49	18833178.70	0.0262	0.0093
Venus	46852-01-06 21:36 G	18833407.21	18833407.40	18833407.59	0.0261	0.0113
Mars	46855-01-10 00:29 G	18834506.44	18834506.52	18834506.63	0.0259	0.0246
Mercury	46857-09-13 06:58 G	18835483.71	18835483.79	18835483.89	0.0263	0.0232
Mercury	46857-12-11 05:02 G	18835572.52	18835572.71	18835572.90	0.0264	0.0049
Mercury	46858-03-10 02:53 G	18835661.45	18835661.62	18835661.79	0.0264	0.0137
Moon	46860-05-28 16:05 G	18836472.00	18836472.17	18836472.35	0.0272	0.0185
Earth	46860-05-28 19:41 G	18836472.14	18836472.32	18836472.50	0.0272	0.0184 *
Venus	46867-01-30 14:10 G	18838909.88	18838910.09	18838910.30	0.0300	0.0013
Mars	46869-03-15 15:07 G	18839684.88	18839685.13	18839685.40	0.0303	0.0119
Mercury	46871-07-21 09:50 G	18840542.82	18840542.91	18840543.01	0.0299	0.0193
Mercury	46871-10-17 22:05 G	18840631.29	18840631.42	18840631.54	0.0299	0.0018
Mercury	46872-01-14 09:50 G	18840719.81	18840719.91	18840720.02	0.0298	0.0158
Moon	46873-11-28 00:29 G	18841403.31	18841403.52	18841403.73	0.0290	0.0148
Earth	46873-11-28 03:50 G	18841403.45	18841403.66	18841403.89	0.0290	0.0132 *
Venus	46880-12-02 02:24 G	18843964.39	18843964.60	18843964.81	0.0262	0.0065
Venus	46881-07-19 00:00 G	18844193.32	18844193.50	18844193.68	0.0261	0.0140
Mercury	46887-04-30 04:05 G	18846304.50	18846304.67	18846304.85	0.0263	0.0099
Mercury	46887-07-28 02:10 G	18846393.40	18846393.59	18846393.77	0.0264	0.0086
Moon	46890-06-05 01:55 G	18847436.35	18847436.58	18847436.83	0.0274	0.0088
Earth	46890-06-05 02:10 G	18847436.36	18847436.59	18847436.82	0.0274	0.0096 *
Venus	46895-12-25 18:14 G	18849466.20	18849466.26	18849466.35	0.0299	0.0279
Venus	46896-08-11 23:02 G	18849696.25	18849696.46	18849696.67	0.0301	0.0033
Mercury	46900-12-08 12:43 G	18851274.95	18851275.03	18851275.11	0.0299	0.0235
Mercury	46901-03-07 00:43 G	18851363.41	18851363.53	18851363.66	0.0298	0.0059
Mercury	46901-06-03 12:43 G	18851451.91	18851452.03	18851452.15	0.0298	0.0116
Mercury	46901-08-31 00:29 G	18851540.50	18851540.52	18851540.55	0.0297	0.0288
Earth	46903-12-07 12:43 G	18852368.88	18852369.03	18852369.21	0.0287	0.0209
Moon	46903-12-07 13:26 G	18852368.88	18852369.06	18852369.26	0.0287	0.0196 *
Venus	46909-10-29 08:53 G	18854521.81	18854521.87	18854521.97	0.0264	0.0243

Venus	46910-06-15 07:41 G	18854750.61	18854750.82	18854751.04	0.0262	0.0034
Venus	46911-01-30 05:02 G	18854979.56	18854979.71	18854979.88	0.0261	0.0171
Mars	46913-04-18 18:14 G	18855789.04	18855789.26	18855789.50	0.0259	0.0169
Mercury	46916-09-17 04:19 G	18857036.53	18857036.68	18857036.86	0.0263	0.0140
Mercury	46916-12-15 02:24 G	18857125.41	18857125.60	18857125.79	0.0264	0.0046
Mercury	46917-03-14 00:29 G	18857214.43	18857214.52	18857214.61	0.0265	0.0232
Moon	46919-06-01 05:46 G	18858023.53	18858023.74	18858023.95	0.0272	0.0123
Earth	46919-06-01 06:00 G	18858023.53	18858023.75	18858023.97	0.0272	0.0118 *
Venus	46925-07-08 03:50 G	18860252.53	18860252.66	18860252.80	0.0299	0.0230
Venus	46926-02-23 08:24 G	18860482.65	18860482.85	18860483.06	0.0301	0.0082
Mercury	46930-04-27 15:07 G	18862007.09	18862007.13	18862007.17	0.0300	0.0283
Mercury	46930-07-25 03:07 G	18862095.51	18862095.63	18862095.75	0.0299	0.0106
Mercury	46930-10-21 15:07 G	18862184.00	18862184.13	18862184.25	0.0298	0.0069
Mercury	46931-01-18 02:53 G	18862272.55	18862272.62	18862272.70	0.0297	0.0242
Earth	46932-11-30 16:34 G	18862954.95	18862955.19	18862955.43	0.0289	0.0057
Moon	46932-11-30 16:19 G	18862954.95	18862955.18	18862955.42	0.0289	0.0072 *
Venus	46939-05-11 12:29 G	18865307.90	18865308.02	18865308.15	0.0263	0.0213
Venus	46939-12-26 11:17 G	18865536.75	18865536.97	18865537.18	0.0262	0.0005
Venus	46940-08-11 08:38 G	18865765.73	18865765.86	18865766.00	0.0261	0.0200
Mercury	46946-02-04 04:05 G	18867768.54	18867768.67	18867768.81	0.0263	0.0186
Mercury	46946-05-04 02:10 G	18867857.39	18867857.59	18867857.78	0.0264	0.0004
Mercury	46946-07-31 23:46 G	18867946.37	18867946.49	18867946.64	0.0265	0.0186
Moon	46949-06-07 10:34 G	18868987.75	18868987.94	18868988.15	0.0275	0.0155
Earth	46949-06-07 14:10 G	18868987.90	18868988.09	18868988.29	0.0275	0.0166 *
Venus	46955-01-18 13:12 G	18871038.89	18871039.05	18871039.22	0.0300	0.0186
Venus	46955-09-05 18:00 G	18871269.06	18871269.25	18871269.44	0.0301	0.0128
Mars	46957-08-11 10:19 G	18871974.65	18871974.93	18871975.21	0.0303	0.0018
Mercury	46959-12-12 06:00 G	18872827.64	18872827.75	18872827.87	0.0299	0.0146
Mercury	46960-03-09 18:00 G	18872916.13	18872916.25	18872916.38	0.0298	0.0031
Mercury	46960-06-06 06:00 G	18873004.66	18873004.75	18873004.84	0.0297	0.0203

Moon	46962-12-08 23:17 G	18873920.39	18873920.47	18873920.55	0.0286	0.0271
Earth	46962-12-09 02:24 G	18873920.58	18873920.60	18873920.64	0.0286	0.0284
Venus	46968-11-20 19:12 G	18876094.15	18876094.30	18876094.46	0.0263	0.0178
Venus	46969-07-07 17:31 G	18876323.02	18876323.23	18876323.44	0.0262	0.0030
Venus	46970-02-21 14:53 G	18876552.03	18876552.12	18876552.21	0.0261	0.0233
Mercury	46975-06-24 04:48 G	18878500.61	18878500.70	18878500.81	0.0263	0.0223
Mercury	46975-09-21 02:53 G	18878589.43	18878589.62	18878589.81	0.0264	0.0038
Mercury	46975-12-19 00:43 G	18878678.37	18878678.53	18878678.69	0.0265	0.0148
Earth	46978-06-02 18:43 G	18879575.04	18879575.28	18879575.52	0.0273	0.0048
Moon	46978-06-02 22:19 G	18879575.19	18879575.43	18879575.67	0.0273	0.0055 *
Venus	46984-07-31 00:00 G	18881825.32	18881825.50	18881825.69	0.0299	0.0133
Venus	46985-03-18 04:48 G	18882055.54	18882055.70	18882055.87	0.0301	0.0182
Mercury	46989-04-30 08:53 G	18883559.78	18883559.87	18883559.97	0.0299	0.0187
Mercury	46989-07-27 20:53 G	18883648.25	18883648.37	18883648.50	0.0298	0.0016
Mercury	46989-10-24 08:53 G	18883736.77	18883736.87	18883736.98	0.0298	0.0163
Earth	46991-12-03 09:36 G	18884506.66	18884506.90	18884507.15	0.0289	0.0027
Moon	46991-12-03 13:12 G	18884506.81	18884507.05	18884507.30	0.0289	0.0013 *
Venus	46998-06-02 23:17 G	18886880.30	18886880.47	18886880.66	0.0263	0.0147
Venus	46999-01-17 21:50 G	18887109.20	18887109.41	18887109.61	0.0262	0.0061

48TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 48th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Mars	47001-09-14 02:24 G	18888078.33	18888078.60	18888078.89	0.0259	0.0100
Mercury	47005-02-08 02:38 G	18889321.43	18889321.61	18889321.80	0.0264	0.0083
Mercury	47005-05-08 00:29 G	18889410.35	18889410.52	18889410.71	0.0264	0.0103
Moon	47007-05-29 18:14 G	18890162.21	18890162.26	18890162.32	0.0271	0.0264
Earth	47007-05-29 21:50 G	18890162.35	18890162.41	18890162.48	0.0271	0.0259
Moon	47008-06-10 02:10 G	18890539.48	18890539.59	18890539.73	0.0276	0.0230
Earth	47008-06-10 04:48 G	18890539.58	18890539.70	18890539.81	0.0276	0.0241 *
Venus	47014-02-11 10:34 G	18892611.74	18892611.94	18892612.14	0.0300	0.0085
Venus	47014-09-29 15:36 G	18892842.02	18892842.15	18892842.29	0.0302	0.0231
Mercury	47018-09-18 12:00 G	18894291.92	18894292.00	18894292.09	0.0299	0.0224
Mercury	47018-12-16 00:14 G	18894380.38	18894380.51	18894380.64	0.0298	0.0048
Mercury	47019-03-14 12:14 G	18894468.89	18894469.01	18894469.12	0.0298	0.0127
Moon	47020-11-27 13:26 G	18895092.94	18895093.06	18895093.19	0.0290	0.0250
Earth	47020-11-27 17:31 G	18895093.09	18895093.23	18895093.37	0.0290	0.0235 *
Venus	47027-12-15 06:14 G	18897666.58	18897666.76	18897666.96	0.0263	0.0112
Venus	47028-07-31 04:19 G	18897895.49	18897895.68	18897895.89	0.0262	0.0096
Mercury	47034-06-28 03:50 G	18900053.48	18900053.66	18900053.83	0.0264	0.0118
Mercury	47034-09-25 01:41 G	18900142.38	18900142.57	18900142.76	0.0264	0.0067
Mercury	47034-12-22 23:31 G	18900231.44	18900231.48	18900231.54	0.0265	0.0255
Earth	47037-06-05 09:07 G	18901126.64	18901126.88	18901127.13	0.0274	0.0027
Moon	47037-06-05 11:31 G	18901126.73	18901126.98	18901127.23	0.0274	0.0017 *
Venus	47043-08-24 21:50 G	18903398.20	18903398.41	18903398.62	0.0300	0.0031
Venus	47044-04-11 02:53 G	18903628.57	18903628.62	18903628.70	0.0301	0.0286
Mars	47046-01-07 17:46 G	18904264.97	18904265.24	18904265.50	0.0303	0.0101
Mercury	47048-02-05 15:22 G	18905024.08	18905024.14	18905024.20	0.0299	0.0262
Mercury	47048-05-04 03:22 G	18905112.52	18905112.64	18905112.76	0.0299	0.0085
Mercury	47048-07-31 15:22 G	18905201.01	18905201.14	18905201.26	0.0298	0.0090
Mercury	47048-10-28 03:07 G	18905289.57	18905289.63	18905289.69	0.0297	0.0262
Earth	47050-12-06 05:02 G	18906058.49	18906058.71	18906058.95	0.0288	0.0116
Moon	47050-12-06 07:41 G	18906058.58	18906058.82	18906059.06	0.0288	0.0102 *

Venus	47057-06-26 11:17 G	18908452.77	18908452.97	18908453.18	0.0263	0.0079
Venus	47058-02-10 09:07 G	18908681.70	18908681.88	18908682.07	0.0261	0.0127
Mercury	47063-11-15 03:22 G	18910785.50	18910785.64	18910785.80	0.0263	0.0163
Mercury	47064-02-12 01:26 G	18910874.37	18910874.56	18910874.76	0.0264	0.0023
Mercury	47064-05-10 23:17 G	18910963.36	18910963.47	18910963.60	0.0265	0.0210
Moon	47066-05-31 09:07 G	18911713.72	18911713.88	18911714.06	0.0272	0.0193
Earth	47066-05-31 11:17 G	18911713.81	18911713.97	18911714.16	0.0272	0.0188 *
Venus	47072-07-19 04:05 G	18913954.63	18913954.67	18913954.71	0.0299	0.0293
Venus	47073-03-06 08:10 G	18914184.63	18914184.84	18914185.05	0.0301	0.0017
Mercury	47077-06-24 18:29 G	18915756.27	18915756.27	18915756.27	0.0300	0.0299
Mercury	47077-09-21 06:29 G	18915844.65	18915844.77	18915844.89	0.0299	0.0122
Mercury	47077-12-18 18:29 G	18915933.14	18915933.27	18915933.40	0.0298	0.0053
Mercury	47078-03-17 06:14 G	18916021.68	18916021.76	18916021.85	0.0297	0.0226
Moon	47079-11-30 12:00 G	18916644.81	18916645.00	18916645.21	0.0290	0.0158
Earth	47079-11-30 14:10 G	18916644.87	18916645.09	18916645.30	0.0290	0.0144 *
Venus	47086-05-22 19:12 G	18919010.25	18919010.30	18919010.37	0.0264	0.0253
Venus	47087-01-06 18:14 G	18919239.05	18919239.26	18919239.47	0.0262	0.0043
Venus	47087-08-23 15:50 G	18919468.00	18919468.16	18919468.33	0.0261	0.0162
Mars	47090-02-09 00:00 G	18920368.19	18920368.50	18920368.81	0.0260	0.0010
Mercury	47093-04-03 04:19 G	18921517.56	18921517.68	18921517.82	0.0264	0.0199
Mercury	47093-07-01 02:24 G	18921606.41	18921606.60	18921606.79	0.0264	0.0014
Mercury	47093-09-28 00:14 G	18921695.37	18921695.51	18921695.66	0.0265	0.0173
Moon	47096-06-06 20:53 G	18922678.13	18922678.37	18922678.61	0.0274	0.0089
Earth	47096-06-06 23:17 G	18922678.24	18922678.47	18922678.69	0.0274	0.0101 *
Venus	47102-01-30 15:36 G	18924741.03	18924741.15	18924741.28	0.0299	0.0238
Venus	47102-09-17 19:55 G	18924971.13	18924971.33	18924971.54	0.0300	0.0073
Mercury	47107-02-09 09:50 G	18926576.80	18926576.91	18926577.02	0.0299	0.0157
Mercury	47107-05-08 21:50 G	18926665.28	18926665.41	18926665.53	0.0298	0.0020
Mercury	47107-08-05 09:36 G	18926753.81	18926753.90	18926754.00	0.0297	0.0192
Moon	47109-12-09 00:00 G	18927610.32	18927610.50	18927610.70	0.0287	0.0196

Earth	47109-12-09 02:10 G	18927610.42	18927610.59	18927610.77	0.0287	0.0206 *
Venus	47115-12-04 00:43 G	18929796.42	18929796.53	18929796.65	0.0263	0.0220
Venus	47116-07-19 23:17 G	18930025.26	18930025.47	18930025.69	0.0262	0.0012
Venus	47117-03-05 20:38 G	18930254.23	18930254.36	18930254.51	0.0261	0.0194
Mercury	47122-08-22 04:05 G	18932249.61	18932249.67	18932249.75	0.0263	0.0243
Mercury	47122-11-19 01:55 G	18932338.40	18932338.58	18932338.78	0.0264	0.0060
Mercury	47123-02-16 00:00 G	18932427.33	18932427.50	18932427.67	0.0264	0.0127
Earth	47125-06-03 00:00 G	18933265.29	18933265.50	18933265.73	0.0272	0.0117
Moon	47125-06-03 01:26 G	18933265.36	18933265.56	18933265.78	0.0272	0.0124 *
Venus	47131-08-13 00:29 G	18935527.37	18935527.52	18935527.69	0.0299	0.0196
Venus	47132-03-30 05:02 G	18935757.52	18935757.71	18935757.91	0.0301	0.0118
Mars	47134-06-06 01:12 G	18936555.36	18936555.55	18936555.74	0.0303	0.0222
Mercury	47136-06-28 12:43 G	18937308.93	18937309.03	18937309.12	0.0299	0.0199
Mercury	47136-09-25 00:43 G	18937397.40	18937397.53	18937397.66	0.0298	0.0023
Mercury	47136-12-22 12:29 G	18937485.92	18937486.02	18937486.14	0.0298	0.0152
Earth	47138-12-03 09:50 G	18938196.67	18938196.91	18938197.15	0.0289	0.0055
Moon	47138-12-03 11:46 G	18938196.76	18938196.99	18938197.22	0.0289	0.0066 *
Venus	47145-06-15 07:12 G	18940582.66	18940582.80	18940582.96	0.0263	0.0184
Venus	47146-01-30 05:46 G	18940811.53	18940811.74	18940811.95	0.0262	0.0024
Venus	47146-09-16 02:53 G	18941040.53	18941040.62	18941040.73	0.0261	0.0228
Mercury	47152-04-07 02:38 G	18943070.43	18943070.61	18943070.79	0.0264	0.0098
Mercury	47152-07-05 00:29 G	18943159.34	18943159.52	18943159.71	0.0265	0.0088
Moon	47155-06-10 07:41 G	18944229.63	18944229.82	18944230.02	0.0275	0.0160
Earth	47155-06-10 10:48 G	18944229.78	18944229.95	18944230.15	0.0275	0.0173 *
Venus	47161-02-22 11:17 G	18946313.79	18946313.97	18946314.16	0.0299	0.0142
Venus	47161-10-10 16:05 G	18946544.00	18946544.17	18946544.35	0.0301	0.0172
Mercury	47165-11-15 15:50 G	18948041.08	18948041.16	18948041.24	0.0299	0.0235
Mercury	47166-02-12 03:50 G	18948129.54	18948129.66	18948129.79	0.0299	0.0058
Mercury	47166-05-11 15:50 G	18948218.04	18948218.16	18948218.28	0.0298	0.0116
Mercury	47166-08-08 03:36 G	18948306.63	18948306.65	18948306.68	0.0297	0.0289

Moon	47168-12-10 17:17 G	18949162.19	18949162.22	18949162.26	0.0287	0.0283
Venus	47174-12-26 12:29 G	18951368.85	18951369.02	18951369.20	0.0263	0.0152
Venus	47175-08-12 10:34 G	18951597.74	18951597.94	18951598.15	0.0262	0.0056
Venus	47176-03-28 07:26 G	18951826.80	18951826.81	18951826.85	0.0260	0.0259
Mars	47178-07-07 10:48 G	18952657.65	18952657.95	18952658.25	0.0259	0.0061
Mercury	47181-08-25 01:55 G	18953802.42	18953802.58	18953802.74	0.0263	0.0146
Mercury	47181-11-21 23:46 G	18953891.30	18953891.49	18953891.69	0.0264	0.0039
Mercury	47182-02-18 21:50 G	18953980.31	18953980.41	18953980.51	0.0265	0.0225
Earth	47184-06-04 09:50 G	18954816.67	18954816.91	18954817.15	0.0273	0.0050
Moon	47184-06-04 13:26 G	18954816.82	18954817.06	18954817.30	0.0273	0.0056 *
Venus	47190-09-04 18:58 G	18957100.10	18957100.29	18957100.49	0.0300	0.0102
Venus	47191-04-23 00:14 G	18957330.36	18957330.51	18957330.66	0.0302	0.0214
Mercury	47195-04-04 18:14 G	18958773.22	18958773.26	18958773.31	0.0300	0.0281
Mercury	47195-07-02 06:29 G	18958861.65	18958861.77	18958861.89	0.0299	0.0104
Mercury	47195-09-28 18:29 G	18958950.14	18958950.27	18958950.39	0.0298	0.0072
Mercury	47195-12-26 06:14 G	18959038.69	18959038.76	18959038.84	0.0297	0.0245
Earth	47197-12-05 03:07 G	18959748.39	18959748.63	18959748.88	0.0289	0.0032
Moon	47197-12-05 06:58 G	18959748.54	18959748.79	18959749.03	0.0289	0.0018 *
Venus	47204-07-07 18:14 G	18962155.07	18962155.26	18962155.45	0.0263	0.0119
Venus	47205-02-21 16:05 G	18962383.97	18962384.17	18962384.37	0.0261	0.0088
Mercury	47211-01-12 01:55 G	18964534.46	18964534.58	18964534.72	0.0263	0.0189
Mercury	47211-04-11 00:00 G	18964623.30	18964623.50	18964623.69	0.0264	0.0004
Mercury	47211-07-08 21:36 G	18964712.27	18964712.40	18964712.55	0.0265	0.0183
Moon	47213-05-30 09:36 G	18965403.86	18965403.90	18965403.97	0.0271	0.0263
Earth	47213-05-30 13:26 G	18965404.01	18965404.06	18965404.14	0.0271	0.0260
Moon	47214-06-11 19:12 G	18965781.19	18965781.30	18965781.45	0.0275	0.0229
Earth	47214-06-11 19:41 G	18965781.21	18965781.32	18965781.45	0.0275	0.0239 *
Venus	47220-03-17 04:48 G	18967886.50	18967886.70	18967886.91	0.0300	0.0051
Venus	47220-11-02 09:50 G	18968116.82	18968116.91	18968117.02	0.0301	0.0266
Mercury	47224-11-18 09:22 G	18969593.78	18969593.89	18969594.00	0.0299	0.0144

Mercury	47225-02-14 21:22 G	18969682.26	18969682.39	18969682.52	0.0298	0.0032
Mercury	47225-05-14 09:07 G	18969770.80	18969770.88	18969770.98	0.0297	0.0207
Moon	47226-11-29 04:34 G	18970334.58	18970334.69	18970334.83	0.0291	0.0248
Earth	47226-11-29 08:24 G	18970334.71	18970334.85	18970335.01	0.0291	0.0232 *
Venus	47234-01-17 22:48 G	18972941.25	18972941.45	18972941.66	0.0262	0.0088
Venus	47234-09-03 20:24 G	18973170.17	18973170.35	18973170.55	0.0261	0.0118
Mercury	47240-05-31 00:58 G	18975266.47	18975266.54	18975266.63	0.0263	0.0239
Mercury	47240-08-27 22:48 G	18975355.26	18975355.45	18975355.64	0.0263	0.0056
Mercury	47240-11-24 20:38 G	18975444.20	18975444.36	18975444.53	0.0264	0.0130
Earth	47243-06-06 16:34 G	18976367.95	18976368.19	18976368.44	0.0273	0.0014
Moon	47243-06-06 17:17 G	18976367.97	18976368.22	18976368.47	0.0273	0.0004 *
Venus	47249-09-27 10:19 G	18978672.72	18978672.93	18978673.14	0.0301	0.0016
Venus	47250-05-15 16:05 G	18978903.17	18978903.17	18978903.17	0.0302	0.0302
Mercury	47254-04-07 11:17 G	18980325.88	18980325.97	18980326.07	0.0300	0.0197
Mercury	47254-07-04 23:17 G	18980414.35	18980414.47	18980414.60	0.0299	0.0023
Mercury	47254-10-01 11:17 G	18980502.86	18980502.97	18980503.08	0.0298	0.0155
Earth	47256-12-06 15:50 G	18981299.93	18981300.16	18981300.39	0.0288	0.0109
Moon	47256-12-06 16:34 G	18981299.96	18981300.19	18981300.44	0.0288	0.0097 *
Venus	47263-07-31 03:07 G	18983727.43	18983727.63	18983727.84	0.0262	0.0057
Venus	47264-03-16 00:29 G	18983956.36	18983956.52	18983956.71	0.0261	0.0149
Mars	47266-12-01 16:05 G	18984946.91	18984947.17	18984947.44	0.0259	0.0129
Mercury	47270-01-14 22:19 G	18986087.25	18986087.43	18986087.61	0.0264	0.0104
Mercury	47270-04-13 20:10 G	18986176.15	18986176.34	18986176.52	0.0264	0.0081
Moon	47272-05-31 17:17 G	18986955.08	18986955.22	18986955.37	0.0271	0.0209
Earth	47272-05-31 17:31 G	18986955.08	18986955.23	18986955.41	0.0271	0.0203 *
Venus	47278-08-22 14:24 G	18989229.03	18989229.10	18989229.18	0.0298	0.0279
Venus	47279-04-09 18:43 G	18989459.07	18989459.28	18989459.49	0.0300	0.0032
Mercury	47283-08-25 13:55 G	18991058.01	18991058.08	18991058.15	0.0300	0.0242
Mercury	47283-11-22 01:55 G	18991146.46	18991146.58	18991146.71	0.0299	0.0065
Mercury	47284-02-18 13:55 G	18991234.97	18991235.08	18991235.20	0.0298	0.0112

Mercury	47284-05-17 01:55 G	18991323.55	18991323.58	18991323.62	0.0297	0.0285
Earth	47285-11-30 20:10 G	18991886.13	18991886.34	18991886.55	0.0291	0.0156
Moon	47285-11-30 19:41 G	18991886.14	18991886.32	18991886.53	0.0291	0.0170 *
Venus	47292-06-25 09:07 G	18994284.79	18994284.88	18994284.97	0.0263	0.0237
Venus	47293-02-09 07:26 G	18994513.60	18994513.81	18994514.02	0.0262	0.0028
Venus	47293-09-26 04:34 G	18994742.54	18994742.69	18994742.85	0.0261	0.0177
Mercury	47299-06-03 20:53 G	18996819.22	18996819.37	18996819.52	0.0263	0.0158
Mercury	47299-08-31 18:43 G	18996908.08	18996908.28	18996908.47	0.0263	0.0026
Mercury	47299-11-28 16:19 G	18996997.07	18996997.18	18996997.30	0.0264	0.0211
Moon	47302-06-08 15:50 G	18997918.92	18997919.16	18997919.41	0.0273	0.0055
Earth	47302-06-08 19:26 G	18997919.08	18997919.31	18997919.55	0.0273	0.0069 *
Venus	47308-03-04 17:46 G	19000015.14	19000015.24	19000015.37	0.0299	0.0249
Venus	47308-10-20 22:19 G	19000245.23	19000245.43	19000245.64	0.0301	0.0064
Mercury	47313-04-11 03:36 G	19001878.53	19001878.65	19001878.77	0.0300	0.0124
Mercury	47313-07-08 15:36 G	19001967.02	19001967.15	19001967.28	0.0299	0.0052
Mercury	47313-10-05 03:36 G	19002055.57	19002055.65	19002055.73	0.0298	0.0227
Moon	47315-12-09 20:24 G	19002851.15	19002851.35	19002851.55	0.0288	0.0168
Earth	47315-12-09 23:46 G	19002851.30	19002851.49	19002851.69	0.0288	0.0178 *
Venus	47322-01-06 11:46 G	19005070.87	19005070.99	19005071.13	0.0263	0.0208
Venus	47322-08-23 10:19 G	19005299.72	19005299.93	19005300.14	0.0262	0.0000
Venus	47323-04-09 07:26 G	19005528.69	19005528.81	19005528.95	0.0261	0.0204
Mercury	47328-10-21 19:55 G	19007551.21	19007551.33	19007551.44	0.0263	0.0210
Mercury	47329-01-18 17:31 G	19007640.04	19007640.23	19007640.42	0.0263	0.0027
Mercury	47329-04-17 15:07 G	19007728.98	19007729.13	19007729.29	0.0264	0.0158
Earth	47331-06-03 18:43 G	19008506.08	19008506.28	19008506.49	0.0271	0.0150
Moon	47331-06-03 22:19 G	19008506.24	19008506.43	19008506.63	0.0271	0.0161 *
Venus	47337-09-15 00:29 G	19010801.37	19010801.52	19010801.68	0.0299	0.0207
Venus	47338-05-03 05:17 G	19011031.52	19011031.72	19011031.92	0.0301	0.0107
Mercury	47342-08-29 05:31 G	19012610.63	19012610.73	19012610.84	0.0300	0.0176
Mercury	47342-11-25 17:46 G	19012699.11	19012699.24	19012699.37	0.0299	0.0002

Mercury	47343-02-22 05:46 G	19012787.64	19012787.74	19012787.84	0.0298	0.0177
Earth	47344-12-03 01:26 G	19013437.33	19013437.56	19013437.80	0.0291	0.0091
Moon	47344-12-03 05:17 G	19013437.49	19013437.72	19013437.95	0.0291	0.0101 *
Venus	47351-07-19 15:36 G	19015857.01	19015857.15	19015857.31	0.0263	0.0181
Venus	47352-03-04 13:41 G	19016085.86	19016086.07	19016086.29	0.0262	0.0028
Venus	47352-10-19 10:34 G	19016314.85	19016314.94	19016315.04	0.0260	0.0231
Mars	47355-04-28 06:43 G	19017235.58	19017235.78	19017236.03	0.0258	0.0176
Mercury	47358-06-07 15:36 G	19018371.97	19018372.15	19018372.34	0.0263	0.0085
Mercury	47358-09-04 13:26 G	19018460.88	19018461.06	19018461.24	0.0263	0.0098
Moon	47361-06-09 17:02 G	19019469.99	19019470.21	19019470.43	0.0273	0.0104
Earth	47361-06-09 18:43 G	19019470.07	19019470.28	19019470.51	0.0273	0.0119 *
Venus	47367-03-28 01:55 G	19021587.42	19021587.58	19021587.76	0.0299	0.0182
Venus	47367-11-13 06:58 G	19021817.60	19021817.79	19021817.98	0.0301	0.0134
Mars	47369-06-30 23:02 G	19022413.44	19022413.46	19022413.52	0.0304	0.0301
Mercury	47372-01-16 06:43 G	19023342.71	19023342.78	19023342.85	0.0300	0.0242
Mercury	47372-04-13 18:43 G	19023431.16	19023431.28	19023431.41	0.0300	0.0065
Mercury	47372-07-11 06:58 G	19023519.67	19023519.79	19023519.91	0.0299	0.0113
Mercury	47372-10-07 18:43 G	19023608.25	19023608.28	19023608.32	0.0298	0.0287
Moon	47374-12-11 00:14 G	19024402.38	19024402.51	19024402.66	0.0288	0.0234
Earth	47374-12-11 02:38 G	19024402.48	19024402.61	19024402.75	0.0288	0.0237 *
Venus	47381-01-28 17:17 G	19026643.06	19026643.22	19026643.40	0.0263	0.0155
Venus	47381-09-14 15:22 G	19026871.94	19026872.14	19026872.35	0.0261	0.0053
Venus	47382-05-01 12:14 G	19027100.99	19027101.01	19027101.06	0.0260	0.0256
Mercury	47387-10-25 13:55 G	19029103.92	19029104.08	19029104.25	0.0263	0.0142
Mercury	47388-01-22 11:46 G	19029192.80	19029192.99	19029193.18	0.0263	0.0041
Mercury	47388-04-20 09:22 G	19029281.80	19029281.89	19029281.99	0.0264	0.0226
Earth	47390-06-04 16:19 G	19030056.97	19030057.18	19030057.42	0.0271	0.0104
Moon	47390-06-04 18:14 G	19030057.03	19030057.26	19030057.49	0.0271	0.0115 *
Venus	47396-10-07 07:41 G	19032373.64	19032373.82	19032374.01	0.0299	0.0142
Venus	47397-05-25 12:43 G	19032603.86	19032604.03	19032604.20	0.0301	0.0174

Mercury	47401-06-05 08:24 G	19034074.84	19034074.85	19034074.87	0.0300	0.0298
Mercury	47401-09-01 20:38 G	19034163.24	19034163.36	19034163.48	0.0300	0.0119
Mercury	47401-11-29 08:38 G	19034251.74	19034251.86	19034251.99	0.0299	0.0059
Mercury	47402-02-25 20:38 G	19034340.29	19034340.36	19034340.44	0.0298	0.0233
Earth	47403-12-06 02:24 G	19034988.35	19034988.60	19034988.84	0.0291	0.0035
Moon	47403-12-06 03:50 G	19034988.41	19034988.66	19034988.91	0.0291	0.0040 *
Venus	47410-08-11 20:24 G	19037429.17	19037429.35	19037429.54	0.0263	0.0129
Venus	47411-03-28 18:14 G	19037658.06	19037658.26	19037658.47	0.0261	0.0078
Mars	47413-08-04 18:00 G	19038518.19	19038518.25	19038518.34	0.0258	0.0249
Mercury	47417-03-14 11:46 G	19039835.88	19039835.99	19039836.13	0.0262	0.0201
Mercury	47417-06-11 09:36 G	19039924.71	19039924.90	19039925.10	0.0262	0.0020
Mercury	47417-09-08 07:12 G	19040013.66	19040013.80	19040013.96	0.0263	0.0166
Earth	47420-06-11 16:05 G	19041020.98	19041021.17	19041021.36	0.0273	0.0165
Moon	47420-06-11 19:12 G	19041021.10	19041021.30	19041021.49	0.0273	0.0150 *
Venus	47426-04-20 08:24 G	19043159.66	19043159.85	19043160.04	0.0300	0.0118
Venus	47426-12-06 13:12 G	19043389.90	19043390.05	19043390.22	0.0302	0.0199
Mercury	47431-01-19 21:22 G	19044895.29	19044895.39	19044895.49	0.0300	0.0192
Mercury	47431-04-18 09:22 G	19044983.77	19044983.89	19044984.02	0.0300	0.0016
Mercury	47431-07-15 21:22 G	19045072.29	19045072.39	19045072.50	0.0299	0.0164
Earth	47433-12-13 00:58 G	19045953.54	19045953.54	19045953.54	0.0288	0.0288
Venus	47440-02-21 20:53 G	19048215.18	19048215.37	19048215.57	0.0262	0.0105
Venus	47440-10-07 18:43 G	19048444.09	19048444.28	19048444.48	0.0261	0.0102
Mars	47443-09-22 08:24 G	19049523.69	19049523.85	19049524.05	0.0258	0.0209
Mercury	47446-08-01 09:50 G	19050567.90	19050567.91	19050567.93	0.0262	0.0261
Mercury	47446-10-29 07:26 G	19050656.63	19050656.81	19050657.00	0.0263	0.0080
Mercury	47447-01-26 05:17 G	19050745.54	19050745.72	19050745.89	0.0263	0.0104
Moon	47449-06-06 09:22 G	19051607.65	19051607.89	19051608.13	0.0271	0.0074
Earth	47449-06-06 12:14 G	19051607.78	19051608.01	19051608.25	0.0271	0.0060 *
Venus	47455-10-31 12:29 G	19053945.82	19053946.02	19053946.22	0.0300	0.0082
Venus	47456-06-17 17:46 G	19054176.11	19054176.24	19054176.37	0.0301	0.0235

Mars	47457-11-24 13:12 G	19054700.98	19054701.05	19054701.14	0.0303	0.0290
Mercury	47460-06-07 22:48 G	19055627.38	19055627.45	19055627.52	0.0300	0.0252
Mercury	47460-09-04 11:02 G	19055715.83	19055715.96	19055716.08	0.0300	0.0073
Mercury	47460-12-01 23:02 G	19055804.34	19055804.46	19055804.58	0.0299	0.0105
Mercury	47461-02-28 11:02 G	19055892.92	19055892.96	19055893.00	0.0298	0.0279
Moon	47462-12-06 19:41 G	19056539.07	19056539.32	19056539.57	0.0291	0.0014
Earth	47462-12-06 22:48 G	19056539.21	19056539.45	19056539.70	0.0291	0.0013 *
Venus	47469-09-02 23:31 G	19059001.29	19059001.48	19059001.69	0.0263	0.0081
Venus	47470-04-19 21:22 G	19059230.21	19059230.39	19059230.58	0.0261	0.0127
Mercury	47476-03-17 05:31 G	19061388.57	19061388.73	19061388.89	0.0262	0.0139
Mercury	47476-06-14 03:07 G	19061477.44	19061477.63	19061477.82	0.0262	0.0043
Mercury	47476-09-11 00:43 G	19061566.44	19061566.53	19061566.63	0.0263	0.0227
Earth	47479-06-13 11:02 G	19062571.82	19062571.96	19062572.13	0.0273	0.0208
Moon	47479-06-13 13:41 G	19062571.91	19062572.07	19062572.26	0.0273	0.0194 *
Venus	47485-05-12 12:43 G	19064731.83	19064732.03	19064732.24	0.0300	0.0058
Venus	47485-12-28 17:46 G	19064962.14	19064962.24	19064962.35	0.0302	0.0258
Mercury	47490-01-22 11:31 G	19066447.87	19066447.98	19066448.09	0.0300	0.0148
Mercury	47490-04-20 23:31 G	19066536.36	19066536.48	19066536.61	0.0300	0.0032
Mercury	47490-07-18 11:31 G	19066624.89	19066624.98	19066625.08	0.0299	0.0208
Earth	47491-11-30 11:02 G	19067124.93	19067124.96	19067125.00	0.0293	0.0290
Moon	47491-11-30 14:10 G	19067125.07	19067125.09	19067125.13	0.0293	0.0291
Venus	47499-03-15 23:31 G	19069787.27	19069787.48	19069787.69	0.0262	0.0058
Venus	47499-10-30 21:22 G	19070016.21	19070016.39	19070016.56	0.0261	0.0148
Mars	47501-12-29 15:07 G	19070806.00	19070806.13	19070806.30	0.0258	0.0224
Mercury	47505-08-05 03:07 G	19072120.51	19072120.63	19072120.76	0.0262	0.0202
Mercury	47505-11-02 00:43 G	19072209.34	19072209.53	19072209.73	0.0263	0.0020
Mercury	47506-01-29 22:19 G	19072298.29	19072298.43	19072298.59	0.0263	0.0164
Moon	47508-06-08 04:48 G	19073158.46	19073158.70	19073158.94	0.0271	0.0032
Earth	47508-06-08 07:26 G	19073158.57	19073158.81	19073159.06	0.0271	0.0018 *
Venus	47514-11-23 16:34 G	19075517.98	19075518.19	19075518.40	0.0300	0.0024

Venus	47515-07-11 22:05 G	19075748.38	19075748.42	19075748.47	0.0301	0.0294
Mercury	47519-06-12 12:43 G	19077179.94	19077180.03	19077180.12	0.0300	0.0210
Mercury	47519-09-09 00:58 G	19077268.41	19077268.54	19077268.67	0.0300	0.0031
Mercury	47519-12-06 12:58 G	19077356.93	19077357.04	19077357.15	0.0299	0.0146
Moon	47521-12-08 14:24 G	19078089.87	19078090.10	19078090.34	0.0291	0.0059
Earth	47521-12-08 16:48 G	19078089.96	19078090.20	19078090.45	0.0291	0.0056 *
Venus	47528-02-10 02:53 G	19080344.55	19080344.62	19080344.70	0.0264	0.0245
Venus	47528-09-26 01:55 G	19080573.37	19080573.58	19080573.79	0.0263	0.0034
Venus	47529-05-12 23:31 G	19080802.32	19080802.48	19080802.64	0.0261	0.0172
Mars	47532-02-16 09:07 G	19081811.78	19081811.88	19081812.00	0.0258	0.0241
Mercury	47534-12-23 01:12 G	19082852.54	19082852.55	19082852.58	0.0261	0.0259
Mercury	47535-03-21 22:48 G	19082941.27	19082941.45	19082941.64	0.0262	0.0079
Mercury	47535-06-18 20:24 G	19083030.18	19083030.35	19083030.53	0.0262	0.0103
Earth	47537-06-03 05:17 G	19083745.62	19083745.72	19083745.84	0.0268	0.0239
Moon	47537-06-03 08:24 G	19083745.78	19083745.85	19083745.95	0.0268	0.0252 *
Moon	47538-06-15 04:34 G	19084122.58	19084122.69	19084122.81	0.0273	0.0239
Earth	47538-06-15 06:29 G	19084122.69	19084122.77	19084122.88	0.0273	0.0250 *
Venus	47544-06-04 16:48 G	19086303.99	19086304.20	19086304.41	0.0300	0.0004
Mercury	47548-10-29 12:58 G	19087912.01	19087912.04	19087912.08	0.0301	0.0288
Mercury	47549-01-26 01:12 G	19088000.43	19088000.55	19088000.67	0.0300	0.0108
Mercury	47549-04-24 13:26 G	19088088.93	19088089.06	19088089.18	0.0300	0.0071
Mercury	47549-07-22 01:26 G	19088177.49	19088177.56	19088177.63	0.0299	0.0247
Earth	47550-12-02 03:50 G	19088675.54	19088675.66	19088675.80	0.0293	0.0249
Moon	47550-12-02 06:00 G	19088675.63	19088675.75	19088675.90	0.0293	0.0247 *
Venus	47557-08-22 02:10 G	19091130.49	19091130.59	19091130.71	0.0264	0.0223
Venus	47558-04-08 01:26 G	19091359.34	19091359.56	19091359.77	0.0262	0.0013
Venus	47558-11-22 23:02 G	19091588.32	19091588.46	19091588.61	0.0261	0.0194
Mercury	47564-08-07 20:24 G	19093673.19	19093673.35	19093673.52	0.0262	0.0142
Mercury	47564-11-04 18:00 G	19093762.06	19093762.25	19093762.44	0.0263	0.0040
Mercury	47565-02-01 15:22 G	19093851.06	19093851.14	19093851.26	0.0263	0.0225

Earth	47567-06-10 02:38 G	19094709.37	19094709.61	19094709.86	0.0271	0.0024
Moon	47567-06-10 04:19 G	19094709.44	19094709.68	19094709.91	0.0271	0.0010 *
Venus	47573-04-29 16:48 G	19096860.12	19096860.20	19096860.28	0.0298	0.0275
Venus	47573-12-15 20:38 G	19097090.15	19097090.36	19097090.57	0.0300	0.0035
Mercury	47578-06-15 02:38 G	19098732.51	19098732.61	19098732.72	0.0300	0.0169
Mercury	47578-09-11 14:53 G	19098820.99	19098821.12	19098821.25	0.0299	0.0010
Mercury	47578-12-09 02:53 G	19098909.52	19098909.62	19098909.72	0.0299	0.0186
Earth	47580-12-09 10:05 G	19099640.69	19099640.92	19099641.15	0.0291	0.0096
Moon	47580-12-09 12:00 G	19099640.78	19099641.00	19099641.22	0.0291	0.0105 *
Venus	47587-03-04 04:34 G	19101916.57	19101916.69	19101916.84	0.0264	0.0199
Venus	47587-10-19 03:36 G	19102145.44	19102145.65	19102145.87	0.0263	0.0013
Venus	47588-06-04 00:58 G	19102374.44	19102374.54	19102374.67	0.0261	0.0219
Mars	47590-05-24 15:36 G	19103093.96	19103094.15	19103094.37	0.0259	0.0190
Mercury	47593-12-25 18:43 G	19104405.16	19104405.28	19104405.41	0.0261	0.0199
Mercury	47594-03-24 16:19 G	19104493.99	19104494.18	19104494.37	0.0262	0.0018
Mercury	47594-06-21 13:55 G	19104582.93	19104583.08	19104583.23	0.0263	0.0165
Moon	47596-06-04 00:29 G	19105296.37	19105296.52	19105296.68	0.0269	0.0211
Earth	47596-06-04 01:41 G	19105296.42	19105296.57	19105296.75	0.0269	0.0197 *
Venus	47602-11-09 18:00 G	19107646.14	19107646.25	19107646.37	0.0298	0.0248
Venus	47603-06-27 21:50 G	19107876.21	19107876.41	19107876.62	0.0300	0.0062
Mercury	47607-11-02 03:07 G	19109464.56	19109464.63	19109464.71	0.0301	0.0245
Mercury	47608-01-29 15:22 G	19109553.02	19109553.14	19109553.27	0.0300	0.0065
Mercury	47608-04-27 03:22 G	19109641.53	19109641.64	19109641.76	0.0300	0.0114
Mercury	47608-07-24 15:36 G	19109730.12	19109730.15	19109730.17	0.0299	0.0289
Moon	47609-12-02 19:12 G	19110226.13	19110226.30	19110226.50	0.0293	0.0199
Earth	47609-12-02 21:50 G	19110226.25	19110226.41	19110226.60	0.0293	0.0208 *
Venus	47616-09-13 04:05 G	19112702.52	19112702.67	19112702.83	0.0264	0.0177
Venus	47617-04-30 03:07 G	19112931.42	19112931.63	19112931.84	0.0262	0.0034
Venus	47617-12-15 00:58 G	19113160.46	19113160.54	19113160.63	0.0261	0.0239
Mercury	47623-05-14 16:19 G	19115137.18	19115137.18	19115137.21	0.0262	0.0261

Mercury	47623-08-11 13:55 G	19115225.90	19115226.08	19115226.27	0.0262	0.0080
Mercury	47623-11-08 11:31 G	19115314.81	19115314.98	19115315.16	0.0263	0.0103
Earth	47626-06-10 23:46 G	19116260.25	19116260.49	19116260.72	0.0271	0.0067
Moon	47626-06-11 03:07 G	19116260.40	19116260.63	19116260.88	0.0271	0.0055 *
Venus	47632-05-21 22:19 G	19118432.28	19118432.43	19118432.57	0.0298	0.0214
Venus	47633-01-07 01:55 G	19118662.38	19118662.58	19118662.78	0.0300	0.0096
Mars	47634-09-11 15:50 G	19119275.15	19119275.16	19119275.18	0.0303	0.0302
Mercury	47637-06-17 16:48 G	19120285.09	19120285.20	19120285.32	0.0300	0.0126
Mercury	47637-09-14 05:02 G	19120373.58	19120373.71	19120373.83	0.0299	0.0054
Mercury	47637-12-11 17:02 G	19120462.13	19120462.21	19120462.29	0.0299	0.0229
Earth	47639-12-11 03:50 G	19121191.45	19121191.66	19121191.88	0.0291	0.0138
Moon	47639-12-11 07:26 G	19121191.60	19121191.81	19121192.03	0.0291	0.0149 *
Venus	47646-03-26 06:58 G	19123488.62	19123488.79	19123488.97	0.0264	0.0152
Venus	47646-11-10 05:46 G	19123717.54	19123717.74	19123717.95	0.0263	0.0060
Mercury	47652-12-28 12:43 G	19125957.87	19125958.03	19125958.20	0.0262	0.0134
Mercury	47653-03-27 10:19 G	19126046.74	19126046.93	19126047.12	0.0262	0.0048
Mercury	47653-06-24 07:55 G	19126135.74	19126135.83	19126135.92	0.0263	0.0231
Moon	47655-06-05 20:38 G	19126847.17	19126847.36	19126847.55	0.0269	0.0167
Earth	47655-06-06 00:14 G	19126847.31	19126847.51	19126847.72	0.0269	0.0151 *
Venus	47661-12-02 00:29 G	19129218.37	19129218.52	19129218.70	0.0298	0.0184
Venus	47662-07-20 04:19 G	19129448.49	19129448.68	19129448.88	0.0300	0.0127
Mercury	47666-11-04 17:31 G	19131017.13	19131017.23	19131017.33	0.0301	0.0198
Mercury	47667-02-01 05:46 G	19131105.61	19131105.74	19131105.87	0.0300	0.0019
Mercury	47667-04-30 17:46 G	19131194.13	19131194.24	19131194.35	0.0299	0.0159
Moon	47668-12-03 14:38 G	19131776.91	19131777.11	19131777.32	0.0293	0.0150
Earth	47668-12-03 17:46 G	19131777.04	19131777.24	19131777.45	0.0293	0.0162 *
Venus	47675-10-06 06:43 G	19134274.60	19134274.78	19134274.97	0.0264	0.0129
Venus	47676-05-22 05:46 G	19134503.54	19134503.74	19134503.94	0.0262	0.0082
Mars	47678-10-17 11:31 G	19135381.76	19135381.98	19135382.23	0.0259	0.0166
Mercury	47682-05-17 10:34 G	19136689.82	19136689.94	19136690.08	0.0262	0.0194

Mercury	47682-08-14 08:24 G	19136778.65	19136778.85	19136779.04	0.0262	0.0014
Mercury	47682-11-11 05:46 G	19136867.60	19136867.74	19136867.89	0.0263	0.0171
Moon	47685-06-11 22:48 G	19137811.22	19137811.45	19137811.69	0.0271	0.0105
Earth	47685-06-11 23:02 G	19137811.24	19137811.46	19137811.68	0.0271	0.0115 *
Venus	47691-06-14 06:00 G	19140004.57	19140004.75	19140004.93	0.0298	0.0147
Venus	47692-01-30 09:50 G	19140234.74	19140234.91	19140235.09	0.0300	0.0164
Mercury	47696-03-23 19:12 G	19141749.24	19141749.30	19141749.37	0.0300	0.0254
Mercury	47696-06-20 07:26 G	19141837.69	19141837.81	19141837.94	0.0300	0.0074
Mercury	47696-09-16 19:41 G	19141926.20	19141926.32	19141926.44	0.0299	0.0104
Mercury	47696-12-14 07:41 G	19142014.78	19142014.82	19142014.86	0.0298	0.0280
Moon	47698-12-12 00:29 G	19142742.35	19142742.52	19142742.72	0.0290	0.0199
Earth	47698-12-12 01:26 G	19142742.37	19142742.56	19142742.75	0.0290	0.0185 *
Venus	47705-04-18 10:05 G	19145060.73	19145060.92	19145061.12	0.0264	0.0102
Venus	47705-12-03 09:07 G	19145289.69	19145289.88	19145290.08	0.0263	0.0109
Mercury	47711-10-05 09:50 G	19147421.85	19147421.91	19147421.99	0.0262	0.0244
Mercury	47712-01-02 07:26 G	19147510.62	19147510.81	19147511.00	0.0262	0.0063
Mercury	47712-03-31 05:02 G	19147599.54	19147599.71	19147599.88	0.0263	0.0120
Earth	47714-06-08 01:26 G	19148398.34	19148398.56	19148398.79	0.0269	0.0102
Moon	47714-06-08 01:55 G	19148398.36	19148398.58	19148398.79	0.0269	0.0114 *
Venus	47720-12-25 10:19 G	19150790.74	19150790.93	19150791.13	0.0298	0.0111
Venus	47721-08-12 13:55 G	19151020.93	19151021.08	19151021.24	0.0300	0.0200
Mars	47723-02-05 06:43 G	19151562.70	19151562.78	19151562.89	0.0303	0.0285
Mercury	47725-11-08 08:38 G	19152569.75	19152569.86	19152569.97	0.0300	0.0141
Mercury	47726-02-04 20:38 G	19152658.24	19152658.36	19152658.49	0.0300	0.0039
Mercury	47726-05-04 08:38 G	19152746.78	19152746.86	19152746.95	0.0299	0.0215
Earth	47727-12-06 17:17 G	19153328.00	19153328.22	19153328.46	0.0293	0.0110
Moon	47727-12-06 18:58 G	19153328.07	19153328.29	19153328.53	0.0293	0.0095 *
Venus	47734-10-29 10:34 G	19155846.74	19155846.94	19155847.15	0.0264	0.0078
Venus	47735-06-15 09:36 G	19156075.72	19156075.90	19156076.09	0.0262	0.0132
Mercury	47741-05-21 05:46 G	19158242.57	19158242.74	19158242.92	0.0262	0.0120

Mercury	47741-08-18 03:22 G	19158331.46	19158331.64	19158331.83	0.0263	0.0063
Mercury	47741-11-15 00:58 G	19158420.49	19158420.54	19158420.61	0.0263	0.0247
Moon	47744-06-13 22:05 G	19159362.23	19159362.42	19159362.62	0.0272	0.0163
Earth	47744-06-14 01:55 G	19159362.39	19159362.58	19159362.77	0.0272	0.0169 *
Venus	47750-07-07 16:34 G	19161576.99	19161577.19	19161577.40	0.0298	0.0073
Venus	47751-02-22 20:24 G	19161807.23	19161807.35	19161807.48	0.0300	0.0239
Mercury	47755-03-28 10:48 G	19163301.85	19163301.95	19163302.05	0.0300	0.0192
Mercury	47755-06-24 22:48 G	19163390.33	19163390.45	19163390.58	0.0299	0.0015
Mercury	47755-09-21 11:02 G	19163478.85	19163478.96	19163479.06	0.0299	0.0164
Moon	47757-12-13 22:48 G	19164293.35	19164293.45	19164293.57	0.0290	0.0256
Earth	47757-12-14 02:38 G	19164293.48	19164293.61	19164293.76	0.0290	0.0239 *
Venus	47763-09-24 14:38 G	19166404.09	19166404.11	19166404.14	0.0266	0.0263
Venus	47764-05-10 14:53 G	19166632.91	19166633.12	19166633.33	0.0264	0.0048
Venus	47764-12-25 13:41 G	19166861.91	19166862.07	19166862.25	0.0263	0.0162
Mars	47767-03-14 02:24 G	19167670.34	19167670.60	19167670.88	0.0260	0.0115
Mercury	47770-10-08 05:17 G	19168974.58	19168974.72	19168974.88	0.0262	0.0166
Mercury	47771-01-05 03:07 G	19169063.44	19169063.63	19169063.82	0.0262	0.0016
Mercury	47771-04-04 00:43 G	19169152.41	19169152.53	19169152.66	0.0263	0.0200
Earth	47773-06-09 05:46 G	19169949.50	19169949.74	19169949.98	0.0269	0.0047
Moon	47773-06-09 09:22 G	19169949.65	19169949.89	19169950.13	0.0269	0.0056 *
Venus	47780-01-17 23:17 G	19172363.26	19172363.47	19172363.68	0.0298	0.0031
Venus	47780-09-04 02:53 G	19172593.55	19172593.62	19172593.70	0.0300	0.0280
Mercury	47784-08-14 12:14 G	19174033.95	19174034.01	19174034.08	0.0301	0.0251
Mercury	47784-11-11 00:29 G	19174122.40	19174122.52	19174122.65	0.0300	0.0072
Mercury	47785-02-07 12:43 G	19174210.91	19174211.03	19174211.15	0.0299	0.0107
Mercury	47785-05-07 00:29 G	19174299.49	19174299.52	19174299.56	0.0299	0.0282
Earth	47786-12-07 22:34 G	19174879.20	19174879.44	19174879.69	0.0293	0.0047
Moon	47786-12-08 02:24 G	19174879.35	19174879.60	19174879.85	0.0293	0.0030 *
Venus	47793-04-05 16:05 G	19177190.09	19177190.17	19177190.28	0.0266	0.0237
Venus	47793-11-20 16:34 G	19177418.98	19177419.19	19177419.40	0.0264	0.0022

Venus	47794-07-07 15:22 G	19177648.00	19177648.14	19177648.29	0.0262	0.0187
Mercury	47800-02-25 04:19 G	19179706.58	19179706.68	19179706.79	0.0262	0.0218
Mercury	47800-05-25 01:55 G	19179795.39	19179795.58	19179795.78	0.0262	0.0037
Mercury	47800-08-21 23:31 G	19179884.33	19179884.48	19179884.65	0.0263	0.0147
Earth	47802-06-05 08:38 G	19180536.81	19180536.86	19180536.94	0.0268	0.0258
Moon	47803-06-17 07:12 G	19180913.68	19180913.80	19180913.93	0.0272	0.0227
Earth	47803-06-17 08:24 G	19180913.72	19180913.85	19180913.98	0.0272	0.0228 *
Venus	47808-12-13 04:19 G	19182919.66	19182919.68	19182919.71	0.0296	0.0294
Venus	47809-07-31 06:58 G	19183149.58	19183149.79	19183150.00	0.0299	0.0011
Mars	47811-07-03 05:46 G	19183851.56	19183851.74	19183851.95	0.0302	0.0218
Mercury	47814-01-02 14:53 G	19184766.11	19184766.12	19184766.13	0.0300	0.0298
Mercury	47814-04-01 02:53 G	19184854.51	19184854.62	19184854.74	0.0300	0.0119
Mercury	47814-06-28 15:07 G	19184943.01	19184943.13	19184943.26	0.0299	0.0060
Mercury	47814-09-25 03:07 G	19185031.56	19185031.63	19185031.71	0.0298	0.0236
Venus	47822-10-17 21:22 G	19187976.27	19187976.39	19187976.54	0.0266	0.0205
Venus	47823-06-03 21:36 G	19188205.19	19188205.40	19188205.62	0.0264	0.0010
Venus	47824-01-18 20:24 G	19188434.24	19188434.35	19188434.47	0.0263	0.0219
Mercury	47829-07-15 04:48 G	19190438.68	19190438.70	19190438.72	0.0262	0.0259
Mercury	47829-10-12 02:10 G	19190527.41	19190527.59	19190527.78	0.0262	0.0078
Mercury	47830-01-08 23:46 G	19190616.32	19190616.49	19190616.67	0.0263	0.0106
Earth	47832-06-11 13:41 G	19191500.83	19191501.07	19191501.31	0.0270	0.0015
Moon	47832-06-11 15:07 G	19191500.88	19191501.13	19191501.38	0.0270	0.0009 *
Venus	47838-06-25 12:43 G	19193705.93	19193706.03	19193706.15	0.0296	0.0247
Venus	47839-02-10 15:22 G	19193935.93	19193936.14	19193936.35	0.0298	0.0058
Mercury	47843-08-19 05:02 G	19195586.61	19195586.71	19195586.82	0.0300	0.0170
Mercury	47843-11-15 17:17 G	19195675.09	19195675.22	19195675.35	0.0300	0.0009
Mercury	47844-02-12 05:17 G	19195763.62	19195763.72	19195763.82	0.0299	0.0186
Moon	47845-12-10 08:38 G	19196430.61	19196430.86	19196431.12	0.0292	0.0041
Earth	47845-12-10 08:53 G	19196430.63	19196430.87	19196431.12	0.0292	0.0025 *
Venus	47852-04-29 00:14 G	19198762.36	19198762.51	19198762.67	0.0265	0.0176

Venus	47852-12-14 00:29 G	19198991.31	19198991.52	19198991.73	0.0264	0.0038
Venus	47853-07-30 23:02 G	19199220.40	19199220.46	19199220.54	0.0262	0.0246
Mars	47855-08-08 19:41 G	19199959.03	19199959.32	19199959.62	0.0260	0.0066
Mercury	47859-03-01 01:26 G	19201259.39	19201259.56	19201259.73	0.0262	0.0128
Mercury	47859-05-28 23:02 G	19201348.27	19201348.46	19201348.65	0.0263	0.0055
Mercury	47859-08-25 20:53 G	19201437.29	19201437.37	19201437.45	0.0263	0.0240
Moon	47861-06-06 15:22 G	19202088.00	19202088.14	19202088.29	0.0269	0.0208
Earth	47861-06-06 17:31 G	19202088.06	19202088.23	19202088.39	0.0269	0.0196 *
Venus	47868-01-05 21:22 G	19204492.25	19204492.39	19204492.55	0.0297	0.0205
Venus	47868-08-23 00:14 G	19204722.31	19204722.51	19204722.71	0.0299	0.0102
Mercury	47873-01-05 07:55 G	19206318.74	19206318.83	19206318.92	0.0300	0.0211
Mercury	47873-04-03 20:10 G	19206407.21	19206407.34	19206407.47	0.0299	0.0032
Mercury	47873-07-01 08:10 G	19206495.73	19206495.84	19206495.96	0.0299	0.0146
Earth	47874-12-04 11:31 G	19207016.86	19207016.98	19207017.11	0.0293	0.0252
Moon	47874-12-04 11:46 G	19207016.87	19207016.99	19207017.14	0.0293	0.0239 *
Venus	47881-11-09 06:43 G	19209548.61	19209548.78	19209548.97	0.0265	0.0141
Venus	47882-06-26 06:29 G	19209777.57	19209777.77	19209777.98	0.0264	0.0073
Mercury	47888-07-18 02:10 G	19211991.44	19211991.59	19211991.74	0.0262	0.0165
Mercury	47888-10-14 23:46 G	19212080.30	19212080.49	19212080.69	0.0263	0.0018
Mercury	47889-01-11 21:22 G	19212169.28	19212169.39	19212169.52	0.0263	0.0202
Moon	47891-06-13 21:50 G	19213052.17	19213052.41	19213052.65	0.0271	0.0079
Earth	47891-06-14 00:29 G	19213052.29	19213052.52	19213052.75	0.0271	0.0083 *
Venus	47897-07-18 07:41 G	19215278.65	19215278.82	19215279.01	0.0297	0.0153
Venus	47898-03-05 10:34 G	19215508.76	19215508.94	19215509.12	0.0299	0.0154
Mars	47899-11-27 22:34 G	19216141.19	19216141.44	19216141.71	0.0302	0.0121
Mercury	47902-05-26 10:34 G	19217050.88	19217050.94	19217051.01	0.0300	0.0255
Mercury	47902-08-22 22:48 G	19217139.33	19217139.45	19217139.58	0.0300	0.0076
Mercury	47902-11-19 11:02 G	19217227.84	19217227.96	19217228.08	0.0299	0.0102
Mercury	47903-02-15 22:48 G	19217316.41	19217316.45	19217316.50	0.0298	0.0277
Moon	47904-12-12 21:36 G	19217982.17	19217982.40	19217982.63	0.0291	0.0124

Earth	47904-12-13 00:58 G	19217982.32	19217982.54	19217982.77	0.0291	0.0109	*
Venus	47911-05-23 10:34 G	19220334.75	19220334.94	19220335.13	0.0265	0.0110	
Venus	47912-01-07 10:19 G	19220563.74	19220563.93	19220564.13	0.0263	0.0102	
Mercury	47917-12-06 01:41 G	19222723.46	19222723.57	19222723.69	0.0262	0.0212	
Mercury	47918-03-04 23:31 G	19222812.28	19222812.48	19222812.67	0.0263	0.0030	
Mercury	47918-06-01 20:53 G	19222901.23	19222901.37	19222901.54	0.0263	0.0156	
Earth	47920-06-09 04:34 G	19223639.48	19223639.69	19223639.91	0.0269	0.0128	
Moon	47920-06-09 06:43 G	19223639.58	19223639.78	19223639.98	0.0269	0.0139	*
Venus	47927-01-29 17:17 G	19226065.02	19226065.22	19226065.41	0.0298	0.0109	
Venus	47927-09-16 20:10 G	19226295.19	19226295.34	19226295.50	0.0299	0.0201	
Mercury	47931-10-13 13:41 G	19227783.05	19227783.07	19227783.09	0.0300	0.0294	
Mercury	47932-01-10 01:55 G	19227871.46	19227871.58	19227871.70	0.0300	0.0115	
Mercury	47932-04-07 13:55 G	19227959.96	19227960.08	19227960.21	0.0299	0.0064	
Mercury	47932-07-05 01:55 G	19228048.51	19228048.58	19228048.66	0.0298	0.0239	
Earth	47933-12-07 05:31 G	19228568.53	19228568.73	19228568.93	0.0293	0.0165	
Moon	47933-12-07 08:53 G	19228568.66	19228568.87	19228569.08	0.0293	0.0149	*
Venus	47940-12-02 17:46 G	19231121.03	19231121.24	19231121.44	0.0265	0.0074	
Venus	47941-07-19 17:02 G	19231350.04	19231350.21	19231350.40	0.0263	0.0138	
Mars	47944-01-04 10:48 G	19232248.65	19232248.95	19232249.25	0.0260	0.0016	
Mercury	47947-04-25 02:38 G	19233455.56	19233455.61	19233455.68	0.0262	0.0247	
Mercury	47947-07-23 00:29 G	19233544.33	19233544.52	19233544.70	0.0263	0.0065	
Mercury	47947-10-19 22:05 G	19233633.25	19233633.42	19233633.59	0.0263	0.0119	
Moon	47950-06-16 09:36 G	19234603.71	19234603.90	19234604.11	0.0271	0.0150	
Earth	47950-06-16 12:58 G	19234603.84	19234604.04	19234604.24	0.0271	0.0155	*
Venus	47956-08-11 04:19 G	19236851.47	19236851.68	19236851.89	0.0297	0.0054	
Venus	47957-03-29 07:26 G	19237081.71	19237081.81	19237081.92	0.0299	0.0255	
Mercury	47961-05-29 05:02 G	19238603.60	19238603.71	19238603.82	0.0300	0.0153	
Mercury	47961-08-25 17:02 G	19238692.08	19238692.21	19238692.34	0.0299	0.0026	
Mercury	47961-11-22 05:02 G	19238780.62	19238780.71	19238780.81	0.0299	0.0202	
Moon	47963-12-15 18:14 G	19239534.10	19239534.26	19239534.43	0.0291	0.0215	

Earth	47963-12-15 20:38 G	19239534.20	19239534.36	19239534.55	0.0291	0.0200	*
Venus	47969-10-28 21:50 G	19241678.37	19241678.41	19241678.47	0.0266	0.0257	
Venus	47970-06-14 22:34 G	19241907.23	19241907.44	19241907.65	0.0264	0.0041	
Venus	47971-01-29 21:36 G	19242136.25	19242136.40	19242136.57	0.0263	0.0170	
Mercury	47976-12-09 00:14 G	19244276.33	19244276.51	19244276.68	0.0262	0.0110	
Mercury	47977-03-07 21:50 G	19244365.22	19244365.41	19244365.60	0.0263	0.0074	
Mercury	47977-06-04 19:41 G	19244454.29	19244454.32	19244454.35	0.0264	0.0259	
Earth	47979-06-11 17:02 G	19245190.97	19245191.21	19245191.45	0.0270	0.0058	
Moon	47979-06-11 20:38 G	19245191.12	19245191.36	19245191.60	0.0270	0.0068	*
Venus	47986-02-21 14:10 G	19247637.88	19247638.09	19247638.30	0.0298	0.0009	
Mars	47988-04-25 06:58 G	19248431.50	19248431.79	19248432.07	0.0302	0.0003	
Mercury	47990-10-16 07:55 G	19249335.74	19249335.83	19249335.93	0.0300	0.0191	
Mercury	47991-01-12 20:10 G	19249424.21	19249424.34	19249424.47	0.0299	0.0013	
Mercury	47991-04-11 08:10 G	19249512.74	19249512.84	19249512.95	0.0299	0.0165	
Earth	47992-12-09 02:38 G	19250120.37	19250120.61	19250120.85	0.0292	0.0071	
Moon	47992-12-09 05:31 G	19250120.48	19250120.73	19250120.97	0.0292	0.0055	*
Venus	47999-05-11 05:02 G	19252464.60	19252464.71	19252464.84	0.0266	0.0220	
Venus	47999-12-26 05:46 G	19252693.53	19252693.74	19252693.95	0.0264	0.0005	
Venus	48000-08-11 04:48 G	19252922.57	19252922.70	19252922.84	0.0263	0.0206	

49TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 49th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Mercury	48006-04-28 01:12 G	19255008.39	19255008.55	19255008.72	0.0263	0.0144
Mercury	48006-07-25 22:48 G	19255097.26	19255097.45	19255097.65	0.0263	0.0040
Mercury	48006-10-22 20:38 G	19255186.26	19255186.36	19255186.46	0.0264	0.0225
Earth	48008-06-06 02:24 G	19255778.55	19255778.60	19255778.68	0.0268	0.0258
Earth	48009-06-18 02:24 G	19256155.48	19256155.60	19256155.74	0.0272	0.0229
Moon	48009-06-18 02:53 G	19256155.49	19256155.62	19256155.75	0.0272	0.0227 *
Venus	48015-01-17 00:00 G	19258194.39	19258194.50	19258194.60	0.0296	0.0256
Venus	48015-09-04 01:55 G	19258424.37	19258424.58	19258424.79	0.0298	0.0047
Mercury	48020-03-04 11:17 G	19260067.89	19260067.97	19260068.06	0.0300	0.0226
Mercury	48020-05-31 23:31 G	19260156.35	19260156.48	19260156.61	0.0299	0.0047
Mercury	48020-08-28 11:31 G	19260244.87	19260244.98	19260245.10	0.0299	0.0130
Venus	48028-11-20 11:02 G	19263250.81	19263250.96	19263251.11	0.0266	0.0186
Venus	48029-07-07 11:02 G	19263479.75	19263479.96	19263480.17	0.0264	0.0029
Venus	48030-02-21 09:50 G	19263708.83	19263708.91	19263709.00	0.0262	0.0238
Mars	48032-05-30 23:31 G	19264538.21	19264538.48	19264538.77	0.0260	0.0090
Mercury	48035-09-15 00:58 G	19265740.41	19265740.54	19265740.68	0.0262	0.0189
Mercury	48035-12-12 22:34 G	19265829.25	19265829.44	19265829.64	0.0263	0.0008
Mercury	48036-03-10 20:10 G	19265918.21	19265918.34	19265918.49	0.0263	0.0179
Moon	48038-06-13 05:17 G	19266742.47	19266742.72	19266742.97	0.0270	0.0007
Earth	48038-06-13 05:31 G	19266742.49	19266742.73	19266742.97	0.0270	0.0014 *
Venus	48044-07-29 08:10 G	19268980.70	19268980.84	19268980.99	0.0297	0.0215
Venus	48045-03-16 10:48 G	19269210.75	19269210.95	19269211.15	0.0299	0.0091
Mercury	48049-07-22 14:10 G	19270800.04	19270800.09	19270800.15	0.0300	0.0268
Mercury	48049-10-19 02:24 G	19270888.48	19270888.60	19270888.72	0.0300	0.0088
Mercury	48050-01-15 14:38 G	19270976.98	19270977.11	19270977.23	0.0299	0.0091
Mercury	48050-04-14 02:24 G	19271065.55	19271065.60	19271065.66	0.0298	0.0266
Moon	48051-12-11 22:19 G	19271672.18	19271672.43	19271672.68	0.0292	0.0040
Earth	48051-12-12 00:00 G	19271672.25	19271672.50	19271672.75	0.0292	0.0024 *
Venus	48058-06-02 18:00 G	19274037.08	19274037.25	19274037.43	0.0265	0.0149
Venus	48059-01-17 18:00 G	19274266.05	19274266.25	19274266.46	0.0264	0.0066

Mercury	48065-02-01 01:55 G	19276472.49	19276472.58	19276472.68	0.0262	0.0224
Mercury	48065-04-30 23:31 G	19276561.29	19276561.48	19276561.68	0.0263	0.0042
Mercury	48065-07-28 21:22 G	19276650.23	19276650.39	19276650.55	0.0264	0.0143
Earth	48067-06-08 13:41 G	19277329.91	19277330.07	19277330.25	0.0269	0.0189
Moon	48067-06-08 13:41 G	19277329.93	19277330.07	19277330.24	0.0269	0.0200 *
Venus	48074-02-08 19:41 G	19279767.15	19279767.32	19279767.50	0.0297	0.0161
Venus	48074-09-26 22:19 G	19279997.25	19279997.43	19279997.62	0.0299	0.0146
Mars	48076-09-20 17:46 G	19280721.98	19280722.24	19280722.50	0.0302	0.0125
Mercury	48079-03-08 05:46 G	19281620.62	19281620.74	19281620.86	0.0300	0.0122
Mercury	48079-06-04 18:00 G	19281709.12	19281709.25	19281709.37	0.0299	0.0057
Mercury	48079-09-01 06:00 G	19281797.67	19281797.75	19281797.82	0.0298	0.0233
Earth	48080-12-05 04:34 G	19282258.56	19282258.69	19282258.83	0.0294	0.0247
Moon	48080-12-05 06:43 G	19282258.64	19282258.78	19282258.94	0.0294	0.0231 *
Venus	48087-12-14 00:00 G	19284823.31	19284823.50	19284823.70	0.0265	0.0115
Venus	48088-07-29 23:31 G	19285052.29	19285052.48	19285052.68	0.0263	0.0098
Mercury	48094-09-17 23:02 G	19287293.28	19287293.46	19287293.65	0.0262	0.0089
Mercury	48094-12-15 20:53 G	19287382.19	19287382.37	19287382.55	0.0263	0.0095
Moon	48097-06-14 12:43 G	19288293.80	19288294.03	19288294.27	0.0271	0.0081
Earth	48097-06-14 16:34 G	19288293.96	19288294.19	19288294.43	0.0271	0.0084 *
Venus	48103-08-23 03:22 G	19290553.45	19290553.64	19290553.83	0.0298	0.0121
Venus	48104-04-09 06:14 G	19290783.60	19290783.76	19290783.93	0.0299	0.0188
Mercury	48108-07-26 08:24 G	19292352.74	19292352.85	19292352.95	0.0300	0.0167
Mercury	48108-10-22 20:24 G	19292441.23	19292441.35	19292441.48	0.0299	0.0016
Mercury	48109-01-19 08:38 G	19292529.76	19292529.86	19292529.96	0.0299	0.0189
Moon	48110-12-14 15:36 G	19293223.94	19293224.15	19293224.38	0.0291	0.0132
Earth	48110-12-14 19:41 G	19293224.09	19293224.32	19293224.55	0.0291	0.0116 *
Venus	48117-06-26 06:14 G	19295609.56	19295609.76	19295609.97	0.0265	0.0079
Venus	48118-02-10 05:46 G	19295838.56	19295838.74	19295838.92	0.0263	0.0133
Mars	48120-10-26 17:02 G	19296828.00	19296828.21	19296828.44	0.0260	0.0174
Mercury	48124-02-05 23:46 G	19298025.32	19298025.49	19298025.66	0.0263	0.0127

Mercury	48124-05-04 21:22 G	19298114.20	19298114.39	19298114.58	0.0263	0.0056
Mercury	48124-08-01 18:58 G	19298203.22	19298203.29	19298203.37	0.0264	0.0242
Earth	48126-06-10 23:17 G	19298881.25	19298881.47	19298881.69	0.0269	0.0123
Moon	48126-06-11 02:38 G	19298881.40	19298881.61	19298881.82	0.0269	0.0130 *
Venus	48133-03-04 13:26 G	19301339.86	19301340.06	19301340.27	0.0297	0.0070
Venus	48133-10-20 16:34 G	19301570.08	19301570.19	19301570.32	0.0299	0.0240
Mercury	48137-12-13 11:17 G	19303084.88	19303084.97	19303085.07	0.0300	0.0206
Mercury	48138-03-11 23:31 G	19303173.35	19303173.48	19303173.61	0.0300	0.0027
Mercury	48138-06-08 11:31 G	19303261.87	19303261.98	19303262.09	0.0299	0.0152
Earth	48139-12-08 23:02 G	19303810.27	19303810.46	19303810.68	0.0294	0.0157
Moon	48139-12-09 02:53 G	19303810.41	19303810.62	19303810.84	0.0294	0.0139 *
Venus	48146-05-22 11:17 G	19306166.95	19306166.97	19306167.01	0.0266	0.0263
Venus	48147-01-06 12:00 G	19306395.79	19306396.00	19306396.21	0.0264	0.0047
Venus	48147-08-23 11:02 G	19306624.80	19306624.96	19306625.13	0.0263	0.0164
Mercury	48153-06-24 23:02 G	19308757.32	19308757.46	19308757.61	0.0262	0.0175
Mercury	48153-09-21 20:38 G	19308846.17	19308846.36	19308846.55	0.0262	0.0007
Mercury	48153-12-19 18:00 G	19308935.13	19308935.25	19308935.39	0.0263	0.0191
Moon	48156-06-16 23:17 G	19309845.27	19309845.47	19309845.67	0.0271	0.0149
Earth	48156-06-17 00:43 G	19309845.33	19309845.53	19309845.73	0.0271	0.0149 *
Venus	48162-09-14 19:26 G	19312126.10	19312126.31	19312126.52	0.0298	0.0034
Venus	48163-05-02 22:34 G	19312356.38	19312356.44	19312356.53	0.0300	0.0279
Mars	48165-02-16 05:31 G	19313011.55	19313011.73	19313011.94	0.0303	0.0220
Mercury	48167-05-02 13:26 G	19313817.00	19313817.06	19313817.13	0.0301	0.0258
Mercury	48167-07-30 01:41 G	19313905.45	19313905.57	19313905.70	0.0300	0.0078
Mercury	48167-10-26 13:55 G	19313993.96	19313994.08	19313994.20	0.0299	0.0101
Mercury	48168-01-23 01:55 G	19314082.53	19314082.58	19314082.62	0.0299	0.0277
Moon	48169-12-16 10:05 G	19314775.78	19314775.92	19314776.09	0.0291	0.0216
Earth	48169-12-16 11:02 G	19314775.78	19314775.96	19314776.14	0.0291	0.0200 *
Venus	48175-12-02 16:48 G	19316953.09	19316953.20	19316953.30	0.0266	0.0229
Venus	48176-07-18 17:02 G	19317182.00	19317182.21	19317182.42	0.0264	0.0014

Venus	48177-03-04 15:50 G	19317411.02	19317411.16	19317411.31	0.0263	0.0196
Mars	48179-02-03 02:24 G	19318111.48	19318111.60	19318111.75	0.0260	0.0231
Mercury	48182-11-11 22:48 G	19319489.36	19319489.45	19319489.57	0.0262	0.0219
Mercury	48183-02-08 20:38 G	19319578.17	19319578.36	19319578.55	0.0263	0.0037
Mercury	48183-05-08 18:00 G	19319667.10	19319667.25	19319667.42	0.0263	0.0147
Earth	48185-06-12 05:31 G	19320432.49	19320432.73	19320432.97	0.0269	0.0061
Moon	48185-06-12 07:26 G	19320432.57	19320432.81	19320433.06	0.0269	0.0069 *
Venus	48191-08-10 02:24 G	19322682.57	19322682.60	19322682.66	0.0296	0.0288
Venus	48192-03-27 04:48 G	19322912.49	19322912.70	19322912.91	0.0298	0.0016
Mercury	48196-09-18 16:19 G	19324549.18	19324549.18	19324549.18	0.0301	0.0300
Mercury	48196-12-16 04:34 G	19324637.57	19324637.69	19324637.81	0.0300	0.0119
Mercury	48197-03-14 16:34 G	19324726.07	19324726.19	19324726.32	0.0299	0.0061
Mercury	48197-06-11 04:34 G	19324814.62	19324814.69	19324814.77	0.0299	0.0237
Earth	48198-12-10 13:41 G	19325361.83	19325362.07	19325362.31	0.0293	0.0073
Moon	48198-12-10 13:55 G	19325361.83	19325362.08	19325362.33	0.0293	0.0059 *
Venus	48205-06-14 21:50 G	19327739.28	19327739.41	19327739.56	0.0266	0.0198
Venus	48206-01-29 21:50 G	19327968.20	19327968.41	19327968.63	0.0264	0.0017
Venus	48206-09-15 20:24 G	19328197.25	19328197.35	19328197.46	0.0262	0.0226
Mars	48209-03-23 21:22 G	19329117.29	19329117.39	19329117.52	0.0259	0.0238
Mercury	48212-06-28 19:26 G	19330310.13	19330310.31	19330310.50	0.0262	0.0089
Mercury	48212-09-25 17:02 G	19330399.03	19330399.21	19330399.39	0.0262	0.0094
Earth	48215-06-20 05:17 G	19331396.58	19331396.72	19331396.89	0.0271	0.0209
Moon	48215-06-20 08:10 G	19331396.70	19331396.84	19331396.99	0.0271	0.0212 *
Venus	48221-02-20 06:00 G	19333468.66	19333468.75	19333468.86	0.0296	0.0258
Venus	48221-10-08 08:24 G	19333698.64	19333698.85	19333699.06	0.0299	0.0047
Mercury	48226-05-06 06:00 G	19335369.65	19335369.75	19335369.86	0.0301	0.0180
Mercury	48226-08-02 18:14 G	19335458.13	19335458.26	19335458.39	0.0300	0.0003
Mercury	48226-10-30 06:14 G	19335546.66	19335546.76	19335546.87	0.0299	0.0178
Earth	48228-12-18 20:38 G	19336327.29	19336327.36	19336327.45	0.0291	0.0274
Moon	48228-12-19 00:00 G	19336327.47	19336327.50	19336327.54	0.0291	0.0287

Venus	48234-12-26 01:41 G	19338525.40	19338525.57	19338525.73	0.0265	0.0168
Venus	48235-08-12 01:26 G	19338754.35	19338754.56	19338754.77	0.0264	0.0046
Venus	48236-03-28 00:00 G	19338983.46	19338983.50	19338983.55	0.0262	0.0255
Mercury	48241-11-15 18:43 G	19341042.12	19341042.28	19341042.45	0.0262	0.0138
Mercury	48242-02-12 16:19 G	19341130.99	19341131.18	19341131.37	0.0263	0.0044
Mercury	48242-05-12 13:55 G	19341219.99	19341220.08	19341220.18	0.0263	0.0228
Moon	48244-06-14 06:00 G	19341983.50	19341983.75	19341984.00	0.0269	0.0009
Earth	48244-06-14 08:10 G	19341983.60	19341983.84	19341984.09	0.0269	0.0007 *
Venus	48250-09-02 13:12 G	19344254.92	19344255.05	19344255.21	0.0296	0.0216
Venus	48251-04-20 15:50 G	19344484.97	19344485.16	19344485.37	0.0298	0.0092
Mars	48253-07-14 05:31 G	19345300.66	19345300.73	19345300.84	0.0303	0.0286
Mercury	48255-09-23 08:24 G	19346101.77	19346101.85	19346101.93	0.0301	0.0228
Mercury	48255-12-20 20:38 G	19346190.23	19346190.36	19346190.49	0.0300	0.0048
Mercury	48256-03-18 08:38 G	19346278.75	19346278.86	19346278.98	0.0299	0.0131
Moon	48257-12-12 18:14 G	19346913.01	19346913.26	19346913.51	0.0293	0.0011
Earth	48257-12-12 21:36 G	19346913.15	19346913.40	19346913.65	0.0293	0.0003 *
Venus	48264-07-07 06:00 G	19349311.57	19349311.75	19349311.94	0.0265	0.0138
Venus	48265-02-21 05:31 G	19349540.53	19349540.73	19349540.94	0.0263	0.0075
Mars	48267-06-30 23:31 G	19350400.27	19350400.48	19350400.71	0.0259	0.0173
Mercury	48271-04-04 17:17 G	19351774.10	19351774.22	19351774.36	0.0261	0.0192
Mercury	48271-07-02 14:53 G	19351862.93	19351863.12	19351863.31	0.0262	0.0012
Mercury	48271-09-29 12:14 G	19351951.87	19351952.01	19351952.16	0.0262	0.0171
Earth	48273-06-09 08:38 G	19352570.74	19352570.86	19352571.01	0.0267	0.0222
Moon	48273-06-09 10:48 G	19352570.84	19352570.95	19352571.07	0.0267	0.0231 *
Earth	48274-06-21 06:29 G	19352947.72	19352947.77	19352947.84	0.0271	0.0261
Moon	48274-06-21 09:36 G	19352947.86	19352947.90	19352947.96	0.0271	0.0265
Venus	48280-03-14 15:22 G	19355040.99	19355041.14	19355041.31	0.0297	0.0188
Venus	48280-10-30 18:14 G	19355271.07	19355271.26	19355271.45	0.0299	0.0120
Mercury	48285-02-09 09:22 G	19356833.87	19356833.89	19356833.92	0.0301	0.0296
Mercury	48285-05-08 21:50 G	19356922.29	19356922.41	19356922.53	0.0301	0.0114

Mercury	48285-08-05 09:50 G	19357010.79	19357010.91	19357011.04	0.0300	0.0067
Mercury	48285-11-01 21:50 G	19357099.35	19357099.41	19357099.49	0.0299	0.0244
Moon	48286-12-06 15:07 G	19357499.11	19357499.13	19357499.18	0.0295	0.0292
Venus	48294-01-17 08:10 G	19360097.65	19360097.84	19360098.03	0.0265	0.0111
Venus	48294-09-03 07:26 G	19360326.62	19360326.81	19360327.02	0.0263	0.0103
Mercury	48300-08-22 15:50 G	19362506.11	19362506.16	19362506.24	0.0261	0.0247
Mercury	48300-11-19 13:26 G	19362594.88	19362595.06	19362595.25	0.0262	0.0066
Mercury	48301-02-16 11:02 G	19362683.79	19362683.96	19362684.13	0.0262	0.0117
Moon	48303-06-17 04:19 G	19363534.44	19363534.68	19363534.92	0.0269	0.0043
Earth	48303-06-17 07:41 G	19363534.58	19363534.82	19363535.06	0.0269	0.0044 *
Venus	48309-09-25 21:36 G	19365827.21	19365827.40	19365827.58	0.0297	0.0148
Venus	48310-05-14 00:14 G	19366057.34	19366057.51	19366057.69	0.0299	0.0161
Mercury	48314-09-26 23:31 G	19367654.38	19367654.48	19367654.59	0.0301	0.0169
Mercury	48314-12-24 11:46 G	19367742.87	19367742.99	19367743.12	0.0300	0.0015
Mercury	48315-03-23 00:00 G	19367831.40	19367831.50	19367831.60	0.0299	0.0190
Moon	48316-12-14 21:22 G	19368464.16	19368464.39	19368464.63	0.0293	0.0070
Earth	48316-12-14 23:46 G	19368464.25	19368464.49	19368464.73	0.0293	0.0056 *
Venus	48323-07-31 11:46 G	19370883.79	19370883.99	19370884.19	0.0265	0.0084
Venus	48324-03-16 11:02 G	19371112.78	19371112.96	19371113.15	0.0263	0.0129
Mercury	48330-04-08 11:46 G	19373326.82	19373326.99	19373327.16	0.0261	0.0123
Mercury	48330-07-06 09:07 G	19373415.70	19373415.88	19373416.07	0.0262	0.0059
Mercury	48330-10-03 06:29 G	19373504.71	19373504.77	19373504.86	0.0262	0.0242
Earth	48332-06-11 07:26 G	19374121.63	19374121.81	19374122.00	0.0267	0.0175
Moon	48332-06-11 10:48 G	19374121.78	19374121.95	19374122.14	0.0267	0.0180 *
Venus	48339-04-07 22:05 G	19376613.23	19376613.42	19376613.62	0.0297	0.0124
Venus	48339-11-24 00:58 G	19376843.38	19376843.54	19376843.71	0.0299	0.0185
Mars	48341-12-07 16:19 G	19377588.15	19377588.18	19377588.22	0.0303	0.0300
Mercury	48344-02-14 00:14 G	19378386.44	19378386.51	19378386.59	0.0301	0.0242
Mercury	48344-05-12 12:29 G	19378474.90	19378475.02	19378475.15	0.0301	0.0061
Mercury	48344-08-09 00:43 G	19378563.41	19378563.53	19378563.65	0.0300	0.0120

Mercury	48344-11-05 12:43 G	19378652.02	19378652.03	19378652.05	0.0299	0.0297
Earth	48345-12-08 11:17 G	19379049.85	19379049.97	19379050.09	0.0295	0.0254
Moon	48345-12-08 12:43 G	19379049.89	19379050.03	19379050.18	0.0295	0.0239 *
Venus	48353-02-09 12:29 G	19381669.81	19381670.02	19381670.23	0.0265	0.0059
Venus	48353-09-26 11:31 G	19381898.82	19381898.98	19381899.16	0.0263	0.0153
Mars	48355-11-25 05:31 G	19382688.48	19382688.73	19382688.98	0.0259	0.0137
Mercury	48359-08-26 09:50 G	19384058.78	19384058.91	19384059.05	0.0261	0.0182
Mercury	48359-11-23 07:12 G	19384147.61	19384147.80	19384148.00	0.0262	0.0007
Mercury	48360-02-20 04:34 G	19384236.56	19384236.69	19384236.84	0.0262	0.0182
Earth	48362-06-18 04:05 G	19385085.44	19385085.67	19385085.90	0.0269	0.0087
Moon	48362-06-18 05:02 G	19385085.49	19385085.71	19385085.93	0.0269	0.0092 *
Venus	48368-10-18 02:53 G	19387399.42	19387399.62	19387399.82	0.0297	0.0087
Venus	48369-06-05 06:00 G	19387629.62	19387629.75	19387629.90	0.0299	0.0223
Mercury	48373-07-03 01:55 G	19389118.57	19389118.58	19389118.59	0.0301	0.0300
Mercury	48373-09-29 14:10 G	19389206.98	19389207.09	19389207.21	0.0300	0.0118
Mercury	48373-12-27 02:24 G	19389295.48	19389295.60	19389295.73	0.0300	0.0062
Mercury	48374-03-25 14:38 G	19389384.03	19389384.11	19389384.18	0.0299	0.0240
Earth	48375-12-16 21:36 G	19390015.18	19390015.40	19390015.63	0.0293	0.0107
Moon	48375-12-17 00:00 G	19390015.28	19390015.50	19390015.72	0.0293	0.0118 *
Venus	48382-01-05 14:38 G	19392227.05	19392227.11	19392227.19	0.0267	0.0251
Venus	48382-08-22 15:36 G	19392455.94	19392456.15	19392456.36	0.0265	0.0033
Venus	48383-04-08 14:38 G	19392684.96	19392685.11	19392685.27	0.0263	0.0178
Mercury	48389-01-12 07:55 G	19394790.77	19394790.83	19394790.91	0.0261	0.0240
Mercury	48389-04-11 05:31 G	19394879.54	19394879.73	19394879.92	0.0261	0.0060
Mercury	48389-07-09 02:53 G	19394968.45	19394968.62	19394968.79	0.0262	0.0121
Moon	48391-06-13 02:38 G	19395672.39	19395672.61	19395672.83	0.0267	0.0130
Earth	48391-06-13 03:36 G	19395672.45	19395672.65	19395672.87	0.0267	0.0133 *
Venus	48398-04-30 03:07 G	19398185.42	19398185.63	19398185.84	0.0297	0.0063
Venus	48398-12-16 06:00 G	19398415.64	19398415.75	19398415.87	0.0299	0.0246
Mercury	48403-02-16 14:38 G	19399939.01	19399939.11	19399939.21	0.0301	0.0195

Mercury	48403-05-16 02:53 G	19400027.49	19400027.62	19400027.75	0.0301	0.0014
Mercury	48403-08-12 14:53 G	19400116.02	19400116.12	19400116.23	0.0300	0.0166
Moon	48404-12-09 03:36 G	19400600.47	19400600.65	19400600.84	0.0295	0.0197
Earth	48404-12-09 06:43 G	19400600.62	19400600.78	19400600.97	0.0295	0.0208 *
Venus	48411-07-18 14:24 G	19403013.00	19403013.10	19403013.22	0.0266	0.0228
Venus	48412-03-03 15:07 G	19403241.92	19403242.13	19403242.34	0.0264	0.0011
Venus	48412-10-18 14:10 G	19403470.96	19403471.09	19403471.23	0.0263	0.0200
Mercury	48418-08-29 03:07 G	19405611.46	19405611.63	19405611.81	0.0261	0.0122
Mercury	48418-11-26 00:29 G	19405700.34	19405700.52	19405700.71	0.0262	0.0059
Mercury	48419-02-22 21:50 G	19405789.35	19405789.41	19405789.49	0.0262	0.0242
Earth	48421-06-18 23:02 G	19406636.26	19406636.46	19406636.69	0.0269	0.0130
Moon	48421-06-19 03:07 G	19406636.42	19406636.63	19406636.84	0.0269	0.0138 *
Venus	48427-11-10 06:58 G	19408971.58	19408971.79	19408972.00	0.0297	0.0029
Venus	48428-06-27 10:05 G	19409201.86	19409201.92	19409202.00	0.0299	0.0282
Mercury	48432-07-05 15:50 G	19410671.10	19410671.16	19410671.23	0.0301	0.0257
Mercury	48432-10-02 04:19 G	19410759.55	19410759.68	19410759.80	0.0300	0.0075
Mercury	48432-12-29 16:34 G	19410848.07	19410848.19	19410848.31	0.0300	0.0105
Mercury	48433-03-28 04:34 G	19410936.65	19410936.69	19410936.73	0.0299	0.0282
Earth	48434-12-17 15:50 G	19411565.95	19411566.16	19411566.37	0.0293	0.0150
Moon	48434-12-17 19:12 G	19411566.09	19411566.30	19411566.51	0.0293	0.0157 *
Venus	48441-01-27 17:02 G	19413799.08	19413799.21	19413799.36	0.0266	0.0203
Venus	48441-09-13 17:46 G	19414028.03	19414028.24	19414028.45	0.0265	0.0015
Venus	48442-04-30 16:48 G	19414257.09	19414257.20	19414257.31	0.0263	0.0225
Mars	48444-04-19 07:26 G	19414976.54	19414976.81	19414977.09	0.0260	0.0103
Mercury	48448-01-16 01:12 G	19416343.42	19416343.55	19416343.69	0.0261	0.0181
Mercury	48448-04-13 22:34 G	19416432.25	19416432.44	19416432.64	0.0261	0.0003
Mercury	48448-07-11 19:55 G	19416521.20	19416521.33	19416521.47	0.0262	0.0180
Moon	48450-06-13 19:26 G	19417223.08	19417223.31	19417223.54	0.0267	0.0085
Earth	48450-06-13 23:02 G	19417223.23	19417223.46	19417223.69	0.0267	0.0092 *
Venus	48457-05-22 06:58 G	19419757.58	19419757.79	19419758.00	0.0297	0.0005

Mercury	48462-02-19 04:34 G	19421491.58	19421491.69	19421491.80	0.0301	0.0153
Mercury	48462-05-18 16:48 G	19421580.07	19421580.20	19421580.33	0.0301	0.0028
Mercury	48462-08-15 05:02 G	19421668.61	19421668.71	19421668.80	0.0300	0.0207
Moon	48463-12-10 22:19 G	19422151.24	19422151.43	19422151.64	0.0295	0.0161
Earth	48463-12-11 00:29 G	19422151.33	19422151.52	19422151.74	0.0295	0.0165 *
Venus	48470-08-09 16:34 G	19424585.03	19424585.19	19424585.34	0.0266	0.0181
Venus	48471-03-26 17:02 G	19424814.00	19424814.21	19424814.42	0.0264	0.0036
Venus	48471-11-10 16:05 G	19425043.10	19425043.17	19425043.25	0.0263	0.0246
Mercury	48477-06-03 22:48 G	19427075.39	19427075.45	19427075.52	0.0261	0.0244
Mercury	48477-08-31 20:10 G	19427164.15	19427164.34	19427164.53	0.0261	0.0065
Mercury	48477-11-28 17:31 G	19427253.06	19427253.23	19427253.41	0.0262	0.0117
Moon	48480-06-19 18:00 G	19428187.06	19428187.25	19428187.43	0.0269	0.0181
Earth	48480-06-19 18:00 G	19428187.07	19428187.25	19428187.45	0.0269	0.0169 *
Venus	48486-04-16 09:07 G	19430313.81	19430313.88	19430313.96	0.0295	0.0273
Venus	48486-12-02 10:34 G	19430543.73	19430543.94	19430544.15	0.0297	0.0029
Mercury	48491-07-09 05:46 G	19432223.66	19432223.74	19432223.84	0.0301	0.0216
Mercury	48491-10-05 18:14 G	19432312.13	19432312.26	19432312.39	0.0300	0.0034
Mercury	48492-01-02 06:29 G	19432400.65	19432400.77	19432400.88	0.0300	0.0146
Moon	48493-12-18 07:12 G	19433116.61	19433116.80	19433117.00	0.0293	0.0190
Earth	48493-12-18 08:53 G	19433116.70	19433116.87	19433117.07	0.0293	0.0192 *
Venus	48500-02-19 18:58 G	19435371.12	19435371.29	19435371.47	0.0266	0.0155
Venus	48500-10-06 19:26 G	19435600.10	19435600.31	19435600.52	0.0265	0.0061
Mercury	48507-01-19 18:29 G	19437896.10	19437896.27	19437896.44	0.0261	0.0122
Mercury	48507-04-18 15:50 G	19437984.97	19437985.16	19437985.35	0.0261	0.0059
Mercury	48507-07-16 13:12 G	19438073.98	19438074.05	19438074.13	0.0262	0.0241
Earth	48509-06-15 18:58 G	19438774.05	19438774.29	19438774.53	0.0267	0.0051
Moon	48509-06-15 18:58 G	19438774.06	19438774.29	19438774.52	0.0267	0.0042 *
Venus	48515-10-28 10:05 G	19441099.81	19441099.92	19441100.04	0.0295	0.0246
Venus	48516-06-14 11:17 G	19441329.77	19441329.97	19441330.18	0.0297	0.0056
Mars	48518-09-24 19:41 G	19442162.25	19442162.32	19442162.40	0.0303	0.0290

Mercury	48520-11-26 06:14 G	19442955.73	19442955.76	19442955.78	0.0302	0.0295
Mercury	48521-02-22 18:29 G	19443044.15	19443044.27	19443044.39	0.0301	0.0112
Mercury	48521-05-22 06:43 G	19443132.65	19443132.78	19443132.90	0.0301	0.0069
Mercury	48521-08-18 18:43 G	19443221.22	19443221.28	19443221.36	0.0300	0.0248
Earth	48522-12-12 17:31 G	19443702.01	19443702.23	19443702.46	0.0295	0.0124
Moon	48522-12-12 20:24 G	19443702.14	19443702.35	19443702.57	0.0295	0.0127 *
Venus	48529-09-01 17:46 G	19446157.07	19446157.24	19446157.43	0.0266	0.0135
Venus	48530-04-18 18:29 G	19446386.07	19446386.27	19446386.48	0.0264	0.0082
Mars	48532-09-12 21:50 G	19447264.14	19447264.41	19447264.70	0.0260	0.0087
Mercury	48536-06-07 16:05 G	19448628.04	19448628.17	19448628.31	0.0261	0.0185
Mercury	48536-09-04 13:26 G	19448716.87	19448717.06	19448717.25	0.0261	0.0005
Mercury	48536-12-02 10:34 G	19448805.81	19448805.94	19448806.09	0.0262	0.0177
Moon	48538-06-10 19:55 G	19449361.30	19449361.33	19449361.39	0.0266	0.0261
Earth	48538-06-10 19:26 G	19449361.31	19449361.31	19449361.33	0.0266	0.0266 *
Moon	48539-06-22 10:05 G	19449737.79	19449737.92	19449738.06	0.0269	0.0226
Earth	48539-06-22 13:41 G	19449737.93	19449738.07	19449738.23	0.0269	0.0211 *
Venus	48545-05-09 13:12 G	19451885.92	19451886.05	19451886.21	0.0295	0.0216
Venus	48545-12-25 15:07 G	19452115.93	19452116.13	19452116.33	0.0298	0.0088
Mercury	48550-07-12 19:55 G	19453776.23	19453776.33	19453776.44	0.0301	0.0173
Mercury	48550-10-09 08:10 G	19453864.71	19453864.84	19453864.97	0.0300	0.0009
Mercury	48551-01-05 20:24 G	19453953.25	19453953.35	19453953.45	0.0300	0.0188
Moon	48552-12-19 23:02 G	19454667.32	19454667.46	19454667.63	0.0293	0.0226
Earth	48552-12-20 02:53 G	19454667.48	19454667.62	19454667.77	0.0293	0.0233 *
Venus	48559-03-14 20:53 G	19456943.18	19456943.37	19456943.57	0.0266	0.0108
Venus	48559-10-29 21:22 G	19457172.20	19457172.39	19457172.59	0.0265	0.0108
Mercury	48565-10-25 14:38 G	19459360.05	19459360.11	19459360.19	0.0261	0.0239
Mercury	48566-01-22 12:00 G	19459448.82	19459449.00	19459449.19	0.0261	0.0060
Mercury	48566-04-21 09:22 G	19459537.72	19459537.89	19459538.06	0.0261	0.0121
Earth	48568-06-16 15:50 G	19460324.92	19460325.16	19460325.41	0.0267	0.0008
Moon	48568-06-16 19:26 G	19460325.06	19460325.31	19460325.55	0.0267	0.0006 *

Venus	48574-11-19 15:36 G	19462671.99	19462672.15	19462672.32	0.0295	0.0184
Venus	48575-07-07 17:02 G	19462902.02	19462902.21	19462902.41	0.0297	0.0119
Mercury	48579-11-29 20:24 G	19464508.28	19464508.35	19464508.42	0.0301	0.0248
Mercury	48580-02-26 08:38 G	19464596.74	19464596.86	19464596.99	0.0301	0.0066
Mercury	48580-05-24 20:53 G	19464685.25	19464685.37	19464685.49	0.0300	0.0115
Mercury	48580-08-21 09:07 G	19464773.86	19464773.88	19464773.90	0.0300	0.0293
Earth	48581-12-13 12:58 G	19465252.81	19465253.04	19465253.28	0.0295	0.0078
Moon	48581-12-13 16:05 G	19465252.93	19465253.17	19465253.41	0.0295	0.0085 *
Venus	48588-09-23 20:10 G	19467729.14	19467729.34	19467729.54	0.0266	0.0086
Venus	48589-05-10 20:38 G	19467958.18	19467958.36	19467958.55	0.0264	0.0130
Mercury	48595-06-11 09:50 G	19470180.74	19470180.91	19470181.08	0.0261	0.0121
Mercury	48595-09-08 07:12 G	19470269.61	19470269.80	19470269.99	0.0262	0.0059
Mercury	48595-12-06 04:19 G	19470358.62	19470358.68	19470358.77	0.0262	0.0242
Moon	48597-06-11 13:55 G	19470911.95	19470912.08	19470912.24	0.0266	0.0214
Earth	48597-06-11 17:31 G	19470912.11	19470912.23	19470912.37	0.0266	0.0222 *
Earth	48598-06-23 12:00 G	19471288.93	19471289.00	19471289.08	0.0269	0.0256
Venus	48604-06-01 20:10 G	19473458.16	19473458.34	19473458.52	0.0295	0.0151
Venus	48605-01-17 21:36 G	19473688.23	19473688.40	19473688.59	0.0298	0.0154
Mercury	48609-07-16 10:34 G	19475328.82	19475328.94	19475329.05	0.0301	0.0124
Mercury	48609-10-12 22:48 G	19475417.32	19475417.45	19475417.57	0.0300	0.0058
Mercury	48610-01-09 10:48 G	19475505.87	19475505.95	19475506.03	0.0299	0.0236
Earth	48611-12-22 23:02 G	19476218.39	19476218.46	19476218.53	0.0293	0.0279
Moon	48611-12-22 23:46 G	19476218.40	19476218.49	19476218.59	0.0293	0.0269 *
Venus	48618-04-06 23:46 G	19478515.28	19478515.49	19478515.70	0.0266	0.0058
Venus	48618-11-22 00:00 G	19478744.34	19478744.50	19478744.68	0.0265	0.0158
Mars	48621-02-07 03:50 G	19479552.37	19479552.66	19479552.95	0.0260	0.0049
Mercury	48624-10-29 08:53 G	19480912.73	19480912.87	19480913.02	0.0261	0.0172
Mercury	48625-01-26 06:14 G	19481001.57	19481001.76	19481001.96	0.0261	0.0009
Mercury	48625-04-25 03:36 G	19481090.52	19481090.65	19481090.79	0.0262	0.0190
Earth	48627-06-19 15:22 G	19481875.90	19481876.14	19481876.39	0.0267	0.0040

Moon	48627-06-19 17:02 G	19481875.97	19481876.21	19481876.46	0.0267	0.0052 *
Venus	48633-12-12 23:31 G	19484244.29	19484244.48	19484244.68	0.0295	0.0117
Venus	48634-07-31 01:12 G	19484474.39	19484474.55	19484474.71	0.0297	0.0187
Mercury	48638-12-03 11:17 G	19486060.87	19486060.97	19486061.07	0.0301	0.0194
Mercury	48639-03-01 23:31 G	19486149.35	19486149.48	19486149.61	0.0301	0.0013
Mercury	48639-05-29 11:46 G	19486237.88	19486237.99	19486238.09	0.0300	0.0167
Moon	48640-12-15 09:50 G	19486803.66	19486803.91	19486804.17	0.0295	0.0038
Earth	48640-12-15 11:31 G	19486803.74	19486803.98	19486804.23	0.0295	0.0027 *
Venus	48647-03-02 21:36 G	19489072.35	19489072.40	19489072.47	0.0268	0.0256
Venus	48647-10-17 23:46 G	19489301.28	19489301.49	19489301.70	0.0266	0.0034
Venus	48648-06-03 00:14 G	19489530.36	19489530.51	19489530.67	0.0264	0.0181
Mercury	48654-03-18 07:12 G	19491644.71	19491644.80	19491644.89	0.0261	0.0230
Mercury	48654-06-15 04:34 G	19491733.50	19491733.69	19491733.88	0.0261	0.0051
Mercury	48654-09-12 01:55 G	19491822.41	19491822.58	19491822.75	0.0262	0.0131
Moon	48656-06-13 15:50 G	19492462.99	19492463.16	19492463.36	0.0266	0.0164
Earth	48656-06-13 18:00 G	19492463.07	19492463.25	19492463.44	0.0266	0.0174 *
Venus	48663-06-25 05:17 G	19495030.52	19495030.72	19495030.92	0.0296	0.0080
Venus	48664-02-10 06:58 G	19495260.66	19495260.79	19495260.93	0.0298	0.0225
Mercury	48668-04-21 13:26 G	19496792.98	19496793.06	19496793.13	0.0301	0.0247
Mercury	48668-07-19 01:41 G	19496881.44	19496881.57	19496881.69	0.0300	0.0066
Mercury	48668-10-15 13:41 G	19496969.96	19496970.07	19496970.19	0.0300	0.0115
Mercury	48669-01-12 01:41 G	19497058.56	19497058.57	19497058.60	0.0299	0.0294
Venus	48676-09-12 01:55 G	19499858.48	19499858.58	19499858.71	0.0268	0.0225
Venus	48677-04-29 04:05 G	19500087.46	19500087.67	19500087.88	0.0266	0.0004
Venus	48677-12-14 04:19 G	19500316.56	19500316.68	19500316.82	0.0264	0.0211
Mercury	48683-11-02 04:05 G	19502465.50	19502465.67	19502465.85	0.0261	0.0097
Mercury	48684-01-30 01:26 G	19502554.38	19502554.56	19502554.75	0.0262	0.0084
Moon	48686-06-20 15:36 G	19503426.92	19503427.15	19503427.38	0.0268	0.0107
Earth	48686-06-20 18:14 G	19503427.04	19503427.26	19503427.49	0.0268	0.0093 *
Venus	48693-01-04 11:02 G	19505816.76	19505816.96	19505817.17	0.0295	0.0040

Venus	48693-08-22 12:43 G	19506046.94	19506047.03	19506047.13	0.0298	0.0265
Mercury	48697-12-06 02:53 G	19507613.51	19507613.62	19507613.74	0.0301	0.0128
Mercury	48698-03-04 15:07 G	19507702.01	19507702.13	19507702.26	0.0300	0.0053
Mercury	48698-06-01 03:22 G	19507790.56	19507790.64	19507790.72	0.0300	0.0232
Moon	48699-12-17 11:31 G	19508354.74	19508354.98	19508355.23	0.0295	0.0021
Earth	48699-12-17 15:07 G	19508354.89	19508355.13	19508355.38	0.0295	0.0034 *
Venus	48706-03-26 03:07 G	19510644.50	19510644.63	19510644.78	0.0268	0.0200
Venus	48706-11-10 05:02 G	19510873.50	19510873.71	19510873.92	0.0266	0.0021
Venus	48707-06-27 05:17 G	19511102.63	19511102.72	19511102.82	0.0264	0.0235
Mars	48709-07-04 08:10 G	19511840.54	19511840.84	19511841.14	0.0260	0.0017
Mercury	48713-03-22 02:38 G	19513197.46	19513197.61	19513197.77	0.0261	0.0152
Mercury	48713-06-19 00:00 G	19513286.31	19513286.50	19513286.70	0.0262	0.0030
Mercury	48713-09-15 21:36 G	19513375.29	19513375.40	19513375.51	0.0262	0.0211
Earth	48715-06-16 21:50 G	19514014.20	19514014.41	19514014.64	0.0266	0.0120
Moon	48715-06-17 00:43 G	19514014.31	19514014.53	19514014.75	0.0266	0.0106 *
Venus	48722-07-18 17:46 G	19516603.03	19516603.24	19516603.45	0.0296	0.0005
Mercury	48727-04-26 05:17 G	19518345.62	19518345.72	19518345.82	0.0301	0.0178
Mercury	48727-07-23 17:31 G	19518434.10	19518434.23	19518434.36	0.0300	0.0005
Mercury	48727-10-20 05:31 G	19518522.63	19518522.73	19518522.84	0.0300	0.0183
Earth	48728-12-11 11:02 G	19518940.86	19518940.96	19518941.08	0.0296	0.0262
Moon	48728-12-11 14:38 G	19518941.03	19518941.11	19518941.22	0.0296	0.0273 *
Venus	48735-10-06 08:24 G	19521430.69	19521430.85	19521431.02	0.0268	0.0167
Venus	48736-05-22 10:05 G	19521659.72	19521659.92	19521660.14	0.0266	0.0054
Mercury	48742-08-09 02:53 G	19523929.50	19523929.62	19523929.75	0.0261	0.0194
Mercury	48742-11-06 00:14 G	19524018.32	19524018.51	19524018.71	0.0262	0.0014
Mercury	48743-02-02 21:36 G	19524107.26	19524107.40	19524107.55	0.0262	0.0169
Moon	48745-06-22 21:22 G	19524978.20	19524978.39	19524978.57	0.0268	0.0167
Earth	48745-06-23 00:14 G	19524978.32	19524978.51	19524978.72	0.0268	0.0152 *
Venus	48751-06-13 01:12 G	19527159.46	19527159.55	19527159.67	0.0293	0.0252
Venus	48752-01-29 01:26 G	19527389.35	19527389.56	19527389.77	0.0296	0.0044

Mercury	48756-09-12 07:12 G	19529077.72	19529077.80	19529077.88	0.0301	0.0232
Mercury	48756-12-09 19:26 G	19529166.18	19529166.31	19529166.44	0.0300	0.0050
Mercury	48757-03-08 07:41 G	19529254.70	19529254.82	19529254.93	0.0300	0.0129
Moon	48758-12-19 23:02 G	19529906.24	19529906.46	19529906.69	0.0294	0.0092
Earth	48758-12-19 23:46 G	19529906.26	19529906.49	19529906.72	0.0294	0.0105 *
Venus	48765-04-17 10:48 G	19532216.77	19532216.95	19532217.13	0.0268	0.0139
Venus	48765-12-02 12:29 G	19532445.82	19532446.02	19532446.22	0.0266	0.0081
Mercury	48771-12-27 01:55 G	19534661.52	19534661.58	19534661.65	0.0261	0.0245
Mercury	48772-03-24 23:17 G	19534750.28	19534750.47	19534750.66	0.0262	0.0065
Mercury	48772-06-21 20:38 G	19534839.19	19534839.36	19534839.54	0.0262	0.0117
Earth	48774-06-18 05:02 G	19535565.47	19535565.71	19535565.95	0.0267	0.0059
Moon	48774-06-18 08:24 G	19535565.60	19535565.85	19535566.09	0.0267	0.0044 *
Venus	48780-12-23 09:07 G	19537945.74	19537945.88	19537946.03	0.0294	0.0212
Venus	48781-08-10 09:22 G	19538175.70	19538175.89	19538176.10	0.0296	0.0087
Mercury	48786-01-30 09:50 G	19539809.86	19539809.91	19539809.96	0.0301	0.0276
Mercury	48786-04-28 22:05 G	19539898.30	19539898.42	19539898.55	0.0300	0.0095
Mercury	48786-07-26 10:19 G	19539986.81	19539986.93	19539987.05	0.0300	0.0086
Mercury	48786-10-22 22:19 G	19540075.38	19540075.43	19540075.49	0.0299	0.0264
Earth	48787-12-13 23:17 G	19540492.28	19540492.47	19540492.67	0.0296	0.0185
Moon	48787-12-13 23:17 G	19540492.29	19540492.47	19540492.67	0.0296	0.0198 *
Venus	48794-10-28 17:02 G	19543003.01	19543003.21	19543003.41	0.0267	0.0103
Venus	48795-06-14 18:29 G	19543232.08	19543232.27	19543232.46	0.0266	0.0115
Mars	48797-11-28 12:29 G	19544129.74	19544130.02	19544130.32	0.0261	0.0050
Mercury	48801-08-12 00:00 G	19545482.32	19545482.50	19545482.68	0.0262	0.0103
Mercury	48801-11-08 21:22 G	19545571.21	19545571.39	19545571.58	0.0262	0.0079
Moon	48803-06-13 12:29 G	19546152.94	19546153.02	19546153.11	0.0266	0.0246
Earth	48803-06-13 15:50 G	19546153.10	19546153.16	19546153.21	0.0266	0.0258 *
Earth	48804-06-24 09:22 G	19546529.76	19546529.89	19546530.04	0.0269	0.0218
Moon	48804-06-24 10:34 G	19546529.83	19546529.94	19546530.06	0.0269	0.0233 *
Venus	48810-07-05 18:29 G	19548732.10	19548732.27	19548732.45	0.0294	0.0163

Venus	48811-02-20 18:58 G	19548962.10	19548962.29	19548962.48	0.0296	0.0136
Mercury	48815-09-16 00:29 G	19550630.41	19550630.52	19550630.64	0.0300	0.0142
Mercury	48815-12-13 12:43 G	19550718.90	19550719.03	19550719.16	0.0300	0.0039
Mercury	48816-03-11 00:43 G	19550807.45	19550807.53	19550807.62	0.0299	0.0217
Earth	48817-12-21 13:41 G	19551457.88	19551458.07	19551458.26	0.0294	0.0186
Moon	48817-12-21 16:48 G	19551458.01	19551458.20	19551458.40	0.0294	0.0171 *
Venus	48824-05-09 20:24 G	19553789.15	19553789.35	19553789.56	0.0267	0.0073
Venus	48824-12-24 21:50 G	19554018.23	19554018.41	19554018.59	0.0265	0.0145
Mercury	48830-12-29 23:17 G	19556214.32	19556214.47	19556214.63	0.0261	0.0152
Mercury	48831-03-28 20:53 G	19556303.17	19556303.37	19556303.56	0.0262	0.0030
Mercury	48831-06-25 18:14 G	19556392.15	19556392.26	19556392.37	0.0262	0.0213
Moon	48833-06-19 13:41 G	19557116.82	19557117.07	19557117.32	0.0267	0.0021
Earth	48833-06-19 14:53 G	19557116.88	19557117.12	19557117.36	0.0267	0.0007 *
Venus	48840-01-16 02:53 G	19559518.43	19559518.62	19559518.82	0.0295	0.0121
Venus	48840-09-02 03:36 G	19559748.49	19559748.65	19559748.82	0.0297	0.0180
Mars	48842-03-14 20:38 G	19560307.18	19560307.36	19560307.58	0.0301	0.0216
Mercury	48845-02-02 03:22 G	19561362.54	19561362.64	19561362.74	0.0301	0.0184
Mercury	48845-05-01 15:36 G	19561451.02	19561451.15	19561451.28	0.0300	0.0007
Mercury	48845-07-29 03:50 G	19561539.56	19561539.66	19561539.76	0.0299	0.0177
Moon	48846-12-15 11:46 G	19562043.76	19562043.99	19562044.22	0.0295	0.0115
Earth	48846-12-15 15:22 G	19562043.91	19562044.14	19562044.38	0.0295	0.0099 *
Venus	48853-04-05 00:43 G	19564346.48	19564346.53	19564346.59	0.0269	0.0259
Venus	48853-11-20 03:22 G	19564575.43	19564575.64	19564575.86	0.0267	0.0037
Venus	48854-07-07 04:34 G	19564804.54	19564804.69	19564804.85	0.0265	0.0181
Mercury	48860-05-18 00:14 G	19566946.39	19566946.51	19566946.65	0.0262	0.0187
Mercury	48860-08-14 21:50 G	19567035.22	19567035.41	19567035.60	0.0262	0.0006
Mercury	48860-11-11 19:12 G	19567124.16	19567124.30	19567124.45	0.0263	0.0178
Earth	48862-06-15 01:41 G	19567704.41	19567704.57	19567704.75	0.0266	0.0192
Moon	48862-06-15 02:24 G	19567704.43	19567704.60	19567704.77	0.0266	0.0180 *
Venus	48869-07-28 13:55 G	19570304.88	19570305.08	19570305.29	0.0294	0.0068

Venus	48870-03-15 14:53 G	19570534.99	19570535.12	19570535.25	0.0297	0.0234
Mercury	48874-06-22 06:29 G	19572094.68	19572094.77	19572094.85	0.0301	0.0223
Mercury	48874-09-18 18:43 G	19572183.15	19572183.28	19572183.41	0.0300	0.0042
Mercury	48874-12-16 06:43 G	19572271.67	19572271.78	19572271.90	0.0300	0.0138
Earth	48876-12-23 08:38 G	19573009.79	19573009.86	19573009.95	0.0293	0.0276
Moon	48876-12-23 11:46 G	19573009.88	19573009.99	19573010.11	0.0293	0.0259 *
Venus	48882-10-16 05:31 G	19575132.62	19575132.73	19575132.84	0.0269	0.0227
Venus	48883-06-02 07:55 G	19575361.62	19575361.83	19575362.04	0.0267	0.0005
Venus	48884-01-17 08:38 G	19575590.75	19575590.86	19575591.00	0.0265	0.0212
Mars	48886-04-24 17:31 G	19576418.97	19576419.23	19576419.51	0.0261	0.0113
Mercury	48889-10-05 00:00 G	19577678.42	19577678.50	19577678.59	0.0261	0.0233
Mercury	48890-01-01 21:22 G	19577767.20	19577767.39	19577767.58	0.0262	0.0052
Mercury	48890-03-31 18:58 G	19577856.12	19577856.29	19577856.45	0.0262	0.0131
Moon	48892-06-20 22:34 G	19578668.22	19578668.44	19578668.67	0.0268	0.0090
Earth	48892-06-21 02:10 G	19578668.36	19578668.59	19578668.83	0.0268	0.0076 *
Venus	48899-02-07 22:48 G	19581091.24	19581091.45	19581091.66	0.0295	0.0025
Venus	48899-09-26 00:00 G	19581321.44	19581321.50	19581321.58	0.0298	0.0279
Mercury	48903-11-10 09:22 G	19582826.83	19582826.89	19582826.95	0.0301	0.0264
Mercury	48904-02-06 21:36 G	19582915.28	19582915.40	19582915.52	0.0300	0.0082
Mercury	48904-05-05 09:50 G	19583003.79	19583003.91	19583004.03	0.0300	0.0097
Mercury	48904-08-01 21:50 G	19583092.37	19583092.41	19583092.46	0.0299	0.0275
Moon	48905-12-18 09:07 G	19583595.64	19583595.88	19583596.12	0.0295	0.0022
Earth	48905-12-18 11:17 G	19583595.72	19583595.97	19583596.22	0.0295	0.0006 *
Venus	48912-04-28 12:43 G	19585918.89	19585919.03	19585919.19	0.0268	0.0189
Venus	48912-12-13 15:22 G	19586147.93	19586148.14	19586148.35	0.0266	0.0033
Venus	48913-07-30 16:05 G	19586377.10	19586377.17	19586377.24	0.0265	0.0248
Mercury	48919-05-22 22:34 G	19588499.26	19588499.44	19588499.62	0.0262	0.0086
Mercury	48919-08-19 19:55 G	19588588.16	19588588.33	19588588.51	0.0263	0.0097
Earth	48921-06-17 13:12 G	19589255.84	19589256.05	19589256.27	0.0267	0.0123
Moon	48921-06-17 16:34 G	19589255.98	19589256.19	19589256.42	0.0267	0.0110 *

Venus	48928-01-04 10:34 G	19591647.86	19591647.94	19591648.04	0.0293	0.0265
Venus	48928-08-21 10:19 G	19591877.72	19591877.93	19591878.14	0.0295	0.0030
Mars	48930-08-11 09:07 G	19592597.60	19592597.88	19592598.15	0.0300	0.0092
Mercury	48933-03-29 12:29 G	19593559.02	19593559.02	19593559.03	0.0301	0.0300
Mercury	48933-06-26 00:58 G	19593647.42	19593647.54	19593647.66	0.0300	0.0118
Mercury	48933-09-22 12:58 G	19593735.92	19593736.04	19593736.17	0.0300	0.0063
Mercury	48933-12-20 01:12 G	19593824.47	19593824.55	19593824.62	0.0299	0.0240
Earth	48934-12-12 12:29 G	19594181.98	19594182.02	19594182.08	0.0296	0.0289
Venus	48941-11-08 18:29 G	19596705.11	19596705.27	19596705.45	0.0268	0.0155
Venus	48942-06-25 20:24 G	19596934.15	19596934.35	19596934.56	0.0266	0.0066
Mercury	48948-10-08 22:05 G	19599231.26	19599231.42	19599231.59	0.0262	0.0132
Mercury	48949-01-05 19:41 G	19599320.13	19599320.32	19599320.51	0.0262	0.0050
Mercury	48949-04-04 17:02 G	19599409.13	19599409.21	19599409.30	0.0262	0.0233
Moon	48951-06-24 12:29 G	19600219.84	19600220.02	19600220.21	0.0268	0.0160
Earth	48951-06-24 13:41 G	19600219.87	19600220.07	19600220.28	0.0268	0.0147 *
Venus	48957-07-16 18:43 G	19602434.16	19602434.28	19602434.42	0.0294	0.0225
Venus	48958-03-03 18:58 G	19602664.09	19602664.29	19602664.49	0.0296	0.0073
Mercury	48962-11-13 03:50 G	19604379.55	19604379.66	19604379.77	0.0300	0.0159
Mercury	48963-02-09 16:05 G	19604468.04	19604468.17	19604468.29	0.0300	0.0023
Mercury	48963-05-09 04:05 G	19604556.58	19604556.67	19604556.77	0.0299	0.0200
Earth	48964-12-20 08:53 G	19605147.64	19605147.87	19605148.10	0.0294	0.0092
Moon	48964-12-20 10:48 G	19605147.72	19605147.95	19605148.18	0.0294	0.0077 *
Venus	48971-05-22 01:55 G	19607491.39	19607491.58	19607491.78	0.0268	0.0116
Venus	48972-01-06 03:50 G	19607720.46	19607720.66	19607720.86	0.0266	0.0104
Mars	48974-09-20 12:43 G	19608708.84	19608709.03	19608709.23	0.0261	0.0198
Mercury	48978-02-25 23:17 G	19609963.33	19609963.47	19609963.62	0.0262	0.0166
Mercury	48978-05-25 20:53 G	19610052.17	19610052.37	19610052.56	0.0262	0.0017
Mercury	48978-08-22 18:00 G	19610141.14	19610141.25	19610141.39	0.0263	0.0200
Earth	48980-06-19 00:14 G	19610807.28	19610807.51	19610807.75	0.0267	0.0054
Moon	48980-06-19 02:24 G	19610807.36	19610807.60	19610807.85	0.0267	0.0040 *

Venus	48987-01-27 06:29 G	19613220.60	19613220.77	19613220.94	0.0294	0.0171
Venus	48987-09-14 06:43 G	19613450.59	19613450.78	19613450.97	0.0296	0.0128
Mercury	48992-04-01 07:12 G	19615111.70	19615111.80	19615111.89	0.0300	0.0194
Mercury	48992-06-28 19:12 G	19615200.18	19615200.30	19615200.43	0.0300	0.0017
Mercury	48992-09-25 07:26 G	19615288.70	19615288.81	19615288.92	0.0299	0.0166
Moon	48993-12-14 09:07 G	19615733.71	19615733.88	19615734.07	0.0296	0.0203
Earth	48993-12-14 11:31 G	19615733.79	19615733.98	19615734.17	0.0296	0.0188 *
Venus	49000-12-02 07:55 G	19618277.64	19618277.83	19618278.04	0.0267	0.0083

50TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 50th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	49001-07-19 09:22 G	19618506.71	19618506.89	19618507.07	0.0266	0.0137		
Mercury	49007-07-16 23:02 G	19620695.35	19620695.46	19620695.57	0.0261	0.0212		
Mercury	49007-10-13 20:24 G	19620784.16	19620784.35	19620784.54	0.0262	0.0031		
Mercury	49008-01-10 17:46 G	19620873.09	19620873.24	19620873.40	0.0262	0.0152		
Moon	49009-06-15 04:34 G	19621394.61	19621394.69	19621394.78	0.0265	0.0247		
Earth	49009-06-15 06:43 G	19621394.74	19621394.78	19621394.84	0.0265	0.0260 *		
Earth	49010-06-27 00:43 G	19621771.40	19621771.53	19621771.68	0.0269	0.0217		
Moon	49010-06-27 03:07 G	19621771.53	19621771.63	19621771.77	0.0269	0.0231 *		
Venus	49016-08-09 13:26 G	19624006.88	19624007.06	19624007.26	0.0295	0.0132		
Venus	49017-03-27 14:10 G	19624236.92	19624237.09	19624237.27	0.0297	0.0169		
Mars	49019-01-07 11:31 G	19624887.69	19624887.98	19624888.27	0.0301	0.0026		

Mercury	49021-08-20 09:36 G	19625843.83	19625843.90	19625843.98	0.0301	0.0240
Mercury	49021-11-16 21:50 G	19625932.29	19625932.41	19625932.54	0.0300	0.0059
Mercury	49022-02-13 10:05 G	19626020.80	19626020.92	19626021.04	0.0300	0.0122
Earth	49023-12-24 05:02 G	19626699.53	19626699.71	19626699.91	0.0294	0.0187
Moon	49023-12-24 08:38 G	19626699.67	19626699.86	19626700.07	0.0294	0.0171 *
Venus	49029-10-28 12:00 G	19628834.99	19628835.00	19628835.02	0.0269	0.0268
Venus	49030-06-14 14:38 G	19629063.90	19629064.11	19629064.32	0.0267	0.0045
Venus	49031-01-29 15:50 G	19629293.01	19629293.16	19629293.33	0.0265	0.0173
Mars	49032-12-29 08:53 G	19629992.70	19629992.87	19629993.07	0.0261	0.0202
Mercury	49036-12-02 23:46 G	19631427.44	19631427.49	19631427.55	0.0262	0.0249
Mercury	49037-03-01 21:07 G	19631516.19	19631516.38	19631516.57	0.0262	0.0068
Mercury	49037-05-29 18:29 G	19631605.10	19631605.27	19631605.45	0.0262	0.0115
Moon	49039-06-22 07:26 G	19632358.56	19632358.81	19632359.06	0.0267	0.0029
Earth	49039-06-22 09:50 G	19632358.66	19632358.91	19632359.15	0.0267	0.0014 *
Venus	49046-02-20 00:14 G	19634793.31	19634793.51	19634793.72	0.0294	0.0081
Venus	49046-10-08 01:12 G	19635023.41	19635023.55	19635023.69	0.0297	0.0221
Mercury	49051-01-07 12:58 G	19636575.99	19636576.04	19636576.09	0.0301	0.0275
Mercury	49051-04-06 01:12 G	19636664.43	19636664.55	19636664.67	0.0300	0.0093
Mercury	49051-07-03 13:26 G	19636752.94	19636753.06	19636753.18	0.0300	0.0087
Mercury	49051-09-30 01:26 G	19636841.51	19636841.56	19636841.62	0.0299	0.0265
Moon	49052-12-17 04:34 G	19637285.47	19637285.69	19637285.92	0.0295	0.0107
Earth	49052-12-17 08:10 G	19637285.61	19637285.84	19637286.08	0.0295	0.0092 *
Venus	49059-05-10 18:29 G	19639621.18	19639621.27	19639621.38	0.0269	0.0234
Venus	49059-12-25 21:07 G	19639850.16	19639850.38	19639850.59	0.0267	0.0012
Venus	49060-08-10 21:36 G	19640079.28	19640079.40	19640079.54	0.0265	0.0205
Mercury	49066-07-19 20:38 G	19642248.19	19642248.36	19642248.53	0.0261	0.0116
Mercury	49066-10-16 18:00 G	19642337.06	19642337.25	19642337.44	0.0262	0.0066
Mercury	49067-01-13 15:22 G	19642426.09	19642426.14	19642426.20	0.0262	0.0249
Earth	49068-06-16 14:53 G	19642945.97	19642946.12	19642946.30	0.0266	0.0196
Moon	49068-06-16 17:17 G	19642946.06	19642946.22	19642946.41	0.0266	0.0182 *

Venus	49075-09-02 06:14 G	19645579.55	19645579.76	19645579.97	0.0295	0.0044
Venus	49076-04-19 07:26 G	19645809.71	19645809.81	19645809.91	0.0297	0.0260
Mercury	49080-08-23 03:22 G	19647396.53	19647396.64	19647396.76	0.0301	0.0144
Mercury	49080-11-19 15:36 G	19647485.03	19647485.15	19647485.28	0.0300	0.0038
Mercury	49081-02-16 03:50 G	19647573.57	19647573.66	19647573.75	0.0300	0.0216
Earth	49082-12-25 22:48 G	19648251.38	19648251.45	19648251.54	0.0293	0.0277
Moon	49082-12-26 00:00 G	19648251.40	19648251.50	19648251.63	0.0293	0.0261 *
Venus	49088-11-20 00:14 G	19650407.37	19650407.51	19650407.66	0.0268	0.0198
Venus	49089-07-07 02:24 G	19650636.39	19650636.60	19650636.82	0.0266	0.0024
Venus	49090-02-21 03:07 G	19650865.54	19650865.63	19650865.72	0.0265	0.0239
Mercury	49095-12-06 20:53 G	19652980.22	19652980.37	19652980.53	0.0262	0.0156
Mercury	49096-03-04 18:14 G	19653069.07	19653069.26	19653069.45	0.0262	0.0025
Mercury	49096-06-01 15:36 G	19653158.04	19653158.15	19653158.27	0.0263	0.0208
Moon	49098-06-23 13:41 G	19653909.85	19653910.07	19653910.30	0.0268	0.0092
Earth	49098-06-23 17:02 G	19653909.98	19653910.21	19653910.45	0.0268	0.0077 *
Venus	49104-07-28 16:19 G	19656136.16	19656136.18	19656136.22	0.0293	0.0289
Venus	49105-03-15 16:05 G	19656365.96	19656366.17	19656366.38	0.0295	0.0006
Mars	49107-06-05 10:19 G	19657177.68	19657177.93	19657178.21	0.0301	0.0131
Mercury	49110-01-11 06:29 G	19658128.67	19658128.77	19658128.87	0.0301	0.0184
Mercury	49110-04-09 18:43 G	19658217.15	19658217.28	19658217.41	0.0300	0.0007
Mercury	49110-07-07 06:43 G	19658305.68	19658305.78	19658305.89	0.0300	0.0177
Moon	49111-12-20 23:46 G	19658837.26	19658837.49	19658837.73	0.0295	0.0020
Earth	49111-12-21 00:43 G	19658837.28	19658837.53	19658837.77	0.0295	0.0005 *
Venus	49118-06-03 06:14 G	19661193.60	19661193.76	19661193.94	0.0268	0.0165
Venus	49119-01-18 08:24 G	19661422.64	19661422.85	19661423.06	0.0266	0.0056
Mars	49121-05-26 18:29 G	19662282.02	19662282.27	19662282.54	0.0261	0.0129
Mercury	49125-04-25 19:55 G	19663712.23	19663712.33	19663712.46	0.0261	0.0206
Mercury	49125-07-23 17:31 G	19663801.03	19663801.23	19663801.42	0.0261	0.0026
Mercury	49125-10-20 14:53 G	19663889.96	19663890.12	19663890.27	0.0262	0.0156
Earth	49127-06-19 21:07 G	19664497.17	19664497.38	19664497.59	0.0266	0.0135

Moon	49127-06-20 00:14 G	19664497.29	19664497.51	19664497.74	0.0266	0.0120 *
Venus	49134-02-07 19:55 G	19666922.24	19666922.33	19666922.43	0.0293	0.0259
Venus	49134-09-25 19:55 G	19667152.12	19667152.33	19667152.54	0.0296	0.0037
Mercury	49139-05-31 07:55 G	19668860.76	19668860.83	19668860.91	0.0301	0.0243
Mercury	49139-08-27 20:24 G	19668949.22	19668949.35	19668949.47	0.0301	0.0060
Mercury	49139-11-24 08:38 G	19669037.74	19669037.86	19669037.97	0.0300	0.0121
Mercury	49140-02-20 20:38 G	19669126.36	19669126.36	19669126.37	0.0300	0.0299
Venus	49147-12-14 10:48 G	19671979.77	19671979.95	19671980.14	0.0268	0.0132
Venus	49148-07-30 12:29 G	19672208.82	19672209.02	19672209.23	0.0266	0.0088
Mercury	49154-09-12 19:41 G	19674444.28	19674444.32	19674444.39	0.0261	0.0251
Mercury	49154-12-10 17:02 G	19674533.03	19674533.21	19674533.40	0.0262	0.0072
Mercury	49155-03-09 14:24 G	19674621.93	19674622.10	19674622.28	0.0262	0.0111
Earth	49157-06-25 21:07 G	19675461.17	19675461.38	19675461.59	0.0268	0.0135
Moon	49157-06-25 22:05 G	19675461.23	19675461.42	19675461.62	0.0268	0.0148 *
Venus	49163-08-21 04:19 G	19677708.54	19677708.68	19677708.82	0.0293	0.0215
Venus	49164-04-07 04:19 G	19677938.48	19677938.68	19677938.89	0.0296	0.0084
Mercury	49168-10-17 10:34 G	19679592.91	19679592.94	19679592.98	0.0301	0.0287
Mercury	49169-01-13 23:02 G	19679681.34	19679681.46	19679681.58	0.0301	0.0105
Mercury	49169-04-12 11:17 G	19679769.84	19679769.97	19679770.09	0.0300	0.0077
Mercury	49169-07-09 23:17 G	19679858.41	19679858.47	19679858.54	0.0300	0.0256
Earth	49170-12-22 11:46 G	19680388.76	19680388.99	19680389.23	0.0295	0.0075
Moon	49170-12-22 15:22 G	19680388.90	19680389.14	19680389.37	0.0295	0.0057 *
Venus	49177-06-25 16:19 G	19682765.98	19682766.18	19682766.38	0.0268	0.0101
Venus	49178-02-09 17:31 G	19682995.05	19682995.23	19682995.43	0.0266	0.0119
Mercury	49184-04-28 16:05 G	19685265.00	19685265.17	19685265.34	0.0261	0.0123
Mercury	49184-07-26 13:26 G	19685353.87	19685354.06	19685354.25	0.0261	0.0057
Mercury	49184-10-23 10:48 G	19685442.87	19685442.95	19685443.02	0.0262	0.0239
Moon	49186-06-20 23:31 G	19686048.23	19686048.48	19686048.72	0.0266	0.0066
Earth	49186-06-21 00:14 G	19686048.28	19686048.51	19686048.75	0.0266	0.0080 *
Venus	49193-03-02 06:43 G	19688494.62	19688494.78	19688494.95	0.0294	0.0187

Venus	49193-10-18 06:58 G	19688724.60	19688724.79	19688724.99	0.0296	0.0112
Mars	49195-10-29 18:58 G	19689466.07	19689466.29	19689466.53	0.0302	0.0183
Mercury	49198-06-03 00:14 G	19690413.40	19690413.51	19690413.61	0.0301	0.0170
Mercury	49198-08-30 12:29 G	19690501.89	19690502.02	19690502.15	0.0301	0.0012
Mercury	49198-11-27 00:43 G	19690590.43	19690590.53	19690590.63	0.0300	0.0193
Moon	49199-12-15 20:38 G	19690974.25	19690974.36	19690974.50	0.0297	0.0256
Earth	49199-12-16 00:43 G	19690974.39	19690974.53	19690974.68	0.0297	0.0238 *
Venus	49207-01-05 18:58 G	19693552.09	19693552.29	19693552.50	0.0267	0.0072
Venus	49207-08-22 20:10 G	19693781.17	19693781.34	19693781.53	0.0265	0.0147
Mars	49209-10-20 16:05 G	19694570.89	19694571.17	19694571.46	0.0261	0.0072
Mercury	49213-09-15 15:07 G	19695996.99	19695997.13	19695997.28	0.0261	0.0174
Mercury	49213-12-13 12:29 G	19696085.83	19696086.02	19696086.21	0.0261	0.0006
Mercury	49214-03-12 09:36 G	19696174.78	19696174.90	19696175.04	0.0262	0.0188
Earth	49216-06-26 22:05 G	19697012.26	19697012.42	19697012.60	0.0268	0.0188
Moon	49216-06-27 01:55 G	19697012.42	19697012.58	19697012.75	0.0268	0.0198 *
Venus	49222-09-12 12:58 G	19699280.86	19699281.04	19699281.23	0.0294	0.0147
Venus	49223-04-30 13:41 G	19699510.89	19699511.07	19699511.25	0.0296	0.0154
Mercury	49227-10-21 02:10 G	19701145.51	19701145.59	19701145.68	0.0301	0.0222
Mercury	49228-01-17 14:38 G	19701233.98	19701234.11	19701234.24	0.0301	0.0039
Mercury	49228-04-15 02:53 G	19701322.51	19701322.62	19701322.73	0.0300	0.0142
Earth	49229-12-23 16:48 G	19701939.99	19701940.20	19701940.43	0.0295	0.0140
Moon	49229-12-23 19:12 G	19701940.08	19701940.30	19701940.54	0.0295	0.0123 *
Venus	49235-12-01 21:07 G	19704109.35	19704109.38	19704109.42	0.0269	0.0266
Venus	49236-07-17 23:46 G	19704338.28	19704338.49	19704338.71	0.0267	0.0042
Venus	49237-03-04 00:43 G	19704567.38	19704567.53	19704567.69	0.0265	0.0176
Mercury	49243-02-02 13:55 G	19706728.99	19706729.08	19706729.18	0.0260	0.0227
Mercury	49243-05-02 11:02 G	19706817.78	19706817.96	19706818.15	0.0261	0.0049
Mercury	49243-07-30 08:10 G	19706906.68	19706906.84	19706907.02	0.0261	0.0132
Moon	49245-06-21 21:07 G	19707599.14	19707599.38	19707599.63	0.0265	0.0018
Earth	49245-06-22 00:43 G	19707599.29	19707599.53	19707599.78	0.0265	0.0030 *

Venus	49252-03-24 14:24 G	19710066.91	19710067.10	19710067.29	0.0294	0.0121
Venus	49252-11-09 14:53 G	19710296.96	19710297.12	19710297.29	0.0297	0.0180
Mercury	49257-03-09 02:53 G	19711877.60	19711877.62	19711877.66	0.0302	0.0294
Mercury	49257-06-05 15:22 G	19711966.03	19711966.14	19711966.26	0.0301	0.0110
Mercury	49257-09-02 03:50 G	19712054.53	19712054.66	19712054.78	0.0301	0.0073
Mercury	49257-11-29 15:50 G	19712143.10	19712143.16	19712143.23	0.0300	0.0253
Moon	49258-12-17 02:10 G	19712525.42	19712525.59	19712525.78	0.0297	0.0193
Earth	49258-12-17 03:22 G	19712525.45	19712525.64	19712525.84	0.0297	0.0177 *
Venus	49265-06-12 22:19 G	19714895.34	19714895.43	19714895.53	0.0269	0.0239
Venus	49266-01-28 01:12 G	19715124.33	19715124.55	19715124.76	0.0267	0.0016
Venus	49266-09-14 02:10 G	19715353.45	19715353.59	19715353.73	0.0265	0.0201
Mercury	49272-09-18 09:36 G	19717549.73	19717549.90	19717550.08	0.0261	0.0105
Mercury	49272-12-16 06:58 G	19717638.60	19717638.79	19717638.97	0.0261	0.0076
Mercury	49273-03-15 04:05 G	19717727.65	19717727.67	19717727.71	0.0262	0.0258
Earth	49274-06-17 05:17 G	19718186.62	19718186.72	19718186.82	0.0265	0.0238
Moon	49274-06-17 08:24 G	19718186.74	19718186.85	19718186.99	0.0265	0.0224 *
Earth	49275-06-28 20:38 G	19718563.25	19718563.36	19718563.48	0.0268	0.0235
Moon	49275-06-28 20:53 G	19718563.28	19718563.37	19718563.49	0.0268	0.0241 *
Venus	49281-10-04 19:41 G	19720853.12	19720853.32	19720853.53	0.0294	0.0084
Venus	49282-05-22 20:24 G	19721083.22	19721083.35	19721083.50	0.0297	0.0219
Mars	49284-03-23 22:19 G	19721754.24	19721754.43	19721754.64	0.0301	0.0219
Mercury	49286-10-23 17:17 G	19722698.11	19722698.22	19722698.33	0.0301	0.0165
Mercury	49287-01-20 05:31 G	19722786.61	19722786.73	19722786.86	0.0301	0.0019
Mercury	49287-04-18 17:46 G	19722875.15	19722875.24	19722875.34	0.0300	0.0198
Moon	49288-12-24 14:38 G	19723490.92	19723491.11	19723491.32	0.0295	0.0182
Earth	49288-12-24 17:17 G	19723491.05	19723491.22	19723491.41	0.0295	0.0196 *
Venus	49294-12-24 02:24 G	19725681.48	19725681.60	19725681.74	0.0269	0.0211
Venus	49295-08-10 05:02 G	19725910.50	19725910.71	19725910.92	0.0267	0.0013
Venus	49296-03-26 05:31 G	19726139.64	19726139.73	19726139.85	0.0265	0.0230
Mars	49298-03-16 05:46 G	19726859.45	19726859.74	19726860.04	0.0261	0.0023

Mercury	49302-02-06 08:10 G	19728281.69	19728281.84	19728282.00	0.0260	0.0160
Mercury	49302-05-06 05:17 G	19728370.53	19728370.72	19728370.92	0.0261	0.0020
Mercury	49302-08-03 02:24 G	19728459.49	19728459.60	19728459.73	0.0261	0.0200
Moon	49304-06-23 21:50 G	19729150.18	19729150.41	19729150.65	0.0265	0.0028
Earth	49304-06-23 23:02 G	19729150.21	19729150.46	19729150.70	0.0265	0.0017 *
Venus	49311-04-17 19:55 G	19731639.13	19731639.33	19731639.54	0.0294	0.0059
Venus	49311-12-03 20:24 G	19731869.24	19731869.35	19731869.48	0.0297	0.0243
Mercury	49316-03-12 17:31 G	19733430.16	19733430.23	19733430.31	0.0302	0.0244
Mercury	49316-06-09 06:00 G	19733518.62	19733518.75	19733518.88	0.0301	0.0060
Mercury	49316-09-05 18:14 G	19733607.14	19733607.26	19733607.38	0.0301	0.0122
Earth	49317-12-19 00:43 G	19734076.31	19734076.53	19734076.76	0.0297	0.0127
Moon	49317-12-19 03:50 G	19734076.45	19734076.66	19734076.88	0.0297	0.0140 *
Venus	49324-07-06 02:24 G	19736467.46	19736467.60	19736467.76	0.0269	0.0187
Venus	49325-02-20 05:02 G	19736696.50	19736696.71	19736696.92	0.0267	0.0036
Venus	49325-10-07 05:46 G	19736925.69	19736925.74	19736925.81	0.0265	0.0252
Mercury	49331-06-26 06:00 G	19739013.66	19739013.75	19739013.87	0.0261	0.0220
Mercury	49331-09-23 03:22 G	19739102.45	19739102.64	19739102.83	0.0261	0.0041
Mercury	49331-12-21 00:29 G	19739191.36	19739191.52	19739191.69	0.0261	0.0140
Earth	49333-06-19 01:55 G	19739737.43	19739737.58	19739737.75	0.0265	0.0196
Moon	49333-06-19 03:36 G	19739737.47	19739737.65	19739737.84	0.0265	0.0181 *
Venus	49340-10-28 00:14 G	19742425.30	19742425.51	19742425.72	0.0295	0.0025
Venus	49341-06-15 01:12 G	19742655.49	19742655.55	19742655.63	0.0297	0.0279
Mercury	49345-10-27 07:41 G	19744250.70	19744250.82	19744250.94	0.0301	0.0119
Mercury	49346-01-23 19:55 G	19744339.20	19744339.33	19744339.45	0.0301	0.0064
Mercury	49346-04-22 08:10 G	19744427.77	19744427.84	19744427.91	0.0300	0.0244
Moon	49347-12-27 10:19 G	19745041.78	19745041.93	19745042.08	0.0295	0.0232
Earth	49347-12-27 13:12 G	19745041.92	19745042.05	19745042.20	0.0295	0.0243 *
Venus	49354-01-16 06:00 G	19747253.59	19747253.75	19747253.93	0.0269	0.0160
Venus	49354-09-02 08:24 G	19747482.65	19747482.85	19747483.06	0.0267	0.0063
Mercury	49361-02-09 01:41 G	19749834.40	19749834.57	19749834.76	0.0260	0.0098

Mercury	49361-05-08 23:02 G	19749923.27	19749923.46	19749923.64	0.0261	0.0082
Earth	49363-06-25 19:26 G	19750701.07	19750701.31	19750701.55	0.0265	0.0059
Moon	49363-06-25 22:34 G	19750701.21	19750701.44	19750701.67	0.0265	0.0069 *
Venus	49369-09-22 01:41 G	19752981.57	19752981.57	19752981.60	0.0292	0.0291
Venus	49370-05-10 00:43 G	19753211.32	19753211.53	19753211.74	0.0294	0.0002
Mars	49372-08-16 17:31 G	19754041.03	19754041.23	19754041.45	0.0301	0.0208
Mercury	49375-03-16 07:55 G	19754982.73	19754982.83	19754982.92	0.0302	0.0198
Mercury	49375-06-12 20:10 G	19755071.21	19755071.34	19755071.47	0.0301	0.0015
Mercury	49375-09-09 08:24 G	19755159.75	19755159.85	19755159.96	0.0301	0.0167
Earth	49376-12-19 19:55 G	19755627.10	19755627.33	19755627.57	0.0297	0.0081
Moon	49376-12-19 22:34 G	19755627.20	19755627.44	19755627.68	0.0297	0.0092 *
Venus	49383-07-29 05:17 G	19758039.54	19758039.72	19758039.90	0.0269	0.0137
Venus	49384-03-14 07:41 G	19758268.62	19758268.82	19758269.02	0.0266	0.0085
Mars	49386-08-10 00:43 G	19759147.24	19759147.53	19759147.83	0.0261	0.0003
Mercury	49390-06-28 23:31 G	19760566.33	19760566.48	19760566.64	0.0261	0.0159
Mercury	49390-09-25 20:38 G	19760655.17	19760655.36	19760655.56	0.0261	0.0021
Mercury	49390-12-23 18:00 G	19760744.13	19760744.25	19760744.37	0.0261	0.0201
Moon	49392-06-19 18:29 G	19761288.07	19761288.27	19761288.49	0.0264	0.0143
Earth	49392-06-19 22:05 G	19761288.22	19761288.42	19761288.62	0.0264	0.0155 *
Venus	49399-04-04 05:17 G	19763767.63	19763767.72	19763767.82	0.0292	0.0259
Venus	49399-11-20 04:19 G	19763997.47	19763997.68	19763997.89	0.0295	0.0034
Mercury	49404-08-03 09:07 G	19765714.82	19765714.88	19765714.95	0.0301	0.0260
Mercury	49404-10-30 21:36 G	19765803.28	19765803.40	19765803.52	0.0301	0.0076
Mercury	49405-01-27 09:50 G	19765891.79	19765891.91	19765892.03	0.0300	0.0106
Mercury	49405-04-25 22:05 G	19765980.38	19765980.42	19765980.46	0.0300	0.0285
Earth	49406-12-29 06:43 G	19766592.72	19766592.78	19766592.85	0.0295	0.0284
Moon	49406-12-29 08:10 G	19766592.77	19766592.84	19766592.92	0.0295	0.0279 *
Venus	49413-02-08 08:10 G	19768825.65	19768825.84	19768826.04	0.0269	0.0111
Venus	49413-09-25 10:34 G	19769054.75	19769054.94	19769055.13	0.0267	0.0112
Mercury	49419-11-16 21:50 G	19771298.32	19771298.41	19771298.53	0.0260	0.0216

Mercury	49420-02-13 19:12 G	19771387.11	19771387.30	19771387.49	0.0260	0.0037
Mercury	49420-05-12 16:19 G	19771476.02	19771476.18	19771476.34	0.0261	0.0143
Earth	49422-06-27 15:36 G	19772251.92	19772252.15	19772252.38	0.0265	0.0100
Moon	49422-06-27 18:00 G	19772252.02	19772252.25	19772252.48	0.0265	0.0106 *
Venus	49428-10-15 06:00 G	19774553.63	19774553.75	19774553.88	0.0292	0.0233
Venus	49429-06-02 04:48 G	19774783.50	19774783.70	19774783.91	0.0295	0.0061
Mercury	49434-03-19 21:50 G	19776535.30	19776535.41	19776535.52	0.0302	0.0156
Mercury	49434-06-16 10:05 G	19776623.79	19776623.92	19776624.05	0.0301	0.0028
Mercury	49434-09-12 22:19 G	19776712.34	19776712.43	19776712.52	0.0301	0.0209
Moon	49435-12-22 11:17 G	19777177.72	19777177.97	19777178.22	0.0297	0.0045
Earth	49435-12-22 13:26 G	19777177.81	19777178.06	19777178.30	0.0297	0.0040 *
Venus	49442-08-21 06:58 G	19779611.60	19779611.79	19779612.00	0.0269	0.0090
Venus	49443-04-07 09:22 G	19779840.71	19779840.89	19779841.08	0.0266	0.0132
Mercury	49449-07-02 16:48 G	19782119.02	19782119.20	19782119.38	0.0261	0.0101
Mercury	49449-09-29 13:55 G	19782207.90	19782208.08	19782208.26	0.0261	0.0079
Mercury	49449-12-27 11:02 G	19782296.95	19782296.96	19782296.98	0.0261	0.0260
Moon	49451-06-22 15:22 G	19782838.93	19782839.14	19782839.37	0.0264	0.0107
Earth	49451-06-22 17:31 G	19782839.02	19782839.23	19782839.46	0.0264	0.0115 *
Venus	49458-04-27 09:36 G	19785339.75	19785339.90	19785340.05	0.0292	0.0202
Venus	49458-12-13 08:38 G	19785569.66	19785569.86	19785570.06	0.0295	0.0093
Mars	49461-01-10 01:41 G	19786328.38	19786328.57	19786328.79	0.0301	0.0215
Mercury	49463-08-06 23:17 G	19787267.38	19787267.47	19787267.56	0.0301	0.0216
Mercury	49463-11-03 11:46 G	19787355.86	19787355.99	19787356.11	0.0301	0.0034
Mercury	49464-01-31 00:00 G	19787444.39	19787444.50	19787444.61	0.0300	0.0149
Venus	49472-03-02 10:05 G	19790397.72	19790397.92	19790398.13	0.0269	0.0062
Venus	49472-10-17 12:14 G	19790626.85	19790627.01	19790627.19	0.0267	0.0160
Mars	49475-01-04 02:53 G	19791435.33	19791435.62	19791435.91	0.0261	0.0032
Mercury	49478-11-19 15:22 G	19792850.99	19792851.14	19792851.30	0.0260	0.0155
Mercury	49479-02-16 12:43 G	19792939.83	19792940.03	19792940.22	0.0261	0.0025
Mercury	49479-05-16 09:36 G	19793028.79	19793028.90	19793029.03	0.0261	0.0205

Moon	49481-06-28 09:36 G	19793802.70	19793802.90	19793803.12	0.0266	0.0142
Earth	49481-06-28 12:29 G	19793802.81	19793803.02	19793803.22	0.0266	0.0143 *
Venus	49487-11-07 11:17 G	19796125.81	19796125.97	19796126.15	0.0292	0.0171
Venus	49488-06-24 10:19 G	19796355.74	19796355.93	19796356.12	0.0295	0.0123
Mercury	49492-12-23 23:31 G	19797999.46	19797999.48	19797999.51	0.0302	0.0295
Mercury	49493-03-22 12:00 G	19798087.88	19798088.00	19798088.12	0.0301	0.0111
Mercury	49493-06-19 00:14 G	19798176.39	19798176.51	19798176.64	0.0301	0.0072
Mercury	49493-09-15 12:29 G	19798264.95	19798265.02	19798265.09	0.0300	0.0252
Moon	49494-12-23 04:19 G	19798728.44	19798728.68	19798728.92	0.0297	0.0001
Earth	49494-12-23 07:41 G	19798728.58	19798728.82	19798729.07	0.0297	0.0005 *
Venus	49501-01-27 04:48 G	19800954.68	19800954.70	19800954.73	0.0271	0.0269
Venus	49501-09-13 08:53 G	19801183.66	19801183.87	19801184.08	0.0268	0.0041
Venus	49502-04-30 11:02 G	19801412.81	19801412.96	19801413.13	0.0266	0.0181
Mercury	49508-04-08 12:58 G	19803582.95	19803583.04	19803583.15	0.0260	0.0218
Mercury	49508-07-06 10:19 G	19803671.74	19803671.93	19803672.12	0.0261	0.0039
Mercury	49508-10-03 07:26 G	19803760.65	19803760.81	19803760.97	0.0261	0.0141
Earth	49510-06-24 14:38 G	19804389.88	19804390.11	19804390.35	0.0265	0.0072
Moon	49510-06-24 17:17 G	19804389.99	19804390.22	19804390.46	0.0265	0.0069 *
Venus	49517-05-20 15:07 G	19806911.94	19806912.13	19806912.31	0.0293	0.0140
Venus	49518-01-05 14:10 G	19807141.92	19807142.09	19807142.27	0.0295	0.0156
Mercury	49522-08-10 13:26 G	19808819.96	19808820.06	19808820.17	0.0301	0.0170
Mercury	49522-11-07 01:55 G	19808908.45	19808908.58	19808908.71	0.0301	0.0014
Mercury	49523-02-03 14:10 G	19808996.99	19808997.09	19808997.19	0.0300	0.0194
Venus	49530-08-09 08:24 G	19811740.76	19811740.85	19811740.96	0.0271	0.0240
Venus	49531-03-26 12:29 G	19811969.81	19811970.02	19811970.23	0.0269	0.0012
Venus	49531-11-10 14:24 G	19812198.98	19812199.10	19812199.24	0.0267	0.0209
Mercury	49537-11-23 09:07 G	19814403.71	19814403.88	19814404.07	0.0261	0.0091
Mercury	49538-02-20 06:29 G	19814492.59	19814492.77	19814492.95	0.0261	0.0089
Moon	49540-06-30 07:41 G	19815353.65	19815353.82	19815353.99	0.0266	0.0183
Earth	49540-06-30 10:19 G	19815353.78	19815353.93	19815354.12	0.0266	0.0189 *

Venus	49546-11-30 18:14 G	19817698.07	19817698.26	19817698.46	0.0292	0.0106
Venus	49547-07-18 17:31 G	19817928.07	19817928.23	19817928.39	0.0295	0.0189
Mars	49549-06-05 07:12 G	19818615.60	19818615.80	19818616.00	0.0300	0.0216
Mercury	49551-12-28 14:10 G	19819552.02	19819552.09	19819552.17	0.0301	0.0242
Mercury	49552-03-26 02:38 G	19819640.48	19819640.61	19819640.74	0.0301	0.0059
Mercury	49552-06-22 14:53 G	19819729.00	19819729.12	19819729.24	0.0301	0.0123
Earth	49553-12-25 05:17 G	19820279.48	19820279.72	19820279.96	0.0297	0.0054
Moon	49553-12-25 06:00 G	19820279.52	19820279.75	19820279.99	0.0297	0.0057 *
Venus	49560-02-19 07:55 G	19822526.71	19822526.83	19822526.96	0.0271	0.0217
Venus	49560-10-05 11:46 G	19822755.78	19822755.99	19822756.21	0.0268	0.0012
Venus	49561-05-22 13:55 G	19822984.98	19822985.08	19822985.19	0.0266	0.0231
Mars	49563-05-30 19:55 G	19823723.04	19823723.33	19823723.62	0.0262	0.0047
Mercury	49567-04-12 07:12 G	19825135.64	19825135.80	19825135.96	0.0261	0.0152
Mercury	49567-07-10 04:19 G	19825224.49	19825224.68	19825224.87	0.0261	0.0028
Mercury	49567-10-07 01:26 G	19825313.45	19825313.56	19825313.68	0.0261	0.0209
Earth	49569-06-25 13:41 G	19825940.83	19825941.07	19825941.31	0.0265	0.0026
Moon	49569-06-25 16:48 G	19825940.95	19825941.20	19825941.45	0.0265	0.0026 *
Venus	49576-06-11 23:17 G	19828484.26	19828484.47	19828484.67	0.0293	0.0072
Venus	49577-01-27 22:34 G	19828714.30	19828714.44	19828714.57	0.0295	0.0224
Mercury	49581-05-16 16:05 G	19830284.16	19830284.17	19830284.19	0.0301	0.0298
Mercury	49581-08-13 04:34 G	19830372.57	19830372.69	19830372.81	0.0301	0.0114
Mercury	49581-11-09 16:48 G	19830461.08	19830461.20	19830461.33	0.0300	0.0068
Mercury	49582-02-06 05:02 G	19830549.64	19830549.71	19830549.78	0.0300	0.0248
Moon	49582-12-18 18:29 G	19830865.15	19830865.27	19830865.42	0.0298	0.0252
Earth	49582-12-18 20:53 G	19830865.25	19830865.37	19830865.49	0.0298	0.0256 *
Venus	49589-08-31 12:00 G	19833312.86	19833313.00	19833313.16	0.0271	0.0186
Venus	49590-04-17 15:50 G	19833541.96	19833542.16	19833542.38	0.0268	0.0042
Venus	49590-12-02 18:00 G	19833771.21	19833771.25	19833771.30	0.0267	0.0260
Mercury	49596-08-29 06:43 G	19835867.66	19835867.78	19835867.91	0.0261	0.0199
Mercury	49596-11-26 03:50 G	19835956.47	19835956.66	19835956.85	0.0261	0.0020

Mercury	49597-02-23 00:58 G	19836045.39	19836045.54	19836045.70	0.0261	0.0161
Moon	49598-06-20 18:43 G	19836528.17	19836528.28	19836528.42	0.0264	0.0223
Earth	49598-06-20 21:50 G	19836528.31	19836528.41	19836528.55	0.0264	0.0230 *
Earth	49599-07-02 11:31 G	19836904.88	19836904.98	19836905.09	0.0266	0.0239
Moon	49599-07-02 12:58 G	19836904.94	19836905.04	19836905.17	0.0266	0.0232 *
Venus	49605-12-23 04:05 G	19839270.46	19839270.67	19839270.88	0.0292	0.0034
Venus	49606-08-10 03:22 G	19839500.55	19839500.64	19839500.74	0.0295	0.0262
Mercury	49610-12-31 05:31 G	19841104.63	19841104.73	19841104.84	0.0301	0.0180
Mercury	49611-03-29 18:00 G	19841193.12	19841193.25	19841193.38	0.0301	0.0006
Mercury	49611-06-26 06:14 G	19841281.66	19841281.76	19841281.86	0.0300	0.0184
Earth	49612-12-26 06:29 G	19841830.55	19841830.77	19841831.01	0.0296	0.0113
Moon	49612-12-26 10:34 G	19841830.72	19841830.94	19841831.17	0.0296	0.0120 *
Venus	49619-03-13 12:29 G	19844098.86	19844099.02	19844099.20	0.0270	0.0162
Venus	49619-10-28 16:19 G	19844327.97	19844328.18	19844328.39	0.0268	0.0065
Mercury	49626-01-16 04:48 G	19846599.68	19846599.70	19846599.73	0.0261	0.0257
Mercury	49626-04-15 01:55 G	19846688.40	19846688.58	19846688.77	0.0261	0.0079
Mercury	49626-07-12 23:02 G	19846777.29	19846777.46	19846777.64	0.0261	0.0102
Moon	49628-06-26 14:10 G	19847491.84	19847492.09	19847492.34	0.0265	0.0021
Earth	49628-06-26 15:22 G	19847491.90	19847492.14	19847492.39	0.0265	0.0026 *
Venus	49634-11-17 12:00 G	19849826.97	19849827.00	19849827.05	0.0291	0.0285
Venus	49635-07-05 09:50 G	19850056.69	19850056.91	19850057.12	0.0293	0.0006
Mars	49637-10-29 16:48 G	19850904.07	19850904.20	19850904.35	0.0300	0.0263
Mercury	49640-05-19 07:55 G	19851836.75	19851836.83	19851836.91	0.0301	0.0231
Mercury	49640-08-15 20:10 G	19851925.21	19851925.34	19851925.47	0.0301	0.0048
Mercury	49640-11-12 08:24 G	19852013.74	19852013.85	19852013.97	0.0300	0.0133
Moon	49641-12-19 21:22 G	19852416.21	19852416.39	19852416.59	0.0297	0.0184
Earth	49641-12-20 00:58 G	19852416.36	19852416.54	19852416.73	0.0297	0.0193 *
Venus	49648-09-22 17:46 G	19854885.06	19854885.24	19854885.43	0.0270	0.0128
Venus	49649-05-09 21:22 G	19855114.20	19855114.39	19855114.59	0.0268	0.0098
Mars	49651-10-24 10:34 G	19856011.67	19856011.94	19856012.22	0.0262	0.0094

Mercury	49655-09-02 02:10 G	19857420.42	19857420.59	19857420.76	0.0261	0.0121
Mercury	49655-11-29 23:17 G	19857509.28	19857509.47	19857509.66	0.0261	0.0059
Mercury	49656-02-26 20:24 G	19857598.29	19857598.35	19857598.43	0.0262	0.0241
Earth	49657-06-22 01:12 G	19858079.38	19858079.55	19858079.74	0.0264	0.0176
Moon	49657-06-22 01:26 G	19858079.39	19858079.56	19858079.75	0.0264	0.0173 *
Venus	49664-05-29 19:12 G	19860613.19	19860613.30	19860613.42	0.0290	0.0241
Venus	49665-01-14 16:48 G	19860842.99	19860843.20	19860843.41	0.0293	0.0047
Mercury	49669-10-06 09:36 G	19862568.87	19862568.90	19862568.93	0.0301	0.0288
Mercury	49670-01-02 21:50 G	19862657.29	19862657.41	19862657.53	0.0301	0.0106
Mercury	49670-04-01 10:05 G	19862745.80	19862745.92	19862746.05	0.0300	0.0078
Mercury	49670-06-28 22:19 G	19862834.37	19862834.43	19862834.50	0.0300	0.0256
Earth	49671-12-28 13:55 G	19863381.90	19863382.08	19863382.28	0.0296	0.0182
Moon	49671-12-28 14:38 G	19863381.92	19863382.11	19863382.31	0.0296	0.0192 *
Venus	49678-04-04 19:26 G	19865671.12	19865671.31	19865671.51	0.0270	0.0102
Venus	49678-11-19 22:48 G	19865900.27	19865900.45	19865900.65	0.0268	0.0124
Mercury	49685-01-19 00:43 G	19868152.39	19868152.53	19868152.67	0.0261	0.0176
Mercury	49685-04-17 21:50 G	19868241.22	19868241.41	19868241.61	0.0261	0.0007
Mercury	49685-07-15 18:58 G	19868330.17	19868330.29	19868330.44	0.0261	0.0186
Moon	49687-06-28 17:02 G	19869042.98	19869043.21	19869043.45	0.0265	0.0077
Earth	49687-06-28 20:38 G	19869043.13	19869043.36	19869043.59	0.0265	0.0083 *
Venus	49693-12-10 01:41 G	19871399.43	19871399.57	19871399.73	0.0291	0.0205
Venus	49694-07-27 23:46 G	19871629.29	19871629.49	19871629.69	0.0294	0.0085
Mercury	49699-05-23 00:29 G	19873389.41	19873389.52	19873389.63	0.0301	0.0153
Mercury	49699-08-19 12:43 G	19873477.90	19873478.03	19873478.16	0.0300	0.0030
Mercury	49699-11-16 00:58 G	19873566.45	19873566.54	19873566.63	0.0300	0.0210
Earth	49700-12-22 10:48 G	19873967.73	19873967.95	19873968.18	0.0297	0.0118
Moon	49700-12-22 11:02 G	19873967.75	19873967.96	19873968.19	0.0297	0.0108 *
Venus	49707-10-17 01:26 G	19876457.36	19876457.56	19876457.77	0.0270	0.0066
Venus	49708-06-02 04:48 G	19876686.54	19876686.70	19876686.88	0.0268	0.0159
Mercury	49714-06-09 01:26 G	19878884.45	19878884.56	19878884.67	0.0261	0.0214

Mercury	49714-09-05 22:34 G	19878973.25	19878973.44	19878973.63	0.0261	0.0035
Mercury	49714-12-03 19:41 G	19879062.17	19879062.32	19879062.48	0.0262	0.0147
Earth	49716-06-24 07:26 G	19879630.60	19879630.81	19879631.03	0.0264	0.0116
Moon	49716-06-24 11:02 G	19879630.75	19879630.96	19879631.19	0.0264	0.0114 *
Venus	49723-06-23 10:19 G	19882185.76	19882185.93	19882186.12	0.0291	0.0158
Venus	49724-02-08 08:24 G	19882415.66	19882415.85	19882416.04	0.0293	0.0133
Mercury	49728-10-10 02:38 G	19884121.52	19884121.61	19884121.71	0.0301	0.0202
Mercury	49729-01-06 14:53 G	19884210.00	19884210.12	19884210.25	0.0300	0.0021
Mercury	49729-04-05 03:07 G	19884298.53	19884298.63	19884298.74	0.0300	0.0162
Moon	49730-12-30 23:02 G	19884933.39	19884933.46	19884933.56	0.0296	0.0276
Earth	49730-12-31 02:38 G	19884933.51	19884933.61	19884933.73	0.0296	0.0262 *
Venus	49736-09-11 00:00 G	19887014.47	19887014.50	19887014.54	0.0272	0.0267
Venus	49737-04-28 04:48 G	19887243.49	19887243.70	19887243.92	0.0270	0.0037
Venus	49737-12-13 07:55 G	19887472.69	19887472.83	19887472.99	0.0268	0.0188
Mars	49740-03-20 03:07 G	19888300.39	19888300.63	19888300.89	0.0262	0.0140
Mercury	49744-01-23 21:36 G	19889705.22	19889705.40	19889705.58	0.0261	0.0086
Mercury	49744-04-21 18:43 G	19889794.11	19889794.28	19889794.46	0.0261	0.0095
Moon	49746-07-01 03:22 G	19890594.44	19890594.64	19890594.84	0.0266	0.0140
Earth	49746-07-01 04:19 G	19890594.48	19890594.68	19890594.89	0.0266	0.0147 *
Venus	49753-01-02 18:00 G	19892972.06	19892972.25	19892972.45	0.0292	0.0118
Venus	49753-08-20 16:19 G	19893202.02	19893202.18	19893202.36	0.0294	0.0175
Mercury	49758-02-27 05:17 G	19894853.65	19894853.72	19894853.80	0.0301	0.0245
Mercury	49758-05-26 17:46 G	19894942.11	19894942.24	19894942.37	0.0301	0.0062
Mercury	49758-08-23 06:00 G	19895030.63	19895030.75	19895030.87	0.0300	0.0119
Mercury	49758-11-19 18:00 G	19895119.25	19895119.25	19895119.27	0.0300	0.0299
Earth	49759-12-25 02:10 G	19895519.34	19895519.59	19895519.83	0.0297	0.0032
Moon	49759-12-25 05:31 G	19895519.49	19895519.73	19895519.97	0.0297	0.0020 *
Venus	49766-03-24 06:58 G	19897800.69	19897800.79	19897800.91	0.0271	0.0229
Venus	49766-11-08 11:46 G	19898029.78	19898029.99	19898030.21	0.0269	0.0003
Venus	49767-06-25 14:38 G	19898259.00	19898259.11	19898259.23	0.0267	0.0224

Mercury	49773-06-11 22:48 G	19900437.28	19900437.45	19900437.62	0.0262	0.0121
Mercury	49773-09-08 19:55 G	19900526.14	19900526.33	19900526.52	0.0262	0.0060
Mercury	49773-12-06 17:17 G	19900615.15	19900615.22	19900615.29	0.0262	0.0243
Earth	49775-06-26 16:34 G	19901181.95	19901182.19	19901182.43	0.0265	0.0051
Moon	49775-06-26 18:14 G	19901182.02	19901182.26	19901182.51	0.0265	0.0053 *
Venus	49782-07-16 04:34 G	19903758.49	19903758.69	19903758.90	0.0291	0.0067
Venus	49783-03-03 03:07 G	19903988.49	19903988.63	19903988.76	0.0294	0.0226
Mars	49784-06-29 19:41 G	19904473.27	19904473.32	19904473.40	0.0298	0.0290
Mercury	49787-07-17 08:10 G	19905585.81	19905585.84	19905585.88	0.0301	0.0286
Mercury	49787-10-13 20:38 G	19905674.24	19905674.36	19905674.48	0.0300	0.0103
Mercury	49788-01-10 08:53 G	19905762.75	19905762.87	19905762.99	0.0300	0.0078
Mercury	49788-04-07 20:53 G	19905851.31	19905851.37	19905851.44	0.0300	0.0258
Venus	49795-10-04 11:46 G	19908586.85	19908586.99	19908587.14	0.0271	0.0196
Venus	49796-05-20 16:19 G	19908815.96	19908816.18	19908816.39	0.0269	0.0034
Venus	49797-01-04 18:58 G	19909045.23	19909045.29	19909045.36	0.0267	0.0255
Mercury	49802-10-30 22:05 G	19911169.28	19911169.42	19911169.57	0.0261	0.0169
Mercury	49803-01-27 19:12 G	19911258.11	19911258.30	19911258.50	0.0261	0.0012
Mercury	49803-04-26 16:34 G	19911347.06	19911347.19	19911347.32	0.0262	0.0193
Moon	49804-06-21 22:48 G	19911769.40	19911769.45	19911769.52	0.0264	0.0254
Earth	49804-06-22 00:29 G	19911769.47	19911769.52	19911769.58	0.0264	0.0255 *
Earth	49805-07-03 14:38 G	19912145.97	19912146.11	19912146.26	0.0266	0.0215
Moon	49805-07-03 17:31 G	19912146.09	19912146.23	19912146.39	0.0266	0.0206 *
Venus	49812-01-27 12:14 G	19914544.80	19914545.01	19914545.22	0.0292	0.0027
Venus	49812-09-13 11:02 G	19914774.88	19914774.96	19914775.05	0.0295	0.0269
Mercury	49817-03-02 23:17 G	19916406.36	19916406.47	19916406.59	0.0301	0.0147
Mercury	49817-05-30 11:46 G	19916494.86	19916494.99	19916495.11	0.0300	0.0036
Mercury	49817-08-26 23:46 G	19916583.41	19916583.49	19916583.58	0.0300	0.0216
Earth	49818-12-27 20:38 G	19917071.13	19917071.36	19917071.61	0.0296	0.0062
Moon	49818-12-27 23:17 G	19917071.23	19917071.47	19917071.72	0.0296	0.0072 *
Venus	49825-04-16 19:41 G	19919373.14	19919373.32	19919373.49	0.0271	0.0156

Venus	49825-12-01 23:46 G	19919602.29	19919602.49	19919602.70	0.0269	0.0072
Mars	49828-08-15 17:17 G	19920590.07	19920590.22	19920590.39	0.0262	0.0219
Mercury	49832-03-18 23:17 G	19921901.36	19921901.47	19921901.60	0.0262	0.0202
Mercury	49832-06-15 20:38 G	19921990.17	19921990.36	19921990.55	0.0262	0.0021
Mercury	49832-09-12 17:46 G	19922079.09	19922079.24	19922079.40	0.0262	0.0161
Moon	49834-06-29 00:14 G	19922733.26	19922733.51	19922733.76	0.0265	0.0011
Earth	49834-06-29 03:22 G	19922733.39	19922733.64	19922733.88	0.0265	0.0018 *
Venus	49840-12-22 02:24 G	19925101.52	19925101.60	19925101.71	0.0290	0.0259
Venus	49841-08-08 23:46 G	19925331.28	19925331.49	19925331.70	0.0292	0.0028
Mercury	49846-07-21 02:38 G	19927138.51	19927138.61	19927138.71	0.0301	0.0182
Mercury	49846-10-17 14:53 G	19927226.99	19927227.12	19927227.25	0.0300	0.0007
Mercury	49847-01-14 03:07 G	19927315.53	19927315.63	19927315.73	0.0300	0.0180
Moon	49847-12-21 18:43 G	19927657.12	19927657.28	19927657.44	0.0298	0.0220
Earth	49847-12-21 20:53 G	19927657.22	19927657.37	19927657.53	0.0298	0.0229 *
Venus	49854-10-28 01:12 G	19930159.37	19930159.55	19930159.75	0.0271	0.0123
Venus	49855-06-14 05:02 G	19930388.52	19930388.71	19930388.91	0.0268	0.0105
Mercury	49861-08-05 22:48 G	19932633.41	19932633.45	19932633.52	0.0261	0.0248
Jupiter	49861-08-27 19:41 G	19932654.86	19932655.32	19932655.79	0.0261	0.0024
Mercury	49861-11-02 20:10 G	19932722.16	19932722.34	19932722.53	0.0261	0.0068
Mercury	49862-01-30 17:31 G	19932811.05	19932811.23	19932811.40	0.0262	0.0113
Earth	49863-06-24 11:17 G	19933320.80	19933320.97	19933321.14	0.0264	0.0187
Moon	49863-06-24 13:41 G	19933320.92	19933321.07	19933321.25	0.0264	0.0189 *
Venus	49870-07-04 10:19 G	19935887.80	19935887.93	19935888.07	0.0291	0.0220
Venus	49871-02-19 07:41 G	19936117.62	19936117.82	19936118.03	0.0293	0.0070
Mars	49872-11-26 00:00 G	19936763.27	19936763.50	19936763.75	0.0299	0.0169
Mercury	49875-12-08 05:17 G	19937870.64	19937870.72	19937870.81	0.0301	0.0225
Mercury	49876-03-05 17:46 G	19937959.11	19937959.24	19937959.37	0.0300	0.0042
Mercury	49876-06-02 06:00 G	19938047.64	19938047.75	19938047.86	0.0300	0.0139
Moon	49877-12-29 17:02 G	19938623.01	19938623.21	19938623.42	0.0296	0.0171
Earth	49877-12-29 18:29 G	19938623.07	19938623.27	19938623.48	0.0296	0.0160 *

Venus	49884-05-09 08:53 G	19940945.67	19940945.87	19940946.08	0.0270	0.0082
Venus	49884-12-24 12:29 G	19941174.85	19941175.02	19941175.21	0.0268	0.0144
Mars	49886-11-23 19:12 G	19941874.11	19941874.30	19941874.52	0.0263	0.0182
Mercury	49891-03-22 21:36 G	19943454.22	19943454.40	19943454.58	0.0262	0.0101
Mercury	49891-06-19 18:43 G	19943543.10	19943543.28	19943543.47	0.0262	0.0081
Moon	49893-06-30 11:31 G	19944284.75	19944284.98	19944285.21	0.0266	0.0079
Earth	49893-06-30 14:24 G	19944284.87	19944285.10	19944285.33	0.0266	0.0088 *
Venus	49900-01-14 21:36 G	19946674.23	19946674.40	19946674.58	0.0291	0.0167
Venus	49900-09-01 19:12 G	19946904.12	19946904.30	19946904.50	0.0293	0.0123
Mercury	49905-04-27 08:38 G	19948602.80	19948602.86	19948602.93	0.0301	0.0259
Mercury	49905-07-24 21:07 G	19948691.25	19948691.38	19948691.50	0.0300	0.0076
Mercury	49905-10-21 09:22 G	19948779.77	19948779.89	19948780.01	0.0300	0.0105
Mercury	49906-01-17 21:36 G	19948868.36	19948868.40	19948868.43	0.0300	0.0284
Earth	49906-12-24 19:41 G	19949209.10	19949209.32	19949209.54	0.0297	0.0127
Moon	49906-12-24 21:22 G	19949209.18	19949209.39	19949209.62	0.0297	0.0117 *
Venus	49913-11-20 15:22 G	19951731.94	19951732.14	19951732.36	0.0270	0.0048
Venus	49914-07-07 18:43 G	19951961.12	19951961.28	19951961.44	0.0268	0.0177
Mercury	49920-08-09 21:07 G	19954186.23	19954186.38	19954186.54	0.0261	0.0147
Mercury	49920-11-06 18:29 G	19954275.08	19954275.27	19954275.46	0.0261	0.0034
Mercury	49921-02-03 15:36 G	19954364.05	19954364.15	19954364.26	0.0262	0.0216
Earth	49922-06-26 21:50 G	19954872.20	19954872.41	19954872.63	0.0264	0.0119
Moon	49922-06-27 00:58 G	19954872.33	19954872.54	19954872.77	0.0264	0.0120 *
Venus	49929-07-28 04:34 G	19957460.50	19957460.69	19957460.88	0.0292	0.0130
Venus	49930-03-15 02:38 G	19957690.43	19957690.61	19957690.78	0.0294	0.0162
Mercury	49934-12-11 23:46 G	19959423.37	19959423.49	19959423.61	0.0301	0.0122
Mercury	49935-03-10 12:00 G	19959511.87	19959512.00	19959512.13	0.0300	0.0060
Mercury	49935-06-07 00:14 G	19959600.43	19959600.51	19959600.58	0.0300	0.0240
Moon	49937-01-01 11:46 G	19960174.90	19960174.99	19960175.09	0.0296	0.0271
Earth	49937-01-01 15:22 G	19960175.04	19960175.14	19960175.27	0.0296	0.0258 *
Venus	49942-10-16 17:46 G	19962289.14	19962289.24	19962289.34	0.0271	0.0239

Venus	49943-06-02 22:34 G	19962518.23	19962518.44	19962518.65	0.0269	0.0009
Venus	49944-01-18 01:41 G	19962747.45	19962747.57	19962747.70	0.0267	0.0215
Mercury	49949-12-27 22:19 G	19964918.29	19964918.43	19964918.57	0.0262	0.0181
Mercury	49950-03-26 19:26 G	19965007.12	19965007.31	19965007.50	0.0262	0.0003
Mercury	49950-06-23 16:34 G	19965096.06	19965096.19	19965096.34	0.0262	0.0181
Earth	49952-07-03 00:14 G	19965836.32	19965836.51	19965836.72	0.0266	0.0156
Moon	49952-07-03 01:26 G	19965836.37	19965836.56	19965836.76	0.0266	0.0147 *
Venus	49959-02-07 15:36 G	19968246.95	19968247.15	19968247.36	0.0291	0.0078
Venus	49959-09-25 13:55 G	19968476.95	19968477.08	19968477.23	0.0294	0.0216
Mars	49961-04-24 12:43 G	19969053.74	19969054.03	19969054.32	0.0299	0.0042
Mercury	49964-04-30 03:07 G	19970155.52	19970155.63	19970155.74	0.0300	0.0155
Mercury	49964-07-27 15:22 G	19970244.01	19970244.14	19970244.27	0.0300	0.0027
Mercury	49964-10-24 03:36 G	19970332.56	19970332.65	19970332.74	0.0300	0.0207
Earth	49965-12-26 17:31 G	19970760.99	19970761.23	19970761.48	0.0297	0.0028
Moon	49965-12-26 21:22 G	19970761.14	19970761.39	19970761.64	0.0297	0.0014 *
Venus	49972-04-28 00:43 G	19973075.40	19973075.53	19973075.68	0.0271	0.0204
Venus	49972-12-13 05:17 G	19973304.51	19973304.72	19973304.93	0.0269	0.0026
Venus	49973-07-30 07:41 G	19973533.75	19973533.82	19973533.91	0.0267	0.0248
Mars	49975-04-21 10:05 G	19974163.66	19974163.92	19974164.20	0.0263	0.0102
Mercury	49979-05-16 22:05 G	19975650.33	19975650.42	19975650.51	0.0261	0.0227
Mercury	49979-08-13 19:12 G	19975739.11	19975739.30	19975739.49	0.0261	0.0049
Mercury	49979-11-10 16:19 G	19975828.01	19975828.18	19975828.35	0.0261	0.0133
Moon	49981-06-28 06:58 G	19976423.54	19976423.79	19976424.04	0.0264	0.0056
Earth	49981-06-28 07:26 G	19976423.57	19976423.81	19976424.05	0.0264	0.0053 *
Venus	49988-08-19 21:22 G	19979033.18	19979033.39	19979033.60	0.0292	0.0042
Venus	49989-04-06 19:55 G	19979263.23	19979263.33	19979263.44	0.0295	0.0253
Mercury	49993-09-17 05:17 G	19980887.63	19980887.72	19980887.81	0.0301	0.0207
Mercury	49993-12-14 17:31 G	19980976.11	19980976.23	19980976.36	0.0301	0.0026
Mercury	49994-03-13 05:46 G	19981064.63	19981064.74	19981064.85	0.0300	0.0157

51ST MILLENNIUM CE

This is a list of transits visible from Saturn in the 51st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	50001-11-08 06:58	G	19983861.62	19983861.79	19983861.96	0.0271	0.0166	
Venus	50002-06-25 11:02	G	19984090.76	19984090.96	19984091.17	0.0269	0.0062	
Mercury	50008-12-30 19:41	G	19986471.14	19986471.32	19986471.50	0.0262	0.0087	
Mercury	50009-03-29 16:48	G	19986560.03	19986560.20	19986560.38	0.0262	0.0095	
Moon	50010-06-23 18:29	G	19987011.20	19987011.27	19987011.36	0.0264	0.0247	
Earth	50010-06-23 18:58	G	19987011.22	19987011.29	19987011.37	0.0264	0.0249	*
Earth	50011-07-05 08:10	G	19987387.72	19987387.84	19987387.99	0.0266	0.0222	
Moon	50011-07-05 11:46	G	19987387.86	19987387.99	19987388.15	0.0266	0.0211	*
Venus	50017-07-15 10:05	G	19989589.88	19989589.92	19989589.99	0.0290	0.0279	
Venus	50018-03-02 07:26	G	19989819.60	19989819.81	19989820.02	0.0292	0.0007	
Mercury	50023-02-04 08:24	G	19991619.78	19991619.85	19991619.92	0.0301	0.0245	
Mercury	50023-05-03 20:38	G	19991708.24	19991708.36	19991708.49	0.0300	0.0062	
Mercury	50023-07-31 08:53	G	19991796.76	19991796.87	19991796.99	0.0300	0.0120	
Mercury	50023-10-27 21:07	G	19991885.38	19991885.38	19991885.39	0.0300	0.0299	
Earth	50024-12-28 11:17	G	19992312.73	19992312.97	19992313.21	0.0297	0.0064	
Moon	50024-12-28 11:31	G	19992312.74	19992312.98	19992313.23	0.0297	0.0078	*
Venus	50031-05-21 13:41	G	19994647.89	19994648.07	19994648.26	0.0271	0.0131	
Venus	50032-01-05 17:31	G	19994877.04	19994877.23	19994877.43	0.0269	0.0096	
Mercury	50038-05-19 18:58	G	19997203.13	19997203.29	19997203.46	0.0261	0.0136	
Mercury	50038-08-16 16:05	G	19997291.99	19997292.17	19997292.37	0.0261	0.0045	

Mercury	50038-11-13 13:26 G	19997380.97	19997381.06	19997381.16	0.0261	0.0226
Moon	50040-06-29 10:48 G	19997974.70	19997974.95	19997975.20	0.0264	0.0003
Earth	50040-06-29 14:24 G	19997974.86	19997975.10	19997975.34	0.0264	0.0009 *
Venus	50047-01-25 14:10 G	20000375.99	20000376.09	20000376.21	0.0290	0.0248
Venus	50047-09-12 11:31 G	20000605.78	20000605.98	20000606.19	0.0293	0.0041
Mars	50049-09-18 17:17 G	20001342.93	20001343.22	20001343.51	0.0299	0.0043
Mercury	50052-09-19 22:34 G	20002440.32	20002440.44	20002440.56	0.0301	0.0119
Mercury	50052-12-17 10:48 G	20002528.83	20002528.95	20002529.08	0.0301	0.0064
Mercury	50053-03-15 23:02 G	20002617.39	20002617.46	20002617.53	0.0300	0.0244
Earth	50053-12-22 02:24 G	20002898.48	20002898.60	20002898.75	0.0298	0.0249
Moon	50053-12-22 02:53 G	20002898.49	20002898.62	20002898.78	0.0298	0.0236 *
Venus	50060-11-30 18:29 G	20005434.08	20005434.27	20005434.47	0.0270	0.0097
Venus	50061-07-17 22:05 G	20005663.24	20005663.42	20005663.61	0.0268	0.0129
Mars	50063-09-15 18:29 G	20006452.98	20006453.27	20006453.56	0.0263	0.0030
Mercury	50067-10-06 19:12 G	20007935.16	20007935.30	20007935.44	0.0261	0.0179
Mercury	50068-01-03 16:19 G	20008023.98	20008024.18	20008024.37	0.0261	0.0004
Mercury	50068-04-01 13:12 G	20008112.92	20008113.05	20008113.20	0.0262	0.0183
Earth	50069-06-25 00:00 G	20008562.34	20008562.50	20008562.68	0.0264	0.0191
Moon	50069-06-25 03:50 G	20008562.49	20008562.66	20008562.83	0.0264	0.0191 *
Venus	50076-08-06 23:02 G	20011162.31	20011162.46	20011162.61	0.0290	0.0203
Venus	50077-03-24 20:24 G	20011392.15	20011392.35	20011392.56	0.0293	0.0087
Mercury	50082-02-07 01:12 G	20013172.45	20013172.55	20013172.66	0.0301	0.0161
Mercury	50082-05-06 13:41 G	20013260.94	20013261.07	20013261.20	0.0300	0.0022
Mercury	50082-08-03 01:55 G	20013349.48	20013349.58	20013349.67	0.0300	0.0202
Moon	50083-12-30 20:38 G	20013864.16	20013864.36	20013864.58	0.0297	0.0161
Earth	50083-12-31 00:00 G	20013864.30	20013864.50	20013864.73	0.0296	0.0146 *
Venus	50090-06-13 00:29 G	20016220.32	20016220.52	20016220.73	0.0270	0.0064
Venus	50091-01-28 03:50 G	20016449.50	20016449.66	20016449.84	0.0268	0.0161
Mercury	50097-02-22 18:14 G	20018667.18	20018667.26	20018667.36	0.0261	0.0229
Mercury	50097-05-22 15:22 G	20018755.95	20018756.14	20018756.33	0.0261	0.0050

Mercury	50097-08-19 12:29 G	20018844.85	20018845.02	20018845.19	0.0261	0.0130
Moon	50099-07-01 17:02 G	20019525.98	20019526.21	20019526.44	0.0264	0.0058
Earth	50099-07-01 18:43 G	20019526.04	20019526.28	20019526.52	0.0264	0.0067 *
Venus	50106-02-18 01:12 G	20021948.40	20021948.55	20021948.73	0.0291	0.0175
Venus	50106-10-05 23:02 G	20022178.27	20022178.46	20022178.66	0.0293	0.0115
Mercury	50111-06-28 02:24 G	20023904.52	20023904.60	20023904.69	0.0301	0.0227
Mercury	50111-09-24 14:53 G	20023992.99	20023993.12	20023993.25	0.0301	0.0043
Mercury	50111-12-22 03:07 G	20024081.52	20024081.63	20024081.75	0.0301	0.0140
Earth	50112-12-24 12:00 G	20024449.81	20024450.00	20024450.21	0.0298	0.0174
Moon	50112-12-24 15:36 G	20024449.95	20024450.15	20024450.36	0.0298	0.0159 *
Venus	50119-05-09 22:34 G	20026777.40	20026777.44	20026777.49	0.0272	0.0265
Venus	50119-12-25 03:50 G	20027006.45	20027006.66	20027006.87	0.0270	0.0034
Venus	50120-08-10 06:58 G	20027235.65	20027235.79	20027235.94	0.0268	0.0191
Mercury	50126-10-10 14:38 G	20029487.94	20029488.11	20029488.29	0.0261	0.0099
Mercury	50127-01-07 11:46 G	20029576.81	20029576.99	20029577.17	0.0261	0.0081
Earth	50128-06-27 02:24 G	20030113.39	20030113.60	20030113.81	0.0264	0.0138
Moon	50128-06-27 03:50 G	20030113.46	20030113.66	20030113.88	0.0264	0.0143 *
Venus	50135-08-31 08:10 G	20032734.66	20032734.84	20032735.04	0.0291	0.0134
Venus	50136-04-17 06:29 G	20032964.59	20032964.77	20032964.94	0.0293	0.0158
Mars	50138-02-13 16:19 G	20033631.91	20033632.18	20033632.46	0.0299	0.0114
Mercury	50140-11-14 04:48 G	20034636.65	20034636.70	20034636.76	0.0301	0.0274
Mercury	50141-02-10 17:17 G	20034725.10	20034725.22	20034725.35	0.0301	0.0090
Mercury	50141-05-10 05:46 G	20034813.61	20034813.74	20034813.86	0.0300	0.0093
Mercury	50141-08-06 17:46 G	20034902.19	20034902.24	20034902.30	0.0300	0.0273
Moon	50143-01-02 05:17 G	20035415.58	20035415.72	20035415.87	0.0296	0.0231
Earth	50143-01-02 07:41 G	20035415.66	20035415.82	20035416.00	0.0296	0.0216 *
Venus	50148-11-19 04:19 G	20037563.58	20037563.68	20037563.79	0.0272	0.0233
Venus	50149-07-06 09:07 G	20037792.67	20037792.88	20037793.10	0.0270	0.0004
Venus	50150-02-20 12:00 G	20038021.89	20038022.00	20038022.13	0.0268	0.0222
Mars	50152-02-10 18:14 G	20038741.98	20038742.26	20038742.56	0.0263	0.0034

Mercury	50156-02-27 13:41 G	20040219.92	20040220.07	20040220.23	0.0260	0.0152
Mercury	50156-05-26 10:34 G	20040308.75	20040308.94	20040309.14	0.0261	0.0028
Mercury	50156-08-23 07:41 G	20040397.71	20040397.82	20040397.94	0.0261	0.0207
Earth	50158-07-03 19:41 G	20041077.11	20041077.32	20041077.55	0.0264	0.0119
Moon	50158-07-03 22:48 G	20041077.24	20041077.45	20041077.68	0.0264	0.0106 *
Venus	50165-03-12 10:05 G	20043520.72	20043520.92	20043521.11	0.0291	0.0107
Venus	50165-10-28 07:55 G	20043750.67	20043750.83	20043751.00	0.0294	0.0185
Mercury	50170-06-30 18:00 G	20045457.15	20045457.25	20045457.36	0.0301	0.0161
Mercury	50170-09-27 06:29 G	20045545.64	20045545.77	20045545.90	0.0301	0.0023
Mercury	50170-12-24 18:43 G	20045634.19	20045634.28	20045634.38	0.0301	0.0204
Earth	50171-12-26 16:34 G	20046000.97	20046001.19	20046001.43	0.0298	0.0109
Moon	50171-12-26 18:43 G	20046001.04	20046001.28	20046001.53	0.0298	0.0093 *
Venus	50178-06-01 05:46 G	20048349.61	20048349.74	20048349.88	0.0272	0.0205
Venus	50179-01-16 10:48 G	20048578.74	20048578.95	20048579.16	0.0269	0.0025
Venus	50179-09-02 13:41 G	20048807.99	20048808.07	20048808.15	0.0267	0.0247
Mercury	50185-07-16 12:29 G	20050951.90	20050952.02	20050952.14	0.0261	0.0206
Mercury	50185-10-13 09:22 G	20051040.70	20051040.89	20051041.08	0.0261	0.0028
Mercury	50186-01-10 06:14 G	20051129.62	20051129.76	20051129.93	0.0261	0.0154
Moon	50187-06-28 23:02 G	20051664.23	20051664.46	20051664.69	0.0264	0.0100
Earth	50187-06-29 01:55 G	20051664.36	20051664.58	20051664.82	0.0264	0.0090 *
Venus	50194-09-22 15:22 G	20054306.94	20054307.14	20054307.35	0.0291	0.0070
Venus	50195-05-10 13:26 G	20054536.94	20054537.06	20054537.21	0.0294	0.0224
Mercury	50199-11-17 20:10 G	20056189.25	20056189.34	20056189.43	0.0301	0.0214
Mercury	50200-02-14 08:24 G	20056277.73	20056277.85	20056277.98	0.0301	0.0033
Mercury	50200-05-13 20:53 G	20056366.26	20056366.37	20056366.48	0.0300	0.0151
Earth	50202-01-04 09:22 G	20056966.81	20056966.89	20056966.99	0.0296	0.0275
Moon	50202-01-04 11:17 G	20056966.93	20056966.97	20056967.02	0.0296	0.0291 *
Venus	50207-12-13 10:34 G	20059135.79	20059135.94	20059136.12	0.0272	0.0175
Venus	50208-07-29 15:22 G	20059364.93	20059365.14	20059365.35	0.0269	0.0055
Mercury	50214-12-04 11:02 G	20061683.96	20061683.96	20061683.98	0.0260	0.0259

Mercury	50215-03-03 07:55 G	20061772.66	20061772.83	20061773.02	0.0260	0.0083
Mercury	50215-05-31 05:02 G	20061861.53	20061861.71	20061861.89	0.0261	0.0097
Earth	50217-07-05 18:29 G	20062628.09	20062628.27	20062628.47	0.0264	0.0165
Moon	50217-07-05 21:07 G	20062628.19	20062628.38	20062628.60	0.0264	0.0151 *
Venus	50224-04-04 16:05 G	20065092.96	20065093.17	20065093.38	0.0291	0.0044
Venus	50224-11-20 13:55 G	20065322.98	20065323.08	20065323.20	0.0294	0.0249
Mars	50226-07-09 23:02 G	20065919.19	20065919.46	20065919.73	0.0299	0.0124
Mercury	50229-04-06 20:38 G	20066921.33	20066921.36	20066921.39	0.0302	0.0291
Mercury	50229-07-04 08:53 G	20067009.75	20067009.87	20067010.00	0.0301	0.0107
Mercury	50229-09-30 21:22 G	20067098.27	20067098.39	20067098.51	0.0301	0.0077
Mercury	50229-12-28 09:36 G	20067186.84	20067186.90	20067186.96	0.0301	0.0258
Moon	50230-12-28 13:41 G	20067551.83	20067552.07	20067552.33	0.0298	0.0037
Earth	50230-12-28 16:34 G	20067551.95	20067552.19	20067552.43	0.0298	0.0053 *
Venus	50237-06-24 10:48 G	20069921.79	20069921.95	20069922.14	0.0271	0.0151
Venus	50238-02-08 15:36 G	20070150.95	20070151.15	20070151.36	0.0269	0.0080
Mars	50240-07-06 22:19 G	20071030.15	20071030.43	20071030.72	0.0262	0.0066
Mercury	50244-07-20 06:14 G	20072504.60	20072504.76	20072504.93	0.0261	0.0141
Mercury	50244-10-17 03:22 G	20072593.45	20072593.64	20072593.83	0.0261	0.0038
Mercury	50245-01-14 00:29 G	20072682.41	20072682.52	20072682.62	0.0261	0.0218
Moon	50246-06-30 20:53 G	20073215.14	20073215.37	20073215.60	0.0264	0.0058
Earth	50246-06-30 23:31 G	20073215.24	20073215.48	20073215.72	0.0264	0.0046 *
Venus	50253-10-15 20:38 G	20075879.15	20075879.36	20075879.57	0.0292	0.0010
Venus	50254-06-02 19:12 G	20076109.25	20076109.30	20076109.35	0.0294	0.0285
Mercury	50258-11-21 10:48 G	20077741.84	20077741.95	20077742.06	0.0301	0.0163
Mercury	50259-02-17 23:17 G	20077830.34	20077830.47	20077830.59	0.0301	0.0023
Mercury	50259-05-17 11:17 G	20077918.88	20077918.97	20077919.07	0.0300	0.0203
Venus	50267-01-04 15:07 G	20080707.95	20080708.13	20080708.33	0.0271	0.0121
Venus	50267-08-21 19:26 G	20080937.13	20080937.31	20080937.51	0.0269	0.0109
Mercury	50273-12-07 04:48 G	20083236.59	20083236.70	20083236.84	0.0260	0.0195
Mercury	50274-03-06 01:55 G	20083325.39	20083325.58	20083325.77	0.0260	0.0017

Mercury	50274-06-02 22:48 G	20083414.31	20083414.45	20083414.61	0.0261	0.0162
Earth	50275-06-26 05:17 G	20083802.68	20083802.72	20083802.79	0.0262	0.0254
Moon	50275-06-26 08:24 G	20083802.83	20083802.85	20083802.90	0.0262	0.0259
Moon	50276-07-06 13:55 G	20084178.91	20084179.08	20084179.25	0.0264	0.0194
Earth	50276-07-06 16:05 G	20084179.03	20084179.17	20084179.33	0.0264	0.0209 *
Venus	50282-09-10 00:43 G	20086435.46	20086435.53	20086435.62	0.0289	0.0267
Venus	50283-04-27 21:07 G	20086665.16	20086665.38	20086665.59	0.0292	0.0017
Mercury	50288-04-09 11:02 G	20088473.88	20088473.96	20088474.03	0.0302	0.0243
Mercury	50288-07-06 23:17 G	20088562.35	20088562.47	20088562.60	0.0301	0.0059
Mercury	50288-10-03 11:46 G	20088650.87	20088650.99	20088651.10	0.0301	0.0125
Moon	50289-12-29 09:50 G	20089102.67	20089102.91	20089103.15	0.0298	0.0012
Earth	50289-12-29 12:43 G	20089102.79	20089103.03	20089103.28	0.0298	0.0006 *
Venus	50296-07-16 14:38 G	20091493.91	20091494.11	20091494.31	0.0271	0.0098
Venus	50297-03-02 18:58 G	20091723.11	20091723.29	20091723.48	0.0269	0.0131
Mercury	50303-04-27 02:53 G	20093968.59	20093968.62	20093968.65	0.0260	0.0256
Mercury	50303-07-24 23:46 G	20094057.31	20094057.49	20094057.67	0.0260	0.0079
Mercury	50303-10-21 20:53 G	20094146.19	20094146.37	20094146.54	0.0261	0.0100
Earth	50305-07-02 19:41 G	20094766.07	20094766.32	20094766.56	0.0264	0.0004
Moon	50305-07-02 21:36 G	20094766.16	20094766.40	20094766.63	0.0264	0.0018 *
Venus	50312-03-23 04:05 G	20097221.55	20097221.67	20097221.79	0.0289	0.0237
Venus	50312-11-08 00:29 G	20097451.31	20097451.52	20097451.73	0.0292	0.0048
Mars	50314-12-03 10:48 G	20098206.70	20098206.95	20098207.22	0.0299	0.0139
Mercury	50317-11-25 00:58 G	20099294.42	20099294.54	20099294.66	0.0301	0.0118
Mercury	50318-02-21 13:12 G	20099382.93	20099383.05	20099383.18	0.0301	0.0065
Mercury	50318-05-21 01:26 G	20099471.49	20099471.56	20099471.64	0.0300	0.0247
Venus	50326-01-27 18:29 G	20102280.06	20102280.27	20102280.48	0.0271	0.0068
Venus	50326-09-13 22:34 G	20102509.28	20102509.44	20102509.62	0.0269	0.0160
Mars	50328-12-01 04:34 G	20103318.43	20103318.69	20103318.96	0.0263	0.0104
Mercury	50332-12-10 22:34 G	20104789.28	20104789.44	20104789.61	0.0260	0.0133
Mercury	50333-03-09 19:26 G	20104878.12	20104878.31	20104878.50	0.0260	0.0045

Mercury	50333-06-06 16:19 G	20104967.09	20104967.18	20104967.28	0.0261	0.0225
Moon	50334-06-28 00:58 G	20105353.41	20105353.54	20105353.67	0.0262	0.0221
Earth	50334-06-28 01:55 G	20105353.45	20105353.58	20105353.73	0.0262	0.0213 *
Moon	50335-07-09 09:36 G	20105729.80	20105729.90	20105730.01	0.0264	0.0238
Earth	50335-07-09 12:29 G	20105729.96	20105730.02	20105730.11	0.0264	0.0251 *
Venus	50341-10-03 05:02 G	20108007.57	20108007.71	20108007.86	0.0289	0.0209
Venus	50342-05-21 01:12 G	20108237.35	20108237.55	20108237.76	0.0292	0.0076
Mercury	50347-04-14 00:58 G	20110026.45	20110026.54	20110026.64	0.0302	0.0198
Mercury	50347-07-11 13:26 G	20110114.93	20110115.06	20110115.19	0.0301	0.0016
Mercury	50347-10-08 01:55 G	20110203.47	20110203.58	20110203.68	0.0301	0.0169
Earth	50348-12-31 07:26 G	20110653.57	20110653.81	20110654.05	0.0298	0.0041
Moon	50348-12-31 09:22 G	20110653.66	20110653.89	20110654.13	0.0298	0.0055 *
Venus	50355-08-09 17:17 G	20113066.01	20113066.22	20113066.43	0.0271	0.0047
Venus	50356-03-25 21:07 G	20113295.24	20113295.38	20113295.55	0.0269	0.0181
Mercury	50362-04-29 20:10 G	20115521.22	20115521.34	20115521.47	0.0260	0.0197
Mercury	50362-07-27 17:02 G	20115610.02	20115610.21	20115610.40	0.0260	0.0019
Mercury	50362-10-24 13:55 G	20115698.94	20115699.08	20115699.24	0.0261	0.0161
Earth	50364-07-03 15:50 G	20116316.92	20116317.16	20116317.40	0.0264	0.0037
Moon	50364-07-03 19:12 G	20116317.06	20116317.30	20116317.55	0.0264	0.0023 *
Venus	50371-04-15 08:24 G	20118793.69	20118793.85	20118794.02	0.0289	0.0179
Venus	50371-12-01 05:02 G	20119023.51	20119023.71	20119023.90	0.0292	0.0107
Mercury	50376-08-31 02:38 G	20120758.55	20120758.61	20120758.67	0.0301	0.0258
Mercury	50376-11-27 15:07 G	20120847.00	20120847.13	20120847.25	0.0301	0.0074
Mercury	50377-02-24 03:22 G	20120935.52	20120935.64	20120935.76	0.0301	0.0109
Mercury	50377-05-23 15:36 G	20121024.13	20121024.15	20121024.18	0.0300	0.0290
Moon	50377-12-24 16:34 G	20121239.09	20121239.19	20121239.30	0.0299	0.0269
Earth	50377-12-24 19:26 G	20121239.24	20121239.31	20121239.41	0.0299	0.0281 *
Venus	50384-07-04 14:24 G	20123623.03	20123623.10	20123623.19	0.0274	0.0253
Venus	50385-02-18 20:53 G	20123852.15	20123852.37	20123852.58	0.0271	0.0018
Venus	50385-10-06 00:58 G	20124081.41	20124081.54	20124081.67	0.0269	0.0209

Mercury	50391-09-16 19:12 G	20126253.25	20126253.30	20126253.35	0.0260	0.0249
Mercury	50391-12-14 16:05 G	20126341.98	20126342.17	20126342.35	0.0260	0.0072
Mercury	50392-03-12 12:43 G	20126430.86	20126431.03	20126431.21	0.0261	0.0108
Moon	50393-06-28 18:58 G	20126904.13	20126904.29	20126904.47	0.0262	0.0184
Earth	50393-06-28 22:48 G	20126904.27	20126904.45	20126904.64	0.0262	0.0170 *
Venus	50400-10-25 09:50 G	20129579.73	20129579.91	20129580.09	0.0289	0.0149
Venus	50401-06-12 06:14 G	20129809.58	20129809.76	20129809.95	0.0292	0.0136
Mars	50403-04-27 06:43 G	20130493.52	20130493.78	20130494.06	0.0298	0.0128
Mercury	50406-04-16 15:07 G	20131579.03	20131579.13	20131579.25	0.0301	0.0154
Mercury	50406-07-14 03:36 G	20131667.53	20131667.65	20131667.78	0.0301	0.0032
Mercury	50406-10-10 15:50 G	20131756.08	20131756.16	20131756.25	0.0301	0.0213
Earth	50408-01-02 01:41 G	20132204.34	20132204.57	20132204.81	0.0298	0.0085
Moon	50408-01-02 05:17 G	20132204.48	20132204.72	20132204.96	0.0298	0.0094 *
Venus	50414-01-14 13:26 G	20134408.95	20134409.06	20134409.17	0.0273	0.0232
Venus	50414-08-31 19:41 G	20134638.10	20134638.32	20134638.53	0.0271	0.0006
Venus	50415-04-17 23:31 G	20134867.38	20134867.48	20134867.60	0.0269	0.0230
Mars	50417-04-25 19:26 G	20135606.05	20135606.31	20135606.57	0.0263	0.0115
Mercury	50421-05-02 13:26 G	20137073.90	20137074.06	20137074.23	0.0260	0.0136
Mercury	50421-07-30 10:34 G	20137162.75	20137162.94	20137163.13	0.0261	0.0043
Mercury	50421-10-27 07:26 G	20137251.72	20137251.81	20137251.92	0.0261	0.0223
Moon	50423-07-05 12:29 G	20137867.77	20137868.02	20137868.26	0.0264	0.0066
Earth	50423-07-05 12:43 G	20137867.80	20137868.03	20137868.26	0.0264	0.0080 *
Venus	50430-05-07 13:12 G	20140365.86	20140366.05	20140366.25	0.0290	0.0119
Venus	50430-12-23 09:50 G	20140595.75	20140595.91	20140596.09	0.0292	0.0169
Mercury	50435-09-03 16:48 G	20142311.11	20142311.20	20142311.30	0.0301	0.0212
Mercury	50435-12-01 05:17 G	20142399.59	20142399.72	20142399.85	0.0301	0.0028
Mercury	50436-02-27 17:31 G	20142488.13	20142488.23	20142488.35	0.0301	0.0156
Moon	50436-12-25 12:14 G	20142789.87	20142790.01	20142790.17	0.0299	0.0228
Earth	50436-12-25 14:53 G	20142789.98	20142790.12	20142790.28	0.0299	0.0235 *
Venus	50443-07-27 17:17 G	20145195.08	20145195.22	20145195.37	0.0273	0.0201

Venus	50444-03-12 23:17 G	20145424.26	20145424.47	20145424.68	0.0271	0.0034
Venus	50444-10-28 03:22 G	20145653.59	20145653.64	20145653.70	0.0269	0.0259
Mercury	50450-09-19 12:43 G	20147805.90	20147806.03	20147806.17	0.0260	0.0186
Mercury	50450-12-17 09:50 G	20147894.71	20147894.91	20147895.10	0.0261	0.0010
Mercury	50451-03-16 06:43 G	20147983.64	20147983.78	20147983.92	0.0261	0.0172
Earth	50452-06-29 20:38 G	20148455.15	20148455.36	20148455.58	0.0262	0.0127
Moon	50452-06-29 20:24 G	20148455.16	20148455.35	20148455.56	0.0262	0.0141 *
Venus	50459-11-17 16:19 G	20151151.98	20151152.18	20151152.39	0.0289	0.0085
Venus	50460-07-04 12:58 G	20151381.90	20151382.04	20151382.20	0.0292	0.0202
Mercury	50465-01-20 17:31 G	20153043.19	20153043.23	20153043.27	0.0301	0.0286
Mercury	50465-04-19 05:46 G	20153131.62	20153131.74	20153131.87	0.0301	0.0102
Mercury	50465-07-16 18:14 G	20153220.14	20153220.26	20153220.38	0.0301	0.0082
Mercury	50465-10-13 06:29 G	20153308.71	20153308.77	20153308.83	0.0301	0.0263
Moon	50467-01-02 21:36 G	20153755.18	20153755.40	20153755.63	0.0298	0.0137
Earth	50467-01-02 22:48 G	20153755.24	20153755.45	20153755.67	0.0298	0.0135 *
Venus	50473-02-05 16:19 G	20155981.03	20155981.18	20155981.35	0.0273	0.0180
Venus	50473-09-22 22:19 G	20156210.23	20156210.43	20156210.64	0.0271	0.0055
Mercury	50480-02-06 10:19 G	20158537.89	20158537.93	20158538.00	0.0260	0.0249
Mercury	50480-05-05 07:26 G	20158626.63	20158626.81	20158627.00	0.0261	0.0070
Mercury	50480-08-02 04:19 G	20158715.51	20158715.68	20158715.86	0.0261	0.0109
Moon	50482-07-06 07:41 G	20159418.60	20159418.82	20159419.04	0.0264	0.0111
Earth	50482-07-06 11:17 G	20159418.76	20159418.97	20159419.19	0.0264	0.0125 *
Venus	50489-05-29 20:24 G	20161938.14	20161938.35	20161938.56	0.0290	0.0053
Venus	50490-01-14 17:02 G	20162168.10	20162168.21	20162168.34	0.0292	0.0235
Mars	50491-09-20 01:55 G	20162781.33	20162781.58	20162781.84	0.0298	0.0152
Mercury	50494-09-06 07:41 G	20163863.71	20163863.82	20163863.93	0.0301	0.0159
Mercury	50494-12-03 19:55 G	20163952.21	20163952.33	20163952.46	0.0301	0.0026
Mercury	50495-03-02 08:10 G	20164040.75	20164040.84	20164040.94	0.0300	0.0207
Earth	50495-12-27 12:43 G	20164340.84	20164341.03	20164341.23	0.0299	0.0184
Moon	50495-12-27 14:24 G	20164340.92	20164341.10	20164341.30	0.0299	0.0181 *

Venus	50502-08-19 20:38 G	20166767.19	20166767.36	20166767.55	0.0273	0.0147
Venus	50503-04-06 02:38 G	20166996.41	20166996.61	20166996.81	0.0271	0.0087
Mars	50505-09-20 01:55 G	20167894.35	20167894.58	20167894.83	0.0264	0.0151
Mercury	50509-09-23 06:58 G	20169358.63	20169358.79	20169358.97	0.0261	0.0117
Mercury	50509-12-21 04:05 G	20169447.48	20169447.67	20169447.86	0.0261	0.0062
Mercury	50510-03-20 00:58 G	20169536.48	20169536.54	20169536.62	0.0261	0.0242
Earth	50511-07-02 20:24 G	20170006.12	20170006.35	20170006.58	0.0263	0.0079
Moon	50511-07-03 00:14 G	20170006.28	20170006.51	20170006.73	0.0263	0.0094 *
Venus	50518-12-11 00:58 G	20172724.33	20172724.54	20172724.75	0.0289	0.0016
Venus	50519-07-28 21:36 G	20172954.33	20172954.40	20172954.49	0.0292	0.0271
Mercury	50524-01-25 08:38 G	20174595.78	20174595.86	20174595.94	0.0301	0.0226
Mercury	50524-04-22 21:07 G	20174684.25	20174684.38	20174684.50	0.0301	0.0043
Mercury	50524-07-20 09:22 G	20174772.78	20174772.89	20174773.00	0.0301	0.0140
Moon	50526-01-04 19:41 G	20175306.13	20175306.32	20175306.51	0.0298	0.0189
Earth	50526-01-04 23:02 G	20175306.28	20175306.46	20175306.66	0.0298	0.0192 *
Venus	50532-02-29 20:38 G	20177553.18	20177553.36	20177553.56	0.0273	0.0124
Venus	50532-10-16 02:24 G	20177782.41	20177782.60	20177782.80	0.0271	0.0110
Mercury	50539-02-10 04:48 G	20180090.57	20180090.70	20180090.85	0.0261	0.0179
Mercury	50539-05-10 01:55 G	20180179.39	20180179.58	20180179.77	0.0261	0.0002
Mercury	50539-08-06 22:48 G	20180268.32	20180268.45	20180268.60	0.0261	0.0181
Moon	50541-07-08 10:48 G	20180969.77	20180969.95	20180970.14	0.0264	0.0164
Earth	50541-07-08 11:46 G	20180969.82	20180969.99	20180970.18	0.0264	0.0175 *
Venus	50547-11-05 11:02 G	20183280.88	20183280.96	20183281.05	0.0288	0.0260
Venus	50548-06-22 06:00 G	20183510.54	20183510.75	20183510.96	0.0290	0.0019
Mercury	50553-06-13 10:34 G	20185327.90	20185327.94	20185327.99	0.0301	0.0280
Mercury	50553-09-09 23:02 G	20185416.34	20185416.46	20185416.59	0.0301	0.0096
Mercury	50553-12-07 11:31 G	20185504.86	20185504.98	20185505.10	0.0300	0.0087
Mercury	50554-03-05 23:46 G	20185593.43	20185593.49	20185593.54	0.0300	0.0268
Earth	50554-12-29 15:36 G	20185891.93	20185892.15	20185892.38	0.0299	0.0122
Moon	50554-12-29 19:12 G	20185892.08	20185892.30	20185892.53	0.0299	0.0119 *

Venus	50561-09-11 01:55 G	20188339.38	20188339.58	20188339.78	0.0273	0.0089
Venus	50562-04-28 07:41 G	20188568.64	20188568.82	20188569.00	0.0271	0.0143
Mercury	50568-06-29 05:02 G	20190822.62	20190822.71	20190822.82	0.0261	0.0221
Mercury	50568-09-26 01:55 G	20190911.40	20190911.58	20190911.78	0.0261	0.0043
Mercury	50568-12-23 23:02 G	20191000.30	20191000.46	20191000.63	0.0261	0.0138
Earth	50570-07-03 22:34 G	20191557.19	20191557.44	20191557.68	0.0263	0.0027
Moon	50570-07-03 23:46 G	20191557.24	20191557.49	20191557.74	0.0263	0.0040 *
Venus	50577-05-17 17:17 G	20194067.10	20194067.22	20194067.37	0.0287	0.0218
Venus	50578-01-02 12:14 G	20194296.81	20194297.01	20194297.22	0.0290	0.0061
Mars	50580-02-14 11:02 G	20195069.73	20195069.96	20195070.18	0.0297	0.0194
Mercury	50583-01-28 00:29 G	20196148.42	20196148.52	20196148.64	0.0301	0.0156
Mercury	50583-04-26 12:58 G	20196236.91	20196237.04	20196237.17	0.0301	0.0027
Mercury	50583-07-24 01:12 G	20196325.46	20196325.55	20196325.64	0.0300	0.0208
Moon	50585-01-06 03:36 G	20196857.53	20196857.65	20196857.77	0.0297	0.0256
Earth	50585-01-06 04:34 G	20196857.57	20196857.69	20196857.81	0.0297	0.0258 *
Venus	50591-03-24 03:07 G	20199125.42	20199125.63	20199125.83	0.0273	0.0064
Venus	50591-11-08 08:24 G	20199354.69	20199354.85	20199355.02	0.0270	0.0168
Mars	50594-02-13 05:02 G	20200182.49	20200182.71	20200182.92	0.0264	0.0176
Mercury	50598-02-13 00:14 G	20201643.34	20201643.51	20201643.69	0.0261	0.0101
Mercury	50598-05-12 21:22 G	20201732.21	20201732.39	20201732.58	0.0261	0.0079
Mercury	50598-08-09 18:29 G	20201821.26	20201821.27	20201821.29	0.0261	0.0260
Moon	50599-06-29 03:07 G	20202144.56	20202144.63	20202144.70	0.0262	0.0249
Earth	50599-06-29 04:34 G	20202144.59	20202144.69	20202144.80	0.0262	0.0235 *
Earth	50600-07-10 15:22 G	20202521.03	20202521.14	20202521.27	0.0264	0.0231
Moon	50600-07-10 18:58 G	20202521.16	20202521.29	20202521.42	0.0264	0.0223 *
Venus	50606-11-28 22:48 G	20204853.30	20204853.45	20204853.62	0.0288	0.0184
Venus	50607-07-16 18:14 G	20205083.06	20205083.26	20205083.46	0.0291	0.0097
Mercury	50612-06-17 02:53 G	20206880.53	20206880.62	20206880.71	0.0301	0.0205
Mercury	50612-09-13 15:22 G	20206969.01	20206969.14	20206969.26	0.0300	0.0024
Mercury	50612-12-11 03:36 G	20207057.54	20207057.65	20207057.76	0.0300	0.0160

Earth	50613-12-31 23:17 G	20207443.22	20207443.47	20207443.71	0.0298	0.0051
Moon	50613-12-31 23:46 G	20207443.24	20207443.49	20207443.74	0.0298	0.0051 *
Venus	50620-02-18 01:41 G	20209682.53	20209682.57	20209682.63	0.0275	0.0266
Venus	50620-10-04 09:07 G	20209911.67	20209911.88	20209912.09	0.0272	0.0027
Venus	50621-05-21 14:24 G	20210140.96	20210141.10	20210141.24	0.0270	0.0203
Mercury	50627-07-04 00:58 G	20212375.38	20212375.54	20212375.70	0.0261	0.0140
Mercury	50627-09-30 21:50 G	20212464.22	20212464.41	20212464.60	0.0261	0.0040
Mercury	50627-12-28 18:43 G	20212553.19	20212553.28	20212553.39	0.0262	0.0222
Moon	50629-07-06 00:00 G	20213108.25	20213108.50	20213108.75	0.0264	0.0021
Earth	50629-07-06 03:07 G	20213108.39	20213108.63	20213108.87	0.0264	0.0031 *
Venus	50636-06-10 07:12 G	20215639.62	20215639.80	20215639.99	0.0288	0.0138
Venus	50637-01-26 02:24 G	20215869.43	20215869.60	20215869.79	0.0290	0.0143
Mercury	50641-11-04 05:02 G	20217612.64	20217612.71	20217612.78	0.0301	0.0256
Mercury	50642-01-31 17:31 G	20217701.10	20217701.23	20217701.35	0.0300	0.0073
Mercury	50642-04-30 05:46 G	20217789.62	20217789.74	20217789.86	0.0300	0.0109
Mercury	50642-07-27 18:00 G	20217878.22	20217878.25	20217878.28	0.0300	0.0289
Venus	50649-08-30 04:34 G	20220468.60	20220468.69	20220468.81	0.0275	0.0238
Venus	50650-04-16 11:46 G	20220697.78	20220697.99	20220698.20	0.0272	0.0001
Venus	50650-12-01 16:48 G	20220927.09	20220927.20	20220927.31	0.0270	0.0230
Mars	50652-05-23 21:36 G	20221466.31	20221466.40	20221466.52	0.0266	0.0248
Mercury	50656-11-19 23:31 G	20223107.36	20223107.48	20223107.61	0.0261	0.0194
Mercury	50657-02-16 20:38 G	20223196.17	20223196.36	20223196.55	0.0261	0.0015
Mercury	50657-05-16 17:46 G	20223285.09	20223285.24	20223285.39	0.0261	0.0166
Earth	50658-07-01 10:05 G	20223695.74	20223695.92	20223696.10	0.0263	0.0176
Moon	50658-07-01 12:29 G	20223695.86	20223696.02	20223696.19	0.0263	0.0190 *
Venus	50665-12-21 13:41 G	20226425.87	20226426.07	20226426.27	0.0289	0.0102
Venus	50666-08-08 09:22 G	20226655.73	20226655.89	20226656.06	0.0291	0.0182
Mars	50668-07-11 19:26 G	20227359.21	20227359.31	20227359.41	0.0298	0.0279
Mercury	50671-06-20 19:55 G	20228433.21	20228433.33	20228433.45	0.0300	0.0119
Mercury	50671-09-17 08:24 G	20228521.72	20228521.85	20228521.97	0.0300	0.0064

Mercury	50671-12-14 20:24 G	20228610.28	20228610.35	20228610.43	0.0300	0.0244
Moon	50673-01-02 08:53 G	20228994.62	20228994.87	20228995.12	0.0298	0.0028
Earth	50673-01-02 12:14 G	20228994.77	20228995.01	20228995.26	0.0298	0.0033 *
Venus	50679-03-12 11:17 G	20231254.84	20231254.97	20231255.13	0.0274	0.0199
Venus	50679-10-27 18:14 G	20231484.05	20231484.26	20231484.47	0.0272	0.0039
Venus	50680-06-12 23:17 G	20231713.45	20231713.47	20231713.50	0.0270	0.0267
Mars	50682-07-11 07:26 G	20232471.70	20232471.81	20232471.94	0.0264	0.0239
Mercury	50686-04-09 00:29 G	20233839.44	20233839.52	20233839.62	0.0261	0.0230
Mercury	50686-07-06 21:36 G	20233928.21	20233928.40	20233928.59	0.0262	0.0050
Mercury	50686-10-03 18:29 G	20234017.11	20234017.27	20234017.44	0.0262	0.0131
Moon	50688-07-07 07:41 G	20234659.60	20234659.82	20234660.05	0.0264	0.0085
Earth	50688-07-07 10:19 G	20234659.71	20234659.93	20234660.17	0.0264	0.0094 *
Venus	50695-07-03 23:31 G	20237212.27	20237212.48	20237212.69	0.0288	0.0052
Venus	50696-02-18 19:26 G	20237442.18	20237442.31	20237442.43	0.0291	0.0231
Mercury	50700-11-07 22:34 G	20239165.34	20239165.44	20239165.55	0.0300	0.0162
Mercury	50701-02-04 11:02 G	20239253.83	20239253.96	20239254.09	0.0300	0.0020
Mercury	50701-05-03 23:17 G	20239342.37	20239342.47	20239342.56	0.0300	0.0201
Earth	50701-12-28 06:58 G	20239580.70	20239580.79	20239580.90	0.0299	0.0272
Moon	50701-12-28 10:48 G	20239580.87	20239580.95	20239581.05	0.0299	0.0276 *
Venus	50708-09-22 15:50 G	20242041.00	20242041.16	20242041.34	0.0274	0.0167
Venus	50709-05-09 22:19 G	20242270.23	20242270.43	20242270.64	0.0272	0.0070
Mercury	50715-11-24 20:38 G	20244660.18	20244660.36	20244660.54	0.0261	0.0102
Mercury	50716-02-21 17:31 G	20244749.05	20244749.23	20244749.42	0.0261	0.0079
Mercury	50716-05-20 14:38 G	20244838.10	20244838.11	20244838.14	0.0262	0.0260
Earth	50717-07-03 17:46 G	20245247.02	20245247.24	20245247.46	0.0263	0.0113
Moon	50717-07-03 20:53 G	20245247.16	20245247.37	20245247.60	0.0263	0.0127 *
Venus	50725-01-14 06:29 G	20247998.56	20247998.77	20247998.98	0.0289	0.0015
Venus	50725-09-01 02:38 G	20248228.54	20248228.61	20248228.69	0.0292	0.0272
Mercury	50730-03-28 01:12 G	20249897.46	20249897.55	20249897.65	0.0301	0.0207
Mercury	50730-06-24 13:41 G	20249985.94	20249986.07	20249986.20	0.0300	0.0024

Mercury	50730-09-21 01:55 G	20250074.48	20250074.58	20250074.69	0.0300	0.0158
Moon	50732-01-06 03:22 G	20250546.42	20250546.64	20250546.86	0.0298	0.0119
Earth	50732-01-06 05:46 G	20250546.53	20250546.74	20250546.98	0.0298	0.0126 *
Venus	50738-04-04 23:31 G	20252827.30	20252827.48	20252827.67	0.0273	0.0126
Venus	50738-11-20 05:46 G	20253056.55	20253056.74	20253056.94	0.0271	0.0109
Mars	50740-10-19 07:55 G	20253755.64	20253755.83	20253756.06	0.0266	0.0177
Mercury	50745-04-12 21:50 G	20255392.25	20255392.41	20255392.58	0.0262	0.0135
Mercury	50745-07-10 18:58 G	20255481.10	20255481.29	20255481.48	0.0262	0.0045
Mercury	50745-10-07 16:05 G	20255570.08	20255570.17	20255570.27	0.0262	0.0227
Earth	50747-07-10 19:26 G	20256211.12	20256211.31	20256211.51	0.0265	0.0161
Moon	50747-07-10 20:38 G	20256211.17	20256211.36	20256211.55	0.0265	0.0154 *
Venus	50753-12-09 22:48 G	20258555.34	20258555.45	20258555.57	0.0287	0.0239
Venus	50754-07-27 17:31 G	20258785.02	20258785.23	20258785.44	0.0289	0.0038
Mercury	50759-08-15 04:34 G	20260629.61	20260629.69	20260629.76	0.0300	0.0242
Mercury	50759-11-11 16:48 G	20260718.08	20260718.20	20260718.33	0.0300	0.0060
Mercury	50760-02-08 05:02 G	20260806.60	20260806.71	20260806.83	0.0300	0.0122
Earth	50760-12-30 04:19 G	20261132.48	20261132.68	20261132.88	0.0298	0.0172
Moon	50760-12-30 06:00 G	20261132.56	20261132.75	20261132.97	0.0298	0.0178 *
Venus	50767-10-16 05:17 G	20263613.52	20263613.72	20263613.92	0.0273	0.0092
Venus	50768-06-01 11:02 G	20263842.78	20263842.96	20263843.14	0.0271	0.0142
Mercury	50774-08-30 21:22 G	20266124.26	20266124.39	20266124.53	0.0261	0.0183
Mercury	50774-11-27 18:29 G	20266213.07	20266213.27	20266213.46	0.0261	0.0007
Mercury	50775-02-24 15:22 G	20266302.00	20266302.14	20266302.29	0.0262	0.0177
Moon	50776-07-05 03:07 G	20266798.38	20266798.63	20266798.87	0.0263	0.0059
Earth	50776-07-05 03:36 G	20266798.41	20266798.65	20266798.89	0.0263	0.0046 *
Venus	50783-06-22 05:31 G	20269341.59	20269341.73	20269341.89	0.0288	0.0203
Venus	50784-02-07 00:29 G	20269571.32	20269571.52	20269571.73	0.0290	0.0077
Mercury	50789-01-01 06:58 G	20271361.76	20271361.79	20271361.83	0.0301	0.0288
Mercury	50789-03-30 19:41 G	20271450.19	20271450.32	20271450.44	0.0300	0.0105
Mercury	50789-06-27 07:55 G	20271538.70	20271538.83	20271538.95	0.0300	0.0078

Mercury	50789-09-23 20:10 G	20271627.28	20271627.34	20271627.40	0.0300	0.0258
Earth	50791-01-08 02:10 G	20272098.44	20272098.59	20272098.76	0.0297	0.0223
Moon	50791-01-08 03:50 G	20272098.51	20272098.66	20272098.84	0.0297	0.0216 *
Venus	50797-04-27 12:58 G	20274399.84	20274400.04	20274400.25	0.0273	0.0052
Venus	50797-12-12 18:29 G	20274629.13	20274629.27	20274629.44	0.0271	0.0182
Mercury	50804-01-17 22:48 G	20276856.34	20276856.45	20276856.55	0.0262	0.0216
Mercury	50804-04-15 19:41 G	20276945.13	20276945.32	20276945.51	0.0262	0.0036
Mercury	50804-07-13 16:34 G	20277034.04	20277034.19	20277034.36	0.0262	0.0145
Earth	50805-06-30 17:31 G	20277386.14	20277386.23	20277386.35	0.0263	0.0238
Moon	50805-06-30 18:00 G	20277386.19	20277386.25	20277386.31	0.0263	0.0253 *
Earth	50806-07-12 05:17 G	20277762.62	20277762.72	20277762.85	0.0265	0.0230
Moon	50806-07-12 08:53 G	20277762.75	20277762.87	20277763.02	0.0265	0.0222 *
Venus	50813-01-01 16:34 G	20280128.02	20280128.19	20280128.38	0.0288	0.0152
Venus	50813-08-19 12:00 G	20280357.81	20280358.00	20280358.19	0.0290	0.0129
Mars	50815-03-13 19:41 G	20280929.14	20280929.32	20280929.53	0.0296	0.0223
Mercury	50818-08-17 23:02 G	20282182.34	20282182.46	20282182.57	0.0300	0.0137
Mercury	50818-11-14 11:17 G	20282270.84	20282270.97	20282271.10	0.0300	0.0045
Mercury	50819-02-10 23:31 G	20282359.40	20282359.48	20282359.57	0.0300	0.0225
Moon	50820-01-02 00:43 G	20282684.29	20282684.53	20282684.78	0.0298	0.0077
Earth	50820-01-02 03:22 G	20282684.40	20282684.64	20282684.88	0.0298	0.0069 *
Venus	50826-03-23 12:58 G	20284956.96	20284957.04	20284957.11	0.0275	0.0254
Venus	50826-11-07 19:55 G	20285186.12	20285186.33	20285186.54	0.0273	0.0016
Venus	50827-06-25 00:58 G	20285415.42	20285415.54	20285415.67	0.0270	0.0215
Mars	50829-03-15 20:38 G	20286045.11	20286045.36	20286045.64	0.0265	0.0101
Mercury	50833-09-02 19:26 G	20287677.12	20287677.31	20287677.49	0.0261	0.0084
Mercury	50833-11-30 16:19 G	20287766.00	20287766.18	20287766.36	0.0261	0.0097
Moon	50835-07-07 09:50 G	20288349.67	20288349.91	20288350.16	0.0263	0.0012
Earth	50835-07-07 13:41 G	20288349.83	20288350.07	20288350.32	0.0263	0.0023 *
Venus	50842-07-14 23:17 G	20290914.28	20290914.47	20290914.66	0.0288	0.0115
Venus	50843-03-01 18:43 G	20291144.11	20291144.28	20291144.46	0.0291	0.0168

Mercury	50848-01-05 01:41 G	20292914.46	20292914.57	20292914.67	0.0301	0.0183
Mercury	50848-04-02 13:55 G	20293002.95	20293003.08	20293003.21	0.0300	0.0004
Mercury	50848-06-30 02:10 G	20293091.49	20293091.59	20293091.69	0.0300	0.0181
Venus	50855-10-03 20:10 G	20295743.22	20295743.34	20295743.48	0.0274	0.0214
Venus	50856-05-20 03:07 G	20295972.42	20295972.63	20295972.85	0.0272	0.0025
Venus	50857-01-04 08:10 G	20296201.78	20296201.84	20296201.92	0.0270	0.0254
Mercury	50863-01-20 20:38 G	20298409.19	20298409.36	20298409.53	0.0262	0.0117
Mercury	50863-04-19 17:31 G	20298498.05	20298498.23	20298498.42	0.0262	0.0064
Mercury	50863-07-17 14:38 G	20298587.05	20298587.11	20298587.18	0.0262	0.0246
Earth	50864-07-02 03:22 G	20298937.47	20298937.64	20298937.84	0.0263	0.0172
Moon	50864-07-02 07:12 G	20298937.64	20298937.80	20298937.98	0.0263	0.0185 *
Venus	50872-01-25 10:19 G	20301700.73	20301700.93	20301701.14	0.0288	0.0064
Venus	50872-09-11 06:14 G	20301930.63	20301930.76	20301930.90	0.0291	0.0221
Mercury	50877-05-24 05:02 G	20303646.62	20303646.71	20303646.80	0.0300	0.0216
Mercury	50877-08-20 17:17 G	20303735.10	20303735.22	20303735.35	0.0300	0.0034
Mercury	50877-11-17 05:31 G	20303823.63	20303823.73	20303823.85	0.0300	0.0149
Moon	50879-01-03 22:19 G	20304236.18	20304236.43	20304236.67	0.0298	0.0026
Earth	50879-01-04 01:41 G	20304236.33	20304236.57	20304236.82	0.0298	0.0034 *
Venus	50885-04-15 04:05 G	20306529.51	20306529.67	20306529.83	0.0274	0.0176
Venus	50885-11-30 10:19 G	20306758.73	20306758.93	20306759.14	0.0272	0.0061
Mercury	50892-06-08 20:10 G	20309141.20	20309141.34	20309141.50	0.0261	0.0163
Mercury	50892-09-05 17:17 G	20309230.03	20309230.22	20309230.41	0.0261	0.0016
Mercury	50892-12-03 14:10 G	20309318.97	20309319.09	20309319.22	0.0261	0.0198
Moon	50894-07-08 22:19 G	20309901.21	20309901.43	20309901.66	0.0264	0.0081
Earth	50894-07-08 23:31 G	20309901.25	20309901.48	20309901.71	0.0264	0.0090 *
Venus	50901-08-07 15:36 G	20312486.94	20312487.15	20312487.36	0.0289	0.0030
Venus	50902-03-25 11:31 G	20312716.90	20312716.98	20312717.09	0.0292	0.0257
Mars	50903-08-09 16:19 G	20313218.90	20313219.18	20313219.46	0.0297	0.0114
Mercury	50906-10-12 07:12 G	20314378.74	20314378.80	20314378.86	0.0301	0.0267
Mercury	50907-01-08 19:41 G	20314467.19	20314467.32	20314467.44	0.0301	0.0083

Mercury	50907-04-07 07:55 G	20314555.71	20314555.83	20314555.95	0.0300	0.0099
Mercury	50907-07-04 20:10 G	20314644.30	20314644.34	20314644.39	0.0300	0.0279
Earth	50907-12-29 18:58 G	20314822.22	20314822.29	20314822.39	0.0299	0.0279
Moon	50907-12-29 22:34 G	20314822.37	20314822.44	20314822.53	0.0299	0.0282 *
Venus	50914-10-27 10:34 G	20317315.77	20317315.94	20317316.13	0.0273	0.0137
Venus	50915-06-13 17:02 G	20317545.01	20317545.21	20317545.41	0.0271	0.0098
Mars	50917-08-11 14:38 G	20318334.83	20318335.11	20318335.40	0.0265	0.0016
Mercury	50921-10-27 21:22 G	20319873.27	20319873.39	20319873.51	0.0261	0.0199
Mercury	50922-01-24 18:14 G	20319962.07	20319962.26	20319962.45	0.0262	0.0020
Mercury	50922-04-23 15:07 G	20320050.99	20320051.13	20320051.29	0.0262	0.0162
Earth	50923-07-05 12:14 G	20320488.79	20320489.01	20320489.24	0.0263	0.0106
Moon	50923-07-05 13:55 G	20320488.86	20320489.08	20320489.31	0.0263	0.0118 *
Venus	50930-07-03 07:41 G	20323043.73	20323043.82	20323043.91	0.0287	0.0257
Venus	50931-02-18 02:10 G	20323273.38	20323273.59	20323273.80	0.0289	0.0020
Mercury	50936-05-27 22:48 G	20325199.34	20325199.45	20325199.57	0.0300	0.0118
Mercury	50936-08-24 11:17 G	20325287.85	20325287.97	20325288.10	0.0300	0.0065
Mercury	50936-11-20 23:31 G	20325376.41	20325376.48	20325376.55	0.0300	0.0245
Moon	50938-01-06 20:24 G	20325788.14	20325788.35	20325788.57	0.0298	0.0124
Earth	50938-01-06 21:22 G	20325788.18	20325788.39	20325788.62	0.0298	0.0130 *
Venus	50944-05-08 18:14 G	20328102.07	20328102.26	20328102.47	0.0273	0.0101
Venus	50944-12-24 00:14 G	20328331.33	20328331.51	20328331.70	0.0271	0.0134
Mercury	50951-03-16 20:53 G	20330605.31	20330605.37	20330605.44	0.0261	0.0245
Mercury	50951-06-13 17:46 G	20330694.06	20330694.24	20330694.43	0.0261	0.0067
Mercury	50951-09-10 14:38 G	20330782.94	20330783.11	20330783.29	0.0261	0.0113
Earth	50953-07-11 07:55 G	20331452.63	20331452.83	20331453.03	0.0264	0.0154
Moon	50953-07-11 11:02 G	20331452.76	20331452.96	20331453.16	0.0264	0.0149 *
Venus	50960-01-13 11:46 G	20333829.87	20333829.99	20333830.13	0.0287	0.0225
Venus	50960-08-30 06:29 G	20334059.57	20334059.77	20334059.99	0.0290	0.0054
Mercury	50965-10-15 00:43 G	20335931.43	20335931.53	20335931.64	0.0301	0.0174
Mercury	50966-01-11 13:12 G	20336019.92	20336020.05	20336020.18	0.0301	0.0009

Mercury	50966-04-10 01:26 G	20336108.46	20336108.56	20336108.66	0.0300	0.0191
Earth	50966-12-31 12:29 G	20336373.84	20336374.02	20336374.22	0.0299	0.0187
Moon	50966-12-31 12:43 G	20336373.84	20336374.03	20336374.23	0.0299	0.0193 *
Venus	50973-11-18 23:46 G	20338888.28	20338888.49	20338888.70	0.0273	0.0064
Venus	50974-07-06 05:17 G	20339117.56	20339117.72	20339117.89	0.0271	0.0168
Mercury	50980-10-30 18:14 G	20341426.09	20341426.26	20341426.44	0.0261	0.0107
Mercury	50981-01-27 15:07 G	20341514.95	20341515.13	20341515.32	0.0261	0.0073
Mercury	50981-04-26 12:14 G	20341603.97	20341604.01	20341604.06	0.0262	0.0254
Moon	50982-07-06 16:34 G	20342039.95	20342040.19	20342040.44	0.0263	0.0054
Earth	50982-07-06 19:12 G	20342040.06	20342040.30	20342040.55	0.0263	0.0045 *
Venus	50989-07-25 20:38 G	20344616.20	20344616.36	20344616.53	0.0287	0.0181
Venus	50990-03-12 15:36 G	20344845.96	20344846.15	20344846.35	0.0290	0.0099
Mars	50992-01-04 13:41 G	20345508.77	20345509.07	20345509.37	0.0296	0.0007
Mercury	50995-03-04 03:36 G	20346663.57	20346663.65	20346663.75	0.0300	0.0214
Mercury	50995-05-31 16:05 G	20346752.04	20346752.17	20346752.30	0.0300	0.0031
Mercury	50995-08-28 04:34 G	20346840.58	20346840.69	20346840.80	0.0300	0.0151
Earth	50997-01-08 12:14 G	20347339.85	20347340.01	20347340.18	0.0298	0.0216
Moon	50997-01-08 15:07 G	20347339.97	20347340.13	20347340.31	0.0298	0.0208 *

52ND MILLENNIUM CE

This is a list of transits visible from Saturn in the 52nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	51002-10-15 23:17 G		20349445.44	20349445.47	20349445.53	0.0275	0.0268	

Venus	51003-06-02 06:43 G	20349674.57	20349674.78	20349675.00	0.0273	0.0029
Venus	51004-01-17 12:00 G	20349903.88	20349904.00	20349904.16	0.0271	0.0204
Mars	51006-01-07 03:07 G	20350624.35	20350624.63	20350624.91	0.0265	0.0066
Mercury	51010-03-20 17:31 G	20352158.09	20352158.23	20352158.39	0.0261	0.0156
Mercury	51010-06-17 14:38 G	20352246.92	20352247.11	20352247.30	0.0261	0.0023
Mercury	51010-09-14 11:31 G	20352335.87	20352335.98	20352336.11	0.0261	0.0204
Earth	51011-07-03 03:22 G	20352627.58	20352627.64	20352627.72	0.0262	0.0250
Earth	51012-07-13 13:41 G	20353003.94	20353004.07	20353004.22	0.0264	0.0214
Moon	51012-07-13 16:19 G	20353004.04	20353004.18	20353004.34	0.0264	0.0211 *
Venus	51019-02-05 23:31 G	20355402.31	20355402.48	20355402.67	0.0288	0.0152
Venus	51019-09-23 18:43 G	20355632.09	20355632.28	20355632.47	0.0290	0.0130
Mercury	51024-07-22 05:02 G	20357395.67	20357395.71	20357395.76	0.0301	0.0277
Mercury	51024-10-18 17:31 G	20357484.11	20357484.23	20357484.35	0.0301	0.0093
Mercury	51025-01-15 06:00 G	20357572.62	20357572.75	20357572.87	0.0301	0.0090
Mercury	51025-04-13 18:00 G	20357661.21	20357661.25	20357661.31	0.0300	0.0272
Moon	51026-01-02 20:53 G	20357925.14	20357925.37	20357925.60	0.0299	0.0117
Earth	51026-01-03 00:29 G	20357925.30	20357925.52	20357925.76	0.0299	0.0107 *
Venus	51032-04-27 03:22 G	20360231.54	20360231.64	20360231.75	0.0275	0.0235
Venus	51032-12-12 10:48 G	20360460.73	20360460.95	20360461.16	0.0272	0.0006
Venus	51033-07-29 15:50 G	20360690.06	20360690.16	20360690.27	0.0270	0.0234
Mercury	51039-08-07 17:17 G	20362890.11	20362890.22	20362890.35	0.0261	0.0202
Mercury	51039-11-04 14:24 G	20362978.91	20362979.10	20362979.29	0.0261	0.0023
Mercury	51040-02-01 11:17 G	20363067.82	20363067.97	20363068.13	0.0261	0.0157
Moon	51041-07-08 20:10 G	20363591.10	20363591.34	20363591.58	0.0263	0.0005
Earth	51041-07-08 23:17 G	20363591.23	20363591.47	20363591.72	0.0263	0.0012 *
Venus	51048-08-18 07:12 G	20366188.61	20366188.80	20366189.00	0.0288	0.0110
Venus	51049-04-05 02:38 G	20366418.45	20366418.61	20366418.79	0.0291	0.0173
Mercury	51054-03-07 20:10 G	20368216.23	20368216.34	20368216.46	0.0300	0.0137
Mercury	51054-06-04 08:38 G	20368304.73	20368304.86	20368304.99	0.0300	0.0046
Mercury	51054-08-31 20:53 G	20368393.29	20368393.37	20368393.45	0.0300	0.0227

Earth	51056-01-11 22:19 G	20368891.39	20368891.43	20368891.49	0.0297	0.0291
Moon	51056-01-12 01:26 G	20368891.49	20368891.56	20368891.65	0.0297	0.0280 *
Venus	51061-11-07 10:05 G	20371017.77	20371017.92	20371018.06	0.0275	0.0200
Venus	51062-06-24 16:48 G	20371247.00	20371247.20	20371247.42	0.0272	0.0039
Venus	51063-02-08 21:50 G	20371476.39	20371476.41	20371476.45	0.0270	0.0267
Mercury	51068-12-24 16:48 G	20373622.16	20373622.20	20373622.26	0.0261	0.0251
Mercury	51069-03-23 13:41 G	20373710.89	20373711.07	20373711.25	0.0261	0.0073
Mercury	51069-06-20 10:34 G	20373799.77	20373799.94	20373800.12	0.0261	0.0105
Earth	51070-07-04 06:58 G	20374178.64	20374178.79	20374178.96	0.0262	0.0196
Moon	51070-07-04 10:34 G	20374178.80	20374178.94	20374179.10	0.0262	0.0210 *
Venus	51078-02-28 09:07 G	20376974.68	20376974.88	20376975.08	0.0288	0.0082
Venus	51078-10-16 04:34 G	20377204.53	20377204.69	20377204.84	0.0291	0.0200
Mars	51080-05-30 15:50 G	20377796.87	20377797.16	20377797.46	0.0297	0.0037
Mercury	51083-07-25 20:53 G	20378948.28	20378948.37	20378948.47	0.0301	0.0208
Mercury	51083-10-22 09:22 G	20379036.76	20379036.89	20379037.02	0.0301	0.0025
Mercury	51084-01-18 21:50 G	20379125.30	20379125.41	20379125.52	0.0301	0.0159
Moon	51085-01-04 05:02 G	20379476.48	20379476.71	20379476.95	0.0299	0.0052
Earth	51085-01-04 06:58 G	20379476.55	20379476.79	20379477.03	0.0299	0.0037 *
Venus	51091-05-20 12:00 G	20381803.84	20381804.00	20381804.17	0.0274	0.0171
Venus	51092-01-04 18:58 G	20382033.09	20382033.29	20382033.50	0.0272	0.0067
Mars	51094-06-02 21:36 G	20382913.14	20382913.40	20382913.66	0.0265	0.0118
Mercury	51098-08-10 12:43 G	20384442.87	20384443.03	20384443.20	0.0261	0.0125
Mercury	51098-11-07 09:36 G	20384531.71	20384531.90	20384532.09	0.0261	0.0054
Mercury	51099-02-04 06:29 G	20384620.69	20384620.77	20384620.86	0.0261	0.0234
Earth	51100-07-11 00:29 G	20385142.29	20385142.52	20385142.77	0.0263	0.0063
Moon	51100-07-11 01:26 G	20385142.33	20385142.56	20385142.79	0.0263	0.0056 *
Venus	51107-09-11 14:53 G	20387760.92	20387761.12	20387761.33	0.0288	0.0045
Venus	51108-04-28 10:34 G	20387990.83	20387990.94	20387991.07	0.0291	0.0240
Mercury	51112-12-12 23:02 G	20389680.40	20389680.46	20389680.53	0.0301	0.0258
Mercury	51113-03-11 11:46 G	20389768.86	20389768.99	20389769.12	0.0300	0.0073

Mercury	51113-06-08 00:00 G	20389857.39	20389857.50	20389857.63	0.0300	0.0110
Mercury	51113-09-04 12:29 G	20389945.99	20389946.02	20389946.05	0.0300	0.0290
Venus	51120-11-30 17:46 G	20392590.06	20392590.24	20392590.43	0.0274	0.0138
Venus	51121-07-18 00:29 G	20392819.33	20392819.52	20392819.72	0.0272	0.0099
Mercury	51127-12-29 11:46 G	20395174.86	20395174.99	20395175.13	0.0260	0.0177
Mercury	51128-03-27 08:38 G	20395263.67	20395263.86	20395264.05	0.0261	0.0001
Mercury	51128-06-24 05:31 G	20395352.59	20395352.73	20395352.87	0.0261	0.0180
Moon	51129-07-06 07:12 G	20395729.60	20395729.80	20395730.01	0.0262	0.0157
Earth	51129-07-06 07:41 G	20395729.63	20395729.82	20395730.03	0.0262	0.0147 *
Venus	51137-03-23 16:05 G	20398546.96	20398547.17	20398547.39	0.0288	0.0019
Venus	51137-11-08 11:46 G	20398776.91	20398776.99	20398777.08	0.0291	0.0266
Mercury	51142-07-29 12:14 G	20400500.90	20400501.01	20400501.12	0.0301	0.0148
Mercury	51142-10-26 00:43 G	20400589.40	20400589.53	20400589.66	0.0301	0.0036
Mercury	51143-01-22 12:58 G	20400677.96	20400678.04	20400678.13	0.0301	0.0218
Earth	51144-01-07 08:53 G	20401027.62	20401027.87	20401028.11	0.0299	0.0023
Moon	51144-01-07 11:46 G	20401027.75	20401027.99	20401028.23	0.0299	0.0007 *
Venus	51150-06-12 18:14 G	20403376.07	20403376.26	20403376.46	0.0274	0.0112
Venus	51151-01-28 01:12 G	20403605.36	20403605.55	20403605.74	0.0272	0.0124
Mercury	51157-05-17 10:19 G	20405906.85	20405906.93	20405907.01	0.0261	0.0234
Mercury	51157-08-14 06:58 G	20405995.61	20405995.79	20405995.98	0.0261	0.0057
Mercury	51157-11-11 03:50 G	20406084.50	20406084.66	20406084.83	0.0261	0.0123
Earth	51159-07-12 23:17 G	20406693.25	20406693.47	20406693.70	0.0263	0.0108
Moon	51159-07-13 03:07 G	20406693.41	20406693.63	20406693.86	0.0263	0.0104 *
Venus	51166-02-16 02:53 G	20409103.54	20409103.62	20409103.72	0.0286	0.0259
Venus	51166-10-03 20:53 G	20409333.16	20409333.37	20409333.58	0.0289	0.0017
Mars	51168-10-24 18:14 G	20410084.98	20410085.26	20410085.56	0.0296	0.0077
Mercury	51171-12-16 14:10 G	20411233.00	20411233.09	20411233.18	0.0301	0.0203
Mercury	51172-03-14 02:38 G	20411321.48	20411321.61	20411321.74	0.0300	0.0019
Mercury	51172-06-10 14:53 G	20411410.02	20411410.12	20411410.23	0.0300	0.0163
Earth	51172-12-30 22:48 G	20411613.43	20411613.45	20411613.48	0.0300	0.0298

Venus	51179-12-23 23:17 G	20414162.27	20414162.47	20414162.67	0.0274	0.0080
Venus	51180-08-09 05:46 G	20414391.56	20414391.74	20414391.91	0.0272	0.0155
Mars	51182-10-28 11:31 G	20415201.76	20415201.98	20415202.21	0.0265	0.0166
Mercury	51187-01-01 06:00 G	20416727.58	20416727.75	20416727.93	0.0260	0.0109
Mercury	51187-03-31 02:53 G	20416816.43	20416816.62	20416816.80	0.0261	0.0069
Mercury	51187-06-27 23:31 G	20416905.44	20416905.48	20416905.55	0.0261	0.0249
Moon	51188-07-07 02:38 G	20417280.39	20417280.61	20417280.84	0.0262	0.0108
Earth	51188-07-07 06:29 G	20417280.55	20417280.77	20417281.00	0.0262	0.0101 *
Venus	51195-08-29 03:50 G	20419889.54	20419889.66	20419889.79	0.0286	0.0231
Venus	51196-04-14 21:36 G	20420119.19	20420119.40	20420119.61	0.0289	0.0043
Mercury	51201-05-04 14:10 G	20421965.05	20421965.09	20421965.14	0.0301	0.0282
Mercury	51201-08-01 02:38 G	20422053.49	20422053.61	20422053.74	0.0301	0.0098
Mercury	51201-10-28 15:07 G	20422142.01	20422142.13	20422142.26	0.0301	0.0086
Mercury	51202-01-25 03:22 G	20422230.59	20422230.64	20422230.70	0.0301	0.0268
Earth	51203-01-08 06:14 G	20422578.52	20422578.76	20422579.00	0.0299	0.0073
Moon	51203-01-08 08:53 G	20422578.63	20422578.87	20422579.12	0.0299	0.0057 *
Venus	51209-07-04 22:34 G	20424948.23	20424948.44	20424948.65	0.0274	0.0058
Venus	51210-02-19 05:02 G	20425177.56	20425177.71	20425177.88	0.0271	0.0178
Mercury	51216-05-20 03:50 G	20427459.52	20427459.66	20427459.81	0.0261	0.0171
Mercury	51216-08-17 00:43 G	20427548.34	20427548.53	20427548.72	0.0261	0.0007
Mercury	51216-11-13 21:36 G	20427637.27	20427637.40	20427637.53	0.0261	0.0186
Earth	51218-07-13 19:55 G	20428244.15	20428244.33	20428244.55	0.0263	0.0151
Moon	51218-07-13 20:38 G	20428244.16	20428244.36	20428244.57	0.0263	0.0152 *
Venus	51225-03-10 07:26 G	20430675.66	20430675.81	20430675.96	0.0286	0.0201
Venus	51225-10-26 01:26 G	20430905.35	20430905.56	20430905.76	0.0289	0.0075
Mercury	51230-12-19 04:34 G	20432785.58	20432785.69	20432785.80	0.0301	0.0154
Mercury	51231-03-17 17:02 G	20432874.08	20432874.21	20432874.34	0.0300	0.0030
Mercury	51231-06-14 05:17 G	20432962.63	20432962.72	20432962.81	0.0300	0.0211
Moon	51232-01-01 16:48 G	20433164.11	20433164.20	20433164.32	0.0300	0.0267
Earth	51232-01-01 19:26 G	20433164.18	20433164.31	20433164.44	0.0300	0.0250 *

Venus	51238-05-30 18:14 G	20435505.22	20435505.26	20435505.32	0.0276	0.0269
Venus	51239-01-15 02:53 G	20435734.41	20435734.62	20435734.84	0.0274	0.0027
Venus	51239-09-01 09:22 G	20435963.75	20435963.89	20435964.02	0.0272	0.0208
Mercury	51245-10-07 02:38 G	20438191.53	20438191.61	20438191.72	0.0260	0.0224
Mercury	51246-01-03 23:31 G	20438280.29	20438280.48	20438280.67	0.0260	0.0047
Mercury	51246-04-02 20:24 G	20438369.19	20438369.35	20438369.52	0.0261	0.0132
Moon	51247-07-09 03:07 G	20438831.39	20438831.63	20438831.86	0.0262	0.0061
Earth	51247-07-09 03:22 G	20438831.40	20438831.64	20438831.88	0.0262	0.0059 *
Venus	51254-09-20 08:24 G	20441461.69	20441461.85	20441462.02	0.0286	0.0172
Venus	51255-05-08 02:10 G	20441691.39	20441691.59	20441691.79	0.0289	0.0103
Mars	51257-03-18 14:53 G	20442371.83	20442372.12	20442372.41	0.0296	0.0067
Mercury	51260-05-07 04:34 G	20443517.61	20443517.69	20443517.77	0.0301	0.0235
Mercury	51260-08-03 17:02 G	20443606.08	20443606.21	20443606.34	0.0301	0.0051
Mercury	51260-10-31 05:31 G	20443694.61	20443694.73	20443694.84	0.0301	0.0132
Moon	51262-01-08 23:31 G	20444129.25	20444129.48	20444129.73	0.0299	0.0105
Earth	51262-01-09 01:26 G	20444129.34	20444129.56	20444129.79	0.0299	0.0120 *
Venus	51267-12-10 16:48 G	20446291.12	20446291.20	20446291.30	0.0276	0.0248
Venus	51268-07-27 01:26 G	20446520.35	20446520.56	20446520.77	0.0274	0.0006
Venus	51269-03-13 07:41 G	20446749.71	20446749.82	20446749.94	0.0271	0.0228
Mars	51271-03-23 04:05 G	20447489.46	20447489.67	20447489.88	0.0265	0.0178
Mercury	51275-05-23 21:07 G	20449012.21	20449012.38	20449012.55	0.0261	0.0111
Mercury	51275-08-20 17:46 G	20449101.06	20449101.24	20449101.43	0.0261	0.0068
Mercury	51275-11-17 14:53 G	20449190.06	20449190.12	20449190.18	0.0261	0.0247
Moon	51277-07-14 12:29 G	20449794.87	20449795.02	20449795.19	0.0263	0.0200
Earth	51277-07-14 16:19 G	20449795.02	20449795.18	20449795.36	0.0263	0.0192 *
Venus	51284-04-01 11:17 G	20452247.79	20452247.97	20452248.16	0.0287	0.0144
Venus	51284-11-17 05:31 G	20452477.54	20452477.73	20452477.91	0.0289	0.0134
Mercury	51289-09-24 06:14 G	20454249.74	20454249.76	20454249.78	0.0301	0.0295
Mercury	51289-12-21 18:43 G	20454338.16	20454338.28	20454338.40	0.0301	0.0110
Mercury	51290-03-20 06:58 G	20454426.67	20454426.79	20454426.92	0.0300	0.0074

Mercury	51290-06-16 19:26 G	20454515.24	20454515.31	20454515.38	0.0300	0.0254
Earth	51291-01-02 13:41 G	20454714.89	20454715.07	20454715.25	0.0299	0.0206
Moon	51291-01-02 15:50 G	20454715.01	20454715.16	20454715.32	0.0299	0.0221 *
Venus	51297-06-21 20:53 G	20457077.25	20457077.37	20457077.51	0.0276	0.0216
Venus	51298-02-06 05:31 G	20457306.52	20457306.73	20457306.94	0.0274	0.0026
Venus	51298-09-23 11:31 G	20457535.93	20457535.98	20457536.05	0.0271	0.0259
Mercury	51304-10-10 19:55 G	20459744.19	20459744.33	20459744.49	0.0261	0.0164
Mercury	51305-01-07 16:48 G	20459833.01	20459833.20	20459833.40	0.0261	0.0015
Mercury	51305-04-06 13:41 G	20459921.95	20459922.07	20459922.20	0.0261	0.0193
Earth	51306-07-10 23:46 G	20460382.24	20460382.49	20460382.73	0.0262	0.0017
Moon	51306-07-11 03:07 G	20460382.39	20460382.63	20460382.88	0.0262	0.0014 *
Venus	51313-10-13 12:43 G	20463033.84	20463034.03	20463034.23	0.0286	0.0114
Venus	51314-05-31 06:43 G	20463263.61	20463263.78	20463263.96	0.0289	0.0163
Mercury	51319-05-11 18:43 G	20465070.19	20465070.28	20465070.39	0.0301	0.0189
Mercury	51319-08-08 07:12 G	20465158.68	20465158.80	20465158.93	0.0301	0.0011
Mercury	51319-11-04 19:41 G	20465247.22	20465247.32	20465247.42	0.0301	0.0177
Moon	51321-01-10 16:48 G	20465680.00	20465680.20	20465680.42	0.0299	0.0151
Earth	51321-01-10 20:10 G	20465680.15	20465680.34	20465680.55	0.0299	0.0166 *
Venus	51327-01-02 19:26 G	20467863.17	20467863.31	20467863.47	0.0276	0.0196
Venus	51327-08-20 03:50 G	20468092.45	20468092.66	20468092.87	0.0274	0.0046
Mercury	51334-02-27 17:31 G	20470476.15	20470476.23	20470476.32	0.0261	0.0229
Mercury	51334-05-27 14:24 G	20470564.91	20470565.10	20470565.28	0.0261	0.0052
Mercury	51334-08-24 11:02 G	20470653.80	20470653.96	20470654.13	0.0261	0.0128
Moon	51335-07-06 00:29 G	20470969.41	20470969.52	20470969.64	0.0261	0.0232
Earth	51335-07-06 03:36 G	20470969.55	20470969.65	20470969.78	0.0261	0.0229 *
Moon	51336-07-16 11:17 G	20471345.90	20471345.97	20471346.06	0.0263	0.0245
Earth	51336-07-16 12:29 G	20471345.92	20471346.02	20471346.14	0.0263	0.0233 *
Venus	51343-04-25 15:50 G	20473819.96	20473820.16	20473820.37	0.0287	0.0085
Venus	51343-12-11 10:05 G	20474049.77	20474049.92	20474050.08	0.0289	0.0194
Mars	51345-08-12 01:55 G	20474659.29	20474659.58	20474659.87	0.0296	0.0080

Mercury	51348-09-27 20:24 G	20475802.28	20475802.35	20475802.42	0.0301	0.0248
Mercury	51348-12-25 08:53 G	20475890.75	20475890.87	20475891.00	0.0300	0.0064
Mercury	51349-03-23 21:22 G	20475979.27	20475979.39	20475979.51	0.0300	0.0119
Mercury	51349-06-20 09:36 G	20476067.90	20476067.90	20476067.90	0.0300	0.0300
Earth	51350-01-04 09:07 G	20476265.67	20476265.88	20476266.08	0.0299	0.0159
Moon	51350-01-04 12:14 G	20476265.81	20476266.01	20476266.22	0.0299	0.0174 *
Venus	51356-07-14 23:31 G	20478649.31	20478649.48	20478649.65	0.0276	0.0164
Venus	51357-03-01 07:41 G	20478878.62	20478878.82	20478879.03	0.0274	0.0078
Mars	51359-08-17 06:00 G	20479777.59	20479777.75	20479777.94	0.0266	0.0208
Mercury	51363-10-14 13:26 G	20481296.89	20481297.06	20481297.24	0.0261	0.0102
Mercury	51364-01-11 10:19 G	20481385.75	20481385.93	20481386.12	0.0261	0.0077
Mercury	51364-04-09 06:58 G	20481474.77	20481474.79	20481474.84	0.0261	0.0257
Earth	51365-07-11 20:53 G	20481933.12	20481933.37	20481933.61	0.0262	0.0027
Moon	51365-07-11 22:34 G	20481933.19	20481933.44	20481933.69	0.0262	0.0032 *
Venus	51372-11-04 18:43 G	20484606.07	20484606.28	20484606.49	0.0286	0.0052
Venus	51373-06-22 12:29 G	20484835.90	20484836.02	20484836.16	0.0289	0.0226
Mercury	51378-05-14 09:22 G	20486622.77	20486622.89	20486623.00	0.0301	0.0139
Mercury	51378-08-10 21:50 G	20486711.28	20486711.41	20486711.53	0.0301	0.0045
Mercury	51378-11-07 10:05 G	20486799.84	20486799.92	20486800.00	0.0300	0.0225
Earth	51380-01-12 16:05 G	20487231.01	20487231.17	20487231.35	0.0299	0.0215
Moon	51380-01-12 16:19 G	20487231.02	20487231.18	20487231.36	0.0299	0.0204 *
Venus	51386-01-24 22:19 G	20489435.26	20489435.43	20489435.62	0.0276	0.0143
Venus	51386-09-11 06:29 G	20489664.58	20489664.77	20489664.97	0.0273	0.0098
Mercury	51393-03-02 11:02 G	20492028.81	20492028.96	20492029.10	0.0261	0.0167
Mercury	51393-05-30 07:41 G	20492117.63	20492117.82	20492118.02	0.0261	0.0012
Mercury	51393-08-27 04:19 G	20492206.56	20492206.68	20492206.82	0.0261	0.0191
Moon	51394-07-06 22:19 G	20492520.28	20492520.43	20492520.61	0.0262	0.0188
Earth	51394-07-07 00:58 G	20492520.36	20492520.54	20492520.71	0.0262	0.0186 *
Venus	51402-05-18 21:50 G	20495392.20	20495392.41	20495392.62	0.0287	0.0023
Venus	51403-01-03 15:50 G	20495622.08	20495622.16	20495622.27	0.0290	0.0257

Mercury	51407-10-02 11:02 G	20497354.86	20497354.96	20497355.06	0.0300	0.0197
Mercury	51407-12-29 23:31 G	20497443.35	20497443.48	20497443.61	0.0300	0.0014
Mercury	51408-03-27 11:46 G	20497531.89	20497531.99	20497532.10	0.0300	0.0169
Moon	51409-01-06 05:02 G	20497816.48	20497816.71	20497816.95	0.0299	0.0120
Earth	51409-01-06 06:14 G	20497816.53	20497816.76	20497816.99	0.0299	0.0108 *
Venus	51415-08-08 03:07 G	20500221.43	20500221.63	20500221.82	0.0276	0.0109
Venus	51416-03-24 10:48 G	20500450.77	20500450.95	20500451.15	0.0273	0.0132
Mars	51417-11-24 12:00 G	20501060.89	20501061.00	20501061.13	0.0268	0.0242
Mercury	51422-07-21 10:34 G	20502760.84	20502760.94	20502761.05	0.0261	0.0214
Mercury	51422-10-18 07:26 G	20502849.62	20502849.81	20502850.00	0.0261	0.0036
Mercury	51423-01-15 04:19 G	20502938.52	20502938.68	20502938.84	0.0261	0.0143
Moon	51424-07-13 16:34 G	20503483.96	20503484.19	20503484.43	0.0262	0.0082
Earth	51424-07-13 19:12 G	20503484.07	20503484.30	20503484.54	0.0262	0.0074 *
Venus	51431-04-13 10:05 G	20505948.82	20505948.92	20505949.01	0.0284	0.0253
Venus	51431-11-29 01:55 G	20506178.37	20506178.58	20506178.80	0.0286	0.0016
Mars	51434-01-05 15:07 G	20506946.85	20506947.13	20506947.42	0.0295	0.0093
Mercury	51437-02-18 11:46 G	20508086.94	20508086.99	20508087.06	0.0300	0.0266
Mercury	51437-05-18 00:29 G	20508175.39	20508175.52	20508175.64	0.0300	0.0082
Mercury	51437-08-14 12:43 G	20508263.91	20508264.03	20508264.15	0.0300	0.0101
Mercury	51437-11-11 00:58 G	20508352.50	20508352.54	20508352.59	0.0300	0.0282
Earth	51439-01-14 15:50 G	20508782.07	20508782.16	20508782.27	0.0299	0.0271
Moon	51439-01-14 19:41 G	20508782.21	20508782.32	20508782.45	0.0298	0.0261 *
Venus	51445-02-17 02:38 G	20511007.41	20511007.61	20511007.81	0.0276	0.0087
Venus	51445-10-04 10:34 G	20511236.76	20511236.94	20511237.11	0.0273	0.0153
Mars	51448-01-10 23:17 G	20512065.32	20512065.47	20512065.64	0.0266	0.0218
Mercury	51452-03-06 05:02 G	20513581.54	20513581.71	20513581.89	0.0261	0.0100
Mercury	51452-06-03 01:55 G	20513670.40	20513670.58	20513670.76	0.0261	0.0079
Mercury	51452-08-30 22:48 G	20513759.44	20513759.45	20513759.47	0.0261	0.0259
Earth	51453-07-08 23:46 G	20514071.29	20514071.49	20514071.70	0.0262	0.0139
Moon	51453-07-09 01:55 G	20514071.38	20514071.58	20514071.79	0.0262	0.0136 *

Venus	51460-10-23 13:41 G	20516734.95	20516735.07	20516735.20	0.0285	0.0224
Venus	51461-06-10 06:14 G	20516964.55	20516964.76	20516964.97	0.0287	0.0046
Mercury	51466-10-05 02:10 G	20518907.48	20518907.59	20518907.71	0.0300	0.0137
Mercury	51467-01-01 14:38 G	20518995.98	20518996.11	20518996.24	0.0300	0.0046
Mercury	51467-03-31 03:07 G	20519084.54	20519084.63	20519084.71	0.0300	0.0227
Moon	51468-01-08 03:22 G	20519367.41	20519367.64	20519367.89	0.0299	0.0059
Earth	51468-01-08 07:26 G	20519367.57	20519367.81	20519368.05	0.0299	0.0049 *
Venus	51474-08-30 07:41 G	20521793.61	20521793.82	20521794.03	0.0275	0.0052
Venus	51475-04-16 15:22 G	20522022.99	20522023.14	20522023.30	0.0273	0.0187
Mercury	51481-07-24 05:02 G	20524313.56	20524313.71	20524313.87	0.0261	0.0143
Mercury	51481-10-21 01:55 G	20524402.39	20524402.58	20524402.77	0.0261	0.0036
Mercury	51482-01-17 22:48 G	20524491.35	20524491.45	20524491.56	0.0261	0.0216
Moon	51483-07-15 17:02 G	20525035.01	20525035.21	20525035.42	0.0263	0.0135
Earth	51483-07-15 19:55 G	20525035.13	20525035.33	20525035.56	0.0263	0.0125 *
Venus	51490-05-05 19:12 G	20527521.15	20527521.30	20527521.47	0.0284	0.0185
Venus	51490-12-21 11:46 G	20527750.79	20527750.99	20527751.19	0.0287	0.0086
Mercury	51496-02-22 03:36 G	20529639.55	20529639.65	20529639.75	0.0300	0.0198
Mercury	51496-05-20 16:05 G	20529728.04	20529728.17	20529728.30	0.0300	0.0016
Mercury	51496-08-17 04:19 G	20529816.58	20529816.68	20529816.79	0.0300	0.0166
Venus	51503-07-26 22:48 G	20532350.43	20532350.45	20532350.49	0.0278	0.0274
Venus	51504-03-12 08:38 G	20532579.65	20532579.86	20532580.07	0.0275	0.0027
Venus	51504-10-27 16:05 G	20532809.04	20532809.17	20532809.31	0.0273	0.0211
Mars	51506-04-20 11:17 G	20533348.83	20533348.97	20533349.14	0.0268	0.0224
Jupiter	51510-01-21 07:55 G	20534720.59	20534720.83	20534721.08	0.0261	0.0222
Mercury	51510-12-12 03:07 G	20535045.52	20535045.63	20535045.75	0.0261	0.0203
Mercury	51511-03-11 00:00 G	20535134.31	20535134.50	20535134.69	0.0261	0.0025
Mercury	51511-06-07 20:38 G	20535223.22	20535223.36	20535223.53	0.0261	0.0155
Earth	51512-07-11 01:26 G	20535622.33	20535622.56	20535622.79	0.0262	0.0087
Moon	51512-07-11 04:48 G	20535622.47	20535622.70	20535622.94	0.0262	0.0081 *
Venus	51519-11-17 00:00 G	20538307.33	20538307.50	20538307.68	0.0285	0.0153

Venus	51520-07-03 16:48 G	20538537.01	20538537.20	20538537.40	0.0288	0.0120
Mars	51522-06-02 03:50 G	20539235.40	20539235.66	20539235.92	0.0295	0.0148
Mercury	51525-07-12 05:46 G	20540371.67	20540371.74	20540371.81	0.0300	0.0250
Mercury	51525-10-08 18:14 G	20540460.13	20540460.26	20540460.39	0.0300	0.0067
Mercury	51526-01-05 06:29 G	20540548.66	20540548.77	20540548.89	0.0300	0.0116
Mercury	51526-04-03 18:58 G	20540637.27	20540637.29	20540637.30	0.0300	0.0296
Moon	51527-01-10 13:12 G	20540918.81	20540919.05	20540919.28	0.0299	0.0017
Earth	51527-01-10 13:26 G	20540918.81	20540919.06	20540919.30	0.0299	0.0021 *
Venus	51533-02-05 05:02 G	20543136.60	20543136.71	20543136.82	0.0277	0.0236
Venus	51533-09-22 14:38 G	20543365.90	20543366.11	20543366.32	0.0275	0.0010
Venus	51534-05-09 21:50 G	20543595.33	20543595.41	20543595.51	0.0273	0.0247
Mars	51536-06-06 15:50 G	20544354.14	20544354.16	20544354.19	0.0266	0.0265
Mercury	51540-04-30 03:36 G	20545777.59	20545777.65	20545777.72	0.0262	0.0243
Mercury	51540-07-28 00:29 G	20545866.34	20545866.52	20545866.71	0.0262	0.0064
Mercury	51540-10-24 21:22 G	20545955.22	20545955.39	20545955.56	0.0262	0.0115
Earth	51542-07-17 23:31 G	20546586.30	20546586.48	20546586.66	0.0263	0.0180
Moon	51542-07-18 00:14 G	20546586.36	20546586.51	20546586.68	0.0263	0.0194 *
Venus	51549-05-29 07:55 G	20549093.63	20549093.83	20549094.02	0.0285	0.0108
Venus	51550-01-14 00:29 G	20549323.36	20549323.52	20549323.70	0.0287	0.0165
Mercury	51555-02-25 20:10 G	20551192.23	20551192.34	20551192.46	0.0300	0.0119
Mercury	51555-05-25 08:38 G	20551280.73	20551280.86	20551280.99	0.0300	0.0063
Mercury	51555-08-21 20:53 G	20551369.30	20551369.37	20551369.44	0.0300	0.0243
Moon	51556-01-04 02:24 G	20551504.59	20551504.60	20551504.63	0.0299	0.0299
Earth	51556-01-04 03:22 G	20551504.62	20551504.64	20551504.68	0.0299	0.0296 *
Venus	51562-08-18 07:41 G	20553922.69	20553922.82	20553922.96	0.0277	0.0208
Venus	51563-04-04 16:48 G	20554151.99	20554152.20	20554152.41	0.0275	0.0037
Mercury	51569-12-14 23:02 G	20556598.29	20556598.46	20556598.62	0.0261	0.0122
Mercury	51570-03-13 19:41 G	20556687.14	20556687.32	20556687.51	0.0261	0.0058
Mercury	51570-06-10 16:34 G	20556776.12	20556776.19	20556776.28	0.0261	0.0239
Moon	51571-07-13 04:48 G	20557173.45	20557173.70	20557173.96	0.0262	0.0019

Earth	51571-07-13 05:46 G	20557173.50	20557173.74	20557173.99	0.0262	0.0030	*
Venus	51578-12-09 12:58 G	20559879.84	20559880.04	20559880.25	0.0286	0.0075	
Venus	51579-07-27 06:14 G	20560109.62	20560109.76	20560109.92	0.0288	0.0200	
Mercury	51584-07-14 22:34 G	20561924.33	20561924.44	20561924.55	0.0300	0.0169	
Mercury	51584-10-11 11:02 G	20562012.83	20562012.96	20562013.09	0.0300	0.0016	
Mercury	51585-01-07 23:17 G	20562101.37	20562101.47	20562101.57	0.0300	0.0195	
Earth	51586-01-12 00:00 G	20562470.27	20562470.50	20562470.73	0.0299	0.0100	
Moon	51586-01-12 03:36 G	20562470.42	20562470.65	20562470.88	0.0299	0.0100	*
Venus	51592-02-28 14:38 G	20564708.94	20564709.11	20564709.27	0.0277	0.0168	
Venus	51592-10-14 23:31 G	20564938.28	20564938.48	20564938.69	0.0275	0.0076	
Mars	51594-09-14 10:34 G	20565637.74	20565637.94	20565638.18	0.0268	0.0170	
Mercury	51599-05-03 23:46 G	20567330.35	20567330.49	20567330.65	0.0262	0.0158	
Mercury	51599-07-31 20:38 G	20567419.17	20567419.36	20567419.56	0.0262	0.0023	
Mercury	51599-10-28 17:46 G	20567508.12	20567508.24	20567508.36	0.0262	0.0203	
Earth	51600-07-07 19:26 G	20567761.19	20567761.31	20567761.44	0.0262	0.0224	
Moon	51600-07-07 19:55 G	20567761.21	20567761.33	20567761.47	0.0262	0.0219	*
Earth	51601-07-19 05:17 G	20568137.64	20568137.72	20568137.83	0.0263	0.0242	
Moon	51601-07-19 09:22 G	20568137.84	20568137.89	20568137.94	0.0263	0.0257	
Venus	51608-06-20 22:19 G	20570666.22	20570666.43	20570666.64	0.0285	0.0027	
Venus	51609-02-05 15:36 G	20570896.05	20570896.15	20570896.26	0.0288	0.0248	
Mars	51610-10-27 17:02 G	20571525.03	20571525.21	20571525.39	0.0294	0.0235	
Mercury	51613-12-02 00:58 G	20572656.46	20572656.54	20572656.64	0.0300	0.0213	
Mercury	51614-02-28 13:26 G	20572744.94	20572745.06	20572745.19	0.0300	0.0032	
Mercury	51614-05-28 01:55 G	20572833.47	20572833.58	20572833.69	0.0300	0.0151	
Moon	51615-01-05 14:38 G	20573055.94	20573056.11	20573056.29	0.0299	0.0209	
Earth	51615-01-05 18:29 G	20573056.10	20573056.27	20573056.45	0.0299	0.0208	*
Venus	51621-09-09 18:43 G	20575495.10	20575495.28	20575495.47	0.0277	0.0138	
Venus	51622-04-27 03:36 G	20575724.45	20575724.65	20575724.84	0.0274	0.0106	
Mercury	51628-09-19 22:48 G	20578062.34	20578062.45	20578062.56	0.0261	0.0211	
Mercury	51628-12-17 19:41 G	20578151.13	20578151.32	20578151.51	0.0261	0.0033	

Mercury	51629-03-16 16:19 G	20578240.03	20578240.18	20578240.35	0.0262	0.0149
Moon	51630-07-14 08:53 G	20578724.63	20578724.87	20578725.12	0.0263	0.0046
Earth	51630-07-14 12:43 G	20578724.79	20578725.03	20578725.28	0.0263	0.0032 *
Venus	51637-05-16 12:43 G	20581222.95	20581223.03	20581223.12	0.0284	0.0258
Venus	51638-01-01 04:34 G	20581452.48	20581452.69	20581452.90	0.0286	0.0010
Venus	51638-08-18 22:05 G	20581682.41	20581682.42	20581682.46	0.0289	0.0286
Mercury	51643-04-21 03:36 G	20583388.59	20583388.65	20583388.71	0.0300	0.0259
Mercury	51643-07-18 16:05 G	20583477.05	20583477.17	20583477.30	0.0300	0.0076
Mercury	51643-10-15 04:34 G	20583565.57	20583565.69	20583565.81	0.0300	0.0106
Mercury	51644-01-11 16:34 G	20583654.16	20583654.19	20583654.23	0.0300	0.0286
Earth	51645-01-13 16:19 G	20584022.00	20584022.18	20584022.37	0.0298	0.0190
Moon	51645-01-13 18:43 G	20584022.09	20584022.28	20584022.48	0.0298	0.0190 *
Venus	51651-03-23 02:10 G	20586281.39	20586281.59	20586281.79	0.0276	0.0096
Venus	51651-11-07 10:34 G	20586510.77	20586510.94	20586511.12	0.0274	0.0146
Mercury	51658-02-07 00:00 G	20588794.44	20588794.50	20588794.57	0.0262	0.0244
Mercury	51658-05-06 20:53 G	20588883.18	20588883.37	20588883.55	0.0262	0.0065
Mercury	51658-08-03 17:46 G	20588972.07	20588972.24	20588972.41	0.0262	0.0115
Earth	51659-07-10 02:53 G	20589312.44	20589312.62	20589312.83	0.0263	0.0161
Moon	51659-07-10 06:43 G	20589312.58	20589312.78	20589312.98	0.0263	0.0152 *
Venus	51666-11-26 22:48 G	20592009.32	20592009.45	20592009.60	0.0284	0.0210
Venus	51667-07-14 14:53 G	20592238.92	20592239.12	20592239.33	0.0286	0.0059
Mercury	51672-09-07 06:29 G	20594120.76	20594120.77	20594120.79	0.0300	0.0297
Mercury	51672-12-04 18:58 G	20594209.18	20594209.29	20594209.42	0.0300	0.0115
Mercury	51673-03-03 07:26 G	20594297.68	20594297.81	20594297.94	0.0300	0.0067
Mercury	51673-05-30 19:41 G	20594386.25	20594386.32	20594386.39	0.0299	0.0247
Moon	51674-01-07 11:31 G	20594607.76	20594607.98	20594608.20	0.0299	0.0115
Earth	51674-01-07 13:41 G	20594607.84	20594608.07	20594608.29	0.0299	0.0112 *
Venus	51680-10-02 07:41 G	20597067.62	20597067.82	20597068.04	0.0276	0.0063
Venus	51681-05-19 15:50 G	20597297.00	20597297.16	20597297.32	0.0274	0.0178
Mars	51683-02-08 13:12 G	20597926.80	20597927.05	20597927.32	0.0268	0.0108

Mercury	51687-09-23 19:55 G	20599615.17	20599615.33	20599615.51	0.0262	0.0116
Mercury	51687-12-21 17:02 G	20599704.02	20599704.21	20599704.39	0.0262	0.0064
Mercury	51688-03-19 13:55 G	20599793.02	20599793.08	20599793.15	0.0262	0.0245
Moon	51689-07-15 20:38 G	20600276.16	20600276.36	20600276.58	0.0263	0.0112
Earth	51689-07-15 21:36 G	20600276.17	20600276.40	20600276.63	0.0263	0.0098 *
Venus	51696-06-08 04:48 G	20602795.54	20602795.70	20602795.87	0.0285	0.0175
Venus	51697-01-23 21:07 G	20603025.18	20603025.38	20603025.58	0.0287	0.0096
Mercury	51702-04-24 21:36 G	20604941.29	20604941.40	20604941.51	0.0300	0.0160
Mercury	51702-07-22 10:05 G	20605029.79	20605029.92	20605030.05	0.0300	0.0022
Mercury	51702-10-18 22:19 G	20605118.34	20605118.43	20605118.53	0.0300	0.0203
Moon	51704-01-17 10:05 G	20605573.86	20605573.92	20605573.99	0.0298	0.0287
Earth	51704-01-17 11:31 G	20605573.92	20605573.98	20605574.05	0.0298	0.0286 *
Venus	51709-08-29 05:46 G	20607624.69	20607624.74	20607624.80	0.0278	0.0268
Venus	51710-04-15 15:36 G	20607853.94	20607854.15	20607854.36	0.0275	0.0021
Venus	51710-11-30 23:17 G	20608083.35	20608083.47	20608083.60	0.0273	0.0218
Mercury	51717-02-10 21:22 G	20610347.24	20610347.39	20610347.55	0.0262	0.0149
Mercury	51717-05-10 18:14 G	20610436.07	20610436.26	20610436.45	0.0262	0.0032
Mercury	51717-08-07 15:07 G	20610525.03	20610525.13	20610525.25	0.0262	0.0213
Earth	51718-07-12 12:00 G	20610863.78	20610864.00	20610864.23	0.0263	0.0095
Moon	51718-07-12 13:41 G	20610863.84	20610864.07	20610864.32	0.0263	0.0087 *
Venus	51725-12-20 15:50 G	20613581.97	20613582.16	20613582.35	0.0285	0.0125
Venus	51726-08-07 08:24 G	20613811.68	20613811.85	20613812.04	0.0287	0.0148
Mercury	51731-09-12 00:58 G	20615673.45	20615673.54	20615673.64	0.0299	0.0193
Mercury	51731-12-09 13:26 G	20615761.93	20615762.06	20615762.19	0.0299	0.0012
Mercury	51732-03-07 01:41 G	20615850.47	20615850.57	20615850.68	0.0299	0.0170
Earth	51733-01-10 11:46 G	20616159.75	20616159.99	20616160.24	0.0299	0.0011
Moon	51733-01-10 13:41 G	20616159.83	20616160.07	20616160.30	0.0299	0.0012 *
Venus	51739-03-11 12:43 G	20618410.93	20618411.03	20618411.16	0.0278	0.0232
Venus	51739-10-26 22:19 G	20618640.22	20618640.43	20618640.65	0.0275	0.0016
Venus	51740-06-12 05:46 G	20618869.66	20618869.74	20618869.82	0.0273	0.0252

Mercury	51746-06-30 20:53 G	20621079.25	20621079.37	20621079.50	0.0262	0.0197
Mercury	51746-09-27 17:46 G	20621168.05	20621168.24	20621168.43	0.0262	0.0018
Mercury	51746-12-25 14:38 G	20621256.97	20621257.11	20621257.27	0.0262	0.0163
Earth	51748-07-18 06:58 G	20621827.62	20621827.79	20621827.99	0.0263	0.0166
Moon	51748-07-18 10:05 G	20621827.76	20621827.92	20621828.10	0.0263	0.0180 *
Venus	51755-07-02 21:36 G	20624368.20	20624368.40	20624368.61	0.0285	0.0090
Venus	51756-02-17 14:38 G	20624597.95	20624598.11	20624598.27	0.0288	0.0184
Mars	51757-06-27 23:46 G	20625094.39	20625094.49	20625094.62	0.0293	0.0271
Mercury	51761-01-29 03:36 G	20626405.57	20626405.65	20626405.72	0.0300	0.0240
Mercury	51761-04-27 15:50 G	20626494.04	20626494.16	20626494.29	0.0300	0.0059
Mercury	51761-07-25 04:19 G	20626582.56	20626582.68	20626582.80	0.0300	0.0124
Venus	51768-09-20 20:24 G	20629197.21	20629197.35	20629197.52	0.0277	0.0190
Venus	51769-05-08 05:46 G	20629426.53	20629426.74	20629426.95	0.0275	0.0055
Mars	51771-07-07 06:14 G	20630216.47	20630216.76	20630217.04	0.0268	0.0024
Mercury	51775-11-17 22:19 G	20631811.34	20631811.43	20631811.52	0.0262	0.0230
Mercury	51776-02-14 19:12 G	20631900.11	20631900.30	20631900.49	0.0262	0.0050
Mercury	51776-05-13 16:05 G	20631989.00	20631989.17	20631989.34	0.0262	0.0130
Moon	51777-07-13 19:12 G	20632415.05	20632415.30	20632415.56	0.0263	0.0017
Earth	51777-07-13 21:36 G	20632415.16	20632415.40	20632415.65	0.0263	0.0028 *
Venus	51785-01-12 08:38 G	20635154.65	20635154.86	20635155.07	0.0286	0.0041
Venus	51785-08-30 01:55 G	20635384.46	20635384.58	20635384.70	0.0288	0.0235
Mercury	51790-06-18 06:43 G	20637137.74	20637137.78	20637137.84	0.0299	0.0273
Mercury	51790-09-14 19:26 G	20637226.19	20637226.31	20637226.43	0.0299	0.0090
Mercury	51790-12-12 07:41 G	20637314.70	20637314.82	20637314.95	0.0299	0.0092
Mercury	51791-03-10 19:55 G	20637403.28	20637403.33	20637403.39	0.0299	0.0271
Earth	51792-01-13 09:36 G	20637711.67	20637711.90	20637712.14	0.0298	0.0092
Moon	51792-01-13 13:26 G	20637711.83	20637712.06	20637712.30	0.0298	0.0091 *
Venus	51798-04-03 04:34 G	20639983.52	20639983.69	20639983.87	0.0277	0.0151
Venus	51798-11-18 13:12 G	20640212.85	20640213.05	20640213.25	0.0274	0.0092
Mercury	51805-07-04 18:43 G	20642632.11	20642632.28	20642632.46	0.0262	0.0098

Mercury	51805-10-01 15:36 G	20642720.97	20642721.15	20642721.33	0.0262	0.0082
Earth	51806-07-10 06:29 G	20643002.67	20643002.77	20643002.89	0.0262	0.0233
Moon	51806-07-10 08:38 G	20643002.75	20643002.86	20643002.98	0.0262	0.0227 *
Earth	51807-07-21 16:34 G	20643379.10	20643379.19	20643379.32	0.0263	0.0234
Moon	51807-07-21 19:41 G	20643379.24	20643379.32	20643379.41	0.0263	0.0246 *
Venus	51813-12-08 22:05 G	20645711.37	20645711.42	20645711.48	0.0284	0.0272
Venus	51814-07-26 13:55 G	20645940.86	20645941.08	20645941.29	0.0286	0.0008
Venus	51815-03-13 07:12 G	20646170.74	20646170.80	20646170.88	0.0289	0.0271
Mercury	51820-02-02 21:36 G	20647958.29	20647958.40	20647958.52	0.0300	0.0140
Mercury	51820-05-01 10:05 G	20648046.79	20648046.92	20648047.05	0.0300	0.0043
Mercury	51820-07-28 22:19 G	20648135.35	20648135.43	20648135.52	0.0300	0.0224
Moon	51821-01-06 23:46 G	20648297.34	20648297.49	20648297.66	0.0299	0.0222
Earth	51821-01-07 03:22 G	20648297.48	20648297.64	20648297.81	0.0299	0.0223 *
Venus	51827-10-15 11:31 G	20650769.79	20650769.98	20650770.18	0.0276	0.0111
Venus	51828-05-31 19:55 G	20650999.15	20650999.33	20650999.53	0.0274	0.0131
Mercury	51834-11-21 19:41 G	20653364.16	20653364.32	20653364.49	0.0262	0.0134
Mercury	51835-02-18 16:34 G	20653453.01	20653453.19	20653453.38	0.0262	0.0047
Mercury	51835-05-18 13:26 G	20653541.98	20653542.06	20653542.16	0.0262	0.0228
Moon	51836-07-16 03:07 G	20653966.39	20653966.63	20653966.87	0.0263	0.0050
Earth	51836-07-16 06:29 G	20653966.53	20653966.77	20653967.01	0.0263	0.0037 *
Venus	51843-06-21 08:10 G	20656497.72	20656497.84	20656497.97	0.0284	0.0226
Venus	51844-02-06 00:14 G	20656727.30	20656727.51	20656727.72	0.0286	0.0043
Mars	51845-11-24 11:17 G	20657384.71	20657384.97	20657385.24	0.0293	0.0143
Mercury	51849-06-22 00:58 G	20658690.44	20658690.54	20658690.65	0.0299	0.0173
Mercury	51849-09-18 13:26 G	20658778.93	20658779.06	20658779.19	0.0299	0.0012
Mercury	51849-12-16 01:41 G	20658867.48	20658867.57	20658867.68	0.0299	0.0191
Earth	51851-01-16 06:00 G	20659263.57	20659263.75	20659263.95	0.0298	0.0190
Moon	51851-01-16 06:58 G	20659263.60	20659263.79	20659263.99	0.0298	0.0191 *
Venus	51857-04-26 19:41 G	20661556.11	20661556.32	20661556.52	0.0276	0.0073
Venus	51857-12-12 03:36 G	20661785.49	20661785.65	20661785.82	0.0274	0.0168

Mars	51859-12-02 22:05 G	20662506.15	20662506.42	20662506.71	0.0267	0.0063
Mercury	51864-04-09 19:41 G	20664096.18	20664096.32	20664096.45	0.0261	0.0180
Mercury	51864-07-07 16:19 G	20664184.99	20664185.18	20664185.37	0.0261	0.0002
Mercury	51864-10-04 12:58 G	20664273.91	20664274.04	20664274.19	0.0262	0.0180
Earth	51865-07-11 15:36 G	20664553.96	20664554.15	20664554.34	0.0262	0.0168
Moon	51865-07-11 18:58 G	20664554.10	20664554.29	20664554.50	0.0262	0.0159 *
Venus	51872-12-31 12:14 G	20667283.86	20667284.01	20667284.17	0.0284	0.0194
Venus	51873-08-18 04:34 G	20667513.49	20667513.69	20667513.89	0.0287	0.0076
Mercury	51878-11-09 02:53 G	20669422.54	20669422.62	20669422.71	0.0300	0.0228
Mercury	51879-02-05 15:22 G	20669511.01	20669511.14	20669511.27	0.0300	0.0046
Mercury	51879-05-05 03:50 G	20669599.54	20669599.66	20669599.77	0.0300	0.0136
Earth	51880-01-09 21:22 G	20669849.17	20669849.39	20669849.61	0.0299	0.0129
Moon	51880-01-09 21:36 G	20669849.19	20669849.40	20669849.62	0.0299	0.0127 *
Venus	51886-11-07 01:12 G	20672342.34	20672342.55	20672342.77	0.0276	0.0036
Venus	51887-06-24 09:07 G	20672571.75	20672571.88	20672572.03	0.0273	0.0204
Mercury	51893-08-27 19:55 G	20674828.24	20674828.33	20674828.44	0.0262	0.0220
Mercury	51893-11-24 16:48 G	20674917.01	20674917.20	20674917.39	0.0262	0.0041
Mercury	51894-02-21 13:41 G	20675005.91	20675006.07	20675006.23	0.0262	0.0139
Earth	51895-07-18 13:41 G	20675517.84	20675518.07	20675518.29	0.0263	0.0099
Moon	51895-07-18 14:10 G	20675517.88	20675518.09	20675518.31	0.0263	0.0114 *
Venus	51902-07-14 21:22 G	20678070.21	20678070.39	20678070.57	0.0285	0.0151
Venus	51903-03-01 13:55 G	20678299.89	20678300.08	20678300.27	0.0287	0.0121
Mercury	51908-03-29 06:00 G	20680154.70	20680154.75	20680154.81	0.0300	0.0265
Mercury	51908-06-25 18:29 G	20680243.15	20680243.27	20680243.40	0.0300	0.0082
Mercury	51908-09-22 06:58 G	20680331.67	20680331.79	20680331.91	0.0300	0.0100
Mercury	51908-12-19 19:12 G	20680420.26	20680420.30	20680420.35	0.0299	0.0280
Moon	51910-01-18 19:26 G	20680815.25	20680815.31	20680815.39	0.0298	0.0285
Earth	51910-01-18 22:48 G	20680815.38	20680815.45	20680815.55	0.0298	0.0280 *
Venus	51915-10-03 23:46 G	20682899.39	20682899.49	20682899.59	0.0278	0.0244
Venus	51916-05-20 09:22 G	20683128.68	20683128.89	20683129.10	0.0275	0.0003

Venus	51917-01-04 16:48 G	20683358.11	20683358.20	20683358.30	0.0273	0.0240
Mercury	51923-04-14 16:34 G	20685649.01	20685649.19	20685649.37	0.0261	0.0088
Mercury	51923-07-12 13:12 G	20685737.88	20685738.05	20685738.24	0.0261	0.0091
Moon	51924-07-13 21:36 G	20686105.17	20686105.40	20686105.65	0.0262	0.0096
Earth	51924-07-13 22:19 G	20686105.21	20686105.43	20686105.66	0.0262	0.0108 *
Venus	51932-01-25 00:29 G	20688856.33	20688856.52	20688856.72	0.0285	0.0120
Venus	51932-09-10 17:02 G	20689086.04	20689086.21	20689086.40	0.0287	0.0153
Mars	51934-04-21 08:10 G	20689673.55	20689673.84	20689674.14	0.0294	0.0070
Mercury	51937-11-12 19:55 G	20690975.22	20690975.33	20690975.45	0.0300	0.0143
Mercury	51938-02-09 08:24 G	20691063.72	20691063.85	20691063.98	0.0300	0.0040
Mercury	51938-05-08 20:38 G	20691152.28	20691152.36	20691152.45	0.0300	0.0221
Earth	51939-01-12 11:17 G	20691400.73	20691400.97	20691401.22	0.0299	0.0045
Moon	51939-01-12 14:53 G	20691400.88	20691401.12	20691401.37	0.0299	0.0039 *
Venus	51945-04-15 03:50 G	20693685.53	20693685.66	20693685.80	0.0277	0.0211
Venus	51945-11-30 13:26 G	20693914.85	20693915.06	20693915.27	0.0275	0.0036
Venus	51946-07-17 20:53 G	20694144.36	20694144.37	20694144.38	0.0273	0.0272
Mars	51948-04-29 04:48 G	20694795.46	20694795.70	20694795.95	0.0267	0.0132
Mercury	51952-08-31 16:34 G	20696381.03	20696381.19	20696381.35	0.0262	0.0133
Mercury	51952-11-28 13:12 G	20696469.87	20696470.05	20696470.24	0.0262	0.0047
Mercury	51953-02-25 10:05 G	20696558.83	20696558.92	20696559.02	0.0262	0.0227
Earth	51954-07-20 18:43 G	20697069.09	20697069.28	20697069.48	0.0263	0.0157
Moon	51954-07-20 22:34 G	20697069.26	20697069.44	20697069.63	0.0263	0.0173 *
Venus	51961-08-06 08:24 G	20699642.65	20699642.85	20699643.05	0.0285	0.0079
Venus	51962-03-24 01:12 G	20699872.40	20699872.55	20699872.71	0.0288	0.0195
Mercury	51967-04-01 22:48 G	20701707.35	20701707.45	20701707.55	0.0300	0.0184
Mercury	51967-06-29 11:17 G	20701795.84	20701795.97	20701796.10	0.0300	0.0003
Mercury	51967-09-25 23:46 G	20701884.38	20701884.49	20701884.59	0.0300	0.0180
Venus	51974-10-26 11:17 G	20704471.81	20704471.97	20704472.14	0.0277	0.0173
Venus	51975-06-12 20:38 G	20704701.15	20704701.36	20704701.56	0.0275	0.0072
Mercury	51982-01-18 15:50 G	20707113.04	20707113.16	20707113.31	0.0261	0.0181

Mercury	51982-04-17 12:43 G	20707201.84	20707202.03	20707202.22	0.0261	0.0006
Mercury	51982-07-15 09:36 G	20707290.76	20707290.90	20707291.04	0.0261	0.0177
Moon	51983-07-15 23:31 G	20707656.24	20707656.48	20707656.72	0.0262	0.0037
Earth	51983-07-16 03:07 G	20707656.39	20707656.63	20707656.87	0.0262	0.0051 *
Venus	51991-02-16 10:19 G	20710428.72	20710428.93	20710429.14	0.0285	0.0050
Venus	51991-10-04 03:22 G	20710658.51	20710658.64	20710658.77	0.0288	0.0223
Mercury	51996-08-18 23:46 G	20712439.42	20712439.49	20712439.56	0.0300	0.0252
Mercury	51996-11-15 12:14 G	20712527.89	20712528.01	20712528.14	0.0300	0.0069
Mercury	51997-02-12 00:43 G	20712616.41	20712616.53	20712616.65	0.0300	0.0114
Mercury	51997-05-11 12:58 G	20712705.02	20712705.04	20712705.07	0.0300	0.0294
Earth	51998-01-13 20:10 G	20712952.09	20712952.34	20712952.58	0.0299	0.0030
Moon	51998-01-13 22:19 G	20712952.17	20712952.43	20712952.68	0.0299	0.0036 *

53RD MILLENNIUM CE

This is a list of transits visible from Saturn in the 53rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	52004-05-07 14:10 G		20715257.91	20715258.09	20715258.27	0.0277	0.0142	
Venus	52004-12-22 23:17 G		20715487.28	20715487.47	20715487.67	0.0275	0.0102	
Mercury	52011-06-07 15:22 G		20717845.06	20717845.14	20717845.23	0.0261	0.0231	
Mercury	52011-09-04 12:00 G		20717933.82	20717934.00	20717934.19	0.0261	0.0053	
Mercury	52011-12-02 08:53 G		20718022.70	20718022.87	20718023.04	0.0261	0.0126	
Earth	52012-07-10 12:00 G		20718243.95	20718244.00	20718244.06	0.0262	0.0255	

Moon	52012-07-10 15:07 G	20718244.06	20718244.13	20718244.22	0.0262	0.0247 *
Earth	52013-07-21 21:22 G	20718620.25	20718620.39	20718620.54	0.0263	0.0210
Moon	52013-07-21 21:50 G	20718620.29	20718620.41	20718620.55	0.0263	0.0224 *
Venus	52020-01-12 01:12 G	20720985.53	20720985.55	20720985.60	0.0283	0.0278
Venus	52020-08-28 16:48 G	20721214.99	20721215.20	20721215.41	0.0286	0.0013
Venus	52021-04-15 09:50 G	20721444.84	20721444.91	20721445.01	0.0288	0.0264
Mars	52022-09-15 06:14 G	20721962.46	20721962.76	20721963.07	0.0293	0.0002
Mercury	52026-01-06 02:24 G	20723171.59	20723171.60	20723171.61	0.0300	0.0298
Mercury	52026-04-04 14:53 G	20723260.00	20723260.12	20723260.24	0.0300	0.0114
Mercury	52026-07-02 03:22 G	20723348.51	20723348.64	20723348.76	0.0300	0.0068
Mercury	52026-09-28 15:36 G	20723437.08	20723437.15	20723437.22	0.0300	0.0249
Moon	52027-01-07 12:58 G	20723537.96	20723538.04	20723538.12	0.0299	0.0281
Earth	52027-01-07 14:38 G	20723538.04	20723538.11	20723538.19	0.0299	0.0284 *
Venus	52033-11-17 20:38 G	20726044.17	20726044.36	20726044.57	0.0277	0.0106
Venus	52034-07-05 05:31 G	20726273.55	20726273.73	20726273.92	0.0275	0.0138
Mars	52036-09-23 06:29 G	20727084.60	20727084.77	20727084.97	0.0267	0.0199
Mercury	52041-01-21 11:31 G	20728665.81	20728665.98	20728666.16	0.0261	0.0102
Mercury	52041-04-20 08:10 G	20728754.66	20728754.84	20728755.03	0.0261	0.0076
Mercury	52041-07-18 05:02 G	20728843.68	20728843.71	20728843.75	0.0261	0.0255
Moon	52042-07-17 04:19 G	20729207.45	20729207.68	20729207.92	0.0262	0.0014
Earth	52042-07-17 05:31 G	20729207.49	20729207.73	20729207.98	0.0262	0.0002 *
Venus	52049-07-24 03:07 G	20731771.54	20731771.63	20731771.74	0.0283	0.0249
Venus	52050-03-10 18:29 G	20732001.06	20732001.27	20732001.48	0.0285	0.0016
Mercury	52055-08-22 15:22 G	20733992.04	20733992.14	20733992.24	0.0300	0.0188
Mercury	52055-11-19 03:50 G	20734080.53	20734080.66	20734080.79	0.0300	0.0006
Mercury	52056-02-15 16:19 G	20734169.07	20734169.18	20734169.28	0.0300	0.0177
Moon	52057-01-14 21:50 G	20734503.17	20734503.41	20734503.65	0.0299	0.0104
Earth	52057-01-15 00:00 G	20734503.27	20734503.50	20734503.74	0.0299	0.0094 *
Venus	52063-05-30 21:50 G	20736830.21	20736830.41	20736830.61	0.0277	0.0079
Venus	52064-01-15 06:43 G	20737059.62	20737059.78	20737059.96	0.0274	0.0163

Mercury	52070-06-10 10:05 G	20739397.78	20739397.92	20739398.08	0.0261	0.0158
Mercury	52070-09-07 06:58 G	20739486.60	20739486.79	20739486.98	0.0261	0.0020
Mercury	52070-12-05 03:50 G	20739575.53	20739575.66	20739575.78	0.0261	0.0200
Earth	52071-07-12 12:29 G	20739794.88	20739795.02	20739795.18	0.0262	0.0206
Moon	52071-07-12 14:24 G	20739794.95	20739795.10	20739795.28	0.0262	0.0197 *
Earth	52072-07-22 21:22 G	20740171.37	20740171.39	20740171.45	0.0263	0.0259
Venus	52079-02-03 07:41 G	20742557.69	20742557.82	20742557.96	0.0283	0.0217
Venus	52079-09-20 23:17 G	20742787.26	20742787.47	20742787.68	0.0286	0.0050
Mercury	52085-01-08 17:17 G	20744724.15	20744724.22	20744724.31	0.0300	0.0240
Mercury	52085-04-07 06:00 G	20744812.62	20744812.75	20744812.88	0.0300	0.0056
Mercury	52085-07-04 18:29 G	20744901.15	20744901.27	20744901.38	0.0300	0.0126
Earth	52086-01-08 16:05 G	20745089.01	20745089.17	20745089.33	0.0300	0.0226
Moon	52086-01-08 18:43 G	20745089.12	20745089.28	20745089.45	0.0300	0.0218 *
Venus	52092-12-10 03:50 G	20747616.45	20747616.66	20747616.87	0.0277	0.0044
Venus	52093-07-27 12:29 G	20747845.88	20747846.02	20747846.17	0.0274	0.0197
Mars	52095-01-01 00:29 G	20748368.39	20748368.52	20748368.66	0.0269	0.0237
Mercury	52099-10-28 09:36 G	20750129.79	20750129.90	20750130.02	0.0261	0.0207
Mercury	52100-01-25 06:14 G	20750218.57	20750218.76	20750218.95	0.0261	0.0030
Mercury	52100-04-24 02:53 G	20750307.47	20750307.62	20750307.78	0.0261	0.0148
Earth	52101-07-19 05:31 G	20750758.49	20750758.73	20750758.98	0.0262	0.0050
Moon	52101-07-19 08:24 G	20750758.62	20750758.85	20750759.09	0.0262	0.0064 *
Venus	52108-08-16 09:07 G	20753343.73	20753343.88	20753344.04	0.0283	0.0188
Venus	52109-04-03 00:29 G	20753573.32	20753573.52	20753573.72	0.0286	0.0078
Mars	52111-02-08 12:43 G	20754249.73	20754250.03	20754250.34	0.0293	0.0012
Mercury	52114-08-26 06:14 G	20755544.65	20755544.76	20755544.88	0.0300	0.0133
Mercury	52114-11-22 18:43 G	20755633.15	20755633.28	20755633.41	0.0300	0.0051
Mercury	52115-02-19 06:58 G	20755721.72	20755721.79	20755721.88	0.0300	0.0232
Moon	52116-01-17 20:24 G	20756054.15	20756054.35	20756054.56	0.0299	0.0162
Earth	52116-01-17 23:46 G	20756054.29	20756054.49	20756054.71	0.0299	0.0150 *
Venus	52121-11-05 16:34 G	20758173.15	20758173.19	20758173.25	0.0279	0.0271

Venus	52122-06-23 03:36 G	20758402.43	20758402.65	20758402.86	0.0276	0.0021
Venus	52123-02-07 12:14 G	20758631.89	20758632.01	20758632.14	0.0274	0.0220
Mars	52125-02-17 09:50 G	20759372.76	20759372.91	20759373.06	0.0267	0.0227
Mercury	52129-06-14 04:19 G	20760950.50	20760950.68	20760950.86	0.0261	0.0091
Mercury	52129-09-11 00:58 G	20761039.36	20761039.54	20761039.72	0.0261	0.0088
Moon	52130-07-14 08:24 G	20761345.66	20761345.85	20761346.07	0.0262	0.0148
Earth	52130-07-14 11:02 G	20761345.78	20761345.96	20761346.17	0.0262	0.0162 *
Venus	52138-02-26 12:58 G	20764129.87	20764130.04	20764130.22	0.0284	0.0158
Venus	52138-10-14 04:34 G	20764359.50	20764359.69	20764359.89	0.0286	0.0110
Mercury	52144-01-13 08:10 G	20766276.74	20766276.84	20766276.94	0.0300	0.0187
Mercury	52144-04-10 20:38 G	20766365.23	20766365.36	20766365.49	0.0300	0.0010
Mercury	52144-07-08 09:07 G	20766453.78	20766453.88	20766453.98	0.0300	0.0178
Earth	52145-01-10 14:24 G	20766639.90	20766640.10	20766640.30	0.0299	0.0174
Moon	52145-01-10 17:17 G	20766640.01	20766640.22	20766640.44	0.0299	0.0161 *
Venus	52151-05-18 21:50 G	20768959.31	20768959.41	20768959.53	0.0279	0.0236
Venus	52152-01-03 08:38 G	20769188.65	20769188.86	20769189.08	0.0276	0.0015
Venus	52152-08-19 17:02 G	20769418.14	20769418.21	20769418.30	0.0274	0.0253
Mercury	52158-11-01 03:36 G	20771682.49	20771682.65	20771682.81	0.0261	0.0141
Mercury	52159-01-29 00:14 G	20771771.32	20771771.51	20771771.70	0.0261	0.0037
Mercury	52159-04-27 20:53 G	20771860.27	20771860.37	20771860.48	0.0261	0.0216
Earth	52160-07-20 03:50 G	20772309.44	20772309.66	20772309.90	0.0262	0.0096
Moon	52160-07-20 06:43 G	20772309.56	20772309.78	20772310.02	0.0262	0.0110 *
Venus	52167-09-08 14:10 G	20774915.91	20774916.09	20774916.28	0.0283	0.0129
Venus	52168-04-25 05:31 G	20775145.55	20775145.73	20775145.92	0.0286	0.0138
Mercury	52173-06-01 08:10 G	20777008.79	20777008.84	20777008.90	0.0300	0.0268
Mercury	52173-08-28 20:53 G	20777097.24	20777097.37	20777097.49	0.0300	0.0084
Mercury	52173-11-25 09:07 G	20777185.76	20777185.88	20777186.01	0.0300	0.0099
Mercury	52174-02-21 21:22 G	20777274.36	20777274.39	20777274.44	0.0300	0.0281
Earth	52175-01-18 20:10 G	20777605.17	20777605.34	20777605.53	0.0299	0.0200
Moon	52175-01-18 21:07 G	20777605.23	20777605.38	20777605.55	0.0299	0.0216 *

Venus	52180-11-27 20:38 G	20779745.23	20779745.36	20779745.50	0.0279	0.0215
Venus	52181-07-15 07:26 G	20779974.60	20779974.81	20779975.02	0.0276	0.0034
Mars	52183-05-27 18:58 G	20780656.15	20780656.29	20780656.45	0.0269	0.0226
Mercury	52188-03-20 01:12 G	20782414.44	20782414.55	20782414.67	0.0261	0.0205
Mercury	52188-06-16 21:50 G	20782503.22	20782503.41	20782503.60	0.0261	0.0028
Mercury	52188-09-13 18:43 G	20782592.12	20782592.28	20782592.43	0.0261	0.0151
Moon	52189-07-15 05:31 G	20782896.52	20782896.73	20782896.96	0.0261	0.0103
Earth	52189-07-15 08:38 G	20782896.64	20782896.86	20782897.08	0.0261	0.0118 *
Venus	52197-03-20 17:17 G	20785702.03	20785702.22	20785702.42	0.0284	0.0100
Venus	52197-11-05 08:53 G	20785931.71	20785931.87	20785932.05	0.0286	0.0169
Mars	52199-07-04 03:22 G	20786537.34	20786537.64	20786537.95	0.0293	0.0034
Mercury	52203-01-16 22:34 G	20787829.33	20787829.44	20787829.55	0.0300	0.0141
Mercury	52203-04-15 11:02 G	20787917.83	20787917.96	20787918.09	0.0300	0.0042
Mercury	52203-07-12 23:17 G	20788006.39	20788006.47	20788006.56	0.0300	0.0224
Moon	52204-01-13 07:55 G	20788190.59	20788190.83	20788191.06	0.0299	0.0110
Earth	52204-01-13 10:05 G	20788190.70	20788190.92	20788191.14	0.0299	0.0127 *
Venus	52210-06-11 01:26 G	20790531.41	20790531.56	20790531.73	0.0279	0.0181
Venus	52211-01-26 12:14 G	20790760.81	20790761.01	20790761.22	0.0276	0.0068
Mars	52213-07-14 16:05 G	20791661.13	20791661.17	20791661.24	0.0268	0.0263
Mercury	52217-08-08 00:29 G	20793146.49	20793146.52	20793146.57	0.0261	0.0254
Mercury	52217-11-04 21:07 G	20793235.20	20793235.38	20793235.57	0.0261	0.0078
Mercury	52218-02-01 17:46 G	20793324.07	20793324.24	20793324.42	0.0261	0.0101
Moon	52219-07-22 23:31 G	20793860.28	20793860.48	20793860.69	0.0262	0.0151
Earth	52219-07-23 01:26 G	20793860.35	20793860.56	20793860.77	0.0262	0.0139 *
Venus	52226-10-01 19:12 G	20796488.10	20796488.30	20796488.51	0.0283	0.0069
Venus	52227-05-19 10:34 G	20796717.80	20796717.94	20796718.10	0.0286	0.0199
Mercury	52232-06-04 22:48 G	20798561.36	20798561.45	20798561.53	0.0300	0.0218
Mercury	52232-09-01 11:17 G	20798649.84	20798649.97	20798650.10	0.0300	0.0035
Mercury	52232-11-28 23:31 G	20798738.37	20798738.48	20798738.60	0.0300	0.0147
Earth	52234-01-20 16:34 G	20799156.05	20799156.19	20799156.32	0.0299	0.0248

Moon	52234-01-20 20:10 G	20799156.24	20799156.34	20799156.46	0.0299	0.0266 *
Venus	52239-12-22 00:00 G	20801317.33	20801317.50	20801317.68	0.0279	0.0161
Venus	52240-08-07 10:34 G	20801546.74	20801546.94	20801547.14	0.0276	0.0088
Mercury	52247-03-24 18:29 G	20803967.12	20803967.27	20803967.43	0.0261	0.0144
Mercury	52247-06-21 15:22 G	20804055.95	20804056.14	20804056.33	0.0261	0.0034
Mercury	52247-09-18 12:00 G	20804144.89	20804145.00	20804145.11	0.0261	0.0213
Earth	52248-07-17 05:17 G	20804447.49	20804447.72	20804447.96	0.0262	0.0075
Moon	52248-07-17 06:58 G	20804447.56	20804447.79	20804448.03	0.0262	0.0061 *
Venus	52256-04-12 22:05 G	20807274.21	20807274.42	20807274.63	0.0284	0.0041
Venus	52256-11-28 13:41 G	20807503.95	20807504.07	20807504.20	0.0287	0.0228
Mercury	52261-10-23 00:14 G	20809293.47	20809293.51	20809293.56	0.0300	0.0278
Mercury	52262-01-19 12:43 G	20809381.91	20809382.03	20809382.16	0.0300	0.0095
Mercury	52262-04-18 01:12 G	20809470.43	20809470.55	20809470.68	0.0300	0.0088
Mercury	52262-07-15 13:41 G	20809559.01	20809559.07	20809559.12	0.0300	0.0269
Moon	52263-01-14 01:55 G	20809741.34	20809741.58	20809741.82	0.0299	0.0062
Earth	52263-01-14 05:17 G	20809741.48	20809741.72	20809741.96	0.0299	0.0080 *
Venus	52269-07-03 04:19 G	20812103.50	20812103.68	20812103.88	0.0279	0.0127
Venus	52270-02-17 15:07 G	20812332.94	20812333.13	20812333.32	0.0276	0.0121
Mars	52271-10-21 22:05 G	20812944.24	20812944.42	20812944.62	0.0270	0.0200
Mercury	52276-08-10 18:00 G	20814699.13	20814699.25	20814699.38	0.0261	0.0192
Mercury	52276-11-07 14:38 G	20814787.92	20814788.11	20814788.30	0.0261	0.0015
Mercury	52277-02-04 11:17 G	20814876.83	20814876.97	20814877.12	0.0261	0.0165
Moon	52278-07-23 19:12 G	20815411.14	20815411.30	20815411.47	0.0262	0.0194
Earth	52278-07-23 22:34 G	20815411.28	20815411.44	20815411.63	0.0262	0.0184 *
Venus	52285-03-08 11:02 G	20817830.91	20817830.96	20817831.03	0.0281	0.0267
Venus	52285-10-24 00:43 G	20818060.32	20818060.53	20818060.74	0.0283	0.0010
Venus	52286-06-10 16:05 G	20818290.09	20818290.17	20818290.26	0.0286	0.0260
Mars	52287-11-27 07:26 G	20818824.50	20818824.81	20818825.11	0.0292	0.0033
Mercury	52291-06-08 13:12 G	20820113.94	20820114.05	20820114.16	0.0300	0.0169
Mercury	52291-09-05 01:41 G	20820202.44	20820202.57	20820202.70	0.0300	0.0014

Mercury	52291-12-02 14:10 G	20820290.99	20820291.09	20820291.18	0.0300	0.0195
Earth	52293-01-21 12:29 G	20820706.99	20820707.02	20820707.05	0.0299	0.0296
Venus	52299-01-13 03:07 G	20822889.44	20822889.63	20822889.84	0.0279	0.0107
Venus	52299-08-30 13:41 G	20823118.89	20823119.07	20823119.25	0.0276	0.0141
Mars	52301-12-08 05:17 G	20823948.69	20823948.72	20823948.77	0.0268	0.0265
Mercury	52305-12-29 15:07 G	20825431.12	20825431.13	20825431.17	0.0261	0.0260
Mercury	52306-03-28 12:00 G	20825519.82	20825520.00	20825520.18	0.0261	0.0082
Mercury	52306-06-25 08:38 G	20825608.69	20825608.86	20825609.04	0.0261	0.0097
Earth	52307-07-20 02:10 G	20825998.35	20825998.59	20825998.84	0.0262	0.0032
Moon	52307-07-20 05:46 G	20825998.50	20825998.74	20825998.99	0.0262	0.0019 *
Venus	52314-09-19 13:41 G	20828616.97	20828617.07	20828617.19	0.0282	0.0240
Venus	52315-05-07 03:36 G	20828846.44	20828846.65	20828846.86	0.0284	0.0020
Mercury	52320-10-26 14:53 G	20830846.04	20830846.12	20830846.21	0.0300	0.0226
Mercury	52321-01-23 03:22 G	20830934.51	20830934.64	20830934.77	0.0300	0.0044
Mercury	52321-04-21 15:50 G	20831023.05	20831023.16	20831023.27	0.0300	0.0138
Earth	52322-01-16 02:24 G	20831292.36	20831292.60	20831292.85	0.0299	0.0029
Moon	52322-01-16 03:36 G	20831292.41	20831292.65	20831292.89	0.0299	0.0013 *
Venus	52328-07-26 07:55 G	20833675.63	20833675.83	20833676.04	0.0278	0.0071
Venus	52329-03-12 18:14 G	20833905.10	20833905.26	20833905.42	0.0276	0.0175
Mercury	52335-08-15 11:31 G	20836251.82	20836251.98	20836252.15	0.0262	0.0129
Mercury	52335-11-12 08:24 G	20836340.66	20836340.85	20836341.04	0.0262	0.0050
Mercury	52336-02-09 05:02 G	20836429.63	20836429.71	20836429.80	0.0262	0.0230
Moon	52336-07-14 08:38 G	20836585.74	20836585.86	20836586.00	0.0262	0.0220
Earth	52336-07-14 12:00 G	20836585.91	20836586.00	20836586.12	0.0262	0.0234 *
Earth	52337-07-25 20:38 G	20836962.26	20836962.36	20836962.49	0.0262	0.0230
Moon	52337-07-25 21:36 G	20836962.30	20836962.40	20836962.51	0.0262	0.0236 *
Venus	52344-03-31 17:46 G	20839403.11	20839403.24	20839403.39	0.0281	0.0204
Venus	52344-11-16 07:26 G	20839632.61	20839632.81	20839633.02	0.0284	0.0057
Mercury	52350-03-15 15:36 G	20841578.13	20841578.15	20841578.17	0.0299	0.0295
Mercury	52350-06-12 04:05 G	20841666.55	20841666.67	20841666.79	0.0300	0.0113

Mercury	52350-09-08 16:34 G	20841755.06	20841755.19	20841755.32	0.0300	0.0069
Mercury	52350-12-06 04:48 G	20841843.63	20841843.70	20841843.77	0.0300	0.0249
Venus	52358-02-05 07:12 G	20844461.59	20844461.80	20844462.01	0.0278	0.0050
Venus	52358-09-22 17:02 G	20844691.07	20844691.21	20844691.37	0.0276	0.0196
Mars	52360-03-16 12:29 G	20845231.84	20845232.02	20845232.22	0.0271	0.0197
Mercury	52365-01-01 09:07 G	20846983.76	20846983.88	20846984.01	0.0262	0.0194
Mercury	52365-03-31 05:46 G	20847072.55	20847072.74	20847072.93	0.0261	0.0017
Mercury	52365-06-28 02:24 G	20847161.46	20847161.60	20847161.76	0.0261	0.0163
Moon	52366-07-20 23:46 G	20847549.24	20847549.49	20847549.75	0.0262	0.0024
Earth	52366-07-21 00:43 G	20847549.28	20847549.53	20847549.77	0.0262	0.0015 *
Venus	52373-10-11 20:53 G	20850189.21	20850189.37	20850189.54	0.0282	0.0176
Venus	52374-05-29 10:48 G	20850418.75	20850418.95	20850419.16	0.0284	0.0086
Mars	52376-04-22 05:46 G	20851112.45	20851112.74	20851113.05	0.0292	0.0066
Mercury	52379-10-30 05:46 G	20852398.64	20852398.74	20852398.85	0.0299	0.0170
Mercury	52380-01-26 18:29 G	20852487.14	20852487.27	20852487.40	0.0300	0.0016
Mercury	52380-04-24 06:43 G	20852575.68	20852575.78	20852575.88	0.0300	0.0194
Earth	52381-01-17 01:55 G	20852843.34	20852843.58	20852843.83	0.0299	0.0029
Moon	52381-01-17 05:46 G	20852843.49	20852843.74	20852843.98	0.0299	0.0043 *
Venus	52387-01-01 00:14 G	20855018.45	20855018.51	20855018.57	0.0281	0.0268
Venus	52387-08-18 12:14 G	20855247.80	20855248.01	20855248.23	0.0278	0.0015
Venus	52388-04-03 22:05 G	20855477.31	20855477.42	20855477.54	0.0276	0.0231
Mercury	52394-05-21 09:07 G	20857715.81	20857715.88	20857715.96	0.0262	0.0238
Mercury	52394-08-18 05:46 G	20857804.56	20857804.74	20857804.93	0.0262	0.0060
Mercury	52394-11-15 02:24 G	20857893.44	20857893.60	20857893.77	0.0262	0.0119
Earth	52395-07-16 11:31 G	20858136.80	20858136.98	20858137.15	0.0262	0.0185
Moon	52395-07-16 11:02 G	20858136.80	20858136.96	20858137.15	0.0262	0.0174 *
Venus	52403-04-24 02:24 G	20860975.42	20860975.60	20860975.78	0.0281	0.0137
Venus	52403-12-09 16:19 G	20861204.99	20861205.18	20861205.37	0.0284	0.0125
Mercury	52409-03-18 07:12 G	20863130.72	20863130.80	20863130.88	0.0299	0.0230
Mercury	52409-06-14 19:41 G	20863219.19	20863219.32	20863219.45	0.0299	0.0048

Mercury	52409-09-11 08:10 G	20863307.72	20863307.84	20863307.95	0.0299	0.0133
Moon	52410-01-10 08:53 G	20863428.80	20863428.87	20863428.95	0.0299	0.0285
Earth	52410-01-10 12:14 G	20863429.00	20863429.01	20863429.03	0.0299	0.0299
Venus	52416-07-13 00:43 G	20865804.44	20865804.53	20865804.64	0.0280	0.0245
Venus	52417-02-27 12:58 G	20866033.82	20866034.04	20866034.25	0.0278	0.0010
Venus	52417-10-14 22:34 G	20866263.36	20866263.44	20866263.52	0.0276	0.0254
Mercury	52424-01-05 03:22 G	20868536.48	20868536.64	20868536.81	0.0262	0.0124
Mercury	52424-04-03 00:14 G	20868625.32	20868625.51	20868625.69	0.0262	0.0055
Mercury	52424-06-30 21:07 G	20868714.30	20868714.38	20868714.46	0.0262	0.0235
Moon	52425-07-21 21:07 G	20869100.15	20869100.38	20869100.62	0.0262	0.0071
Earth	52425-07-22 00:58 G	20869100.30	20869100.54	20869100.77	0.0262	0.0065 *
Venus	52432-11-03 06:14 G	20871761.56	20871761.76	20871761.95	0.0282	0.0108
Venus	52433-06-20 20:24 G	20871991.18	20871991.35	20871991.53	0.0285	0.0157
Mercury	52438-08-05 09:07 G	20873862.85	20873862.88	20873862.92	0.0299	0.0284
Mercury	52438-11-01 21:36 G	20873951.28	20873951.40	20873951.53	0.0299	0.0102
Mercury	52439-01-29 10:05 G	20874039.80	20874039.92	20874040.05	0.0299	0.0080
Mercury	52439-04-27 22:19 G	20874128.37	20874128.43	20874128.50	0.0299	0.0260
Earth	52440-01-19 06:14 G	20874394.54	20874394.76	20874395.00	0.0299	0.0096
Moon	52440-01-19 07:26 G	20874394.57	20874394.81	20874395.05	0.0299	0.0107 *
Venus	52446-01-23 06:43 G	20876590.64	20876590.78	20876590.93	0.0280	0.0206
Venus	52446-09-09 18:29 G	20876820.06	20876820.27	20876820.48	0.0278	0.0047
Mars	52448-08-10 00:29 G	20877520.30	20877520.52	20877520.76	0.0271	0.0160
Mercury	52453-05-24 03:50 G	20879268.52	20879268.66	20879268.81	0.0262	0.0164
Mercury	52453-08-21 00:29 G	20879357.33	20879357.52	20879357.71	0.0262	0.0016
Mercury	52453-11-17 21:22 G	20879446.27	20879446.39	20879446.52	0.0262	0.0195
Earth	52454-07-17 12:29 G	20879687.82	20879688.02	20879688.25	0.0262	0.0134
Moon	52454-07-17 16:05 G	20879687.96	20879688.17	20879688.39	0.0262	0.0120 *
Venus	52462-05-16 13:12 G	20882547.85	20882548.05	20882548.26	0.0282	0.0066
Venus	52463-01-01 03:36 G	20882777.50	20882777.65	20882777.80	0.0284	0.0199
Mars	52464-09-15 23:46 G	20883401.23	20883401.49	20883401.78	0.0291	0.0122

Mercury	52468-03-20 23:31 G	20884683.37	20884683.48	20884683.59	0.0299	0.0155
Mercury	52468-06-17 12:00 G	20884771.87	20884772.00	20884772.13	0.0299	0.0026
Mercury	52468-09-14 00:14 G	20884860.42	20884860.51	20884860.61	0.0299	0.0206
Moon	52469-01-11 19:55 G	20884980.17	20884980.33	20884980.50	0.0299	0.0212
Earth	52469-01-11 20:10 G	20884980.18	20884980.34	20884980.51	0.0299	0.0224 *
Venus	52475-08-05 08:53 G	20887376.72	20887376.87	20887377.04	0.0280	0.0179
Venus	52476-03-21 20:24 G	20887606.15	20887606.35	20887606.56	0.0278	0.0073
Mercury	52482-10-11 01:55 G	20890000.49	20890000.58	20890000.68	0.0262	0.0225
Mercury	52483-01-07 22:34 G	20890089.26	20890089.44	20890089.63	0.0262	0.0047
Mercury	52483-04-06 19:26 G	20890178.15	20890178.31	20890178.48	0.0262	0.0134
Moon	52484-07-23 02:24 G	20890651.39	20890651.60	20890651.81	0.0262	0.0125
Earth	52484-07-23 03:36 G	20890651.43	20890651.65	20890651.87	0.0262	0.0121 *
Venus	52491-11-26 17:31 G	20893334.02	20893334.23	20893334.44	0.0283	0.0034
Venus	52492-07-13 08:24 G	20893563.73	20893563.85	20893563.97	0.0285	0.0232
Mercury	52497-08-08 01:41 G	20895415.48	20895415.57	20895415.67	0.0299	0.0206
Mercury	52497-11-04 14:10 G	20895503.96	20895504.09	20895504.22	0.0299	0.0025
Mercury	52498-02-01 02:38 G	20895592.50	20895592.61	20895592.72	0.0299	0.0156
Moon	52499-01-20 12:29 G	20895945.83	20895946.02	20895946.23	0.0299	0.0183
Earth	52499-01-20 15:50 G	20895945.96	20895946.16	20895946.36	0.0299	0.0173 *
Venus	52505-02-15 15:50 G	20898162.98	20898163.16	20898163.35	0.0279	0.0139
Venus	52505-10-03 03:07 G	20898392.44	20898392.63	20898392.82	0.0277	0.0112
Mercury	52512-02-29 02:53 G	20900732.61	20900732.62	20900732.63	0.0263	0.0262
Mercury	52512-05-27 23:31 G	20900821.30	20900821.48	20900821.66	0.0262	0.0083
Mercury	52512-08-24 20:10 G	20900910.17	20900910.34	20900910.52	0.0262	0.0097
Earth	52513-07-19 16:34 G	20901238.96	20901239.19	20901239.43	0.0263	0.0075
Moon	52513-07-19 18:43 G	20901239.04	20901239.28	20901239.53	0.0263	0.0064 *
Venus	52520-10-22 13:26 G	20903890.96	20903891.06	20903891.16	0.0280	0.0246
Venus	52521-06-09 02:24 G	20904120.38	20904120.60	20904120.81	0.0283	0.0013
Venus	52522-01-24 17:17 G	20904350.18	20904350.22	20904350.27	0.0285	0.0278
Mercury	52526-12-27 04:05 G	20906147.61	20906147.67	20906147.74	0.0299	0.0251

Mercury	52527-03-25 16:48 G	20906236.07	20906236.20	20906236.32	0.0299	0.0070
Mercury	52527-06-22 05:02 G	20906324.59	20906324.71	20906324.83	0.0299	0.0111
Mercury	52527-09-18 17:17 G	20906413.19	20906413.22	20906413.25	0.0299	0.0289
Earth	52528-01-15 09:50 G	20906531.69	20906531.91	20906532.12	0.0299	0.0138
Moon	52528-01-15 13:12 G	20906531.83	20906532.05	20906532.27	0.0299	0.0126 *
Venus	52534-08-28 19:41 G	20908949.13	20908949.32	20908949.52	0.0279	0.0109
Venus	52535-04-15 06:29 G	20909178.59	20909178.77	20909178.96	0.0277	0.0141
Mars	52537-01-04 14:10 G	20909808.85	20909809.09	20909809.36	0.0271	0.0119
Mercury	52541-10-14 22:05 G	20911553.26	20911553.42	20911553.58	0.0262	0.0140
Mercury	52542-01-11 18:43 G	20911642.10	20911642.28	20911642.47	0.0262	0.0040
Mercury	52542-04-10 15:36 G	20911731.05	20911731.15	20911731.26	0.0262	0.0220
Earth	52543-07-26 09:07 G	20912202.70	20912202.88	20912203.05	0.0263	0.0181
Moon	52543-07-26 11:46 G	20912202.82	20912202.99	20912203.16	0.0263	0.0183 *
Venus	52550-05-04 18:00 G	20914677.12	20914677.25	20914677.39	0.0281	0.0214
Venus	52550-12-20 07:12 G	20914906.60	20914906.80	20914907.01	0.0284	0.0046
Mars	52553-02-11 07:26 G	20915690.61	20915690.81	20915691.03	0.0292	0.0209
Mercury	52556-08-11 18:58 G	20916968.17	20916968.29	20916968.41	0.0299	0.0118
Mercury	52556-11-08 07:26 G	20917056.68	20917056.81	20917056.94	0.0299	0.0063
Mercury	52557-02-04 19:41 G	20917145.25	20917145.32	20917145.40	0.0299	0.0243
Moon	52558-01-23 02:53 G	20917497.52	20917497.62	20917497.72	0.0298	0.0270
Earth	52558-01-23 05:46 G	20917497.63	20917497.74	20917497.87	0.0298	0.0260 *
Venus	52564-03-10 03:07 G	20919735.42	20919735.63	20919735.84	0.0279	0.0067
Venus	52564-10-25 13:41 G	20919964.91	20919965.07	20919965.23	0.0276	0.0181
Mercury	52571-03-03 23:02 G	20922285.33	20922285.46	20922285.61	0.0263	0.0175
Mercury	52571-05-31 19:55 G	20922374.14	20922374.33	20922374.52	0.0263	0.0006
Mercury	52571-08-28 16:34 G	20922463.07	20922463.19	20922463.33	0.0263	0.0187
Moon	52572-07-20 20:24 G	20922790.09	20922790.35	20922790.60	0.0263	0.0007
Earth	52572-07-20 23:02 G	20922790.21	20922790.46	20922790.70	0.0263	0.0014 *
Venus	52579-11-15 03:36 G	20925463.48	20925463.65	20925463.82	0.0281	0.0168
Venus	52580-07-01 17:02 G	20925693.02	20925693.21	20925693.41	0.0283	0.0093

Mercury	52585-12-29 21:50 G	20927700.31	20927700.41	20927700.53	0.0299	0.0157
Mercury	52586-03-28 10:19 G	20927788.80	20927788.93	20927789.06	0.0299	0.0026
Mercury	52586-06-24 22:48 G	20927877.35	20927877.45	20927877.54	0.0299	0.0204
Earth	52587-01-17 03:22 G	20928083.40	20928083.64	20928083.88	0.0299	0.0044
Moon	52587-01-17 06:00 G	20928083.50	20928083.75	20928084.00	0.0299	0.0034 *
Venus	52593-09-20 08:53 G	20930521.66	20930521.87	20930522.08	0.0279	0.0033
Venus	52594-05-07 19:12 G	20930751.17	20930751.30	20930751.43	0.0276	0.0214
Mercury	52600-07-21 22:19 G	20933017.34	20933017.43	20933017.52	0.0262	0.0227
Mercury	52600-10-18 18:58 G	20933106.10	20933106.29	20933106.48	0.0262	0.0048
Mercury	52601-01-15 15:50 G	20933194.99	20933195.16	20933195.32	0.0262	0.0133
Earth	52601-07-17 05:46 G	20933377.63	20933377.74	20933377.88	0.0262	0.0224
Moon	52601-07-17 08:38 G	20933377.72	20933377.86	20933378.00	0.0262	0.0212 *
Earth	52602-07-28 16:34 G	20933754.12	20933754.19	20933754.28	0.0263	0.0246
Moon	52602-07-28 19:55 G	20933754.24	20933754.33	20933754.42	0.0263	0.0245 *
Venus	52609-05-28 08:38 G	20936249.68	20936249.86	20936250.05	0.0282	0.0135
Venus	52610-01-12 22:34 G	20936479.25	20936479.44	20936479.63	0.0284	0.0127
Mercury	52615-05-20 00:29 G	20938432.42	20938432.52	20938432.61	0.0299	0.0203
Mercury	52615-08-16 12:58 G	20938520.91	20938521.04	20938521.17	0.0299	0.0022
Mercury	52615-11-13 01:12 G	20938609.44	20938609.55	20938609.66	0.0299	0.0158
Venus	52622-08-17 04:19 G	20941078.59	20941078.68	20941078.79	0.0280	0.0246
Venus	52623-04-03 16:34 G	20941307.98	20941308.19	20941308.40	0.0278	0.0009
Venus	52623-11-19 02:24 G	20941537.53	20941537.60	20941537.69	0.0276	0.0254
Mars	52625-06-02 02:24 G	20942098.32	20942098.60	20942098.88	0.0271	0.0043
Mercury	52629-12-08 23:31 G	20943749.46	20943749.48	20943749.51	0.0263	0.0260
Mercury	52630-03-07 20:24 G	20943838.17	20943838.35	20943838.53	0.0263	0.0081
Mercury	52630-06-04 17:02 G	20943927.04	20943927.21	20943927.39	0.0263	0.0100
Moon	52631-07-24 03:50 G	20944341.43	20944341.66	20944341.90	0.0263	0.0056
Earth	52631-07-24 07:12 G	20944341.56	20944341.80	20944342.04	0.0263	0.0052 *
Venus	52638-12-08 19:12 G	20947036.10	20947036.30	20947036.51	0.0282	0.0087
Venus	52639-07-26 09:36 G	20947265.74	20947265.90	20947266.07	0.0284	0.0177

Mercury	52644-10-06 03:36 G	20949164.58	20949164.65	20949164.74	0.0298	0.0237
Mercury	52645-01-02 16:19 G	20949253.05	20949253.18	20949253.31	0.0299	0.0055
Mercury	52645-04-01 04:34 G	20949341.57	20949341.69	20949341.81	0.0299	0.0125
Moon	52646-01-19 22:19 G	20949635.18	20949635.43	20949635.68	0.0298	0.0062
Earth	52646-01-20 00:14 G	20949635.28	20949635.51	20949635.76	0.0298	0.0057 *
Venus	52652-02-27 11:46 G	20951864.86	20951864.99	20951865.14	0.0280	0.0208
Venus	52652-10-13 23:31 G	20952094.27	20952094.48	20952094.69	0.0278	0.0045
Mercury	52659-07-25 19:41 G	20954570.16	20954570.32	20954570.49	0.0262	0.0130
Mercury	52659-10-22 16:34 G	20954659.00	20954659.19	20954659.38	0.0262	0.0050
Mercury	52660-01-19 13:26 G	20954747.97	20954748.06	20954748.15	0.0262	0.0231
Earth	52660-07-18 15:07 G	20954928.94	20954929.13	20954929.33	0.0262	0.0157
Moon	52660-07-18 18:29 G	20954929.07	20954929.27	20954929.48	0.0262	0.0148 *
Venus	52668-06-20 00:14 G	20957822.31	20957822.51	20957822.72	0.0283	0.0054
Venus	52669-02-04 14:53 G	20958051.98	20958052.12	20958052.26	0.0285	0.0212
Mercury	52674-02-23 06:00 G	20959896.72	20959896.75	20959896.79	0.0299	0.0285
Mercury	52674-05-22 18:29 G	20959985.15	20959985.27	20959985.40	0.0299	0.0104
Mercury	52674-08-19 06:58 G	20960073.67	20960073.79	20960073.92	0.0299	0.0077
Mercury	52674-11-15 19:12 G	20960162.24	20960162.30	20960162.37	0.0299	0.0257
Earth	52675-01-13 18:58 G	20960221.17	20960221.29	20960221.42	0.0299	0.0258
Moon	52675-01-13 21:36 G	20960221.28	20960221.40	20960221.53	0.0299	0.0252 *
Venus	52681-09-08 19:41 G	20962651.16	20962651.32	20962651.50	0.0280	0.0166
Venus	52682-04-26 07:12 G	20962880.60	20962880.80	20962881.00	0.0277	0.0086
Mercury	52688-12-11 21:07 G	20965302.24	20965302.38	20965302.53	0.0263	0.0163
Mercury	52689-03-10 18:00 G	20965391.06	20965391.25	20965391.44	0.0263	0.0017
Mercury	52689-06-07 14:38 G	20965479.99	20965480.11	20965480.24	0.0263	0.0199
Earth	52690-07-25 16:19 G	20965892.97	20965893.18	20965893.41	0.0263	0.0119
Moon	52690-07-25 17:46 G	20965893.02	20965893.24	20965893.45	0.0263	0.0120 *
Venus	52697-05-15 22:05 G	20968379.35	20968379.42	20968379.49	0.0280	0.0262
Venus	52697-12-31 11:02 G	20968608.75	20968608.96	20968609.17	0.0283	0.0006
Venus	52698-08-18 02:10 G	20968838.51	20968838.59	20968838.68	0.0285	0.0262

Mars	52699-10-14 00:00 G	20969260.42	20969260.50	20969260.61	0.0289	0.0275
Mercury	52703-10-10 22:05 G	20970717.31	20970717.42	20970717.54	0.0299	0.0134
Mercury	52704-01-07 10:34 G	20970805.81	20970805.94	20970806.07	0.0299	0.0047
Mercury	52704-04-04 22:48 G	20970894.37	20970894.45	20970894.54	0.0299	0.0226
Moon	52705-01-22 18:43 G	20971187.08	20971187.28	20971187.48	0.0298	0.0163
Earth	52705-01-22 22:19 G	20971187.22	20971187.43	20971187.64	0.0298	0.0158 *
Venus	52711-03-23 04:19 G	20973437.49	20973437.68	20973437.86	0.0280	0.0126
Venus	52711-11-07 15:07 G	20973666.94	20973667.13	20973667.32	0.0277	0.0124
Mars	52713-10-28 17:31 G	20974387.96	20974388.23	20974388.51	0.0270	0.0042
Mercury	52718-05-01 20:38 G	20976034.26	20976034.36	20976034.49	0.0262	0.0211
Mercury	52718-07-29 17:31 G	20976123.04	20976123.23	20976123.42	0.0262	0.0031
Mercury	52718-10-26 14:24 G	20976211.94	20976212.10	20976212.25	0.0262	0.0149
Moon	52719-07-22 00:43 G	20976480.29	20976480.53	20976480.77	0.0262	0.0084
Earth	52719-07-22 01:12 G	20976480.32	20976480.55	20976480.79	0.0262	0.0090 *
Venus	52726-11-27 02:38 G	20979165.50	20979165.61	20979165.74	0.0281	0.0230
Venus	52727-07-14 16:05 G	20979394.96	20979395.17	20979395.39	0.0283	0.0030
Mercury	52733-02-27 00:14 G	20981449.41	20981449.51	20981449.62	0.0299	0.0184
Mercury	52733-05-26 12:58 G	20981537.91	20981538.04	20981538.17	0.0299	0.0011
Mercury	52733-08-23 01:12 G	20981626.45	20981626.55	20981626.65	0.0299	0.0177
Earth	52734-01-16 16:05 G	20981772.97	20981773.17	20981773.38	0.0299	0.0158
Moon	52734-01-16 19:41 G	20981773.10	20981773.32	20981773.53	0.0299	0.0149 *
Venus	52740-10-02 11:31 G	20984223.78	20984223.98	20984224.18	0.0279	0.0085
Venus	52741-05-19 22:05 G	20984453.26	20984453.42	20984453.60	0.0277	0.0164
Mercury	52747-09-18 21:50 G	20986766.36	20986766.41	20986766.49	0.0263	0.0245
Mercury	52747-12-16 18:43 G	20986855.10	20986855.28	20986855.47	0.0263	0.0065
Mercury	52748-03-14 15:22 G	20986943.98	20986944.14	20986944.32	0.0263	0.0116
Earth	52749-07-28 01:26 G	20987444.40	20987444.56	20987444.75	0.0263	0.0186
Moon	52749-07-28 05:31 G	20987444.55	20987444.73	20987444.90	0.0263	0.0182 *
Venus	52756-06-08 12:29 G	20989951.88	20989952.02	20989952.19	0.0281	0.0186
Venus	52757-01-24 02:24 G	20990181.40	20990181.60	20990181.80	0.0284	0.0076

Mercury	52762-07-17 03:50 G	20992181.57	20992181.66	20992181.75	0.0298	0.0216
Mercury	52762-10-13 16:19 G	20992270.05	20992270.18	20992270.31	0.0299	0.0035
Mercury	52763-01-10 04:34 G	20992358.58	20992358.69	20992358.81	0.0299	0.0145
Moon	52764-01-25 17:31 G	20992739.13	20992739.23	20992739.36	0.0298	0.0262
Earth	52764-01-25 18:58 G	20992739.16	20992739.29	20992739.41	0.0298	0.0256 *
Venus	52770-04-14 20:10 G	20995010.13	20995010.34	20995010.55	0.0279	0.0045
Venus	52770-11-30 06:14 G	20995239.62	20995239.76	20995239.91	0.0276	0.0203
Mercury	52777-05-04 18:43 G	20997587.11	20997587.28	20997587.45	0.0262	0.0111
Mercury	52777-08-01 15:22 G	20997675.96	20997676.14	20997676.32	0.0262	0.0068
Mercury	52777-10-29 12:00 G	20997764.95	20997765.00	20997765.07	0.0262	0.0249
Moon	52778-07-23 07:26 G	20998031.57	20998031.81	20998032.06	0.0262	0.0020
Earth	52778-07-23 11:02 G	20998031.72	20998031.96	20998032.21	0.0262	0.0024 *
Venus	52785-12-19 16:48 G	21000738.03	21000738.20	21000738.38	0.0281	0.0153
Venus	52786-08-06 06:43 G	21000967.59	21000967.78	21000967.98	0.0284	0.0109
Mars	52788-03-10 11:17 G	21001549.74	21001549.97	21001550.22	0.0290	0.0180
Mercury	52791-12-04 05:31 G	21002913.69	21002913.73	21002913.79	0.0299	0.0271
Mercury	52792-03-01 18:14 G	21003002.13	21003002.26	21003002.38	0.0299	0.0089
Mercury	52792-05-29 06:43 G	21003090.65	21003090.78	21003090.90	0.0299	0.0092
Mercury	52792-08-25 18:58 G	21003179.24	21003179.29	21003179.34	0.0299	0.0271
Earth	52793-01-18 10:34 G	21003324.71	21003324.94	21003325.18	0.0299	0.0064
Moon	52793-01-18 11:17 G	21003324.72	21003324.97	21003325.22	0.0299	0.0056 *
Venus	52799-03-10 13:41 G	21005567.01	21005567.07	21005567.16	0.0281	0.0262
Venus	52799-10-26 02:10 G	21005796.38	21005796.59	21005796.81	0.0278	0.0007
Venus	52800-06-11 12:29 G	21006025.92	21006026.02	21006026.12	0.0276	0.0239
Mars	52802-03-25 08:53 G	21006677.63	21006677.87	21006678.12	0.0270	0.0125
Mercury	52806-09-21 19:26 G	21008319.16	21008319.31	21008319.46	0.0262	0.0150
Mercury	52806-12-19 16:05 G	21008407.98	21008408.17	21008408.36	0.0262	0.0029
Mercury	52807-03-18 12:43 G	21008496.93	21008497.03	21008497.15	0.0262	0.0211
Earth	52807-07-18 22:48 G	21008619.34	21008619.45	21008619.59	0.0262	0.0224
Moon	52807-07-19 02:10 G	21008619.46	21008619.59	21008619.75	0.0262	0.0212 *

Earth	52808-07-29 09:36 G	21008995.83	21008995.90	21008995.99	0.0263	0.0248
Moon	52808-07-29 10:48 G	21008995.87	21008995.95	21008996.05	0.0263	0.0244 *
Venus	52815-07-02 02:10 G	21011524.40	21011524.59	21011524.79	0.0282	0.0109
Venus	52816-02-16 16:19 G	21011754.01	21011754.18	21011754.36	0.0284	0.0154
Mercury	52821-07-19 21:36 G	21013734.28	21013734.40	21013734.52	0.0299	0.0122
Mercury	52821-10-16 10:05 G	21013822.79	21013822.92	21013823.04	0.0299	0.0059
Mercury	52822-01-12 22:19 G	21013911.35	21013911.43	21013911.51	0.0299	0.0238
Venus	52828-09-19 22:48 G	21016353.33	21016353.45	21016353.59	0.0281	0.0220
Venus	52829-05-07 10:48 G	21016582.74	21016582.95	21016583.16	0.0278	0.0033
Mercury	52836-02-08 19:12 G	21019051.18	21019051.30	21019051.43	0.0262	0.0196
Mercury	52836-05-07 15:50 G	21019139.98	21019140.16	21019140.35	0.0262	0.0018
Mercury	52836-08-04 12:29 G	21019228.88	21019229.02	21019229.18	0.0262	0.0163
Moon	52837-07-24 17:17 G	21019582.98	21019583.22	21019583.45	0.0262	0.0043
Earth	52837-07-24 19:12 G	21019583.05	21019583.30	21019583.54	0.0262	0.0040 *
Venus	52845-01-11 05:31 G	21022310.52	21022310.73	21022310.93	0.0282	0.0078
Venus	52845-08-28 19:41 G	21022540.17	21022540.32	21022540.48	0.0285	0.0186
Mercury	52850-12-06 23:02 G	21024466.36	21024466.46	21024466.56	0.0299	0.0183
Mercury	52851-03-05 11:31 G	21024554.85	21024554.98	21024555.11	0.0299	0.0004
Mercury	52851-06-01 23:46 G	21024643.39	21024643.49	21024643.60	0.0299	0.0179
Moon	52852-01-20 22:19 G	21024876.18	21024876.43	21024876.68	0.0299	0.0029
Earth	52852-01-21 01:41 G	21024876.32	21024876.57	21024876.81	0.0299	0.0024 *
Venus	52858-04-02 03:22 G	21027139.48	21027139.64	21027139.80	0.0280	0.0185
Venus	52858-11-17 15:07 G	21027368.93	21027369.13	21027369.34	0.0278	0.0068
Mercury	52865-06-27 19:26 G	21029783.24	21029783.31	21029783.39	0.0262	0.0239
Mercury	52865-09-24 16:05 G	21029871.99	21029872.17	21029872.36	0.0262	0.0060
Mercury	52865-12-22 12:43 G	21029960.86	21029961.03	21029961.20	0.0262	0.0120
Earth	52866-07-20 05:46 G	21030170.55	21030170.74	21030170.94	0.0262	0.0163
Moon	52866-07-20 08:10 G	21030170.64	21030170.84	21030171.05	0.0262	0.0154 *
Venus	52874-07-24 13:26 G	21033096.85	21033097.06	21033097.27	0.0282	0.0037
Venus	52875-03-11 03:50 G	21033326.55	21033326.66	21033326.80	0.0285	0.0228

Mars	52876-08-05 05:46 G	21033839.45	21033839.74	21033840.05	0.0290	0.0079
Mercury	52880-04-25 01:55 G	21035198.50	21035198.58	21035198.67	0.0299	0.0222
Mercury	52880-07-22 14:38 G	21035286.98	21035287.11	21035287.24	0.0299	0.0040
Mercury	52880-10-19 02:53 G	21035375.51	21035375.62	21035375.74	0.0299	0.0141
Earth	52881-01-14 00:00 G	21035462.44	21035462.50	21035462.59	0.0299	0.0284
Moon	52881-01-14 03:50 G	21035462.58	21035462.66	21035462.76	0.0299	0.0277 *
Venus	52887-10-13 12:00 G	21037925.82	21037926.00	21037926.18	0.0280	0.0144
Venus	52888-05-29 23:17 G	21038155.28	21038155.47	21038155.67	0.0278	0.0107
Mars	52890-08-19 20:24 G	21038967.19	21038967.35	21038967.55	0.0270	0.0207
Mercury	52895-02-11 15:50 G	21040603.99	21040604.16	21040604.33	0.0262	0.0107
Mercury	52895-05-11 12:29 G	21040692.84	21040693.02	21040693.20	0.0262	0.0072
Mercury	52895-08-08 09:07 G	21040781.84	21040781.88	21040781.94	0.0262	0.0252
Earth	52896-07-26 00:58 G	21041134.31	21041134.54	21041134.76	0.0262	0.0098
Moon	52896-07-26 03:22 G	21041134.42	21041134.64	21041134.86	0.0262	0.0099 *
Venus	52903-06-20 03:22 G	21043653.57	21043653.64	21043653.71	0.0280	0.0262
Venus	52904-02-04 15:50 G	21043882.95	21043883.16	21043883.38	0.0282	0.0009
Venus	52904-09-21 06:29 G	21044112.69	21044112.77	21044112.86	0.0285	0.0258
Mercury	52909-09-13 03:07 G	21045930.60	21045930.63	21045930.66	0.0299	0.0287
Mercury	52909-12-10 15:36 G	21046019.03	21046019.15	21046019.27	0.0299	0.0105
Mercury	52910-03-09 04:05 G	21046107.55	21046107.67	21046107.80	0.0299	0.0076
Mercury	52910-06-05 16:19 G	21046196.12	21046196.18	21046196.25	0.0299	0.0256
Moon	52911-01-23 09:36 G	21046427.68	21046427.90	21046428.13	0.0299	0.0104
Earth	52911-01-23 12:14 G	21046427.78	21046428.01	21046428.25	0.0299	0.0102 *
Venus	52917-04-25 14:38 G	21048711.93	21048712.11	21048712.31	0.0280	0.0114
Venus	52917-12-11 02:10 G	21048941.41	21048941.59	21048941.78	0.0277	0.0138
Mercury	52924-07-01 15:22 G	21051335.99	21051336.14	21051336.29	0.0262	0.0156
Mercury	52924-09-28 12:00 G	21051424.81	21051425.00	21051425.19	0.0262	0.0022
Mercury	52924-12-26 08:38 G	21051513.74	21051513.86	21051513.98	0.0262	0.0202
Moon	52925-07-22 07:26 G	21051721.58	21051721.81	21051722.04	0.0262	0.0104
Earth	52925-07-22 09:50 G	21051721.69	21051721.91	21051722.14	0.0262	0.0108 *

Venus	52932-12-30 09:22 G	21054439.78	21054439.89	21054440.02	0.0280	0.0228
Venus	52933-08-16 22:34 G	21054669.23	21054669.44	21054669.65	0.0283	0.0031
Mercury	52939-04-29 18:14 G	21056751.15	21056751.26	21056751.38	0.0299	0.0149
Mercury	52939-07-27 06:43 G	21056839.65	21056839.78	21056839.91	0.0299	0.0033
Mercury	52939-10-23 18:58 G	21056928.21	21056928.29	21056928.39	0.0299	0.0213
Earth	52940-01-17 08:10 G	21057013.68	21057013.84	21057014.02	0.0299	0.0212
Moon	52940-01-17 10:05 G	21057013.75	21057013.92	21057014.11	0.0299	0.0209 *
Venus	52946-11-05 22:05 G	21059498.22	21059498.42	21059498.63	0.0280	0.0075
Venus	52947-06-23 09:07 G	21059727.73	21059727.88	21059728.05	0.0277	0.0176
Mars	52948-11-27 22:05 G	21060251.29	21060251.42	21060251.58	0.0272	0.0231
Mercury	52953-11-18 15:07 G	21062068.02	21062068.13	21062068.25	0.0262	0.0203
Mercury	52954-02-15 11:46 G	21062156.80	21062156.99	21062157.17	0.0262	0.0026
Mercury	52954-05-15 08:10 G	21062245.69	21062245.84	21062246.00	0.0262	0.0154
Earth	52955-07-29 04:19 G	21062685.49	21062685.68	21062685.88	0.0262	0.0153
Moon	52955-07-29 07:26 G	21062685.62	21062685.81	21062686.03	0.0262	0.0150 *
Venus	52962-07-12 11:31 G	21065225.84	21065225.98	21065226.13	0.0280	0.0198
Venus	52963-02-27 00:29 G	21065455.31	21065455.52	21065455.72	0.0283	0.0059
Mars	52964-12-30 04:19 G	21066127.37	21066127.68	21066127.98	0.0290	0.0042
Mercury	52968-09-15 18:58 G	21067483.20	21067483.29	21067483.37	0.0299	0.0221
Mercury	52968-12-13 07:26 G	21067571.68	21067571.81	21067571.94	0.0299	0.0039
Mercury	52969-03-11 19:55 G	21067660.21	21067660.33	21067660.44	0.0299	0.0143
Earth	52970-01-24 17:31 G	21067979.03	21067979.23	21067979.43	0.0299	0.0169
Moon	52970-01-24 19:41 G	21067979.12	21067979.32	21067979.52	0.0299	0.0167 *
Venus	52976-05-17 23:31 G	21070284.27	21070284.48	21070284.69	0.0279	0.0047
Venus	52977-01-02 10:34 G	21070513.80	21070513.94	21070514.09	0.0277	0.0202
Mars	52979-01-14 10:48 G	21071255.86	21071255.95	21071256.07	0.0270	0.0250
Mercury	52983-04-07 13:55 G	21072800.05	21072800.08	21072800.11	0.0262	0.0258
Mercury	52983-07-05 10:19 G	21072888.75	21072888.93	21072889.11	0.0262	0.0081
Mercury	52983-10-02 06:58 G	21072977.62	21072977.79	21072977.97	0.0262	0.0098
Moon	52984-07-23 08:10 G	21073272.61	21073272.84	21073273.08	0.0262	0.0057

Earth	52984-07-23 11:17 G	21073272.73	21073272.97	21073273.21	0.0262	0.0057	*
Venus	52992-01-22 16:19 G	21076012.02	21076012.18	21076012.36	0.0281	0.0166	
Venus	52992-09-08 05:31 G	21076241.54	21076241.73	21076241.94	0.0283	0.0094	
Mercury	52998-02-02 21:07 G	21078215.33	21078215.38	21078215.44	0.0299	0.0268	
Mercury	52998-05-02 09:50 G	21078303.78	21078303.91	21078304.03	0.0299	0.0086	
Mercury	52998-07-29 22:19 G	21078392.30	21078392.43	21078392.55	0.0299	0.0095	
Mercury	52998-10-26 10:34 G	21078480.89	21078480.94	21078480.99	0.0299	0.0274	
Moon	52999-01-18 08:53 G	21078564.66	21078564.87	21078565.09	0.0299	0.0153	
Earth	52999-01-18 11:46 G	21078564.79	21078564.99	21078565.21	0.0299	0.0149	*

54TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 54th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	53005-04-13 17:17 G		21080841.16	21080841.22	21080841.29	0.0282	0.0266	
Venus	53005-11-29 06:14 G		21081070.55	21081070.76	21081070.97	0.0279	0.0010	
Venus	53006-07-16 17:02 G		21081300.11	21081300.21	21081300.32	0.0277	0.0238	
Mercury	53012-11-22 09:50 G		21083620.75	21083620.91	21083621.08	0.0262	0.0129	
Mercury	53013-02-19 06:29 G		21083709.59	21083709.77	21083709.96	0.0262	0.0049	
Mercury	53013-05-19 02:53 G		21083798.54	21083798.62	21083798.72	0.0262	0.0229	
Moon	53013-07-19 23:02 G		21083860.43	21083860.46	21083860.52	0.0262	0.0257	
Moon	53014-07-31 03:36 G		21084236.49	21084236.65	21084236.83	0.0262	0.0194	
Earth	53014-07-31 05:17 G		21084236.57	21084236.72	21084236.88	0.0262	0.0203	*
Venus	53021-08-04 18:14 G		21086798.07	21086798.26	21086798.44	0.0280	0.0136	

Venus	53022-03-22 06:58 G	21087027.61	21087027.79	21087027.99	0.0283	0.0123
Mercury	53027-09-20 10:05 G	21089035.81	21089035.92	21089036.03	0.0299	0.0161
Mercury	53027-12-17 22:34 G	21089124.31	21089124.44	21089124.57	0.0299	0.0022
Mercury	53028-03-15 11:02 G	21089212.86	21089212.96	21089213.05	0.0299	0.0201
Earth	53029-01-26 18:29 G	21089530.13	21089530.27	21089530.44	0.0299	0.0229
Moon	53029-01-26 22:19 G	21089530.26	21089530.43	21089530.60	0.0299	0.0221 *
Venus	53034-10-24 17:02 G	21091627.11	21091627.21	21091627.32	0.0282	0.0243
Venus	53035-06-11 06:00 G	21091856.54	21091856.75	21091856.96	0.0279	0.0014
Venus	53036-01-26 16:48 G	21092086.14	21092086.20	21092086.28	0.0277	0.0262
Mars	53037-04-24 02:24 G	21092539.43	21092539.60	21092539.80	0.0272	0.0206
Mercury	53042-04-11 07:55 G	21094352.71	21094352.83	21094352.97	0.0262	0.0190
Mercury	53042-07-09 04:34 G	21094441.50	21094441.69	21094441.88	0.0262	0.0013
Mercury	53042-10-06 00:58 G	21094530.41	21094530.54	21094530.70	0.0262	0.0168
Earth	53043-07-26 10:34 G	21094823.70	21094823.94	21094824.19	0.0262	0.0010
Moon	53043-07-26 11:46 G	21094823.76	21094823.99	21094824.23	0.0262	0.0014 *
Venus	53051-02-14 21:50 G	21097584.22	21097584.41	21097584.61	0.0281	0.0106
Venus	53051-10-02 11:17 G	21097813.79	21097813.97	21097814.15	0.0284	0.0154
Mars	53053-05-26 06:29 G	21098415.46	21098415.77	21098416.08	0.0290	0.0003
Mercury	53057-02-06 12:00 G	21099767.92	21099768.00	21099768.10	0.0299	0.0214
Mercury	53057-05-06 00:43 G	21099856.40	21099856.53	21099856.66	0.0299	0.0032
Mercury	53057-08-02 12:58 G	21099944.93	21099945.04	21099945.16	0.0299	0.0149
Moon	53058-01-20 08:10 G	21100115.62	21100115.84	21100116.07	0.0299	0.0102
Earth	53058-01-20 11:02 G	21100115.73	21100115.96	21100116.20	0.0299	0.0094 *
Venus	53064-05-05 23:02 G	21102413.32	21102413.46	21102413.61	0.0282	0.0206
Venus	53064-12-21 12:00 G	21102642.79	21102643.00	21102643.21	0.0279	0.0051
Mercury	53071-08-29 07:26 G	21105084.75	21105084.81	21105084.90	0.0262	0.0238
Mercury	53071-11-26 04:05 G	21105173.49	21105173.67	21105173.86	0.0262	0.0061
Mercury	53072-02-23 00:43 G	21105262.36	21105262.53	21105262.70	0.0262	0.0118
Moon	53072-07-20 18:43 G	21105411.14	21105411.28	21105411.43	0.0262	0.0213
Earth	53072-07-20 18:58 G	21105411.16	21105411.29	21105411.44	0.0262	0.0217 *

Moon	53073-08-01 00:43 G	21105787.43	21105787.53	21105787.63	0.0262	0.0237
Earth	53073-08-01 04:05 G	21105787.61	21105787.67	21105787.75	0.0262	0.0250 *
Venus	53080-08-26 23:17 G	21108370.27	21108370.47	21108370.68	0.0280	0.0077
Venus	53081-04-13 12:29 G	21108599.86	21108600.02	21108600.18	0.0283	0.0182
Mercury	53086-06-26 12:14 G	21110499.99	21110500.01	21110500.04	0.0299	0.0291
Mercury	53086-09-23 00:58 G	21110588.41	21110588.54	21110588.66	0.0299	0.0110
Mercury	53086-12-20 13:12 G	21110676.93	21110677.05	21110677.18	0.0299	0.0073
Mercury	53087-03-19 01:26 G	21110765.50	21110765.56	21110765.64	0.0299	0.0253
Moon	53088-01-28 15:36 G	21111081.06	21111081.15	21111081.28	0.0299	0.0269
Earth	53088-01-28 16:48 G	21111081.13	21111081.20	21111081.29	0.0299	0.0281 *
Venus	53093-11-15 21:50 G	21113199.26	21113199.41	21113199.58	0.0281	0.0185
Venus	53094-07-03 10:48 G	21113428.75	21113428.95	21113429.16	0.0279	0.0072
Mercury	53101-04-15 01:41 G	21115905.41	21115905.57	21115905.74	0.0262	0.0126
Mercury	53101-07-12 22:19 G	21115994.25	21115994.43	21115994.62	0.0262	0.0053
Mercury	53101-10-09 18:43 G	21116083.21	21116083.28	21116083.38	0.0262	0.0233
Earth	53102-07-28 08:10 G	21116374.60	21116374.84	21116375.09	0.0262	0.0035
Moon	53102-07-28 11:46 G	21116374.75	21116374.99	21116375.24	0.0262	0.0028 *
Venus	53110-03-10 02:24 G	21119156.40	21119156.60	21119156.81	0.0281	0.0048
Venus	53110-10-25 15:50 G	21119386.03	21119386.16	21119386.30	0.0284	0.0213
Mercury	53116-02-11 02:38 G	21121320.50	21121320.61	21121320.72	0.0299	0.0164
Mercury	53116-05-09 15:07 G	21121409.00	21121409.13	21121409.26	0.0299	0.0018
Mercury	53116-08-06 03:36 G	21121497.55	21121497.65	21121497.75	0.0299	0.0197
Earth	53117-01-22 07:55 G	21121666.59	21121666.83	21121667.07	0.0299	0.0044
Moon	53117-01-22 09:22 G	21121666.66	21121666.89	21121667.12	0.0299	0.0054 *
Venus	53123-05-30 03:22 G	21123985.46	21123985.64	21123985.82	0.0281	0.0148
Venus	53124-01-14 16:05 G	21124214.98	21124215.17	21124215.37	0.0279	0.0107
Mars	53125-09-18 10:19 G	21124827.72	21124827.93	21124828.15	0.0273	0.0173
Mercury	53130-09-02 01:26 G	21126637.42	21126637.56	21126637.70	0.0262	0.0174
Mercury	53130-11-29 21:50 G	21126726.22	21126726.41	21126726.60	0.0262	0.0004
Mercury	53131-02-26 18:29 G	21126815.13	21126815.27	21126815.40	0.0262	0.0183

Moon	53131-07-23 13:12 G	21126961.88	21126962.05	21126962.25	0.0262	0.0172
Earth	53131-07-23 16:48 G	21126962.03	21126962.20	21126962.39	0.0262	0.0172 *
Venus	53139-02-02 17:02 G	21129713.16	21129713.21	21129713.27	0.0278	0.0267
Venus	53139-09-20 04:19 G	21129942.47	21129942.68	21129942.90	0.0281	0.0018
Venus	53140-05-06 17:46 G	21130172.13	21130172.24	21130172.34	0.0283	0.0243
Mars	53141-10-19 09:22 G	21130702.58	21130702.89	21130703.20	0.0289	0.0005
Mercury	53145-06-30 02:53 G	21132052.54	21132052.62	21132052.69	0.0299	0.0241
Mercury	53145-09-26 15:22 G	21132141.01	21132141.14	21132141.27	0.0299	0.0059
Mercury	53145-12-24 03:50 G	21132229.54	21132229.66	21132229.78	0.0299	0.0121
Venus	53152-12-09 01:41 G	21134771.39	21134771.57	21134771.77	0.0281	0.0129
Venus	53153-07-26 14:24 G	21135000.92	21135001.10	21135001.29	0.0279	0.0127
Jupiter	53158-07-15 17:31 G	21136815.77	21136816.23	21136816.70	0.0264	0.0060
Mercury	53160-01-19 22:34 G	21137369.38	21137369.44	21137369.52	0.0262	0.0241
Mercury	53160-04-17 19:12 G	21137458.11	21137458.30	21137458.48	0.0262	0.0064
Mercury	53160-07-15 15:36 G	21137546.98	21137547.15	21137547.33	0.0262	0.0115
Earth	53161-07-29 05:17 G	21137925.48	21137925.72	21137925.95	0.0262	0.0078
Moon	53161-07-29 05:46 G	21137925.49	21137925.74	21137925.99	0.0262	0.0069 *
Venus	53168-08-14 19:12 G	21140499.20	21140499.30	21140499.41	0.0279	0.0242
Venus	53169-04-01 06:43 G	21140728.57	21140728.78	21140728.99	0.0281	0.0011
Venus	53169-11-16 20:10 G	21140958.29	21140958.34	21140958.41	0.0284	0.0271
Mercury	53175-02-13 17:02 G	21142873.09	21142873.21	21142873.33	0.0299	0.0117
Mercury	53175-05-13 05:31 G	21142961.60	21142961.73	21142961.86	0.0299	0.0064
Mercury	53175-08-09 17:46 G	21143050.17	21143050.24	21143050.32	0.0299	0.0244
Earth	53176-01-24 03:36 G	21143217.40	21143217.65	21143217.89	0.0299	0.0006
Moon	53176-01-24 07:12 G	21143217.55	21143217.80	21143218.04	0.0299	0.0009 *
Venus	53182-06-21 06:58 G	21145557.59	21145557.79	21145557.99	0.0281	0.0092
Venus	53183-02-05 19:26 G	21145787.15	21145787.31	21145787.49	0.0279	0.0163
Mercury	53189-09-04 18:43 G	21148190.11	21148190.28	21148190.45	0.0262	0.0111
Mercury	53189-12-02 15:22 G	21148278.96	21148279.14	21148279.32	0.0262	0.0068
Mercury	53190-03-01 12:00 G	21148367.94	21148368.00	21148368.06	0.0262	0.0247

Moon	53190-07-24 12:58 G	21148512.84	21148513.04	21148513.25	0.0262	0.0131
Earth	53190-07-24 14:10 G	21148512.88	21148513.09	21148513.31	0.0262	0.0127 *
Venus	53198-02-24 22:05 G	21151285.29	21151285.42	21151285.57	0.0278	0.0209
Venus	53198-10-12 09:36 G	21151514.69	21151514.90	21151515.11	0.0281	0.0042
Mercury	53204-07-02 17:17 G	21153605.13	21153605.22	21153605.33	0.0299	0.0191
Mercury	53204-09-29 06:00 G	21153693.62	21153693.75	21153693.88	0.0299	0.0010
Mercury	53204-12-26 18:14 G	21153782.16	21153782.26	21153782.37	0.0299	0.0171
Venus	53212-01-01 05:31 G	21156343.53	21156343.73	21156343.94	0.0281	0.0072
Venus	53212-08-17 18:00 G	21156573.09	21156573.25	21156573.41	0.0279	0.0182
Mars	53214-02-10 23:02 G	21157115.25	21157115.46	21157115.68	0.0273	0.0173
Mercury	53219-01-22 16:05 G	21158922.03	21158922.17	21158922.30	0.0262	0.0180
Mercury	53219-04-21 12:29 G	21159010.83	21159011.02	21159011.21	0.0262	0.0002
Mercury	53219-07-19 09:07 G	21159099.74	21159099.88	21159100.02	0.0262	0.0178
Moon	53220-07-29 22:48 G	21159476.23	21159476.45	21159476.68	0.0262	0.0110
Earth	53220-07-30 02:10 G	21159476.38	21159476.59	21159476.81	0.0262	0.0123 *
Venus	53227-09-07 00:29 G	21162071.36	21162071.52	21162071.68	0.0279	0.0183
Venus	53228-04-23 12:00 G	21162300.80	21162301.00	21162301.21	0.0282	0.0071
Mars	53230-03-14 00:29 G	21162990.21	21162990.52	21162990.83	0.0289	0.0020
Mercury	53233-11-19 18:58 G	21164337.22	21164337.29	21164337.36	0.0299	0.0248
Mercury	53234-02-16 07:41 G	21164425.69	21164425.82	21164425.94	0.0299	0.0067
Mercury	53234-05-15 20:10 G	21164514.22	21164514.34	21164514.46	0.0299	0.0114
Mercury	53234-08-12 08:10 G	21164602.83	21164602.84	21164602.87	0.0299	0.0293
Earth	53235-01-25 00:29 G	21164768.28	21164768.52	21164768.76	0.0299	0.0056
Moon	53235-01-25 00:43 G	21164768.28	21164768.53	21164768.78	0.0299	0.0041 *
Venus	53241-07-13 10:34 G	21167129.73	21167129.94	21167130.15	0.0281	0.0036
Venus	53242-02-27 23:02 G	21167359.33	21167359.46	21167359.59	0.0278	0.0217
Mercury	53248-06-10 15:50 G	21169654.07	21169654.16	21169654.26	0.0263	0.0225
Mercury	53248-09-07 12:14 G	21169742.83	21169743.01	21169743.20	0.0262	0.0047
Mercury	53248-12-05 08:53 G	21169831.71	21169831.87	21169832.04	0.0262	0.0132
Earth	53249-07-25 11:46 G	21170063.76	21170063.99	21170064.23	0.0262	0.0081

Moon	53249-07-25 15:07 G	21170063.91	21170064.13	21170064.36	0.0262	0.0089 *
Venus	53257-03-19 04:19 G	21172857.50	21172857.68	21172857.86	0.0278	0.0149
Venus	53257-11-03 15:50 G	21173086.96	21173087.16	21173087.35	0.0281	0.0104
Mercury	53263-07-06 08:10 G	21175157.73	21175157.84	21175157.96	0.0298	0.0137
Mercury	53263-10-02 20:38 G	21175246.23	21175246.36	21175246.49	0.0299	0.0045
Mercury	53263-12-30 09:07 G	21175334.79	21175334.88	21175334.96	0.0299	0.0223
Earth	53264-01-18 07:12 G	21175353.73	21175353.80	21175353.90	0.0299	0.0280
Moon	53264-01-18 08:24 G	21175353.84	21175353.85	21175353.89	0.0299	0.0297 *
Venus	53270-06-07 19:12 G	21177686.27	21177686.30	21177686.36	0.0283	0.0277
Venus	53271-01-23 09:50 G	21177915.70	21177915.91	21177916.13	0.0281	0.0015
Venus	53271-09-09 21:50 G	21178145.31	21178145.41	21178145.53	0.0278	0.0238
Mercury	53278-01-25 09:36 G	21180474.73	21180474.90	21180475.07	0.0262	0.0115
Mercury	53278-04-24 06:14 G	21180563.57	21180563.76	21180563.94	0.0262	0.0064
Mercury	53278-07-22 02:38 G	21180652.56	21180652.61	21180652.69	0.0262	0.0244
Moon	53279-07-31 22:05 G	21181027.24	21181027.42	21181027.62	0.0262	0.0156
Earth	53279-08-01 00:14 G	21181027.33	21181027.51	21181027.70	0.0262	0.0169 *
Venus	53286-09-29 06:43 G	21183643.59	21183643.78	21183643.97	0.0279	0.0122
Venus	53287-05-16 18:29 G	21183873.09	21183873.27	21183873.46	0.0282	0.0133
Mercury	53292-11-22 10:05 G	21185889.82	21185889.92	21185890.02	0.0298	0.0193
Mercury	53293-02-18 22:34 G	21185978.31	21185978.44	21185978.57	0.0299	0.0012
Mercury	53293-05-18 10:48 G	21186066.85	21186066.95	21186067.06	0.0299	0.0168
Moon	53294-01-25 19:55 G	21186319.10	21186319.33	21186319.57	0.0299	0.0094
Earth	53294-01-25 23:31 G	21186319.26	21186319.48	21186319.71	0.0299	0.0112 *
Venus	53299-12-19 00:43 G	21188472.42	21188472.53	21188472.65	0.0283	0.0239
Venus	53300-08-05 15:07 G	21188701.91	21188702.13	21188702.34	0.0280	0.0022
Venus	53301-03-23 02:53 G	21188931.60	21188931.62	21188931.67	0.0278	0.0273
Mars	53302-07-08 05:02 G	21189403.48	21189403.71	21189403.95	0.0274	0.0147
Mercury	53307-06-15 09:36 G	21191206.76	21191206.90	21191207.05	0.0263	0.0159
Mercury	53307-09-12 06:14 G	21191295.57	21191295.76	21191295.95	0.0263	0.0020
Mercury	53307-12-10 02:38 G	21191384.50	21191384.61	21191384.74	0.0263	0.0201

Earth	53308-07-27 10:48 G	21191614.70	21191614.95	21191615.19	0.0262	0.0033
Moon	53308-07-27 12:58 G	21191614.80	21191615.04	21191615.29	0.0262	0.0044 *
Venus	53316-04-11 12:14 G	21194429.81	21194430.01	21194430.21	0.0279	0.0084
Venus	53316-11-27 00:00 G	21194659.33	21194659.50	21194659.67	0.0281	0.0171
Mars	53318-08-08 01:55 G	21195278.27	21195278.58	21195278.88	0.0288	0.0051
Mercury	53322-04-12 11:17 G	21196621.90	21196621.97	21196622.04	0.0298	0.0254
Mercury	53322-07-09 23:46 G	21196710.36	21196710.49	21196710.62	0.0298	0.0073
Mercury	53322-10-06 12:14 G	21196798.89	21196799.01	21196799.13	0.0298	0.0106
Mercury	53323-01-03 00:29 G	21196887.49	21196887.52	21196887.56	0.0299	0.0284
Earth	53323-01-20 10:19 G	21196904.76	21196904.93	21196905.10	0.0299	0.0216
Moon	53323-01-20 13:55 G	21196904.94	21196905.08	21196905.24	0.0299	0.0234 *
Venus	53329-07-01 01:26 G	21199258.42	21199258.56	21199258.69	0.0283	0.0215
Venus	53330-02-15 15:22 G	21199487.93	21199488.14	21199488.35	0.0280	0.0045
Mercury	53336-11-01 06:58 G	21201938.71	21201938.79	21201938.90	0.0263	0.0225
Mercury	53337-01-29 03:36 G	21202027.47	21202027.65	21202027.84	0.0263	0.0047
Mercury	53337-04-28 00:14 G	21202116.35	21202116.51	21202116.68	0.0262	0.0134
Moon	53337-07-22 10:48 G	21202201.94	21202201.95	21202201.98	0.0262	0.0261
Earth	53337-07-22 12:58 G	21202201.98	21202202.04	21202202.11	0.0262	0.0252 *
Earth	53338-08-03 00:00 G	21202578.37	21202578.50	21202578.63	0.0262	0.0219
Moon	53338-08-03 02:24 G	21202578.46	21202578.60	21202578.76	0.0262	0.0205 *
Venus	53345-10-22 14:53 G	21205215.92	21205216.12	21205216.33	0.0280	0.0056
Venus	53346-06-09 02:53 G	21205445.48	21205445.62	21205445.78	0.0282	0.0201
Mercury	53351-11-27 01:26 G	21207442.45	21207442.56	21207442.68	0.0298	0.0130
Mercury	53352-02-23 13:55 G	21207530.96	21207531.08	21207531.21	0.0298	0.0052
Mercury	53352-05-22 02:24 G	21207619.52	21207619.60	21207619.68	0.0299	0.0230
Moon	53353-01-28 00:43 G	21207870.33	21207870.53	21207870.73	0.0299	0.0159
Earth	53353-01-28 02:10 G	21207870.40	21207870.59	21207870.79	0.0299	0.0175 *
Venus	53359-01-11 06:58 G	21210044.63	21210044.79	21210044.96	0.0282	0.0177
Venus	53359-08-28 20:53 G	21210274.17	21210274.37	21210274.58	0.0280	0.0083
Mercury	53366-06-18 04:05 G	21212759.50	21212759.67	21212759.85	0.0263	0.0087

Mercury	53366-09-15 00:43 G	21212848.36	21212848.53	21212848.71	0.0263	0.0093
Moon	53367-07-29 08:53 G	21213165.62	21213165.87	21213166.12	0.0263	0.0006
Earth	53367-07-29 11:31 G	21213165.74	21213165.98	21213166.23	0.0263	0.0020 *
Venus	53374-09-17 11:31 G	21215772.91	21215772.98	21215773.04	0.0277	0.0262
Venus	53375-05-04 21:50 G	21216002.19	21216002.41	21216002.62	0.0279	0.0016
Venus	53375-12-20 09:50 G	21216231.81	21216231.91	21216232.02	0.0282	0.0241
Mercury	53381-04-15 03:22 G	21218174.54	21218174.64	21218174.74	0.0298	0.0183
Mercury	53381-07-12 15:50 G	21218263.03	21218263.16	21218263.29	0.0298	0.0005
Mercury	53381-10-09 04:05 G	21218351.57	21218351.67	21218351.78	0.0298	0.0176
Earth	53382-01-21 16:48 G	21218455.99	21218456.20	21218456.41	0.0298	0.0144
Moon	53382-01-21 17:02 G	21218456.00	21218456.21	21218456.43	0.0298	0.0160 *
Venus	53388-07-23 09:07 G	21220830.70	21220830.88	21220831.06	0.0282	0.0150
Venus	53389-03-09 22:48 G	21221060.25	21221060.45	21221060.65	0.0280	0.0108
Mars	53390-12-01 06:00 G	21221691.50	21221691.75	21221692.00	0.0274	0.0126
Mercury	53395-11-05 01:55 G	21223491.43	21223491.58	21223491.74	0.0263	0.0150
Mercury	53396-02-01 22:34 G	21223580.25	21223580.44	21223580.63	0.0263	0.0029
Mercury	53396-04-30 19:12 G	21223669.19	21223669.30	21223669.42	0.0263	0.0210
Earth	53396-07-23 14:24 G	21223752.95	21223753.10	21223753.27	0.0262	0.0199
Moon	53396-07-23 16:34 G	21223753.06	21223753.19	21223753.35	0.0262	0.0211 *
Moon	53397-08-04 04:34 G	21224129.66	21224129.69	21224129.75	0.0263	0.0258
Venus	53404-03-30 14:24 G	21226559.00	21226559.10	21226559.22	0.0278	0.0235
Venus	53404-11-15 01:12 G	21226788.34	21226788.55	21226788.76	0.0280	0.0015
Venus	53405-07-02 13:41 G	21227018.03	21227018.07	21227018.13	0.0283	0.0273
Mars	53407-01-02 16:05 G	21227566.89	21227567.17	21227567.46	0.0289	0.0112
Mercury	53410-09-03 05:17 G	21228906.64	21228906.72	21228906.80	0.0298	0.0235
Mercury	53410-11-30 17:46 G	21228995.12	21228995.24	21228995.37	0.0298	0.0055
Mercury	53411-02-27 06:14 G	21229083.64	21229083.76	21229083.88	0.0298	0.0125
Earth	53412-01-31 09:50 G	21229421.79	21229421.91	21229422.05	0.0298	0.0250
Moon	53412-01-31 13:12 G	21229421.90	21229422.05	21229422.20	0.0298	0.0235 *
Venus	53418-02-03 15:50 G	21231616.96	21231617.16	21231617.35	0.0282	0.0110

Venus	53418-09-21 05:02 G	21231846.53	21231846.71	21231846.89	0.0280	0.0147
Mercury	53425-03-25 02:38 G	21234223.49	21234223.61	21234223.75	0.0263	0.0188
Mercury	53425-06-21 23:17 G	21234312.28	21234312.47	21234312.66	0.0263	0.0009
Mercury	53425-09-18 19:55 G	21234401.19	21234401.33	21234401.48	0.0263	0.0172
Moon	53426-07-31 11:17 G	21234716.73	21234716.97	21234717.20	0.0263	0.0060
Earth	53426-07-31 14:10 G	21234716.86	21234717.09	21234717.33	0.0263	0.0076 *
Venus	53433-10-10 22:48 G	21237345.30	21237345.45	21237345.60	0.0278	0.0192
Venus	53434-05-28 09:22 G	21237574.69	21237574.89	21237575.10	0.0280	0.0058
Mercury	53440-01-21 07:41 G	21239638.78	21239638.82	21239638.86	0.0297	0.0281
Mercury	53440-04-18 20:10 G	21239727.22	21239727.34	21239727.46	0.0298	0.0101
Mercury	53440-07-16 08:38 G	21239815.73	21239815.86	21239815.98	0.0298	0.0077
Mercury	53440-10-12 20:53 G	21239904.31	21239904.37	21239904.44	0.0298	0.0255
Moon	53441-01-24 00:29 G	21240007.28	21240007.52	21240007.76	0.0298	0.0078
Earth	53441-01-24 04:05 G	21240007.43	21240007.67	21240007.91	0.0298	0.0063 *
Venus	53447-08-16 19:12 G	21242403.10	21242403.30	21242403.51	0.0282	0.0081
Venus	53448-04-02 08:10 G	21242632.68	21242632.84	21242633.01	0.0280	0.0176
Mercury	53454-08-12 00:58 G	21244955.49	21244955.54	21244955.61	0.0263	0.0247
Mercury	53454-11-08 21:36 G	21245044.22	21245044.40	21245044.58	0.0263	0.0069
Mercury	53455-02-05 18:14 G	21245133.09	21245133.26	21245133.43	0.0263	0.0112
Earth	53455-07-26 18:29 G	21245304.07	21245304.27	21245304.48	0.0263	0.0141
Moon	53455-07-26 21:50 G	21245304.21	21245304.41	21245304.62	0.0263	0.0152 *
Venus	53463-04-23 02:24 G	21248131.43	21248131.60	21248131.77	0.0279	0.0163
Venus	53463-12-08 13:41 G	21248360.87	21248361.07	21248361.27	0.0281	0.0089
Mercury	53469-09-05 22:19 G	21250459.32	21250459.43	21250459.54	0.0298	0.0152
Mercury	53469-12-03 10:48 G	21250547.82	21250547.95	21250548.08	0.0298	0.0028
Mercury	53470-03-01 23:02 G	21250636.37	21250636.46	21250636.56	0.0298	0.0206
Venus	53477-02-26 02:24 G	21253189.39	21253189.60	21253189.81	0.0281	0.0039
Venus	53477-10-13 15:22 G	21253419.01	21253419.14	21253419.27	0.0279	0.0215
Mars	53479-04-28 06:29 G	21253980.50	21253980.77	21253981.04	0.0274	0.0070
Mercury	53484-03-27 22:34 G	21255776.27	21255776.44	21255776.61	0.0264	0.0104

Mercury	53484-06-24 19:12 G	21255865.12	21255865.30	21255865.48	0.0263	0.0076
Mercury	53484-09-21 15:50 G	21255954.14	21255954.16	21255954.20	0.0263	0.0258
Earth	53485-08-01 19:12 G	21256268.09	21256268.30	21256268.51	0.0263	0.0135
Moon	53485-08-01 20:10 G	21256268.13	21256268.34	21256268.55	0.0263	0.0123 *
Venus	53492-11-02 11:31 G	21258917.79	21258917.98	21258918.18	0.0279	0.0118
Venus	53493-06-19 23:02 G	21259147.28	21259147.46	21259147.65	0.0281	0.0135
Mars	53495-05-30 12:43 G	21259856.83	21259857.03	21259857.25	0.0288	0.0211
Mercury	53499-01-24 01:12 G	21261191.45	21261191.55	21261191.65	0.0297	0.0190
Mercury	53499-04-22 13:41 G	21261279.94	21261280.07	21261280.20	0.0298	0.0012
Mercury	53499-07-20 02:10 G	21261368.48	21261368.59	21261368.69	0.0298	0.0167
Moon	53500-01-26 17:46 G	21261559.00	21261559.24	21261559.48	0.0298	0.0014
Earth	53500-01-26 20:10 G	21261559.10	21261559.34	21261559.59	0.0298	0.0028 *
Venus	53506-01-22 17:17 G	21263746.17	21263746.22	21263746.30	0.0284	0.0268
Venus	53506-09-09 07:55 G	21263975.62	21263975.83	21263976.04	0.0281	0.0006
Venus	53507-04-26 19:55 G	21264205.25	21264205.33	21264205.44	0.0279	0.0248
Mercury	53513-08-15 21:22 G	21266508.24	21266508.39	21266508.54	0.0263	0.0160
Mercury	53513-11-12 18:00 G	21266597.06	21266597.25	21266597.44	0.0263	0.0020
Mercury	53514-02-09 14:38 G	21266686.00	21266686.11	21266686.24	0.0263	0.0201
Moon	53514-07-29 00:29 G	21266855.29	21266855.52	21266855.77	0.0263	0.0092
Earth	53514-07-29 00:43 G	21266855.30	21266855.53	21266855.77	0.0263	0.0080 *
Venus	53522-05-16 16:05 G	21269703.97	21269704.17	21269704.37	0.0279	0.0086
Venus	53523-01-01 03:36 G	21269933.49	21269933.65	21269933.82	0.0282	0.0168
Mercury	53528-06-13 03:22 G	21271923.57	21271923.64	21271923.72	0.0298	0.0240
Mercury	53528-09-09 16:05 G	21272012.04	21272012.17	21272012.29	0.0298	0.0060
Mercury	53528-12-07 04:19 G	21272100.56	21272100.68	21272100.80	0.0298	0.0119
Earth	53529-01-20 15:07 G	21272145.08	21272145.13	21272145.21	0.0298	0.0286
Mercury	53529-03-05 16:34 G	21272189.18	21272189.19	21272189.20	0.0298	0.0296
Venus	53535-08-05 00:58 G	21274532.42	21274532.54	21274532.67	0.0283	0.0225
Venus	53536-03-21 15:22 G	21274761.93	21274762.14	21274762.35	0.0281	0.0036
Mercury	53543-01-02 22:34 G	21277240.32	21277240.44	21277240.57	0.0264	0.0194

Mercury	53543-04-01 19:12 G	21277329.11	21277329.30	21277329.49	0.0264	0.0014
Mercury	53543-06-29 15:50 G	21277418.02	21277418.16	21277418.31	0.0264	0.0168
Earth	53544-08-04 02:10 G	21277819.44	21277819.59	21277819.75	0.0263	0.0199
Moon	53544-08-04 05:31 G	21277819.57	21277819.73	21277819.91	0.0263	0.0185 *
Venus	53551-11-27 01:55 G	21280490.37	21280490.58	21280490.79	0.0279	0.0041
Venus	53552-07-13 13:55 G	21280719.95	21280720.08	21280720.22	0.0282	0.0216
Mercury	53557-10-31 06:43 G	21282655.73	21282655.78	21282655.83	0.0297	0.0273
Mercury	53558-01-27 19:12 G	21282744.18	21282744.30	21282744.43	0.0297	0.0094
Mercury	53558-04-26 07:41 G	21282832.69	21282832.82	21282832.94	0.0297	0.0085
Mercury	53558-07-23 19:55 G	21282921.27	21282921.33	21282921.39	0.0298	0.0262
Earth	53559-01-29 14:53 G	21283110.90	21283111.12	21283111.35	0.0298	0.0124
Moon	53559-01-29 16:05 G	21283110.96	21283111.17	21283111.40	0.0298	0.0112 *
Venus	53565-02-14 08:38 G	21285318.70	21285318.86	21285319.01	0.0283	0.0187
Venus	53565-10-01 22:19 G	21285548.22	21285548.43	21285548.63	0.0280	0.0072
Mars	53567-09-23 11:17 G	21286269.69	21286269.97	21286270.25	0.0273	0.0002
Mercury	53572-05-21 21:50 G	21287972.35	21287972.41	21287972.48	0.0263	0.0245
Mercury	53572-08-18 18:29 G	21288061.09	21288061.27	21288061.45	0.0263	0.0066
Mercury	53572-11-15 15:07 G	21288149.96	21288150.13	21288150.30	0.0263	0.0114
Moon	53573-07-30 05:31 G	21288406.48	21288406.73	21288406.98	0.0263	0.0029
Earth	53573-07-30 09:07 G	21288406.63	21288406.88	21288407.12	0.0263	0.0014 *
Venus	53580-10-21 19:41 G	21291047.26	21291047.32	21291047.41	0.0278	0.0257
Venus	53581-06-08 06:29 G	21291276.55	21291276.77	21291276.98	0.0280	0.0010
Venus	53582-01-23 18:43 G	21291506.18	21291506.28	21291506.38	0.0282	0.0249
Mercury	53587-06-16 21:36 G	21293476.28	21293476.40	21293476.51	0.0298	0.0142
Mercury	53587-09-13 10:05 G	21293564.79	21293564.92	21293565.05	0.0298	0.0038
Mercury	53587-12-10 22:19 G	21293653.34	21293653.43	21293653.52	0.0298	0.0215
Moon	53588-01-23 08:38 G	21293696.69	21293696.86	21293697.05	0.0298	0.0204
Earth	53588-01-23 10:34 G	21293696.76	21293696.94	21293697.13	0.0298	0.0189 *
Venus	53594-08-27 16:19 G	21296105.00	21296105.18	21296105.36	0.0282	0.0144
Venus	53595-04-14 05:46 G	21296334.55	21296334.74	21296334.94	0.0280	0.0114

Mercury	53602-01-05 19:41 G	21298793.15	21298793.32	21298793.50	0.0264	0.0100
Mercury	53602-04-04 16:19 G	21298882.00	21298882.18	21298882.36	0.0264	0.0081
Mercury	53602-07-02 13:12 G	21298971.04	21298971.05	21298971.06	0.0263	0.0263
Earth	53602-07-25 21:50 G	21298994.28	21298994.41	21298994.57	0.0263	0.0214
Moon	53602-07-26 01:26 G	21298994.45	21298994.56	21298994.70	0.0263	0.0227 *
Moon	53603-08-06 12:00 G	21299370.94	21299371.00	21299371.09	0.0263	0.0251
Venus	53610-05-04 05:46 G	21301833.62	21301833.74	21301833.89	0.0278	0.0212
Venus	53610-12-19 16:48 G	21302062.99	21302063.20	21302063.41	0.0280	0.0039
Mercury	53616-11-03 00:58 G	21304208.44	21304208.54	21304208.65	0.0297	0.0173
Mercury	53617-01-30 13:41 G	21304296.94	21304297.07	21304297.20	0.0297	0.0011
Mercury	53617-04-29 01:55 G	21304385.48	21304385.58	21304385.68	0.0298	0.0184
Earth	53618-01-31 12:00 G	21304662.85	21304663.00	21304663.17	0.0298	0.0224
Moon	53618-01-31 15:50 G	21304662.99	21304663.16	21304663.33	0.0298	0.0209 *
Venus	53624-03-09 00:43 G	21306891.33	21306891.53	21306891.73	0.0282	0.0104
Venus	53624-10-24 13:41 G	21307120.90	21307121.07	21307121.25	0.0280	0.0153
Mercury	53631-05-25 19:26 G	21309525.15	21309525.31	21309525.46	0.0263	0.0149
Mercury	53631-08-22 15:50 G	21309613.98	21309614.16	21309614.35	0.0263	0.0032
Mercury	53631-11-19 12:43 G	21309702.92	21309703.03	21309703.14	0.0263	0.0213
Moon	53632-07-31 16:48 G	21309957.96	21309958.20	21309958.43	0.0263	0.0038
Earth	53632-07-31 18:29 G	21309958.03	21309958.27	21309958.51	0.0263	0.0053 *
Venus	53639-11-14 10:05 G	21312619.77	21312619.92	21312620.09	0.0278	0.0180
Venus	53640-06-30 21:22 G	21312849.19	21312849.39	21312849.60	0.0281	0.0071
Mercury	53646-03-23 03:07 G	21314940.55	21314940.63	21314940.72	0.0298	0.0223
Mercury	53646-06-19 15:36 G	21315029.03	21315029.15	21315029.28	0.0298	0.0044
Mercury	53646-09-16 04:05 G	21315117.55	21315117.67	21315117.79	0.0298	0.0135
Moon	53647-01-25 02:38 G	21315248.39	21315248.61	21315248.85	0.0298	0.0108
Earth	53647-01-25 06:43 G	21315248.55	21315248.78	21315249.01	0.0298	0.0091 *
Venus	53653-09-19 08:10 G	21317677.63	21317677.84	21317678.05	0.0282	0.0063
Venus	53654-05-06 20:53 G	21317907.22	21317907.37	21317907.53	0.0279	0.0193
Mars	53656-02-18 03:07 G	21318559.37	21318559.63	21318559.90	0.0273	0.0085

Mercury	53660-10-11 20:24 G	21320257.22	21320257.35	21320257.49	0.0264	0.0184
Mercury	53661-01-08 17:02 G	21320346.02	21320346.21	21320346.40	0.0264	0.0006
Mercury	53661-04-07 13:55 G	21320434.94	21320435.08	21320435.22	0.0263	0.0178
Earth	53661-07-27 07:12 G	21320545.60	21320545.80	21320546.00	0.0263	0.0147
Moon	53661-07-27 09:07 G	21320545.69	21320545.88	21320546.09	0.0263	0.0161 *
Venus	53669-05-26 19:41 G	21323406.15	21323406.32	21323406.51	0.0279	0.0137
Venus	53670-01-11 07:26 G	21323635.62	21323635.81	21323636.00	0.0281	0.0117
Mercury	53675-08-10 06:43 G	21325672.72	21325672.78	21325672.85	0.0297	0.0252
Mercury	53675-11-06 19:12 G	21325761.18	21325761.30	21325761.43	0.0297	0.0074
Mercury	53676-02-03 07:41 G	21325849.70	21325849.82	21325849.94	0.0297	0.0105
Mercury	53676-05-01 19:55 G	21325938.30	21325938.33	21325938.37	0.0298	0.0282
Venus	53682-08-15 02:38 G	21328234.61	21328234.61	21328234.63	0.0284	0.0283
Venus	53683-04-01 17:17 G	21328464.01	21328464.22	21328464.44	0.0281	0.0021
Venus	53683-11-17 05:46 G	21328693.63	21328693.74	21328693.86	0.0279	0.0233
Mercury	53690-02-28 20:38 G	21330989.27	21330989.36	21330989.45	0.0263	0.0229
Mercury	53690-05-28 17:02 G	21331078.03	21331078.21	21331078.40	0.0263	0.0050
Mercury	53690-08-25 13:41 G	21331166.91	21331167.07	21331167.23	0.0263	0.0130
Earth	53691-08-03 04:05 G	21331509.46	21331509.67	21331509.89	0.0263	0.0119
Moon	53691-08-03 06:43 G	21331509.57	21331509.78	21331510.01	0.0263	0.0105 *
Venus	53698-12-07 00:00 G	21334192.30	21334192.50	21334192.70	0.0279	0.0104
Venus	53699-07-24 11:31 G	21334421.81	21334421.98	21334422.17	0.0281	0.0150
Mercury	53705-03-26 21:07 G	21336493.27	21336493.38	21336493.50	0.0298	0.0127
Mercury	53705-06-23 09:36 G	21336581.77	21336581.90	21336582.03	0.0298	0.0053
Mercury	53705-09-19 21:50 G	21336670.34	21336670.41	21336670.50	0.0298	0.0231
Moon	53706-01-28 01:12 G	21336800.32	21336800.55	21336800.79	0.0298	0.0009
Earth	53706-01-28 01:55 G	21336800.33	21336800.58	21336800.82	0.0298	0.0005 *
Venus	53712-02-26 09:07 G	21339020.78	21339020.88	21339020.99	0.0283	0.0244
Venus	53712-10-12 23:46 G	21339250.28	21339250.49	21339250.70	0.0281	0.0018
Venus	53713-05-30 12:00 G	21339479.96	21339480.00	21339480.05	0.0278	0.0270
Mercury	53719-10-16 17:46 G	21341810.07	21341810.24	21341810.42	0.0263	0.0089

Mercury	53720-01-13 14:24 G	21341898.93	21341899.10	21341899.28	0.0263	0.0092
Moon	53720-07-29 13:26 G	21342096.83	21342097.06	21342097.30	0.0263	0.0097
Earth	53720-07-29 15:50 G	21342096.94	21342097.16	21342097.40	0.0263	0.0084 *
Venus	53728-06-19 09:07 G	21344978.68	21344978.88	21344979.09	0.0279	0.0062
Venus	53729-02-03 21:07 G	21345208.24	21345208.38	21345208.54	0.0282	0.0195
Mars	53730-06-26 12:43 G	21345715.78	21345716.03	21345716.28	0.0287	0.0168
Mercury	53734-08-14 00:43 G	21347225.42	21347225.53	21347225.64	0.0297	0.0158
Mercury	53734-11-10 13:12 G	21347313.92	21347314.05	21347314.18	0.0297	0.0021
Earth	53735-01-22 04:48 G	21347386.68	21347386.70	21347386.75	0.0298	0.0294
Mercury	53735-02-07 01:26 G	21347402.47	21347402.56	21347402.66	0.0298	0.0199
Venus	53741-09-07 18:43 G	21349807.14	21349807.28	21349807.44	0.0283	0.0200
Venus	53742-04-25 08:53 G	21350036.67	21350036.87	21350037.08	0.0281	0.0061
Mars	53744-07-15 21:22 G	21350849.18	21350849.39	21350849.60	0.0273	0.0178
Mercury	53749-03-04 18:00 G	21352542.09	21352542.25	21352542.41	0.0263	0.0133
Mercury	53749-06-01 14:24 G	21352630.92	21352631.10	21352631.29	0.0263	0.0047
Mercury	53749-08-29 11:17 G	21352719.87	21352719.97	21352720.06	0.0263	0.0227
Earth	53750-08-05 12:58 G	21353060.88	21353061.04	21353061.22	0.0263	0.0184
Moon	53750-08-05 16:19 G	21353060.99	21353061.18	21353061.37	0.0263	0.0170 *
Venus	53757-05-15 02:10 G	21355535.59	21355535.59	21355535.61	0.0277	0.0277
Venus	53757-12-30 12:29 G	21355764.81	21355765.02	21355765.23	0.0279	0.0030
Venus	53758-08-17 00:29 G	21355994.40	21355994.52	21355994.65	0.0282	0.0226
Mercury	53764-01-01 02:10 G	21357957.50	21357957.59	21357957.68	0.0298	0.0217
Mercury	53764-03-29 14:38 G	21358045.98	21358046.11	21358046.24	0.0298	0.0038
Mercury	53764-06-26 03:07 G	21358134.52	21358134.63	21358134.74	0.0298	0.0141
Earth	53765-01-29 17:46 G	21358352.00	21358352.24	21358352.47	0.0298	0.0094
Moon	53765-01-29 20:53 G	21358352.15	21358352.37	21358352.61	0.0298	0.0084 *
Venus	53771-03-21 00:00 G	21360593.33	21360593.50	21360593.67	0.0283	0.0164
Venus	53771-11-05 13:55 G	21360822.89	21360823.08	21360823.28	0.0280	0.0096
Mercury	53778-07-22 18:14 G	21363274.13	21363274.26	21363274.40	0.0263	0.0175
Mercury	53778-10-19 14:53 G	21363362.93	21363363.12	21363363.31	0.0263	0.0005

Mercury	53779-01-16 11:17 G	21363451.85	21363451.97	21363452.11	0.0263	0.0185
Moon	53779-07-31 20:38 G	21363648.12	21363648.36	21363648.60	0.0263	0.0035
Earth	53779-07-31 23:46 G	21363648.25	21363648.49	21363648.74	0.0263	0.0021 *
Venus	53786-11-25 09:50 G	21366321.82	21366321.91	21366322.03	0.0278	0.0239
Venus	53787-07-12 20:38 G	21366551.15	21366551.36	21366551.58	0.0280	0.0013
Venus	53788-02-27 09:22 G	21366780.82	21366780.89	21366780.95	0.0282	0.0268
Mercury	53793-05-20 05:31 G	21368689.66	21368689.73	21368689.80	0.0297	0.0251
Mercury	53793-08-16 18:00 G	21368778.12	21368778.25	21368778.38	0.0297	0.0072
Mercury	53793-11-13 06:29 G	21368866.65	21368866.77	21368866.89	0.0298	0.0107
Moon	53794-01-23 15:50 G	21368938.00	21368938.16	21368938.33	0.0298	0.0221
Earth	53794-01-23 19:26 G	21368938.14	21368938.31	21368938.49	0.0298	0.0209 *
Mercury	53794-02-09 18:43 G	21368955.25	21368955.28	21368955.32	0.0298	0.0284
Venus	53800-10-01 09:22 G	21371379.70	21371379.89	21371380.09	0.0282	0.0120
Venus	53801-05-18 22:48 G	21371609.28	21371609.45	21371609.64	0.0280	0.0138
Mars	53802-10-25 06:14 G	21372133.68	21372133.76	21372133.86	0.0275	0.0259
Mercury	53807-12-10 18:29 G	21374006.17	21374006.27	21374006.38	0.0263	0.0218
Mercury	53808-03-08 14:53 G	21374094.94	21374095.12	21374095.31	0.0263	0.0041
Mercury	53808-06-05 11:31 G	21374183.82	21374183.98	21374184.14	0.0263	0.0139
Earth	53808-07-27 08:53 G	21374235.75	21374235.87	21374235.99	0.0263	0.0229
Moon	53808-07-27 12:29 G	21374235.93	21374236.02	21374236.12	0.0263	0.0241 *
Moon	53809-08-07 19:12 G	21374612.20	21374612.30	21374612.42	0.0263	0.0235
Earth	53809-08-07 20:24 G	21374612.28	21374612.35	21374612.45	0.0263	0.0245 *
Venus	53816-06-07 12:58 G	21377107.91	21377108.04	21377108.19	0.0277	0.0207
Venus	53817-01-22 23:31 G	21377337.28	21377337.48	21377337.69	0.0280	0.0042
Mars	53818-11-21 03:50 G	21378004.38	21378004.66	21378004.96	0.0287	0.0105
Mercury	53823-01-04 19:12 G	21379510.18	21379510.30	21379510.41	0.0298	0.0136
Mercury	53823-04-03 07:41 G	21379598.69	21379598.82	21379598.95	0.0298	0.0044
Mercury	53823-06-30 19:55 G	21379687.25	21379687.33	21379687.42	0.0298	0.0222
Earth	53824-02-02 06:00 G	21379903.56	21379903.75	21379903.95	0.0298	0.0176
Moon	53824-02-02 08:53 G	21379903.66	21379903.87	21379904.08	0.0298	0.0166 *

Venus	53830-04-13 12:43 G	21382165.83	21382166.03	21382166.23	0.0282	0.0088
Venus	53830-11-29 02:10 G	21382395.43	21382395.59	21382395.76	0.0280	0.0169
Mars	53832-12-11 00:29 G	21383138.40	21383138.52	21383138.65	0.0272	0.0243
Mercury	53837-07-26 14:38 G	21384826.93	21384827.11	21384827.29	0.0263	0.0089
Mercury	53837-10-23 11:02 G	21384915.79	21384915.96	21384916.14	0.0263	0.0091
Earth	53838-08-03 05:31 G	21385199.49	21385199.73	21385199.97	0.0263	0.0037
Moon	53838-08-03 05:46 G	21385199.51	21385199.74	21385199.98	0.0263	0.0025 *
Venus	53845-12-18 19:26 G	21387894.15	21387894.31	21387894.48	0.0278	0.0172
Venus	53846-08-05 06:29 G	21388123.57	21388123.77	21388123.97	0.0280	0.0079
Mercury	53852-05-23 21:50 G	21390242.31	21390242.41	21390242.52	0.0297	0.0177
Mercury	53852-08-20 10:34 G	21390330.81	21390330.94	21390331.07	0.0298	0.0007
Mercury	53852-11-16 22:48 G	21390419.35	21390419.45	21390419.56	0.0298	0.0182
Moon	53853-01-26 02:38 G	21390489.41	21390489.61	21390489.82	0.0298	0.0146
Earth	53853-01-26 04:48 G	21390489.49	21390489.70	21390489.93	0.0298	0.0135 *
Venus	53859-10-24 21:22 G	21392952.18	21392952.39	21392952.60	0.0282	0.0046
Venus	53860-06-10 10:34 G	21393181.81	21393181.94	21393182.08	0.0280	0.0210
Mercury	53866-12-13 14:53 G	21395558.96	21395559.12	21395559.28	0.0263	0.0132
Mercury	53867-03-12 11:17 G	21395647.78	21395647.97	21395648.15	0.0263	0.0046
Mercury	53867-06-09 07:41 G	21395736.73	21395736.82	21395736.92	0.0263	0.0226
Earth	53867-07-29 14:24 G	21395786.92	21395787.10	21395787.30	0.0263	0.0171
Moon	53867-07-29 14:53 G	21395786.95	21395787.12	21395787.31	0.0263	0.0184 *
Venus	53875-06-30 21:50 G	21398680.23	21398680.41	21398680.60	0.0278	0.0141
Venus	53876-02-15 08:38 G	21398909.67	21398909.86	21398910.06	0.0280	0.0109
Mercury	53881-10-10 22:34 G	21400974.37	21400974.44	21400974.52	0.0298	0.0245
Mercury	53882-01-07 11:17 G	21401062.84	21401062.97	21401063.10	0.0298	0.0065
Mercury	53882-04-05 23:46 G	21401151.37	21401151.49	21401151.61	0.0298	0.0114
Mercury	53882-07-03 12:00 G	21401239.98	21401240.00	21401240.03	0.0298	0.0292
Moon	53883-02-03 12:00 G	21401454.86	21401455.00	21401455.15	0.0299	0.0241
Earth	53883-02-03 13:41 G	21401454.94	21401455.07	21401455.21	0.0299	0.0247 *
Venus	53888-09-18 07:55 G	21403508.81	21403508.83	21403508.85	0.0284	0.0282

Venus	53889-05-05 23:02 G	21403738.25	21403738.46	21403738.68	0.0282	0.0019
Venus	53889-12-21 12:14 G	21403967.91	21403968.01	21403968.13	0.0279	0.0237
Mars	53891-03-21 00:14 G	21404422.34	21404422.51	21404422.69	0.0275	0.0212
Mercury	53896-05-01 13:41 G	21406290.94	21406291.07	21406291.20	0.0263	0.0187
Mercury	53896-07-29 10:05 G	21406379.73	21406379.92	21406380.11	0.0263	0.0009
Mercury	53896-10-26 06:43 G	21406468.64	21406468.78	21406468.92	0.0263	0.0171
Earth	53897-08-04 08:38 G	21406750.63	21406750.86	21406751.09	0.0263	0.0092
Moon	53897-08-04 12:14 G	21406750.78	21406751.01	21406751.24	0.0263	0.0078 *
Venus	53905-01-11 03:07 G	21409466.44	21409466.63	21409466.83	0.0278	0.0109
Venus	53905-08-28 14:24 G	21409695.92	21409696.10	21409696.29	0.0281	0.0144
Mars	53907-04-17 23:31 G	21410293.18	21410293.48	21410293.80	0.0287	0.0038
Mercury	53911-03-01 01:12 G	21411706.53	21411706.55	21411706.58	0.0297	0.0289
Mercury	53911-05-28 13:55 G	21411794.96	21411795.08	21411795.20	0.0298	0.0109
Mercury	53911-08-25 02:24 G	21411883.47	21411883.60	21411883.73	0.0298	0.0070
Mercury	53911-11-21 14:38 G	21411972.04	21411972.11	21411972.18	0.0298	0.0248
Earth	53912-01-29 10:34 G	21412040.70	21412040.94	21412041.18	0.0298	0.0067
Moon	53912-01-29 12:29 G	21412040.79	21412041.02	21412041.25	0.0298	0.0076 *
Venus	53918-04-01 15:36 G	21414295.05	21414295.15	21414295.27	0.0284	0.0240
Venus	53918-11-17 06:43 G	21414524.57	21414524.78	21414525.00	0.0282	0.0024
Venus	53919-07-04 19:41 G	21414754.30	21414754.32	21414754.35	0.0279	0.0277
Mercury	53925-09-19 13:41 G	21417022.99	21417023.07	21417023.16	0.0263	0.0231
Mercury	53925-12-17 10:05 G	21417111.74	21417111.92	21417112.11	0.0263	0.0054
Mercury	53926-03-16 06:29 G	21417200.61	21417200.77	21417200.94	0.0263	0.0126
Moon	53926-07-31 13:55 G	21417337.87	21417338.08	21417338.30	0.0263	0.0132
Earth	53926-07-31 17:31 G	21417338.02	21417338.23	21417338.46	0.0263	0.0117 *
Venus	53934-07-24 05:17 G	21420252.52	21420252.72	21420252.93	0.0278	0.0078
Venus	53935-03-10 16:19 G	21420482.02	21420482.18	21420482.35	0.0280	0.0173
Mercury	53940-10-14 14:10 G	21422526.99	21422527.09	21422527.20	0.0298	0.0183
Mercury	53941-01-11 02:38 G	21422615.48	21422615.61	21422615.75	0.0298	0.0011
Mercury	53941-04-09 15:07 G	21422704.03	21422704.13	21422704.24	0.0298	0.0176

Venus	53947-10-12 15:36 G	21425081.03	21425081.15	21425081.30	0.0284	0.0217
Venus	53948-05-29 06:58 G	21425310.58	21425310.79	21425311.00	0.0282	0.0047
Mercury	53955-05-06 08:24 G	21427843.68	21427843.85	21427844.02	0.0263	0.0114
Mercury	53955-08-03 04:48 G	21427932.52	21427932.70	21427932.89	0.0263	0.0065
Mercury	53955-10-31 01:12 G	21428021.50	21428021.55	21428021.63	0.0263	0.0246
Earth	53956-08-06 09:36 G	21428301.70	21428301.90	21428302.11	0.0263	0.0142
Moon	53956-08-06 11:17 G	21428301.75	21428301.97	21428302.19	0.0263	0.0129 *
Venus	53964-02-03 09:22 G	21431038.68	21431038.89	21431039.10	0.0279	0.0048
Venus	53964-09-19 20:38 G	21431268.22	21431268.36	21431268.51	0.0281	0.0205
Mercury	53970-03-03 16:19 G	21433259.10	21433259.18	21433259.27	0.0297	0.0232
Mercury	53970-05-31 05:02 G	21433347.58	21433347.71	21433347.84	0.0298	0.0052
Mercury	53970-08-27 17:31 G	21433436.11	21433436.23	21433436.34	0.0298	0.0127
Earth	53971-01-30 11:17 G	21433591.72	21433591.97	21433592.21	0.0298	0.0010
Moon	53971-01-30 14:53 G	21433591.88	21433592.12	21433592.37	0.0298	0.0017 *
Venus	53977-04-23 22:34 G	21435867.29	21435867.44	21435867.62	0.0284	0.0176
Venus	53977-12-09 13:41 G	21436096.87	21436097.07	21436097.27	0.0281	0.0087
Mars	53979-08-15 17:31 G	21436711.02	21436711.23	21436711.46	0.0275	0.0164
Mercury	53984-09-22 08:24 G	21438575.70	21438575.85	21438576.00	0.0263	0.0159
Mercury	53984-12-20 04:48 G	21438664.51	21438664.70	21438664.88	0.0263	0.0019
Mercury	53985-03-19 01:12 G	21438753.43	21438753.55	21438753.68	0.0263	0.0198
Moon	53985-08-01 16:34 G	21438888.97	21438889.19	21438889.42	0.0263	0.0081
Earth	53985-08-01 18:14 G	21438889.03	21438889.26	21438889.50	0.0263	0.0066 *
Venus	53992-12-29 01:55 G	21441595.53	21441595.58	21441595.66	0.0276	0.0260
Venus	53993-08-15 11:31 G	21441824.77	21441824.98	21441825.19	0.0278	0.0017
Venus	53994-04-01 22:34 G	21442054.33	21442054.44	21442054.56	0.0280	0.0235
Mars	53995-09-10 11:02 G	21442580.65	21442580.96	21442581.27	0.0286	0.0023
Mercury	53999-10-18 05:17 G	21444079.60	21444079.72	21444079.84	0.0298	0.0126
Mercury	54000-01-14 17:46 G	21444168.11	21444168.24	21444168.37	0.0298	0.0053
Mercury	54000-04-12 06:00 G	21444256.68	21444256.75	21444256.84	0.0298	0.0231

55TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 55th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	54006-11-03 21:50	G	21446653.24	21446653.41	21446653.60	0.0284	0.0154	
Venus	54007-06-21 12:43	G	21446882.84	21446883.03	21446883.23	0.0281	0.0109	
Mercury	54014-02-09 06:00	G	21449307.66	21449307.75	21449307.85	0.0263	0.0224	
Mercury	54014-05-09 02:24	G	21449396.42	21449396.60	21449396.79	0.0263	0.0047	
Mercury	54014-08-05 22:48	G	21449485.29	21449485.45	21449485.62	0.0263	0.0133	
Moon	54015-08-08 05:02	G	21449852.54	21449852.71	21449852.90	0.0262	0.0180	
Earth	54015-08-08 08:24	G	21449852.69	21449852.85	21449853.03	0.0262	0.0188	*
Venus	54022-07-11 05:02	G	21452381.61	21452381.71	21452381.83	0.0277	0.0233	
Venus	54023-02-25 14:38	G	21452610.90	21452611.11	21452611.32	0.0279	0.0012	
Venus	54023-10-13 01:55	G	21452840.52	21452840.58	21452840.65	0.0281	0.0265	
Mercury	54029-03-06 07:12	G	21454811.70	21454811.80	21454811.90	0.0297	0.0180	
Mercury	54029-06-02 19:41	G	21454900.19	21454900.32	21454900.45	0.0298	0.0001	
Mercury	54029-08-30 08:10	G	21454988.73	21454988.84	21454988.94	0.0298	0.0178	
Moon	54030-01-31 08:24	G	21455142.60	21455142.85	21455143.11	0.0298	0.0043	
Earth	54030-01-31 09:07	G	21455142.64	21455142.88	21455143.12	0.0298	0.0043	*
Venus	54036-05-16 03:50	G	21457439.47	21457439.66	21457439.86	0.0284	0.0116	
Venus	54036-12-31 18:43	G	21457669.10	21457669.28	21457669.46	0.0281	0.0146	
Mercury	54043-09-26 02:10	G	21460128.42	21460128.59	21460128.77	0.0263	0.0093	
Mercury	54043-12-23 22:34	G	21460217.27	21460217.44	21460217.62	0.0263	0.0086	
Earth	54044-08-02 17:02	G	21460439.97	21460440.21	21460440.46	0.0263	0.0019	

Moon	54044-08-02 20:10 G	21460440.10	21460440.34	21460440.58	0.0263	0.0030 *
Venus	54052-01-21 07:12 G	21463167.67	21463167.80	21463167.95	0.0276	0.0202
Venus	54052-09-06 16:48 G	21463396.99	21463397.20	21463397.41	0.0278	0.0042
Mercury	54058-07-24 07:26 G	21465543.74	21465543.81	21465543.87	0.0297	0.0255
Mercury	54058-10-20 19:55 G	21465632.21	21465632.33	21465632.46	0.0298	0.0076
Mercury	54059-01-17 08:24 G	21465720.73	21465720.85	21465720.97	0.0298	0.0103
Earth	54059-01-24 15:07 G	21465728.11	21465728.13	21465728.16	0.0298	0.0296
Moon	54059-01-24 17:02 G	21465728.18	21465728.21	21465728.26	0.0298	0.0294
Mercury	54059-04-15 20:38 G	21465809.33	21465809.36	21465809.41	0.0298	0.0281
Venus	54065-11-26 02:24 G	21468225.41	21468225.60	21468225.81	0.0284	0.0096
Venus	54066-07-13 17:17 G	21468455.05	21468455.22	21468455.39	0.0281	0.0166
Mars	54068-01-08 09:07 G	21468998.67	21468998.88	21468999.12	0.0276	0.0161
Mercury	54073-02-11 23:31 G	21470860.33	21470860.48	21470860.63	0.0263	0.0161
Mercury	54073-05-11 19:55 G	21470949.14	21470949.33	21470949.52	0.0263	0.0017
Moon	54073-07-28 14:38 G	21471027.06	21471027.11	21471027.18	0.0263	0.0255
Earth	54073-07-28 17:31 G	21471027.15	21471027.23	21471027.34	0.0263	0.0242 *
Mercury	54073-08-08 16:19 G	21471038.06	21471038.18	21471038.31	0.0263	0.0197
Moon	54074-08-09 03:22 G	21471403.54	21471403.64	21471403.76	0.0262	0.0230
Earth	54074-08-09 05:46 G	21471403.64	21471403.74	21471403.86	0.0262	0.0233 *
Venus	54081-08-02 09:36 G	21473953.74	21473953.90	21473954.07	0.0277	0.0176
Venus	54082-03-19 19:12 G	21474183.10	21474183.30	21474183.51	0.0279	0.0070
Mars	54084-02-03 03:22 G	21474868.33	21474868.64	21474868.96	0.0286	0.0004
Mercury	54088-03-08 21:36 G	21476364.29	21476364.40	21476364.52	0.0297	0.0131
Mercury	54088-06-05 10:19 G	21476452.80	21476452.93	21476453.05	0.0298	0.0049
Mercury	54088-09-01 22:34 G	21476541.36	21476541.44	21476541.53	0.0298	0.0226
Moon	54089-02-01 01:55 G	21476693.35	21476693.58	21476693.81	0.0298	0.0100
Earth	54089-02-01 05:46 G	21476693.51	21476693.74	21476693.98	0.0298	0.0093 *
Venus	54095-06-08 08:10 G	21479011.63	21479011.84	21479012.04	0.0283	0.0058
Venus	54096-01-23 22:34 G	21479241.30	21479241.44	21479241.59	0.0281	0.0202
Mercury	54102-07-02 23:02 G	21481592.36	21481592.46	21481592.59	0.0264	0.0208

Mercury	54102-09-29 19:41 G	21481681.13	21481681.32	21481681.51	0.0263	0.0029
Mercury	54102-12-27 16:05 G	21481770.02	21481770.17	21481770.33	0.0263	0.0151
Earth	54103-08-05 14:38 G	21481990.86	21481991.11	21481991.35	0.0263	0.0027
Moon	54103-08-05 17:17 G	21481990.97	21481991.22	21481991.47	0.0263	0.0019 *
Venus	54111-02-13 12:43 G	21484739.85	21484740.03	21484740.21	0.0276	0.0143
Venus	54111-09-30 22:05 G	21484969.23	21484969.42	21484969.62	0.0278	0.0102
Mercury	54117-07-27 22:05 G	21487096.33	21487096.42	21487096.52	0.0297	0.0203
Mercury	54117-10-24 10:34 G	21487184.81	21487184.94	21487185.07	0.0297	0.0025
Mercury	54118-01-20 23:02 G	21487273.35	21487273.46	21487273.57	0.0298	0.0154
Earth	54118-01-26 12:43 G	21487278.89	21487279.03	21487279.17	0.0298	0.0243
Moon	54118-01-26 15:50 G	21487279.03	21487279.16	21487279.33	0.0298	0.0235 *
Venus	54124-12-19 06:29 G	21489797.56	21489797.77	21489797.98	0.0283	0.0039
Venus	54125-08-05 20:38 G	21490027.24	21490027.36	21490027.50	0.0281	0.0221
Mercury	54132-02-16 16:48 G	21492413.02	21492413.20	21492413.37	0.0263	0.0100
Mercury	54132-05-15 13:12 G	21492501.87	21492502.05	21492502.23	0.0263	0.0079
Moon	54132-07-30 11:46 G	21492577.85	21492577.99	21492578.14	0.0263	0.0210
Earth	54132-07-30 14:38 G	21492577.95	21492578.11	21492578.28	0.0263	0.0197 *
Mercury	54132-08-12 09:36 G	21492590.89	21492590.90	21492590.94	0.0263	0.0260
Venus	54140-08-25 14:38 G	21495525.92	21495526.11	21495526.30	0.0277	0.0118
Venus	54141-04-12 00:14 G	21495755.32	21495755.51	21495755.70	0.0279	0.0129
Mercury	54146-12-14 23:31 G	21497828.43	21497828.48	21497828.55	0.0297	0.0261
Mercury	54147-03-13 12:14 G	21497916.88	21497917.01	21497917.14	0.0297	0.0081
Mercury	54147-06-10 00:43 G	21498005.41	21498005.53	21498005.65	0.0298	0.0097
Mercury	54147-09-06 12:58 G	21498094.00	21498094.04	21498094.09	0.0298	0.0274
Moon	54148-02-04 01:55 G	21498244.38	21498244.58	21498244.78	0.0298	0.0155
Earth	54148-02-04 02:10 G	21498244.38	21498244.59	21498244.81	0.0298	0.0144 *
Venus	54153-11-13 18:58 G	21500354.23	21500354.29	21500354.37	0.0285	0.0268
Venus	54154-07-01 11:31 G	21500583.77	21500583.98	21500584.20	0.0283	0.0005
Venus	54155-02-16 02:10 G	21500813.51	21500813.59	21500813.67	0.0281	0.0257
Mars	54156-06-03 13:26 G	21501286.83	21501287.06	21501287.30	0.0276	0.0139

Mercury	54161-07-05 16:34 G	21503145.04	21503145.19	21503145.35	0.0264	0.0145
Mercury	54161-10-02 12:58 G	21503233.86	21503234.04	21503234.23	0.0264	0.0034
Mercury	54161-12-30 09:36 G	21503322.79	21503322.90	21503323.01	0.0263	0.0214
Moon	54162-08-06 09:50 G	21503541.67	21503541.91	21503542.16	0.0263	0.0069
Earth	54162-08-06 11:46 G	21503541.76	21503541.99	21503542.23	0.0263	0.0073 *
Venus	54170-03-07 18:14 G	21506312.06	21506312.26	21506312.46	0.0276	0.0084
Venus	54170-10-23 03:50 G	21506541.49	21506541.66	21506541.83	0.0279	0.0162
Mars	54172-06-28 18:29 G	21507155.96	21507156.27	21507156.58	0.0285	0.0018
Mercury	54176-07-30 12:58 G	21508648.93	21508649.04	21508649.16	0.0297	0.0149
Mercury	54176-10-27 01:26 G	21508737.43	21508737.56	21508737.69	0.0297	0.0030
Mercury	54177-01-23 13:55 G	21508825.98	21508826.08	21508826.17	0.0298	0.0207
Moon	54177-01-27 10:34 G	21508829.74	21508829.94	21508830.15	0.0298	0.0176
Earth	54177-01-27 11:17 G	21508829.79	21508829.97	21508830.17	0.0298	0.0188 *
Venus	54183-05-26 18:29 G	21511140.18	21511140.27	21511140.38	0.0286	0.0248
Venus	54184-01-11 10:48 G	21511369.74	21511369.95	21511370.17	0.0283	0.0020
Venus	54184-08-28 00:58 G	21511599.52	21511599.54	21511599.57	0.0281	0.0277
Mercury	54190-11-22 13:26 G	21513876.97	21513877.06	21513877.18	0.0264	0.0216
Mercury	54191-02-19 10:05 G	21513965.73	21513965.92	21513966.11	0.0263	0.0037
Mercury	54191-05-19 06:29 G	21514054.62	21514054.77	21514054.93	0.0263	0.0143
Earth	54191-08-01 11:46 G	21514128.79	21514128.99	21514129.19	0.0263	0.0151
Moon	54191-08-01 13:12 G	21514128.86	21514129.05	21514129.24	0.0263	0.0161 *
Venus	54199-09-17 20:10 G	21517098.14	21517098.34	21517098.55	0.0277	0.0059
Venus	54200-05-05 06:14 G	21517327.60	21517327.76	21517327.91	0.0280	0.0190
Mercury	54205-12-18 14:38 G	21519381.02	21519381.11	21519381.20	0.0297	0.0206
Mercury	54206-03-17 03:07 G	21519469.50	21519469.63	21519469.76	0.0297	0.0027
Mercury	54206-06-13 15:36 G	21519558.04	21519558.15	21519558.26	0.0297	0.0151
Earth	54207-02-06 00:43 G	21519795.36	21519795.53	21519795.72	0.0298	0.0200
Moon	54207-02-06 04:34 G	21519795.52	21519795.69	21519795.86	0.0298	0.0215 *
Venus	54212-12-06 23:31 G	21521926.35	21521926.48	21521926.63	0.0285	0.0210
Venus	54213-07-24 15:50 G	21522155.95	21522156.16	21522156.37	0.0283	0.0057

Mercury	54220-04-11 13:41 G	21524609.04	21524609.07	21524609.11	0.0264	0.0259
Mercury	54220-07-09 10:05 G	21524697.74	21524697.92	21524698.10	0.0264	0.0081
Mercury	54220-10-06 06:29 G	21524786.60	21524786.77	21524786.95	0.0264	0.0100
Moon	54221-08-08 06:29 G	21525092.56	21525092.77	21525092.99	0.0263	0.0119
Earth	54221-08-08 09:50 G	21525092.70	21525092.91	21525093.14	0.0263	0.0121 *
Venus	54228-08-13 17:02 G	21527655.16	21527655.21	21527655.28	0.0275	0.0261
Venus	54229-03-31 01:12 G	21527884.34	21527884.55	21527884.77	0.0277	0.0023
Venus	54229-11-15 11:02 G	21528113.84	21528113.96	21528114.09	0.0279	0.0226
Mercury	54235-05-07 15:50 G	21530113.10	21530113.16	21530113.21	0.0296	0.0267
Mercury	54235-08-04 04:19 G	21530201.56	21530201.68	21530201.81	0.0297	0.0089
Mercury	54235-10-31 16:48 G	21530290.07	21530290.20	21530290.32	0.0297	0.0089
Mercury	54236-01-28 05:02 G	21530378.65	21530378.71	21530378.77	0.0297	0.0265
Moon	54236-01-30 09:07 G	21530380.66	21530380.88	21530381.11	0.0297	0.0112
Earth	54236-01-30 12:43 G	21530380.81	21530381.03	21530381.25	0.0297	0.0127 *
Venus	54242-06-19 00:00 G	21532712.35	21532712.50	21532712.67	0.0285	0.0187
Venus	54243-02-03 16:05 G	21532941.97	21532942.17	21532942.38	0.0283	0.0079
Mars	54244-10-28 04:19 G	21533574.45	21533574.68	21533574.93	0.0276	0.0135
Mercury	54249-11-26 07:12 G	21535429.66	21535429.80	21535429.96	0.0264	0.0150
Mercury	54250-02-23 03:50 G	21535518.47	21535518.66	21535518.85	0.0264	0.0030
Mercury	54250-05-23 00:29 G	21535607.41	21535607.52	21535607.63	0.0263	0.0210
Earth	54250-08-03 10:05 G	21535679.70	21535679.92	21535680.15	0.0263	0.0104
Moon	54250-08-03 13:41 G	21535679.86	21535680.07	21535680.31	0.0263	0.0112 *
Venus	54258-02-23 18:29 G	21538441.18	21538441.27	21538441.39	0.0275	0.0238
Venus	54258-10-11 03:22 G	21538670.43	21538670.64	21538670.85	0.0278	0.0006
Venus	54259-05-28 13:26 G	21538899.97	21538900.06	21538900.15	0.0280	0.0253
Mars	54260-11-22 18:29 G	21539443.97	21539444.27	21539444.58	0.0285	0.0056
Mercury	54264-12-21 06:00 G	21540933.64	21540933.75	21540933.86	0.0297	0.0145
Mercury	54265-03-19 18:29 G	21541022.14	21541022.27	21541022.40	0.0297	0.0033
Mercury	54265-06-16 06:43 G	21541110.69	21541110.78	21541110.88	0.0297	0.0210
Earth	54266-02-07 02:24 G	21541346.49	21541346.60	21541346.72	0.0298	0.0262

Moon	54266-02-07 04:19 G	21541346.59	21541346.68	21541346.78	0.0298	0.0276 *
Venus	54271-12-30 06:00 G	21543498.57	21543498.75	21543498.93	0.0285	0.0148
Venus	54272-08-15 21:36 G	21543728.22	21543728.40	21543728.60	0.0282	0.0118
Mercury	54279-04-15 07:41 G	21546161.70	21546161.82	21546161.95	0.0264	0.0191
Mercury	54279-07-13 04:19 G	21546250.49	21546250.68	21546250.86	0.0264	0.0012
Mercury	54279-10-10 00:43 G	21546339.39	21546339.53	21546339.68	0.0264	0.0170
Earth	54280-08-09 09:36 G	21546643.72	21546643.90	21546644.09	0.0263	0.0172
Moon	54280-08-09 09:36 G	21546643.73	21546643.90	21546644.09	0.0263	0.0174 *
Venus	54287-09-06 00:58 G	21549227.41	21549227.54	21549227.70	0.0275	0.0199
Venus	54288-04-22 09:50 G	21549456.70	21549456.91	21549457.12	0.0277	0.0043
Mercury	54294-05-10 07:41 G	21551665.73	21551665.82	21551665.92	0.0296	0.0198
Mercury	54294-08-06 20:10 G	21551754.21	21551754.34	21551754.47	0.0297	0.0021
Mercury	54294-11-03 08:38 G	21551842.75	21551842.86	21551842.97	0.0297	0.0156
Moon	54295-01-31 17:02 G	21551931.97	21551932.21	21551932.44	0.0297	0.0044
Earth	54295-01-31 18:14 G	21551932.02	21551932.26	21551932.50	0.0297	0.0057 *
Venus	54301-07-12 07:41 G	21554284.63	21554284.82	21554285.02	0.0285	0.0122
Venus	54302-02-26 23:17 G	21554514.29	21554514.47	21554514.66	0.0282	0.0142
Mercury	54308-09-02 05:17 G	21556893.69	21556893.72	21556893.77	0.0264	0.0257
Mercury	54308-11-30 01:41 G	21556982.40	21556982.57	21556982.75	0.0264	0.0078
Mercury	54309-02-26 22:19 G	21557071.26	21557071.43	21557071.60	0.0264	0.0102
Earth	54309-08-05 10:48 G	21557230.71	21557230.95	21557231.19	0.0263	0.0052
Moon	54309-08-05 10:48 G	21557230.71	21557230.95	21557231.20	0.0263	0.0055 *
Venus	54317-03-19 03:36 G	21560013.49	21560013.65	21560013.82	0.0276	0.0172
Venus	54317-11-03 12:29 G	21560242.82	21560243.02	21560243.22	0.0278	0.0071
Mercury	54323-09-28 09:22 G	21562397.83	21562397.89	21562397.97	0.0296	0.0253
Mercury	54323-12-25 22:05 G	21562486.29	21562486.42	21562486.55	0.0297	0.0074
Mercury	54324-03-23 10:34 G	21562574.82	21562574.94	21562575.06	0.0297	0.0103
Mercury	54324-06-19 22:48 G	21562663.41	21562663.45	21562663.49	0.0297	0.0279
Venus	54331-01-22 14:10 G	21565070.89	21565071.09	21565071.29	0.0284	0.0082
Venus	54331-09-09 05:17 G	21565300.57	21565300.72	21565300.89	0.0282	0.0181

Mars	54333-03-24 19:26 G	21565863.05	21565863.31	21565863.57	0.0276	0.0094
Mercury	54338-04-19 02:24 G	21567714.44	21567714.60	21567714.77	0.0265	0.0117
Mercury	54338-07-16 23:02 G	21567803.28	21567803.46	21567803.64	0.0264	0.0064
Earth	54338-07-31 20:38 G	21567818.31	21567818.36	21567818.43	0.0264	0.0256
Moon	54338-07-31 20:38 G	21567818.36	21567818.36	21567818.37	0.0264	0.0264 *
Mercury	54338-10-13 19:41 G	21567892.25	21567892.32	21567892.39	0.0264	0.0245
Earth	54339-08-12 11:02 G	21568194.85	21568194.96	21568195.10	0.0264	0.0227
Moon	54339-08-12 14:38 G	21568195.01	21568195.11	21568195.24	0.0264	0.0231 *
Venus	54346-09-29 11:02 G	21570799.78	21570799.96	21570800.15	0.0276	0.0132
Venus	54347-05-16 19:55 G	21571029.14	21571029.33	21571029.53	0.0278	0.0112
Mars	54349-04-19 22:05 G	21571733.15	21571733.42	21571733.71	0.0285	0.0130
Mercury	54353-05-14 00:14 G	21573218.40	21573218.51	21573218.63	0.0296	0.0122
Mercury	54353-08-10 12:43 G	21573306.90	21573307.03	21573307.16	0.0296	0.0056
Mercury	54353-11-07 00:58 G	21573395.47	21573395.54	21573395.63	0.0297	0.0231
Earth	54354-02-03 03:36 G	21573483.41	21573483.65	21573483.90	0.0297	0.0021
Moon	54354-02-03 06:14 G	21573483.53	21573483.76	21573484.00	0.0297	0.0037 *
Venus	54360-08-03 17:46 G	21575857.03	21575857.24	21575857.45	0.0284	0.0053
Venus	54361-03-21 08:53 G	21576086.73	21576086.87	21576087.01	0.0282	0.0209
Mercury	54367-09-06 00:29 G	21578446.39	21578446.52	21578446.66	0.0264	0.0179
Mercury	54367-12-03 21:07 G	21578535.19	21578535.38	21578535.56	0.0264	0.0006
Mercury	54368-03-01 17:31 G	21578624.10	21578624.23	21578624.37	0.0264	0.0182
Moon	54368-08-06 10:05 G	21578781.68	21578781.92	21578782.17	0.0264	0.0008
Earth	54368-08-06 13:55 G	21578781.84	21578782.08	21578782.33	0.0264	0.0007 *
Venus	54376-04-10 14:10 G	21581585.89	21581586.09	21581586.29	0.0276	0.0104
Venus	54376-11-25 23:17 G	21581815.29	21581815.47	21581815.66	0.0279	0.0142
Mercury	54382-10-01 02:24 G	21583950.49	21583950.60	21583950.71	0.0296	0.0173
Mercury	54382-12-28 14:53 G	21584038.99	21584039.12	21584039.25	0.0297	0.0006
Moon	54383-01-27 19:26 G	21584069.23	21584069.31	21584069.41	0.0297	0.0276
Earth	54383-01-27 23:02 G	21584069.43	21584069.46	21584069.50	0.0297	0.0293
Mercury	54383-03-27 03:07 G	21584127.53	21584127.63	21584127.74	0.0297	0.0181

Venus	54389-06-29 07:41 G	21586413.79	21586413.82	21586413.87	0.0286	0.0280
Venus	54390-02-14 00:43 G	21586643.32	21586643.53	21586643.74	0.0284	0.0012
Venus	54390-10-01 15:22 G	21586873.05	21586873.14	21586873.25	0.0281	0.0249
Mercury	54397-01-23 01:26 G	21589178.46	21589178.56	21589178.67	0.0265	0.0216
Mercury	54397-04-21 21:50 G	21589267.23	21589267.41	21589267.60	0.0265	0.0036
Mercury	54397-07-19 18:29 G	21589356.12	21589356.27	21589356.43	0.0264	0.0146
Earth	54397-08-02 00:29 G	21589369.37	21589369.52	21589369.69	0.0264	0.0198
Moon	54397-08-02 04:05 G	21589369.52	21589369.67	21589369.83	0.0264	0.0202 *
Venus	54405-10-21 22:48 G	21592372.25	21592372.45	21592372.66	0.0276	0.0061
Venus	54406-06-08 08:24 G	21592601.70	21592601.85	21592602.01	0.0279	0.0186
Mercury	54412-02-18 05:02 G	21594682.63	21594682.71	21594682.81	0.0296	0.0212
Mercury	54412-05-16 17:46 G	21594771.11	21594771.24	21594771.37	0.0296	0.0036
Mercury	54412-08-13 06:00 G	21594859.64	21594859.75	21594859.87	0.0296	0.0141
Earth	54413-02-04 17:46 G	21595035.02	21595035.24	21595035.48	0.0297	0.0108
Moon	54413-02-04 21:07 G	21595035.16	21595035.38	21595035.62	0.0297	0.0125 *
Venus	54419-01-09 13:26 G	21597199.96	21597200.06	21597200.17	0.0286	0.0246
Venus	54419-08-27 06:00 G	21597429.54	21597429.75	21597429.96	0.0284	0.0022
Venus	54420-04-12 20:24 G	21597659.34	21597659.35	21597659.36	0.0281	0.0280
Mars	54421-08-18 12:43 G	21598151.75	21598152.03	21598152.30	0.0276	0.0043
Mercury	54426-09-08 20:24 G	21599999.18	21599999.35	21599999.53	0.0264	0.0094
Mercury	54426-12-06 17:02 G	21600088.04	21600088.21	21600088.39	0.0264	0.0087
Moon	54427-08-08 18:00 G	21600333.03	21600333.25	21600333.49	0.0264	0.0071
Earth	54427-08-08 19:26 G	21600333.08	21600333.31	21600333.55	0.0264	0.0066 *
Venus	54434-09-16 18:14 G	21602929.23	21602929.26	21602929.30	0.0275	0.0270
Venus	54435-05-04 02:24 G	21603158.39	21603158.60	21603158.81	0.0277	0.0031
Venus	54435-12-19 12:14 G	21603387.88	21603388.01	21603388.14	0.0279	0.0217
Mars	54437-09-14 02:24 G	21604022.40	21604022.60	21604022.81	0.0285	0.0213
Mercury	54441-07-07 07:12 G	21605414.74	21605414.80	21605414.86	0.0296	0.0263
Mercury	54441-10-03 19:41 G	21605503.20	21605503.32	21605503.45	0.0296	0.0086
Mercury	54441-12-31 08:10 G	21605591.71	21605591.84	21605591.96	0.0297	0.0091

Moon	54442-01-29 10:34 G	21605620.77	21605620.94	21605621.14	0.0297	0.0190
Earth	54442-01-29 13:26 G	21605620.89	21605621.06	21605621.24	0.0297	0.0206 *
Mercury	54442-03-29 20:24 G	21605680.30	21605680.35	21605680.41	0.0297	0.0266
Venus	54448-07-21 20:53 G	21607986.23	21607986.37	21607986.52	0.0285	0.0204
Venus	54449-03-08 13:26 G	21608215.85	21608216.06	21608216.26	0.0283	0.0063
Mercury	54456-01-26 21:36 G	21610731.24	21610731.40	21610731.57	0.0265	0.0129
Mercury	54456-04-24 18:14 G	21610820.08	21610820.26	21610820.45	0.0265	0.0052
Mercury	54456-07-22 14:53 G	21610909.04	21610909.12	21610909.21	0.0265	0.0235
Earth	54456-08-03 06:58 G	21610920.58	21610920.79	21610921.00	0.0264	0.0137
Moon	54456-08-03 08:53 G	21610920.66	21610920.87	21610921.09	0.0264	0.0139 *
Venus	54464-03-29 03:22 G	21613715.54	21613715.64	21613715.77	0.0275	0.0229
Venus	54464-11-13 12:00 G	21613944.79	21613945.00	21613945.21	0.0277	0.0013
Venus	54465-06-30 21:50 G	21614174.35	21614174.41	21614174.49	0.0279	0.0262
Mercury	54471-02-20 23:02 G	21616235.34	21616235.46	21616235.58	0.0296	0.0119
Mercury	54471-05-20 11:31 G	21616323.85	21616323.98	21616324.10	0.0296	0.0058
Mercury	54471-08-16 23:46 G	21616412.41	21616412.49	21616412.57	0.0296	0.0232
Moon	54472-02-07 10:19 G	21616586.77	21616586.93	21616587.11	0.0297	0.0217
Earth	54472-02-07 11:17 G	21616586.80	21616586.97	21616587.16	0.0297	0.0200 *
Venus	54478-02-01 04:34 G	21618772.52	21618772.69	21618772.86	0.0285	0.0165
Venus	54478-09-18 20:24 G	21619002.15	21619002.35	21619002.55	0.0283	0.0100
Mercury	54485-06-14 20:38 G	21621463.23	21621463.36	21621463.50	0.0265	0.0183
Mercury	54485-09-11 17:17 G	21621552.03	21621552.22	21621552.41	0.0264	0.0002
Mercury	54485-12-09 13:55 G	21621640.94	21621641.08	21621641.22	0.0264	0.0179
Earth	54486-08-10 02:53 G	21621884.42	21621884.62	21621884.84	0.0264	0.0130
Moon	54486-08-10 06:00 G	21621884.55	21621884.75	21621884.96	0.0264	0.0138 *
Venus	54493-10-09 07:12 G	21624501.66	21624501.80	21624501.96	0.0275	0.0198
Venus	54494-05-26 16:05 G	21624730.96	21624731.17	21624731.38	0.0278	0.0045
Mercury	54500-07-11 01:12 G	21626967.44	21626967.55	21626967.66	0.0296	0.0168
Mercury	54500-10-07 13:41 G	21627055.94	21627056.07	21627056.20	0.0297	0.0009
Mercury	54501-01-04 01:55 G	21627144.48	21627144.58	21627144.68	0.0297	0.0185

Earth	54501-02-01 07:41 G	21627172.59	21627172.82	21627173.04	0.0297	0.0112
Moon	54501-02-01 09:22 G	21627172.67	21627172.89	21627173.12	0.0297	0.0096 *
Venus	54507-08-15 12:00 G	21629558.81	21629559.00	21629559.20	0.0285	0.0123
Venus	54508-04-01 03:50 G	21629788.47	21629788.66	21629788.84	0.0282	0.0141
Mars	54510-01-14 00:00 G	21630441.22	21630441.50	21630441.77	0.0276	0.0034
Mercury	54514-11-02 21:50 G	21632195.32	21632195.41	21632195.53	0.0265	0.0218
Mercury	54515-01-30 18:29 G	21632284.09	21632284.27	21632284.46	0.0265	0.0037
Mercury	54515-04-29 15:07 G	21632372.98	21632373.13	21632373.29	0.0265	0.0145
Moon	54515-08-06 12:43 G	21632471.79	21632472.03	21632472.27	0.0264	0.0071
Earth	54515-08-06 15:07 G	21632471.89	21632472.13	21632472.36	0.0264	0.0073 *
Venus	54523-04-22 17:02 G	21635288.04	21635288.21	21635288.39	0.0276	0.0154
Venus	54523-12-08 01:55 G	21635517.39	21635517.58	21635517.79	0.0278	0.0090
Mercury	54529-11-28 04:34 G	21637699.60	21637699.69	21637699.79	0.0296	0.0199
Mercury	54530-02-24 17:02 G	21637788.08	21637788.21	21637788.35	0.0296	0.0024
Mercury	54530-05-24 05:31 G	21637876.62	21637876.73	21637876.84	0.0296	0.0153
Earth	54531-02-10 06:43 G	21638138.78	21638138.78	21638138.80	0.0297	0.0297
Venus	54537-02-24 20:38 G	21640345.16	21640345.36	21640345.57	0.0284	0.0082
Venus	54537-10-12 11:46 G	21640574.84	21640574.99	21640575.16	0.0282	0.0181
Mercury	54544-06-18 18:00 G	21643016.08	21643016.25	21643016.43	0.0265	0.0087
Mercury	54544-09-15 14:38 G	21643104.94	21643105.11	21643105.29	0.0264	0.0095
Earth	54545-08-12 12:14 G	21643435.85	21643436.01	21643436.18	0.0264	0.0196
Moon	54545-08-12 15:22 G	21643435.99	21643436.14	21643436.30	0.0264	0.0204 *
Venus	54552-11-01 20:53 G	21646074.18	21646074.37	21646074.56	0.0276	0.0123
Venus	54553-06-19 06:00 G	21646303.56	21646303.75	21646303.94	0.0278	0.0122
Mercury	54559-04-17 06:29 G	21648431.71	21648431.77	21648431.85	0.0296	0.0250
Mercury	54559-07-14 19:12 G	21648520.17	21648520.30	21648520.43	0.0296	0.0072
Mercury	54559-10-11 07:41 G	21648608.69	21648608.82	21648608.94	0.0297	0.0104
Mercury	54560-01-07 19:55 G	21648697.29	21648697.33	21648697.37	0.0297	0.0279
Earth	54560-02-04 02:24 G	21648724.36	21648724.60	21648724.85	0.0297	0.0017
Moon	54560-02-04 06:00 G	21648724.51	21648724.75	21648725.00	0.0297	0.0004 *

Venus	54566-09-07 04:05 G	21651131.46	21651131.67	21651131.88	0.0284	0.0040
Venus	54567-04-24 19:12 G	21651361.17	21651361.30	21651361.43	0.0282	0.0221
Mercury	54573-11-05 19:12 G	21653748.14	21653748.30	21653748.47	0.0265	0.0122
Mercury	54574-02-02 15:50 G	21653836.98	21653837.16	21653837.34	0.0265	0.0059
Mercury	54574-05-02 12:14 G	21653925.95	21653926.01	21653926.10	0.0265	0.0242
Moon	54574-08-07 20:38 G	21654023.11	21654023.36	21654023.60	0.0264	0.0007
Earth	54574-08-08 00:00 G	21654023.25	21654023.50	21654023.75	0.0264	0.0007 *
Venus	54582-05-15 06:29 G	21656860.57	21656860.77	21656860.97	0.0277	0.0080
Venus	54582-12-30 16:05 G	21657090.00	21657090.17	21657090.34	0.0279	0.0167
Mars	54584-05-15 14:24 G	21657591.98	21657592.10	21657592.25	0.0283	0.0255
Mercury	54588-09-03 10:19 G	21659163.89	21659163.93	21659163.97	0.0295	0.0278
Mercury	54588-11-30 22:48 G	21659252.33	21659252.45	21659252.58	0.0296	0.0101
Moon	54589-01-28 05:17 G	21659310.69	21659310.72	21659310.76	0.0296	0.0292
Mercury	54589-02-27 11:17 G	21659340.85	21659340.97	21659341.10	0.0296	0.0075
Mercury	54589-05-26 23:31 G	21659429.42	21659429.48	21659429.55	0.0296	0.0250
Venus	54595-08-02 20:38 G	21661688.30	21661688.36	21661688.45	0.0286	0.0265
Venus	54596-03-19 13:41 G	21661917.85	21661918.07	21661918.28	0.0284	0.0006
Venus	54596-11-04 03:50 G	21662147.60	21662147.66	21662147.75	0.0281	0.0263
Mars	54598-06-10 17:17 G	21662730.98	21662731.22	21662731.47	0.0276	0.0126
Mercury	54603-03-26 19:12 G	21664480.16	21664480.30	21664480.45	0.0265	0.0168
Mercury	54603-06-23 15:36 G	21664568.97	21664569.15	21664569.34	0.0264	0.0013
Earth	54603-08-04 06:58 G	21664610.66	21664610.79	21664610.93	0.0264	0.0222
Moon	54603-08-04 10:34 G	21664610.83	21664610.94	21664611.08	0.0264	0.0227 *
Mercury	54603-09-20 12:14 G	21664657.89	21664658.01	21664658.14	0.0264	0.0193
Earth	54604-08-14 21:36 G	21664987.40	21664987.40	21664987.44	0.0264	0.0263
Venus	54611-11-26 10:19 G	21667646.72	21667646.93	21667647.14	0.0277	0.0048
Venus	54612-07-12 19:55 G	21667876.19	21667876.33	21667876.48	0.0279	0.0199
Mercury	54618-04-21 00:43 G	21669984.42	21669984.53	21669984.64	0.0296	0.0155
Mercury	54618-07-18 13:12 G	21670072.92	21670073.05	21670073.18	0.0297	0.0022
Mercury	54618-10-15 01:26 G	21670161.47	21670161.56	21670161.66	0.0297	0.0198

Earth	54619-02-06 20:53 G	21670276.14	21670276.37	21670276.61	0.0297	0.0078
Moon	54619-02-06 22:19 G	21670276.19	21670276.43	21670276.67	0.0297	0.0093 *
Venus	54625-02-13 03:07 G	21672474.51	21672474.63	21672474.76	0.0286	0.0226
Venus	54625-09-30 19:41 G	21672704.11	21672704.32	21672704.53	0.0283	0.0042
Mercury	54632-08-12 19:55 G	21675212.22	21675212.33	21675212.45	0.0265	0.0207
Mercury	54632-11-09 16:34 G	21675301.00	21675301.19	21675301.37	0.0265	0.0027
Mercury	54633-02-06 12:58 G	21675389.89	21675390.04	21675390.20	0.0264	0.0155
Earth	54633-08-10 08:53 G	21675574.64	21675574.87	21675575.12	0.0264	0.0058
Moon	54633-08-10 08:53 G	21675574.64	21675574.87	21675575.11	0.0264	0.0062 *
Venus	54640-10-21 11:02 G	21678203.87	21678203.96	21678204.06	0.0275	0.0247
Venus	54641-06-07 19:26 G	21678433.10	21678433.31	21678433.52	0.0277	0.0006
Venus	54642-01-23 05:17 G	21678662.63	21678662.72	21678662.83	0.0279	0.0243
Mercury	54647-09-08 04:19 G	21680716.58	21680716.68	21680716.78	0.0296	0.0184
Mercury	54647-12-05 16:48 G	21680805.07	21680805.20	21680805.33	0.0296	0.0008
Moon	54648-02-01 01:26 G	21680862.39	21680862.56	21680862.74	0.0296	0.0202
Earth	54648-02-01 02:38 G	21680862.45	21680862.61	21680862.78	0.0296	0.0217 *
Mercury	54648-03-03 05:02 G	21680893.61	21680893.71	21680893.82	0.0296	0.0168
Venus	54654-08-26 13:41 G	21683260.90	21683261.07	21683261.23	0.0285	0.0179
Venus	54655-04-13 05:46 G	21683490.54	21683490.74	21683490.94	0.0283	0.0086
Mercury	54661-12-30 20:24 G	21685944.29	21685944.35	21685944.41	0.0265	0.0250
Mercury	54662-03-29 16:34 G	21686033.01	21686033.19	21686033.37	0.0264	0.0072
Mercury	54662-06-26 13:12 G	21686121.88	21686122.05	21686122.22	0.0264	0.0109
Moon	54662-08-05 16:48 G	21686162.00	21686162.20	21686162.41	0.0264	0.0155
Earth	54662-08-05 16:34 G	21686162.01	21686162.19	21686162.40	0.0264	0.0156 *
Venus	54670-05-03 14:24 G	21688989.97	21688990.10	21688990.23	0.0275	0.0215
Venus	54670-12-18 22:48 G	21689219.24	21689219.45	21689219.66	0.0277	0.0026
Venus	54671-08-05 08:38 G	21689448.84	21689448.86	21689448.91	0.0279	0.0275
Mars	54672-10-10 17:46 G	21689881.01	21689881.24	21689881.50	0.0284	0.0175
Mercury	54677-01-25 05:46 G	21691448.67	21691448.74	21691448.82	0.0296	0.0242
Mercury	54677-04-23 18:29 G	21691537.14	21691537.27	21691537.39	0.0296	0.0065

Mercury	54677-07-21 06:43 G	21691625.66	21691625.78	21691625.90	0.0297	0.0112
Mercury	54677-10-17 19:12 G	21691714.27	21691714.30	21691714.33	0.0297	0.0287
Moon	54678-02-08 11:02 G	21691827.77	21691827.96	21691828.16	0.0297	0.0184
Earth	54678-02-08 13:41 G	21691827.87	21691828.07	21691828.27	0.0297	0.0168 *
Venus	54684-03-07 18:43 G	21694047.10	21694047.28	21694047.47	0.0285	0.0143
Venus	54684-10-23 10:48 G	21694276.76	21694276.95	21694277.14	0.0283	0.0122
Mars	54686-11-06 03:36 G	21695020.48	21695020.65	21695020.85	0.0275	0.0203
Mercury	54691-08-16 16:48 G	21696765.04	21696765.20	21696765.38	0.0265	0.0115
Mercury	54691-11-13 13:26 G	21696853.88	21696854.06	21696854.24	0.0264	0.0066
Mercury	54692-02-10 09:50 G	21696942.86	21696942.91	21696942.99	0.0264	0.0249
Earth	54692-08-11 16:48 G	21697125.99	21697126.20	21697126.42	0.0264	0.0121
Moon	54692-08-11 20:24 G	21697126.15	21697126.35	21697126.57	0.0264	0.0129 *
Venus	54699-11-13 22:19 G	21699776.27	21699776.43	21699776.59	0.0276	0.0177
Venus	54700-07-01 06:58 G	21700005.59	21700005.79	21700006.00	0.0278	0.0066
Mercury	54706-06-15 09:07 G	21702180.84	21702180.88	21702180.93	0.0296	0.0274
Mercury	54706-09-11 21:50 G	21702269.28	21702269.41	21702269.53	0.0296	0.0097
Mercury	54706-12-09 10:19 G	21702357.80	21702357.93	21702358.05	0.0296	0.0080
Earth	54707-02-03 17:46 G	21702414.03	21702414.24	21702414.46	0.0296	0.0131
Moon	54707-02-03 20:38 G	21702414.15	21702414.36	21702414.59	0.0296	0.0113 *
Mercury	54707-03-07 22:34 G	21702446.38	21702446.44	21702446.50	0.0296	0.0254
Venus	54713-09-19 04:48 G	21704833.50	21704833.70	21704833.90	0.0285	0.0098
Venus	54714-05-06 20:24 G	21705063.18	21705063.35	21705063.52	0.0282	0.0166
Mercury	54721-01-03 17:17 G	21707497.08	21707497.22	21707497.38	0.0264	0.0157
Mercury	54721-04-02 13:41 G	21707585.89	21707586.07	21707586.26	0.0264	0.0023
Mercury	54721-06-30 10:19 G	21707674.81	21707674.93	21707675.05	0.0264	0.0203
Moon	54721-08-07 21:50 G	21707713.17	21707713.41	21707713.64	0.0264	0.0086
Earth	54721-08-08 01:26 G	21707713.33	21707713.56	21707713.79	0.0264	0.0091 *
Venus	54729-05-27 01:12 G	21710562.38	21710562.55	21710562.74	0.0275	0.0146
Venus	54730-01-11 10:05 G	21710791.72	21710791.92	21710792.12	0.0278	0.0097
Mercury	54736-01-29 22:48 G	21713001.34	21713001.45	21713001.57	0.0296	0.0160

Mercury	54736-04-27 11:17 G	21713089.84	21713089.97	21713090.11	0.0297	0.0021
Mercury	54736-07-24 23:46 G	21713178.39	21713178.49	21713178.59	0.0297	0.0194
Moon	54737-02-10 22:48 G	21713379.37	21713379.45	21713379.57	0.0297	0.0269
Earth	54737-02-11 02:38 G	21713379.48	21713379.61	21713379.74	0.0297	0.0251 *
Venus	54743-04-01 08:24 G	21715619.64	21715619.85	21715620.06	0.0285	0.0065
Venus	54743-11-16 23:46 G	21715849.35	21715849.49	21715849.65	0.0282	0.0198
Mars	54745-02-14 08:38 G	21716304.77	21716304.86	21716304.97	0.0278	0.0257
Mercury	54750-05-23 16:48 G	21718229.10	21718229.20	21718229.33	0.0265	0.0206
Mercury	54750-08-20 13:26 G	21718317.87	21718318.06	21718318.25	0.0264	0.0026
Mercury	54750-11-17 09:50 G	21718406.76	21718406.91	21718407.07	0.0264	0.0155
Earth	54751-08-14 23:02 G	21718677.29	21718677.46	21718677.65	0.0264	0.0181
Moon	54751-08-15 00:43 G	21718677.37	21718677.53	21718677.71	0.0264	0.0191 *
Venus	54758-12-07 07:55 G	21721348.64	21721348.83	21721349.03	0.0276	0.0110
Venus	54759-07-24 17:02 G	21721578.03	21721578.21	21721578.39	0.0278	0.0134
Mars	54761-03-08 06:43 G	21722170.49	21722170.78	21722171.09	0.0284	0.0082
Mercury	54765-06-18 01:55 G	21723733.49	21723733.58	21723733.68	0.0296	0.0196
Mercury	54765-09-14 14:38 G	21723821.98	21723822.11	21723822.24	0.0296	0.0019
Mercury	54765-12-12 02:53 G	21723910.51	21723910.62	21723910.73	0.0296	0.0158
Earth	54766-02-05 04:48 G	21723965.46	21723965.70	21723965.94	0.0297	0.0053
Moon	54766-02-05 07:55 G	21723965.58	21723965.83	21723966.08	0.0297	0.0035 *
Venus	54772-10-11 18:00 G	21726406.04	21726406.25	21726406.46	0.0284	0.0020
Venus	54773-05-29 09:07 G	21726635.78	21726635.88	21726635.99	0.0282	0.0241
Mercury	54779-10-10 17:31 G	21728961.17	21728961.23	21728961.30	0.0265	0.0246
Mercury	54780-01-07 13:55 G	21729049.90	21729050.08	21729050.26	0.0264	0.0069
Mercury	54780-04-05 10:19 G	21729138.76	21729138.93	21729139.10	0.0264	0.0111
Moon	54780-08-09 06:14 G	21729264.52	21729264.76	21729265.00	0.0264	0.0024
Earth	54780-08-09 07:55 G	21729264.59	21729264.83	21729265.08	0.0264	0.0030 *
Venus	54788-06-18 10:34 G	21732134.74	21732134.94	21732135.15	0.0276	0.0079
Venus	54789-02-02 19:26 G	21732364.15	21732364.31	21732364.49	0.0278	0.0165
Mercury	54794-11-05 02:53 G	21734465.56	21734465.62	21734465.68	0.0296	0.0262

Mercury	54795-02-01 15:22 G	21734554.02	21734554.14	21734554.27	0.0296	0.0085
Mercury	54795-05-01 03:50 G	21734642.54	21734642.66	21734642.79	0.0297	0.0092
Mercury	54795-07-28 16:19 G	21734731.12	21734731.18	21734731.23	0.0297	0.0267
Venus	54801-09-06 02:24 G	21736962.53	21736962.60	21736962.69	0.0286	0.0262
Venus	54802-04-23 19:55 G	21737192.11	21737192.33	21737192.54	0.0284	0.0010
Venus	54802-12-09 10:48 G	21737421.90	21737421.95	21737422.02	0.0282	0.0269
Jupiter	54806-12-10 09:50 G	21738883.43	21738883.91	21738884.39	0.0269	0.0036
Mercury	54809-05-26 12:43 G	21739781.87	21739782.03	21739782.20	0.0264	0.0123
Earth	54809-08-04 12:00 G	21739851.94	21739852.00	21739852.10	0.0264	0.0249
Moon	54809-08-04 14:38 G	21739852.04	21739852.11	21739852.20	0.0264	0.0250 *
Mercury	54809-08-23 09:07 G	21739870.70	21739870.88	21739871.07	0.0264	0.0057
Mercury	54809-11-20 05:31 G	21739959.66	21739959.73	21739959.82	0.0264	0.0238
Moon	54810-08-16 00:29 G	21740228.45	21740228.52	21740228.60	0.0264	0.0250
Earth	54810-08-16 03:22 G	21740228.55	21740228.64	21740228.76	0.0264	0.0237 *
Venus	54817-12-29 16:05 G	21742920.96	21742921.17	21742921.38	0.0276	0.0046
Venus	54818-08-16 01:26 G	21743150.42	21743150.56	21743150.71	0.0279	0.0200
Mercury	54824-06-20 18:00 G	21745286.14	21745286.25	21745286.37	0.0296	0.0127
Mercury	54824-09-17 06:43 G	21745374.65	21745374.78	21745374.91	0.0296	0.0051
Mercury	54824-12-14 18:58 G	21745463.21	21745463.29	21745463.38	0.0297	0.0226
Moon	54825-02-06 09:36 G	21745516.65	21745516.90	21745517.16	0.0297	0.0032
Earth	54825-02-06 11:17 G	21745516.73	21745516.97	21745517.22	0.0297	0.0017 *
Venus	54831-03-19 11:31 G	21747748.84	21747748.98	21747749.11	0.0286	0.0216
Venus	54831-11-04 04:19 G	21747978.48	21747978.68	21747978.89	0.0284	0.0052
Mars	54833-07-11 13:55 G	21748593.89	21748594.08	21748594.29	0.0278	0.0189
Mercury	54838-10-13 12:58 G	21750513.91	21750514.04	21750514.19	0.0264	0.0166
Mercury	54839-01-10 09:22 G	21750602.71	21750602.89	21750603.08	0.0264	0.0015
Mercury	54839-04-09 05:46 G	21750691.62	21750691.74	21750691.87	0.0264	0.0194
Earth	54839-08-11 12:00 G	21750815.76	21750816.00	21750816.25	0.0264	0.0028
Moon	54839-08-11 14:24 G	21750815.86	21750816.10	21750816.34	0.0264	0.0036 *
Venus	54846-11-24 10:48 G	21753477.88	21753477.95	21753478.04	0.0274	0.0252

Venus	54847-07-11 18:29 G	21753707.05	21753707.27	21753707.48	0.0276	0.0016
Venus	54848-02-26 03:22 G	21753936.53	21753936.64	21753936.77	0.0278	0.0229
Mars	54849-08-01 07:12 G	21754458.49	21754458.80	21754459.11	0.0283	0.0047
Mercury	54853-11-07 18:29 G	21756018.18	21756018.27	21756018.37	0.0296	0.0197
Mercury	54854-02-04 07:12 G	21756106.67	21756106.80	21756106.93	0.0297	0.0020
Mercury	54854-05-03 19:26 G	21756195.21	21756195.31	21756195.43	0.0297	0.0157
Venus	54860-09-28 12:14 G	21758534.85	21758535.01	21758535.17	0.0286	0.0192
Venus	54861-05-16 05:02 G	21758764.51	21758764.71	21758764.92	0.0284	0.0077
Mercury	54868-03-01 11:31 G	21761245.89	21761245.98	21761246.08	0.0264	0.0225
Mercury	54868-05-29 07:55 G	21761334.64	21761334.83	21761335.01	0.0264	0.0047
Moon	54868-08-05 12:43 G	21761402.87	21761403.03	21761403.21	0.0264	0.0192
Earth	54868-08-05 14:53 G	21761402.95	21761403.12	21761403.28	0.0264	0.0194 *
Mercury	54868-08-26 04:19 G	21761423.52	21761423.68	21761423.84	0.0264	0.0133
Venus	54876-06-05 14:53 G	21764264.00	21764264.12	21764264.25	0.0275	0.0223
Venus	54877-01-20 22:34 G	21764493.23	21764493.44	21764493.66	0.0277	0.0016
Venus	54877-09-07 07:55 G	21764722.77	21764722.83	21764722.91	0.0279	0.0262
Mercury	54883-03-27 20:53 G	21766750.30	21766750.37	21766750.45	0.0296	0.0243
Mercury	54883-06-24 09:36 G	21766838.77	21766838.90	21766839.03	0.0296	0.0066
Mercury	54883-09-20 22:05 G	21766927.30	21766927.42	21766927.54	0.0296	0.0111
Mercury	54883-12-18 10:19 G	21767015.90	21767015.93	21767015.97	0.0297	0.0286
Moon	54884-02-08 10:19 G	21767067.70	21767067.93	21767068.16	0.0297	0.0091
Earth	54884-02-08 13:55 G	21767067.85	21767068.08	21767068.32	0.0297	0.0079 *
Venus	54890-04-10 19:41 G	21769321.15	21769321.32	21769321.51	0.0286	0.0149
Venus	54890-11-26 12:29 G	21769550.84	21769551.02	21769551.22	0.0284	0.0119
Mercury	54897-10-16 07:55 G	21772066.66	21772066.83	21772067.01	0.0264	0.0090
Mercury	54898-01-13 04:19 G	21772155.51	21772155.68	21772155.86	0.0264	0.0090
Earth	54898-08-12 13:55 G	21772366.85	21772367.08	21772367.32	0.0264	0.0081
Moon	54898-08-12 17:17 G	21772366.99	21772367.22	21772367.46	0.0264	0.0090 *
Venus	54905-12-17 17:31 G	21775050.08	21775050.23	21775050.38	0.0274	0.0191
Venus	54906-08-04 01:12 G	21775279.34	21775279.55	21775279.76	0.0276	0.0046

Mercury	54912-11-11 09:50 G	21777570.80	21777570.91	21777571.03	0.0296	0.0138
Earth	54913-02-01 22:48 G	21777653.33	21777653.45	21777653.58	0.0296	0.0255
Moon	54913-02-02 01:55 G	21777653.45	21777653.58	21777653.73	0.0296	0.0241 *
Mercury	54913-02-07 22:19 G	21777659.31	21777659.43	21777659.57	0.0296	0.0041
Mercury	54913-05-07 10:48 G	21777747.86	21777747.95	21777748.04	0.0297	0.0215
Venus	54919-10-22 19:26 G	21780107.12	21780107.31	21780107.50	0.0286	0.0127
Venus	54920-06-08 12:00 G	21780336.82	21780337.00	21780337.19	0.0284	0.0141
Mars	54921-12-05 15:22 G	21780881.94	21780882.14	21780882.37	0.0278	0.0171
Mercury	54927-03-06 05:46 G	21782798.59	21782798.74	21782798.89	0.0264	0.0155
Mercury	54927-06-03 02:10 G	21782887.40	21782887.59	21782887.78	0.0264	0.0024
Moon	54927-08-08 11:17 G	21782953.77	21782953.97	21782954.18	0.0264	0.0139
Earth	54927-08-08 14:53 G	21782953.92	21782954.12	21782954.33	0.0264	0.0144 *
Mercury	54927-08-30 22:34 G	21782976.33	21782976.44	21782976.56	0.0264	0.0205
Venus	54935-06-29 20:10 G	21785836.18	21785836.34	21785836.52	0.0275	0.0165
Venus	54936-02-14 04:05 G	21786065.47	21786065.67	21786065.88	0.0277	0.0075
Mars	54937-12-26 09:36 G	21786746.59	21786746.90	21786747.22	0.0284	0.0007
Mercury	54942-03-31 12:00 G	21788302.90	21788303.00	21788303.10	0.0296	0.0189
Mercury	54942-06-28 00:29 G	21788391.39	21788391.52	21788391.65	0.0296	0.0012
Mercury	54942-09-24 12:58 G	21788479.93	21788480.04	21788480.15	0.0297	0.0164
Earth	54943-02-10 12:58 G	21788618.82	21788619.04	21788619.26	0.0297	0.0133
Moon	54943-02-10 12:29 G	21788618.83	21788619.02	21788619.24	0.0297	0.0143 *
Venus	54949-05-04 02:10 G	21790893.39	21790893.59	21790893.80	0.0286	0.0086
Venus	54949-12-19 18:43 G	21791123.12	21791123.28	21791123.45	0.0283	0.0181
Mercury	54956-07-23 06:00 G	21793530.63	21793530.75	21793530.88	0.0265	0.0198
Mercury	54956-10-20 02:24 G	21793619.41	21793619.60	21793619.78	0.0264	0.0020
Mercury	54957-01-16 22:48 G	21793708.30	21793708.45	21793708.60	0.0264	0.0161
Moon	54957-08-14 13:26 G	21793917.86	21793918.06	21793918.29	0.0264	0.0143
Earth	54957-08-14 14:10 G	21793917.88	21793918.09	21793918.31	0.0264	0.0131 *
Venus	54965-01-08 23:02 G	21796622.28	21796622.46	21796622.65	0.0274	0.0133
Venus	54965-08-26 06:43 G	21796851.59	21796851.78	21796851.98	0.0276	0.0106

Mercury	54971-08-18 12:14 G	21799034.95	21799035.01	21799035.07	0.0296	0.0261
Mercury	54971-11-15 00:58 G	21799123.41	21799123.54	21799123.66	0.0296	0.0084
Moon	54972-02-03 21:07 G	21799204.19	21799204.38	21799204.58	0.0296	0.0191
Earth	54972-02-03 21:50 G	21799204.23	21799204.41	21799204.59	0.0296	0.0200 *
Mercury	54972-02-11 13:26 G	21799211.93	21799212.06	21799212.18	0.0296	0.0093
Mercury	54972-05-10 01:41 G	21799300.52	21799300.57	21799300.63	0.0297	0.0267
Venus	54978-11-14 01:12 G	21801679.34	21801679.55	21801679.76	0.0286	0.0065
Venus	54979-07-01 17:46 G	21801909.09	21801909.24	21801909.39	0.0283	0.0201
Mercury	54986-03-08 23:31 G	21804351.31	21804351.48	21804351.66	0.0264	0.0089
Mercury	54986-06-05 19:55 G	21804440.16	21804440.33	21804440.51	0.0264	0.0091
Earth	54986-08-09 13:26 G	21804504.84	21804505.06	21804505.29	0.0264	0.0097
Moon	54986-08-09 13:55 G	21804504.86	21804505.08	21804505.31	0.0264	0.0087 *
Venus	54994-07-22 01:26 G	21807408.37	21807408.56	21807408.75	0.0275	0.0107
Venus	54995-03-08 09:22 G	21807637.71	21807637.89	21807638.08	0.0277	0.0133

56TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 56th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	55001-04-04 02:38 G		21809855.50	21809855.61	21809855.73	0.0296	0.0138	
Mercury	55001-07-01 15:07 G		21809944.00	21809944.13	21809944.26	0.0296	0.0040	
Mercury	55001-09-28 03:36 G		21810032.56	21810032.65	21810032.74	0.0297	0.0214	
Earth	55002-02-12 10:19 G		21810169.76	21810169.93	21810170.13	0.0297	0.0187	
Moon	55002-02-12 13:55 G		21810169.90	21810170.08	21810170.27	0.0297	0.0193 *	

Venus	55008-05-27 07:12 G	21812465.59	21812465.80	21812466.01	0.0285	0.0026
Venus	55009-01-11 23:17 G	21812695.37	21812695.47	21812695.60	0.0283	0.0239
Mars	55010-05-02 01:26 G	21813170.33	21813170.56	21813170.80	0.0279	0.0140
Mercury	55015-07-27 23:31 G	21815083.33	21815083.48	21815083.65	0.0265	0.0133
Mercury	55015-10-24 19:55 G	21815172.15	21815172.33	21815172.52	0.0265	0.0047
Mercury	55016-01-21 16:19 G	21815261.10	21815261.18	21815261.28	0.0264	0.0228
Moon	55016-08-16 08:53 G	21815468.71	21815468.87	21815469.04	0.0264	0.0194
Earth	55016-08-16 12:43 G	21815468.85	21815469.03	21815469.21	0.0264	0.0179 *
Venus	55024-02-02 04:34 G	21818194.49	21818194.69	21818194.89	0.0274	0.0074
Venus	55024-09-18 12:14 G	21818423.85	21818424.01	21818424.19	0.0276	0.0165
Mars	55026-05-22 00:14 G	21819034.19	21819034.51	21819034.82	0.0282	0.0011
Mercury	55030-08-22 03:07 G	21820587.54	21820587.63	21820587.72	0.0295	0.0208
Mercury	55030-11-18 15:36 G	21820676.02	21820676.15	21820676.28	0.0296	0.0032
Moon	55031-02-05 16:19 G	21820754.96	21820755.18	21820755.39	0.0296	0.0140
Earth	55031-02-05 19:41 G	21820755.12	21820755.32	21820755.54	0.0296	0.0146 *
Mercury	55031-02-15 04:05 G	21820764.56	21820764.67	21820764.78	0.0296	0.0144
Venus	55037-04-21 11:31 G	21823021.94	21823021.98	21823022.03	0.0288	0.0279
Venus	55037-12-07 05:46 G	21823251.53	21823251.74	21823251.95	0.0286	0.0007
Venus	55038-07-24 22:05 G	21823481.34	21823481.42	21823481.51	0.0283	0.0258
Mercury	55044-12-13 20:38 G	21825815.25	21825815.36	21825815.48	0.0265	0.0204
Mercury	55045-03-12 17:02 G	21825904.03	21825904.21	21825904.40	0.0265	0.0025
Mercury	55045-06-09 13:26 G	21825992.91	21825993.06	21825993.22	0.0264	0.0156
Earth	55045-08-11 11:17 G	21826055.73	21826055.97	21826056.21	0.0264	0.0050
Moon	55045-08-11 15:07 G	21826055.89	21826056.13	21826056.38	0.0264	0.0036 *
Venus	55053-08-14 06:14 G	21828980.55	21828980.76	21828980.97	0.0275	0.0050
Venus	55054-03-31 14:24 G	21829209.95	21829210.10	21829210.25	0.0277	0.0191
Mercury	55060-01-09 04:34 G	21831319.64	21831319.69	21831319.75	0.0295	0.0265
Mercury	55060-04-06 17:17 G	21831408.10	21831408.22	21831408.35	0.0296	0.0087
Mercury	55060-07-04 05:46 G	21831496.62	21831496.74	21831496.87	0.0296	0.0089
Mercury	55060-09-30 18:00 G	21831585.20	21831585.25	21831585.31	0.0296	0.0264

Earth	55061-02-13 07:26 G	21831720.67	21831720.81	21831720.96	0.0297	0.0238
Moon	55061-02-13 09:22 G	21831720.75	21831720.89	21831721.04	0.0297	0.0241 *
Venus	55066-11-01 17:17 G	21833808.11	21833808.22	21833808.34	0.0287	0.0240
Venus	55067-06-19 11:31 G	21834037.77	21834037.98	21834038.19	0.0285	0.0033
Mercury	55074-05-02 20:53 G	21836547.31	21836547.37	21836547.44	0.0265	0.0248
Mercury	55074-07-30 17:02 G	21836636.03	21836636.21	21836636.39	0.0265	0.0069
Moon	55074-08-06 14:24 G	21836643.03	21836643.10	21836643.19	0.0265	0.0250
Earth	55074-08-06 18:00 G	21836643.22	21836643.25	21836643.31	0.0265	0.0261
Mercury	55074-10-27 13:26 G	21836724.89	21836725.06	21836725.23	0.0265	0.0111
Moon	55075-08-18 09:36 G	21837019.81	21837019.90	21837020.00	0.0264	0.0242
Earth	55075-08-18 10:34 G	21837019.81	21837019.94	21837020.06	0.0264	0.0226 *
Venus	55082-07-10 03:50 G	21839537.58	21839537.66	21839537.75	0.0272	0.0248
Venus	55083-02-24 10:19 G	21839766.72	21839766.93	21839767.14	0.0274	0.0016
Venus	55083-10-11 18:29 G	21839996.15	21839996.27	21839996.39	0.0276	0.0225
Mercury	55089-08-24 18:00 G	21842140.14	21842140.25	21842140.37	0.0295	0.0153
Mercury	55089-11-21 06:43 G	21842228.65	21842228.78	21842228.91	0.0296	0.0024
Moon	55090-02-06 18:00 G	21842306.03	21842306.25	21842306.48	0.0296	0.0088
Earth	55090-02-06 18:58 G	21842306.06	21842306.29	21842306.53	0.0296	0.0090 *
Mercury	55090-02-17 18:58 G	21842317.20	21842317.29	21842317.39	0.0296	0.0197
Venus	55096-05-13 16:34 G	21844594.06	21844594.19	21844594.33	0.0287	0.0219
Venus	55096-12-29 10:34 G	21844823.73	21844823.94	21844824.15	0.0285	0.0053
Mars	55098-09-24 12:58 G	21845457.81	21845458.04	21845458.28	0.0279	0.0142
Mercury	55103-12-18 13:55 G	21847367.93	21847368.08	21847368.24	0.0265	0.0141
Mercury	55104-03-16 10:34 G	21847456.75	21847456.94	21847457.12	0.0265	0.0039
Mercury	55104-06-13 06:58 G	21847545.69	21847545.79	21847545.89	0.0264	0.0220
Earth	55104-08-13 08:53 G	21847606.62	21847606.87	21847607.12	0.0264	0.0003
Moon	55104-08-13 09:22 G	21847606.64	21847606.89	21847607.15	0.0264	0.0013 *
Venus	55112-01-21 05:17 G	21850323.60	21850323.72	21850323.84	0.0273	0.0225
Venus	55112-09-06 12:00 G	21850552.79	21850553.00	21850553.21	0.0275	0.0010
Venus	55113-04-23 19:55 G	21850782.25	21850782.33	21850782.43	0.0277	0.0252

Mars	55114-10-15 18:43 G	21851321.97	21851322.28	21851322.59	0.0283	0.0040
Mercury	55119-01-12 19:41 G	21852872.23	21852872.32	21852872.41	0.0295	0.0210
Mercury	55119-04-11 08:10 G	21852960.71	21852960.84	21852960.97	0.0296	0.0034
Mercury	55119-07-08 20:38 G	21853049.24	21853049.36	21853049.47	0.0296	0.0141
Moon	55120-02-16 02:53 G	21853271.57	21853271.62	21853271.68	0.0297	0.0289
Earth	55120-02-16 05:31 G	21853271.70	21853271.73	21853271.78	0.0297	0.0293
Venus	55125-11-24 21:36 G	21855380.25	21855380.40	21855380.58	0.0287	0.0181
Venus	55126-07-12 15:36 G	21855609.96	21855610.15	21855610.36	0.0285	0.0091
Mercury	55133-05-06 14:10 G	21858099.96	21858100.09	21858100.23	0.0266	0.0184
Mercury	55133-08-03 10:34 G	21858188.76	21858188.94	21858189.13	0.0265	0.0006
Moon	55133-08-08 14:53 G	21858193.98	21858194.12	21858194.28	0.0265	0.0203
Earth	55133-08-08 16:05 G	21858194.03	21858194.17	21858194.32	0.0265	0.0213 *
Mercury	55133-10-31 06:58 G	21858277.66	21858277.79	21858277.94	0.0265	0.0177
Venus	55141-08-02 10:05 G	21861109.78	21861109.92	21861110.08	0.0273	0.0190
Venus	55142-03-19 16:48 G	21861339.00	21861339.20	21861339.41	0.0275	0.0045
Mercury	55148-05-31 20:53 G	21863604.32	21863604.37	21863604.42	0.0295	0.0270
Mercury	55148-08-28 09:22 G	21863692.77	21863692.89	21863693.02	0.0295	0.0094
Mercury	55148-11-24 21:50 G	21863781.28	21863781.41	21863781.53	0.0295	0.0080
Earth	55149-02-08 19:41 G	21863857.08	21863857.32	21863857.56	0.0296	0.0030
Moon	55149-02-08 23:02 G	21863857.22	21863857.46	21863857.70	0.0296	0.0033 *
Mercury	55149-02-21 10:05 G	21863869.86	21863869.92	21863869.99	0.0296	0.0254
Venus	55155-06-06 22:19 G	21866166.26	21866166.43	21866166.61	0.0287	0.0158
Venus	55156-01-22 15:50 G	21866395.97	21866396.16	21866396.36	0.0285	0.0113
Mercury	55162-09-23 11:17 G	21868831.93	21868831.97	21868832.02	0.0265	0.0255
Mercury	55162-12-21 07:41 G	21868920.64	21868920.82	21868921.00	0.0265	0.0076
Mercury	55163-03-20 04:05 G	21869009.50	21869009.67	21869009.84	0.0265	0.0104
Moon	55163-08-15 03:36 G	21869157.41	21869157.65	21869157.89	0.0264	0.0060
Earth	55163-08-15 06:58 G	21869157.55	21869157.79	21869158.04	0.0264	0.0046 *
Venus	55171-02-12 11:31 G	21871895.82	21871895.98	21871896.15	0.0274	0.0166
Venus	55171-09-29 18:29 G	21872125.07	21872125.27	21872125.48	0.0276	0.0071

Mercury	55178-01-15 11:02 G	21874424.84	21874424.96	21874425.07	0.0295	0.0150
Mercury	55178-04-13 23:31 G	21874513.35	21874513.48	21874513.61	0.0296	0.0025
Mercury	55178-07-11 11:46 G	21874601.90	21874601.99	21874602.09	0.0296	0.0200
Venus	55184-12-17 03:50 G	21876952.47	21876952.66	21876952.86	0.0287	0.0119
Venus	55185-08-03 21:22 G	21877182.22	21877182.39	21877182.58	0.0284	0.0151
Mars	55187-02-18 20:10 G	21877746.10	21877746.34	21877746.60	0.0279	0.0115
Mercury	55192-05-09 07:55 G	21879652.67	21879652.83	21879653.00	0.0266	0.0118
Mercury	55192-08-06 04:19 G	21879741.50	21879741.68	21879741.87	0.0265	0.0063
Earth	55192-08-09 14:38 G	21879744.92	21879745.11	21879745.30	0.0265	0.0165
Moon	55192-08-09 17:31 G	21879745.04	21879745.23	21879745.43	0.0265	0.0151 *
Mercury	55192-11-03 00:58 G	21879830.47	21879830.54	21879830.61	0.0265	0.0245
Venus	55200-08-24 17:46 G	21882682.06	21882682.24	21882682.43	0.0273	0.0128
Venus	55201-04-11 00:43 G	21882911.34	21882911.53	21882911.73	0.0275	0.0108
Mars	55203-03-11 07:55 G	21883610.54	21883610.83	21883611.14	0.0282	0.0091
Mercury	55207-06-04 12:43 G	21885156.94	21885157.03	21885157.12	0.0294	0.0204
Mercury	55207-09-01 01:12 G	21885245.42	21885245.55	21885245.68	0.0295	0.0029
Mercury	55207-11-28 13:26 G	21885333.95	21885334.06	21885334.18	0.0295	0.0145
Earth	55208-02-11 00:00 G	21885408.25	21885408.50	21885408.74	0.0296	0.0037
Moon	55208-02-11 02:24 G	21885408.35	21885408.60	21885408.85	0.0296	0.0030 *
Venus	55214-06-29 05:31 G	21887738.53	21887738.73	21887738.93	0.0287	0.0094
Venus	55215-02-13 22:34 G	21887968.29	21887968.44	21887968.62	0.0285	0.0176
Mercury	55221-09-26 05:17 G	21890384.59	21890384.72	21890384.85	0.0266	0.0187
Mercury	55221-12-24 01:41 G	21890473.39	21890473.57	21890473.76	0.0265	0.0007
Mercury	55222-03-22 22:05 G	21890562.29	21890562.42	21890562.57	0.0265	0.0175
Moon	55222-08-16 04:48 G	21890708.48	21890708.70	21890708.92	0.0265	0.0110
Earth	55222-08-16 06:43 G	21890708.56	21890708.78	21890709.01	0.0265	0.0097 *
Venus	55230-03-06 19:26 G	21893468.12	21893468.31	21893468.51	0.0274	0.0103
Venus	55230-10-22 02:38 G	21893697.43	21893697.61	21893697.80	0.0276	0.0135
Mercury	55236-10-21 14:24 G	21895889.04	21895889.10	21895889.16	0.0295	0.0259
Mercury	55237-01-18 02:53 G	21895977.49	21895977.62	21895977.75	0.0295	0.0084

Moon	55237-02-03 17:46 G	21895994.18	21895994.24	21895994.30	0.0295	0.0285
Earth	55237-02-03 19:12 G	21895994.22	21895994.30	21895994.39	0.0295	0.0276 *
Mercury	55237-04-16 15:22 G	21896066.01	21896066.14	21896066.26	0.0296	0.0091
Mercury	55237-07-14 03:36 G	21896154.59	21896154.65	21896154.71	0.0296	0.0264
Venus	55244-01-09 11:31 G	21898524.78	21898524.98	21898525.19	0.0286	0.0054
Venus	55244-08-26 04:48 G	21898754.56	21898754.70	21898754.84	0.0284	0.0213
Mercury	55251-02-13 05:46 G	21901116.65	21901116.74	21901116.84	0.0266	0.0228
Mercury	55251-05-13 02:10 G	21901205.41	21901205.59	21901205.78	0.0266	0.0047
Mercury	55251-08-09 22:48 G	21901294.29	21901294.45	21901294.61	0.0266	0.0135
Earth	55251-08-11 14:53 G	21901295.90	21901296.12	21901296.35	0.0266	0.0113
Moon	55251-08-11 17:46 G	21901296.01	21901296.24	21901296.48	0.0266	0.0098 *
Venus	55259-09-17 02:38 G	21904254.40	21904254.61	21904254.82	0.0274	0.0064
Venus	55260-05-03 10:05 G	21904483.76	21904483.92	21904484.08	0.0276	0.0174
Mercury	55266-06-07 05:02 G	21906709.60	21906709.71	21906709.83	0.0294	0.0130
Mercury	55266-09-03 17:31 G	21906798.10	21906798.23	21906798.36	0.0295	0.0044
Mercury	55266-12-01 05:46 G	21906886.66	21906886.74	21906886.83	0.0295	0.0217
Moon	55267-02-12 05:46 G	21906959.51	21906959.74	21906959.98	0.0295	0.0100
Earth	55267-02-12 08:10 G	21906959.62	21906959.84	21906960.07	0.0295	0.0112 *
Venus	55273-07-21 14:53 G	21909310.91	21909311.12	21909311.33	0.0286	0.0025
Venus	55274-03-08 07:41 G	21909540.72	21909540.82	21909540.94	0.0284	0.0242
Mars	55275-07-15 00:00 G	21910034.24	21910034.50	21910034.76	0.0279	0.0087
Mercury	55280-09-29 00:00 G	21911937.33	21911937.50	21911937.67	0.0266	0.0113
Mercury	55280-12-26 20:24 G	21912026.17	21912026.35	21912026.53	0.0265	0.0069
Mercury	55281-03-25 17:02 G	21912115.16	21912115.21	21912115.27	0.0265	0.0251
Earth	55281-08-17 08:38 G	21912259.66	21912259.86	21912260.06	0.0265	0.0151
Moon	55281-08-17 10:34 G	21912259.76	21912259.94	21912260.14	0.0265	0.0164 *
Venus	55288-08-11 22:34 G	21914811.43	21914811.44	21914811.49	0.0273	0.0270
Venus	55289-03-29 05:02 G	21915040.50	21915040.71	21915040.92	0.0274	0.0037
Venus	55289-11-13 12:29 G	21915269.88	21915270.02	21915270.17	0.0276	0.0203
Mars	55291-08-04 21:50 G	21915899.15	21915899.41	21915899.69	0.0282	0.0152

Mercury	55295-10-25 06:58 G	21917441.69	21917441.79	21917441.89	0.0295	0.0183
Mercury	55296-01-21 19:26 G	21917530.18	21917530.31	21917530.44	0.0295	0.0009
Earth	55296-02-06 04:05 G	21917545.50	21917545.67	21917545.86	0.0295	0.0200
Moon	55296-02-06 06:43 G	21917545.62	21917545.78	21917545.96	0.0295	0.0210 *
Mercury	55296-04-19 07:41 G	21917618.72	21917618.82	21917618.93	0.0295	0.0166
Venus	55302-06-17 02:53 G	21919867.53	21919867.62	21919867.72	0.0288	0.0258
Venus	55303-02-01 21:36 G	21920097.19	21920097.40	21920097.61	0.0286	0.0016
Venus	55303-09-19 13:55 G	21920327.06	21920327.08	21920327.12	0.0283	0.0281
Mercury	55310-02-17 00:43 G	21922669.38	21922669.53	21922669.69	0.0266	0.0151
Mercury	55310-05-16 21:07 G	21922758.20	21922758.38	21922758.57	0.0266	0.0031
Moon	55310-08-13 15:50 G	21922846.91	21922847.16	21922847.41	0.0266	0.0042
Earth	55310-08-13 17:31 G	21922847.00	21922847.23	21922847.48	0.0266	0.0057 *
Mercury	55310-08-13 17:46 G	21922847.14	21922847.24	21922847.36	0.0266	0.0213 *
Venus	55318-02-23 06:43 G	21925597.68	21925597.78	21925597.90	0.0273	0.0230
Venus	55318-10-10 13:12 G	21925826.84	21925827.05	21925827.26	0.0275	0.0005
Venus	55319-05-27 20:53 G	21926056.28	21926056.37	21926056.48	0.0276	0.0245
Mercury	55325-03-14 09:36 G	21928173.82	21928173.90	21928173.99	0.0294	0.0222
Mercury	55325-06-10 22:05 G	21928262.29	21928262.42	21928262.55	0.0294	0.0049
Mercury	55325-09-07 10:34 G	21928350.82	21928350.94	21928351.06	0.0295	0.0125
Moon	55326-02-14 16:48 G	21928511.02	21928511.20	21928511.40	0.0295	0.0181
Earth	55326-02-14 20:10 G	21928511.17	21928511.34	21928511.53	0.0295	0.0194 *
Venus	55331-12-28 08:24 G	21930653.72	21930653.85	21930653.98	0.0288	0.0224
Venus	55332-08-14 02:38 G	21930883.40	21930883.61	21930883.82	0.0286	0.0048
Mercury	55339-07-06 23:17 G	21933401.36	21933401.47	21933401.58	0.0266	0.0211
Mercury	55339-10-03 19:26 G	21933490.13	21933490.31	21933490.50	0.0266	0.0032
Mercury	55339-12-31 15:50 G	21933579.02	21933579.16	21933579.32	0.0265	0.0152
Earth	55340-08-19 12:43 G	21933810.89	21933811.03	21933811.19	0.0265	0.0210
Moon	55340-08-19 16:19 G	21933811.06	21933811.18	21933811.32	0.0265	0.0223 *
Venus	55347-09-05 09:07 G	21936383.75	21936383.88	21936384.03	0.0273	0.0203
Venus	55348-04-21 16:05 G	21936612.96	21936613.17	21936613.38	0.0275	0.0032

Venus	55348-12-06 23:46 G	21936842.47	21936842.49	21936842.54	0.0277	0.0273
Mercury	55354-08-01 11:31 G	21938905.94	21938905.98	21938906.03	0.0294	0.0274
Mercury	55354-10-29 00:00 G	21938994.38	21938994.50	21938994.63	0.0295	0.0100
Mercury	55355-01-25 12:29 G	21939082.90	21939083.02	21939083.15	0.0295	0.0075
Earth	55355-02-08 17:02 G	21939096.99	21939097.21	21939097.44	0.0295	0.0117
Moon	55355-02-08 20:24 G	21939097.13	21939097.35	21939097.58	0.0295	0.0125 *
Mercury	55355-04-24 00:43 G	21939171.47	21939171.53	21939171.61	0.0295	0.0248
Venus	55361-07-09 15:36 G	21941440.00	21941440.15	21941440.32	0.0287	0.0182
Venus	55362-02-24 09:50 G	21941669.71	21941669.91	21941670.12	0.0285	0.0090
Mars	55363-12-10 01:26 G	21942323.29	21942323.56	21942323.83	0.0279	0.0025
Mercury	55368-11-23 00:00 G	21944133.45	21944133.50	21944133.58	0.0267	0.0249
Mercury	55369-02-19 20:24 G	21944222.18	21944222.35	21944222.54	0.0266	0.0068
Mercury	55369-05-19 17:02 G	21944311.04	21944311.21	21944311.38	0.0266	0.0115
Moon	55369-08-14 18:58 G	21944398.05	21944398.29	21944398.54	0.0266	0.0019
Earth	55369-08-14 22:48 G	21944398.20	21944398.45	21944398.69	0.0266	0.0003 *
Venus	55377-03-17 18:14 G	21947170.09	21947170.26	21947170.43	0.0273	0.0162
Venus	55377-11-02 01:12 G	21947399.34	21947399.55	21947399.75	0.0275	0.0075
Mars	55379-12-31 21:36 G	21948189.29	21948189.40	21948189.53	0.0282	0.0261
Jupiter	55381-12-15 18:00 G	21948903.82	21948904.25	21948904.70	0.0288	0.0033
Mercury	55384-03-17 03:22 G	21949726.52	21949726.64	21949726.76	0.0294	0.0133
Mercury	55384-06-13 15:50 G	21949815.03	21949815.16	21949815.29	0.0294	0.0041
Mercury	55384-09-10 04:05 G	21949903.58	21949903.67	21949903.76	0.0295	0.0213
Moon	55385-02-16 12:00 G	21950062.92	21950063.00	21950063.09	0.0295	0.0273
Earth	55385-02-16 12:29 G	21950062.96	21950063.02	21950063.09	0.0295	0.0283 *
Venus	55391-01-19 23:02 G	21952226.28	21952226.46	21952226.65	0.0287	0.0144
Venus	55391-09-06 16:34 G	21952456.00	21952456.19	21952456.38	0.0285	0.0126
Mercury	55398-07-09 19:26 G	21954954.15	21954954.31	21954954.48	0.0266	0.0123
Earth	55398-08-10 00:43 G	21954985.40	21954985.53	21954985.67	0.0266	0.0222
Moon	55398-08-10 04:19 G	21954985.53	21954985.68	21954985.84	0.0266	0.0206 *
Mercury	55398-10-06 15:50 G	21955042.98	21955043.16	21955043.35	0.0266	0.0058

Mercury	55399-01-03 12:29 G	21955131.95	21955132.02	21955132.10	0.0265	0.0241
Venus	55406-09-28 21:22 G	21957956.21	21957956.39	21957956.58	0.0274	0.0132
Venus	55407-05-16 04:19 G	21958185.49	21958185.68	21958185.88	0.0276	0.0105
Mercury	55413-08-05 05:17 G	21960458.62	21960458.72	21960458.83	0.0294	0.0184
Mercury	55413-11-01 17:46 G	21960547.11	21960547.24	21960547.37	0.0295	0.0011
Mercury	55414-01-29 06:14 G	21960635.65	21960635.76	21960635.87	0.0295	0.0164
Moon	55414-02-11 09:22 G	21960648.64	21960648.89	21960649.15	0.0295	0.0038
Earth	55414-02-11 09:22 G	21960648.65	21960648.89	21960649.14	0.0295	0.0027 *
Venus	55420-08-02 06:14 G	21963012.57	21963012.76	21963012.96	0.0287	0.0102
Venus	55421-03-19 23:46 G	21963242.33	21963242.49	21963242.67	0.0284	0.0168
Mercury	55427-11-27 20:38 G	21965686.21	21965686.36	21965686.51	0.0266	0.0159
Mercury	55428-02-24 17:02 G	21965775.03	21965775.21	21965775.40	0.0266	0.0022
Mercury	55428-05-23 13:41 G	21965863.95	21965864.07	21965864.19	0.0266	0.0205
Earth	55428-08-17 06:00 G	21965949.51	21965949.75	21965949.99	0.0266	0.0066
Moon	55428-08-17 06:00 G	21965949.53	21965949.75	21965949.98	0.0266	0.0079 *
Venus	55436-04-10 06:29 G	21968742.57	21968742.77	21968742.97	0.0274	0.0091
Venus	55436-11-25 13:41 G	21968971.90	21968972.07	21968972.26	0.0276	0.0148
Mercury	55442-12-23 08:53 G	21971190.78	21971190.87	21971190.96	0.0294	0.0213
Mercury	55443-03-21 21:22 G	21971279.26	21971279.39	21971279.52	0.0294	0.0040
Mercury	55443-06-18 09:36 G	21971367.79	21971367.90	21971368.02	0.0295	0.0133
Venus	55450-02-12 15:22 G	21973798.94	21973799.14	21973799.35	0.0286	0.0060
Venus	55450-09-30 08:24 G	21974028.71	21974028.85	21974029.00	0.0284	0.0208
Mars	55452-05-06 11:31 G	21974612.71	21974612.98	21974613.25	0.0279	0.0056
Mercury	55457-04-15 20:10 G	21976418.23	21976418.34	21976418.46	0.0266	0.0209
Mercury	55457-07-13 16:34 G	21976507.01	21976507.19	21976507.38	0.0266	0.0029
Moon	55457-08-12 09:50 G	21976536.70	21976536.91	21976537.14	0.0266	0.0142
Earth	55457-08-12 09:50 G	21976536.72	21976536.91	21976537.12	0.0266	0.0156 *
Mercury	55457-10-10 12:58 G	21976595.89	21976596.04	21976596.20	0.0266	0.0153
Venus	55465-10-21 10:05 G	21979528.71	21979528.92	21979529.13	0.0274	0.0060
Venus	55466-06-07 17:31 G	21979758.07	21979758.23	21979758.39	0.0276	0.0179

Mercury	55472-05-11 10:48 G	21981922.89	21981922.95	21981923.01	0.0294	0.0264
Mercury	55472-08-07 23:17 G	21982011.35	21982011.47	21982011.60	0.0295	0.0090
Mercury	55472-11-04 11:46 G	21982099.86	21982099.99	21982100.12	0.0295	0.0084
Mercury	55473-02-01 00:00 G	21982188.44	21982188.50	21982188.56	0.0295	0.0256
Moon	55473-02-13 00:00 G	21982200.26	21982200.50	21982200.75	0.0295	0.0054
Earth	55473-02-13 03:36 G	21982200.42	21982200.65	21982200.89	0.0295	0.0067 *
Venus	55479-08-25 22:19 G	21984585.22	21984585.43	21984585.65	0.0286	0.0020
Venus	55480-04-11 15:07 G	21984815.04	21984815.13	21984815.25	0.0284	0.0248
Mercury	55486-09-02 21:07 G	21987150.32	21987150.38	21987150.46	0.0267	0.0247
Mercury	55486-11-30 17:31 G	21987239.05	21987239.23	21987239.41	0.0266	0.0066
Mercury	55487-02-27 14:10 G	21987327.92	21987328.09	21987328.26	0.0266	0.0116
Earth	55487-08-19 14:24 G	21987500.90	21987501.10	21987501.33	0.0266	0.0132
Moon	55487-08-19 18:00 G	21987501.06	21987501.25	21987501.47	0.0266	0.0143 *
Venus	55494-09-16 13:12 G	21990085.97	21990086.05	21990086.13	0.0273	0.0251
Venus	55495-05-03 19:26 G	21990315.10	21990315.31	21990315.53	0.0275	0.0019
Venus	55495-12-19 03:22 G	21990544.52	21990544.64	21990544.77	0.0277	0.0223
Mercury	55501-09-29 14:24 G	21992655.09	21992655.10	21992655.12	0.0294	0.0292
Mercury	55501-12-27 03:07 G	21992743.51	21992743.63	21992743.75	0.0294	0.0117
Earth	55502-02-08 12:00 G	21992786.85	21992787.00	21992787.17	0.0294	0.0221
Moon	55502-02-08 15:50 G	21992787.02	21992787.16	21992787.31	0.0294	0.0233 *
Mercury	55502-03-25 15:36 G	21992832.02	21992832.15	21992832.28	0.0294	0.0056
Mercury	55502-06-22 03:50 G	21992920.58	21992920.66	21992920.74	0.0295	0.0228
Venus	55508-07-21 13:55 G	21995141.98	21995142.08	21995142.19	0.0288	0.0247
Venus	55509-03-08 08:24 G	21995371.64	21995371.85	21995372.06	0.0286	0.0026
Mercury	55516-04-19 17:31 G	21997971.07	21997971.23	21997971.40	0.0266	0.0112
Mercury	55516-07-17 13:55 G	21998059.90	21998060.08	21998060.26	0.0266	0.0069
Moon	55516-08-14 17:02 G	21998087.98	21998088.21	21998088.45	0.0266	0.0075
Earth	55516-08-14 20:24 G	21998088.12	21998088.35	21998088.59	0.0266	0.0088 *
Mercury	55516-10-14 10:34 G	21998148.89	21998148.94	21998149.00	0.0265	0.0251
Venus	55524-03-29 16:34 G	22000872.07	22000872.19	22000872.31	0.0273	0.0220

Venus	55524-11-13 23:02 G	22001101.25	22001101.46	22001101.67	0.0275	0.0014
Venus	55525-07-01 06:43 G	22001330.71	22001330.78	22001330.87	0.0277	0.0254
Mars	55526-09-01 05:02 G	22001757.54	22001757.71	22001757.88	0.0281	0.0238
Mercury	55531-05-16 04:48 G	22003475.59	22003475.70	22003475.81	0.0295	0.0171
Mercury	55531-08-12 17:17 G	22003564.09	22003564.22	22003564.35	0.0295	0.0003
Mercury	55531-11-09 05:31 G	22003652.63	22003652.73	22003652.84	0.0295	0.0176
Moon	55532-02-16 18:58 G	22003752.10	22003752.29	22003752.51	0.0296	0.0146
Earth	55532-02-16 21:36 G	22003752.20	22003752.40	22003752.61	0.0296	0.0160 *
Venus	55538-01-31 20:24 G	22005928.21	22005928.35	22005928.50	0.0287	0.0207
Venus	55538-09-18 14:53 G	22006157.91	22006158.12	22006158.33	0.0285	0.0065
Mars	55540-10-02 00:29 G	22006902.30	22006902.52	22006902.77	0.0278	0.0140
Mercury	55545-09-06 18:29 G	22008703.12	22008703.27	22008703.42	0.0266	0.0151
Mercury	55545-12-04 14:53 G	22008791.94	22008792.12	22008792.31	0.0266	0.0030
Mercury	55546-03-03 11:17 G	22008880.87	22008880.97	22008881.09	0.0266	0.0213
Earth	55546-08-22 00:00 G	22009052.35	22009052.50	22009052.68	0.0265	0.0198
Moon	55546-08-22 01:55 G	22009052.43	22009052.58	22009052.75	0.0265	0.0206 *
Venus	55553-10-10 01:12 G	22011658.39	22011658.55	22011658.71	0.0274	0.0181
Venus	55554-05-27 07:55 G	22011887.63	22011887.83	22011888.04	0.0275	0.0055
Mercury	55560-10-02 08:24 G	22014207.76	22014207.85	22014207.95	0.0294	0.0199
Mercury	55560-12-29 21:07 G	22014296.25	22014296.38	22014296.51	0.0294	0.0025
Earth	55561-02-10 06:00 G	22014338.54	22014338.75	22014338.97	0.0294	0.0130
Moon	55561-02-10 07:55 G	22014338.62	22014338.83	22014339.06	0.0294	0.0143 *
Mercury	55561-03-28 09:22 G	22014384.78	22014384.89	22014385.01	0.0295	0.0148
Venus	55567-08-14 07:26 G	22016714.64	22016714.81	22016714.99	0.0287	0.0159
Venus	55568-03-31 01:26 G	22016944.37	22016944.56	22016944.76	0.0285	0.0112
Mercury	55575-01-24 18:58 G	22019435.17	22019435.29	22019435.42	0.0266	0.0193
Mercury	55575-04-23 15:07 G	22019523.95	22019524.13	22019524.32	0.0266	0.0015
Mercury	55575-07-21 11:31 G	22019612.84	22019612.98	22019613.13	0.0265	0.0168
Moon	55575-08-17 04:48 G	22019639.46	22019639.70	22019639.94	0.0265	0.0006
Earth	55575-08-17 07:12 G	22019639.56	22019639.80	22019640.05	0.0265	0.0019 *

Venus	55583-04-22 04:34 G	22022444.52	22022444.69	22022444.88	0.0273	0.0150
Venus	55583-12-07 11:31 G	22022673.78	22022673.98	22022674.18	0.0275	0.0087
Mercury	55590-02-19 09:50 G	22024939.86	22024939.91	22024939.98	0.0294	0.0256
Mercury	55590-05-18 22:34 G	22025028.31	22025028.44	22025028.57	0.0295	0.0081
Mercury	55590-08-15 11:02 G	22025116.83	22025116.96	22025117.08	0.0295	0.0093
Mercury	55590-11-11 23:17 G	22025205.42	22025205.47	22025205.53	0.0295	0.0266
Earth	55591-02-18 14:24 G	22025303.98	22025304.10	22025304.24	0.0296	0.0251
Moon	55591-02-18 16:34 G	22025304.06	22025304.19	22025304.34	0.0296	0.0236 *
Venus	55597-02-23 12:43 G	22027500.84	22027501.03	22027501.23	0.0287	0.0123
Venus	55597-10-11 06:43 G	22027730.60	22027730.78	22027730.96	0.0285	0.0147
Mercury	55604-06-12 19:12 G	22030167.23	22030167.30	22030167.39	0.0266	0.0236
Earth	55604-08-11 13:26 G	22030226.96	22030227.06	22030227.19	0.0266	0.0236
Moon	55604-08-11 16:34 G	22030227.06	22030227.19	22030227.34	0.0266	0.0220 *
Mercury	55604-09-09 15:36 G	22030255.97	22030256.15	22030256.33	0.0266	0.0056
Mercury	55604-12-07 12:00 G	22030344.84	22030345.00	22030345.17	0.0266	0.0125
Earth	55605-08-23 08:53 G	22030603.85	22030603.87	22030603.92	0.0265	0.0262
Venus	55612-11-01 12:43 G	22033230.84	22033231.03	22033231.22	0.0274	0.0111
Venus	55613-06-18 19:41 G	22033460.14	22033460.32	22033460.52	0.0276	0.0127
Mars	55615-01-27 06:43 G	22034047.51	22034047.78	22034048.08	0.0281	0.0126
Mercury	55619-07-09 13:26 G	22035672.04	22035672.06	22035672.09	0.0294	0.0286
Mercury	55619-10-06 02:10 G	22035760.47	22035760.59	22035760.71	0.0294	0.0111
Mercury	55620-01-02 14:38 G	22035848.98	22035849.11	22035849.24	0.0295	0.0063
Moon	55620-02-12 18:58 G	22035890.05	22035890.29	22035890.55	0.0295	0.0059
Earth	55620-02-12 21:36 G	22035890.16	22035890.40	22035890.64	0.0295	0.0044 *
Mercury	55620-03-31 02:53 G	22035937.54	22035937.62	22035937.70	0.0295	0.0235
Venus	55626-09-05 23:31 G	22038287.28	22038287.48	22038287.69	0.0287	0.0074
Venus	55627-04-23 17:02 G	22038517.06	22038517.21	22038517.36	0.0285	0.0194
Mars	55629-02-26 19:55 G	22039192.19	22039192.33	22039192.49	0.0278	0.0233
Mercury	55634-01-27 16:19 G	22040988.01	22040988.18	22040988.35	0.0266	0.0097
Mercury	55634-04-26 12:29 G	22041076.85	22041077.02	22041077.20	0.0266	0.0084

Earth	55634-08-18 17:17 G	22041190.97	22041191.22	22041191.46	0.0265	0.0049
Moon	55634-08-18 18:43 G	22041191.05	22041191.28	22041191.51	0.0265	0.0061 *
Venus	55642-05-14 15:50 G	22044016.96	22044017.16	22044017.37	0.0274	0.0079
Venus	55642-12-29 23:02 G	22044246.29	22044246.46	22044246.63	0.0276	0.0158
Mercury	55649-02-22 03:22 G	22046492.53	22046492.64	22046492.75	0.0295	0.0171
Mercury	55649-05-21 15:50 G	22046581.03	22046581.16	22046581.29	0.0295	0.0003
Mercury	55649-08-18 04:19 G	22046669.57	22046669.68	22046669.78	0.0295	0.0176
Venus	55656-03-18 03:36 G	22049073.44	22049073.65	22049073.86	0.0287	0.0041
Venus	55656-11-02 20:53 G	22049303.25	22049303.37	22049303.50	0.0284	0.0226
Mercury	55663-06-16 16:05 G	22051720.02	22051720.17	22051720.32	0.0266	0.0145
Moon	55663-08-13 20:24 G	22051778.15	22051778.35	22051778.56	0.0266	0.0156
Earth	55663-08-13 21:50 G	22051778.23	22051778.41	22051778.61	0.0266	0.0172 *
Mercury	55663-09-13 12:14 G	22051808.83	22051809.01	22051809.20	0.0266	0.0036
Mercury	55663-12-11 08:53 G	22051897.76	22051897.87	22051897.98	0.0265	0.0217
Venus	55671-11-24 22:48 G	22054803.24	22054803.45	22054803.66	0.0274	0.0043
Venus	55672-07-11 06:14 G	22055032.62	22055032.76	22055032.91	0.0276	0.0196
Mercury	55678-07-12 06:43 G	22057224.68	22057224.78	22057224.87	0.0294	0.0205
Mercury	55678-10-08 19:12 G	22057313.17	22057313.30	22057313.43	0.0294	0.0030
Mercury	55679-01-05 07:41 G	22057401.70	22057401.82	22057401.93	0.0295	0.0143
Moon	55679-02-14 06:29 G	22057441.53	22057441.77	22057442.01	0.0295	0.0022
Earth	55679-02-14 09:50 G	22057441.67	22057441.91	22057442.15	0.0295	0.0037 *
Venus	55685-02-10 18:43 G	22059630.21	22059630.28	22059630.37	0.0288	0.0268
Venus	55685-09-28 13:55 G	22059859.87	22059860.08	22059860.29	0.0286	0.0007
Venus	55686-05-16 06:43 G	22060089.73	22060089.78	22060089.85	0.0284	0.0272
Mars	55687-06-06 23:31 G	22060476.35	22060476.48	22060476.62	0.0280	0.0241
Mercury	55692-11-02 16:34 G	22062452.07	22062452.19	22062452.33	0.0266	0.0185
Mercury	55693-01-30 12:58 G	22062540.86	22062541.04	22062541.23	0.0266	0.0006
Mercury	55693-04-29 09:22 G	22062629.75	22062629.89	22062630.03	0.0265	0.0176
Earth	55693-08-20 00:58 G	22062742.32	22062742.54	22062742.77	0.0265	0.0112
Moon	55693-08-20 04:48 G	22062742.48	22062742.70	22062742.92	0.0265	0.0124 *

Venus	55700-10-20 19:55 G	22065360.24	22065360.33	22065360.43	0.0272	0.0242
Venus	55701-06-07 01:55 G	22065589.37	22065589.58	22065589.79	0.0274	0.0011
Venus	55702-01-22 09:07 G	22065818.77	22065818.88	22065819.01	0.0276	0.0226
Mars	55703-06-23 21:22 G	22066336.08	22066336.39	22066336.70	0.0281	0.0069
Mercury	55707-11-30 07:26 G	22067956.76	22067956.81	22067956.86	0.0294	0.0270
Earth	55708-02-09 00:14 G	22068027.47	22068027.51	22068027.59	0.0295	0.0285
Mercury	55708-02-26 19:55 G	22068045.21	22068045.33	22068045.46	0.0295	0.0096
Mercury	55708-05-25 08:24 G	22068133.73	22068133.85	22068133.98	0.0295	0.0079
Mercury	55708-08-21 20:53 G	22068222.30	22068222.37	22068222.44	0.0295	0.0251
Venus	55714-08-24 20:53 G	22070416.26	22070416.37	22070416.49	0.0288	0.0239
Venus	55715-04-11 16:05 G	22070645.96	22070646.17	22070646.38	0.0286	0.0035
Mercury	55722-03-23 15:36 G	22073184.09	22073184.15	22073184.24	0.0266	0.0239
Mercury	55722-06-20 12:00 G	22073272.82	22073273.00	22073273.19	0.0266	0.0060
Moon	55722-08-16 00:29 G	22073329.30	22073329.52	22073329.75	0.0266	0.0098
Earth	55722-08-16 04:19 G	22073329.46	22073329.68	22073329.90	0.0266	0.0111 *
Mercury	55722-09-17 08:24 G	22073361.69	22073361.85	22073362.02	0.0265	0.0121
Venus	55730-05-03 01:26 G	22076146.43	22076146.56	22076146.69	0.0273	0.0210
Venus	55730-12-18 07:26 G	22076375.60	22076375.81	22076376.02	0.0275	0.0023
Venus	55731-08-04 15:07 G	22076605.07	22076605.13	22076605.20	0.0277	0.0262
Mercury	55737-07-15 22:48 G	22078777.34	22078777.45	22078777.57	0.0294	0.0134
Mercury	55737-10-12 11:31 G	22078865.85	22078865.98	22078866.11	0.0295	0.0041
Mercury	55738-01-08 23:46 G	22078954.40	22078954.49	22078954.58	0.0295	0.0213
Moon	55738-02-16 16:48 G	22078992.98	22078993.20	22078993.43	0.0295	0.0094
Earth	55738-02-16 17:02 G	22078992.99	22078993.21	22078993.44	0.0295	0.0108 *
Venus	55744-03-06 06:43 G	22081202.63	22081202.78	22081202.94	0.0288	0.0192
Venus	55744-10-22 01:26 G	22081432.36	22081432.56	22081432.77	0.0286	0.0081
Mercury	55751-11-07 12:43 G	22084004.86	22084005.03	22084005.20	0.0266	0.0100
Mercury	55752-02-04 08:53 G	22084093.70	22084093.87	22084094.05	0.0266	0.0081
Mercury	55752-05-03 05:31 G	22084182.70	22084182.73	22084182.76	0.0265	0.0262
Earth	55752-08-22 06:43 G	22084293.59	22084293.78	22084293.97	0.0265	0.0172

Moon	55752-08-22 06:29 G	22084293.59	22084293.77	22084293.97	0.0265	0.0180 *
Venus	55759-11-13 04:19 G	22086932.52	22086932.68	22086932.84	0.0272	0.0178
Venus	55760-06-29 10:19 G	22087161.72	22087161.93	22087162.14	0.0274	0.0054
Mercury	55766-12-02 23:31 G	22089509.39	22089509.48	22089509.58	0.0294	0.0201
Moon	55767-02-10 06:00 G	22089578.60	22089578.75	22089578.91	0.0295	0.0231
Earth	55767-02-10 06:43 G	22089578.62	22089578.78	22089578.95	0.0295	0.0216 *
Mercury	55767-03-01 12:14 G	22089597.87	22089598.01	22089598.14	0.0295	0.0028
Mercury	55767-05-29 00:29 G	22089686.41	22089686.52	22089686.64	0.0295	0.0147
Venus	55773-09-16 07:41 G	22091988.65	22091988.82	22091989.00	0.0288	0.0166
Venus	55774-05-04 02:10 G	22092218.40	22092218.59	22092218.79	0.0286	0.0107
Mars	55775-11-01 10:48 G	22092764.78	22092764.95	22092765.15	0.0281	0.0206
Mercury	55781-03-26 11:02 G	22094736.82	22094736.96	22094737.11	0.0266	0.0160
Mercury	55781-06-23 07:26 G	22094825.62	22094825.81	22094825.99	0.0266	0.0020
Earth	55781-08-17 07:41 G	22094880.59	22094880.82	22094881.07	0.0265	0.0055
Moon	55781-08-17 07:55 G	22094880.60	22094880.83	22094881.06	0.0265	0.0044 *
Mercury	55781-09-20 03:50 G	22094914.54	22094914.66	22094914.78	0.0265	0.0201
Venus	55789-05-25 08:24 G	22097718.68	22097718.85	22097719.03	0.0273	0.0149
Venus	55790-01-09 14:38 G	22097947.91	22097948.11	22097948.32	0.0275	0.0085
Mars	55791-11-17 14:38 G	22098624.79	22098625.11	22098625.43	0.0281	0.0007
Mercury	55796-04-21 01:55 G	22100241.51	22100241.58	22100241.66	0.0294	0.0245
Mercury	55796-07-18 14:38 G	22100329.98	22100330.11	22100330.24	0.0294	0.0070
Mercury	55796-10-15 03:07 G	22100418.51	22100418.63	22100418.75	0.0295	0.0103
Mercury	55797-01-11 15:22 G	22100507.10	22100507.14	22100507.19	0.0295	0.0276
Earth	55797-02-17 20:53 G	22100544.17	22100544.37	22100544.57	0.0295	0.0172
Moon	55797-02-18 00:29 G	22100544.31	22100544.52	22100544.72	0.0295	0.0156 *
Venus	55803-03-30 15:50 G	22102774.98	22102775.16	22102775.36	0.0288	0.0122
Venus	55803-11-15 10:34 G	22103004.76	22103004.94	22103005.12	0.0286	0.0150
Moon	55810-08-13 15:07 G	22105468.07	22105468.13	22105468.22	0.0266	0.0255
Mercury	55810-08-14 11:46 G	22105468.87	22105468.99	22105469.11	0.0266	0.0200
Mercury	55810-11-11 07:55 G	22105557.64	22105557.83	22105558.01	0.0266	0.0022

Mercury	55811-02-08 04:05 G	22105646.53	22105646.67	22105646.82	0.0266	0.0159
Moon	55811-08-25 05:46 G	22105844.63	22105844.74	22105844.87	0.0265	0.0231
Earth	55811-08-25 09:50 G	22105844.79	22105844.91	22105845.03	0.0265	0.0228 *
Venus	55818-12-06 11:17 G	22108504.79	22108504.97	22108505.17	0.0272	0.0117
Venus	55819-07-23 17:17 G	22108734.04	22108734.22	22108734.42	0.0274	0.0116
Mercury	55825-12-06 15:07 G	22111062.02	22111062.13	22111062.25	0.0294	0.0139
Moon	55826-02-12 05:02 G	22111129.52	22111129.71	22111129.91	0.0295	0.0173
Earth	55826-02-12 08:53 G	22111129.67	22111129.87	22111130.08	0.0295	0.0155 *
Mercury	55826-03-05 03:36 G	22111150.52	22111150.65	22111150.78	0.0295	0.0034
Mercury	55826-06-01 15:50 G	22111239.07	22111239.16	22111239.26	0.0295	0.0207
Venus	55832-10-09 15:50 G	22113560.97	22113561.16	22113561.37	0.0288	0.0099
Venus	55833-05-27 10:05 G	22113790.76	22113790.92	22113791.10	0.0286	0.0173
Mercury	55840-01-01 09:22 G	22116200.89	22116200.89	22116200.90	0.0266	0.0266
Mercury	55840-03-30 05:31 G	22116289.56	22116289.73	22116289.91	0.0266	0.0088
Mercury	55840-06-27 01:55 G	22116378.41	22116378.58	22116378.75	0.0266	0.0093
Earth	55840-08-19 08:53 G	22116431.63	22116431.87	22116432.12	0.0265	0.0003
Moon	55840-08-19 12:29 G	22116431.77	22116432.02	22116432.26	0.0265	0.0007 *
Venus	55848-06-17 14:10 G	22119290.89	22119291.09	22119291.29	0.0273	0.0090
Venus	55849-02-01 20:38 G	22119520.18	22119520.36	22119520.54	0.0275	0.0144
Mercury	55855-04-25 17:17 G	22121794.12	22121794.22	22121794.32	0.0294	0.0188
Mercury	55855-07-23 05:46 G	22121882.61	22121882.74	22121882.88	0.0295	0.0015
Mercury	55855-10-19 18:14 G	22121971.15	22121971.26	22121971.37	0.0295	0.0159
Earth	55856-02-20 21:22 G	22122095.24	22122095.39	22122095.55	0.0295	0.0231
Moon	55856-02-20 23:31 G	22122095.30	22122095.48	22122095.65	0.0295	0.0213 *
Venus	55862-04-21 23:17 G	22124347.27	22124347.47	22124347.68	0.0287	0.0056
Venus	55862-12-07 17:31 G	22124577.10	22124577.23	22124577.37	0.0285	0.0214
Mars	55864-03-28 05:02 G	22125053.49	22125053.71	22125053.94	0.0281	0.0161
Moon	55869-08-14 12:14 G	22127018.85	22127019.01	22127019.17	0.0266	0.0203
Earth	55869-08-14 15:22 G	22127019.00	22127019.14	22127019.29	0.0266	0.0215 *
Mercury	55869-08-17 06:00 G	22127021.59	22127021.75	22127021.91	0.0266	0.0129

Mercury	55869-11-14 02:10 G	22127110.41	22127110.59	22127110.78	0.0266	0.0051
Mercury	55870-02-10 22:34 G	22127199.36	22127199.44	22127199.53	0.0266	0.0232
Venus	55877-12-28 17:17 G	22130077.02	22130077.22	22130077.43	0.0272	0.0058
Venus	55878-08-14 23:46 G	22130306.33	22130306.49	22130306.65	0.0274	0.0176
Mars	55880-04-12 09:36 G	22130912.59	22130912.90	22130913.22	0.0280	0.0018
Mercury	55884-09-11 17:46 G	22132526.18	22132526.24	22132526.30	0.0294	0.0257
Mercury	55884-12-09 06:14 G	22132614.64	22132614.76	22132614.89	0.0294	0.0083
Moon	55885-02-13 08:24 G	22132680.64	22132680.85	22132681.08	0.0295	0.0114
Earth	55885-02-13 09:07 G	22132680.65	22132680.88	22132681.11	0.0295	0.0096 *
Mercury	55885-03-07 18:43 G	22132703.16	22132703.28	22132703.41	0.0295	0.0090
Mercury	55885-06-04 06:58 G	22132791.74	22132791.79	22132791.85	0.0295	0.0262
Venus	55891-11-01 22:19 G	22135133.22	22135133.43	22135133.64	0.0288	0.0036
Venus	55892-06-18 16:19 G	22135363.07	22135363.18	22135363.31	0.0285	0.0234
Mercury	55899-01-04 03:07 G	22137753.52	22137753.63	22137753.76	0.0266	0.0200
Mercury	55899-04-02 23:31 G	22137842.29	22137842.48	22137842.66	0.0266	0.0020
Mercury	55899-06-30 19:55 G	22137931.18	22137931.33	22137931.48	0.0266	0.0161
Earth	55899-08-21 08:10 G	22137982.60	22137982.84	22137983.08	0.0265	0.0049
Moon	55899-08-21 09:50 G	22137982.67	22137982.91	22137983.16	0.0265	0.0055 *
Venus	55906-11-24 14:10 G	22140634.04	22140634.09	22140634.16	0.0271	0.0261
Venus	55907-07-11 19:26 G	22140863.10	22140863.31	22140863.52	0.0273	0.0032
Venus	55908-02-26 01:55 G	22141092.44	22141092.58	22141092.72	0.0275	0.0203
Mercury	55914-04-29 08:10 G	22143346.72	22143346.84	22143346.96	0.0294	0.0136
Mercury	55914-07-26 20:38 G	22143435.23	22143435.36	22143435.49	0.0295	0.0038
Mercury	55914-10-23 09:07 G	22143523.78	22143523.88	22143523.97	0.0295	0.0210
Moon	55915-02-22 16:05 G	22143646.08	22143646.17	22143646.29	0.0295	0.0269
Earth	55915-02-22 19:12 G	22143646.25	22143646.30	22143646.38	0.0295	0.0285 *
Venus	55920-09-27 08:53 G	22145689.80	22145689.87	22145689.94	0.0289	0.0271
Venus	55921-05-15 04:48 G	22145919.49	22145919.70	22145919.91	0.0287	0.0005
Venus	55921-12-30 22:48 G	22146149.40	22146149.45	22146149.51	0.0285	0.0274
Mercury	55928-05-24 03:36 G	22148485.58	22148485.65	22148485.73	0.0267	0.0242

Moon	55928-08-16 11:46 G	22148569.80	22148569.99	22148570.19	0.0266	0.0155
Earth	55928-08-16 13:55 G	22148569.90	22148570.08	22148570.29	0.0266	0.0167 *
Mercury	55928-08-20 23:46 G	22148574.31	22148574.49	22148574.67	0.0266	0.0063
Mercury	55928-11-17 19:55 G	22148663.17	22148663.33	22148663.50	0.0266	0.0118
Venus	55936-06-05 17:46 G	22151420.13	22151420.24	22151420.36	0.0271	0.0228
Venus	55937-01-20 22:48 G	22151649.24	22151649.45	22151649.66	0.0273	0.0002
Venus	55937-09-07 05:02 G	22151878.61	22151878.71	22151878.83	0.0274	0.0234
Mercury	55943-09-16 08:38 G	22154078.77	22154078.86	22154078.96	0.0294	0.0203
Mercury	55943-12-13 21:07 G	22154167.25	22154167.38	22154167.52	0.0294	0.0031
Earth	55944-02-16 07:55 G	22154231.59	22154231.83	22154232.07	0.0294	0.0041
Moon	55944-02-16 11:31 G	22154231.74	22154231.98	22154232.21	0.0294	0.0056 *
Mercury	55944-03-11 09:36 G	22154255.79	22154255.90	22154256.02	0.0295	0.0143
Venus	55950-04-09 07:55 G	22156475.74	22156475.83	22156475.94	0.0289	0.0252
Venus	55950-11-25 03:50 G	22156705.45	22156705.66	22156705.87	0.0287	0.0025
Mars	55952-08-21 18:00 G	22157341.03	22157341.25	22157341.48	0.0281	0.0161
Mercury	55958-01-07 20:38 G	22159306.21	22159306.36	22159306.52	0.0266	0.0136
Mercury	55958-04-06 17:02 G	22159395.02	22159395.21	22159395.39	0.0266	0.0045
Mercury	55958-07-04 13:12 G	22159483.96	22159484.05	22159484.16	0.0266	0.0227
Moon	55958-08-23 03:22 G	22159533.41	22159533.64	22159533.88	0.0265	0.0097
Earth	55958-08-23 06:00 G	22159533.53	22159533.75	22159533.99	0.0265	0.0097 *
Venus	55965-12-16 18:58 G	22162206.16	22162206.29	22162206.43	0.0272	0.0205
Venus	55966-08-03 00:14 G	22162435.30	22162435.51	22162435.72	0.0273	0.0024
Venus	55967-03-20 06:58 G	22162664.72	22162664.79	22162664.86	0.0275	0.0260
Mars	55968-09-06 03:50 G	22163200.35	22163200.66	22163200.98	0.0280	0.0047
Mercury	55973-02-02 10:19 G	22164810.87	22164810.93	22164810.99	0.0294	0.0258
Mercury	55973-05-01 22:48 G	22164899.33	22164899.45	22164899.58	0.0294	0.0085
Mercury	55973-07-29 11:17 G	22164987.85	22164987.97	22164988.10	0.0295	0.0089
Mercury	55973-10-25 23:46 G	22165076.43	22165076.49	22165076.55	0.0295	0.0260
Venus	55979-10-20 13:55 G	22167261.94	22167262.08	22167262.23	0.0289	0.0212
Venus	55980-06-06 09:36 G	22167491.69	22167491.90	22167492.11	0.0287	0.0064

Mercury	55987-05-27 20:53 G	22170038.24	22170038.37	22170038.51	0.0267	0.0179
Earth	55987-08-18 11:46 G	22170120.77	22170120.99	22170121.21	0.0267	0.0118
Moon	55987-08-18 14:10 G	22170120.87	22170121.09	22170121.31	0.0267	0.0111 *
Mercury	55987-08-24 17:02 G	22170127.03	22170127.21	22170127.40	0.0266	0.0005
Mercury	55987-11-21 13:26 G	22170215.93	22170216.06	22170216.20	0.0266	0.0183
Venus	55995-06-28 23:17 G	22172992.31	22172992.47	22172992.63	0.0271	0.0172
Venus	55996-02-13 04:19 G	22173221.48	22173221.68	22173221.89	0.0273	0.0057

57TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 57th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	56002-09-18 23:46 G	22175631.38	22175631.49	22175631.60	0.0293	0.0148		
Mercury	56002-12-16 12:14 G	22175719.88	22175720.01	22175720.14	0.0294	0.0025		
Earth	56003-02-17 06:58 G	22175782.55	22175782.79	22175783.03	0.0294	0.0015		
Moon	56003-02-17 08:53 G	22175782.62	22175782.87	22175783.12	0.0294	0.0004 *		
Mercury	56003-03-15 00:29 G	22175808.43	22175808.52	22175808.62	0.0294	0.0196		
Venus	56009-05-01 13:12 G	22178047.90	22178048.05	22178048.21	0.0289	0.0191		
Venus	56009-12-17 08:38 G	22178277.66	22178277.86	22178278.07	0.0287	0.0085		
Mercury	56016-10-13 17:46 G	22180770.19	22180770.24	22180770.30	0.0267	0.0252		
Mercury	56017-01-10 13:55 G	22180858.91	22180859.08	22180859.26	0.0266	0.0073		
Mercury	56017-04-09 10:19 G	22180947.76	22180947.93	22180948.10	0.0266	0.0108		
Moon	56017-08-24 00:14 G	22181084.32	22181084.51	22181084.73	0.0266	0.0143		
Earth	56017-08-24 03:36 G	22181084.45	22181084.65	22181084.86	0.0266	0.0144 *		

Venus	56025-01-07 23:46 G	22183778.32	22183778.49	22183778.67	0.0272	0.0149
Venus	56025-08-25 05:17 G	22184007.52	22184007.72	22184007.93	0.0274	0.0081
Mercury	56032-02-06 01:12 G	22186363.46	22186363.55	22186363.64	0.0294	0.0205
Mercury	56032-05-04 13:41 G	22186451.94	22186452.07	22186452.20	0.0294	0.0032
Mercury	56032-08-01 02:10 G	22186540.47	22186540.59	22186540.70	0.0294	0.0140
Venus	56038-11-11 18:58 G	22188834.12	22188834.29	22188834.48	0.0289	0.0152
Venus	56039-06-29 14:24 G	22189063.91	22189064.10	22189064.29	0.0287	0.0123
Mars	56041-01-14 23:17 G	22189629.24	22189629.47	22189629.71	0.0282	0.0138
Mercury	56046-05-30 14:10 G	22191590.93	22191591.09	22191591.26	0.0267	0.0116
Earth	56046-08-19 09:22 G	22191671.66	22191671.89	22191672.13	0.0267	0.0071
Moon	56046-08-19 12:58 G	22191671.79	22191672.04	22191672.28	0.0267	0.0067 *
Mercury	56046-08-27 10:34 G	22191679.76	22191679.94	22191680.12	0.0267	0.0065
Mercury	56046-11-24 06:58 G	22191768.73	22191768.79	22191768.86	0.0266	0.0247
Venus	56054-07-21 04:48 G	22194564.52	22194564.70	22194564.90	0.0271	0.0115
Venus	56055-03-07 10:05 G	22194793.74	22194793.92	22194794.12	0.0273	0.0117
Mars	56057-01-30 06:58 G	22195488.49	22195488.79	22195489.09	0.0279	0.0083
Mercury	56061-06-25 02:24 G	22197095.55	22197095.60	22197095.66	0.0293	0.0263
Mercury	56061-09-21 14:53 G	22197184.00	22197184.12	22197184.25	0.0293	0.0091
Mercury	56061-12-19 03:22 G	22197272.52	22197272.64	22197272.77	0.0294	0.0081
Moon	56062-02-18 05:02 G	22197333.47	22197333.71	22197333.96	0.0294	0.0067
Earth	56062-02-18 07:26 G	22197333.58	22197333.81	22197334.06	0.0294	0.0074 *
Mercury	56062-03-17 15:36 G	22197361.09	22197361.15	22197361.22	0.0294	0.0252
Venus	56068-05-23 19:12 G	22199620.12	22199620.30	22199620.49	0.0289	0.0130
Venus	56069-01-08 14:24 G	22199849.92	22199850.10	22199850.28	0.0287	0.0145
Mercury	56075-10-17 11:17 G	22202322.84	22202322.97	22202323.09	0.0267	0.0189
Mercury	56076-01-14 07:26 G	22202411.62	22202411.81	22202411.99	0.0267	0.0009
Mercury	56076-04-12 03:36 G	22202500.52	22202500.65	22202500.80	0.0266	0.0173
Earth	56076-08-25 01:26 G	22202635.40	22202635.56	22202635.74	0.0266	0.0192
Moon	56076-08-25 02:53 G	22202635.46	22202635.62	22202635.80	0.0266	0.0186 *
Venus	56084-01-31 05:46 G	22205350.55	22205350.74	22205350.94	0.0272	0.0091

Venus	56084-09-16 11:31 G	22205579.80	22205579.98	22205580.16	0.0274	0.0141
Mercury	56091-02-08 16:19 G	22207916.07	22207916.18	22207916.30	0.0293	0.0148
Earth	56091-02-12 03:36 G	22207919.52	22207919.65	22207919.80	0.0293	0.0238
Moon	56091-02-12 06:14 G	22207919.64	22207919.76	22207919.89	0.0293	0.0248 *
Mercury	56091-05-08 05:02 G	22208004.57	22208004.71	22208004.84	0.0294	0.0026
Mercury	56091-08-04 17:17 G	22208093.12	22208093.22	22208093.32	0.0294	0.0196
Venus	56097-12-04 00:43 G	22210406.33	22210406.53	22210406.74	0.0288	0.0091
Venus	56098-07-21 19:55 G	22210636.17	22210636.33	22210636.49	0.0286	0.0182
Mercury	56105-03-06 11:31 G	22213054.89	22213054.98	22213055.07	0.0268	0.0232
Mercury	56105-06-03 07:41 G	22213143.64	22213143.82	22213144.00	0.0267	0.0051
Moon	56105-08-21 06:14 G	22213222.51	22213222.76	22213223.01	0.0267	0.0025
Earth	56105-08-21 07:41 G	22213222.58	22213222.82	22213223.07	0.0267	0.0022 *
Mercury	56105-08-31 04:05 G	22213232.51	22213232.67	22213232.83	0.0267	0.0131
Venus	56113-08-13 11:46 G	22216136.78	22216136.99	22216137.20	0.0272	0.0055
Venus	56114-03-30 17:17 G	22216366.07	22216366.22	22216366.39	0.0274	0.0177
Mercury	56120-06-28 18:00 G	22218648.16	22218648.25	22218648.35	0.0293	0.0200
Mercury	56120-09-25 06:43 G	22218736.64	22218736.78	22218736.91	0.0293	0.0030
Mercury	56120-12-22 18:58 G	22218825.18	22218825.29	22218825.41	0.0294	0.0142
Moon	56121-02-20 06:58 G	22218884.59	22218884.79	22218885.02	0.0294	0.0131
Earth	56121-02-20 10:34 G	22218884.72	22218884.94	22218885.15	0.0294	0.0137 *
Venus	56127-06-17 02:24 G	22221192.40	22221192.60	22221192.81	0.0288	0.0066
Venus	56128-02-01 21:07 G	22221422.24	22221422.38	22221422.53	0.0286	0.0207
Mars	56129-06-10 17:46 G	22221917.01	22221917.24	22221917.49	0.0282	0.0127
Earth	56134-08-16 02:10 G	22223809.56	22223809.59	22223809.65	0.0267	0.0263
Moon	56134-08-16 03:36 G	22223809.62	22223809.65	22223809.71	0.0267	0.0263 *
Mercury	56134-10-21 04:48 G	22223875.54	22223875.70	22223875.87	0.0267	0.0123
Mercury	56135-01-18 01:12 G	22223964.37	22223964.55	22223964.73	0.0267	0.0059
Mercury	56135-04-16 21:36 G	22224053.33	22224053.40	22224053.48	0.0266	0.0242
Earth	56135-08-28 00:43 G	22224186.45	22224186.53	22224186.64	0.0266	0.0243
Moon	56135-08-28 04:34 G	22224186.58	22224186.69	22224186.82	0.0266	0.0232 *

Venus	56142-07-09 08:24 G	22226693.79	22226693.85	22226693.91	0.0271	0.0257
Venus	56143-02-23 12:58 G	22226922.83	22226923.04	22226923.25	0.0272	0.0031
Venus	56143-10-10 18:43 G	22227152.15	22227152.28	22227152.43	0.0274	0.0202
Mars	56145-06-26 08:53 G	22227776.58	22227776.87	22227777.15	0.0280	0.0126
Mercury	56149-11-15 19:41 G	22229380.26	22229380.32	22229380.38	0.0293	0.0256
Mercury	56150-02-12 08:10 G	22229468.71	22229468.84	22229468.97	0.0293	0.0083
Earth	56150-02-14 07:12 G	22229470.61	22229470.80	22229471.00	0.0293	0.0173
Moon	56150-02-14 10:19 G	22229470.75	22229470.93	22229471.14	0.0293	0.0182 *
Mercury	56150-05-11 20:38 G	22229557.23	22229557.36	22229557.49	0.0294	0.0088
Mercury	56150-08-08 08:53 G	22229645.81	22229645.87	22229645.93	0.0294	0.0258
Venus	56156-12-27 08:24 G	22231978.64	22231978.85	22231979.06	0.0288	0.0026
Venus	56157-08-14 03:07 G	22232208.52	22232208.63	22232208.74	0.0286	0.0245
Mercury	56164-03-09 05:17 G	22234607.58	22234607.72	22234607.87	0.0268	0.0164
Mercury	56164-06-06 01:41 G	22234696.39	22234696.57	22234696.76	0.0267	0.0018
Moon	56164-08-22 03:50 G	22234773.42	22234773.66	22234773.91	0.0267	0.0021
Earth	56164-08-22 07:26 G	22234773.57	22234773.81	22234774.06	0.0267	0.0030 *
Mercury	56164-09-02 22:05 G	22234785.31	22234785.42	22234785.55	0.0267	0.0201
Venus	56172-01-19 14:53 G	22237480.01	22237480.12	22237480.25	0.0271	0.0221
Venus	56172-09-04 19:55 G	22237709.12	22237709.33	22237709.54	0.0272	0.0007
Venus	56173-04-22 01:55 G	22237938.49	22237938.58	22237938.69	0.0274	0.0240
Mercury	56179-07-02 10:19 G	22240200.82	22240200.93	22240201.05	0.0293	0.0129
Mercury	56179-09-28 22:48 G	22240289.32	22240289.45	22240289.58	0.0293	0.0042
Mercury	56179-12-26 11:17 G	22240377.88	22240377.97	22240378.06	0.0293	0.0212
Earth	56180-02-22 17:17 G	22240436.06	22240436.22	22240436.40	0.0294	0.0209
Moon	56180-02-22 17:46 G	22240436.08	22240436.24	22240436.42	0.0294	0.0206 *
Venus	56185-11-21 15:22 G	22242535.08	22242535.14	22242535.21	0.0290	0.0275
Venus	56186-07-09 11:31 G	22242764.77	22242764.98	22242765.19	0.0288	0.0003
Venus	56187-02-24 05:46 G	22242994.69	22242994.74	22242994.81	0.0286	0.0273
Mercury	56193-07-27 03:07 G	22245339.54	22245339.63	22245339.72	0.0268	0.0231
Earth	56193-08-17 03:07 G	22245360.50	22245360.63	22245360.80	0.0268	0.0210

Moon	56193-08-17 06:58 G	22245360.65	22245360.79	22245360.95	0.0268	0.0210	*
Mercury	56193-10-23 23:17 G	22245428.29	22245428.47	22245428.65	0.0267	0.0050	
Mercury	56194-01-20 19:41 G	22245517.16	22245517.32	22245517.49	0.0267	0.0132	
Venus	56201-08-01 16:34 G	22248266.05	22248266.19	22248266.34	0.0271	0.0196	
Venus	56202-03-18 21:36 G	22248495.19	22248495.40	22248495.61	0.0273	0.0033	
Venus	56202-11-03 03:36 G	22248724.61	22248724.65	22248724.71	0.0275	0.0267	
Mercury	56208-11-19 12:00 G	22250932.90	22250933.00	22250933.10	0.0293	0.0184	
Mercury	56209-02-16 00:29 G	22251021.39	22251021.52	22251021.65	0.0293	0.0012	
Moon	56209-02-16 13:12 G	22251021.82	22251022.05	22251022.29	0.0293	0.0104	
Earth	56209-02-16 14:24 G	22251021.88	22251022.10	22251022.33	0.0293	0.0101	*
Mercury	56209-05-15 12:43 G	22251109.92	22251110.03	22251110.15	0.0294	0.0158	
Venus	56215-06-04 21:50 G	22253321.29	22253321.41	22253321.53	0.0289	0.0234	
Venus	56216-01-20 17:46 G	22253551.03	22253551.24	22253551.45	0.0287	0.0043	
Mars	56217-11-05 08:53 G	22254205.62	22254205.87	22254206.14	0.0282	0.0083	
Mercury	56223-03-14 00:00 G	22256160.33	22256160.50	22256160.68	0.0268	0.0090	
Mercury	56223-06-10 20:24 G	22256249.18	22256249.35	22256249.53	0.0267	0.0093	
Earth	56223-08-25 09:22 G	22256324.66	22256324.89	22256325.13	0.0267	0.0084	
Moon	56223-08-25 09:22 G	22256324.66	22256324.89	22256325.12	0.0267	0.0075	*
Venus	56231-02-12 00:14 G	22259052.34	22259052.51	22259052.68	0.0271	0.0158	
Venus	56231-09-29 05:31 G	22259281.52	22259281.73	22259281.93	0.0273	0.0072	
Mars	56233-11-21 18:43 G	22260066.08	22260066.28	22260066.49	0.0279	0.0213	
Mercury	56238-04-08 14:38 G	22261665.03	22261665.11	22261665.20	0.0292	0.0223	
Mercury	56238-07-06 03:22 G	22261753.51	22261753.64	22261753.77	0.0293	0.0053	
Mercury	56238-10-02 15:36 G	22261842.03	22261842.15	22261842.27	0.0293	0.0118	
Mercury	56238-12-30 03:50 G	22261930.64	22261930.66	22261930.69	0.0293	0.0287	
Earth	56239-02-25 03:36 G	22261987.61	22261987.65	22261987.71	0.0294	0.0286	
Moon	56239-02-25 07:26 G	22261987.76	22261987.81	22261987.87	0.0294	0.0285	
Venus	56244-12-15 03:07 G	22264107.48	22264107.63	22264107.78	0.0289	0.0200	
Venus	56245-08-01 22:48 G	22264337.24	22264337.45	22264337.65	0.0287	0.0076	
Mercury	56252-07-30 22:05 G	22266892.28	22266892.42	22266892.58	0.0268	0.0153	

Earth	56252-08-19 07:12 G	22266911.60	22266911.80	22266912.00	0.0268	0.0152
Moon	56252-08-19 07:55 G	22266911.62	22266911.83	22266912.04	0.0268	0.0155 *
Mercury	56252-10-27 18:29 G	22266981.09	22266981.27	22266981.46	0.0267	0.0029
Mercury	56253-01-24 15:07 G	22267070.02	22267070.13	22267070.24	0.0267	0.0212
Venus	56260-08-24 02:24 G	22269838.41	22269838.60	22269838.78	0.0272	0.0131
Venus	56261-04-10 07:41 G	22270067.63	22270067.82	22270068.02	0.0273	0.0099
Mercury	56267-08-26 16:34 G	22272397.15	22272397.19	22272397.23	0.0292	0.0275
Mercury	56267-11-23 05:02 G	22272485.59	22272485.71	22272485.84	0.0293	0.0104
Moon	56268-02-18 22:05 G	22272573.18	22272573.42	22272573.67	0.0293	0.0021
Earth	56268-02-19 01:55 G	22272573.34	22272573.58	22272573.83	0.0293	0.0022 *
Mercury	56268-02-19 17:31 G	22272574.10	22272574.23	22272574.36	0.0293	0.0067
Mercury	56268-05-18 05:46 G	22272662.66	22272662.74	22272662.82	0.0294	0.0237
Venus	56274-06-27 09:50 G	22274893.74	22274893.91	22274894.09	0.0289	0.0160
Venus	56275-02-12 05:31 G	22275123.54	22275123.73	22275123.93	0.0287	0.0116
Mercury	56281-12-17 23:02 G	22277624.34	22277624.46	22277624.59	0.0268	0.0191
Mercury	56282-03-16 19:26 G	22277713.12	22277713.31	22277713.49	0.0268	0.0010
Mercury	56282-06-13 15:36 G	22277802.02	22277802.15	22277802.30	0.0267	0.0175
Earth	56282-08-26 13:12 G	22277875.85	22277876.05	22277876.27	0.0267	0.0142
Moon	56282-08-26 16:34 G	22277875.99	22277876.19	22277876.41	0.0267	0.0131 *
Venus	56290-03-06 10:48 G	22280624.75	22280624.95	22280625.15	0.0272	0.0091
Venus	56290-10-21 16:19 G	22280854.01	22280854.18	22280854.37	0.0274	0.0141
Mercury	56297-04-11 08:10 G	22283217.73	22283217.84	22283217.96	0.0292	0.0138
Mercury	56297-07-08 20:38 G	22283306.23	22283306.36	22283306.49	0.0293	0.0032
Mercury	56297-10-05 08:53 G	22283394.78	22283394.87	22283394.97	0.0293	0.0201
Venus	56304-01-08 16:48 G	22285680.02	22285680.20	22285680.40	0.0289	0.0122
Venus	56304-08-25 12:00 G	22285909.83	22285910.00	22285910.18	0.0287	0.0152
Mars	56306-04-02 06:58 G	22286494.52	22286494.79	22286495.06	0.0282	0.0022
Mercury	56311-05-07 21:50 G	22288356.35	22288356.41	22288356.48	0.0268	0.0248
Mercury	56311-08-04 18:00 G	22288445.08	22288445.25	22288445.43	0.0268	0.0068
Moon	56311-08-22 10:05 G	22288462.69	22288462.92	22288463.16	0.0267	0.0097

Earth	56311-08-22 13:26 G	22288462.83	22288463.06	22288463.29	0.0267	0.0090	*
Mercury	56311-11-01 14:38 G	22288533.94	22288534.11	22288534.27	0.0267	0.0115	
Venus	56319-09-17 13:26 G	22291410.85	22291411.06	22291411.27	0.0272	0.0063	
Venus	56320-05-03 19:12 G	22291640.13	22291640.30	22291640.47	0.0274	0.0169	
Mercury	56326-08-30 10:05 G	22293949.82	22293949.92	22293950.02	0.0293	0.0190	
Mercury	56326-11-26 22:34 G	22294038.30	22294038.44	22294038.57	0.0293	0.0021	
Moon	56327-02-21 15:22 G	22294124.91	22294125.14	22294125.37	0.0293	0.0067	
Earth	56327-02-21 16:05 G	22294124.93	22294125.17	22294125.41	0.0293	0.0064	*
Mercury	56327-02-23 10:48 G	22294126.84	22294126.95	22294127.06	0.0293	0.0151	
Venus	56333-07-21 00:00 G	22296466.30	22296466.50	22296466.70	0.0288	0.0080	
Venus	56334-03-07 19:12 G	22296696.15	22296696.30	22296696.46	0.0286	0.0193	
Mercury	56340-12-21 18:58 G	22299177.13	22299177.29	22299177.47	0.0268	0.0106	
Mercury	56341-03-20 15:22 G	22299265.97	22299266.14	22299266.32	0.0268	0.0078	
Mercury	56341-06-17 12:00 G	22299354.97	22299355.00	22299355.04	0.0267	0.0261	
Earth	56341-08-28 19:41 G	22299427.17	22299427.32	22299427.48	0.0267	0.0203	
Moon	56341-08-28 21:50 G	22299427.25	22299427.41	22299427.60	0.0267	0.0192	*
Venus	56348-08-12 17:31 G	22301968.15	22301968.23	22301968.31	0.0271	0.0249	
Venus	56349-03-29 22:19 G	22302197.22	22302197.43	22302197.64	0.0273	0.0022	
Venus	56349-11-14 04:19 G	22302426.55	22302426.68	22302426.82	0.0274	0.0211	
Mercury	56356-01-17 13:26 G	22304681.98	22304682.06	22304682.15	0.0292	0.0219	
Earth	56356-02-16 02:10 G	22304711.44	22304711.59	22304711.76	0.0292	0.0219	
Moon	56356-02-16 02:53 G	22304711.46	22304711.62	22304711.79	0.0292	0.0220	*
Mercury	56356-04-15 02:10 G	22304770.46	22304770.59	22304770.72	0.0292	0.0048	
Mercury	56356-07-12 14:24 G	22304858.98	22304859.10	22304859.22	0.0293	0.0122	
Mercury	56356-10-09 02:38 G	22304947.60	22304947.61	22304947.63	0.0293	0.0290	
Venus	56363-01-31 09:07 G	22307252.67	22307252.88	22307253.09	0.0288	0.0038	
Venus	56363-09-18 03:36 G	22307482.53	22307482.65	22307482.77	0.0286	0.0233	
Mercury	56370-05-10 18:29 G	22309909.13	22309909.27	22309909.42	0.0268	0.0157	
Mercury	56370-08-07 14:53 G	22309997.93	22309998.12	22309998.30	0.0267	0.0025	
Moon	56370-08-23 19:12 G	22310014.06	22310014.30	22310014.54	0.0267	0.0033	

Earth	56370-08-23 21:50 G	22310014.16	22310014.41	22310014.65	0.0267	0.0024	*
Mercury	56370-11-04 11:17 G	22310086.86	22310086.97	22310087.09	0.0267	0.0208	
Venus	56378-02-22 20:10 G	22312754.23	22312754.34	22312754.47	0.0271	0.0220	
Venus	56378-10-10 01:26 G	22312983.35	22312983.56	22312983.77	0.0273	0.0008	
Venus	56379-05-27 07:26 G	22313212.72	22313212.81	22313212.92	0.0274	0.0241	
Mercury	56385-06-05 15:22 G	22315414.09	22315414.14	22315414.19	0.0292	0.0271	
Mercury	56385-09-02 03:50 G	22315502.54	22315502.66	22315502.79	0.0293	0.0099	
Mercury	56385-11-29 16:19 G	22315591.05	22315591.18	22315591.31	0.0293	0.0071	
Earth	56386-02-23 08:38 G	22315676.66	22315676.86	22315677.07	0.0294	0.0155	
Moon	56386-02-23 11:46 G	22315676.79	22315676.99	22315677.19	0.0294	0.0160	*
Mercury	56386-02-26 04:34 G	22315679.62	22315679.69	22315679.77	0.0294	0.0240	
Venus	56391-12-26 18:58 G	22317809.24	22317809.29	22317809.37	0.0289	0.0276	
Venus	56392-08-12 15:36 G	22318038.93	22318039.15	22318039.36	0.0288	0.0005	
Venus	56393-03-30 10:05 G	22318268.87	22318268.92	22318268.99	0.0286	0.0272	
Mars	56394-08-27 16:19 G	22318783.91	22318784.18	22318784.45	0.0281	0.0055	
Earth	56399-08-19 03:07 G	22320601.55	22320601.63	22320601.75	0.0268	0.0245	
Moon	56399-08-19 06:14 G	22320601.67	22320601.76	22320601.85	0.0268	0.0249	*
Mercury	56399-09-27 19:12 G	22320641.19	22320641.30	22320641.44	0.0268	0.0197	
Mercury	56399-12-25 15:36 G	22320729.97	22320730.15	22320730.34	0.0268	0.0016	
Mercury	56400-03-23 12:00 G	22320818.87	22320819.00	22320819.15	0.0267	0.0170	
Moon	56400-08-30 01:41 G	22320978.50	22320978.57	22320978.66	0.0267	0.0253	
Venus	56407-09-05 05:02 G	22323540.56	22323540.71	22323540.88	0.0272	0.0181	
Venus	56408-04-21 10:34 G	22323769.73	22323769.94	22323770.15	0.0273	0.0049	
Mercury	56415-01-20 07:41 G	22326234.70	22326234.82	22326234.94	0.0292	0.0126	
Moon	56415-02-17 16:34 G	22326262.97	22326263.19	22326263.42	0.0292	0.0130	
Earth	56415-02-17 19:41 G	22326263.10	22326263.32	22326263.54	0.0292	0.0130	*
Mercury	56415-04-18 20:10 G	22326323.21	22326323.34	22326323.47	0.0293	0.0044	
Mercury	56415-07-16 08:24 G	22326411.76	22326411.85	22326411.94	0.0293	0.0213	
Venus	56421-07-08 05:46 G	22328595.62	22328595.74	22328595.88	0.0289	0.0228	
Venus	56422-02-23 01:55 G	22328825.37	22328825.58	22328825.79	0.0287	0.0048	

Mercury	56429-02-13 19:26 G	22331373.24	22331373.31	22331373.39	0.0268	0.0242
Mercury	56429-05-13 15:36 G	22331461.98	22331462.15	22331462.33	0.0268	0.0061
Mercury	56429-08-10 12:00 G	22331550.84	22331551.00	22331551.17	0.0267	0.0121
Earth	56429-08-25 07:41 G	22331565.58	22331565.82	22331566.07	0.0267	0.0045
Moon	56429-08-25 09:36 G	22331565.67	22331565.90	22331566.14	0.0267	0.0033 *
Venus	56437-03-17 08:10 G	22334326.67	22334326.84	22334327.02	0.0271	0.0150
Venus	56437-11-01 13:41 G	22334555.87	22334556.07	22334556.27	0.0273	0.0079
Mercury	56444-06-08 09:22 G	22336966.78	22336966.89	22336966.99	0.0293	0.0179
Mercury	56444-09-04 21:50 G	22337055.28	22337055.41	22337055.54	0.0293	0.0009
Mercury	56444-12-02 10:05 G	22337143.81	22337143.92	22337144.03	0.0293	0.0162
Earth	56445-02-25 02:10 G	22337228.46	22337228.59	22337228.73	0.0294	0.0246
Moon	56445-02-25 05:17 G	22337228.60	22337228.72	22337228.86	0.0294	0.0249 *
Venus	56451-01-18 12:14 G	22339381.85	22339382.01	22339382.17	0.0289	0.0189
Venus	56451-09-05 07:55 G	22339611.63	22339611.83	22339612.04	0.0287	0.0087
Moon	56458-08-20 11:17 G	22342152.79	22342152.97	22342153.16	0.0268	0.0185
Earth	56458-08-20 13:26 G	22342152.87	22342153.06	22342153.24	0.0268	0.0176 *
Mercury	56458-09-30 16:19 G	22342194.01	22342194.18	22342194.35	0.0268	0.0102
Mercury	56458-12-28 12:43 G	22342282.86	22342283.03	22342283.21	0.0267	0.0080
Mercury	56459-03-27 09:07 G	22342371.86	22342371.88	22342371.91	0.0267	0.0264
Venus	56466-09-27 16:48 G	22345113.02	22345113.20	22345113.40	0.0272	0.0112
Venus	56467-05-14 22:34 G	22345342.25	22345342.44	22345342.63	0.0274	0.0120
Mars	56468-12-17 03:22 G	22345924.40	22345924.64	22345924.90	0.0278	0.0172
Mercury	56473-10-26 13:12 G	22347698.95	22347699.05	22347699.14	0.0292	0.0205
Mercury	56474-01-23 01:41 G	22347787.44	22347787.57	22347787.70	0.0292	0.0035
Moon	56474-02-19 10:05 G	22347814.68	22347814.92	22347815.16	0.0293	0.0040
Earth	56474-02-19 13:12 G	22347814.81	22347815.05	22347815.30	0.0293	0.0040 *
Mercury	56474-04-21 13:55 G	22347875.97	22347876.08	22347876.20	0.0293	0.0135
Venus	56480-07-30 23:31 G	22350168.29	22350168.48	22350168.66	0.0289	0.0140
Venus	56481-03-17 18:58 G	22350398.10	22350398.29	22350398.48	0.0287	0.0134
Mars	56483-01-22 12:00 G	22351073.78	22351074.00	22351074.24	0.0281	0.0151

Mercury	56488-02-17 16:48 G	22352926.05	22352926.20	22352926.36	0.0268	0.0144
Mercury	56488-05-16 13:12 G	22353014.87	22353015.05	22353015.23	0.0267	0.0037
Mercury	56488-08-13 09:36 G	22353103.80	22353103.90	22353104.00	0.0267	0.0219
Earth	56488-08-26 18:14 G	22353117.05	22353117.26	22353117.49	0.0267	0.0114
Moon	56488-08-26 21:50 G	22353117.19	22353117.41	22353117.65	0.0267	0.0100 *
Venus	56496-04-08 20:24 G	22355899.15	22355899.35	22355899.55	0.0272	0.0079
Venus	56496-11-24 01:55 G	22356128.41	22356128.58	22356128.76	0.0274	0.0151
Mercury	56503-03-16 14:24 G	22358431.05	22358431.10	22358431.16	0.0292	0.0262
Mercury	56503-06-13 03:07 G	22358519.50	22358519.63	22358519.76	0.0293	0.0090
Mercury	56503-09-09 15:36 G	22358608.02	22358608.15	22358608.28	0.0293	0.0081
Mercury	56503-12-07 03:50 G	22358696.59	22358696.66	22358696.73	0.0294	0.0250
Venus	56510-02-11 04:48 G	22360954.50	22360954.70	22360954.90	0.0289	0.0104
Venus	56510-09-29 00:00 G	22361184.34	22361184.50	22361184.68	0.0287	0.0170
Mercury	56517-07-07 17:17 G	22363658.09	22363658.22	22363658.35	0.0268	0.0188
Moon	56517-08-22 19:26 G	22363704.10	22363704.31	22363704.54	0.0268	0.0120
Earth	56517-08-22 23:02 G	22363704.24	22363704.46	22363704.69	0.0268	0.0109 *
Mercury	56517-10-04 13:26 G	22363746.88	22363747.06	22363747.25	0.0268	0.0008
Mercury	56518-01-01 09:50 G	22363835.77	22363835.91	22363836.05	0.0267	0.0175
Venus	56525-03-05 23:17 G	22366456.45	22366456.47	22366456.51	0.0271	0.0268
Venus	56525-10-21 04:05 G	22366685.47	22366685.67	22366685.88	0.0273	0.0042
Venus	56526-06-07 10:05 G	22366914.77	22366914.92	22366915.07	0.0274	0.0191
Mercury	56532-08-02 18:14 G	22369163.25	22369163.26	22369163.27	0.0292	0.0289
Mercury	56532-10-30 06:43 G	22369251.66	22369251.78	22369251.91	0.0292	0.0118
Mercury	56533-01-26 19:12 G	22369340.17	22369340.30	22369340.43	0.0293	0.0053
Earth	56533-02-22 04:48 G	22369366.46	22369366.70	22369366.94	0.0293	0.0047
Moon	56533-02-22 05:31 G	22369366.50	22369366.73	22369366.96	0.0293	0.0050 *
Mercury	56533-04-25 07:26 G	22369428.73	22369428.81	22369428.90	0.0293	0.0222
Venus	56539-08-24 16:19 G	22371740.98	22371741.18	22371741.39	0.0288	0.0053
Venus	56540-04-10 11:17 G	22371970.84	22371970.97	22371971.11	0.0286	0.0219
Mercury	56546-11-24 18:00 G	22374390.16	22374390.25	22374390.35	0.0268	0.0227

Mercury	56547-02-21 14:10 G	22374478.91	22374479.09	22374479.28	0.0267	0.0047
Mercury	56547-05-21 10:34 G	22374567.78	22374567.94	22374568.10	0.0267	0.0135
Moon	56547-08-30 05:02 G	22374668.51	22374668.71	22374668.91	0.0267	0.0168
Earth	56547-08-30 04:48 G	22374668.53	22374668.70	22374668.89	0.0267	0.0183 *
Venus	56554-09-16 02:53 G	22377242.53	22377242.62	22377242.73	0.0271	0.0236
Venus	56555-05-03 07:41 G	22377471.61	22377471.82	22377472.03	0.0272	0.0010
Venus	56555-12-18 13:12 G	22377700.94	22377701.05	22377701.19	0.0274	0.0222
Mars	56557-05-14 03:22 G	22378213.36	22378213.64	22378213.95	0.0278	0.0100
Moon	56562-02-15 23:02 G	22379952.35	22379952.46	22379952.59	0.0292	0.0258
Earth	56562-02-16 00:58 G	22379952.44	22379952.54	22379952.65	0.0292	0.0262 *
Mercury	56562-03-19 08:10 G	22379983.73	22379983.84	22379983.94	0.0293	0.0176
Mercury	56562-06-15 20:38 G	22380072.23	22380072.36	22380072.49	0.0293	0.0006
Mercury	56562-09-12 08:53 G	22380160.77	22380160.87	22380160.98	0.0294	0.0165
Venus	56569-03-05 20:24 G	22382527.14	22382527.35	22382527.56	0.0288	0.0021
Venus	56569-10-21 15:07 G	22382757.04	22382757.13	22382757.24	0.0286	0.0251
Mars	56571-06-19 19:55 G	22383363.17	22383363.33	22383363.50	0.0281	0.0221
Mercury	56576-07-10 13:55 G	22385210.91	22385211.08	22385211.26	0.0268	0.0096
Moon	56576-08-24 07:26 G	22385255.58	22385255.81	22385256.05	0.0267	0.0053
Earth	56576-08-24 08:10 G	22385255.60	22385255.84	22385256.08	0.0267	0.0042 *
Mercury	56576-10-07 10:19 G	22385299.76	22385299.93	22385300.10	0.0267	0.0086
Venus	56584-03-28 09:36 G	22388028.77	22388028.90	22388029.05	0.0271	0.0201
Venus	56584-11-12 14:38 G	22388257.90	22388258.11	22388258.32	0.0273	0.0027
Venus	56585-06-29 20:38 G	22388487.30	22388487.36	22388487.44	0.0275	0.0260
Mercury	56591-08-06 11:31 G	22390715.89	22390715.98	22390716.07	0.0292	0.0208
Mercury	56591-11-03 00:00 G	22390804.37	22390804.50	22390804.63	0.0293	0.0037
Mercury	56592-01-30 12:29 G	22390892.90	22390893.02	22390893.14	0.0293	0.0134
Earth	56592-02-24 17:31 G	22390918.01	22390918.23	22390918.45	0.0293	0.0128
Moon	56592-02-24 21:22 G	22390918.17	22390918.39	22390918.61	0.0293	0.0134 *
Venus	56598-01-29 10:48 G	22393083.86	22393083.95	22393084.07	0.0289	0.0248
Venus	56598-09-16 07:26 G	22393313.60	22393313.81	22393314.02	0.0288	0.0029

Earth	56605-08-20 14:24 G	22395843.05	22395843.10	22395843.16	0.0268	0.0260
Moon	56605-08-20 15:36 G	22395843.12	22395843.15	22395843.20	0.0268	0.0265 *
Mercury	56605-11-28 15:07 G	22395942.97	22395943.13	22395943.29	0.0268	0.0133
Mercury	56606-02-25 11:17 G	22396031.79	22396031.97	22396032.15	0.0267	0.0048
Mercury	56606-05-25 07:26 G	22396120.73	22396120.81	22396120.91	0.0267	0.0230
Moon	56606-09-01 10:34 G	22396219.83	22396219.94	22396220.07	0.0267	0.0234
Earth	56606-09-01 14:10 G	22396220.01	22396220.09	22396220.18	0.0267	0.0249 *
Venus	56613-10-09 12:58 G	22398814.88	22398815.04	22398815.21	0.0271	0.0169
Venus	56614-05-26 17:46 G	22399044.04	22399044.24	22399044.45	0.0272	0.0058
Mercury	56620-12-24 12:14 G	22401447.97	22401448.01	22401448.06	0.0292	0.0270
Moon	56621-02-18 07:41 G	22401503.63	22401503.82	22401504.02	0.0293	0.0179
Earth	56621-02-18 11:17 G	22401503.79	22401503.97	22401504.17	0.0293	0.0186 *
Mercury	56621-03-23 00:58 G	22401536.41	22401536.54	22401536.67	0.0293	0.0098
Mercury	56621-06-19 13:26 G	22401624.93	22401625.06	22401625.19	0.0293	0.0072
Mercury	56621-09-16 01:41 G	22401713.50	22401713.57	22401713.65	0.0294	0.0242
Venus	56627-08-12 13:41 G	22403869.94	22403870.07	22403870.21	0.0290	0.0218
Venus	56628-03-29 10:05 G	22404099.72	22404099.92	22404100.13	0.0288	0.0059
Mars	56629-09-27 17:17 G	22404647.17	22404647.22	22404647.30	0.0283	0.0273
Mercury	56635-04-17 14:24 G	22406674.97	22406675.10	22406675.23	0.0268	0.0187
Mercury	56635-07-15 10:34 G	22406763.75	22406763.94	22406764.12	0.0267	0.0009
Earth	56635-08-27 15:50 G	22406806.91	22406807.16	22406807.40	0.0267	0.0022
Moon	56635-08-27 18:43 G	22406807.04	22406807.28	22406807.53	0.0267	0.0011 *
Mercury	56635-10-12 06:43 G	22406852.64	22406852.78	22406852.92	0.0267	0.0175
Venus	56643-04-21 18:29 G	22409601.10	22409601.27	22409601.46	0.0272	0.0137
Venus	56643-12-06 23:31 G	22409830.29	22409830.48	22409830.69	0.0273	0.0092
Mars	56645-10-09 12:14 G	22410502.70	22410503.01	22410503.33	0.0279	0.0016
Mercury	56650-08-10 04:05 G	22412268.55	22412268.67	22412268.79	0.0293	0.0134
Mercury	56650-11-06 16:34 G	22412357.06	22412357.19	22412357.32	0.0293	0.0037
Mercury	56651-02-03 04:48 G	22412445.61	22412445.70	22412445.80	0.0293	0.0207
Earth	56651-02-27 02:10 G	22412469.42	22412469.59	22412469.77	0.0293	0.0203

Moon	56651-02-27 03:36 G	22412469.47	22412469.65	22412469.82	0.0293	0.0211	*
Venus	56657-02-22 00:14 G	22414656.35	22414656.51	22414656.69	0.0289	0.0169	
Venus	56657-10-09 20:24 G	22414886.15	22414886.35	22414886.55	0.0287	0.0107	
Moon	56664-08-21 18:43 G	22417394.13	22417394.28	22417394.45	0.0268	0.0205	
Earth	56664-08-21 21:50 G	22417394.25	22417394.41	22417394.59	0.0268	0.0196	*
Mercury	56664-09-03 15:22 G	22417407.04	22417407.14	22417407.24	0.0268	0.0224	
Mercury	56664-12-01 11:17 G	22417495.79	22417495.97	22417496.16	0.0267	0.0045	
Mercury	56665-02-28 07:41 G	22417584.66	22417584.82	22417584.98	0.0267	0.0136	
Venus	56672-10-31 22:05 G	22420387.23	22420387.42	22420387.62	0.0271	0.0104	
Venus	56673-06-18 02:53 G	22420616.44	22420616.62	22420616.81	0.0273	0.0124	
Mercury	56679-12-28 04:48 G	22423000.60	22423000.70	22423000.80	0.0292	0.0198	
Moon	56680-02-20 18:29 G	22423055.06	22423055.27	22423055.50	0.0293	0.0107	
Earth	56680-02-20 18:58 G	22423055.07	22423055.29	22423055.52	0.0293	0.0114	*
Mercury	56680-03-25 17:17 G	22423089.09	22423089.22	22423089.36	0.0293	0.0029	
Mercury	56680-06-22 05:46 G	22423177.63	22423177.74	22423177.86	0.0293	0.0143	
Venus	56686-09-04 01:41 G	22425442.38	22425442.57	22425442.75	0.0289	0.0143	
Venus	56687-04-21 21:36 G	22425672.21	22425672.40	22425672.59	0.0288	0.0133	
Mercury	56694-04-20 09:50 G	22428227.74	22428227.91	22428228.08	0.0268	0.0105	
Mercury	56694-07-18 06:00 G	22428316.58	22428316.75	22428316.93	0.0267	0.0076	
Earth	56694-08-28 20:53 G	22428358.14	22428358.37	22428358.61	0.0267	0.0082	
Moon	56694-08-28 23:46 G	22428358.25	22428358.49	22428358.73	0.0267	0.0068	*
Mercury	56694-10-15 02:10 G	22428405.56	22428405.59	22428405.65	0.0267	0.0259	
Venus	56702-05-15 02:10 G	22431173.39	22431173.59	22431173.80	0.0272	0.0075	
Venus	56702-12-30 07:12 G	22431402.64	22431402.80	22431402.98	0.0273	0.0156	
Mercury	56709-05-17 07:26 G	22433732.73	22433732.81	22433732.88	0.0292	0.0240	
Mercury	56709-08-13 19:55 G	22433821.20	22433821.33	22433821.46	0.0293	0.0069	
Mercury	56709-11-10 08:24 G	22433909.73	22433909.85	22433909.98	0.0293	0.0102	
Mercury	56710-02-06 20:38 G	22433998.32	22433998.36	22433998.42	0.0294	0.0271	
Moon	56710-03-01 03:36 G	22434020.59	22434020.65	22434020.73	0.0294	0.0281	
Earth	56710-03-01 06:43 G	22434020.70	22434020.78	22434020.89	0.0294	0.0269	*

Venus	56716-03-17 11:02 G	22436228.76	22436228.96	22436229.16	0.0289	0.0095
Venus	56716-11-02 06:43 G	22436458.62	22436458.78	22436458.95	0.0287	0.0179
Mars	56718-02-22 23:46 G	22436936.32	22436936.49	22436936.69	0.0283	0.0208
Moon	56723-08-25 00:14 G	22438945.32	22438945.51	22438945.72	0.0268	0.0148
Earth	56723-08-25 03:07 G	22438945.42	22438945.63	22438945.85	0.0268	0.0135 *
Mercury	56723-09-08 10:48 G	22438959.80	22438959.95	22438960.11	0.0268	0.0142
Mercury	56723-12-06 06:58 G	22439048.61	22439048.79	22439048.97	0.0267	0.0038
Mercury	56724-03-04 03:07 G	22439137.53	22439137.63	22439137.74	0.0267	0.0220
Venus	56731-04-10 01:55 G	22441730.55	22441730.58	22441730.63	0.0270	0.0265
Venus	56731-11-25 05:46 G	22441959.53	22441959.74	22441959.95	0.0271	0.0042
Venus	56732-07-11 10:48 G	22442188.79	22442188.95	22442189.10	0.0273	0.0186
Mars	56734-03-05 18:29 G	22442790.95	22442791.27	22442791.59	0.0278	0.0026
Mercury	56738-12-31 20:38 G	22444553.24	22444553.36	22444553.48	0.0292	0.0134
Earth	56739-02-22 22:34 G	22444606.21	22444606.44	22444606.69	0.0293	0.0051
Moon	56739-02-23 01:55 G	22444606.34	22444606.58	22444606.82	0.0293	0.0039 *
Mercury	56739-03-30 09:07 G	22444641.75	22444641.88	22444642.01	0.0293	0.0037
Mercury	56739-06-26 21:36 G	22444730.30	22444730.40	22444730.49	0.0293	0.0206
Venus	56745-09-27 11:17 G	22447014.76	22447014.97	22447015.18	0.0289	0.0072
Venus	56746-05-15 06:43 G	22447244.64	22447244.78	22447244.94	0.0287	0.0203
Mercury	56753-01-25 08:38 G	22449691.75	22449691.86	22449691.98	0.0268	0.0208
Mercury	56753-04-24 04:48 G	22449780.52	22449780.70	22449780.88	0.0267	0.0028
Mercury	56753-07-22 00:58 G	22449869.39	22449869.54	22449869.70	0.0267	0.0153
Moon	56753-08-30 21:22 G	22449909.18	22449909.39	22449909.63	0.0267	0.0122
Earth	56753-08-30 23:31 G	22449909.28	22449909.48	22449909.70	0.0267	0.0138 *
Venus	56760-10-20 05:02 G	22452516.61	22452516.71	22452516.80	0.0270	0.0238
Venus	56761-06-06 08:53 G	22452745.66	22452745.87	22452746.08	0.0272	0.0014
Venus	56762-01-21 13:55 G	22452974.96	22452975.08	22452975.22	0.0274	0.0216
Mercury	56768-05-19 22:48 G	22455285.35	22455285.45	22455285.56	0.0292	0.0181
Mercury	56768-08-16 11:31 G	22455373.84	22455373.98	22455374.11	0.0293	0.0012
Mercury	56768-11-12 23:46 G	22455462.38	22455462.49	22455462.60	0.0293	0.0161

Venus	56775-04-09 19:12 G	22457801.09	22457801.30	22457801.52	0.0289	0.0028
Venus	56775-11-25 14:53 G	22458031.02	22458031.12	22458031.23	0.0287	0.0245
Mercury	56782-06-14 09:22 G	22460423.83	22460423.89	22460423.97	0.0268	0.0247
Earth	56782-08-26 05:17 G	22460496.49	22460496.72	22460496.96	0.0268	0.0079
Moon	56782-08-26 07:12 G	22460496.59	22460496.80	22460497.03	0.0268	0.0094 *
Mercury	56782-09-11 05:31 G	22460512.55	22460512.73	22460512.91	0.0268	0.0068
Mercury	56782-12-09 01:41 G	22460601.40	22460601.57	22460601.74	0.0267	0.0113
Venus	56790-05-02 08:24 G	22463302.73	22463302.85	22463303.00	0.0270	0.0206
Venus	56790-12-17 12:29 G	22463531.81	22463532.02	22463532.23	0.0271	0.0018
Venus	56791-08-03 17:17 G	22463761.15	22463761.22	22463761.32	0.0273	0.0247
Mercury	56797-10-06 23:17 G	22466017.41	22466017.47	22466017.55	0.0292	0.0247
Mercury	56798-01-03 12:00 G	22466105.87	22466106.00	22466106.13	0.0292	0.0076
Earth	56798-02-23 23:46 G	22466157.25	22466157.49	22466157.74	0.0293	0.0010
Moon	56798-02-24 02:10 G	22466157.34	22466157.59	22466157.84	0.0293	0.0021 *
Mercury	56798-04-02 00:29 G	22466194.39	22466194.52	22466194.65	0.0293	0.0094
Mercury	56798-06-29 12:43 G	22466282.98	22466283.03	22466283.09	0.0293	0.0262
Venus	56804-03-03 21:36 G	22468357.37	22468357.40	22468357.44	0.0291	0.0286
Venus	56804-10-19 18:43 G	22468587.07	22468587.28	22468587.49	0.0289	0.0007
Venus	56805-06-06 14:10 G	22468817.02	22468817.09	22468817.17	0.0287	0.0266
Mars	56806-07-18 20:53 G	22469224.18	22469224.37	22469224.57	0.0284	0.0196
Mercury	56812-01-29 02:53 G	22471244.46	22471244.62	22471244.78	0.0268	0.0137
Mercury	56812-04-26 23:02 G	22471333.28	22471333.46	22471333.64	0.0267	0.0043
Mercury	56812-07-24 19:12 G	22471422.21	22471422.30	22471422.41	0.0267	0.0225
Moon	56812-08-31 20:53 G	22471460.19	22471460.37	22471460.56	0.0267	0.0175
Earth	56812-09-01 00:29 G	22471460.35	22471460.52	22471460.69	0.0267	0.0190 *
Venus	56819-11-12 10:34 G	22474088.78	22474088.94	22474089.09	0.0270	0.0181
Venus	56820-06-28 14:24 G	22474317.90	22474318.10	22474318.31	0.0272	0.0044
Venus	56821-02-12 19:55 G	22474547.33	22474547.33	22474547.33	0.0274	0.0274
Mars	56822-07-29 21:50 G	22475079.10	22475079.41	22475079.72	0.0278	0.0067
Moon	56827-02-17 22:34 G	22476743.39	22476743.44	22476743.51	0.0292	0.0282

Mercury	56827-05-23 13:55 G	22476837.96	22476838.08	22476838.20	0.0292	0.0126
Mercury	56827-08-20 02:24 G	22476926.47	22476926.60	22476926.73	0.0293	0.0044
Mercury	56827-11-16 14:53 G	22477015.03	22477015.12	22477015.21	0.0293	0.0213
Venus	56833-09-14 04:34 G	22479143.58	22479143.69	22479143.81	0.0290	0.0243
Venus	56834-05-02 01:41 G	22479373.36	22479373.57	22479373.78	0.0289	0.0036
Mercury	56841-06-17 03:22 G	22481976.51	22481976.64	22481976.78	0.0268	0.0179
Earth	56841-08-27 05:17 G	22482047.48	22482047.72	22482047.97	0.0268	0.0027
Moon	56841-08-27 08:38 G	22482047.62	22482047.86	22482048.11	0.0268	0.0042 *
Mercury	56841-09-13 23:31 G	22482065.29	22482065.48	22482065.66	0.0268	0.0003
Mercury	56841-12-11 19:41 G	22482154.19	22482154.32	22482154.46	0.0267	0.0184
Venus	56849-05-24 14:24 G	22484874.93	22484875.10	22484875.28	0.0270	0.0148
Venus	56850-01-08 18:14 G	22485104.06	22485104.26	22485104.47	0.0271	0.0077
Mercury	56856-10-09 14:38 G	22487570.01	22487570.11	22487570.22	0.0292	0.0190
Mercury	56857-01-06 03:22 G	22487658.50	22487658.64	22487658.77	0.0292	0.0022
Moon	56857-02-24 21:36 G	22487708.17	22487708.40	22487708.65	0.0292	0.0082
Earth	56857-02-25 00:00 G	22487708.26	22487708.50	22487708.74	0.0292	0.0067 *
Mercury	56857-04-04 15:36 G	22487747.04	22487747.15	22487747.27	0.0293	0.0149
Venus	56863-03-27 04:05 G	22489929.54	22489929.67	22489929.81	0.0290	0.0223
Venus	56863-11-12 00:58 G	22490159.33	22490159.54	22490159.75	0.0289	0.0056
Mercury	56870-11-04 00:29 G	22492708.46	22492708.52	22492708.58	0.0268	0.0252
Mercury	56871-01-31 20:24 G	22492797.18	22492797.35	22492797.53	0.0268	0.0072
Mercury	56871-04-30 16:34 G	22492886.03	22492886.19	22492886.36	0.0267	0.0110
Earth	56871-09-02 22:48 G	22493011.36	22493011.45	22493011.57	0.0267	0.0240
Moon	56871-09-02 23:46 G	22493011.38	22493011.49	22493011.63	0.0267	0.0228 *
Venus	56878-12-04 15:36 G	22495660.96	22495661.15	22495661.34	0.0271	0.0125
Venus	56879-07-21 19:41 G	22495890.13	22495890.32	22495890.52	0.0272	0.0101
Earth	56886-02-18 23:02 G	22498294.32	22498294.46	22498294.60	0.0292	0.0238
Moon	56886-02-19 01:41 G	22498294.42	22498294.57	22498294.73	0.0292	0.0223 *
Mercury	56886-02-26 16:05 G	22498302.11	22498302.17	22498302.25	0.0292	0.0245
Mercury	56886-05-26 04:48 G	22498390.57	22498390.70	22498390.83	0.0292	0.0074

Mercury	56886-08-22 17:17 G	22498479.10	22498479.22	22498479.35	0.0293	0.0096
Mercury	56886-11-19 05:31 G	22498567.68	22498567.73	22498567.79	0.0293	0.0264
Venus	56892-10-06 09:50 G	22500715.76	22500715.91	22500716.09	0.0290	0.0183
Venus	56893-05-24 06:58 G	22500945.59	22500945.79	22500945.99	0.0288	0.0096
Mars	56894-12-12 05:17 G	22501512.51	22501512.72	22501512.95	0.0284	0.0168
Mercury	56900-06-20 20:38 G	22503529.20	22503529.36	22503529.53	0.0268	0.0115
Moon	56900-08-29 03:22 G	22503598.38	22503598.64	22503598.89	0.0268	0.0009
Earth	56900-08-29 03:50 G	22503598.41	22503598.66	22503598.90	0.0268	0.0022 *
Mercury	56900-09-17 17:02 G	22503618.03	22503618.21	22503618.39	0.0268	0.0067
Mercury	56900-12-15 13:26 G	22503707.00	22503707.06	22503707.12	0.0268	0.0250
Venus	56908-06-16 19:55 G	22506447.13	22506447.33	22506447.53	0.0270	0.0092
Venus	56909-02-01 00:00 G	22506676.32	22506676.50	22506676.69	0.0272	0.0134
Mars	56910-12-23 23:17 G	22507367.18	22507367.47	22507367.77	0.0277	0.0101
Mercury	56915-10-14 05:46 G	22509122.62	22509122.74	22509122.86	0.0291	0.0135
Mercury	56916-01-10 18:14 G	22509211.13	22509211.26	22509211.39	0.0292	0.0034
Moon	56916-02-27 19:41 G	22509259.11	22509259.32	22509259.53	0.0292	0.0140
Earth	56916-02-27 23:02 G	22509259.24	22509259.46	22509259.69	0.0292	0.0123 *
Mercury	56916-04-08 06:29 G	22509299.68	22509299.77	22509299.87	0.0292	0.0202
Venus	56922-04-19 09:36 G	22511501.73	22511501.90	22511502.08	0.0290	0.0162
Venus	56922-12-05 06:29 G	22511731.57	22511731.77	22511731.96	0.0289	0.0117
Earth	56929-08-23 18:58 G	22514185.17	22514185.29	22514185.43	0.0269	0.0226
Moon	56929-08-23 19:12 G	22514185.20	22514185.30	22514185.41	0.0269	0.0240 *
Mercury	56929-11-07 17:31 G	22514261.11	22514261.23	22514261.36	0.0268	0.0190
Mercury	56930-02-04 13:41 G	22514349.89	22514350.07	22514350.26	0.0268	0.0010
Mercury	56930-05-04 10:05 G	22514438.78	22514438.92	22514439.06	0.0268	0.0174
Venus	56937-12-27 20:24 G	22517233.15	22517233.35	22517233.56	0.0271	0.0069
Venus	56938-08-14 00:43 G	22517462.37	22517462.53	22517462.71	0.0272	0.0158
Earth	56945-02-20 21:36 G	22519845.22	22519845.40	22519845.60	0.0292	0.0183
Moon	56945-02-21 00:43 G	22519845.33	22519845.53	22519845.74	0.0292	0.0165 *
Mercury	56945-03-02 07:12 G	22519854.70	22519854.80	22519854.90	0.0292	0.0191

Mercury	56945-05-29 19:41 G	22519943.19	22519943.32	22519943.46	0.0292	0.0023
Mercury	56945-08-26 08:10 G	22520031.73	22520031.84	22520031.96	0.0293	0.0148
Venus	56951-10-30 15:36 G	22522287.96	22522288.15	22522288.35	0.0290	0.0122
Venus	56952-06-16 12:00 G	22522517.83	22522518.00	22522518.19	0.0288	0.0155
Mercury	56959-03-27 18:00 G	22524993.16	22524993.25	22524993.34	0.0269	0.0233
Mercury	56959-06-24 13:55 G	22525081.91	22525082.08	22525082.26	0.0269	0.0052
Moon	56959-08-30 21:36 G	22525149.16	22525149.40	22525149.65	0.0268	0.0056
Earth	56959-08-31 01:12 G	22525149.31	22525149.55	22525149.79	0.0268	0.0070 *
Mercury	56959-09-21 10:19 G	22525170.77	22525170.93	22525171.09	0.0268	0.0130
Venus	56966-11-22 22:19 G	22527790.37	22527790.43	22527790.49	0.0269	0.0256
Venus	56967-07-10 01:41 G	22528019.36	22528019.57	22528019.78	0.0270	0.0036
Venus	56968-02-24 06:00 G	22528248.60	22528248.75	22528248.90	0.0272	0.0191
Mercury	56974-07-20 08:38 G	22530586.79	22530586.86	22530586.93	0.0291	0.0247
Mercury	56974-10-16 21:07 G	22530675.25	22530675.38	22530675.51	0.0291	0.0078
Mercury	56975-01-13 09:22 G	22530763.77	22530763.89	22530764.02	0.0292	0.0091
Earth	56975-02-28 23:31 G	22530810.30	22530810.48	22530810.68	0.0292	0.0181
Moon	56975-03-01 00:29 G	22530810.36	22530810.52	22530810.70	0.0292	0.0199 *
Mercury	56975-04-11 21:36 G	22530852.35	22530852.40	22530852.47	0.0292	0.0258
Venus	56981-05-11 15:36 G	22533073.95	22533074.15	22533074.35	0.0290	0.0100
Venus	56981-12-27 11:46 G	22533303.83	22533303.99	22533304.17	0.0288	0.0177
Mars	56983-05-07 18:29 G	22533800.06	22533800.27	22533800.50	0.0284	0.0167
Earth	56988-08-24 16:34 G	22535736.01	22535736.19	22535736.38	0.0269	0.0178
Moon	56988-08-24 19:55 G	22535736.18	22535736.33	22535736.51	0.0269	0.0195 *
Mercury	56988-11-10 10:48 G	22535813.79	22535813.95	22535814.11	0.0269	0.0127
Mercury	56989-02-07 06:58 G	22535902.61	22535902.79	22535902.97	0.0268	0.0055
Mercury	56989-05-07 03:22 G	22535991.56	22535991.64	22535991.73	0.0268	0.0238
Venus	56996-06-03 22:19 G	22538576.34	22538576.43	22538576.55	0.0270	0.0235
Venus	56997-01-19 02:10 G	22538805.37	22538805.59	22538805.80	0.0271	0.0013
Venus	56997-09-05 06:43 G	22539034.65	22539034.78	22539034.91	0.0273	0.0215
Mars	56999-05-18 18:43 G	22539655.01	22539655.28	22539655.57	0.0277	0.0134

58TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 58th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	57004-02-23 19:41	G	22541396.09	22541396.32	22541396.56	0.0291	0.0109	
Earth	57004-02-23 21:36	G	22541396.19	22541396.40	22541396.63	0.0291	0.0126	*
Mercury	57004-03-05 22:34	G	22541407.32	22541407.44	22541407.56	0.0292	0.0135	
Mercury	57004-06-02 11:02	G	22541495.82	22541495.96	22541496.09	0.0292	0.0035	
Mercury	57004-08-29 23:17	G	22541584.38	22541584.47	22541584.57	0.0293	0.0202	
Venus	57010-11-22 21:22	G	22543860.18	22543860.39	22543860.60	0.0289	0.0061	
Venus	57011-07-10 17:31	G	22544090.10	22544090.23	22544090.38	0.0288	0.0215	
Mercury	57018-03-31 11:02	G	22546545.83	22546545.96	22546546.11	0.0269	0.0170	
Mercury	57018-06-28 07:12	G	22546634.62	22546634.80	22546634.99	0.0269	0.0014	
Moon	57018-09-01 21:36	G	22546700.19	22546700.40	22546700.62	0.0268	0.0107	
Earth	57018-09-01 22:48	G	22546700.24	22546700.45	22546700.68	0.0268	0.0119	*
Mercury	57018-09-25 03:36	G	22546723.53	22546723.65	22546723.78	0.0268	0.0195	
Venus	57025-12-16 04:05	G	22549362.54	22549362.67	22549362.82	0.0270	0.0201	
Venus	57026-08-02 07:41	G	22549591.61	22549591.82	22549592.03	0.0271	0.0023	
Venus	57027-03-19 12:14	G	22549820.94	22549821.01	22549821.10	0.0272	0.0250	
Mercury	57033-07-24 00:14	G	22552139.41	22552139.51	22552139.61	0.0291	0.0185	
Mercury	57033-10-20 12:43	G	22552227.90	22552228.03	22552228.16	0.0291	0.0017	
Mercury	57034-01-17 00:58	G	22552316.43	22552316.54	22552316.66	0.0292	0.0150	
Earth	57034-03-03 01:55	G	22552361.46	22552361.58	22552361.73	0.0292	0.0244	

Moon	57034-03-03 05:46 G	22552361.65	22552361.74	22552361.86	0.0292	0.0260	*
Venus	57040-06-03 22:48 G	22554646.24	22554646.45	22554646.67	0.0290	0.0036	
Venus	57041-01-19 18:43 G	22554876.17	22554876.28	22554876.40	0.0288	0.0239	
Mercury	57047-08-18 08:10 G	22557277.77	22557277.84	22557277.92	0.0269	0.0243	
Earth	57047-08-27 15:07 G	22557286.92	22557287.13	22557287.35	0.0269	0.0129	
Moon	57047-08-27 16:19 G	22557286.97	22557287.18	22557287.41	0.0269	0.0143	*
Mercury	57047-11-15 04:19 G	22557366.50	22557366.68	22557366.86	0.0269	0.0062	
Mercury	57048-02-12 00:43 G	22557455.36	22557455.53	22557455.69	0.0268	0.0121	
Venus	57055-06-28 04:34 G	22560148.54	22560148.69	22560148.86	0.0270	0.0178	
Venus	57056-02-12 08:24 G	22560377.64	22560377.85	22560378.06	0.0271	0.0046	
Mercury	57062-12-11 01:26 G	22562871.49	22562871.56	22562871.64	0.0291	0.0242	
Moon	57063-02-24 21:07 G	22562947.14	22562947.38	22562947.62	0.0291	0.0047	
Earth	57063-02-25 00:29 G	22562947.29	22562947.52	22562947.77	0.0291	0.0063	*
Mercury	57063-03-09 14:10 G	22562959.96	22562960.09	22562960.22	0.0291	0.0073	
Mercury	57063-06-06 02:24 G	22563048.48	22563048.60	22563048.73	0.0292	0.0096	
Mercury	57063-09-02 14:38 G	22563137.06	22563137.11	22563137.17	0.0292	0.0263	
Venus	57069-04-29 06:58 G	22565202.74	22565202.79	22565202.86	0.0291	0.0277	
Venus	57069-12-15 04:34 G	22565432.48	22565432.69	22565432.90	0.0289	0.0004	
Venus	57070-08-02 00:14 G	22565662.46	22565662.51	22565662.58	0.0287	0.0276	
Mars	57071-10-02 01:55 G	22566088.34	22566088.58	22566088.82	0.0284	0.0135	
Mercury	57077-04-03 04:48 G	22568098.53	22568098.70	22568098.87	0.0269	0.0105	
Mercury	57077-07-01 00:58 G	22568187.37	22568187.54	22568187.72	0.0269	0.0078	
Earth	57077-09-02 21:36 G	22568251.22	22568251.40	22568251.61	0.0269	0.0169	
Moon	57077-09-03 00:58 G	22568251.35	22568251.54	22568251.74	0.0269	0.0158	*
Mercury	57077-09-27 21:22 G	22568276.36	22568276.39	22568276.43	0.0268	0.0262	
Venus	57085-01-07 11:17 G	22570934.79	22570934.97	22570935.15	0.0270	0.0142	
Venus	57085-08-24 15:22 G	22571163.94	22571164.14	22571164.34	0.0271	0.0083	
Mars	57087-10-13 15:22 G	22571943.94	22571944.14	22571944.38	0.0277	0.0201	
Mercury	57092-04-29 03:50 G	22573603.64	22573603.66	22573603.68	0.0290	0.0286	
Mercury	57092-07-26 16:19 G	22573692.06	22573692.18	22573692.30	0.0291	0.0118	

Mercury	57092-10-23 04:48 G	22573780.57	22573780.70	22573780.83	0.0291	0.0049
Mercury	57093-01-19 17:02 G	22573869.12	22573869.21	22573869.30	0.0292	0.0216
Venus	57098-11-09 10:05 G	22575988.83	22575988.92	22575989.04	0.0291	0.0249
Venus	57099-06-27 07:26 G	22576218.60	22576218.81	22576219.02	0.0289	0.0031
Mercury	57106-08-22 02:10 G	22578830.46	22578830.59	22578830.73	0.0269	0.0174
Moon	57106-08-29 12:00 G	22578837.77	22578838.00	22578838.24	0.0269	0.0089
Earth	57106-08-29 15:36 G	22578837.91	22578838.15	22578838.38	0.0269	0.0077 *
Mercury	57106-11-18 22:19 G	22578919.25	22578919.43	22578919.62	0.0269	0.0010
Mercury	57107-02-15 18:43 G	22579008.16	22579008.28	22579008.41	0.0268	0.0191
Venus	57114-07-21 12:00 G	22581720.81	22581721.00	22581721.19	0.0270	0.0118
Venus	57115-03-07 16:05 G	22581949.98	22581950.17	22581950.37	0.0272	0.0107
Mercury	57121-12-14 17:46 G	22584424.14	22584424.24	22584424.35	0.0291	0.0173
Moon	57122-02-27 06:29 G	22584498.53	22584498.77	22584499.00	0.0291	0.0020
Earth	57122-02-27 06:29 G	22584498.53	22584498.77	22584499.02	0.0291	0.0007 *
Mercury	57122-03-13 06:14 G	22584512.63	22584512.76	22584512.90	0.0291	0.0007
Mercury	57122-06-09 18:43 G	22584601.17	22584601.28	22584601.39	0.0292	0.0162
Venus	57128-05-22 16:34 G	22586775.05	22586775.19	22586775.34	0.0290	0.0209
Venus	57129-01-07 13:41 G	22587004.86	22587005.07	22587005.28	0.0289	0.0070
Mercury	57136-01-09 02:38 G	22589562.51	22589562.61	22589562.73	0.0270	0.0216
Mercury	57136-04-06 23:02 G	22589651.28	22589651.46	22589651.64	0.0269	0.0034
Mercury	57136-07-04 19:26 G	22589740.15	22589740.31	22589740.46	0.0269	0.0150
Earth	57136-09-04 23:02 G	22589802.32	22589802.46	22589802.60	0.0269	0.0221
Moon	57136-09-05 01:41 G	22589802.43	22589802.57	22589802.73	0.0269	0.0214 *
Venus	57144-01-31 19:26 G	22592507.11	22592507.31	22592507.51	0.0271	0.0081
Venus	57144-09-16 23:46 G	22592736.31	22592736.49	22592736.67	0.0272	0.0145
Moon	57151-02-21 14:24 G	22595085.01	22595085.10	22595085.21	0.0290	0.0264
Earth	57151-02-21 14:24 G	22595085.04	22595085.10	22595085.16	0.0290	0.0279 *
Mercury	57151-05-03 20:38 G	22595156.27	22595156.36	22595156.45	0.0290	0.0212
Mercury	57151-07-31 09:07 G	22595244.74	22595244.88	22595245.01	0.0291	0.0044
Mercury	57151-10-27 21:22 G	22595333.27	22595333.39	22595333.51	0.0291	0.0123

Mercury	57152-01-24 09:36 G	22595421.89	22595421.90	22595421.92	0.0292	0.0288
Venus	57157-12-02 21:36 G	22597561.24	22597561.40	22597561.57	0.0290	0.0175
Venus	57158-07-20 18:29 G	22597791.07	22597791.27	22597791.47	0.0289	0.0103
Mars	57160-02-26 11:02 G	22598376.71	22598376.96	22598377.22	0.0284	0.0095
Mercury	57165-08-24 20:53 G	22600383.20	22600383.37	22600383.54	0.0269	0.0099
Moon	57165-08-30 15:50 G	22600388.92	22600389.16	22600389.40	0.0269	0.0030
Earth	57165-08-30 18:14 G	22600389.01	22600389.26	22600389.51	0.0269	0.0020 *
Mercury	57165-11-21 17:17 G	22600472.04	22600472.22	22600472.39	0.0269	0.0084
Mercury	57166-02-18 13:41 G	22600561.07	22600561.07	22600561.08	0.0268	0.0268
Venus	57173-08-12 20:53 G	22603293.17	22603293.37	22603293.58	0.0271	0.0056
Venus	57174-03-30 01:12 G	22603522.40	22603522.55	22603522.72	0.0272	0.0171
Mars	57176-03-09 03:07 G	22604232.53	22604232.63	22604232.75	0.0277	0.0260
Mercury	57180-09-19 22:05 G	22605888.37	22605888.42	22605888.47	0.0290	0.0266
Mercury	57180-12-17 10:34 G	22605976.82	22605976.94	22605977.07	0.0291	0.0098
Earth	57181-02-28 16:05 G	22606049.94	22606050.17	22606050.41	0.0291	0.0083
Moon	57181-02-28 19:26 G	22606050.08	22606050.31	22606050.54	0.0291	0.0096 *
Mercury	57181-03-15 23:02 G	22606065.33	22606065.46	22606065.59	0.0292	0.0070
Mercury	57181-06-12 11:17 G	22606153.90	22606153.97	22606154.05	0.0292	0.0236
Venus	57187-06-15 04:05 G	22608347.48	22608347.67	22608347.86	0.0290	0.0135
Venus	57188-01-31 00:43 G	22608577.35	22608577.53	22608577.72	0.0288	0.0142
Earth	57194-08-25 20:38 G	22610976.28	22610976.36	22610976.47	0.0270	0.0248
Moon	57194-08-25 23:17 G	22610976.41	22610976.47	22610976.55	0.0270	0.0260 *
Mercury	57195-01-11 21:36 G	22611115.25	22611115.40	22611115.56	0.0270	0.0139
Mercury	57195-04-10 18:00 G	22611204.07	22611204.25	22611204.43	0.0269	0.0044
Mercury	57195-07-08 14:24 G	22611293.01	22611293.10	22611293.20	0.0269	0.0228
Venus	57202-07-09 01:12 G	22613850.46	22613850.55	22613850.65	0.0270	0.0240
Venus	57203-02-23 05:02 G	22614079.50	22614079.71	22614079.92	0.0271	0.0018
Venus	57203-10-10 09:36 G	22614308.77	22614308.90	22614309.04	0.0272	0.0210
Moon	57210-02-22 22:34 G	22616636.26	22616636.44	22616636.64	0.0290	0.0186
Earth	57210-02-23 02:10 G	22616636.42	22616636.59	22616636.77	0.0290	0.0201 *

Mercury	57210-05-06 13:41 G	22616708.95	22616709.07	22616709.19	0.0290	0.0131
Mercury	57210-08-03 02:10 G	22616797.46	22616797.59	22616797.72	0.0291	0.0036
Mercury	57210-10-30 14:24 G	22616886.01	22616886.10	22616886.20	0.0291	0.0201
Venus	57216-12-25 11:02 G	22619133.77	22619133.96	22619134.17	0.0290	0.0097
Venus	57217-08-12 07:26 G	22619363.65	22619363.81	22619363.98	0.0288	0.0179
Mercury	57224-05-30 20:24 G	22621847.23	22621847.35	22621847.48	0.0270	0.0197
Mercury	57224-08-27 16:34 G	22621936.01	22621936.19	22621936.38	0.0269	0.0016
Earth	57224-08-31 23:46 G	22621940.25	22621940.49	22621940.74	0.0269	0.0042
Moon	57224-09-01 02:10 G	22621940.35	22621940.59	22621940.83	0.0269	0.0036 *
Mercury	57224-11-24 12:58 G	22622024.90	22622025.04	22622025.18	0.0269	0.0168
Venus	57232-01-19 03:07 G	22624636.51	22624636.63	22624636.77	0.0270	0.0213
Venus	57232-09-04 07:12 G	22624865.59	22624865.80	22624866.01	0.0271	0.0010
Venus	57233-04-21 11:46 G	22625094.90	22625094.99	22625095.10	0.0273	0.0238
Mercury	57239-09-23 15:22 G	22627441.04	22627441.14	22627441.25	0.0291	0.0184
Mercury	57239-12-21 03:50 G	22627529.53	22627529.66	22627529.80	0.0291	0.0016
Earth	57240-03-02 04:48 G	22627601.51	22627601.70	22627601.91	0.0292	0.0164
Moon	57240-03-02 07:26 G	22627601.62	22627601.81	22627602.02	0.0292	0.0177 *
Mercury	57240-03-18 16:05 G	22627618.06	22627618.17	22627618.29	0.0292	0.0152
Venus	57246-07-07 17:46 G	22629920.03	22629920.24	22629920.45	0.0289	0.0057
Venus	57247-02-22 13:55 G	22630149.95	22630150.08	22630150.23	0.0288	0.0219
Mars	57248-07-22 13:12 G	22630665.78	22630666.05	22630666.32	0.0284	0.0030
Moon	57253-08-27 01:12 G	22632527.38	22632527.55	22632527.73	0.0270	0.0195
Earth	57253-08-27 02:53 G	22632527.45	22632527.62	22632527.80	0.0270	0.0186 *
Mercury	57253-10-17 21:07 G	22632579.30	22632579.38	22632579.47	0.0270	0.0238
Mercury	57254-01-14 17:17 G	22632668.05	22632668.22	22632668.40	0.0270	0.0056
Mercury	57254-04-13 13:41 G	22632756.91	22632757.07	22632757.23	0.0269	0.0128
Venus	57261-07-31 11:46 G	22635422.83	22635422.99	22635423.15	0.0270	0.0174
Venus	57262-03-17 15:50 G	22635651.95	22635652.16	22635652.37	0.0272	0.0050
Mercury	57269-02-09 18:58 G	22638173.20	22638173.29	22638173.38	0.0290	0.0212
Moon	57269-02-24 14:53 G	22638187.90	22638188.12	22638188.35	0.0290	0.0103

Earth	57269-02-24 17:17 G	22638188.00	22638188.22	22638188.45	0.0290	0.0116	*
Mercury	57269-05-09 07:26 G	22638261.68	22638261.81	22638261.94	0.0290	0.0045	
Mercury	57269-08-05 19:55 G	22638350.21	22638350.33	22638350.45	0.0291	0.0122	
Mercury	57269-11-02 08:10 G	22638438.82	22638438.84	22638438.86	0.0291	0.0287	
Venus	57276-01-18 02:38 G	22640706.40	22640706.61	22640706.82	0.0289	0.0014	
Venus	57276-09-03 22:19 G	22640936.35	22640936.43	22640936.53	0.0287	0.0259	
Mercury	57283-06-03 16:48 G	22643400.03	22643400.20	22643400.37	0.0269	0.0108	
Mercury	57283-08-31 12:58 G	22643488.87	22643489.04	22643489.22	0.0269	0.0074	
Earth	57283-09-03 07:41 G	22643491.61	22643491.82	22643492.06	0.0269	0.0106	
Moon	57283-09-03 11:17 G	22643491.75	22643491.97	22643492.21	0.0269	0.0102	*
Mercury	57283-11-28 09:22 G	22643577.85	22643577.89	22643577.94	0.0269	0.0259	
Venus	57291-02-10 14:10 G	22646208.92	22646209.09	22646209.27	0.0270	0.0145	
Venus	57291-09-27 18:29 G	22646438.07	22646438.27	22646438.47	0.0271	0.0079	
Mercury	57298-06-29 20:24 G	22648905.31	22648905.35	22648905.41	0.0290	0.0266	
Mercury	57298-09-26 09:07 G	22648993.75	22648993.88	22648994.01	0.0291	0.0097	
Mercury	57298-12-23 21:36 G	22649082.27	22649082.40	22649082.53	0.0291	0.0070	
Moon	57299-03-04 18:00 G	22649153.14	22649153.25	22649153.37	0.0292	0.0259	
Earth	57299-03-04 19:41 G	22649153.21	22649153.32	22649153.46	0.0292	0.0250	*
Mercury	57299-03-22 09:50 G	22649170.83	22649170.91	22649170.98	0.0292	0.0236	
Venus	57304-12-13 11:31 G	22651262.89	22651262.98	22651263.09	0.0290	0.0254	
Venus	57305-07-31 08:53 G	22651492.66	22651492.87	22651493.09	0.0289	0.0026	
Moon	57312-08-29 07:41 G	22654078.62	22654078.82	22654079.05	0.0270	0.0131	
Earth	57312-08-29 11:31 G	22654078.76	22654078.98	22654079.20	0.0270	0.0120	*
Mercury	57312-10-21 17:31 G	22654132.08	22654132.23	22654132.39	0.0270	0.0149	
Mercury	57313-01-18 13:55 G	22654220.90	22654221.08	22654221.26	0.0269	0.0035	
Mercury	57313-04-17 10:05 G	22654309.82	22654309.92	22654310.03	0.0269	0.0219	
Venus	57320-08-23 22:48 G	22656995.26	22656995.45	22656995.65	0.0271	0.0107	
Venus	57321-04-10 03:22 G	22657224.45	22657224.64	22657224.83	0.0272	0.0119	
Mars	57322-11-08 06:58 G	22657801.58	22657801.79	22657802.01	0.0276	0.0202	
Mercury	57328-02-14 12:58 G	22659725.92	22659726.04	22659726.16	0.0290	0.0123	

Earth	57328-02-28 09:36 G	22659739.65	22659739.90	22659740.14	0.0290	0.0029
Moon	57328-02-28 11:31 G	22659739.75	22659739.98	22659740.22	0.0290	0.0018 *
Mercury	57328-05-13 01:26 G	22659814.42	22659814.56	22659814.69	0.0291	0.0045
Mercury	57328-08-09 13:41 G	22659902.98	22659903.07	22659903.16	0.0291	0.0209
Venus	57334-06-25 22:34 G	22662049.30	22662049.44	22662049.60	0.0290	0.0205
Venus	57335-02-10 19:26 G	22662279.11	22662279.31	22662279.52	0.0289	0.0073
Mars	57336-12-18 02:53 G	22662955.36	22662955.62	22662955.89	0.0283	0.0058
Mercury	57342-03-10 17:46 G	22664864.12	22664864.24	22664864.36	0.0270	0.0195
Mercury	57342-06-07 13:55 G	22664952.89	22664953.08	22664953.26	0.0269	0.0015
Mercury	57342-09-04 10:05 G	22665041.78	22665041.92	22665042.06	0.0269	0.0170
Earth	57342-09-05 18:00 G	22665043.07	22665043.25	22665043.44	0.0269	0.0174
Moon	57342-09-05 18:00 G	22665043.07	22665043.25	22665043.46	0.0269	0.0172 *
Venus	57350-03-06 01:55 G	22667781.38	22667781.58	22667781.79	0.0271	0.0076
Venus	57350-10-21 06:29 G	22668010.59	22668010.77	22668010.94	0.0272	0.0149
Mercury	57357-07-03 14:24 G	22670458.00	22670458.10	22670458.21	0.0291	0.0176
Mercury	57357-09-30 03:07 G	22670546.49	22670546.63	22670546.76	0.0291	0.0013
Mercury	57357-12-27 15:22 G	22670635.03	22670635.14	22670635.25	0.0292	0.0159
Venus	57364-01-06 04:19 G	22672835.52	22672835.68	22672835.86	0.0290	0.0168
Venus	57364-08-23 01:26 G	22673065.36	22673065.56	22673065.75	0.0288	0.0109
Mercury	57371-07-28 18:14 G	22675596.18	22675596.26	22675596.35	0.0270	0.0237
Moon	57371-08-31 20:24 G	22675630.12	22675630.35	22675630.59	0.0270	0.0061
Earth	57371-08-31 21:22 G	22675630.15	22675630.39	22675630.63	0.0270	0.0053 *
Mercury	57371-10-25 14:24 G	22675684.92	22675685.10	22675685.28	0.0269	0.0056
Mercury	57372-01-22 10:34 G	22675773.79	22675773.94	22675774.11	0.0269	0.0128
Venus	57379-01-30 06:29 G	22678338.73	22678338.77	22678338.84	0.0270	0.0259
Venus	57379-09-16 10:34 G	22678567.73	22678567.94	22678568.15	0.0271	0.0037
Venus	57380-05-02 15:07 G	22678796.98	22678797.13	22678797.29	0.0273	0.0190
Mercury	57386-11-20 18:14 G	22681190.17	22681190.26	22681190.36	0.0290	0.0201
Mercury	57387-02-17 06:43 G	22681278.65	22681278.78	22681278.92	0.0291	0.0035
Earth	57387-03-02 01:55 G	22681291.34	22681291.58	22681291.82	0.0291	0.0058

Moon	57387-03-02 05:31 G	22681291.49	22681291.73	22681291.97	0.0291	0.0069 *
Mercury	57387-05-16 19:12 G	22681367.18	22681367.30	22681367.42	0.0291	0.0132
Venus	57393-07-18 16:05 G	22683621.98	22683622.17	22683622.37	0.0290	0.0117
Venus	57394-03-05 12:43 G	22683851.85	22683852.03	22683852.21	0.0288	0.0159
Mercury	57401-03-14 15:07 G	22686416.96	22686417.13	22686417.30	0.0269	0.0097
Mercury	57401-06-11 11:17 G	22686505.80	22686505.97	22686506.14	0.0269	0.0085
Moon	57401-09-08 01:41 G	22686594.48	22686594.57	22686594.68	0.0269	0.0244
Earth	57401-09-08 04:48 G	22686594.62	22686594.70	22686594.82	0.0269	0.0245 *
Venus	57408-08-12 10:05 G	22689124.82	22689124.92	22689125.04	0.0270	0.0228
Venus	57409-03-29 13:55 G	22689353.87	22689354.08	22689354.29	0.0271	0.0007
Venus	57409-11-13 18:14 G	22689583.15	22689583.26	22689583.39	0.0272	0.0221
Mars	57411-04-05 10:19 G	22690090.66	22690090.93	22690091.23	0.0276	0.0126
Moon	57416-02-24 23:02 G	22691877.33	22691877.46	22691877.61	0.0290	0.0230
Earth	57416-02-25 02:10 G	22691877.47	22691877.59	22691877.74	0.0290	0.0241 *
Mercury	57416-04-09 19:41 G	22691922.26	22691922.32	22691922.39	0.0290	0.0256
Mercury	57416-07-07 08:24 G	22692010.72	22692010.85	22692010.98	0.0291	0.0088
Mercury	57416-10-03 20:38 G	22692099.24	22692099.36	22692099.49	0.0291	0.0080
Mercury	57416-12-31 09:07 G	22692187.81	22692187.88	22692187.95	0.0292	0.0245
Venus	57423-01-29 21:22 G	22694408.18	22694408.39	22694408.59	0.0290	0.0082
Venus	57423-09-16 17:31 G	22694638.09	22694638.23	22694638.40	0.0288	0.0194
Mars	57425-05-15 13:55 G	22695244.84	22695245.08	22695245.32	0.0283	0.0134
Mercury	57430-08-01 15:07 G	22697148.99	22697149.13	22697149.29	0.0270	0.0143
Earth	57430-09-03 07:26 G	22697181.57	22697181.81	22697182.06	0.0269	0.0018
Moon	57430-09-03 10:48 G	22697181.71	22697181.95	22697182.20	0.0269	0.0013 *
Mercury	57430-10-29 11:31 G	22697237.80	22697237.98	22697238.16	0.0269	0.0040
Mercury	57431-01-26 07:41 G	22697326.73	22697326.82	22697326.93	0.0269	0.0223
Venus	57438-02-22 17:31 G	22699911.09	22699911.23	22699911.39	0.0270	0.0192
Venus	57438-10-09 21:36 G	22700140.20	22700140.40	22700140.62	0.0272	0.0033
Venus	57439-05-27 02:38 G	22700369.55	22700369.61	22700369.68	0.0273	0.0260
Mercury	57445-08-27 23:31 G	22702654.45	22702654.48	22702654.51	0.0290	0.0282

Mercury	57445-11-24 12:00 G	22702742.88	22702743.00	22702743.13	0.0290	0.0115
Mercury	57446-02-21 00:43 G	22702831.39	22702831.53	22702831.66	0.0291	0.0054
Earth	57446-03-04 17:31 G	22702843.03	22702843.23	22702843.45	0.0291	0.0145
Moon	57446-03-04 17:46 G	22702843.04	22702843.24	22702843.47	0.0291	0.0153 *
Mercury	57446-05-20 12:58 G	22702919.95	22702920.04	22702920.13	0.0291	0.0219
Venus	57452-08-11 09:22 G	22705194.68	22705194.89	22705195.10	0.0289	0.0029
Venus	57453-03-29 05:31 G	22705424.62	22705424.73	22705424.85	0.0288	0.0244
Moon	57459-08-29 07:55 G	22707768.69	22707768.83	22707768.99	0.0270	0.0216
Earth	57459-08-29 11:31 G	22707768.83	22707768.98	22707769.14	0.0270	0.0208 *
Mercury	57459-12-19 16:19 G	22707881.05	22707881.18	22707881.32	0.0270	0.0180
Mercury	57460-03-17 12:29 G	22707969.83	22707970.02	22707970.20	0.0269	0.0006
Mercury	57460-06-14 08:38 G	22708058.73	22708058.86	22708058.99	0.0269	0.0184
Venus	57467-09-04 21:22 G	22710697.23	22710697.39	22710697.57	0.0270	0.0159
Venus	57468-04-21 01:12 G	22710926.35	22710926.55	22710926.76	0.0271	0.0064
Moon	57475-02-26 16:05 G	22713428.97	22713429.17	22713429.38	0.0290	0.0149
Earth	57475-02-26 16:05 G	22713428.98	22713429.17	22713429.38	0.0290	0.0159 *
Mercury	57475-04-13 13:12 G	22713474.95	22713475.05	22713475.17	0.0291	0.0172
Mercury	57475-07-11 01:55 G	22713563.44	22713563.58	22713563.71	0.0291	0.0005
Mercury	57475-10-07 14:10 G	22713651.98	22713652.09	22713652.20	0.0292	0.0163
Venus	57481-07-06 15:22 G	22715751.09	22715751.14	22715751.22	0.0291	0.0277
Venus	57482-02-21 13:12 G	22715980.84	22715981.05	22715981.26	0.0289	0.0003
Venus	57482-10-09 09:07 G	22716210.83	22716210.88	22716210.95	0.0288	0.0276
Mercury	57489-05-07 16:05 G	22718613.08	22718613.17	22718613.27	0.0270	0.0229
Mercury	57489-08-04 12:14 G	22718701.83	22718702.01	22718702.19	0.0269	0.0049
Earth	57489-09-04 17:17 G	22718732.99	22718733.22	22718733.46	0.0269	0.0085
Moon	57489-09-04 19:41 G	22718733.09	22718733.32	22718733.57	0.0269	0.0083 *
Mercury	57489-11-01 08:24 G	22718790.69	22718790.85	22718791.01	0.0269	0.0134
Venus	57497-03-17 04:05 G	22721483.49	22721483.67	22721483.86	0.0271	0.0124
Venus	57497-11-01 08:24 G	22721712.65	22721712.85	22721713.04	0.0272	0.0100
Mars	57499-08-31 06:43 G	22722380.46	22722380.78	22722381.10	0.0277	0.0025

Mercury	57504-08-31 16:48 G	22724207.11	22724207.20	22724207.30	0.0290	0.0201
Mercury	57504-11-28 05:17 G	22724295.59	22724295.72	22724295.86	0.0291	0.0035
Mercury	57505-02-24 17:46 G	22724384.12	22724384.24	22724384.36	0.0291	0.0134
Moon	57505-03-07 03:07 G	22724394.48	22724394.63	22724394.78	0.0291	0.0232
Earth	57505-03-07 06:14 G	22724394.61	22724394.76	22724394.92	0.0291	0.0226 *
Venus	57511-01-18 03:36 G	22726537.52	22726537.65	22726537.79	0.0290	0.0223
Venus	57511-09-05 00:58 G	22726767.33	22726767.54	22726767.75	0.0289	0.0054
Mars	57513-10-11 09:07 G	22727534.72	22727534.88	22727535.04	0.0283	0.0227
Moon	57518-08-31 19:41 G	22729320.13	22729320.32	22729320.53	0.0270	0.0144
Earth	57518-08-31 22:19 G	22729320.22	22729320.43	22729320.65	0.0270	0.0137 *
Mercury	57518-09-25 17:17 G	22729345.20	22729345.22	22729345.26	0.0270	0.0265
Mercury	57518-12-23 13:26 G	22729433.89	22729434.06	22729434.23	0.0269	0.0085
Mercury	57519-03-22 09:22 G	22729522.73	22729522.89	22729523.07	0.0269	0.0097
Venus	57526-09-28 07:55 G	22732269.63	22732269.83	22732270.03	0.0270	0.0092
Venus	57527-05-15 11:46 G	22732498.81	22732498.99	22732499.18	0.0271	0.0132
Mercury	57534-01-18 18:00 G	22734939.19	22734939.25	22734939.30	0.0290	0.0260
Earth	57534-03-01 03:36 G	22734980.42	22734980.65	22734980.89	0.0291	0.0080
Moon	57534-03-01 06:58 G	22734980.56	22734980.79	22734981.02	0.0291	0.0070 *
Mercury	57534-04-17 06:29 G	22735027.64	22735027.77	22735027.90	0.0291	0.0092
Mercury	57534-07-14 18:58 G	22735116.16	22735116.29	22735116.42	0.0291	0.0075
Mercury	57534-10-11 07:12 G	22735204.73	22735204.80	22735204.88	0.0292	0.0241
Venus	57540-07-30 06:29 G	22737323.62	22737323.77	22737323.93	0.0291	0.0194
Venus	57541-03-17 03:50 G	22737553.46	22737553.66	22737553.87	0.0289	0.0084
Mercury	57548-05-11 12:29 G	22740165.87	22740166.02	22740166.18	0.0269	0.0140
Mercury	57548-08-08 08:38 G	22740254.68	22740254.86	22740255.04	0.0269	0.0042
Moon	57548-09-06 23:31 G	22740284.27	22740284.48	22740284.69	0.0269	0.0153
Earth	57548-09-07 01:26 G	22740284.37	22740284.56	22740284.78	0.0269	0.0151 *
Mercury	57548-11-05 04:48 G	22740343.61	22740343.70	22740343.80	0.0269	0.0225
Venus	57556-04-09 13:26 G	22743055.86	22743056.06	22743056.27	0.0271	0.0059
Venus	57556-11-24 17:31 G	22743285.07	22743285.23	22743285.41	0.0272	0.0166

Mercury	57563-09-04 09:36 G	22745759.78	22745759.90	22745760.02	0.0291	0.0126
Mercury	57563-12-01 22:05 G	22745848.29	22745848.42	22745848.56	0.0291	0.0042
Mercury	57564-02-28 10:34 G	22745936.85	22745936.94	22745937.03	0.0292	0.0208
Venus	57570-02-09 17:31 G	22748110.04	22748110.23	22748110.41	0.0290	0.0143
Venus	57570-09-27 14:24 G	22748339.92	22748340.10	22748340.29	0.0289	0.0134
Mars	57572-01-19 02:53 G	22748818.62	22748818.62	22748818.64	0.0285	0.0285
Earth	57577-09-02 06:43 G	22750871.55	22750871.78	22750872.03	0.0270	0.0070
Moon	57577-09-02 08:24 G	22750871.62	22750871.85	22750872.08	0.0270	0.0073 *
Mercury	57577-09-28 13:41 G	22750897.94	22750898.07	22750898.21	0.0270	0.0175
Mercury	57577-12-26 09:50 G	22750986.73	22750986.91	22750987.09	0.0269	0.0006
Mercury	57578-03-25 06:00 G	22751075.62	22751075.75	22751075.88	0.0269	0.0188
Venus	57585-03-05 14:10 G	22753613.01	22753613.09	22753613.18	0.0269	0.0246
Venus	57585-10-20 17:17 G	22753842.01	22753842.22	22753842.44	0.0270	0.0027
Venus	57586-06-06 21:07 G	22754071.25	22754071.38	22754071.54	0.0271	0.0198
Mars	57588-01-25 22:48 G	22754669.13	22754669.45	22754669.77	0.0276	0.0031
Mercury	57593-01-21 10:34 G	22756491.84	22756491.94	22756492.04	0.0290	0.0187
Earth	57593-03-02 11:46 G	22756531.74	22756531.99	22756532.23	0.0291	0.0008
Moon	57593-03-02 14:10 G	22756531.84	22756532.09	22756532.34	0.0291	0.0002 *
Mercury	57593-04-19 23:02 G	22756580.33	22756580.46	22756580.60	0.0291	0.0020
Mercury	57593-07-17 11:31 G	22756668.86	22756668.98	22756669.09	0.0291	0.0147
Venus	57599-08-22 18:58 G	22758896.10	22758896.29	22758896.49	0.0290	0.0118
Venus	57600-04-08 16:05 G	22759126.00	22759126.17	22759126.35	0.0289	0.0160
Mars	57602-03-07 01:41 G	22759823.51	22759823.57	22759823.65	0.0283	0.0272
Mercury	57607-02-15 12:29 G	22761629.93	22761630.02	22761630.10	0.0270	0.0235
Mercury	57607-05-15 08:24 G	22761718.67	22761718.85	22761719.03	0.0269	0.0055
Mercury	57607-08-12 04:34 G	22761807.53	22761807.69	22761807.85	0.0269	0.0127
Moon	57607-09-09 04:19 G	22761835.55	22761835.68	22761835.83	0.0269	0.0219
Earth	57607-09-09 07:55 G	22761835.69	22761835.83	22761835.98	0.0269	0.0213 *
Venus	57614-09-15 18:14 G	22764399.14	22764399.26	22764399.38	0.0270	0.0217
Venus	57615-05-02 21:36 G	22764628.19	22764628.40	22764628.61	0.0271	0.0004

Venus	57615-12-18 01:41 G	22764857.46	22764857.57	22764857.69	0.0272	0.0229
Moon	57622-02-24 18:00 G	22767118.23	22767118.25	22767118.30	0.0290	0.0287
Mercury	57622-06-10 13:12 G	22767223.97	22767224.05	22767224.13	0.0290	0.0226
Mercury	57622-09-07 01:55 G	22767312.44	22767312.58	22767312.71	0.0291	0.0059
Mercury	57622-12-04 14:24 G	22767400.97	22767401.10	22767401.22	0.0291	0.0109
Mercury	57623-03-03 02:38 G	22767489.57	22767489.61	22767489.65	0.0292	0.0274
Venus	57629-03-04 05:02 G	22769682.51	22769682.71	22769682.92	0.0290	0.0069
Venus	57629-10-20 01:55 G	22769912.44	22769912.58	22769912.73	0.0288	0.0207
Earth	57636-09-03 12:58 G	22772422.79	22772423.04	22772423.28	0.0270	0.0008
Moon	57636-09-03 16:19 G	22772422.94	22772423.18	22772423.43	0.0270	0.0011 *
Mercury	57636-10-01 09:22 G	22772450.72	22772450.89	22772451.07	0.0270	0.0091
Mercury	57636-12-29 05:31 G	22772539.56	22772539.73	22772539.90	0.0269	0.0090
Venus	57644-03-27 22:19 G	22775185.28	22775185.43	22775185.59	0.0269	0.0184
Venus	57644-11-12 01:26 G	22775414.35	22775414.56	22775414.77	0.0270	0.0036
Venus	57645-06-29 05:31 G	22775643.68	22775643.73	22775643.79	0.0272	0.0260
Mercury	57651-10-28 13:55 G	22777956.07	22777956.08	22777956.10	0.0290	0.0288
Mercury	57652-01-25 02:38 G	22778044.49	22778044.61	22778044.73	0.0290	0.0121
Moon	57652-03-03 14:24 G	22778082.86	22778083.10	22778083.35	0.0291	0.0061
Earth	57652-03-03 17:02 G	22778082.97	22778083.21	22778083.45	0.0291	0.0059 *
Mercury	57652-04-22 15:07 G	22778133.00	22778133.13	22778133.26	0.0291	0.0046
Mercury	57652-07-20 03:22 G	22778221.56	22778221.64	22778221.73	0.0291	0.0212
Venus	57658-09-14 05:31 G	22780468.52	22780468.73	22780468.94	0.0290	0.0045
Venus	57659-05-02 02:10 G	22780698.47	22780698.59	22780698.73	0.0289	0.0231
Mars	57660-06-13 10:05 G	22781106.81	22781106.92	22781107.05	0.0285	0.0255
Moon	57665-08-29 01:41 G	22783009.52	22783009.57	22783009.64	0.0271	0.0262
Earth	57665-08-29 05:46 G	22783009.66	22783009.74	22783009.82	0.0271	0.0254
Mercury	57666-02-18 07:12 G	22783182.66	22783182.80	22783182.96	0.0270	0.0158
Mercury	57666-05-18 03:22 G	22783271.46	22783271.64	22783271.82	0.0269	0.0024
Mercury	57666-08-14 23:31 G	22783360.37	22783360.48	22783360.60	0.0269	0.0206
Venus	57673-10-08 00:58 G	22785971.38	22785971.54	22785971.72	0.0270	0.0158

Venus	57674-05-25 04:34 G	22786200.48	22786200.69	22786200.90	0.0271	0.0064
Mars	57676-06-20 13:12 G	22786957.75	22786958.05	22786958.36	0.0276	0.0090
Earth	57681-02-25 22:19 G	22788669.30	22788669.43	22788669.59	0.0290	0.0232
Moon	57681-02-26 01:26 G	22788669.42	22788669.56	22788669.71	0.0290	0.0229 *
Mercury	57681-06-13 04:48 G	22788776.59	22788776.70	22788776.82	0.0290	0.0165
Mercury	57681-09-09 17:31 G	22788865.09	22788865.23	22788865.36	0.0291	0.0006
Mercury	57681-12-07 05:46 G	22788953.64	22788953.74	22788953.85	0.0291	0.0169
Venus	57687-08-09 16:05 G	22791025.12	22791025.17	22791025.23	0.0291	0.0279
Venus	57688-03-26 14:24 G	22791254.88	22791255.10	22791255.31	0.0290	0.0005
Venus	57688-11-11 10:48 G	22791484.90	22791484.95	22791485.02	0.0288	0.0275
Mercury	57695-07-08 08:10 G	22793914.73	22793914.84	22793914.98	0.0270	0.0195
Earth	57695-09-05 16:05 G	22793973.93	22793974.17	22793974.42	0.0270	0.0053
Moon	57695-09-05 17:02 G	22793973.96	22793974.21	22793974.46	0.0270	0.0052 *
Mercury	57695-10-05 04:19 G	22794003.50	22794003.68	22794003.86	0.0270	0.0014
Mercury	57696-01-02 00:29 G	22794092.38	22794092.52	22794092.66	0.0269	0.0168
Venus	57703-04-21 05:17 G	22796757.53	22796757.72	22796757.91	0.0269	0.0125
Venus	57703-12-06 08:24 G	22796986.65	22796986.85	22796987.05	0.0270	0.0096
Mercury	57710-11-01 05:31 G	22799508.65	22799508.73	22799508.82	0.0290	0.0228
Mercury	57711-01-28 18:14 G	22799597.13	22799597.26	22799597.39	0.0290	0.0061
Moon	57711-03-06 15:50 G	22799633.94	22799634.16	22799634.38	0.0291	0.0117
Earth	57711-03-06 18:58 G	22799634.08	22799634.29	22799634.52	0.0291	0.0121 *
Mercury	57711-04-27 06:43 G	22799685.65	22799685.78	22799685.90	0.0291	0.0105
Mercury	57711-07-24 18:58 G	22799774.25	22799774.29	22799774.34	0.0291	0.0270
Venus	57717-02-19 16:05 G	22801811.09	22801811.17	22801811.28	0.0291	0.0258
Venus	57717-10-07 14:10 G	22802040.88	22802041.09	22802041.31	0.0290	0.0023
Moon	57724-08-31 06:58 G	22804560.64	22804560.79	22804560.95	0.0270	0.0202
Earth	57724-08-31 07:12 G	22804560.65	22804560.80	22804560.98	0.0270	0.0199 *
Mercury	57724-11-25 05:46 G	22804646.71	22804646.74	22804646.78	0.0270	0.0264
Mercury	57725-02-22 01:41 G	22804735.40	22804735.57	22804735.75	0.0269	0.0085
Mercury	57725-05-21 21:50 G	22804824.24	22804824.41	22804824.58	0.0269	0.0097

Venus	57732-10-31 06:58 G	22807543.60	22807543.79	22807543.99	0.0270	0.0100
Venus	57733-06-17 10:19 G	22807772.75	22807772.93	22807773.12	0.0271	0.0122
Earth	57740-02-28 22:48 G	22810220.26	22810220.45	22810220.65	0.0290	0.0174
Moon	57740-02-29 01:55 G	22810220.38	22810220.58	22810220.78	0.0290	0.0174 *
Mercury	57740-03-20 07:26 G	22810240.78	22810240.81	22810240.85	0.0290	0.0277
Mercury	57740-06-16 20:10 G	22810329.22	22810329.34	22810329.47	0.0290	0.0109
Mercury	57740-09-13 08:38 G	22810417.73	22810417.86	22810417.99	0.0291	0.0058
Mercury	57740-12-10 21:07 G	22810506.29	22810506.38	22810506.46	0.0291	0.0223
Venus	57746-09-01 23:46 G	22812597.35	22812597.49	22812597.63	0.0291	0.0214
Venus	57747-04-19 21:36 G	22812827.20	22812827.40	22812827.61	0.0289	0.0066
Mars	57748-11-08 02:24 G	22813395.43	22813395.60	22813395.79	0.0285	0.0212
Mercury	57754-07-12 02:24 G	22815467.44	22815467.60	22815467.76	0.0270	0.0124
Moon	57754-09-07 13:41 G	22815524.84	22815525.07	22815525.30	0.0270	0.0111
Earth	57754-09-07 17:17 G	22815524.99	22815525.22	22815525.45	0.0270	0.0106 *
Mercury	57754-10-08 22:34 G	22815556.26	22815556.44	22815556.62	0.0270	0.0057
Mercury	57755-01-05 18:43 G	22815645.20	22815645.28	22815645.36	0.0269	0.0240
Venus	57762-05-13 11:31 G	22818329.77	22818329.98	22818330.18	0.0269	0.0068
Venus	57762-12-28 14:38 G	22818558.94	22818559.11	22818559.29	0.0270	0.0154
Mars	57764-11-14 18:00 G	22819245.97	22819246.25	22819246.54	0.0275	0.0129
Mercury	57769-11-03 21:07 G	22821061.27	22821061.38	22821061.49	0.0290	0.0170
Mercury	57770-01-31 09:36 G	22821149.77	22821149.90	22821150.03	0.0290	0.0004
Earth	57770-03-07 19:55 G	22821185.14	22821185.33	22821185.52	0.0290	0.0179
Moon	57770-03-07 20:53 G	22821185.19	22821185.37	22821185.57	0.0290	0.0172 *
Mercury	57770-04-29 21:50 G	22821238.31	22821238.41	22821238.53	0.0291	0.0162
Venus	57776-03-13 23:17 G	22823383.32	22823383.47	22823383.64	0.0291	0.0194
Venus	57776-10-29 21:07 G	22823613.18	22823613.38	22823613.58	0.0290	0.0086
Earth	57783-09-02 06:58 G	22826111.59	22826111.79	22826112.00	0.0271	0.0147
Moon	57783-09-02 10:34 G	22826111.74	22826111.94	22826112.16	0.0271	0.0145 *
Mercury	57783-11-28 23:31 G	22826199.36	22826199.48	22826199.60	0.0270	0.0198
Mercury	57784-02-25 19:26 G	22826288.13	22826288.31	22826288.50	0.0270	0.0018

Mercury	57784-05-24 15:36 G	22826377.01	22826377.15	22826377.30	0.0269	0.0166
Venus	57791-04-08 09:36 G	22828886.87	22828886.90	22828886.95	0.0269	0.0262
Venus	57791-11-23 12:14 G	22829115.81	22829116.01	22829116.22	0.0270	0.0045
Venus	57792-07-09 15:36 G	22829345.00	22829345.15	22829345.32	0.0271	0.0178
Moon	57799-03-01 20:10 G	22831771.11	22831771.34	22831771.57	0.0290	0.0125
Earth	57799-03-01 21:36 G	22831771.18	22831771.40	22831771.62	0.0290	0.0120 *
Mercury	57799-03-23 22:34 G	22831793.36	22831793.44	22831793.53	0.0290	0.0223
Mercury	57799-06-20 11:02 G	22831881.83	22831881.96	22831882.10	0.0290	0.0058
Mercury	57799-09-16 23:31 G	22831970.36	22831970.48	22831970.61	0.0291	0.0110
Mercury	57799-12-14 11:46 G	22832058.96	22832058.99	22832059.04	0.0291	0.0275
Venus	57805-09-25 06:00 G	22834169.57	22834169.75	22834169.93	0.0291	0.0152
Venus	57806-05-13 03:36 G	22834399.47	22834399.65	22834399.85	0.0289	0.0127
Mercury	57813-04-18 00:00 G	22836931.43	22836931.50	22836931.59	0.0271	0.0239
Mercury	57813-07-15 20:10 G	22837020.16	22837020.34	22837020.52	0.0270	0.0058
Moon	57813-09-09 14:24 G	22837075.92	22837076.10	22837076.29	0.0270	0.0167
Earth	57813-09-09 16:34 G	22837075.99	22837076.19	22837076.39	0.0270	0.0157 *
Mercury	57813-10-12 16:05 G	22837109.02	22837109.17	22837109.34	0.0270	0.0125
Venus	57820-10-19 14:24 G	22839673.00	22839673.10	22839673.22	0.0268	0.0229
Venus	57821-06-05 17:02 G	22839902.00	22839902.21	22839902.42	0.0269	0.0011
Venus	57822-01-20 20:10 G	22840131.22	22840131.34	22840131.48	0.0271	0.0211
Mercury	57828-08-10 23:31 G	22842525.46	22842525.48	22842525.52	0.0289	0.0281
Mercury	57828-11-07 12:14 G	22842613.89	22842614.01	22842614.14	0.0290	0.0115
Mercury	57829-02-04 00:43 G	22842702.40	22842702.53	22842702.66	0.0290	0.0051
Earth	57829-03-09 19:41 G	22842736.18	22842736.32	22842736.47	0.0290	0.0235
Moon	57829-03-09 23:02 G	22842736.32	22842736.46	22842736.63	0.0290	0.0226 *
Mercury	57829-05-03 12:58 G	22842790.96	22842791.04	22842791.13	0.0291	0.0216
Venus	57835-04-07 05:46 G	22844955.56	22844955.74	22844955.94	0.0291	0.0131
Venus	57835-11-23 03:07 G	22845185.46	22845185.63	22845185.82	0.0290	0.0149
Mars	57837-04-03 16:34 G	22845683.02	22845683.19	22845683.39	0.0286	0.0209
Earth	57842-09-04 05:17 G	22847662.50	22847662.72	22847662.96	0.0271	0.0098

Moon	57842-09-04 06:58 G	22847662.55	22847662.79	22847663.03	0.0271	0.0091	*
Mercury	57842-12-02 16:48 G	22847752.05	22847752.20	22847752.36	0.0270	0.0135	
Mercury	57843-03-01 12:58 G	22847840.86	22847841.04	22847841.22	0.0270	0.0047	
Mercury	57843-05-29 09:07 G	22847929.79	22847929.88	22847929.98	0.0269	0.0231	
Venus	57850-05-01 14:53 G	22850458.99	22850459.12	22850459.25	0.0269	0.0207	
Venus	57850-12-16 17:31 G	22850688.02	22850688.23	22850688.44	0.0270	0.0011	
Venus	57851-08-02 20:53 G	22850917.28	22850917.37	22850917.49	0.0271	0.0234	
Mars	57853-04-10 13:26 G	22851533.82	22851534.06	22851534.33	0.0276	0.0162	
Moon	57858-03-03 17:02 G	22853321.98	22853322.21	22853322.45	0.0290	0.0073	
Earth	57858-03-03 20:38 G	22853322.13	22853322.36	22853322.60	0.0290	0.0065	*
Mercury	57858-03-27 13:41 G	22853345.96	22853346.07	22853346.18	0.0290	0.0169	
Mercury	57858-06-24 02:10 G	22853434.46	22853434.59	22853434.73	0.0290	0.0009	
Mercury	57858-09-20 14:38 G	22853523.00	22853523.11	22853523.22	0.0291	0.0162	
Venus	57864-10-17 11:46 G	22855741.79	22855741.99	22855742.20	0.0290	0.0091	
Venus	57865-06-04 09:07 G	22855971.72	22855971.88	22855972.05	0.0289	0.0187	
Mercury	57872-04-20 17:17 G	22858484.09	22858484.22	22858484.36	0.0271	0.0177	
Mercury	57872-07-18 13:26 G	22858572.87	22858573.06	22858573.24	0.0270	0.0007	
Earth	57872-09-10 13:55 G	22858626.94	22858627.08	22858627.26	0.0270	0.0206	
Moon	57872-09-10 17:02 G	22858627.08	22858627.21	22858627.36	0.0270	0.0219	*
Mercury	57872-10-15 09:36 G	22858661.77	22858661.90	22858662.03	0.0270	0.0188	
Venus	57879-11-11 20:10 G	22861245.18	22861245.34	22861245.50	0.0269	0.0174	
Venus	57880-06-27 22:48 G	22861474.24	22861474.45	22861474.65	0.0270	0.0045	
Venus	57881-02-12 02:10 G	22861703.56	22861703.59	22861703.63	0.0271	0.0267	
Jupiter	57884-05-09 23:31 G	22862886.04	22862886.48	22862886.92	0.0279	0.0016	
Mercury	57887-08-14 15:07 G	22864078.05	22864078.13	22864078.21	0.0289	0.0224	
Mercury	57887-11-11 03:36 G	22864166.52	22864166.65	22864166.78	0.0289	0.0059	
Mercury	57888-02-07 16:05 G	22864255.04	22864255.17	22864255.29	0.0290	0.0106	
Moon	57888-03-10 20:24 G	22864287.30	22864287.35	22864287.43	0.0290	0.0281	
Mercury	57888-05-06 04:05 G	22864343.63	22864343.67	22864343.73	0.0290	0.0270	
Venus	57894-04-29 12:00 G	22866527.80	22866528.00	22866528.21	0.0291	0.0068	

Venus	57894-12-15 09:07 G	22866757.74	22866757.88	22866758.03	0.0289	0.0209
Moon	57901-09-06 00:29 G	22869213.27	22869213.52	22869213.77	0.0271	0.0037
Earth	57901-09-06 03:36 G	22869213.41	22869213.65	22869213.90	0.0271	0.0049 *
Mercury	57901-09-08 13:55 G	22869216.03	22869216.08	22869216.15	0.0271	0.0253
Mercury	57901-12-06 10:05 G	22869304.75	22869304.92	22869305.10	0.0270	0.0071
Mercury	57902-03-05 06:14 G	22869393.60	22869393.76	22869393.93	0.0270	0.0111
Venus	57909-05-24 20:10 G	22872031.16	22872031.34	22872031.51	0.0269	0.0152
Venus	57910-01-08 22:48 G	22872260.25	22872260.45	22872260.66	0.0270	0.0067
Mercury	57917-01-01 16:19 G	22874810.15	22874810.18	22874810.21	0.0289	0.0280
Moon	57917-03-05 19:55 G	22874873.09	22874873.33	22874873.56	0.0289	0.0019
Earth	57917-03-05 20:24 G	22874873.10	22874873.35	22874873.59	0.0290	0.0008 *
Mercury	57917-03-31 04:48 G	22874898.58	22874898.70	22874898.83	0.0290	0.0115
Mercury	57917-06-27 17:17 G	22874987.09	22874987.22	22874987.36	0.0290	0.0052
Mercury	57917-09-24 05:46 G	22875075.65	22875075.74	22875075.83	0.0291	0.0215
Venus	57923-11-10 17:46 G	22877314.03	22877314.24	22877314.45	0.0290	0.0030
Venus	57924-06-27 15:07 G	22877544.02	22877544.13	22877544.23	0.0289	0.0246
Mars	57925-08-28 20:53 G	22877971.18	22877971.37	22877971.59	0.0286	0.0183
Mercury	57931-04-25 10:34 G	22880036.77	22880036.94	22880037.10	0.0271	0.0115
Mercury	57931-07-23 06:29 G	22880125.60	22880125.77	22880125.95	0.0270	0.0068
Earth	57931-09-13 11:46 G	22880177.93	22880177.99	22880178.09	0.0270	0.0254
Moon	57931-09-13 14:53 G	22880178.10	22880178.12	22880178.15	0.0270	0.0268
Mercury	57931-10-20 02:53 G	22880214.56	22880214.62	22880214.69	0.0270	0.0252
Venus	57938-12-05 01:41 G	22882817.39	22882817.57	22882817.77	0.0269	0.0119
Venus	57939-07-22 04:48 G	22883046.50	22883046.70	22883046.89	0.0270	0.0102
Mars	57941-09-05 02:24 G	22883822.42	22883822.60	22883822.81	0.0275	0.0216
Mercury	57946-08-18 06:43 G	22885630.67	22885630.78	22885630.89	0.0289	0.0163
Mercury	57946-11-14 19:12 G	22885719.17	22885719.30	22885719.44	0.0289	0.0002
Mercury	57947-02-11 07:26 G	22885807.71	22885807.81	22885807.92	0.0290	0.0165
Venus	57952-10-04 21:07 G	22887870.34	22887870.38	22887870.42	0.0291	0.0285
Venus	57953-05-22 19:12 G	22888100.09	22888100.30	22888100.51	0.0290	0.0005

Venus	57954-01-07 15:50 G	22888330.10	22888330.16	22888330.24	0.0289	0.0271
Moon	57960-09-06 23:17 G	22890764.23	22890764.47	22890764.71	0.0271	0.0013
Earth	57960-09-07 01:55 G	22890764.34	22890764.58	22890764.83	0.0271	0.0004 *
Mercury	57960-09-11 07:12 G	22890768.68	22890768.80	22890768.94	0.0271	0.0190
Mercury	57960-12-09 03:36 G	22890857.46	22890857.65	22890857.83	0.0270	0.0009
Mercury	57961-03-07 23:46 G	22890946.35	22890946.49	22890946.63	0.0270	0.0176
Venus	57968-06-16 01:55 G	22893603.38	22893603.58	22893603.78	0.0269	0.0096
Venus	57969-01-31 05:02 G	22893832.52	22893832.71	22893832.90	0.0270	0.0125
Mercury	57976-01-05 07:55 G	22896362.75	22896362.83	22896362.92	0.0289	0.0220
Earth	57976-03-06 22:05 G	22896424.18	22896424.42	22896424.66	0.0289	0.0053
Moon	57976-03-07 01:41 G	22896424.33	22896424.57	22896424.81	0.0289	0.0039 *
Mercury	57976-04-02 20:24 G	22896451.22	22896451.35	22896451.49	0.0290	0.0055
Mercury	57976-06-30 08:53 G	22896539.75	22896539.87	22896539.99	0.0290	0.0110
Mercury	57976-09-26 21:07 G	22896628.34	22896628.38	22896628.43	0.0291	0.0273
Venus	57982-04-17 02:24 G	22898656.49	22898656.60	22898656.71	0.0291	0.0247
Venus	57982-12-03 00:43 G	22898886.32	22898886.53	22898886.74	0.0290	0.0033
Earth	57989-09-02 01:12 G	22901351.43	22901351.55	22901351.68	0.0272	0.0234
Moon	57989-09-02 04:19 G	22901351.55	22901351.68	22901351.83	0.0272	0.0226 *
Mercury	57990-01-29 07:55 G	22901500.74	22901500.83	22901500.92	0.0271	0.0233
Mercury	57990-04-28 03:50 G	22901589.48	22901589.66	22901589.84	0.0271	0.0051
Mercury	57990-07-26 00:00 G	22901678.35	22901678.50	22901678.66	0.0270	0.0133
Venus	57997-12-27 08:24 G	22904389.65	22904389.85	22904390.06	0.0269	0.0061
Venus	57998-08-13 11:31 G	22904618.82	22904618.98	22904619.15	0.0270	0.0160

59TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 59th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	58005-03-01 01:41	G	22907010.46	22907010.57	22907010.71	0.0287	0.0248	
Earth	58005-03-01 05:46	G	22907010.60	22907010.74	22907010.89	0.0287	0.0233	*
Mercury	58005-05-24 10:05	G	22907094.88	22907094.92	22907094.98	0.0288	0.0264	
Mercury	58005-08-20 22:48	G	22907183.32	22907183.45	22907183.58	0.0289	0.0099	
Mercury	58005-11-17 11:17	G	22907271.83	22907271.97	22907272.10	0.0289	0.0065	
Mercury	58006-02-13 23:17	G	22907360.40	22907360.47	22907360.56	0.0290	0.0228	
Venus	58011-10-28 05:46	G	22909442.60	22909442.74	22909442.88	0.0291	0.0218	
Venus	58012-06-14 03:36	G	22909672.44	22909672.65	22909672.86	0.0290	0.0062	
Mars	58014-01-21 19:12	G	22910259.09	22910259.30	22910259.53	0.0286	0.0162	
Earth	58019-09-09 01:41	G	22912315.33	22912315.57	22912315.82	0.0271	0.0052	
Moon	58019-09-09 03:07	G	22912315.40	22912315.63	22912315.87	0.0271	0.0066	*
Mercury	58019-09-15 01:12	G	22912321.39	22912321.55	22912321.71	0.0271	0.0122	
Mercury	58019-12-12 21:22	G	22912410.21	22912410.39	22912410.57	0.0270	0.0061	
Mercury	58020-03-10 17:31	G	22912499.16	22912499.23	22912499.31	0.0270	0.0245	
Venus	58026-11-22 06:00	G	22914946.70	22914946.75	22914946.82	0.0269	0.0255	
Venus	58027-07-09 08:38	G	22915175.65	22915175.86	22915176.07	0.0270	0.0038	
Venus	58028-02-23 12:00	G	22915404.85	22915405.00	22915405.16	0.0271	0.0184	
Mars	58030-01-29 03:50	G	22916110.56	22916110.66	22916110.78	0.0275	0.0259	
Mercury	58035-01-08 00:00	G	22917915.39	22917915.50	22917915.62	0.0289	0.0154	
Earth	58035-03-09 03:22	G	22917975.42	22917975.64	22917975.86	0.0289	0.0119	
Moon	58035-03-09 05:31	G	22917975.49	22917975.73	22917975.96	0.0289	0.0103	*
Mercury	58035-04-06 12:29	G	22918003.89	22918004.02	22918004.16	0.0290	0.0014	
Mercury	58035-07-04 00:58	G	22918092.43	22918092.54	22918092.64	0.0290	0.0174	
Venus	58041-05-09 11:17	G	22920228.81	22920228.97	22920229.14	0.0291	0.0180	
Venus	58041-12-25 09:22	G	22920458.69	22920458.89	22920459.09	0.0290	0.0100	
Moon	58048-09-03 00:14	G	22922902.31	22922902.51	22922902.71	0.0272	0.0170	

Earth	58048-09-03 01:12 G	22922902.38	22922902.55	22922902.74	0.0272	0.0183	*
Mercury	58049-02-01 01:41 G	22923053.43	22923053.57	22923053.71	0.0271	0.0166	
Mercury	58049-04-30 21:50 G	22923142.22	22923142.41	22923142.59	0.0271	0.0018	
Mercury	58049-07-28 18:00 G	22923231.13	22923231.25	22923231.37	0.0271	0.0202	
Venus	58056-06-03 13:12 G	22925732.94	22925733.05	22925733.18	0.0269	0.0220	
Venus	58057-01-18 16:05 G	22925961.95	22925962.17	22925962.38	0.0270	0.0005	
Venus	58057-09-04 19:26 G	22926191.20	22926191.31	22926191.44	0.0271	0.0221	
Moon	58064-03-02 11:46 G	22928561.81	22928561.99	22928562.18	0.0287	0.0179	
Earth	58064-03-02 13:12 G	22928561.86	22928562.05	22928562.26	0.0287	0.0163	*
Mercury	58064-05-27 02:53 G	22928647.52	22928647.62	22928647.72	0.0288	0.0193	
Mercury	58064-08-23 15:22 G	22928736.00	22928736.14	22928736.27	0.0289	0.0030	
Mercury	58064-11-20 03:36 G	22928824.53	22928824.65	22928824.77	0.0289	0.0134	
Venus	58070-11-19 16:19 G	22931015.00	22931015.18	22931015.37	0.0291	0.0146	
Venus	58071-07-07 13:55 G	22931244.89	22931245.08	22931245.27	0.0289	0.0132	
Mercury	58078-06-20 23:31 G	22933785.39	22933785.48	22933785.58	0.0271	0.0231	
Earth	58078-09-10 03:36 G	22933866.43	22933866.65	22933866.88	0.0271	0.0107	
Moon	58078-09-10 07:12 G	22933866.59	22933866.80	22933867.03	0.0271	0.0123	*
Mercury	58078-09-17 19:41 G	22933874.14	22933874.32	22933874.50	0.0271	0.0049	
Mercury	58078-12-15 15:50 G	22933963.00	22933963.16	22933963.32	0.0270	0.0134	
Venus	58085-12-14 13:55 G	22936518.94	22936519.08	22936519.23	0.0269	0.0196	
Venus	58086-07-31 16:48 G	22936747.99	22936748.20	22936748.42	0.0270	0.0024	
Venus	58087-03-17 20:24 G	22936977.27	22936977.35	22936977.45	0.0271	0.0245	
Mercury	58093-10-14 04:05 G	22939379.61	22939379.67	22939379.74	0.0289	0.0247	
Mercury	58094-01-10 16:34 G	22939468.07	22939468.19	22939468.32	0.0289	0.0083	
Moon	58094-03-10 08:24 G	22939526.66	22939526.85	22939527.06	0.0289	0.0173	
Earth	58094-03-10 11:02 G	22939526.79	22939526.96	22939527.15	0.0289	0.0191	*
Mercury	58094-04-09 05:02 G	22939556.58	22939556.71	22939556.84	0.0290	0.0081	
Mercury	58094-07-06 17:17 G	22939645.15	22939645.22	22939645.29	0.0290	0.0244	
Venus	58100-06-01 22:05 G	22941801.23	22941801.42	22941801.62	0.0291	0.0108	
Venus	58101-01-17 19:26 G	22942031.15	22942031.31	22942031.49	0.0289	0.0171	

Mars	58102-06-18 12:14 G	22942547.77	22942548.01	22942548.27	0.0286	0.0114
Moon	58107-09-06 00:00 G	22944453.28	22944453.50	22944453.72	0.0272	0.0112
Earth	58107-09-06 03:36 G	22944453.44	22944453.65	22944453.88	0.0272	0.0127 *
Mercury	58108-02-05 20:10 G	22944606.17	22944606.34	22944606.51	0.0271	0.0092
Mercury	58108-05-04 16:19 G	22944695.01	22944695.18	22944695.35	0.0271	0.0092
Venus	58115-06-27 21:36 G	22947305.23	22947305.40	22947305.57	0.0269	0.0159
Venus	58116-02-12 00:43 G	22947534.32	22947534.53	22947534.73	0.0270	0.0061
Mercury	58123-03-04 07:12 G	22950111.78	22950111.80	22950111.83	0.0288	0.0280
Earth	58123-03-05 23:46 G	22950113.26	22950113.49	22950113.73	0.0288	0.0088
Moon	58123-03-06 02:24 G	22950113.39	22950113.60	22950113.83	0.0288	0.0104 *
Mercury	58123-05-31 19:55 G	22950200.20	22950200.33	22950200.45	0.0288	0.0115
Mercury	58123-08-28 08:10 G	22950288.71	22950288.84	22950288.98	0.0289	0.0049
Mercury	58123-11-24 20:24 G	22950377.27	22950377.35	22950377.45	0.0289	0.0211
Venus	58129-12-13 05:31 G	22952587.52	22952587.73	22952587.93	0.0290	0.0069
Venus	58130-07-31 02:24 G	22952817.46	22952817.60	22952817.75	0.0289	0.0207
Mercury	58137-06-24 18:43 G	22955338.13	22955338.28	22955338.43	0.0271	0.0152
Earth	58137-09-12 08:10 G	22955417.65	22955417.84	22955418.04	0.0271	0.0167
Moon	58137-09-12 08:53 G	22955417.68	22955417.87	22955418.06	0.0271	0.0181 *
Mercury	58137-09-21 14:53 G	22955426.94	22955427.12	22955427.30	0.0271	0.0031
Mercury	58137-12-19 10:48 G	22955515.86	22955515.95	22955516.07	0.0270	0.0216
Venus	58145-01-06 23:02 G	22958091.28	22958091.46	22958091.65	0.0269	0.0133
Venus	58145-08-24 02:10 G	22958320.40	22958320.59	22958320.80	0.0270	0.0087
Mercury	58152-10-17 21:22 G	22960932.28	22960932.39	22960932.50	0.0289	0.0168
Mercury	58153-01-14 09:50 G	22961020.78	22961020.91	22961021.04	0.0289	0.0004
Moon	58153-03-12 19:26 G	22961078.20	22961078.31	22961078.43	0.0290	0.0252
Earth	58153-03-12 22:19 G	22961078.36	22961078.43	22961078.53	0.0290	0.0269 *
Mercury	58153-04-12 22:05 G	22961109.31	22961109.42	22961109.54	0.0290	0.0159
Venus	58159-06-25 11:02 G	22963373.75	22963373.96	22963374.18	0.0290	0.0032
Venus	58160-02-10 08:10 G	22963603.74	22963603.84	22963603.96	0.0289	0.0244
Moon	58166-09-07 08:24 G	22966004.62	22966004.85	22966005.09	0.0272	0.0052

Earth	58166-09-07 08:38 G	22966004.63	22966004.86	22966005.10	0.0272	0.0067 *
Mercury	58166-11-11 19:26 G	22966070.18	22966070.31	22966070.43	0.0272	0.0195
Mercury	58167-02-08 15:22 G	22966158.96	22966159.14	22966159.32	0.0271	0.0012
Mercury	58167-05-08 11:31 G	22966247.85	22966247.98	22966248.13	0.0271	0.0173
Venus	58174-07-20 07:12 G	22968877.60	22968877.80	22968878.00	0.0270	0.0096
Venus	58175-03-06 10:34 G	22969106.76	22969106.94	22969107.13	0.0271	0.0126
Mars	58176-09-28 22:19 G	22969679.24	22969679.43	22969679.64	0.0274	0.0215
Mercury	58182-03-07 00:58 G	22971664.44	22971664.54	22971664.64	0.0288	0.0197
Earth	58182-03-07 12:58 G	22971664.80	22971665.04	22971665.29	0.0288	0.0008
Moon	58182-03-07 16:19 G	22971664.93	22971665.18	22971665.43	0.0288	0.0023 *
Mercury	58182-06-03 13:26 G	22971752.92	22971753.06	22971753.19	0.0288	0.0034
Mercury	58182-08-31 01:41 G	22971841.45	22971841.57	22971841.69	0.0289	0.0129
Venus	58188-05-19 22:05 G	22973930.35	22973930.42	22973930.52	0.0291	0.0266
Venus	58189-01-04 20:10 G	22974160.13	22974160.34	22974160.55	0.0290	0.0012
Venus	58189-08-22 16:48 G	22974390.18	22974390.20	22974390.23	0.0289	0.0286
Mars	58190-11-12 15:07 G	22974836.86	22974837.13	22974837.40	0.0286	0.0044
Mercury	58196-03-30 18:29 G	22976802.21	22976802.27	22976802.36	0.0272	0.0248
Mercury	58196-06-27 14:38 G	22976890.94	22976891.11	22976891.29	0.0271	0.0066
Moon	58196-09-13 11:46 G	22976968.90	22976968.99	22976969.11	0.0271	0.0246
Earth	58196-09-13 15:36 G	22976969.03	22976969.15	22976969.28	0.0271	0.0231 *
Mercury	58196-09-24 10:48 G	22976979.79	22976979.95	22976980.12	0.0271	0.0118
Venus	58204-01-31 09:07 G	22979663.68	22979663.88	22979664.09	0.0270	0.0068
Venus	58204-09-16 12:43 G	22979892.86	22979893.03	22979893.21	0.0271	0.0153
Mercury	58211-07-26 02:10 G	22982396.53	22982396.59	22982396.66	0.0288	0.0251
Mercury	58211-10-22 14:53 G	22982484.99	22982485.12	22982485.25	0.0289	0.0086
Mercury	58212-01-19 03:22 G	22982573.51	22982573.64	22982573.77	0.0289	0.0078
Mercury	58212-04-16 15:36 G	22982662.08	22982662.15	22982662.22	0.0290	0.0240
Venus	58217-12-01 04:05 G	22984716.55	22984716.67	22984716.81	0.0291	0.0229
Venus	58218-07-19 02:10 G	22984946.38	22984946.59	22984946.80	0.0290	0.0050
Earth	58225-09-09 16:19 G	22987555.94	22987556.18	22987556.43	0.0272	0.0004

Moon	58225-09-09 19:55 G	22987556.09	22987556.33	22987556.58	0.0272	0.0014	*
Mercury	58225-11-15 15:22 G	22987622.97	22987623.14	22987623.30	0.0271	0.0109	
Mercury	58226-02-12 11:31 G	22987711.80	22987711.98	22987712.15	0.0271	0.0075	
Mercury	58226-05-12 07:41 G	22987800.78	22987800.82	22987800.88	0.0271	0.0260	
Venus	58232-12-26 14:24 G	22990221.03	22990221.10	22990221.19	0.0269	0.0249	
Venus	58233-08-12 17:31 G	22990450.02	22990450.23	22990450.44	0.0270	0.0030	
Venus	58234-03-29 21:22 G	22990679.24	22990679.39	22990679.54	0.0271	0.0193	
Mercury	58240-12-12 06:14 G	22993128.72	22993128.76	22993128.79	0.0288	0.0275	
Moon	58241-03-10 04:05 G	22993216.42	22993216.67	22993216.92	0.0288	0.0062	
Earth	58241-03-10 04:05 G	22993216.44	22993216.67	22993216.91	0.0288	0.0077	*
Mercury	58241-03-10 18:43 G	22993217.15	22993217.28	22993217.40	0.0288	0.0111	
Mercury	58241-06-07 07:12 G	22993305.66	22993305.80	22993305.93	0.0289	0.0053	
Mercury	58241-09-03 19:26 G	22993394.22	22993394.31	22993394.40	0.0289	0.0214	
Venus	58247-06-13 14:53 G	22995502.97	22995503.12	22995503.30	0.0291	0.0181	
Venus	58248-01-29 12:29 G	22995732.82	22995733.02	22995733.22	0.0289	0.0097	
Moon	58254-09-04 11:02 G	22998142.83	22998142.96	22998143.11	0.0273	0.0226	
Earth	58254-09-04 14:38 G	22998143.00	22998143.11	22998143.23	0.0273	0.0241	*
Mercury	58255-04-04 15:22 G	22998355.00	22998355.14	22998355.29	0.0271	0.0155	
Mercury	58255-07-02 11:31 G	22998443.80	22998443.98	22998444.16	0.0271	0.0027	
Mercury	58255-09-29 07:41 G	22998532.71	22998532.82	22998532.93	0.0271	0.0211	
Venus	58262-07-08 17:17 G	23001007.11	23001007.22	23001007.35	0.0269	0.0218	
Venus	58263-02-22 20:24 G	23001236.14	23001236.35	23001236.56	0.0270	0.0001	
Venus	58263-10-10 00:00 G	23001465.39	23001465.50	23001465.63	0.0271	0.0222	
Mars	58265-02-23 22:05 G	23001968.16	23001968.42	23001968.70	0.0274	0.0144	
Earth	58270-03-04 07:26 G	23003802.66	23003802.81	23003802.98	0.0288	0.0215	
Moon	58270-03-04 07:55 G	23003802.70	23003802.83	23003802.97	0.0288	0.0231	*
Mercury	58270-07-28 20:10 G	23003949.23	23003949.34	23003949.45	0.0289	0.0164	
Mercury	58270-10-25 08:38 G	23004037.73	23004037.86	23004038.00	0.0289	0.0003	
Mercury	58271-01-21 20:53 G	23004126.27	23004126.37	23004126.49	0.0290	0.0164	
Venus	58276-12-23 20:24 G	23006289.17	23006289.35	23006289.54	0.0291	0.0144	

Venus	58277-08-10 18:00 G	23006519.07	23006519.25	23006519.44	0.0289	0.0133
Mars	58279-04-10 00:29 G	23007126.25	23007126.52	23007126.79	0.0285	0.0032
Mercury	58284-08-21 15:50 G	23009087.04	23009087.16	23009087.28	0.0272	0.0199
Earth	58284-09-11 01:55 G	23009107.34	23009107.58	23009107.82	0.0271	0.0066
Moon	58284-09-11 04:05 G	23009107.43	23009107.67	23009107.91	0.0271	0.0080 *
Mercury	58284-11-18 12:00 G	23009175.82	23009176.00	23009176.18	0.0271	0.0018
Mercury	58285-02-15 08:10 G	23009264.70	23009264.84	23009264.98	0.0271	0.0167
Venus	58292-01-19 01:12 G	23011793.40	23011793.55	23011793.71	0.0270	0.0182
Venus	58292-09-04 04:34 G	23012022.48	23012022.69	23012022.90	0.0271	0.0038
Venus	58293-04-21 08:38 G	23012251.80	23012251.86	23012251.92	0.0272	0.0261
Mercury	58299-12-16 00:00 G	23014681.40	23014681.50	23014681.60	0.0288	0.0188
Moon	58300-03-12 16:05 G	23014767.96	23014768.17	23014768.38	0.0289	0.0145
Earth	58300-03-12 19:26 G	23014768.12	23014768.31	23014768.52	0.0289	0.0162 *
Mercury	58300-03-14 12:29 G	23014769.89	23014770.02	23014770.16	0.0289	0.0025
Mercury	58300-06-11 00:58 G	23014858.42	23014858.54	23014858.66	0.0289	0.0138
Venus	58306-07-07 08:38 G	23017075.66	23017075.86	23017076.07	0.0290	0.0092
Venus	58307-02-22 06:00 G	23017305.59	23017305.75	23017305.91	0.0289	0.0183
Moon	58313-09-07 00:00 G	23019694.31	23019694.50	23019694.71	0.0272	0.0154
Earth	58313-09-07 02:38 G	23019694.42	23019694.61	23019694.81	0.0272	0.0167 *
Mercury	58314-01-09 16:48 G	23019819.12	23019819.20	23019819.28	0.0272	0.0239
Mercury	58314-04-08 12:43 G	23019907.85	23019908.03	23019908.20	0.0271	0.0058
Mercury	58314-07-06 08:38 G	23019996.70	23019996.86	23019997.02	0.0271	0.0125
Venus	58321-08-01 04:48 G	23022579.52	23022579.70	23022579.87	0.0269	0.0150
Venus	58322-03-18 07:41 G	23022808.62	23022808.82	23022809.03	0.0270	0.0069
Earth	58329-03-06 22:19 G	23025354.22	23025354.43	23025354.65	0.0288	0.0131
Moon	58329-03-07 02:10 G	23025354.38	23025354.59	23025354.80	0.0288	0.0148 *
Mercury	58329-05-05 01:26 G	23025413.49	23025413.56	23025413.63	0.0288	0.0242
Mercury	58329-08-01 14:10 G	23025501.96	23025502.09	23025502.22	0.0289	0.0078
Mercury	58329-10-29 02:24 G	23025590.48	23025590.60	23025590.73	0.0289	0.0086
Mercury	58330-01-25 14:38 G	23025679.05	23025679.11	23025679.18	0.0290	0.0249

Venus	58336-01-17 13:26 G	23027861.86	23027862.06	23027862.27	0.0290	0.0058
Venus	58336-09-03 10:48 G	23028091.81	23028091.95	23028092.09	0.0289	0.0217
Mercury	58343-08-26 12:43 G	23030639.87	23030640.03	23030640.20	0.0271	0.0105
Moon	58343-09-14 10:19 G	23030658.73	23030658.93	23030659.15	0.0271	0.0149
Earth	58343-09-14 12:14 G	23030658.81	23030659.01	23030659.24	0.0271	0.0137 *
Mercury	58343-11-23 08:53 G	23030728.70	23030728.87	23030729.04	0.0271	0.0078
Mercury	58344-02-20 05:02 G	23030817.68	23030817.71	23030817.76	0.0270	0.0262
Venus	58351-02-11 12:14 G	23033365.82	23033366.01	23033366.20	0.0270	0.0114
Venus	58351-09-28 15:36 G	23033594.96	23033595.15	23033595.35	0.0271	0.0107
Mars	58353-07-22 23:46 G	23034258.18	23034258.49	23034258.81	0.0275	0.0036
Mercury	58358-09-22 05:17 G	23036145.67	23036145.72	23036145.77	0.0288	0.0267
Mercury	58358-12-19 17:46 G	23036234.12	23036234.24	23036234.37	0.0289	0.0103
Moon	58359-03-15 08:10 G	23036319.71	23036319.84	23036319.99	0.0289	0.0231
Earth	58359-03-15 10:34 G	23036319.82	23036319.94	23036320.07	0.0289	0.0247 *
Mercury	58359-03-18 06:14 G	23036322.63	23036322.76	23036322.89	0.0289	0.0061
Mercury	58359-06-14 18:29 G	23036411.19	23036411.27	23036411.36	0.0289	0.0224
Venus	58364-12-12 03:36 G	23038418.62	23038418.65	23038418.71	0.0291	0.0283
Venus	58365-07-30 01:55 G	23038648.37	23038648.58	23038648.79	0.0290	0.0006
Venus	58366-03-16 22:48 G	23038878.39	23038878.45	23038878.53	0.0289	0.0269
Mars	58367-09-05 23:02 G	23039416.23	23039416.46	23039416.71	0.0285	0.0131
Earth	58372-09-08 15:07 G	23041245.90	23041246.13	23041246.36	0.0272	0.0092
Moon	58372-09-08 16:19 G	23041245.96	23041246.18	23041246.42	0.0272	0.0078 *
Mercury	58373-01-12 13:55 G	23041371.93	23041372.08	23041372.24	0.0271	0.0141
Mercury	58373-04-11 10:05 G	23041460.74	23041460.92	23041461.10	0.0271	0.0041
Mercury	58373-07-09 06:00 G	23041549.66	23041549.75	23041549.86	0.0270	0.0224
Venus	58380-08-23 16:05 G	23044151.97	23044152.17	23044152.37	0.0269	0.0082
Venus	58381-04-09 19:12 G	23044381.13	23044381.30	23044381.49	0.0270	0.0138
Earth	58388-03-08 11:46 G	23046905.75	23046905.99	23046906.23	0.0288	0.0050
Moon	58388-03-08 13:26 G	23046905.82	23046906.06	23046906.31	0.0288	0.0066 *
Mercury	58388-05-07 18:58 G	23046966.18	23046966.29	23046966.41	0.0289	0.0159

Mercury	58388-08-04 07:41 G	23047054.68	23047054.82	23047054.95	0.0289	0.0009
Mercury	58388-10-31 19:55 G	23047143.22	23047143.33	23047143.44	0.0290	0.0169
Venus	58394-06-24 07:55 G	23049204.73	23049204.83	23049204.94	0.0291	0.0251
Venus	58395-02-09 06:00 G	23049434.54	23049434.75	23049434.96	0.0290	0.0027
Mercury	58402-06-01 13:55 G	23052103.95	23052104.08	23052104.20	0.0271	0.0191
Mercury	58402-08-29 09:50 G	23052192.73	23052192.91	23052193.09	0.0271	0.0010
Moon	58402-09-15 19:55 G	23052210.19	23052210.33	23052210.47	0.0271	0.0220
Earth	58402-09-15 23:17 G	23052210.32	23052210.47	23052210.64	0.0271	0.0207 *
Mercury	58402-11-26 06:00 G	23052281.61	23052281.75	23052281.89	0.0270	0.0174
Venus	58409-07-19 19:41 G	23054709.30	23054709.32	23054709.37	0.0269	0.0264
Venus	58410-03-05 22:48 G	23054938.24	23054938.45	23054938.66	0.0270	0.0047
Venus	58410-10-21 02:24 G	23055167.44	23055167.60	23055167.76	0.0271	0.0174
Mercury	58417-09-24 22:34 G	23057698.34	23057698.44	23057698.55	0.0288	0.0186
Mercury	58417-12-22 11:17 G	23057786.83	23057786.97	23057787.10	0.0289	0.0022
Mercury	58418-03-20 23:46 G	23057875.37	23057875.49	23057875.60	0.0289	0.0142
Venus	58424-01-04 20:24 G	23059991.19	23059991.35	23059991.50	0.0291	0.0197
Venus	58424-08-21 18:14 G	23060221.06	23060221.26	23060221.46	0.0290	0.0080
Earth	58431-09-11 02:53 G	23062797.38	23062797.62	23062797.87	0.0272	0.0019
Moon	58431-09-11 06:43 G	23062797.53	23062797.78	23062798.03	0.0272	0.0003 *
Mercury	58431-10-19 15:22 G	23062836.04	23062836.14	23062836.24	0.0272	0.0225
Mercury	58432-01-16 11:02 G	23062924.79	23062924.96	23062925.14	0.0271	0.0045
Mercury	58432-04-14 07:12 G	23063013.65	23063013.80	23063013.96	0.0271	0.0138
Venus	58439-01-30 00:14 G	23065495.41	23065495.51	23065495.62	0.0269	0.0231
Venus	58439-09-16 03:07 G	23065724.42	23065724.63	23065724.84	0.0269	0.0014
Venus	58440-05-02 06:29 G	23065953.63	23065953.77	23065953.91	0.0271	0.0206
Mars	58441-12-17 00:29 G	23066547.20	23066547.52	23066547.84	0.0274	0.0033
Mercury	58447-02-11 23:46 G	23068430.42	23068430.49	23068430.57	0.0288	0.0243
Moon	58447-03-10 21:07 G	23068457.13	23068457.38	23068457.63	0.0288	0.0014
Earth	58447-03-11 00:00 G	23068457.26	23068457.50	23068457.74	0.0288	0.0029 *
Mercury	58447-05-11 12:29 G	23068518.89	23068519.02	23068519.15	0.0289	0.0078

Mercury	58447-08-08 00:58 G	23068607.41	23068607.54	23068607.67	0.0289	0.0086
Mercury	58447-11-04 13:12 G	23068695.98	23068696.05	23068696.12	0.0290	0.0248
Venus	58453-07-16 23:17 G	23070777.30	23070777.47	23070777.65	0.0291	0.0168
Venus	58454-03-03 21:07 G	23071007.19	23071007.38	23071007.58	0.0290	0.0110
Mars	58456-01-31 01:41 G	23071705.38	23071705.57	23071705.78	0.0285	0.0194
Moon	58460-09-04 17:31 G	23073384.14	23073384.23	23073384.33	0.0273	0.0250
Earth	58460-09-04 21:22 G	23073384.34	23073384.39	23073384.44	0.0273	0.0266
Mercury	58461-06-04 10:19 G	23073656.77	23073656.93	23073657.10	0.0271	0.0099
Mercury	58461-09-01 06:29 G	23073745.60	23073745.77	23073745.94	0.0271	0.0083
Mercury	58461-11-29 02:38 G	23073834.59	23073834.61	23073834.64	0.0270	0.0267
Venus	58468-08-11 05:46 G	23076281.60	23076281.74	23076281.88	0.0269	0.0199
Venus	58469-03-28 08:38 G	23076510.65	23076510.86	23076511.07	0.0270	0.0019
Venus	58469-11-12 12:14 G	23076739.92	23076740.01	23076740.11	0.0271	0.0241
Earth	58476-03-04 13:12 G	23079043.94	23079044.05	23079044.19	0.0287	0.0245
Moon	58476-03-04 15:50 G	23079044.07	23079044.16	23079044.27	0.0287	0.0260 *
Mercury	58476-07-01 02:53 G	23079162.59	23079162.62	23079162.66	0.0288	0.0276
Mercury	58476-09-27 15:36 G	23079251.03	23079251.15	23079251.28	0.0289	0.0111
Mercury	58476-12-25 04:05 G	23079339.54	23079339.67	23079339.80	0.0289	0.0053
Mercury	58477-03-23 16:34 G	23079428.10	23079428.19	23079428.28	0.0290	0.0216
Venus	58483-01-27 10:48 G	23081563.76	23081563.95	23081564.15	0.0291	0.0116
Venus	58483-09-14 08:38 G	23081793.68	23081793.86	23081794.03	0.0289	0.0161
Earth	58490-09-12 12:58 G	23084348.80	23084349.04	23084349.29	0.0272	0.0053
Moon	58490-09-12 13:41 G	23084348.83	23084349.07	23084349.32	0.0272	0.0067 *
Mercury	58490-10-22 11:46 G	23084388.84	23084388.99	23084389.16	0.0271	0.0133
Mercury	58491-01-19 07:55 G	23084477.65	23084477.83	23084478.01	0.0271	0.0049
Mercury	58491-04-18 04:05 G	23084566.58	23084566.67	23084566.76	0.0270	0.0233
Venus	58498-02-21 10:05 G	23087067.76	23087067.92	23087068.09	0.0269	0.0166
Venus	58498-10-08 12:58 G	23087296.83	23087297.04	23087297.25	0.0270	0.0052
Mercury	58506-02-15 16:48 G	23089983.09	23089983.20	23089983.31	0.0288	0.0169
Moon	58506-03-13 05:46 G	23090008.51	23090008.74	23090008.97	0.0289	0.0088

Earth	58506-03-13 08:53 G	23090008.64	23090008.87	23090009.10	0.0289	0.0103	*
Mercury	58506-05-15 05:17 G	23090071.58	23090071.72	23090071.85	0.0289	0.0007	
Mercury	58506-08-11 17:31 G	23090160.12	23090160.23	23090160.35	0.0289	0.0158	
Venus	58512-08-09 12:58 G	23092349.84	23092350.04	23092350.24	0.0291	0.0089	
Venus	58513-03-27 10:34 G	23092579.79	23092579.94	23092580.11	0.0290	0.0188	
Moon	58519-09-08 05:17 G	23094935.55	23094935.72	23094935.90	0.0272	0.0184	
Earth	58519-09-08 05:17 G	23094935.57	23094935.72	23094935.90	0.0272	0.0199	*
Mercury	58520-03-11 10:34 G	23095120.82	23095120.94	23095121.07	0.0271	0.0192	
Mercury	58520-06-08 06:29 G	23095209.59	23095209.77	23095209.95	0.0271	0.0012	
Mercury	58520-09-05 02:24 G	23095298.47	23095298.60	23095298.75	0.0270	0.0172	
Venus	58527-09-04 14:10 G	23097853.92	23097854.09	23097854.29	0.0269	0.0137	
Venus	58528-04-20 17:17 G	23098083.02	23098083.22	23098083.43	0.0270	0.0083	
Mars	58530-05-14 04:48 G	23098836.42	23098836.70	23098837.01	0.0275	0.0110	
Earth	58535-03-07 19:55 G	23100595.15	23100595.33	23100595.53	0.0288	0.0176	
Moon	58535-03-07 23:02 G	23100595.29	23100595.46	23100595.66	0.0288	0.0192	*
Mercury	58535-07-05 19:26 G	23100715.22	23100715.31	23100715.41	0.0288	0.0206	
Mercury	58535-10-02 08:10 G	23100803.70	23100803.84	23100803.97	0.0289	0.0042	
Mercury	58535-12-29 20:24 G	23100892.23	23100892.35	23100892.48	0.0289	0.0123	
Mercury	58536-03-27 08:53 G	23100980.85	23100980.87	23100980.89	0.0290	0.0284	
Venus	58542-02-19 23:31 G	23103136.27	23103136.48	23103136.69	0.0290	0.0039	
Venus	58542-10-07 20:53 G	23103366.25	23103366.37	23103366.50	0.0289	0.0236	
Mars	58544-06-27 14:24 G	23103995.03	23103995.10	23103995.20	0.0285	0.0271	
Mercury	58549-07-29 12:00 G	23105852.91	23105853.00	23105853.10	0.0272	0.0226	
Moon	58549-09-14 16:34 G	23105899.98	23105900.19	23105900.42	0.0271	0.0132	
Earth	58549-09-14 20:10 G	23105900.13	23105900.34	23105900.57	0.0271	0.0119	*
Mercury	58549-10-26 07:55 G	23105941.65	23105941.83	23105942.01	0.0271	0.0046	
Mercury	58550-01-23 03:50 G	23106030.51	23106030.66	23106030.82	0.0271	0.0137	
Venus	58557-03-16 18:58 G	23108640.10	23108640.29	23108640.49	0.0269	0.0103	
Venus	58557-10-31 21:50 G	23108869.22	23108869.41	23108869.60	0.0270	0.0115	
Mercury	58564-11-21 20:10 G	23111447.30	23111447.34	23111447.40	0.0288	0.0265	

Mercury	58565-02-18 08:53 G	23111535.75	23111535.87	23111536.00	0.0288	0.0101
Earth	58565-03-14 14:38 G	23111559.92	23111560.11	23111560.32	0.0289	0.0171
Moon	58565-03-14 15:22 G	23111559.95	23111560.14	23111560.34	0.0289	0.0159 *
Mercury	58565-05-17 21:22 G	23111624.26	23111624.39	23111624.53	0.0289	0.0063
Mercury	58565-08-14 09:50 G	23111712.83	23111712.91	23111712.99	0.0289	0.0224
Venus	58571-09-02 00:00 G	23113922.29	23113922.50	23113922.72	0.0291	0.0017
Venus	58572-04-18 21:36 G	23114152.31	23114152.40	23114152.50	0.0289	0.0260
Earth	58578-09-09 11:02 G	23116486.75	23116486.96	23116487.18	0.0272	0.0135
Moon	58578-09-09 14:38 G	23116486.89	23116487.11	23116487.33	0.0272	0.0121 *
Mercury	58579-03-15 06:00 G	23116673.58	23116673.75	23116673.91	0.0271	0.0111
Mercury	58579-06-12 01:55 G	23116762.40	23116762.58	23116762.75	0.0271	0.0070
Mercury	58579-09-08 22:05 G	23116851.36	23116851.42	23116851.48	0.0270	0.0254
Venus	58586-09-26 22:05 G	23119426.22	23119426.42	23119426.62	0.0269	0.0075
Venus	58587-05-14 00:58 G	23119655.36	23119655.54	23119655.72	0.0270	0.0144
Moon	58594-03-08 22:34 G	23122146.22	23122146.44	23122146.68	0.0288	0.0128
Earth	58594-03-08 23:31 G	23122146.26	23122146.48	23122146.70	0.0288	0.0113 *
Mercury	58594-07-08 11:17 G	23122267.86	23122267.97	23122268.09	0.0288	0.0143
Mercury	58594-10-05 00:00 G	23122356.36	23122356.50	23122356.63	0.0289	0.0022
Mercury	58595-01-01 12:14 G	23122444.91	23122445.01	23122445.12	0.0290	0.0184
Venus	58600-07-28 10:48 G	23124478.85	23124478.95	23124479.07	0.0291	0.0248
Venus	58601-03-15 09:36 G	23124708.69	23124708.90	23124709.11	0.0290	0.0032
Mars	58602-10-05 16:34 G	23125278.12	23125278.19	23125278.28	0.0287	0.0273
Mercury	58608-08-02 06:58 G	23127405.65	23127405.79	23127405.95	0.0272	0.0148
Moon	58608-09-16 22:34 G	23127451.28	23127451.44	23127451.62	0.0271	0.0191
Earth	58608-09-17 00:43 G	23127451.35	23127451.53	23127451.72	0.0271	0.0179 *
Mercury	58608-10-30 03:07 G	23127494.45	23127494.63	23127494.80	0.0271	0.0035
Mercury	58609-01-26 23:02 G	23127583.36	23127583.46	23127583.57	0.0271	0.0217
Venus	58615-08-24 00:29 G	23129983.47	23129983.52	23129983.58	0.0268	0.0257
Venus	58616-04-09 02:38 G	23130212.40	23130212.61	23130212.82	0.0269	0.0042
Venus	58616-11-24 05:17 G	23130441.57	23130441.72	23130441.89	0.0270	0.0176

Mars	58618-10-08 17:46 G	23131125.00	23131125.24	23131125.52	0.0274	0.0161
Mercury	58623-11-26 12:14 G	23132999.92	23133000.01	23133000.11	0.0288	0.0202
Mercury	58624-02-23 00:58 G	23133088.40	23133088.54	23133088.67	0.0288	0.0038
Earth	58624-03-16 18:29 G	23133111.13	23133111.27	23133111.41	0.0288	0.0235
Moon	58624-03-16 22:05 G	23133111.27	23133111.42	23133111.58	0.0288	0.0222 *
Mercury	58624-05-21 13:12 G	23133176.93	23133177.05	23133177.18	0.0289	0.0125
Mercury	58624-08-18 01:26 G	23133265.55	23133265.56	23133265.59	0.0289	0.0286
Venus	58630-02-07 11:02 G	23135264.84	23135264.96	23135265.11	0.0292	0.0226
Venus	58630-09-25 09:36 G	23135494.69	23135494.90	23135495.11	0.0291	0.0054
Earth	58637-09-11 13:55 G	23138037.85	23138038.08	23138038.32	0.0272	0.0077
Moon	58637-09-11 16:05 G	23138037.93	23138038.17	23138038.42	0.0272	0.0064 *
Mercury	58637-12-20 04:34 G	23138137.59	23138137.69	23138137.80	0.0272	0.0218
Mercury	58638-03-19 00:29 G	23138226.34	23138226.52	23138226.70	0.0271	0.0037
Mercury	58638-06-15 20:24 G	23138315.20	23138315.35	23138315.51	0.0271	0.0146
Venus	58645-03-05 01:55 G	23140769.49	23140769.58	23140769.70	0.0268	0.0233
Venus	58645-10-20 04:34 G	23140998.48	23140998.69	23140998.90	0.0269	0.0017
Venus	58646-06-06 07:12 G	23141227.67	23141227.80	23141227.95	0.0270	0.0203
Moon	58653-03-10 21:07 G	23143697.14	23143697.38	23143697.61	0.0288	0.0068
Earth	58653-03-11 00:43 G	23143697.30	23143697.53	23143697.78	0.0288	0.0054 *
Mercury	58653-04-14 14:10 G	23143732.03	23143732.09	23143732.16	0.0288	0.0249
Mercury	58653-07-12 02:53 G	23143820.49	23143820.62	23143820.75	0.0289	0.0085
Mercury	58653-10-08 15:22 G	23143909.01	23143909.14	23143909.27	0.0289	0.0078
Mercury	58654-01-05 03:36 G	23143997.58	23143997.65	23143997.73	0.0290	0.0240
Venus	58659-08-20 18:58 G	23146051.13	23146051.29	23146051.46	0.0291	0.0182
Venus	58660-04-06 17:31 G	23146281.03	23146281.23	23146281.43	0.0290	0.0097
Mercury	58667-05-09 05:17 G	23148869.68	23148869.72	23148869.79	0.0272	0.0257
Mercury	58667-08-06 01:12 G	23148958.39	23148958.55	23148958.73	0.0272	0.0076
Earth	58667-09-19 02:24 G	23149002.50	23149002.60	23149002.74	0.0272	0.0236
Moon	58667-09-19 04:48 G	23149002.61	23149002.70	23149002.82	0.0272	0.0243 *
Mercury	58667-11-02 21:22 G	23149047.23	23149047.39	23149047.56	0.0271	0.0107

Venus	58674-09-15 06:58 G	23151555.66	23151555.79	23151555.94	0.0268	0.0200
Venus	58675-05-02 09:22 G	23151784.68	23151784.89	23151785.10	0.0269	0.0016
Venus	58675-12-17 12:00 G	23152013.90	23152014.00	23152014.11	0.0270	0.0234
Mercury	58682-11-29 03:50 G	23154552.54	23154552.66	23154552.78	0.0288	0.0143
Mercury	58683-02-25 16:19 G	23154641.05	23154641.18	23154641.32	0.0288	0.0020
Moon	58683-03-18 21:22 G	23154662.35	23154662.39	23154662.44	0.0288	0.0283
Mercury	58683-05-25 04:48 G	23154729.59	23154729.70	23154729.80	0.0289	0.0181
Venus	58689-03-01 19:12 G	23156837.12	23156837.30	23156837.47	0.0291	0.0160
Venus	58689-10-17 17:17 G	23157067.03	23157067.22	23157067.41	0.0290	0.0119
Mars	58691-02-28 11:31 G	23157565.88	23157565.98	23157566.10	0.0287	0.0263
Moon	58696-09-12 12:14 G	23159588.75	23159589.01	23159589.26	0.0272	0.0013
Earth	58696-09-12 14:24 G	23159588.85	23159589.10	23159589.35	0.0272	0.0023 *
Mercury	58696-12-22 22:19 G	23159690.29	23159690.43	23159690.58	0.0272	0.0150
Mercury	58697-03-21 18:29 G	23159779.09	23159779.27	23159779.44	0.0271	0.0033
Mercury	58697-06-18 14:24 G	23159868.00	23159868.10	23159868.21	0.0271	0.0215
Venus	58704-03-28 07:26 G	23162341.67	23162341.81	23162341.98	0.0268	0.0178
Venus	58704-11-12 10:05 G	23162570.71	23162570.92	23162571.13	0.0269	0.0039
Venus	58705-06-29 12:58 G	23162799.99	23162800.04	23162800.11	0.0270	0.0258
Mars	58707-03-04 19:55 G	23163413.11	23163413.33	23163413.55	0.0274	0.0201
Moon	58712-03-12 23:46 G	23165248.25	23165248.49	23165248.73	0.0288	0.0008
Earth	58712-03-13 00:29 G	23165248.27	23165248.52	23165248.76	0.0288	0.0003 *
Mercury	58712-04-18 05:31 G	23165284.63	23165284.73	23165284.83	0.0288	0.0194
Mercury	58712-07-15 18:00 G	23165373.12	23165373.25	23165373.39	0.0288	0.0031
Mercury	58712-10-12 06:29 G	23165461.65	23165461.77	23165461.89	0.0289	0.0131
Venus	58718-09-13 02:10 G	23167623.39	23167623.59	23167623.78	0.0291	0.0118
Venus	58719-05-01 00:14 G	23167853.34	23167853.51	23167853.69	0.0290	0.0160
Earth	58725-09-08 12:43 G	23170175.96	23170176.03	23170176.12	0.0274	0.0260
Moon	58725-09-08 14:53 G	23170176.02	23170176.12	23170176.23	0.0274	0.0245 *
Mercury	58726-05-12 23:02 G	23170422.34	23170422.46	23170422.59	0.0272	0.0190
Mercury	58726-08-09 18:58 G	23170511.11	23170511.29	23170511.47	0.0272	0.0010

Mercury	58726-11-06 14:53 G	23170599.99	23170600.12	23170600.27	0.0271	0.0176
Venus	58733-10-08 12:58 G	23173127.86	23173128.04	23173128.22	0.0268	0.0145
Venus	58734-05-25 15:07 G	23173356.93	23173357.13	23173357.34	0.0269	0.0072
Mercury	58741-09-05 06:43 G	23176016.71	23176016.78	23176016.85	0.0287	0.0249
Mercury	58741-12-02 19:12 G	23176105.17	23176105.30	23176105.43	0.0288	0.0087
Mercury	58742-03-01 07:41 G	23176193.69	23176193.82	23176193.95	0.0288	0.0075
Mercury	58742-05-28 19:55 G	23176282.26	23176282.33	23176282.41	0.0289	0.0236
Venus	58748-03-25 01:55 G	23178409.38	23178409.58	23178409.78	0.0291	0.0097
Venus	58748-11-09 23:46 G	23178639.33	23178639.49	23178639.66	0.0290	0.0181
Moon	58755-09-15 09:36 G	23181139.66	23181139.90	23181140.15	0.0273	0.0037
Earth	58755-09-15 12:58 G	23181139.80	23181140.04	23181140.29	0.0273	0.0028 *
Mercury	58755-09-29 19:55 G	23181154.30	23181154.33	23181154.37	0.0272	0.0267
Mercury	58755-12-27 15:50 G	23181242.99	23181243.16	23181243.33	0.0272	0.0086
Mercury	58756-03-25 11:46 G	23181331.82	23181331.99	23181332.16	0.0271	0.0097
Venus	58763-04-20 12:58 G	23183913.86	23183914.04	23183914.23	0.0269	0.0123
Venus	58763-12-05 15:22 G	23184142.94	23184143.14	23184143.34	0.0270	0.0094
Earth	58771-03-14 23:31 G	23186799.24	23186799.48	23186799.72	0.0288	0.0057
Moon	58771-03-15 03:07 G	23186799.39	23186799.63	23186799.87	0.0288	0.0052 *
Mercury	58771-04-21 20:38 G	23186837.24	23186837.36	23186837.48	0.0288	0.0141
Mercury	58771-07-19 09:07 G	23186925.75	23186925.88	23186926.02	0.0288	0.0023
Mercury	58771-10-15 21:36 G	23187014.30	23187014.40	23187014.50	0.0289	0.0183
Venus	58777-10-05 07:55 G	23189195.62	23189195.83	23189196.04	0.0291	0.0058
Venus	58778-05-23 05:46 G	23189425.61	23189425.74	23189425.89	0.0290	0.0220
Mars	58779-07-25 18:29 G	23189854.11	23189854.27	23189854.43	0.0287	0.0232
Earth	58784-09-09 10:34 G	23191726.80	23191726.94	23191727.11	0.0274	0.0211
Moon	58784-09-09 14:10 G	23191726.93	23191727.09	23191727.28	0.0274	0.0197 *
Mercury	58785-05-15 16:05 G	23191975.02	23191975.17	23191975.34	0.0272	0.0129
Mercury	58785-08-12 12:14 G	23192063.83	23192064.01	23192064.19	0.0272	0.0055
Mercury	58785-11-09 08:10 G	23192152.77	23192152.84	23192152.94	0.0271	0.0240
Venus	58792-10-30 18:14 G	23194700.06	23194700.26	23194700.46	0.0269	0.0090

Venus	58793-06-16 20:38 G	23194929.17	23194929.36	23194929.55	0.0269	0.0127
Mars	58795-07-29 05:46 G	23195701.62	23195701.74	23195701.87	0.0273	0.0251
Moon	58800-03-08 01:26 G	23197385.43	23197385.56	23197385.70	0.0286	0.0236
Earth	58800-03-08 05:02 G	23197385.57	23197385.71	23197385.86	0.0286	0.0230 *
Mercury	58800-09-07 22:05 G	23197569.32	23197569.42	23197569.52	0.0287	0.0193
Mercury	58800-12-05 10:34 G	23197657.81	23197657.94	23197658.08	0.0287	0.0032
Mercury	58801-03-03 23:02 G	23197746.34	23197746.46	23197746.58	0.0288	0.0130
Venus	58807-04-17 08:38 G	23199981.65	23199981.86	23199982.07	0.0291	0.0034
Venus	58807-12-03 06:14 G	23200211.65	23200211.76	23200211.88	0.0290	0.0242
Earth	58814-09-16 11:17 G	23202690.74	23202690.97	23202691.21	0.0273	0.0076
Moon	58814-09-16 12:00 G	23202690.78	23202691.00	23202691.23	0.0273	0.0082 *
Mercury	58814-10-02 13:12 G	23202706.93	23202707.05	23202707.16	0.0272	0.0205
Mercury	58814-12-30 08:53 G	23202795.69	23202795.87	23202796.05	0.0272	0.0024
Mercury	58815-03-29 05:02 G	23202884.57	23202884.71	23202884.86	0.0271	0.0160
Venus	58822-05-12 18:00 G	23205486.05	23205486.25	23205486.46	0.0269	0.0069
Venus	58822-12-27 20:24 G	23205715.18	23205715.35	23205715.53	0.0270	0.0149
Mercury	58830-01-25 23:17 G	23208301.41	23208301.47	23208301.54	0.0287	0.0248
Earth	58830-03-15 23:17 G	23208350.25	23208350.47	23208350.70	0.0287	0.0113
Moon	58830-03-16 01:12 G	23208350.32	23208350.55	23208350.78	0.0287	0.0112 *
Mercury	58830-04-24 12:00 G	23208389.87	23208390.00	23208390.13	0.0288	0.0086
Mercury	58830-07-22 00:14 G	23208478.39	23208478.51	23208478.65	0.0288	0.0077
Mercury	58830-10-18 12:29 G	23208566.95	23208567.02	23208567.10	0.0289	0.0237
Venus	58836-03-11 15:07 G	23210538.08	23210538.13	23210538.21	0.0292	0.0277
Venus	58836-10-27 14:10 G	23210767.88	23210768.09	23210768.30	0.0291	0.0003
Venus	58837-06-14 11:46 G	23210997.94	23210997.99	23210998.05	0.0289	0.0278
Moon	58843-09-11 07:12 G	23213277.59	23213277.80	23213278.01	0.0274	0.0155
Earth	58843-09-11 08:10 G	23213277.65	23213277.84	23213278.05	0.0274	0.0164 *
Mercury	58844-02-19 13:26 G	23213438.99	23213439.06	23213439.13	0.0273	0.0249
Mercury	58844-05-18 09:22 G	23213527.72	23213527.89	23213528.06	0.0273	0.0067
Mercury	58844-08-15 05:17 G	23213616.56	23213616.72	23213616.89	0.0272	0.0117

Venus	58851-04-07 21:50 G	23216043.34	23216043.41	23216043.49	0.0268	0.0250
Venus	58851-11-23 00:00 G	23216272.29	23216272.50	23216272.71	0.0269	0.0035
Venus	58852-07-09 02:10 G	23216501.45	23216501.59	23216501.76	0.0270	0.0183
Moon	58859-03-10 05:17 G	23218936.54	23218936.72	23218936.91	0.0285	0.0176
Earth	58859-03-10 06:58 G	23218936.60	23218936.79	23218936.99	0.0285	0.0171 *
Mercury	58859-09-11 13:41 G	23219121.95	23219122.07	23219122.19	0.0287	0.0134
Mercury	58859-12-09 02:10 G	23219210.46	23219210.59	23219210.73	0.0287	0.0028
Mercury	58860-03-06 14:24 G	23219299.01	23219299.10	23219299.21	0.0288	0.0187
Venus	58865-09-21 16:48 G	23221324.11	23221324.20	23221324.32	0.0292	0.0251
Venus	58866-05-09 15:36 G	23221553.94	23221554.15	23221554.36	0.0291	0.0029
Mars	58867-12-18 09:36 G	23222141.74	23222141.90	23222142.08	0.0288	0.0223
Earth	58873-09-17 09:36 G	23224241.69	23224241.90	23224242.12	0.0273	0.0125
Moon	58873-09-17 13:26 G	23224241.85	23224242.06	23224242.29	0.0273	0.0127 *
Mercury	58873-10-05 06:14 G	23224259.61	23224259.76	23224259.91	0.0273	0.0143
Mercury	58874-01-02 02:10 G	23224348.42	23224348.59	23224348.77	0.0272	0.0040
Mercury	58874-03-31 22:19 G	23224437.34	23224437.43	23224437.54	0.0272	0.0225
Venus	58880-10-17 21:22 G	23226829.28	23226829.39	23226829.50	0.0268	0.0228
Venus	58881-06-03 23:31 G	23227058.27	23227058.48	23227058.69	0.0269	0.0014
Venus	58882-01-19 02:10 G	23227287.46	23227287.59	23227287.73	0.0270	0.0204
Mercury	58889-01-28 14:53 G	23229854.02	23229854.12	23229854.22	0.0287	0.0191
Moon	58889-03-16 21:22 G	23229901.21	23229901.39	23229901.60	0.0287	0.0176
Earth	58889-03-17 00:29 G	23229901.32	23229901.52	23229901.71	0.0287	0.0171 *
Mercury	58889-04-27 03:22 G	23229942.51	23229942.64	23229942.78	0.0288	0.0029
Mercury	58889-07-24 15:50 G	23230031.04	23230031.16	23230031.28	0.0288	0.0132
Venus	58895-04-03 22:19 G	23232110.29	23232110.43	23232110.58	0.0291	0.0213
Venus	58895-11-19 21:07 G	23232340.17	23232340.38	23232340.58	0.0290	0.0066
Moon	58902-09-13 02:53 G	23234828.40	23234828.62	23234828.85	0.0274	0.0113
Earth	58902-09-13 06:43 G	23234828.56	23234828.78	23234829.01	0.0274	0.0115 *
Mercury	58903-02-23 06:29 G	23234991.65	23234991.77	23234991.91	0.0273	0.0187
Mercury	58903-05-23 02:38 G	23235080.43	23235080.61	23235080.79	0.0273	0.0005

Mercury	58903-08-19 22:48 G	23235169.31	23235169.45	23235169.58	0.0272	0.0180
Venus	58910-05-01 03:50 G	23237615.52	23237615.66	23237615.80	0.0268	0.0195
Venus	58910-12-16 06:00 G	23237844.54	23237844.75	23237844.96	0.0269	0.0021
Venus	58911-08-02 08:24 G	23238073.77	23238073.85	23238073.96	0.0270	0.0239
Earth	58918-03-12 10:48 G	23240487.72	23240487.95	23240488.17	0.0285	0.0110
Moon	58918-03-12 12:58 G	23240487.83	23240488.04	23240488.27	0.0285	0.0111 *
Mercury	58918-06-18 17:02 G	23240586.14	23240586.21	23240586.29	0.0286	0.0233
Mercury	58918-09-15 05:46 G	23240674.61	23240674.74	23240674.87	0.0287	0.0072
Mercury	58918-12-12 18:00 G	23240763.13	23240763.25	23240763.38	0.0287	0.0089
Mercury	58919-03-11 06:14 G	23240851.70	23240851.76	23240851.83	0.0288	0.0248
Venus	58924-10-15 01:41 G	23242896.41	23242896.57	23242896.74	0.0291	0.0183
Venus	58925-06-01 23:46 G	23243126.29	23243126.49	23243126.70	0.0290	0.0095
Mercury	58932-07-12 03:50 G	23245723.61	23245723.66	23245723.72	0.0273	0.0259
Earth	58932-09-19 09:07 G	23245792.70	23245792.88	23245793.07	0.0273	0.0176
Moon	58932-09-19 09:22 G	23245792.70	23245792.89	23245793.10	0.0273	0.0171 *
Mercury	58932-10-08 23:46 G	23245812.32	23245812.49	23245812.66	0.0273	0.0077
Mercury	58933-01-05 19:55 G	23245901.16	23245901.33	23245901.49	0.0272	0.0106
Venus	58939-11-11 03:22 G	23248401.49	23248401.64	23248401.81	0.0268	0.0173
Venus	58940-06-27 06:00 G	23248630.54	23248630.75	23248630.96	0.0269	0.0044
Venus	58941-02-11 08:53 G	23248859.82	23248859.87	23248859.92	0.0270	0.0261
Mercury	58948-02-02 06:58 G	23251406.67	23251406.79	23251406.91	0.0287	0.0127
Moon	58948-03-19 01:12 G	23251452.43	23251452.55	23251452.69	0.0287	0.0240
Earth	58948-03-19 04:19 G	23251452.55	23251452.68	23251452.83	0.0287	0.0234 *
Mercury	58948-04-30 19:26 G	23251495.17	23251495.31	23251495.44	0.0288	0.0035
Mercury	58948-07-28 07:41 G	23251583.72	23251583.82	23251583.92	0.0288	0.0194
Venus	58954-04-27 06:43 G	23253682.60	23253682.78	23253682.97	0.0291	0.0147
Venus	58954-12-13 05:02 G	23253912.53	23253912.71	23253912.90	0.0290	0.0131
Mars	58956-05-13 19:26 G	23254430.12	23254430.31	23254430.53	0.0287	0.0187
Moon	58961-09-14 06:00 G	23256379.52	23256379.75	23256379.98	0.0274	0.0065
Earth	58961-09-14 06:14 G	23256379.53	23256379.76	23256380.01	0.0274	0.0065 *

Mercury	58962-02-26 00:00 G	23256544.35	23256544.50	23256544.67	0.0273	0.0123
Mercury	58962-05-25 20:10 G	23256633.17	23256633.34	23256633.52	0.0273	0.0062
Mercury	58962-08-22 16:19 G	23256722.12	23256722.18	23256722.26	0.0272	0.0248
Venus	58969-05-23 10:19 G	23259187.76	23259187.93	23259188.12	0.0269	0.0138
Venus	58970-01-07 12:43 G	23259416.84	23259417.03	23259417.24	0.0270	0.0080
Earth	58977-03-13 16:48 G	23262038.96	23262039.20	23262039.44	0.0285	0.0044
Moon	58977-03-13 20:10 G	23262039.09	23262039.34	23262039.58	0.0285	0.0044 *
Mercury	58977-06-21 09:36 G	23262138.79	23262138.90	23262139.01	0.0286	0.0165
Mercury	58977-09-17 22:05 G	23262227.28	23262227.42	23262227.55	0.0287	0.0007
Mercury	58977-12-15 10:19 G	23262315.82	23262315.93	23262316.04	0.0287	0.0154
Venus	58983-11-07 12:00 G	23264468.81	23264469.00	23264469.20	0.0291	0.0113
Venus	58984-06-24 09:36 G	23264698.74	23264698.90	23264699.09	0.0290	0.0164
Mercury	58991-07-15 22:05 G	23267276.30	23267276.42	23267276.55	0.0273	0.0188
Moon	58991-09-21 06:58 G	23267343.66	23267343.79	23267343.95	0.0273	0.0221
Earth	58991-09-21 10:48 G	23267343.83	23267343.95	23267344.09	0.0273	0.0231 *
Mercury	58991-10-12 18:00 G	23267365.07	23267365.25	23267365.43	0.0273	0.0007
Mercury	58992-01-09 13:55 G	23267453.96	23267454.08	23267454.23	0.0272	0.0180
Venus	58998-12-03 10:48 G	23269973.76	23269973.95	23269974.14	0.0269	0.0114
Venus	58999-07-20 13:26 G	23270202.86	23270203.06	23270203.25	0.0269	0.0103

60TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 60th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Mercury	59006-11-09 10:48 G	23272870.86	23272870.95	23272871.04	0.0287	0.0220
Mercury	59007-02-05 23:17 G	23272959.34	23272959.47	23272959.61	0.0287	0.0059
Mercury	59007-05-05 11:46 G	23273047.86	23273047.99	23273048.11	0.0288	0.0101
Mercury	59007-08-02 00:00 G	23273136.45	23273136.50	23273136.56	0.0288	0.0260
Venus	59013-05-20 17:02 G	23275255.01	23275255.21	23275255.42	0.0291	0.0077
Venus	59014-01-05 15:07 G	23275484.98	23275485.13	23275485.29	0.0290	0.0200
Earth	59020-09-16 08:10 G	23277930.59	23277930.84	23277931.09	0.0274	0.0010
Moon	59020-09-16 11:31 G	23277930.74	23277930.98	23277931.22	0.0274	0.0014 *
Mercury	59020-12-02 22:19 G	23278008.35	23278008.43	23278008.53	0.0274	0.0234
Mercury	59021-03-01 18:29 G	23278097.09	23278097.27	23278097.44	0.0273	0.0051
Mercury	59021-05-29 14:24 G	23278185.95	23278186.10	23278186.26	0.0273	0.0134
Venus	59028-06-15 18:14 G	23280760.06	23280760.26	23280760.47	0.0269	0.0078
Venus	59029-01-30 20:53 G	23280989.20	23280989.37	23280989.56	0.0270	0.0140
Mars	59030-08-22 08:10 G	23281557.65	23281557.84	23281558.07	0.0273	0.0205
Moon	59036-03-16 01:26 G	23283590.31	23283590.56	23283590.81	0.0286	0.0033
Earth	59036-03-16 02:10 G	23283590.34	23283590.59	23283590.83	0.0286	0.0029 *
Mercury	59036-03-28 13:55 G	23283603.02	23283603.08	23283603.14	0.0286	0.0252
Mercury	59036-06-25 02:38 G	23283691.48	23283691.61	23283691.73	0.0286	0.0092
Mercury	59036-09-21 14:53 G	23283779.99	23283780.12	23283780.25	0.0287	0.0068
Mercury	59036-12-19 03:07 G	23283868.55	23283868.63	23283868.71	0.0287	0.0227
Venus	59042-12-01 00:29 G	23286041.31	23286041.52	23286041.73	0.0290	0.0038
Venus	59043-07-18 21:36 G	23286271.29	23286271.40	23286271.53	0.0290	0.0238
Mars	59044-10-08 09:50 G	23286718.67	23286718.91	23286719.15	0.0287	0.0136
Moon	59049-09-10 19:12 G	23288517.24	23288517.30	23288517.37	0.0275	0.0265
Earth	59049-09-10 22:34 G	23288517.39	23288517.44	23288517.50	0.0275	0.0266
Mercury	59050-07-19 16:48 G	23288829.04	23288829.20	23288829.37	0.0273	0.0112
Mercury	59050-10-16 12:58 G	23288917.87	23288918.04	23288918.21	0.0273	0.0072
Mercury	59051-01-13 08:53 G	23289006.83	23289006.87	23289006.94	0.0272	0.0257
Venus	59057-05-11 17:02 G	23291317.19	23291317.21	23291317.24	0.0268	0.0266
Venus	59057-12-26 19:12 G	23291546.10	23291546.30	23291546.52	0.0269	0.0053

Venus	59058-08-12 22:05 G	23291775.26	23291775.42	23291775.59	0.0270	0.0165
Earth	59065-03-10 06:58 G	23294176.70	23294176.79	23294176.91	0.0285	0.0257
Moon	59065-03-10 08:24 G	23294176.75	23294176.85	23294176.96	0.0285	0.0255 *
Mercury	59065-11-12 03:50 G	23294423.54	23294423.66	23294423.78	0.0287	0.0146
Mercury	59066-02-08 16:19 G	23294512.04	23294512.18	23294512.31	0.0287	0.0016
Mercury	59066-05-08 04:34 G	23294600.59	23294600.69	23294600.80	0.0288	0.0174
Venus	59071-10-26 06:58 G	23296597.73	23296597.79	23296597.85	0.0291	0.0280
Venus	59072-06-12 05:31 G	23296827.51	23296827.73	23296827.94	0.0291	0.0006
Venus	59073-01-28 02:53 G	23297057.56	23297057.62	23297057.70	0.0289	0.0273
Earth	59079-09-18 12:43 G	23299481.79	23299482.03	23299482.28	0.0274	0.0049
Moon	59079-09-18 15:22 G	23299481.88	23299482.14	23299482.39	0.0274	0.0045 *
Mercury	59079-12-06 17:17 G	23299561.08	23299561.22	23299561.37	0.0273	0.0157
Mercury	59080-03-04 13:26 G	23299649.88	23299650.06	23299650.24	0.0273	0.0027
Mercury	59080-06-01 09:36 G	23299738.79	23299738.90	23299739.01	0.0272	0.0212
Venus	59086-11-22 00:29 G	23302103.43	23302103.52	23302103.64	0.0269	0.0231
Venus	59087-07-09 03:07 G	23302332.42	23302332.63	23302332.85	0.0270	0.0016
Venus	59088-02-23 06:00 G	23302561.62	23302561.75	23302561.90	0.0270	0.0204
Moon	59095-03-18 09:36 G	23305141.68	23305141.90	23305142.13	0.0286	0.0113
Earth	59095-03-18 13:26 G	23305141.84	23305142.06	23305142.29	0.0286	0.0105 *
Mercury	59095-04-01 07:12 G	23305155.70	23305155.80	23305155.91	0.0286	0.0174
Mercury	59095-06-28 19:55 G	23305244.19	23305244.33	23305244.46	0.0287	0.0016
Mercury	59095-09-25 08:10 G	23305332.72	23305332.84	23305332.95	0.0287	0.0146
Venus	59101-05-08 16:19 G	23307384.06	23307384.18	23307384.31	0.0291	0.0234
Venus	59101-12-24 14:38 G	23307613.90	23307614.11	23307614.32	0.0290	0.0043
Moon	59108-09-13 03:36 G	23310068.49	23310068.65	23310068.81	0.0275	0.0202
Earth	59108-09-13 06:00 G	23310068.59	23310068.75	23310068.92	0.0275	0.0201 *
Mercury	59109-04-25 16:48 G	23310293.09	23310293.20	23310293.31	0.0273	0.0210
Mercury	59109-07-23 12:43 G	23310381.85	23310382.03	23310382.20	0.0273	0.0028
Mercury	59109-10-20 08:38 G	23310470.72	23310470.86	23310471.01	0.0272	0.0157
Venus	59116-06-04 02:24 G	23312889.47	23312889.60	23312889.74	0.0269	0.0204

Venus	59117-01-19 05:02 G	23313118.50	23313118.71	23313118.92	0.0269	0.0012
Venus	59117-09-05 08:10 G	23313347.73	23313347.84	23313347.95	0.0270	0.0230
Mars	59119-01-16 23:17 G	23313846.21	23313846.47	23313846.75	0.0273	0.0146
Earth	59124-03-12 18:58 G	23315728.12	23315728.29	23315728.49	0.0285	0.0181
Moon	59124-03-12 22:48 G	23315728.27	23315728.45	23315728.65	0.0285	0.0174 *
Mercury	59124-08-19 08:38 G	23315887.78	23315887.86	23315887.94	0.0286	0.0227
Mercury	59124-11-15 21:07 G	23315976.25	23315976.38	23315976.52	0.0287	0.0066
Mercury	59125-02-12 09:36 G	23316064.77	23316064.90	23316065.03	0.0287	0.0094
Mercury	59125-05-11 21:50 G	23316153.35	23316153.41	23316153.47	0.0288	0.0253
Venus	59130-11-18 21:36 G	23318170.25	23318170.40	23318170.56	0.0291	0.0199
Venus	59131-07-06 19:41 G	23318400.12	23318400.32	23318400.53	0.0290	0.0078
Mars	59133-03-05 12:00 G	23319007.74	23319008.00	23319008.26	0.0287	0.0072
Mercury	59138-09-12 17:17 G	23321025.16	23321025.22	23321025.28	0.0274	0.0255
Moon	59138-09-20 17:31 G	23321033.00	23321033.23	23321033.47	0.0274	0.0104
Earth	59138-09-20 19:41 G	23321033.10	23321033.32	23321033.55	0.0274	0.0113 *
Mercury	59138-12-10 12:58 G	23321113.87	23321114.04	23321114.22	0.0273	0.0073
Mercury	59139-03-09 08:53 G	23321202.72	23321202.87	23321203.04	0.0273	0.0112
Venus	59145-12-15 10:19 G	23323675.77	23323675.93	23323676.10	0.0269	0.0167
Venus	59146-08-01 13:12 G	23323904.84	23323905.05	23323905.26	0.0270	0.0050
Venus	59147-03-18 16:19 G	23324134.17	23324134.18	23324134.21	0.0271	0.0269
Mercury	59154-01-06 12:14 G	23326619.95	23326620.01	23326620.08	0.0286	0.0252
Moon	59154-03-21 01:55 G	23326693.41	23326693.58	23326693.75	0.0286	0.0196
Earth	59154-03-21 02:53 G	23326693.45	23326693.62	23326693.82	0.0286	0.0187 *
Mercury	59154-04-05 00:58 G	23326708.41	23326708.54	23326708.67	0.0286	0.0091
Mercury	59154-07-02 13:26 G	23326796.93	23326797.06	23326797.19	0.0287	0.0069
Mercury	59154-09-29 01:41 G	23326885.49	23326885.57	23326885.65	0.0287	0.0227
Venus	59160-05-31 08:24 G	23328956.67	23328956.85	23328957.03	0.0291	0.0150
Venus	59161-01-16 06:14 G	23329186.57	23329186.76	23329186.95	0.0290	0.0125
Earth	59167-09-15 15:50 G	23331619.95	23331620.16	23331620.38	0.0274	0.0131
Moon	59167-09-15 17:46 G	23331620.04	23331620.24	23331620.46	0.0274	0.0136 *

Mercury	59168-04-28 13:12 G	23331845.89	23331846.05	23331846.21	0.0273	0.0120
Mercury	59168-07-26 09:07 G	23331934.70	23331934.88	23331935.05	0.0273	0.0063
Mercury	59168-10-23 05:02 G	23332023.65	23332023.71	23332023.79	0.0272	0.0248
Venus	59175-06-27 12:58 G	23334461.86	23334462.04	23334462.22	0.0269	0.0138
Venus	59176-02-11 15:36 G	23334690.95	23334691.15	23334691.36	0.0270	0.0079
Earth	59183-03-15 08:24 G	23337279.63	23337279.85	23337280.08	0.0286	0.0101
Moon	59183-03-15 09:22 G	23337279.65	23337279.89	23337280.13	0.0286	0.0093 *
Mercury	59183-08-23 02:24 G	23337440.48	23337440.60	23337440.72	0.0287	0.0144
Mercury	59183-11-19 14:53 G	23337528.98	23337529.12	23337529.25	0.0287	0.0017
Mercury	59184-02-16 03:07 G	23337617.53	23337617.63	23337617.74	0.0288	0.0176
Venus	59189-12-11 13:26 G	23339742.87	23339743.06	23339743.26	0.0291	0.0116
Venus	59190-07-29 11:31 G	23339972.80	23339972.98	23339973.16	0.0290	0.0160
Mercury	59197-09-15 13:12 G	23342577.92	23342578.05	23342578.20	0.0273	0.0167
Moon	59197-09-22 00:58 G	23342584.36	23342584.54	23342584.74	0.0273	0.0170
Earth	59197-09-22 04:34 G	23342584.52	23342584.69	23342584.89	0.0273	0.0181 *
Mercury	59197-12-13 09:22 G	23342666.71	23342666.89	23342667.07	0.0273	0.0017
Mercury	59198-03-12 05:17 G	23342755.61	23342755.72	23342755.85	0.0272	0.0202
Venus	59205-01-06 20:38 G	23345248.16	23345248.36	23345248.56	0.0270	0.0101
Venus	59205-08-23 23:31 G	23345477.29	23345477.48	23345477.68	0.0270	0.0117
Mars	59207-06-13 22:48 G	23346136.14	23346136.45	23346136.77	0.0273	0.0041
Mercury	59213-01-09 06:14 G	23348172.65	23348172.76	23348172.87	0.0286	0.0167
Earth	59213-03-22 17:46 G	23348245.16	23348245.24	23348245.32	0.0287	0.0269
Moon	59213-03-22 20:24 G	23348245.32	23348245.35	23348245.40	0.0287	0.0282 *
Mercury	59213-04-07 18:43 G	23348261.15	23348261.28	23348261.42	0.0287	0.0010
Mercury	59213-07-05 07:12 G	23348349.69	23348349.80	23348349.91	0.0287	0.0152
Venus	59219-06-24 01:41 G	23350529.37	23350529.57	23350529.78	0.0290	0.0063
Venus	59220-02-08 23:17 G	23350759.33	23350759.47	23350759.62	0.0289	0.0211
Mars	59221-07-31 06:14 G	23351297.49	23351297.76	23351298.03	0.0287	0.0021
Earth	59226-09-17 03:22 G	23353171.41	23353171.64	23353171.89	0.0274	0.0058
Moon	59226-09-17 07:12 G	23353171.56	23353171.80	23353172.05	0.0274	0.0065 *

Mercury	59227-02-02 14:10 G	23353309.98	23353310.09	23353310.21	0.0273	0.0206
Mercury	59227-05-02 10:05 G	23353398.74	23353398.92	23353399.10	0.0273	0.0025
Mercury	59227-07-30 06:00 G	23353487.61	23353487.75	23353487.90	0.0272	0.0159
Venus	59234-07-20 00:00 G	23356034.30	23356034.50	23356034.71	0.0269	0.0070
Venus	59235-03-06 02:38 G	23356263.45	23356263.61	23356263.80	0.0270	0.0147
Moon	59242-03-16 19:41 G	23358831.07	23358831.32	23358831.57	0.0286	0.0009
Earth	59242-03-16 22:34 G	23358831.20	23358831.44	23358831.69	0.0286	0.0019 *
Mercury	59242-05-29 07:41 G	23358904.73	23358904.82	23358904.90	0.0286	0.0221
Mercury	59242-08-25 20:10 G	23358993.21	23358993.34	23358993.47	0.0287	0.0060
Mercury	59242-11-22 08:38 G	23359081.73	23359081.86	23359081.98	0.0287	0.0100
Mercury	59243-02-18 20:38 G	23359170.31	23359170.36	23359170.43	0.0288	0.0259
Venus	59249-01-03 06:00 G	23361315.54	23361315.75	23361315.96	0.0291	0.0031
Venus	59249-08-21 03:36 G	23361545.54	23361545.65	23361545.77	0.0290	0.0243
Mercury	59256-06-21 14:10 G	23364042.04	23364042.09	23364042.16	0.0273	0.0254
Mercury	59256-09-18 10:05 G	23364130.75	23364130.92	23364131.09	0.0273	0.0073
Moon	59256-09-23 15:07 G	23364136.03	23364136.13	23364136.25	0.0273	0.0239
Earth	59256-09-23 15:07 G	23364136.04	23364136.13	23364136.23	0.0273	0.0251 *
Mercury	59256-12-16 06:00 G	23364219.59	23364219.75	23364219.92	0.0273	0.0111
Venus	59263-06-15 04:34 G	23366591.62	23366591.69	23366591.78	0.0269	0.0250
Venus	59264-01-30 07:26 G	23366820.60	23366820.81	23366821.02	0.0270	0.0034
Venus	59264-09-15 10:34 G	23367049.79	23367049.94	23367050.10	0.0271	0.0184
Earth	59271-03-11 18:14 G	23369418.23	23369418.26	23369418.33	0.0285	0.0278
Moon	59271-03-11 20:53 G	23369418.32	23369418.37	23369418.44	0.0285	0.0275 *
Mercury	59271-10-16 11:17 G	23369636.91	23369636.97	23369637.04	0.0286	0.0245
Mercury	59272-01-13 00:00 G	23369725.37	23369725.50	23369725.63	0.0287	0.0084
Mercury	59272-04-10 12:29 G	23369813.89	23369814.02	23369814.15	0.0287	0.0076
Mercury	59272-07-08 00:43 G	23369902.46	23369902.53	23369902.61	0.0288	0.0234
Venus	59277-11-28 20:24 G	23371872.26	23371872.35	23371872.47	0.0291	0.0253
Venus	59278-07-16 18:43 G	23372102.07	23372102.28	23372102.50	0.0290	0.0024
Moon	59285-09-18 16:05 G	23374722.91	23374723.17	23374723.42	0.0274	0.0010

Earth	59285-09-18 16:05 G	23374722.93	23374723.17	23374723.42	0.0274	0.0019	*
Mercury	59286-02-05 11:17 G	23374862.81	23374862.97	23374863.14	0.0273	0.0109	
Mercury	59286-05-05 07:12 G	23374951.63	23374951.80	23374951.98	0.0273	0.0074	
Mercury	59286-08-02 03:22 G	23375040.59	23375040.64	23375040.70	0.0272	0.0258	
Venus	59292-12-25 08:38 G	23377377.75	23377377.86	23377377.99	0.0269	0.0217	
Venus	59293-08-11 11:17 G	23377606.76	23377606.97	23377607.18	0.0269	0.0003	
Venus	59294-03-28 14:10 G	23377835.97	23377836.09	23377836.22	0.0270	0.0214	
Mars	59295-11-08 00:58 G	23378425.22	23378425.54	23378425.86	0.0273	0.0031	
Moon	59301-03-19 08:53 G	23380382.64	23380382.87	23380383.11	0.0286	0.0071	
Earth	59301-03-19 12:00 G	23380382.77	23380383.00	23380383.24	0.0286	0.0063	*
Mercury	59301-06-02 01:12 G	23380457.43	23380457.55	23380457.67	0.0287	0.0138	
Mercury	59301-08-29 13:55 G	23380545.94	23380546.08	23380546.21	0.0287	0.0024	
Mercury	59301-11-26 02:10 G	23380634.49	23380634.59	23380634.70	0.0288	0.0182	
Venus	59307-06-12 00:29 G	23382658.39	23382658.52	23382658.66	0.0291	0.0222	
Venus	59308-01-27 22:48 G	23382888.24	23382888.45	23382888.66	0.0290	0.0055	
Mars	59309-12-26 12:14 G	23383586.76	23383587.01	23383587.27	0.0287	0.0092	
Earth	59314-09-14 09:22 G	23385309.77	23385309.89	23385310.03	0.0275	0.0233	
Moon	59314-09-14 09:22 G	23385309.78	23385309.89	23385310.02	0.0275	0.0239	*
Mercury	59315-06-26 11:02 G	23385594.82	23385594.96	23385595.11	0.0273	0.0160	
Mercury	59315-09-23 06:58 G	23385683.61	23385683.79	23385683.97	0.0273	0.0022	
Mercury	59315-12-21 03:07 G	23385772.51	23385772.63	23385772.74	0.0272	0.0206	
Venus	59322-07-08 15:07 G	23388163.98	23388164.13	23388164.28	0.0269	0.0183	
Venus	59323-02-22 17:46 G	23388393.03	23388393.24	23388393.45	0.0270	0.0033	
Venus	59323-10-09 20:53 G	23388622.31	23388622.37	23388622.46	0.0271	0.0251	
Earth	59330-03-14 06:29 G	23390969.61	23390969.77	23390969.95	0.0285	0.0200	
Moon	59330-03-14 10:05 G	23390969.74	23390969.92	23390970.10	0.0285	0.0195	*
Mercury	59330-10-20 04:48 G	23391189.59	23391189.70	23391189.82	0.0286	0.0165	
Mercury	59331-01-16 17:31 G	23391278.09	23391278.23	23391278.36	0.0287	0.0004	
Mercury	59331-04-15 05:46 G	23391366.63	23391366.74	23391366.86	0.0287	0.0156	
Venus	59336-12-22 12:58 G	23393444.88	23393445.04	23393445.22	0.0291	0.0168	

Venus	59337-08-09 11:17 G	23393674.77	23393674.97	23393675.17	0.0290	0.0108
Moon	59344-09-21 00:43 G	23396274.29	23396274.53	23396274.77	0.0274	0.0081
Earth	59344-09-21 04:19 G	23396274.45	23396274.68	23396274.91	0.0274	0.0094 *
Mercury	59344-11-12 12:29 G	23396326.91	23396327.02	23396327.16	0.0273	0.0194
Mercury	59345-02-09 08:24 G	23396415.68	23396415.85	23396416.03	0.0273	0.0013
Mercury	59345-05-09 04:19 G	23396504.55	23396504.68	23396504.83	0.0272	0.0171
Venus	59352-01-18 19:41 G	23398950.15	23398950.32	23398950.50	0.0269	0.0150
Venus	59352-09-03 22:19 G	23399179.23	23399179.43	23399179.64	0.0269	0.0065
Mercury	59360-03-08 06:00 G	23401921.67	23401921.75	23401921.84	0.0286	0.0219
Earth	59360-03-20 23:46 G	23401934.29	23401934.49	23401934.71	0.0286	0.0141
Moon	59360-03-21 00:29 G	23401934.32	23401934.52	23401934.72	0.0286	0.0152 *
Mercury	59360-06-04 18:43 G	23402010.15	23402010.28	23402010.41	0.0287	0.0058
Mercury	59360-09-01 07:12 G	23402098.67	23402098.80	23402098.93	0.0287	0.0102
Mercury	59360-11-28 19:26 G	23402187.26	23402187.31	23402187.37	0.0288	0.0260
Venus	59366-07-04 16:19 G	23404230.99	23404231.18	23404231.37	0.0291	0.0139
Venus	59367-02-19 14:10 G	23404460.91	23404461.09	23404461.28	0.0290	0.0137
Earth	59373-09-15 20:10 G	23406861.15	23406861.34	23406861.55	0.0274	0.0160
Moon	59373-09-15 23:31 G	23406861.30	23406861.48	23406861.68	0.0274	0.0167 *
Mercury	59374-04-01 11:46 G	23407058.93	23407058.99	23407059.08	0.0273	0.0249
Mercury	59374-06-29 07:41 G	23407147.65	23407147.82	23407147.99	0.0273	0.0067
Mercury	59374-09-26 03:36 G	23407236.49	23407236.65	23407236.81	0.0272	0.0115
Venus	59381-07-31 00:58 G	23409736.35	23409736.54	23409736.73	0.0269	0.0119
Venus	59382-03-17 03:36 G	23409965.46	23409965.65	23409965.85	0.0270	0.0098
Mars	59384-04-04 14:38 G	23410714.84	23410715.11	23410715.41	0.0274	0.0123
Moon	59389-03-15 15:07 G	23412520.91	23412521.13	23412521.37	0.0285	0.0117
Earth	59389-03-15 16:05 G	23412520.96	23412521.17	23412521.40	0.0285	0.0126 *
Mercury	59389-07-26 09:22 G	23412653.83	23412653.89	23412653.95	0.0286	0.0250
Mercury	59389-10-22 22:05 G	23412742.29	23412742.42	23412742.55	0.0287	0.0089
Mercury	59390-01-19 10:34 G	23412830.81	23412830.94	23412831.07	0.0287	0.0072
Mercury	59390-04-17 22:48 G	23412919.37	23412919.45	23412919.53	0.0288	0.0230

Venus	59396-01-15 04:19 G	23415017.48	23415017.68	23415017.88	0.0291	0.0086
Venus	59396-09-01 02:10 G	23415247.44	23415247.59	23415247.76	0.0290	0.0189
Mars	59398-05-23 09:22 G	23415876.70	23415876.89	23415877.11	0.0286	0.0186
Moon	59403-09-24 12:58 G	23417825.85	23417826.04	23417826.24	0.0273	0.0156
Earth	59403-09-24 15:22 G	23417825.94	23417826.14	23417826.33	0.0273	0.0167 *
Mercury	59403-11-17 09:22 G	23417879.73	23417879.89	23417880.06	0.0273	0.0099
Mercury	59404-02-14 05:17 G	23417968.55	23417968.72	23417968.89	0.0273	0.0083
Mercury	59404-05-13 01:12 G	23418057.53	23418057.55	23418057.59	0.0272	0.0267
Venus	59411-02-11 05:46 G	23420522.55	23420522.74	23420522.95	0.0269	0.0085
Venus	59411-09-28 08:24 G	23420751.67	23420751.85	23420752.04	0.0269	0.0131
Mercury	59419-03-12 23:02 G	23423474.35	23423474.46	23423474.58	0.0286	0.0144
Earth	59419-03-24 09:22 G	23423485.74	23423485.89	23423486.06	0.0286	0.0216
Moon	59419-03-24 13:26 G	23423485.92	23423486.06	23423486.20	0.0286	0.0230 *
Mercury	59419-06-09 11:46 G	23423562.85	23423562.99	23423563.12	0.0287	0.0017
Mercury	59419-09-06 00:00 G	23423651.40	23423651.50	23423651.61	0.0288	0.0176
Venus	59425-07-28 06:29 G	23425803.56	23425803.77	23425803.98	0.0291	0.0059
Venus	59426-03-15 04:19 G	23426033.55	23426033.68	23426033.83	0.0290	0.0216
Earth	59432-09-18 05:31 G	23428412.50	23428412.73	23428412.96	0.0274	0.0090
Moon	59432-09-18 07:55 G	23428412.60	23428412.83	23428413.08	0.0274	0.0098 *
Mercury	59433-04-05 07:55 G	23428611.70	23428611.83	23428611.98	0.0273	0.0161
Mercury	59433-07-03 03:50 G	23428700.49	23428700.66	23428700.84	0.0273	0.0022
Mercury	59433-09-29 23:46 G	23428789.38	23428789.49	23428789.62	0.0272	0.0205
Venus	59440-01-07 07:41 G	23431079.82	23431079.82	23431079.83	0.0269	0.0269
Venus	59440-08-23 10:05 G	23431308.72	23431308.92	23431309.13	0.0269	0.0055
Venus	59441-04-09 12:58 G	23431537.87	23431538.04	23431538.21	0.0270	0.0161
Moon	59448-03-17 19:41 G	23434072.08	23434072.32	23434072.57	0.0286	0.0043
Earth	59448-03-17 23:31 G	23434072.25	23434072.48	23434072.72	0.0286	0.0056 *
Mercury	59448-07-30 01:55 G	23434206.48	23434206.58	23434206.69	0.0287	0.0180
Mercury	59448-10-26 14:38 G	23434294.97	23434295.11	23434295.24	0.0287	0.0019
Mercury	59449-01-23 03:07 G	23434383.51	23434383.63	23434383.74	0.0288	0.0141

Venus	59454-06-22 18:43 G	23436360.25	23436360.28	23436360.33	0.0291	0.0285
Venus	59455-02-07 17:17 G	23436590.01	23436590.22	23436590.44	0.0290	0.0011
Venus	59455-09-25 15:07 G	23436820.05	23436820.13	23436820.22	0.0290	0.0265
Mercury	59462-08-23 09:50 G	23439343.79	23439343.91	23439344.04	0.0274	0.0192
Earth	59462-09-25 23:31 G	23439377.37	23439377.48	23439377.62	0.0273	0.0236
Moon	59462-09-26 01:12 G	23439377.43	23439377.55	23439377.70	0.0273	0.0224 *
Mercury	59462-11-20 05:31 G	23439432.55	23439432.73	23439432.91	0.0273	0.0012
Mercury	59463-02-17 01:26 G	23439521.43	23439521.56	23439521.70	0.0273	0.0172
Venus	59469-07-19 12:58 G	23441865.95	23441866.04	23441866.15	0.0268	0.0235
Venus	59470-03-05 15:07 G	23442094.92	23442095.13	23442095.34	0.0269	0.0022
Venus	59470-10-20 17:46 G	23442324.10	23442324.24	23442324.39	0.0269	0.0193
Mars	59472-08-30 11:31 G	23443003.76	23443003.98	23443004.23	0.0273	0.0185
Mercury	59477-12-17 02:53 G	23444938.55	23444938.62	23444938.70	0.0286	0.0236
Mercury	59478-03-15 15:36 G	23445027.02	23445027.15	23445027.29	0.0286	0.0076
Earth	59478-03-25 16:19 G	23445037.15	23445037.18	23445037.21	0.0287	0.0284
Mercury	59478-06-12 04:05 G	23445115.54	23445115.67	23445115.80	0.0287	0.0085
Mercury	59478-09-08 16:19 G	23445204.12	23445204.18	23445204.26	0.0288	0.0243
Venus	59484-01-02 20:10 G	23447146.25	23447146.34	23447146.44	0.0292	0.0261
Venus	59484-08-19 18:43 G	23447376.07	23447376.28	23447376.49	0.0291	0.0016
Venus	59485-04-06 16:34 G	23447606.19	23447606.19	23447606.20	0.0290	0.0289
Mars	59486-10-17 20:53 G	23448165.22	23448165.37	23448165.55	0.0287	0.0226
Moon	59491-09-20 10:34 G	23449963.69	23449963.94	23449964.20	0.0274	0.0036
Earth	59491-09-20 12:43 G	23449963.78	23449964.03	23449964.28	0.0274	0.0024 *
Mercury	59492-01-10 07:55 G	23450075.78	23450075.83	23450075.90	0.0274	0.0257
Mercury	59492-04-08 03:36 G	23450164.48	23450164.65	23450164.82	0.0273	0.0077
Mercury	59492-07-05 23:31 G	23450253.32	23450253.48	23450253.65	0.0272	0.0106
Venus	59499-01-29 15:50 G	23452652.03	23452652.16	23452652.29	0.0269	0.0208
Venus	59499-09-15 18:14 G	23452881.05	23452881.26	23452881.47	0.0269	0.0006
Venus	59500-05-02 20:53 G	23453110.26	23453110.37	23453110.49	0.0270	0.0222
Moon	59507-03-21 03:07 G	23455623.40	23455623.63	23455623.87	0.0286	0.0022

Earth	59507-03-21 03:50 G	23455623.42	23455623.66	23455623.91	0.0286	0.0009	*
Mercury	59507-05-07 05:31 G	23455670.70	23455670.73	23455670.76	0.0286	0.0276	
Mercury	59507-08-03 18:00 G	23455759.13	23455759.25	23455759.38	0.0287	0.0116	
Mercury	59507-10-31 06:43 G	23455847.64	23455847.78	23455847.91	0.0287	0.0045	
Mercury	59508-01-27 18:58 G	23455936.20	23455936.29	23455936.39	0.0288	0.0204	
Venus	59513-07-16 05:46 G	23457932.61	23457932.74	23457932.90	0.0291	0.0213	
Venus	59514-03-03 04:34 G	23458162.48	23458162.69	23458162.90	0.0290	0.0064	
Earth	59520-09-15 11:46 G	23460550.91	23460550.99	23460551.07	0.0276	0.0260	
Moon	59520-09-15 13:55 G	23460551.04	23460551.08	23460551.13	0.0276	0.0270	*
Mercury	59521-08-27 05:02 G	23460896.55	23460896.71	23460896.88	0.0273	0.0111	
Mercury	59521-11-24 00:58 G	23460985.37	23460985.54	23460985.71	0.0273	0.0072	
Mercury	59522-02-20 20:53 G	23461074.32	23461074.37	23461074.44	0.0272	0.0255	
Venus	59528-08-11 21:22 G	23463438.23	23463438.39	23463438.55	0.0268	0.0175	
Venus	59529-03-28 23:17 G	23463667.27	23463667.47	23463667.68	0.0269	0.0040	
Venus	59529-11-13 01:55 G	23463896.52	23463896.58	23463896.65	0.0270	0.0254	
Jupiter	59532-11-21 18:14 G	23465000.83	23465001.26	23465001.68	0.0275	0.0073	
Moon	59536-03-14 10:34 G	23466209.85	23466209.94	23466210.03	0.0284	0.0263	
Earth	59536-03-14 09:50 G	23466209.86	23466209.91	23466209.97	0.0284	0.0275	*
Mercury	59536-12-20 19:12 G	23466491.19	23466491.30	23466491.41	0.0286	0.0171	
Mercury	59537-03-19 07:55 G	23466579.69	23466579.83	23466579.96	0.0286	0.0014	
Mercury	59537-06-15 20:10 G	23466668.23	23466668.34	23466668.46	0.0287	0.0148	
Venus	59543-01-26 06:29 G	23468718.61	23468718.77	23468718.93	0.0291	0.0190	
Venus	59543-09-13 04:48 G	23468948.50	23468948.70	23468948.91	0.0291	0.0087	
Moon	59550-09-22 13:12 G	23471514.81	23471515.05	23471515.30	0.0274	0.0022	
Earth	59550-09-22 16:48 G	23471514.96	23471515.20	23471515.45	0.0274	0.0037	*
Mercury	59551-01-14 02:38 G	23471628.48	23471628.61	23471628.75	0.0273	0.0181	
Mercury	59551-04-12 22:34 G	23471717.26	23471717.44	23471717.62	0.0273	0.0003	
Mercury	59551-07-10 18:29 G	23471806.14	23471806.27	23471806.40	0.0272	0.0184	
Venus	59558-02-21 22:48 G	23474224.28	23474224.45	23474224.63	0.0269	0.0150	
Venus	59558-10-09 01:12 G	23474453.35	23474453.55	23474453.76	0.0269	0.0065	

Mars	59561-01-24 23:46 G	23475292.35	23475292.49	23475292.65	0.0273	0.0240
Earth	59566-03-22 05:46 G	23477174.50	23477174.74	23477174.98	0.0286	0.0068
Moon	59566-03-22 08:53 G	23477174.64	23477174.87	23477175.10	0.0286	0.0084 *
Mercury	59566-05-09 21:07 G	23477223.29	23477223.38	23477223.47	0.0286	0.0217
Mercury	59566-08-06 09:50 G	23477311.77	23477311.91	23477312.04	0.0287	0.0057
Mercury	59566-11-02 22:19 G	23477400.30	23477400.43	23477400.55	0.0287	0.0103
Mercury	59567-01-30 10:34 G	23477488.89	23477488.94	23477489.00	0.0288	0.0261
Venus	59572-08-07 14:38 G	23479504.94	23479505.11	23479505.30	0.0291	0.0146
Venus	59573-03-25 13:26 G	23479734.87	23479735.06	23479735.25	0.0290	0.0130
Mars	59575-03-14 19:41 G	23480454.28	23480454.32	23480454.37	0.0287	0.0282
Earth	59579-09-17 14:53 G	23482101.96	23482102.12	23482102.30	0.0276	0.0201
Moon	59579-09-17 18:29 G	23482102.12	23482102.27	23482102.43	0.0276	0.0213 *
Mercury	59580-06-02 04:05 G	23482360.56	23482360.67	23482360.78	0.0274	0.0216
Mercury	59580-08-29 23:46 G	23482449.31	23482449.49	23482449.67	0.0273	0.0035
Mercury	59580-11-26 19:26 G	23482538.17	23482538.31	23482538.47	0.0273	0.0148
Venus	59587-09-04 04:34 G	23485010.50	23485010.69	23485010.88	0.0268	0.0116
Venus	59588-04-20 06:29 G	23485239.58	23485239.77	23485239.97	0.0269	0.0098
Moon	59595-03-16 08:53 G	23487760.71	23487760.87	23487761.06	0.0284	0.0202
Earth	59595-03-16 12:14 G	23487760.86	23487761.01	23487761.17	0.0284	0.0216 *
Mercury	59595-09-26 22:19 G	23487955.39	23487955.43	23487955.47	0.0285	0.0271
Mercury	59595-12-24 11:02 G	23488043.83	23488043.96	23488044.08	0.0286	0.0111
Mercury	59596-03-21 23:31 G	23488132.35	23488132.48	23488132.61	0.0286	0.0048
Mercury	59596-06-18 11:46 G	23488220.90	23488220.99	23488221.09	0.0287	0.0206
Venus	59602-02-17 15:07 G	23490290.94	23490291.13	23490291.33	0.0291	0.0123
Venus	59602-10-05 13:26 G	23490520.89	23490521.06	23490521.25	0.0291	0.0153
Earth	59609-09-23 18:29 G	23493066.04	23493066.27	23493066.50	0.0274	0.0093
Moon	59609-09-23 19:12 G	23493066.07	23493066.30	23493066.53	0.0274	0.0078 *
Mercury	59610-01-16 20:38 G	23493181.21	23493181.36	23493181.53	0.0274	0.0111
Mercury	59610-04-15 16:34 G	23493270.02	23493270.19	23493270.37	0.0273	0.0072
Mercury	59610-07-13 12:43 G	23493358.97	23493359.03	23493359.09	0.0272	0.0256

Venus	59617-03-16 05:02 G	23495796.52	23495796.71	23495796.91	0.0269	0.0093
Venus	59617-10-31 07:26 G	23496025.63	23496025.81	23496026.00	0.0269	0.0121
Earth	59625-03-23 06:14 G	23498725.55	23498725.76	23498725.99	0.0286	0.0126
Moon	59625-03-23 08:53 G	23498725.66	23498725.87	23498726.10	0.0286	0.0141 *
Mercury	59625-05-12 12:43 G	23498775.92	23498776.03	23498776.14	0.0286	0.0160
Mercury	59625-08-09 01:12 G	23498864.42	23498864.55	23498864.69	0.0287	0.0004
Mercury	59625-11-05 13:41 G	23498952.96	23498953.07	23498953.18	0.0287	0.0158
Venus	59631-08-30 22:19 G	23501077.23	23501077.43	23501077.64	0.0291	0.0082
Venus	59632-04-16 20:53 G	23501307.21	23501307.37	23501307.53	0.0290	0.0194
Mars	59633-06-20 08:24 G	23501736.81	23501736.85	23501736.88	0.0288	0.0286
Moon	59638-09-18 14:38 G	23503652.91	23503653.11	23503653.33	0.0276	0.0161
Earth	59638-09-18 15:22 G	23503652.94	23503653.14	23503653.36	0.0276	0.0148 *
Mercury	59639-06-05 21:50 G	23503913.26	23503913.41	23503913.55	0.0274	0.0149
Mercury	59639-09-02 17:31 G	23504002.05	23504002.23	23504002.41	0.0274	0.0033
Mercury	59639-11-30 13:26 G	23504090.96	23504091.06	23504091.17	0.0273	0.0217
Venus	59646-09-26 10:48 G	23506582.75	23506582.95	23506583.16	0.0268	0.0060
Venus	59647-05-13 12:58 G	23506811.87	23506812.04	23506812.22	0.0269	0.0154
Moon	59654-03-17 11:02 G	23509311.76	23509311.96	23509312.17	0.0284	0.0144
Earth	59654-03-17 13:26 G	23509311.87	23509312.06	23509312.27	0.0284	0.0159 *
Mercury	59654-09-29 13:55 G	23509507.99	23509508.08	23509508.17	0.0285	0.0213
Mercury	59654-12-27 02:38 G	23509596.47	23509596.61	23509596.74	0.0286	0.0054
Mercury	59655-03-25 14:53 G	23509685.00	23509685.12	23509685.25	0.0286	0.0104
Mercury	59655-06-22 03:07 G	23509773.58	23509773.63	23509773.69	0.0287	0.0261
Venus	59661-03-11 22:34 G	23511863.23	23511863.44	23511863.65	0.0291	0.0059
Venus	59661-10-27 20:38 G	23512093.22	23512093.36	23512093.51	0.0290	0.0216
Earth	59668-09-24 18:00 G	23514617.05	23514617.25	23514617.47	0.0274	0.0147
Moon	59668-09-24 21:50 G	23514617.20	23514617.41	23514617.64	0.0274	0.0131 *
Mercury	59668-10-22 18:43 G	23514645.18	23514645.28	23514645.38	0.0274	0.0226
Mercury	59669-01-19 14:24 G	23514733.92	23514734.10	23514734.27	0.0274	0.0044
Mercury	59669-04-18 10:19 G	23514822.78	23514822.93	23514823.08	0.0273	0.0139

Venus	59675-08-22 08:38 G	23517139.80	23517139.86	23517139.94	0.0268	0.0250
Venus	59676-04-07 10:48 G	23517368.74	23517368.95	23517369.16	0.0269	0.0038
Venus	59676-11-22 13:12 G	23517597.89	23517598.05	23517598.21	0.0269	0.0177
Mercury	59684-02-16 15:07 G	23520240.09	23520240.13	23520240.18	0.0285	0.0267
Moon	59684-03-24 04:05 G	23520276.49	23520276.67	23520276.86	0.0286	0.0195
Earth	59684-03-24 06:00 G	23520276.57	23520276.75	23520276.94	0.0286	0.0180 *
Mercury	59684-05-15 03:50 G	23520328.54	23520328.66	23520328.79	0.0286	0.0107
Mercury	59684-08-11 16:19 G	23520417.05	23520417.18	23520417.32	0.0287	0.0053
Mercury	59684-11-08 04:48 G	23520505.61	23520505.70	23520505.79	0.0287	0.0210
Venus	59690-09-22 04:48 G	23522649.49	23522649.70	23522649.91	0.0291	0.0020
Venus	59691-05-10 03:07 G	23522879.53	23522879.63	23522879.73	0.0290	0.0254
Moon	59697-09-19 10:34 G	23525203.73	23525203.94	23525204.18	0.0276	0.0113
Earth	59697-09-19 14:24 G	23525203.87	23525204.10	23525204.33	0.0276	0.0097 *
Mercury	59698-03-11 19:12 G	23525377.27	23525377.30	23525377.35	0.0275	0.0268
Mercury	59698-06-08 14:53 G	23525465.96	23525466.12	23525466.29	0.0274	0.0087
Mercury	59698-09-05 10:48 G	23525554.79	23525554.95	23525555.12	0.0274	0.0097
Venus	59705-03-04 14:24 G	23527925.99	23527926.10	23527926.23	0.0268	0.0218
Venus	59705-10-19 16:34 G	23528154.98	23528155.19	23528155.40	0.0269	0.0006
Venus	59706-06-05 18:43 G	23528384.16	23528384.28	23528384.42	0.0269	0.0210
Earth	59713-03-19 14:38 G	23530862.89	23530863.11	23530863.35	0.0284	0.0102
Moon	59713-03-19 17:02 G	23530862.98	23530863.21	23530863.43	0.0284	0.0085 *
Mercury	59713-10-03 05:31 G	23531060.62	23531060.73	23531060.85	0.0285	0.0156
Mercury	59713-12-30 18:00 G	23531149.12	23531149.25	23531149.39	0.0286	0.0006
Mercury	59714-03-29 06:29 G	23531237.66	23531237.77	23531237.88	0.0286	0.0159
Venus	59719-08-18 06:58 G	23533205.72	23533205.79	23533205.86	0.0291	0.0273
Venus	59720-04-04 05:46 G	23533435.52	23533435.74	23533435.95	0.0291	0.0006
Venus	59720-11-20 03:22 G	23533665.59	23533665.64	23533665.71	0.0290	0.0277
Mars	59721-11-13 21:22 G	23534024.34	23534024.39	23534024.48	0.0289	0.0280
Earth	59727-09-27 16:48 G	23536168.03	23536168.20	23536168.38	0.0274	0.0196
Moon	59727-09-27 17:46 G	23536168.05	23536168.24	23536168.43	0.0274	0.0182 *

Mercury	59727-10-27 11:46 G	23536197.85	23536197.99	23536198.13	0.0274	0.0164
Mercury	59728-01-24 07:41 G	23536286.64	23536286.82	23536287.00	0.0274	0.0019
Mercury	59728-04-22 03:36 G	23536375.53	23536375.65	23536375.77	0.0273	0.0203
Venus	59734-09-14 14:10 G	23538711.95	23538712.09	23538712.23	0.0268	0.0196
Venus	59735-05-01 16:05 G	23538940.96	23538941.17	23538941.39	0.0269	0.0017
Venus	59735-12-16 18:43 G	23539170.17	23539170.28	23539170.38	0.0269	0.0231
Mercury	59743-02-20 06:29 G	23541792.69	23541792.77	23541792.87	0.0285	0.0212
Moon	59743-03-27 02:24 G	23541827.49	23541827.60	23541827.72	0.0286	0.0251
Earth	59743-03-27 05:46 G	23541827.62	23541827.74	23541827.89	0.0286	0.0236 *
Mercury	59743-05-19 19:12 G	23541881.17	23541881.30	23541881.44	0.0286	0.0052
Mercury	59743-08-16 07:41 G	23541969.70	23541969.82	23541969.95	0.0286	0.0106
Mercury	59743-11-12 19:55 G	23542058.28	23542058.33	23542058.39	0.0287	0.0263
Venus	59749-02-27 12:00 G	23543991.88	23543992.00	23543992.13	0.0291	0.0237
Venus	59749-10-15 10:48 G	23544221.74	23544221.95	23544222.16	0.0291	0.0040
Moon	59756-09-21 10:48 G	23546754.72	23546754.95	23546755.19	0.0276	0.0064
Earth	59756-09-21 12:14 G	23546754.76	23546755.01	23546755.25	0.0276	0.0049 *
Mercury	59757-03-15 12:14 G	23546929.90	23546930.01	23546930.13	0.0275	0.0208
Mercury	59757-06-12 07:55 G	23547018.66	23547018.83	23547019.01	0.0274	0.0026
Mercury	59757-09-09 04:05 G	23547107.52	23547107.67	23547107.81	0.0274	0.0159
Venus	59764-03-26 20:10 G	23549498.18	23549498.34	23549498.51	0.0268	0.0164
Venus	59764-11-10 22:19 G	23549727.22	23549727.43	23549727.64	0.0269	0.0050
Venus	59765-06-28 00:29 G	23549956.49	23549956.52	23549956.57	0.0270	0.0265
Earth	59772-03-20 16:34 G	23552413.95	23552414.19	23552414.43	0.0283	0.0044
Moon	59772-03-20 19:55 G	23552414.09	23552414.33	23552414.58	0.0283	0.0027 *
Mercury	59772-07-09 08:38 G	23552524.80	23552524.86	23552524.92	0.0284	0.0256
Mercury	59772-10-05 21:07 G	23552613.26	23552613.38	23552613.51	0.0285	0.0099
Mercury	59773-01-02 09:36 G	23552701.77	23552701.90	23552702.04	0.0285	0.0059
Mercury	59773-03-31 21:50 G	23552790.33	23552790.41	23552790.50	0.0286	0.0215
Venus	59778-09-09 14:10 G	23554777.95	23554778.09	23554778.24	0.0291	0.0210
Venus	59779-04-27 12:43 G	23555007.82	23555008.03	23555008.24	0.0291	0.0066

Moon	59786-09-28 12:14 G	23557718.88	23557719.01	23557719.14	0.0274	0.0233
Earth	59786-09-28 15:07 G	23557719.04	23557719.13	23557719.26	0.0274	0.0246 *
Mercury	59786-10-30 04:48 G	23557750.54	23557750.70	23557750.87	0.0274	0.0102
Mercury	59787-01-27 00:43 G	23557839.36	23557839.53	23557839.70	0.0274	0.0082
Mercury	59787-04-25 20:53 G	23557928.34	23557928.37	23557928.41	0.0273	0.0267
Venus	59793-10-06 19:26 G	23560284.13	23560284.31	23560284.49	0.0268	0.0143
Venus	59794-05-23 21:36 G	23560513.20	23560513.40	23560513.60	0.0269	0.0071
Mars	59796-02-17 09:50 G	23561147.79	23561147.91	23561148.06	0.0271	0.0244
Mercury	59802-02-23 22:19 G	23563345.31	23563345.43	23563345.54	0.0285	0.0154
Mercury	59802-05-23 10:48 G	23563433.82	23563433.95	23563434.09	0.0286	0.0006
Mercury	59802-08-19 23:17 G	23563522.36	23563522.47	23563522.58	0.0286	0.0162
Venus	59808-03-22 19:12 G	23565564.13	23565564.30	23565564.47	0.0291	0.0174
Venus	59808-11-07 17:46 G	23565794.04	23565794.24	23565794.44	0.0290	0.0102
Mars	59810-04-10 03:36 G	23566312.53	23566312.65	23566312.80	0.0288	0.0249
Earth	59815-09-24 10:05 G	23568305.67	23568305.92	23568306.16	0.0276	0.0005
Moon	59815-09-24 12:58 G	23568305.80	23568306.04	23568306.28	0.0276	0.0016 *
Mercury	59816-03-19 05:02 G	23568482.57	23568482.71	23568482.87	0.0275	0.0148
Mercury	59816-06-16 00:58 G	23568571.37	23568571.54	23568571.72	0.0274	0.0036
Mercury	59816-09-12 21:07 G	23568660.28	23568660.38	23568660.49	0.0274	0.0221
Venus	59823-04-20 01:55 G	23571070.39	23571070.58	23571070.77	0.0269	0.0109
Venus	59823-12-05 04:05 G	23571299.48	23571299.67	23571299.87	0.0269	0.0105
Moon	59831-03-23 18:58 G	23573965.04	23573965.29	23573965.54	0.0283	0.0030
Earth	59831-03-23 19:55 G	23573965.09	23573965.33	23573965.57	0.0283	0.0017 *
Mercury	59831-07-14 00:29 G	23574077.43	23574077.52	23574077.62	0.0284	0.0195
Mercury	59831-10-10 13:12 G	23574165.91	23574166.05	23574166.18	0.0285	0.0038
Mercury	59832-01-07 01:26 G	23574254.44	23574254.56	23574254.69	0.0285	0.0119
Mercury	59832-04-04 13:41 G	23574343.04	23574343.07	23574343.11	0.0286	0.0274
Venus	59837-10-02 22:19 G	23576350.25	23576350.43	23576350.62	0.0291	0.0144
Venus	59838-05-20 20:38 G	23576580.17	23576580.36	23576580.55	0.0290	0.0131
Earth	59844-09-17 16:48 G	23578892.17	23578892.20	23578892.25	0.0277	0.0273

Mercury	59845-08-06 02:24 G	23579214.50	23579214.60	23579214.71	0.0275	0.0220
Mercury	59845-11-02 22:19 G	23579303.25	23579303.43	23579303.60	0.0274	0.0038
Mercury	59846-01-30 18:14 G	23579392.11	23579392.26	23579392.41	0.0274	0.0146
Venus	59852-10-30 01:12 G	23581856.36	23581856.55	23581856.76	0.0269	0.0088
Venus	59853-06-16 03:36 G	23582085.47	23582085.65	23582085.84	0.0269	0.0127
Earth	59860-03-17 02:10 G	23584551.52	23584551.59	23584551.69	0.0283	0.0264
Moon	59860-03-17 03:22 G	23584551.55	23584551.64	23584551.76	0.0283	0.0251 *
Mercury	59860-11-30 01:26 G	23584809.50	23584809.56	23584809.63	0.0285	0.0252
Mercury	59861-02-26 14:10 G	23584897.96	23584898.09	23584898.22	0.0285	0.0093
Mercury	59861-05-26 02:38 G	23584986.48	23584986.61	23584986.74	0.0286	0.0064
Mercury	59861-08-22 14:53 G	23585075.04	23585075.12	23585075.21	0.0286	0.0220
Venus	59867-04-15 03:07 G	23587136.44	23587136.63	23587136.83	0.0291	0.0110
Venus	59867-12-01 01:26 G	23587366.39	23587366.56	23587366.74	0.0290	0.0166
Earth	59874-09-25 09:07 G	23589856.64	23589856.88	23589857.12	0.0276	0.0049
Moon	59874-09-25 11:46 G	23589856.74	23589856.99	23589857.25	0.0276	0.0035 *
Mercury	59874-12-24 02:38 G	23589946.58	23589946.61	23589946.66	0.0275	0.0266
Mercury	59875-03-22 22:34 G	23590035.27	23590035.44	23590035.61	0.0275	0.0084
Mercury	59875-06-19 18:29 G	23590124.10	23590124.27	23590124.44	0.0274	0.0100
Venus	59881-09-25 05:46 G	23592413.72	23592413.74	23592413.78	0.0269	0.0266
Venus	59882-05-12 08:10 G	23592642.63	23592642.84	23592643.05	0.0269	0.0053
Venus	59882-12-27 10:34 G	23592871.77	23592871.94	23592872.11	0.0270	0.0162
Mars	59884-07-14 10:34 G	23593436.69	23593436.94	23593437.18	0.0271	0.0172
Moon	59890-03-24 21:22 G	23595516.17	23595516.39	23595516.63	0.0284	0.0091
Earth	59890-03-25 01:12 G	23595516.32	23595516.55	23595516.78	0.0284	0.0081 *
Mercury	59890-07-16 16:48 G	23595630.08	23595630.20	23595630.33	0.0284	0.0130
Mercury	59890-10-13 05:17 G	23595718.59	23595718.72	23595718.86	0.0285	0.0028
Mercury	59891-01-09 17:46 G	23595807.14	23595807.24	23595807.34	0.0285	0.0183
Venus	59896-10-25 08:24 G	23597922.65	23597922.85	23597923.06	0.0291	0.0075
Venus	59897-06-12 06:14 G	23598152.61	23598152.76	23598152.92	0.0290	0.0199
Mars	59898-09-03 06:29 G	23598600.60	23598600.77	23598600.96	0.0288	0.0219

Moon	59903-09-20 16:05 G	23600443.05	23600443.17	23600443.31	0.0277	0.0234
Earth	59903-09-20 18:14 G	23600443.12	23600443.26	23600443.42	0.0277	0.0219 *
Mercury	59904-08-09 20:24 G	23600767.21	23600767.35	23600767.50	0.0275	0.0152
Mercury	59904-11-06 16:05 G	23600856.00	23600856.17	23600856.35	0.0274	0.0032
Mercury	59905-02-03 12:14 G	23600944.90	23600945.01	23600945.12	0.0274	0.0216
Venus	59911-04-08 05:46 G	23603199.66	23603199.74	23603199.83	0.0268	0.0243
Venus	59911-11-23 07:55 G	23603428.63	23603428.83	23603429.05	0.0269	0.0031
Venus	59912-07-09 10:34 G	23603657.79	23603657.94	23603658.10	0.0269	0.0184
Earth	59919-03-20 07:41 G	23606102.66	23606102.82	23606103.00	0.0283	0.0200
Moon	59919-03-20 11:17 G	23606102.80	23606102.97	23606103.16	0.0283	0.0187 *
Mercury	59919-12-04 18:00 G	23606362.15	23606362.25	23606362.35	0.0285	0.0185
Mercury	59920-03-02 06:29 G	23606450.64	23606450.77	23606450.91	0.0285	0.0028
Mercury	59920-05-29 18:58 G	23606539.17	23606539.29	23606539.41	0.0286	0.0129
Mercury	59920-08-26 07:12 G	23606627.79	23606627.80	23606627.81	0.0286	0.0284
Venus	59926-05-08 12:58 G	23608708.83	23608709.04	23608709.25	0.0291	0.0041
Venus	59926-12-24 10:48 G	23608938.84	23608938.95	23608939.09	0.0290	0.0233
Moon	59933-09-27 07:55 G	23611407.59	23611407.83	23611408.07	0.0276	0.0091
Earth	59933-09-27 10:05 G	23611407.70	23611407.92	23611408.16	0.0276	0.0102 *
Mercury	59933-12-27 20:24 G	23611499.24	23611499.35	23611499.48	0.0275	0.0199
Mercury	59934-03-26 16:19 G	23611588.01	23611588.18	23611588.36	0.0275	0.0017
Mercury	59934-06-23 12:14 G	23611676.88	23611677.01	23611677.16	0.0274	0.0169
Venus	59940-10-18 12:58 G	23613985.91	23613986.04	23613986.18	0.0269	0.0208
Venus	59941-06-04 15:22 G	23614214.93	23614215.14	23614215.35	0.0269	0.0006
Venus	59942-01-19 18:00 G	23614444.14	23614444.25	23614444.37	0.0270	0.0221
Moon	59949-03-27 07:41 G	23617067.64	23617067.82	23617068.03	0.0284	0.0159
Earth	59949-03-27 08:38 G	23617067.67	23617067.86	23617068.08	0.0284	0.0150 *
Mercury	59949-04-22 21:07 G	23617094.29	23617094.38	23617094.47	0.0284	0.0217
Mercury	59949-07-20 09:36 G	23617182.77	23617182.90	23617183.04	0.0284	0.0060
Mercury	59949-10-16 22:05 G	23617271.29	23617271.42	23617271.55	0.0285	0.0096
Mercury	59950-01-13 10:19 G	23617359.87	23617359.93	23617359.99	0.0285	0.0251

Venus	59955-04-02 21:50 G	23619265.35	23619265.41	23619265.48	0.0291	0.0275
Venus	59955-11-18 20:10 G	23619495.13	23619495.34	23619495.55	0.0290	0.0001
Venus	59956-07-05 17:46 G	23619725.17	23619725.24	23619725.31	0.0290	0.0270
Earth	59962-09-21 22:05 G	23621994.23	23621994.42	23621994.63	0.0277	0.0160
Moon	59962-09-22 00:43 G	23621994.35	23621994.53	23621994.73	0.0277	0.0172 *
Mercury	59963-05-16 19:12 G	23622231.25	23622231.30	23622231.36	0.0275	0.0259
Mercury	59963-08-13 14:53 G	23622319.95	23622320.12	23622320.29	0.0275	0.0078
Mercury	59963-11-10 10:48 G	23622408.79	23622408.95	23622409.12	0.0274	0.0106
Venus	59970-04-30 13:26 G	23624771.91	23624772.06	23624772.22	0.0269	0.0184
Venus	59970-12-15 15:50 G	23625000.95	23625001.16	23625001.37	0.0269	0.0030
Venus	59971-08-01 18:14 G	23625230.19	23625230.26	23625230.36	0.0270	0.0245
Mars	59972-12-08 15:22 G	23625724.86	23625725.14	23625725.42	0.0272	0.0127
Earth	59978-03-21 15:36 G	23627653.94	23627654.15	23627654.37	0.0283	0.0132
Moon	59978-03-21 16:48 G	23627653.97	23627654.20	23627654.43	0.0283	0.0120 *
Mercury	59978-09-09 22:05 G	23627826.39	23627826.42	23627826.46	0.0284	0.0272
Mercury	59978-12-07 10:48 G	23627914.83	23627914.95	23627915.08	0.0285	0.0114
Mercury	59979-03-05 23:17 G	23628003.34	23628003.47	23628003.61	0.0285	0.0043
Mercury	59979-06-02 11:31 G	23628091.89	23628091.98	23628092.08	0.0286	0.0199
Venus	59984-10-13 02:10 G	23630051.49	23630051.59	23630051.72	0.0291	0.0242
Venus	59985-05-31 00:43 G	23630281.32	23630281.53	23630281.75	0.0290	0.0033
Mars	59987-01-29 00:43 G	23630889.31	23630889.53	23630889.75	0.0288	0.0168
Moon	59992-09-28 10:34 G	23632958.75	23632958.94	23632959.15	0.0275	0.0154
Earth	59992-09-28 14:10 G	23632958.89	23632959.09	23632959.30	0.0275	0.0160 *
Mercury	59992-12-30 15:07 G	23633051.98	23633052.13	23633052.29	0.0275	0.0125
Mercury	59993-03-29 11:02 G	23633140.79	23633140.96	23633141.14	0.0275	0.0059
Mercury	59993-06-26 06:58 G	23633229.72	23633229.79	23633229.88	0.0274	0.0245
Venus	59999-11-10 20:38 G	23635558.20	23635558.36	23635558.55	0.0269	0.0149
Venus	60000-06-26 23:31 G	23635787.28	23635787.48	23635787.69	0.0270	0.0067

61ST MILLENNIUM CE

This is a list of transits visible from Saturn in the 61st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	60008-03-28 18:43	G	23638619.15	23638619.28	23638619.45	0.0284	0.0223	
Moon	60008-03-28 21:50	G	23638619.27	23638619.41	23638619.55	0.0284	0.0230	*
Mercury	60008-04-25 14:24	G	23638646.98	23638647.10	23638647.22	0.0284	0.0142	
Mercury	60008-07-23 02:53	G	23638735.48	23638735.62	23638735.75	0.0285	0.0016	
Mercury	60008-10-19 15:07	G	23638824.02	23638824.13	23638824.24	0.0285	0.0170	
Venus	60014-04-25 11:46	G	23640837.84	23640837.99	23640838.16	0.0290	0.0196	
Venus	60014-12-11 09:50	G	23641067.71	23641067.91	23641068.12	0.0290	0.0077	
Earth	60021-09-23 04:48	G	23643545.48	23643545.70	23643545.94	0.0276	0.0096	
Moon	60021-09-23 08:24	G	23643545.62	23643545.85	23643546.08	0.0276	0.0105	*
Mercury	60022-05-19 14:38	G	23643783.98	23643784.11	23643784.24	0.0275	0.0178	
Mercury	60022-08-16 10:19	G	23643872.75	23643872.93	23643873.11	0.0275	0.0004	
Mercury	60022-11-13 06:14	G	23643961.63	23643961.76	23643961.89	0.0274	0.0188	
Venus	60029-05-22 22:34	G	23646344.25	23646344.44	23646344.63	0.0269	0.0121	
Venus	60030-01-07 01:12	G	23646573.35	23646573.55	23646573.74	0.0269	0.0093	
Moon	60037-03-22 23:17	G	23649205.23	23649205.47	23649205.72	0.0283	0.0048	
Earth	60037-03-23 02:10	G	23649205.36	23649205.59	23649205.83	0.0283	0.0059	*
Mercury	60037-09-12 15:22	G	23649379.05	23649379.14	23649379.25	0.0285	0.0196	
Mercury	60037-12-10 04:05	G	23649467.53	23649467.67	23649467.81	0.0285	0.0038	
Mercury	60038-03-08 16:34	G	23649556.06	23649556.19	23649556.31	0.0286	0.0118	
Mercury	60038-06-05 04:48	G	23649644.66	23649644.70	23649644.74	0.0286	0.0273	

Venus	60043-11-05 16:19 G	23651624.01	23651624.18	23651624.36	0.0291	0.0164
Venus	60044-06-22 14:24 G	23651853.91	23651854.10	23651854.30	0.0290	0.0110
Earth	60051-09-30 20:24 G	23654510.21	23654510.35	23654510.50	0.0275	0.0222
Moon	60051-09-30 21:07 G	23654510.25	23654510.38	23654510.53	0.0275	0.0220 *
Mercury	60051-10-06 14:53 G	23654516.02	23654516.12	23654516.22	0.0275	0.0225
Mercury	60052-01-03 10:34 G	23654604.76	23654604.94	23654605.11	0.0275	0.0043
Mercury	60052-04-01 06:29 G	23654693.62	23654693.77	23654693.92	0.0274	0.0141
Venus	60058-12-03 06:00 G	23657130.55	23657130.75	23657130.95	0.0270	0.0085
Venus	60059-07-20 08:38 G	23657359.68	23657359.86	23657360.05	0.0270	0.0130
Mars	60061-05-05 09:07 G	23658014.57	23658014.88	23658015.20	0.0272	0.0031
Mercury	60067-01-30 19:12 G	23660111.22	23660111.30	23660111.39	0.0284	0.0220
Mercury	60067-04-29 07:55 G	23660199.69	23660199.83	23660199.96	0.0285	0.0064
Mercury	60067-07-26 20:10 G	23660288.22	23660288.34	23660288.47	0.0285	0.0093
Mercury	60067-10-23 08:24 G	23660376.79	23660376.85	23660376.92	0.0285	0.0248
Venus	60073-05-18 03:22 G	23662410.45	23662410.64	23662410.84	0.0290	0.0114
Venus	60074-01-03 01:12 G	23662640.37	23662640.55	23662640.73	0.0290	0.0158
Mars	60075-06-25 11:02 G	23663178.71	23663178.96	23663179.23	0.0288	0.0089
Moon	60080-09-24 14:24 G	23665096.84	23665097.10	23665097.36	0.0276	0.0032
Earth	60080-09-24 14:53 G	23665096.87	23665097.12	23665097.37	0.0276	0.0025 *
Mercury	60081-02-22 15:07 G	23665248.10	23665248.13	23665248.16	0.0275	0.0271
Mercury	60081-05-22 10:48 G	23665336.78	23665336.95	23665337.11	0.0275	0.0090
Mercury	60081-08-19 06:29 G	23665425.60	23665425.77	23665425.94	0.0274	0.0093
Venus	60087-10-29 06:00 G	23667687.75	23667687.75	23667687.76	0.0269	0.0269
Venus	60088-06-14 08:24 G	23667916.65	23667916.85	23667917.06	0.0269	0.0057
Venus	60089-01-29 11:17 G	23668145.80	23668145.97	23668146.14	0.0270	0.0158
Moon	60096-03-24 11:17 G	23670756.73	23670756.97	23670757.21	0.0284	0.0028
Earth	60096-03-24 14:24 G	23670756.86	23670757.10	23670757.34	0.0284	0.0019 *
Mercury	60096-06-18 20:24 G	23670843.32	23670843.35	23670843.39	0.0284	0.0273
Mercury	60096-09-15 09:07 G	23670931.76	23670931.88	23670932.01	0.0285	0.0115
Mercury	60096-12-12 21:36 G	23671020.27	23671020.40	23671020.54	0.0285	0.0042

Mercury	60097-03-11 09:50 G	23671108.82	23671108.91	23671109.01	0.0286	0.0197
Venus	60102-11-29 07:55 G	23673196.63	23673196.83	23673197.04	0.0291	0.0082
Venus	60103-07-17 05:46 G	23673426.59	23673426.74	23673426.90	0.0290	0.0191
Mercury	60110-10-10 10:48 G	23676068.80	23676068.95	23676069.10	0.0275	0.0138
Mercury	60111-01-07 06:29 G	23676157.60	23676157.77	23676157.95	0.0274	0.0045
Mercury	60111-04-06 02:38 G	23676246.51	23676246.61	23676246.71	0.0274	0.0229
Venus	60117-05-11 13:12 G	23678473.96	23678474.05	23678474.16	0.0270	0.0234
Venus	60117-12-26 16:05 G	23678702.96	23678703.17	23678703.38	0.0270	0.0020
Venus	60118-08-12 18:58 G	23678932.15	23678932.29	23678932.44	0.0270	0.0195
Earth	60125-03-20 13:12 G	23681343.92	23681344.05	23681344.19	0.0283	0.0234
Moon	60125-03-20 16:05 G	23681344.03	23681344.17	23681344.33	0.0283	0.0221 *
Mercury	60126-02-03 12:58 G	23681663.92	23681664.04	23681664.16	0.0284	0.0139
Mercury	60126-05-03 01:26 G	23681752.43	23681752.56	23681752.70	0.0285	0.0020
Mercury	60126-07-30 13:55 G	23681840.97	23681841.08	23681841.19	0.0285	0.0174
Venus	60132-06-10 20:10 G	23683983.13	23683983.34	23683983.55	0.0290	0.0029
Venus	60133-01-26 17:31 G	23684213.12	23684213.23	23684213.35	0.0289	0.0242
Moon	60139-09-27 23:02 G	23686648.21	23686648.46	23686648.70	0.0276	0.0042
Earth	60139-09-28 02:24 G	23686648.36	23686648.60	23686648.85	0.0276	0.0049 *
Mercury	60140-02-27 11:46 G	23686800.86	23686800.99	23686801.12	0.0275	0.0178
Mercury	60140-05-26 07:26 G	23686889.63	23686889.81	23686889.99	0.0275	0.0005
Mercury	60140-08-23 03:22 G	23686978.51	23686978.64	23686978.77	0.0274	0.0187
Venus	60146-11-21 16:48 G	23689260.07	23689260.20	23689260.34	0.0269	0.0203
Venus	60147-07-08 19:26 G	23689489.10	23689489.31	23689489.52	0.0269	0.0010
Venus	60148-02-22 22:05 G	23689718.31	23689718.42	23689718.54	0.0270	0.0225
Mars	60149-09-30 08:24 G	23690303.54	23690303.85	23690304.17	0.0272	0.0037
Earth	60155-03-28 03:07 G	23692308.41	23692308.63	23692308.86	0.0284	0.0098
Moon	60155-03-28 04:19 G	23692308.47	23692308.68	23692308.91	0.0284	0.0104 *
Mercury	60155-06-23 14:10 G	23692395.99	23692396.09	23692396.19	0.0284	0.0192
Mercury	60155-09-20 02:53 G	23692484.48	23692484.62	23692484.75	0.0285	0.0035
Mercury	60155-12-17 15:07 G	23692573.01	23692573.13	23692573.26	0.0286	0.0122

Mercury	60156-03-15 03:22 G	23692661.62	23692661.64	23692661.68	0.0286	0.0277
Venus	60161-05-06 02:10 G	23694539.52	23694539.59	23694539.67	0.0291	0.0270
Venus	60161-12-22 00:14 G	23694769.30	23694769.51	23694769.73	0.0290	0.0005
Venus	60162-08-08 22:05 G	23694999.35	23694999.42	23694999.48	0.0290	0.0273
Mars	60163-11-20 16:34 G	23695467.92	23695468.19	23695468.46	0.0288	0.0018
Earth	60168-09-21 18:00 G	23697235.10	23697235.25	23697235.42	0.0277	0.0208
Moon	60168-09-21 21:36 G	23697235.26	23697235.40	23697235.56	0.0277	0.0219 *
Mercury	60169-07-16 11:46 G	23697532.90	23697532.99	23697533.09	0.0275	0.0227
Mercury	60169-10-13 07:26 G	23697621.63	23697621.81	23697621.98	0.0275	0.0046
Mercury	60170-01-10 03:07 G	23697710.48	23697710.63	23697710.79	0.0274	0.0138
Venus	60176-06-02 23:46 G	23700046.33	23700046.49	23700046.66	0.0270	0.0168
Venus	60177-01-18 02:38 G	23700275.40	23700275.61	23700275.82	0.0270	0.0046
Venus	60177-09-04 05:31 G	23700504.69	23700504.73	23700504.79	0.0271	0.0262
Moon	60184-03-21 23:46 G	23702895.29	23702895.49	23702895.72	0.0283	0.0148
Earth	60184-03-22 01:26 G	23702895.36	23702895.56	23702895.76	0.0283	0.0156 *
Mercury	60184-11-09 18:00 G	23703128.16	23703128.25	23703128.34	0.0284	0.0215
Mercury	60185-02-06 06:43 G	23703216.64	23703216.78	23703216.91	0.0285	0.0058
Mercury	60185-05-05 19:12 G	23703305.17	23703305.30	23703305.43	0.0285	0.0099
Mercury	60185-08-02 07:26 G	23703393.75	23703393.81	23703393.87	0.0286	0.0254
Venus	60190-11-16 15:07 G	23705326.00	23705326.13	23705326.28	0.0290	0.0216
Venus	60191-07-04 13:12 G	23705555.84	23705556.05	23705556.26	0.0290	0.0057
Moon	60198-09-29 12:58 G	23708199.83	23708200.04	23708200.26	0.0276	0.0120
Earth	60198-09-29 15:07 G	23708199.92	23708200.13	23708200.36	0.0276	0.0126 *
Mercury	60198-12-03 13:12 G	23708265.00	23708265.05	23708265.11	0.0275	0.0261
Mercury	60199-03-02 08:38 G	23708353.70	23708353.86	23708354.03	0.0275	0.0082
Mercury	60199-05-30 04:34 G	23708442.52	23708442.69	23708442.85	0.0274	0.0101
Venus	60205-12-15 04:05 G	23710832.49	23710832.67	23710832.85	0.0269	0.0136
Venus	60206-08-01 06:43 G	23711061.58	23711061.78	23711061.98	0.0269	0.0078
Earth	60214-03-30 16:19 G	23713860.00	23713860.18	23713860.38	0.0284	0.0178
Moon	60214-03-30 20:10 G	23713860.16	23713860.34	23713860.53	0.0284	0.0181 *

Mercury	60214-03-30 19:12 G	23713860.26	23713860.30	23713860.35	0.0284	0.0268 *
Mercury	60214-06-27 07:55 G	23713948.71	23713948.83	23713948.96	0.0285	0.0110
Mercury	60214-09-23 20:38 G	23714037.22	23714037.36	23714037.49	0.0285	0.0048
Mercury	60214-12-21 08:53 G	23714125.78	23714125.87	23714125.97	0.0286	0.0203
Venus	60220-05-29 18:43 G	23716112.13	23716112.28	23716112.45	0.0291	0.0186
Venus	60221-01-14 16:48 G	23716342.00	23716342.20	23716342.41	0.0290	0.0087
Earth	60227-09-25 06:00 G	23718786.54	23718786.75	23718786.98	0.0277	0.0133
Moon	60227-09-25 08:10 G	23718786.63	23718786.84	23718787.07	0.0277	0.0141 *
Mercury	60228-07-20 08:24 G	23719085.70	23719085.85	23719086.01	0.0275	0.0134
Mercury	60228-10-17 04:05 G	23719174.50	23719174.67	23719174.85	0.0274	0.0049
Mercury	60229-01-14 00:00 G	23719263.41	23719263.50	23719263.60	0.0274	0.0233
Venus	60235-06-27 10:19 G	23721618.74	23721618.93	23721619.13	0.0270	0.0102
Venus	60236-02-11 13:12 G	23721847.86	23721848.05	23721848.24	0.0270	0.0113
Mars	60238-02-26 04:34 G	23722593.42	23722593.69	23722593.98	0.0273	0.0135
Moon	60243-03-25 09:22 G	23724446.66	23724446.89	23724447.13	0.0283	0.0073
Earth	60243-03-25 12:58 G	23724446.81	23724447.04	23724447.28	0.0283	0.0079 *
Mercury	60243-11-14 11:31 G	23724680.86	23724680.98	23724681.10	0.0285	0.0136
Mercury	60244-02-11 00:14 G	23724769.37	23724769.51	23724769.64	0.0285	0.0022
Mercury	60244-05-09 12:29 G	23724857.92	23724858.02	23724858.13	0.0286	0.0177
Venus	60249-12-10 07:41 G	23726898.63	23726898.82	23726899.01	0.0290	0.0131
Venus	60250-07-28 05:31 G	23727128.55	23727128.73	23727128.92	0.0290	0.0140
Mars	60252-04-17 18:14 G	23727758.01	23727758.26	23727758.53	0.0287	0.0084
Earth	60257-10-02 04:05 G	23729751.50	23729751.67	23729751.84	0.0275	0.0202
Moon	60257-10-02 06:14 G	23729751.60	23729751.76	23729751.93	0.0275	0.0200 *
Mercury	60257-12-07 10:05 G	23729817.79	23729817.92	23729818.07	0.0275	0.0165
Mercury	60258-03-06 05:46 G	23729906.57	23729906.74	23729906.92	0.0275	0.0018
Mercury	60258-06-03 01:41 G	23729995.45	23729995.57	23729995.69	0.0274	0.0200
Venus	60265-01-06 15:22 G	23732404.94	23732405.14	23732405.34	0.0269	0.0069
Venus	60265-08-23 17:46 G	23732634.07	23732634.24	23732634.43	0.0269	0.0145
Earth	60273-04-01 04:19 G	23735411.58	23735411.68	23735411.79	0.0284	0.0256

Moon	60273-04-01 05:02 G	23735411.61	23735411.71	23735411.83	0.0284	0.0256 *
Mercury	60273-04-02 12:43 G	23735412.93	23735413.03	23735413.14	0.0284	0.0189
Mercury	60273-06-30 01:26 G	23735501.43	23735501.56	23735501.70	0.0285	0.0031
Mercury	60273-09-26 13:55 G	23735589.96	23735590.08	23735590.20	0.0285	0.0125
Mercury	60273-12-24 02:10 G	23735678.57	23735678.59	23735678.62	0.0286	0.0280
Venus	60279-06-22 10:48 G	23737684.76	23737684.95	23737685.15	0.0291	0.0103
Venus	60280-02-07 08:38 G	23737914.69	23737914.86	23737915.04	0.0290	0.0169
Moon	60286-09-26 15:07 G	23740337.88	23740338.13	23740338.38	0.0276	0.0061
Earth	60286-09-26 18:00 G	23740338.01	23740338.25	23740338.49	0.0276	0.0057 *
Mercury	60287-04-26 09:22 G	23740549.80	23740549.89	23740550.00	0.0275	0.0221
Mercury	60287-07-24 05:02 G	23740638.54	23740638.71	23740638.89	0.0275	0.0040
Mercury	60287-10-21 00:43 G	23740727.39	23740727.53	23740727.69	0.0274	0.0143
Venus	60293-12-02 17:46 G	23742962.17	23742962.24	23742962.33	0.0269	0.0249
Venus	60294-07-19 20:24 G	23743191.15	23743191.35	23743191.57	0.0270	0.0037
Venus	60295-03-05 23:17 G	23743420.32	23743420.47	23743420.63	0.0270	0.0178
Moon	60302-03-27 22:05 G	23745998.18	23745998.42	23745998.65	0.0284	0.0002
Earth	60302-03-27 23:17 G	23745998.22	23745998.47	23745998.71	0.0284	0.0005 *
Mercury	60302-08-21 16:05 G	23746145.09	23746145.17	23746145.26	0.0285	0.0218
Mercury	60302-11-18 04:48 G	23746233.57	23746233.70	23746233.84	0.0285	0.0060
Mercury	60303-02-14 17:17 G	23746322.10	23746322.22	23746322.35	0.0286	0.0097
Mercury	60303-05-14 05:46 G	23746410.68	23746410.74	23746410.80	0.0286	0.0252
Venus	60309-01-02 23:17 G	23748471.26	23748471.47	23748471.68	0.0290	0.0050
Venus	60309-08-20 20:53 G	23748701.24	23748701.37	23748701.51	0.0290	0.0222
Mercury	60316-09-13 11:31 G	23751281.91	23751281.98	23751282.05	0.0275	0.0250
Mercury	60316-12-11 06:58 G	23751370.62	23751370.79	23751370.96	0.0275	0.0071
Mercury	60317-03-10 02:38 G	23751459.45	23751459.61	23751459.78	0.0274	0.0112
Venus	60323-06-15 23:31 G	23753748.36	23753748.48	23753748.61	0.0269	0.0215
Venus	60324-01-31 01:55 G	23753977.37	23753977.58	23753977.79	0.0269	0.0003
Venus	60324-09-16 04:34 G	23754206.56	23754206.69	23754206.82	0.0269	0.0211
Mars	60326-07-24 07:55 G	23754882.64	23754882.83	23754883.05	0.0272	0.0207

Earth	60331-03-22 08:24 G	23756584.82	23756584.85	23756584.88	0.0282	0.0279
Moon	60331-03-22 09:22 G	23756584.83	23756584.89	23756584.98	0.0282	0.0269 *
Mercury	60332-01-08 17:17 G	23756877.18	23756877.22	23756877.26	0.0284	0.0270
Mercury	60332-04-06 06:00 G	23756965.63	23756965.75	23756965.88	0.0285	0.0113
Mercury	60332-07-03 18:29 G	23757054.14	23757054.27	23757054.41	0.0285	0.0045
Mercury	60332-09-30 06:58 G	23757142.70	23757142.79	23757142.89	0.0286	0.0199
Venus	60338-07-16 01:26 G	23759257.35	23759257.56	23759257.77	0.0291	0.0023
Venus	60339-03-02 23:02 G	23759487.36	23759487.46	23759487.57	0.0290	0.0248
Mars	60340-09-12 14:53 G	23760046.88	23760047.12	23760047.36	0.0288	0.0140
Moon	60345-09-29 00:43 G	23761889.29	23761889.53	23761889.77	0.0276	0.0014
Earth	60345-09-29 03:50 G	23761889.42	23761889.66	23761889.91	0.0276	0.0016 *
Mercury	60346-04-30 05:46 G	23762102.59	23762102.74	23762102.89	0.0275	0.0131
Mercury	60346-07-28 01:26 G	23762191.38	23762191.56	23762191.73	0.0274	0.0050
Mercury	60346-10-24 21:07 G	23762280.30	23762280.38	23762280.48	0.0274	0.0234
Venus	60352-12-26 03:36 G	23764534.50	23764534.65	23764534.81	0.0269	0.0185
Venus	60353-08-12 06:14 G	23764763.55	23764763.76	23764763.97	0.0270	0.0028
Venus	60354-03-29 08:53 G	23764992.78	23764992.87	23764992.97	0.0270	0.0242
Earth	60361-03-29 06:43 G	23767549.54	23767549.78	23767550.02	0.0284	0.0066
Moon	60361-03-29 09:22 G	23767549.66	23767549.89	23767550.12	0.0284	0.0070 *
Mercury	60361-08-24 08:53 G	23767697.76	23767697.87	23767697.99	0.0285	0.0147
Mercury	60361-11-20 21:36 G	23767786.26	23767786.40	23767786.54	0.0285	0.0010
Mercury	60362-02-17 09:50 G	23767874.81	23767874.91	23767875.03	0.0286	0.0167
Venus	60367-06-10 14:24 G	23769813.99	23769814.10	23769814.22	0.0291	0.0245
Venus	60368-01-26 12:43 G	23770043.82	23770044.03	23770044.24	0.0290	0.0027
Earth	60374-09-24 02:24 G	23772476.47	23772476.60	23772476.76	0.0277	0.0224
Moon	60374-09-24 05:46 G	23772476.62	23772476.74	23772476.89	0.0277	0.0231 *
Mercury	60375-09-17 07:41 G	23772834.68	23772834.82	23772834.96	0.0275	0.0162
Mercury	60375-12-15 03:07 G	23772923.46	23772923.63	23772923.81	0.0275	0.0021
Mercury	60376-03-12 22:48 G	23773012.34	23773012.45	23773012.58	0.0274	0.0204
Venus	60382-07-08 09:07 G	23775320.72	23775320.88	23775321.06	0.0269	0.0152

Venus	60383-02-22 11:31 G	23775549.78	23775549.98	23775550.19	0.0269	0.0061
Moon	60390-03-23 12:29 G	23778135.86	23778136.02	23778136.20	0.0282	0.0204
Earth	60390-03-23 15:50 G	23778136.00	23778136.16	23778136.32	0.0282	0.0211 *
Mercury	60391-01-11 10:19 G	23778429.83	23778429.93	23778430.02	0.0284	0.0199
Mercury	60391-04-09 22:48 G	23778518.32	23778518.45	23778518.59	0.0285	0.0043
Mercury	60391-07-07 11:17 G	23778606.85	23778606.97	23778607.10	0.0285	0.0113
Mercury	60391-10-03 23:31 G	23778695.44	23778695.48	23778695.53	0.0286	0.0268
Venus	60396-12-20 16:05 G	23780600.04	23780600.17	23780600.31	0.0291	0.0220
Venus	60397-08-07 14:24 G	23780829.89	23780830.10	23780830.31	0.0291	0.0053
Earth	60404-09-30 11:46 G	23783440.75	23783440.99	23783441.23	0.0276	0.0083
Moon	60404-09-30 12:29 G	23783440.79	23783441.02	23783441.24	0.0276	0.0084 *
Mercury	60405-02-03 05:46 G	23783566.65	23783566.74	23783566.84	0.0275	0.0227
Mercury	60405-05-03 01:26 G	23783655.38	23783655.56	23783655.73	0.0275	0.0047
Mercury	60405-07-30 20:53 G	23783744.23	23783744.37	23783744.53	0.0274	0.0137
Venus	60412-01-18 12:14 G	23786106.82	23786107.01	23786107.20	0.0269	0.0124
Venus	60412-09-03 14:38 G	23786335.91	23786336.11	23786336.31	0.0270	0.0089
Earth	60420-03-30 12:00 G	23789100.79	23789101.00	23789101.22	0.0284	0.0132
Moon	60420-03-30 15:07 G	23789100.92	23789101.13	23789101.35	0.0284	0.0134 *
Mercury	60420-05-30 12:43 G	23789161.95	23789162.03	23789162.10	0.0284	0.0239
Mercury	60420-08-27 01:12 G	23789250.42	23789250.55	23789250.69	0.0285	0.0082
Mercury	60420-11-23 13:55 G	23789338.95	23789339.08	23789339.21	0.0285	0.0076
Mercury	60421-02-20 02:10 G	23789427.52	23789427.59	23789427.67	0.0286	0.0231
Venus	60426-07-03 02:10 G	23791386.42	23791386.59	23791386.76	0.0290	0.0173
Venus	60427-02-18 00:14 G	23791616.31	23791616.51	23791616.71	0.0290	0.0099
Mars	60429-02-07 00:29 G	23792336.35	23792336.52	23792336.71	0.0287	0.0216
Moon	60433-09-25 09:22 G	23794027.69	23794027.89	23794028.10	0.0277	0.0162
Earth	60433-09-25 09:22 G	23794027.70	23794027.89	23794028.10	0.0277	0.0157 *
Mercury	60434-06-23 07:26 G	23794298.76	23794298.81	23794298.87	0.0276	0.0260
Mercury	60434-09-20 03:07 G	23794387.46	23794387.63	23794387.79	0.0275	0.0080
Mercury	60434-12-17 22:48 G	23794476.28	23794476.45	23794476.61	0.0275	0.0103

Venus	60441-07-30 18:00 G	23796893.06	23796893.25	23796893.46	0.0269	0.0091
Venus	60442-03-16 20:24 G	23797122.16	23797122.35	23797122.54	0.0269	0.0122
Moon	60449-03-24 18:14 G	23799687.07	23799687.26	23799687.47	0.0282	0.0144
Earth	60449-03-24 20:53 G	23799687.17	23799687.37	23799687.59	0.0282	0.0146 *
Mercury	60450-01-14 02:24 G	23799982.49	23799982.60	23799982.73	0.0284	0.0134
Mercury	60450-04-12 15:07 G	23800070.99	23800071.13	23800071.27	0.0285	0.0022
Mercury	60450-07-10 03:36 G	23800159.54	23800159.65	23800159.75	0.0285	0.0177
Venus	60456-01-13 02:53 G	23802172.44	23802172.62	23802172.80	0.0291	0.0149
Venus	60456-08-30 00:58 G	23802402.35	23802402.54	23802402.74	0.0290	0.0123
Earth	60463-10-02 16:48 G	23804991.99	23804992.20	23804992.41	0.0276	0.0146
Moon	60463-10-02 20:10 G	23804992.15	23804992.34	23804992.56	0.0276	0.0149 *
Mercury	60464-02-07 00:43 G	23805119.38	23805119.53	23805119.68	0.0275	0.0150
Mercury	60464-05-05 20:24 G	23805208.17	23805208.35	23805208.52	0.0275	0.0032
Mercury	60464-08-02 16:05 G	23805297.07	23805297.17	23805297.28	0.0274	0.0216
Venus	60471-02-09 19:41 G	23807679.11	23807679.32	23807679.52	0.0269	0.0066
Venus	60471-09-26 22:05 G	23807908.25	23807908.42	23807908.60	0.0269	0.0148
Moon	60479-04-01 13:12 G	23810651.87	23810652.05	23810652.24	0.0284	0.0188
Earth	60479-04-01 14:38 G	23810651.94	23810652.11	23810652.30	0.0284	0.0193 *
Mercury	60479-06-03 04:34 G	23810714.58	23810714.69	23810714.80	0.0284	0.0178
Mercury	60479-08-30 17:17 G	23810803.08	23810803.22	23810803.35	0.0285	0.0022
Mercury	60479-11-27 05:46 G	23810891.62	23810891.74	23810891.86	0.0285	0.0135
Venus	60485-07-25 11:46 G	23812958.79	23812958.99	23812959.19	0.0291	0.0105
Venus	60486-03-12 10:05 G	23813188.74	23813188.92	23813189.09	0.0290	0.0167
Moon	60492-09-26 10:05 G	23815578.69	23815578.92	23815579.16	0.0277	0.0099
Earth	60492-09-26 13:41 G	23815578.84	23815579.07	23815579.31	0.0277	0.0096 *
Mercury	60493-06-26 02:10 G	23815851.46	23815851.59	23815851.72	0.0276	0.0184
Mercury	60493-09-22 21:36 G	23815940.23	23815940.40	23815940.58	0.0275	0.0008
Mercury	60493-12-20 17:17 G	23816029.10	23816029.22	23816029.36	0.0275	0.0181
Venus	60500-01-05 23:31 G	23818236.40	23818236.48	23818236.58	0.0269	0.0243
Venus	60500-08-23 01:41 G	23818465.36	23818465.57	23818465.78	0.0269	0.0032

Venus	60501-04-09 03:50 G	23818694.51	23818694.66	23818694.82	0.0269	0.0181
Earth	60508-03-27 00:14 G	23821238.29	23821238.51	23821238.75	0.0282	0.0085
Moon	60508-03-27 02:24 G	23821238.38	23821238.60	23821238.83	0.0282	0.0087 *
Mercury	60508-10-21 05:46 G	23821446.67	23821446.74	23821446.83	0.0283	0.0229
Mercury	60509-01-17 18:29 G	23821535.14	23821535.27	23821535.41	0.0284	0.0073
Mercury	60509-04-16 07:12 G	23821623.66	23821623.80	23821623.93	0.0284	0.0083
Mercury	60509-07-13 19:26 G	23821712.24	23821712.31	23821712.38	0.0285	0.0236
Venus	60515-02-05 12:14 G	23823744.80	23823745.01	23823745.21	0.0291	0.0082
Venus	60515-09-23 10:19 G	23823974.77	23823974.93	23823975.09	0.0290	0.0190
Mars	60517-07-04 00:14 G	23824624.37	23824624.51	23824624.67	0.0288	0.0239
Earth	60522-10-04 19:12 G	23826543.15	23826543.30	23826543.48	0.0276	0.0204
Moon	60522-10-04 20:53 G	23826543.22	23826543.37	23826543.55	0.0276	0.0208 *
Mercury	60522-11-13 23:17 G	23826583.42	23826583.47	23826583.53	0.0276	0.0259
Mercury	60523-02-10 18:43 G	23826672.12	23826672.28	23826672.45	0.0275	0.0079
Mercury	60523-05-10 14:24 G	23826760.94	23826761.10	23826761.27	0.0275	0.0105
Venus	60529-07-19 00:00 G	23829022.39	23829022.50	23829022.62	0.0269	0.0220
Venus	60530-03-05 02:24 G	23829251.39	23829251.60	23829251.81	0.0269	0.0009
Venus	60530-10-20 05:02 G	23829480.57	23829480.71	23829480.84	0.0269	0.0204
Mercury	60538-03-10 07:26 G	23832178.79	23832178.81	23832178.84	0.0284	0.0278
Moon	60538-04-03 12:14 G	23832202.89	23832203.01	23832203.14	0.0284	0.0241
Earth	60538-04-03 16:05 G	23832203.06	23832203.17	23832203.28	0.0284	0.0250 *
Mercury	60538-06-06 20:10 G	23832267.22	23832267.34	23832267.47	0.0284	0.0121
Mercury	60538-09-03 08:53 G	23832355.73	23832355.87	23832356.00	0.0285	0.0036
Mercury	60538-11-30 21:07 G	23832444.28	23832444.38	23832444.48	0.0285	0.0190
Venus	60544-08-17 19:26 G	23834531.10	23834531.31	23834531.53	0.0290	0.0042
Venus	60545-04-04 17:46 G	23834761.11	23834761.24	23834761.37	0.0290	0.0230
Moon	60551-09-29 13:26 G	23837129.82	23837130.06	23837130.30	0.0277	0.0039
Earth	60551-09-29 15:07 G	23837129.88	23837130.13	23837130.37	0.0277	0.0041 *
Mercury	60552-06-29 19:55 G	23837404.17	23837404.33	23837404.49	0.0276	0.0116
Mercury	60552-09-26 15:36 G	23837492.98	23837493.15	23837493.32	0.0275	0.0067

Mercury	60552-12-24 11:31 G	23837581.91	23837581.98	23837582.05	0.0275	0.0251
Venus	60559-01-29 06:14 G	23839808.61	23839808.76	23839808.91	0.0269	0.0187
Venus	60559-09-15 08:24 G	23840037.64	23840037.85	23840038.06	0.0269	0.0025
Venus	60560-05-01 10:48 G	23840266.85	23840266.95	23840267.05	0.0269	0.0237
Mars	60561-08-17 14:10 G	23840739.93	23840740.09	23840740.29	0.0271	0.0221
Earth	60567-03-29 02:10 G	23842789.35	23842789.59	23842789.83	0.0282	0.0027
Moon	60567-03-29 05:31 G	23842789.49	23842789.73	23842789.98	0.0282	0.0034 *
Mercury	60567-10-24 21:36 G	23842999.29	23842999.40	23842999.51	0.0283	0.0171
Mercury	60568-01-21 10:19 G	23843087.79	23843087.93	23843088.06	0.0284	0.0016
Mercury	60568-04-18 22:34 G	23843176.33	23843176.44	23843176.56	0.0284	0.0139
Venus	60573-07-12 21:36 G	23845087.40	23845087.40	23845087.43	0.0291	0.0290
Venus	60574-02-27 20:10 G	23845317.13	23845317.34	23845317.56	0.0291	0.0018
Venus	60574-10-15 18:00 G	23845547.16	23845547.25	23845547.36	0.0290	0.0253
Moon	60581-10-05 17:02 G	23848094.17	23848094.21	23848094.29	0.0276	0.0267
Earth	60581-10-05 19:55 G	23848094.26	23848094.33	23848094.43	0.0276	0.0258 *
Mercury	60581-11-16 17:02 G	23848136.09	23848136.21	23848136.33	0.0276	0.0192
Mercury	60582-02-13 12:29 G	23848224.85	23848225.02	23848225.20	0.0275	0.0012
Mercury	60582-05-13 08:24 G	23848313.71	23848313.85	23848313.99	0.0275	0.0173
Venus	60588-08-10 05:46 G	23850594.58	23850594.74	23850594.91	0.0269	0.0166
Venus	60589-03-27 08:10 G	23850823.63	23850823.84	23850824.05	0.0269	0.0046
Venus	60589-11-11 10:34 G	23851052.89	23851052.94	23851053.01	0.0269	0.0259
Mercury	60597-03-12 22:48 G	23853731.37	23853731.45	23853731.54	0.0284	0.0223
Mercury	60597-06-09 11:31 G	23853819.85	23853819.98	23853820.12	0.0284	0.0067
Mercury	60597-09-06 00:00 G	23853908.38	23853908.50	23853908.64	0.0285	0.0090
Mercury	60597-12-03 12:29 G	23853996.95	23853997.02	23853997.09	0.0285	0.0243
Venus	60603-01-24 03:50 G	23855873.56	23855873.66	23855873.77	0.0291	0.0252
Venus	60603-09-11 02:24 G	23856103.39	23856103.60	23856103.81	0.0290	0.0021
Mars	60605-11-28 11:17 G	23856912.92	23856912.97	23856913.04	0.0288	0.0280
Earth	60610-10-01 14:24 G	23858680.85	23858681.10	23858681.35	0.0277	0.0010
Moon	60610-10-01 17:31 G	23858680.99	23858681.23	23858681.47	0.0277	0.0017 *

Mercury	60611-04-06 17:31 G	23858868.15	23858868.23	23858868.33	0.0276	0.0235
Mercury	60611-07-04 13:12 G	23858956.88	23858957.05	23858957.23	0.0276	0.0053
Mercury	60611-10-01 08:53 G	23859045.72	23859045.87	23859046.03	0.0275	0.0132
Venus	60618-02-21 12:14 G	23861380.82	23861381.01	23861381.19	0.0269	0.0132
Venus	60618-10-08 14:24 G	23861609.90	23861610.10	23861610.30	0.0269	0.0080
Moon	60626-03-31 03:22 G	23864340.39	23864340.64	23864340.90	0.0282	0.0021
Earth	60626-03-31 03:50 G	23864340.42	23864340.66	23864340.90	0.0282	0.0029 *
Mercury	60626-08-01 00:29 G	23864463.49	23864463.52	23864463.57	0.0283	0.0270
Mercury	60626-10-28 13:12 G	23864551.93	23864552.05	23864552.18	0.0283	0.0114
Mercury	60627-01-25 01:55 G	23864640.44	23864640.58	23864640.71	0.0284	0.0041
Mercury	60627-04-23 14:10 G	23864729.00	23864729.09	23864729.19	0.0284	0.0194
Venus	60632-08-05 05:02 G	23866659.59	23866659.71	23866659.85	0.0291	0.0227
Venus	60633-03-23 03:22 G	23866889.44	23866889.64	23866889.86	0.0290	0.0046
Moon	60639-09-25 13:41 G	23869267.00	23869267.07	23869267.15	0.0279	0.0264
Earth	60639-09-25 17:02 G	23869267.17	23869267.21	23869267.28	0.0279	0.0272
Mercury	60640-11-20 10:05 G	23869688.77	23869688.92	23869689.08	0.0276	0.0130
Mercury	60641-02-17 05:46 G	23869777.57	23869777.74	23869777.92	0.0275	0.0053
Mercury	60641-05-17 01:41 G	23869866.49	23869866.57	23869866.66	0.0275	0.0237
Venus	60647-09-03 11:17 G	23872166.78	23872166.97	23872167.16	0.0269	0.0111
Venus	60648-04-19 13:41 G	23872395.87	23872396.07	23872396.27	0.0269	0.0100
Mars	60650-01-11 09:36 G	23873027.69	23873027.90	23873028.14	0.0271	0.0189
Earth	60655-03-25 12:29 G	23874926.91	23874927.02	23874927.14	0.0281	0.0245
Moon	60655-03-25 12:43 G	23874926.93	23874927.03	23874927.14	0.0281	0.0251 *
Mercury	60656-03-16 14:24 G	23875283.99	23875284.10	23875284.21	0.0284	0.0168
Mercury	60656-06-13 03:07 G	23875372.49	23875372.63	23875372.76	0.0284	0.0016
Mercury	60656-09-09 15:22 G	23875461.03	23875461.14	23875461.26	0.0285	0.0142
Venus	60662-02-15 10:05 G	23877445.77	23877445.92	23877446.09	0.0291	0.0192
Venus	60662-10-03 08:38 G	23877675.66	23877675.86	23877676.07	0.0290	0.0081
Earth	60669-10-02 12:43 G	23880231.79	23880232.03	23880232.28	0.0277	0.0059
Moon	60669-10-02 15:22 G	23880231.90	23880232.14	23880232.39	0.0277	0.0071 *

Mercury	60670-04-09 10:48 G	23880420.81	23880420.95	23880421.08	0.0276	0.0173
Mercury	60670-07-07 06:14 G	23880509.59	23880509.76	23880509.94	0.0276	0.0012
Mercury	60670-10-04 02:10 G	23880598.47	23880598.59	23880598.72	0.0275	0.0194
Venus	60677-03-15 17:46 G	23882953.04	23882953.24	23882953.44	0.0269	0.0078
Venus	60677-10-30 19:55 G	23883182.16	23883182.33	23883182.52	0.0269	0.0135
Moon	60685-04-01 01:55 G	23885891.35	23885891.58	23885891.82	0.0282	0.0074
Earth	60685-04-01 05:31 G	23885891.50	23885891.73	23885891.96	0.0282	0.0086 *
Mercury	60685-08-03 16:19 G	23886016.10	23886016.18	23886016.28	0.0283	0.0212
Mercury	60685-10-31 05:02 G	23886104.58	23886104.71	23886104.85	0.0283	0.0057
Mercury	60686-01-27 17:31 G	23886193.10	23886193.23	23886193.36	0.0284	0.0097
Mercury	60686-04-26 05:46 G	23886281.68	23886281.74	23886281.81	0.0284	0.0249
Venus	60691-08-28 12:29 G	23888231.86	23888232.02	23888232.21	0.0290	0.0164
Venus	60692-04-14 10:48 G	23888461.76	23888461.95	23888462.15	0.0290	0.0108
Moon	60698-09-26 13:55 G	23890817.94	23890818.08	23890818.25	0.0279	0.0213
Earth	60698-09-26 16:19 G	23890818.03	23890818.18	23890818.33	0.0279	0.0221 *
Mercury	60699-08-27 07:55 G	23891152.75	23891152.83	23891152.90	0.0276	0.0249
Mercury	60699-11-24 03:22 G	23891241.47	23891241.64	23891241.81	0.0276	0.0068
Mercury	60700-02-20 23:02 G	23891330.30	23891330.46	23891330.62	0.0275	0.0115
Venus	60706-02-09 14:10 G	23893510.09	23893510.09	23893510.11	0.0269	0.0268
Venus	60706-09-26 16:48 G	23893738.99	23893739.20	23893739.41	0.0269	0.0057
Venus	60707-05-13 19:12 G	23893968.13	23893968.30	23893968.48	0.0269	0.0155
Earth	60714-03-27 13:41 G	23896477.90	23896478.07	23896478.26	0.0281	0.0190
Moon	60714-03-27 17:17 G	23896478.06	23896478.22	23896478.40	0.0281	0.0197 *
Mercury	60714-12-22 17:17 G	23896748.18	23896748.22	23896748.27	0.0283	0.0268
Mercury	60715-03-21 06:00 G	23896836.63	23896836.75	23896836.88	0.0284	0.0112
Mercury	60715-06-17 18:29 G	23896925.14	23896925.27	23896925.41	0.0284	0.0043
Mercury	60715-09-14 06:58 G	23897013.69	23897013.79	23897013.89	0.0285	0.0196
Venus	60721-03-10 17:02 G	23899018.03	23899018.21	23899018.41	0.0291	0.0130
Venus	60721-10-26 15:22 G	23899247.96	23899248.14	23899248.33	0.0290	0.0142
Jupiter	60724-07-12 14:38 G	23900238.05	23900238.11	23900238.21	0.0286	0.0283

Moon	60728-10-04 08:24 G	23901782.62	23901782.85	23901783.08	0.0277	0.0120
Earth	60728-10-04 10:34 G	23901782.72	23901782.94	23901783.18	0.0277	0.0107 *
Mercury	60729-04-13 03:36 G	23901973.49	23901973.65	23901973.81	0.0276	0.0114
Mercury	60729-07-10 23:17 G	23902062.30	23902062.47	23902062.64	0.0276	0.0069
Mercury	60729-10-07 19:12 G	23902151.24	23902151.30	23902151.37	0.0275	0.0255
Venus	60735-08-22 21:07 G	23904296.28	23904296.38	23904296.48	0.0269	0.0235
Venus	60736-04-07 23:17 G	23904525.26	23904525.47	23904525.69	0.0269	0.0024
Venus	60736-11-23 01:41 G	23904754.43	23904754.57	23904754.73	0.0270	0.0190
Mars	60738-06-08 06:00 G	23905316.48	23905316.75	23905317.04	0.0271	0.0123
Moon	60744-04-03 06:29 G	23907442.56	23907442.77	23907442.98	0.0282	0.0132
Earth	60744-04-03 08:10 G	23907442.63	23907442.84	23907443.05	0.0282	0.0144 *
Mercury	60744-08-07 08:24 G	23907568.73	23907568.85	23907568.96	0.0282	0.0152
Mercury	60744-11-03 20:53 G	23907657.23	23907657.37	23907657.51	0.0283	0.0003
Mercury	60745-01-31 09:07 G	23907745.77	23907745.88	23907746.00	0.0284	0.0155
Venus	60750-09-20 20:38 G	23909804.17	23909804.36	23909804.56	0.0290	0.0099
Venus	60751-05-08 18:29 G	23910034.11	23910034.27	23910034.45	0.0290	0.0172
Mars	60752-07-30 09:36 G	23910482.88	23910482.90	23910482.94	0.0289	0.0287
Earth	60757-09-28 15:50 G	23912368.97	23912369.16	23912369.36	0.0279	0.0170
Moon	60757-09-28 18:00 G	23912369.06	23912369.25	23912369.45	0.0279	0.0158 *
Mercury	60758-08-31 00:58 G	23912705.42	23912705.54	23912705.67	0.0276	0.0186
Mercury	60758-11-27 20:38 G	23912794.18	23912794.36	23912794.54	0.0276	0.0004
Mercury	60759-02-24 16:19 G	23912883.05	23912883.18	23912883.32	0.0275	0.0180
Venus	60765-03-03 19:55 G	23915082.21	23915082.33	23915082.46	0.0269	0.0214
Venus	60765-10-18 22:34 G	23915311.23	23915311.44	23915311.66	0.0269	0.0005
Venus	60766-06-05 01:12 G	23915540.42	23915540.55	23915540.68	0.0269	0.0210
Earth	60773-03-28 16:05 G	23918028.96	23918029.17	23918029.39	0.0281	0.0132
Moon	60773-03-28 17:31 G	23918029.02	23918029.23	23918029.46	0.0281	0.0144 *
Mercury	60773-12-25 09:07 G	23918300.79	23918300.88	23918300.98	0.0283	0.0209
Mercury	60774-03-23 21:50 G	23918389.28	23918389.41	23918389.55	0.0284	0.0054
Mercury	60774-06-20 10:19 G	23918477.80	23918477.93	23918478.06	0.0284	0.0100

Mercury	60774-09-16 22:34 G	23918566.39	23918566.44	23918566.51	0.0285	0.0253
Venus	60780-04-02 00:58 G	23920590.34	23920590.54	23920590.75	0.0290	0.0066
Venus	60780-11-17 22:48 G	23920820.31	23920820.45	23920820.61	0.0290	0.0205
Moon	60787-10-06 06:14 G	23923333.58	23923333.76	23923333.96	0.0277	0.0171
Earth	60787-10-06 09:36 G	23923333.70	23923333.90	23923334.11	0.0277	0.0156 *
Mercury	60788-01-18 01:12 G	23923437.46	23923437.55	23923437.64	0.0277	0.0234
Mercury	60788-04-15 20:38 G	23923526.19	23923526.36	23923526.54	0.0276	0.0053
Mercury	60788-07-13 16:34 G	23923615.04	23923615.19	23923615.35	0.0276	0.0132
Venus	60794-09-14 02:53 G	23925868.46	23925868.62	23925868.78	0.0269	0.0180
Venus	60795-05-01 05:31 G	23926097.52	23926097.73	23926097.94	0.0270	0.0033
Venus	60795-12-16 07:55 G	23926326.75	23926326.83	23926326.93	0.0270	0.0245
Earth	60803-04-05 12:58 G	23928993.87	23928994.04	23928994.20	0.0282	0.0206
Moon	60803-04-05 15:22 G	23928993.97	23928994.14	23928994.32	0.0282	0.0192 *
Mercury	60803-05-14 12:00 G	23929032.93	23929033.00	23929033.07	0.0282	0.0243
Mercury	60803-08-11 00:43 G	23929121.40	23929121.53	23929121.66	0.0283	0.0089
Mercury	60803-11-07 13:12 G	23929209.92	23929210.05	23929210.18	0.0283	0.0064
Mercury	60804-02-04 01:26 G	23929298.48	23929298.56	23929298.65	0.0284	0.0216
Venus	60809-10-13 06:14 G	23931376.55	23931376.76	23931376.98	0.0290	0.0031
Venus	60810-05-31 04:05 G	23931606.55	23931606.67	23931606.79	0.0290	0.0238
Earth	60816-09-29 16:34 G	23933919.98	23933920.19	23933920.43	0.0278	0.0117
Moon	60816-09-29 20:10 G	23933920.11	23933920.34	23933920.58	0.0278	0.0103 *
Mercury	60817-09-02 18:29 G	23934258.12	23934258.27	23934258.43	0.0276	0.0121
Mercury	60817-11-30 14:10 G	23934346.92	23934347.09	23934347.27	0.0276	0.0063
Mercury	60818-02-27 10:05 G	23934435.85	23934435.92	23934436.00	0.0275	0.0248
Venus	60824-03-26 02:24 G	23936654.43	23936654.60	23936654.78	0.0269	0.0157
Venus	60824-11-10 05:02 G	23936883.51	23936883.71	23936883.92	0.0269	0.0055
Venus	60825-06-27 07:41 G	23937112.80	23937112.82	23937112.86	0.0270	0.0267
Mars	60826-11-01 03:36 G	23937604.35	23937604.65	23937604.95	0.0271	0.0089
Moon	60832-03-29 17:31 G	23939580.00	23939580.23	23939580.47	0.0281	0.0086
Earth	60832-03-29 20:38 G	23939580.13	23939580.36	23939580.60	0.0281	0.0071 *

Mercury	60832-12-28 01:26 G	23939853.45	23939853.56	23939853.68	0.0283	0.0145
Mercury	60833-03-26 14:10 G	23939941.95	23939942.09	23939942.23	0.0284	0.0010
Mercury	60833-06-23 02:24 G	23940030.49	23940030.60	23940030.72	0.0284	0.0162
Venus	60838-09-07 11:46 G	23941932.92	23941932.99	23941933.08	0.0290	0.0269
Venus	60839-04-25 10:19 G	23942162.71	23942162.93	23942163.14	0.0290	0.0006
Venus	60839-12-11 07:55 G	23942392.76	23942392.83	23942392.91	0.0290	0.0270
Mars	60840-12-23 19:26 G	23942771.17	23942771.31	23942771.45	0.0289	0.0249
Earth	60846-10-07 10:05 G	23944884.77	23944884.92	23944885.10	0.0277	0.0209
Moon	60846-10-07 10:34 G	23944884.81	23944884.94	23944885.09	0.0277	0.0223 *
Mercury	60847-01-20 18:43 G	23944990.15	23944990.28	23944990.42	0.0277	0.0169
Mercury	60847-04-19 14:24 G	23945078.92	23945079.10	23945079.28	0.0276	0.0014
Mercury	60847-07-17 10:19 G	23945167.81	23945167.93	23945168.05	0.0276	0.0199
Venus	60853-10-06 09:22 G	23947440.71	23947440.89	23947441.09	0.0270	0.0123
Venus	60854-05-23 12:14 G	23947669.82	23947670.01	23947670.21	0.0270	0.0091
Earth	60862-04-06 19:12 G	23950545.24	23950545.30	23950545.37	0.0282	0.0271
Moon	60862-04-06 22:34 G	23950545.34	23950545.44	23950545.55	0.0282	0.0254 *
Mercury	60862-05-17 04:34 G	23950585.59	23950585.69	23950585.80	0.0282	0.0176
Mercury	60862-08-13 17:17 G	23950674.08	23950674.22	23950674.36	0.0283	0.0022
Mercury	60862-11-10 05:31 G	23950762.61	23950762.73	23950762.86	0.0283	0.0131
Mercury	60863-02-06 18:00 G	23950851.23	23950851.25	23950851.26	0.0284	0.0281
Venus	60868-03-19 19:55 G	23952719.20	23952719.33	23952719.46	0.0290	0.0227
Venus	60868-11-04 17:31 G	23952949.02	23952949.23	23952949.44	0.0290	0.0041
Moon	60875-10-01 19:55 G	23955471.07	23955471.33	23955471.58	0.0278	0.0043
Earth	60875-10-01 20:10 G	23955471.10	23955471.34	23955471.59	0.0278	0.0058 *
Mercury	60876-06-08 17:31 G	23955722.13	23955722.23	23955722.32	0.0277	0.0229
Mercury	60876-09-05 12:58 G	23955810.87	23955811.04	23955811.21	0.0276	0.0048
Mercury	60876-12-03 08:38 G	23955899.71	23955899.86	23955900.02	0.0276	0.0136
Venus	60883-04-18 09:50 G	23958226.71	23958226.91	23958227.11	0.0269	0.0099
Venus	60883-12-03 12:29 G	23958455.83	23958456.02	23958456.22	0.0269	0.0114
Moon	60891-04-01 01:12 G	23961131.31	23961131.55	23961131.79	0.0281	0.0021

Earth	60891-04-01 03:50 G	23961131.42	23961131.66	23961131.90	0.0281	0.0004 *
Mercury	60891-10-04 05:46 G	23961317.66	23961317.74	23961317.81	0.0283	0.0231
Mercury	60891-12-31 18:14 G	23961406.13	23961406.26	23961406.40	0.0283	0.0076
Mercury	60892-03-29 06:43 G	23961494.65	23961494.78	23961494.91	0.0284	0.0077
Mercury	60892-06-25 18:58 G	23961583.22	23961583.29	23961583.38	0.0284	0.0229
Venus	60897-09-29 23:17 G	23963505.32	23963505.47	23963505.63	0.0290	0.0197
Venus	60898-05-17 21:22 G	23963735.19	23963735.39	23963735.60	0.0290	0.0073
Earth	60905-10-09 13:26 G	23966435.99	23966436.06	23966436.13	0.0277	0.0265
Mercury	60906-01-24 12:58 G	23966542.88	23966543.04	23966543.20	0.0277	0.0098
Mercury	60906-04-23 08:38 G	23966631.69	23966631.86	23966632.03	0.0276	0.0086
Mercury	60906-07-21 04:34 G	23966720.67	23966720.69	23966720.72	0.0276	0.0272
Venus	60912-10-29 17:02 G	23969013.01	23969013.21	23969013.42	0.0270	0.0063
Venus	60913-06-15 19:55 G	23969242.16	23969242.33	23969242.51	0.0270	0.0150
Mars	60915-03-29 13:12 G	23969893.73	23969894.05	23969894.36	0.0272	0.0005
Earth	60920-03-27 03:07 G	23971718.53	23971718.63	23971718.73	0.0280	0.0254
Moon	60920-03-27 05:46 G	23971718.67	23971718.74	23971718.82	0.0280	0.0266 *
Mercury	60921-02-21 09:07 G	23972049.83	23972049.88	23972049.93	0.0282	0.0258
Mercury	60921-05-20 21:36 G	23972138.28	23972138.40	23972138.53	0.0282	0.0105
Mercury	60921-08-17 10:19 G	23972226.79	23972226.93	23972227.06	0.0283	0.0050
Mercury	60921-11-13 22:34 G	23972315.35	23972315.44	23972315.54	0.0283	0.0201
Venus	60927-04-13 08:53 G	23974291.69	23974291.87	23974292.05	0.0290	0.0152
Venus	60927-11-29 06:14 G	23974521.57	23974521.76	23974521.96	0.0289	0.0116
Mars	60929-05-20 18:00 G	23975060.05	23975060.25	23975060.46	0.0288	0.0189
Moon	60934-10-03 22:19 G	23977022.19	23977022.43	23977022.68	0.0278	0.0024
Earth	60934-10-04 02:10 G	23977022.35	23977022.59	23977022.84	0.0278	0.0008 *
Mercury	60935-06-13 12:14 G	23977274.87	23977275.01	23977275.16	0.0277	0.0152
Mercury	60935-09-10 07:55 G	23977363.66	23977363.83	23977364.01	0.0276	0.0031
Mercury	60935-12-08 03:36 G	23977452.55	23977452.65	23977452.77	0.0276	0.0215
Venus	60941-09-24 15:36 G	23979570.08	23979570.15	23979570.23	0.0269	0.0249
Venus	60942-05-11 18:29 G	23979799.06	23979799.27	23979799.48	0.0269	0.0037

Venus	60942-12-26 21:22 G	23980028.23	23980028.39	23980028.55	0.0270	0.0175
Earth	60950-04-03 12:43 G	23982682.80	23982683.03	23982683.27	0.0282	0.0066
Moon	60950-04-03 14:24 G	23982682.87	23982683.10	23982683.33	0.0282	0.0051 *
Mercury	60950-10-07 22:48 G	23982870.34	23982870.45	23982870.57	0.0283	0.0158
Mercury	60951-01-04 11:31 G	23982958.84	23982958.98	23982959.11	0.0283	0.0009
Mercury	60951-04-02 23:46 G	23983047.38	23983047.49	23983047.61	0.0284	0.0149
Venus	60956-10-23 12:43 G	23985077.84	23985078.03	23985078.22	0.0290	0.0121
Venus	60957-06-10 10:19 G	23985307.75	23985307.93	23985308.11	0.0290	0.0148
Earth	60963-09-28 14:53 G	23987609.04	23987609.12	23987609.22	0.0279	0.0257
Moon	60963-09-28 18:43 G	23987609.17	23987609.28	23987609.41	0.0279	0.0241 *
Mercury	60964-10-30 12:14 G	23988006.90	23988007.01	23988007.14	0.0277	0.0201
Mercury	60965-01-27 07:55 G	23988095.66	23988095.83	23988096.01	0.0276	0.0019
Mercury	60965-04-26 03:36 G	23988184.52	23988184.65	23988184.80	0.0276	0.0165
Venus	60971-04-06 22:34 G	23990356.31	23990356.44	23990356.56	0.0270	0.0214
Venus	60971-11-22 01:41 G	23990585.36	23990585.57	23990585.78	0.0270	0.0005
Venus	60972-07-08 04:34 G	23990814.57	23990814.69	23990814.83	0.0270	0.0212
Moon	60979-03-29 11:31 G	23993269.81	23993269.98	23993270.17	0.0281	0.0196
Earth	60979-03-29 12:43 G	23993269.86	23993270.03	23993270.23	0.0281	0.0183 *
Mercury	60980-02-25 02:24 G	23993602.50	23993602.60	23993602.71	0.0282	0.0183
Mercury	60980-05-23 15:07 G	23993690.99	23993691.13	23993691.27	0.0283	0.0028
Mercury	60980-08-20 03:36 G	23993779.53	23993779.65	23993779.77	0.0283	0.0124
Mercury	60980-11-16 15:50 G	23993868.13	23993868.16	23993868.19	0.0284	0.0275
Venus	60986-05-05 23:46 G	23995864.29	23995864.49	23995864.70	0.0289	0.0072
Venus	60986-12-21 21:07 G	23996094.23	23996094.38	23996094.54	0.0289	0.0195
Moon	60993-10-05 09:50 G	23998573.68	23998573.91	23998574.13	0.0278	0.0091
Earth	60993-10-05 11:17 G	23998573.73	23998573.97	23998574.21	0.0278	0.0075 *
Mercury	60994-03-19 12:29 G	23998738.95	23998739.02	23998739.11	0.0277	0.0247
Mercury	60994-06-16 08:10 G	23998827.67	23998827.84	23998828.01	0.0276	0.0067
Mercury	60994-09-13 03:36 G	23998916.50	23998916.65	23998916.82	0.0276	0.0117
Venus	61000-10-18 00:58 G	24001142.39	24001142.54	24001142.70	0.0270	0.0186

62ND MILLENNIUM CE

This is a list of transits visible from Saturn in the 62nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	61001-06-04 04:05	G	24001371.46	24001371.67	24001371.88	0.0270	0.0026	
Venus	61002-01-19 06:58	G	24001600.70	24001600.79	24001600.89	0.0270	0.0238	
Mars	61003-08-24 03:22	G	24002182.34	24002182.64	24002182.96	0.0271	0.0052	
Earth	61009-04-05 23:46	G	24004234.28	24004234.49	24004234.70	0.0282	0.0140	
Moon	61009-04-06 03:07	G	24004234.42	24004234.63	24004234.86	0.0282	0.0125	*
Mercury	61009-07-15 03:36	G	24004334.58	24004334.65	24004334.73	0.0282	0.0235	
Mercury	61009-10-11 16:19	G	24004423.05	24004423.18	24004423.31	0.0283	0.0081	
Mercury	61010-01-08 04:48	G	24004511.57	24004511.70	24004511.83	0.0283	0.0072	
Mercury	61010-04-06 17:02	G	24004600.13	24004600.21	24004600.30	0.0284	0.0224	
Venus	61015-11-17 03:36	G	24006650.44	24006650.65	24006650.86	0.0290	0.0042	
Venus	61016-07-04 00:58	G	24006880.41	24006880.54	24006880.67	0.0290	0.0226	
Mars	61017-10-15 17:02	G	24007348.97	24007349.21	24007349.46	0.0288	0.0127	
Earth	61022-10-01 00:00	G	24009160.32	24009160.50	24009160.69	0.0279	0.0188	
Moon	61022-10-01 00:58	G	24009160.35	24009160.54	24009160.75	0.0279	0.0172	*
Mercury	61023-11-04 07:55	G	24009559.68	24009559.83	24009559.99	0.0277	0.0117	
Mercury	61024-02-01 03:36	G	24009648.48	24009648.65	24009648.82	0.0276	0.0066	
Mercury	61024-04-29 23:31	G	24009737.41	24009737.48	24009737.55	0.0276	0.0251	
Venus	61030-04-30 07:55	G	24011928.66	24011928.83	24011929.01	0.0270	0.0151	
Venus	61030-12-15 11:17	G	24012157.76	24012157.97	24012158.17	0.0270	0.0062	

Moon	61038-03-31 20:38 G	24014821.14	24014821.36	24014821.58	0.0281	0.0123
Earth	61038-04-01 00:14 G	24014821.29	24014821.51	24014821.73	0.0281	0.0108 *
Mercury	61038-12-02 07:12 G	24015066.75	24015066.80	24015066.86	0.0282	0.0259
Mercury	61039-02-28 19:55 G	24015155.21	24015155.33	24015155.47	0.0283	0.0105
Mercury	61039-05-28 08:38 G	24015243.72	24015243.86	24015244.00	0.0283	0.0049
Mercury	61039-08-24 21:07 G	24015332.28	24015332.38	24015332.47	0.0284	0.0201
Venus	61044-10-11 18:00 G	24017207.16	24017207.25	24017207.35	0.0289	0.0256
Venus	61045-05-29 15:36 G	24017436.94	24017437.15	24017437.37	0.0289	0.0012
Venus	61046-01-14 12:43 G	24017666.98	24017667.03	24017667.10	0.0289	0.0276
Earth	61052-10-07 22:19 G	24020125.23	24020125.43	24020125.64	0.0278	0.0149
Moon	61052-10-08 01:12 G	24020125.37	24020125.55	24020125.76	0.0278	0.0165 *
Mercury	61053-03-23 08:53 G	24020291.73	24020291.87	24020292.02	0.0277	0.0157
Mercury	61053-06-20 04:34 G	24020380.51	24020380.69	24020380.86	0.0276	0.0025
Mercury	61053-09-17 00:14 G	24020469.40	24020469.51	24020469.63	0.0276	0.0209
Venus	61059-11-10 11:31 G	24022714.79	24022714.98	24022715.17	0.0270	0.0121
Venus	61060-06-26 14:24 G	24022943.90	24022944.10	24022944.30	0.0270	0.0091
Earth	61068-04-07 11:31 G	24025785.84	24025785.98	24025786.15	0.0282	0.0217
Moon	61068-04-07 12:43 G	24025785.86	24025786.03	24025786.21	0.0282	0.0202 *
Mercury	61068-07-17 21:22 G	24025887.27	24025887.39	24025887.50	0.0283	0.0156
Mercury	61068-10-14 09:50 G	24025975.78	24025975.91	24025976.05	0.0283	0.0009
Mercury	61069-01-10 22:19 G	24026064.32	24026064.43	24026064.55	0.0284	0.0151
Venus	61074-04-23 22:05 G	24027993.29	24027993.42	24027993.55	0.0290	0.0227
Venus	61074-12-09 19:41 G	24028223.11	24028223.32	24028223.53	0.0290	0.0041
Moon	61081-10-02 08:10 G	24030711.61	24030711.84	24030712.09	0.0278	0.0100
Earth	61081-10-02 11:17 G	24030711.76	24030711.97	24030712.21	0.0278	0.0115 *
Mercury	61082-08-10 08:53 G	24031023.76	24031023.87	24031023.98	0.0277	0.0207
Mercury	61082-11-07 04:19 G	24031112.51	24031112.68	24031112.85	0.0276	0.0026
Mercury	61083-02-04 00:00 G	24031201.36	24031201.50	24031201.65	0.0276	0.0157
Venus	61089-05-22 18:14 G	24033501.06	24033501.26	24033501.46	0.0270	0.0086
Venus	61090-01-06 21:22 G	24033730.20	24033730.39	24033730.58	0.0271	0.0127

Mars	61092-01-18 21:36 G	24034472.14	24034472.40	24034472.68	0.0272	0.0147
Moon	61097-04-02 10:34 G	24036372.70	24036372.94	24036373.17	0.0281	0.0047
Earth	61097-04-02 11:46 G	24036372.75	24036372.99	24036373.24	0.0281	0.0032 *
Mercury	61097-12-05 00:58 G	24036619.44	24036619.54	24036619.65	0.0283	0.0180
Mercury	61098-03-03 13:41 G	24036707.94	24036708.07	24036708.21	0.0283	0.0026
Mercury	61098-05-31 02:10 G	24036796.47	24036796.59	24036796.72	0.0284	0.0128
Mercury	61098-08-27 14:24 G	24036885.09	24036885.10	24036885.13	0.0284	0.0279
Venus	61103-11-05 11:02 G	24038779.79	24038779.96	24038780.13	0.0289	0.0173
Venus	61104-06-22 08:10 G	24039009.65	24039009.84	24039010.05	0.0289	0.0094
Mars	61106-03-13 17:17 G	24039638.94	24039639.22	24039639.49	0.0288	0.0026
Earth	61111-10-11 10:48 G	24041676.82	24041676.95	24041677.10	0.0277	0.0225
Moon	61111-10-11 13:55 G	24041676.96	24041677.08	24041677.21	0.0277	0.0238 *
Mercury	61111-12-29 10:19 G	24041755.85	24041755.93	24041756.02	0.0277	0.0242
Mercury	61112-03-27 05:46 G	24041844.57	24041844.74	24041844.91	0.0276	0.0062
Mercury	61112-06-24 01:12 G	24041933.40	24041933.55	24041933.71	0.0276	0.0121
Venus	61118-04-18 19:26 G	24044058.29	24044058.31	24044058.35	0.0270	0.0266
Venus	61118-12-03 22:34 G	24044287.24	24044287.44	24044287.65	0.0270	0.0055
Venus	61119-07-21 01:26 G	24044516.40	24044516.56	24044516.74	0.0270	0.0158
Moon	61127-04-10 21:36 G	24047337.36	24047337.40	24047337.43	0.0282	0.0279
Mercury	61127-04-25 02:24 G	24047351.52	24047351.60	24047351.68	0.0282	0.0231
Mercury	61127-07-22 15:07 G	24047440.00	24047440.13	24047440.26	0.0283	0.0076
Mercury	61127-10-19 03:36 G	24047528.52	24047528.65	24047528.78	0.0283	0.0077
Mercury	61128-01-15 15:50 G	24047617.09	24047617.16	24047617.25	0.0284	0.0229
Venus	61133-05-17 14:24 G	24049565.92	24049566.10	24049566.29	0.0290	0.0144
Venus	61134-01-02 11:46 G	24049795.80	24049795.99	24049796.19	0.0290	0.0123
Moon	61140-10-04 20:53 G	24052263.13	24052263.37	24052263.61	0.0278	0.0024
Earth	61140-10-04 23:46 G	24052263.25	24052263.49	24052263.74	0.0278	0.0038 *
Mercury	61141-08-14 05:17 G	24052576.57	24052576.72	24052576.88	0.0276	0.0115
Mercury	61141-11-11 00:58 G	24052665.37	24052665.54	24052665.71	0.0276	0.0067
Mercury	61142-02-07 20:53 G	24052754.30	24052754.37	24052754.44	0.0275	0.0251

Venus	61147-10-30 01:12 G	24054844.46	24054844.55	24054844.67	0.0270	0.0234
Venus	61148-06-15 04:34 G	24055073.48	24055073.69	24055073.90	0.0270	0.0021
Venus	61149-01-30 07:41 G	24055302.68	24055302.82	24055302.97	0.0271	0.0192
Earth	61156-04-04 22:48 G	24057924.21	24057924.45	24057924.69	0.0282	0.0044
Moon	61156-04-05 01:41 G	24057924.33	24057924.57	24057924.81	0.0282	0.0027 *
Mercury	61156-09-11 05:46 G	24058083.69	24058083.74	24058083.80	0.0283	0.0257
Mercury	61156-12-08 18:43 G	24058172.15	24058172.28	24058172.41	0.0283	0.0102
Mercury	61157-03-07 07:12 G	24058260.67	24058260.80	24058260.94	0.0284	0.0052
Mercury	61157-06-03 19:41 G	24058349.23	24058349.32	24058349.41	0.0284	0.0204
Venus	61162-11-28 03:22 G	24060352.45	24060352.64	24060352.85	0.0289	0.0091
Venus	61163-07-16 00:58 G	24060582.37	24060582.54	24060582.71	0.0289	0.0176
Moon	61169-09-29 23:31 G	24062850.42	24062850.48	24062850.57	0.0279	0.0266
Mercury	61171-01-01 07:26 G	24063308.66	24063308.81	24063308.96	0.0277	0.0145
Mercury	61171-03-31 02:53 G	24063397.44	24063397.62	24063397.79	0.0276	0.0036
Mercury	61171-06-27 22:34 G	24063486.33	24063486.44	24063486.55	0.0276	0.0219
Venus	61177-05-11 06:58 G	24065630.65	24065630.79	24065630.93	0.0270	0.0199
Venus	61177-12-26 09:50 G	24065859.70	24065859.91	24065860.12	0.0270	0.0012
Venus	61178-08-12 12:43 G	24066088.92	24066089.03	24066089.15	0.0270	0.0224
Mars	61180-06-15 01:26 G	24066761.39	24066761.56	24066761.75	0.0271	0.0222
Jupiter	61181-05-21 13:41 G	24067101.65	24067102.07	24067102.51	0.0273	0.0048
Moon	61185-03-30 07:26 G	24068510.70	24068510.81	24068510.94	0.0280	0.0241
Earth	61185-03-30 11:02 G	24068510.82	24068510.96	24068511.10	0.0280	0.0225 *
Mercury	61186-04-27 19:55 G	24068904.22	24068904.33	24068904.45	0.0283	0.0152
Mercury	61186-07-25 08:38 G	24068992.72	24068992.86	24068993.00	0.0283	0.0002
Mercury	61186-10-21 21:07 G	24069081.26	24069081.38	24069081.49	0.0284	0.0154
Venus	61192-06-09 06:29 G	24071138.57	24071138.77	24071138.98	0.0290	0.0062
Venus	61193-01-25 03:50 G	24071368.51	24071368.66	24071368.81	0.0290	0.0205
Mars	61194-08-07 19:12 G	24071928.02	24071928.30	24071928.57	0.0288	0.0041
Earth	61199-10-07 11:46 G	24073814.75	24073814.99	24073815.24	0.0278	0.0038
Moon	61199-10-07 12:29 G	24073814.79	24073815.02	24073815.26	0.0278	0.0052 *

Mercury	61200-05-20 06:29 G	24074040.66	24074040.77	24074040.89	0.0277	0.0202
Mercury	61200-08-17 01:55 G	24074129.41	24074129.58	24074129.76	0.0276	0.0022
Mercury	61200-11-13 21:36 G	24074218.26	24074218.40	24074218.55	0.0276	0.0161
Venus	61206-11-21 11:46 G	24076416.84	24076416.99	24076417.17	0.0270	0.0168
Venus	61207-07-08 15:07 G	24076645.92	24076646.13	24076646.34	0.0270	0.0045
Venus	61208-02-22 18:00 G	24076875.20	24076875.25	24076875.33	0.0271	0.0258
Earth	61215-04-07 08:53 G	24079475.65	24079475.87	24079476.09	0.0282	0.0118
Moon	61215-04-07 11:46 G	24079475.77	24079475.99	24079476.23	0.0282	0.0102 *
Mercury	61215-09-14 23:17 G	24079636.36	24079636.47	24079636.58	0.0283	0.0181
Mercury	61215-12-12 12:00 G	24079724.86	24079725.00	24079725.14	0.0283	0.0027
Mercury	61216-03-10 00:29 G	24079813.40	24079813.52	24079813.64	0.0284	0.0127
Mercury	61216-06-06 12:43 G	24079902.01	24079902.03	24079902.06	0.0284	0.0278
Venus	61221-05-04 21:22 G	24081695.34	24081695.39	24081695.46	0.0289	0.0276
Venus	61221-12-20 18:58 G	24081925.08	24081925.29	24081925.51	0.0289	0.0011
Venus	61222-08-07 16:05 G	24082155.09	24082155.17	24082155.28	0.0289	0.0257
Moon	61228-10-01 08:24 G	24084401.68	24084401.85	24084402.06	0.0279	0.0188
Earth	61228-10-01 09:07 G	24084401.72	24084401.88	24084402.06	0.0279	0.0204 *
Mercury	61229-10-07 08:53 G	24084772.77	24084772.87	24084772.96	0.0277	0.0230
Mercury	61230-01-04 04:05 G	24084861.50	24084861.67	24084861.84	0.0276	0.0051
Mercury	61230-04-02 23:31 G	24084950.33	24084950.48	24084950.64	0.0276	0.0132
Venus	61236-06-02 18:00 G	24087203.07	24087203.25	24087203.44	0.0270	0.0134
Venus	61237-01-17 20:53 G	24087432.17	24087432.37	24087432.57	0.0270	0.0078
Moon	61244-03-31 18:00 G	24090062.07	24090062.25	24090062.44	0.0280	0.0169
Earth	61244-03-31 20:24 G	24090062.16	24090062.35	24090062.56	0.0280	0.0153 *
Mercury	61245-02-01 00:29 G	24090368.45	24090368.52	24090368.60	0.0282	0.0232
Mercury	61245-04-30 13:12 G	24090456.92	24090457.05	24090457.19	0.0283	0.0078
Mercury	61245-07-28 01:55 G	24090545.44	24090545.58	24090545.71	0.0283	0.0076
Mercury	61245-10-24 14:10 G	24090634.01	24090634.09	24090634.17	0.0284	0.0227
Venus	61250-11-14 23:46 G	24092481.39	24092481.49	24092481.60	0.0290	0.0250
Venus	61251-07-02 21:22 G	24092711.18	24092711.39	24092711.60	0.0290	0.0018

Venus	61252-02-17 18:43 G	24092941.24	24092941.28	24092941.32	0.0290	0.0283
Earth	61258-10-08 23:02 G	24095366.24	24095366.46	24095366.69	0.0278	0.0112
Moon	61258-10-09 02:38 G	24095366.40	24095366.61	24095366.83	0.0278	0.0128 *
Mercury	61259-05-24 02:53 G	24095593.46	24095593.62	24095593.78	0.0276	0.0111
Mercury	61259-08-20 22:19 G	24095682.26	24095682.43	24095682.60	0.0276	0.0070
Mercury	61259-11-17 18:14 G	24095771.19	24095771.26	24095771.32	0.0275	0.0254
Venus	61265-12-13 22:05 G	24097989.23	24097989.42	24097989.62	0.0270	0.0104
Venus	61266-07-31 00:58 G	24098218.35	24098218.54	24098218.74	0.0270	0.0109
Moon	61274-04-08 15:07 G	24101026.94	24101027.13	24101027.33	0.0282	0.0174
Earth	61274-04-08 16:48 G	24101027.03	24101027.20	24101027.39	0.0282	0.0188 *
Mercury	61274-06-21 03:22 G	24101100.60	24101100.64	24101100.69	0.0283	0.0265
Mercury	61274-09-17 16:05 G	24101189.05	24101189.17	24101189.30	0.0283	0.0110
Mercury	61274-12-15 04:48 G	24101277.57	24101277.70	24101277.84	0.0284	0.0044
Mercury	61275-03-13 17:17 G	24101366.13	24101366.22	24101366.32	0.0284	0.0196
Venus	61280-05-27 11:31 G	24103267.83	24103267.98	24103268.13	0.0290	0.0199
Venus	61281-01-12 09:07 G	24103497.67	24103497.88	24103498.09	0.0289	0.0068
Mars	61283-01-02 14:24 G	24104217.87	24104218.10	24104218.35	0.0288	0.0136
Moon	61287-10-03 16:34 G	24105952.97	24105953.19	24105953.42	0.0279	0.0113
Earth	61287-10-03 20:24 G	24105953.14	24105953.35	24105953.58	0.0279	0.0130 *
Mercury	61288-10-10 05:02 G	24106325.56	24106325.71	24106325.86	0.0277	0.0140
Mercury	61289-01-07 00:29 G	24106414.34	24106414.52	24106414.69	0.0276	0.0041
Mercury	61289-04-05 19:55 G	24106503.24	24106503.33	24106503.44	0.0276	0.0224
Venus	61295-06-26 04:19 G	24108775.48	24108775.68	24108775.89	0.0269	0.0070
Venus	61296-02-10 07:12 G	24109004.62	24109004.80	24109004.98	0.0270	0.0142
Earth	61303-04-04 04:48 G	24111613.47	24111613.70	24111613.94	0.0280	0.0083
Moon	61303-04-04 06:29 G	24111613.55	24111613.77	24111613.99	0.0280	0.0097 *
Mercury	61304-02-05 17:31 G	24111921.12	24111921.23	24111921.35	0.0282	0.0160
Mercury	61304-05-04 06:14 G	24112009.62	24112009.76	24112009.90	0.0283	0.0007
Mercury	61304-07-31 18:43 G	24112098.16	24112098.28	24112098.40	0.0283	0.0146
Venus	61309-12-08 13:12 G	24114053.89	24114054.05	24114054.23	0.0290	0.0174

Venus	61310-07-26 10:48 G	24114283.75	24114283.95	24114284.15	0.0290	0.0093
Earth	61317-10-11 07:55 G	24116917.65	24116917.83	24116918.02	0.0278	0.0182
Moon	61317-10-11 09:22 G	24116917.71	24116917.89	24116918.08	0.0278	0.0195 *
Mercury	61318-02-28 03:07 G	24117057.52	24117057.63	24117057.75	0.0277	0.0206
Mercury	61318-05-27 22:34 G	24117146.27	24117146.44	24117146.62	0.0276	0.0026
Mercury	61318-08-24 18:14 G	24117235.12	24117235.26	24117235.41	0.0276	0.0157
Venus	61324-05-22 04:19 G	24119332.62	24119332.68	24119332.76	0.0270	0.0253
Venus	61325-01-06 07:26 G	24119561.60	24119561.81	24119562.02	0.0270	0.0042
Venus	61325-08-23 10:05 G	24119790.76	24119790.92	24119791.09	0.0270	0.0170
Mars	61327-02-14 11:17 G	24120330.85	24120330.97	24120331.12	0.0271	0.0243
Moon	61333-04-10 18:58 G	24122578.18	24122578.29	24122578.43	0.0282	0.0243
Earth	61333-04-10 22:34 G	24122578.35	24122578.44	24122578.55	0.0282	0.0255 *
Mercury	61333-06-24 19:55 G	24122653.23	24122653.33	24122653.43	0.0283	0.0198
Mercury	61333-09-21 08:38 G	24122741.73	24122741.86	24122742.00	0.0283	0.0044
Mercury	61333-12-18 21:07 G	24122830.26	24122830.38	24122830.51	0.0284	0.0110
Mercury	61334-03-17 09:36 G	24122918.85	24122918.90	24122918.96	0.0284	0.0261
Venus	61339-06-20 23:17 G	24124840.29	24124840.47	24124840.67	0.0290	0.0127
Venus	61340-02-05 21:07 G	24125070.19	24125070.38	24125070.56	0.0289	0.0140
Moon	61346-10-06 03:50 G	24127504.42	24127504.66	24127504.89	0.0279	0.0046
Earth	61346-10-06 05:02 G	24127504.47	24127504.71	24127504.95	0.0279	0.0060 *
Mercury	61347-07-18 05:17 G	24127789.64	24127789.72	24127789.81	0.0277	0.0235
Mercury	61347-10-15 00:43 G	24127878.36	24127878.53	24127878.70	0.0277	0.0056
Mercury	61348-01-11 20:10 G	24127967.19	24127967.34	24127967.50	0.0276	0.0127
Venus	61353-12-02 11:17 G	24130118.85	24130118.97	24130119.10	0.0269	0.0218
Venus	61354-07-19 13:55 G	24130347.87	24130348.08	24130348.29	0.0269	0.0007
Venus	61355-03-05 16:34 G	24130577.05	24130577.19	24130577.33	0.0270	0.0204
Earth	61362-04-05 10:48 G	24133164.71	24133164.95	24133165.19	0.0280	0.0017
Moon	61362-04-05 14:24 G	24133164.86	24133165.10	24133165.34	0.0280	0.0032 *
Mercury	61362-11-11 21:22 G	24133385.33	24133385.39	24133385.46	0.0282	0.0247
Mercury	61363-02-08 10:05 G	24133473.79	24133473.92	24133474.05	0.0282	0.0094

Mercury	61363-05-07 22:48 G	24133562.31	24133562.45	24133562.58	0.0283	0.0059
Mercury	61363-08-04 11:02 G	24133650.88	24133650.96	24133651.06	0.0283	0.0211
Venus	61368-12-31 00:43 G	24135626.34	24135626.53	24135626.73	0.0290	0.0103
Venus	61369-08-17 22:05 G	24135856.26	24135856.42	24135856.61	0.0290	0.0165
Mars	61371-05-29 22:48 G	24136506.24	24136506.45	24136506.67	0.0288	0.0174
Moon	61376-10-12 10:48 G	24138468.87	24138468.95	24138469.06	0.0278	0.0257
Earth	61376-10-12 14:10 G	24138468.99	24138469.09	24138469.21	0.0278	0.0248 *
Mercury	61377-03-02 22:19 G	24138610.28	24138610.43	24138610.59	0.0277	0.0126
Mercury	61377-05-30 17:46 G	24138699.07	24138699.24	24138699.41	0.0276	0.0056
Mercury	61377-08-27 13:26 G	24138787.98	24138788.06	24138788.15	0.0276	0.0239
Venus	61383-06-14 12:43 G	24140904.89	24140905.03	24140905.18	0.0270	0.0193
Venus	61384-01-29 15:36 G	24141133.94	24141134.15	24141134.36	0.0270	0.0018
Venus	61384-09-14 18:29 G	24141363.16	24141363.27	24141363.38	0.0270	0.0229
Earth	61391-03-31 02:38 G	24143751.58	24143751.61	24143751.67	0.0280	0.0275
Mercury	61392-06-27 12:14 G	24144205.89	24144206.01	24144206.13	0.0283	0.0135
Mercury	61392-09-24 00:58 G	24144294.40	24144294.54	24144294.68	0.0283	0.0019
Mercury	61392-12-21 13:12 G	24144382.95	24144383.05	24144383.17	0.0284	0.0171
Venus	61398-07-13 09:36 G	24146412.70	24146412.90	24146413.11	0.0290	0.0059
Venus	61399-02-28 07:12 G	24146642.66	24146642.80	24146642.95	0.0289	0.0208
Earth	61405-10-08 09:50 G	24149055.67	24149055.91	24149056.16	0.0279	0.0006
Moon	61405-10-08 13:12 G	24149055.80	24149056.05	24149056.29	0.0279	0.0015 *
Mercury	61406-07-22 00:00 G	24149342.36	24149342.50	24149342.64	0.0277	0.0159
Mercury	61406-10-18 19:26 G	24149431.13	24149431.31	24149431.48	0.0277	0.0022
Mercury	61407-01-15 14:53 G	24149520.01	24149520.12	24149520.25	0.0276	0.0205
Venus	61412-12-25 19:26 G	24151691.15	24151691.31	24151691.49	0.0269	0.0159
Venus	61413-08-11 22:19 G	24151920.22	24151920.43	24151920.63	0.0269	0.0053
Venus	61414-03-29 00:43 G	24152149.49	24152149.53	24152149.58	0.0270	0.0263
Mars	61415-07-12 12:43 G	24152619.79	24152620.03	24152620.28	0.0270	0.0171
Earth	61421-04-07 15:07 G	24154715.89	24154716.13	24154716.37	0.0280	0.0045
Moon	61421-04-07 15:50 G	24154715.91	24154716.16	24154716.41	0.0280	0.0032 *

Mercury	61421-11-15 13:41 G	24154937.97	24154938.07	24154938.18	0.0282	0.0184
Mercury	61422-02-12 02:24 G	24155026.46	24155026.60	24155026.74	0.0282	0.0031
Mercury	61422-05-11 14:53 G	24155115.00	24155115.12	24155115.24	0.0283	0.0120
Mercury	61422-08-08 03:07 G	24155203.60	24155203.63	24155203.67	0.0283	0.0270
Venus	61428-01-24 10:19 G	24157198.72	24157198.93	24157199.15	0.0290	0.0036
Venus	61428-09-10 07:55 G	24157428.71	24157428.83	24157428.96	0.0290	0.0231
Moon	61434-10-02 08:38 G	24159641.81	24159641.86	24159641.94	0.0280	0.0269
Mercury	61435-12-08 21:22 G	24160074.30	24160074.39	24160074.49	0.0277	0.0232
Mercury	61436-03-06 16:48 G	24160163.03	24160163.20	24160163.37	0.0277	0.0052
Mercury	61436-06-03 12:14 G	24160251.86	24160252.01	24160252.17	0.0276	0.0130
Venus	61442-07-07 19:55 G	24162477.15	24162477.33	24162477.52	0.0269	0.0136
Venus	61443-02-21 22:48 G	24162706.25	24162706.45	24162706.66	0.0270	0.0076
Moon	61450-04-02 04:05 G	24165302.55	24165302.67	24165302.81	0.0280	0.0234
Earth	61450-04-02 04:34 G	24165302.55	24165302.69	24165302.86	0.0280	0.0218 *
Mercury	61451-04-04 15:07 G	24165670.06	24165670.13	24165670.21	0.0282	0.0232
Mercury	61451-07-02 04:05 G	24165758.53	24165758.67	24165758.80	0.0283	0.0078
Mercury	61451-09-28 16:34 G	24165847.06	24165847.19	24165847.33	0.0283	0.0075
Mercury	61451-12-26 05:02 G	24165935.63	24165935.71	24165935.79	0.0284	0.0226
Venus	61456-12-18 20:10 G	24167755.26	24167755.34	24167755.43	0.0290	0.0261
Venus	61457-08-05 18:00 G	24167985.04	24167985.25	24167985.47	0.0290	0.0007
Venus	61458-03-23 15:36 G	24168215.09	24168215.15	24168215.23	0.0289	0.0271
Mars	61459-10-24 18:00 G	24168795.10	24168795.25	24168795.43	0.0288	0.0231
Earth	61464-10-09 12:14 G	24170606.78	24170607.01	24170607.26	0.0279	0.0060
Moon	61464-10-09 15:07 G	24170606.89	24170607.13	24170607.38	0.0279	0.0070 *
Mercury	61465-04-26 22:48 G	24170806.41	24170806.45	24170806.49	0.0278	0.0269
Mercury	61465-07-24 18:00 G	24170895.09	24170895.25	24170895.42	0.0277	0.0089
Mercury	61465-10-21 13:26 G	24170983.90	24170984.06	24170984.23	0.0277	0.0093
Venus	61472-01-18 02:38 G	24173263.42	24173263.61	24173263.81	0.0270	0.0102
Venus	61472-09-03 05:17 G	24173492.53	24173492.72	24173492.92	0.0270	0.0110
Moon	61480-04-08 14:38 G	24176266.88	24176267.11	24176267.34	0.0280	0.0092

Earth	61480-04-08 18:00 G	24176267.03	24176267.25	24176267.48	0.0280	0.0104	*
Mercury	61480-08-21 16:48 G	24176402.19	24176402.20	24176402.22	0.0281	0.0278	
Mercury	61480-11-18 05:46 G	24176490.61	24176490.74	24176490.86	0.0282	0.0125	
Mercury	61481-02-14 18:14 G	24176579.12	24176579.26	24176579.40	0.0282	0.0028	
Mercury	61481-05-14 06:43 G	24176667.68	24176667.78	24176667.89	0.0283	0.0178	
Venus	61486-06-30 21:36 G	24178541.28	24178541.40	24178541.52	0.0290	0.0236	
Venus	61487-02-15 18:58 G	24178771.08	24178771.29	24178771.51	0.0290	0.0031	
Moon	61493-10-03 11:02 G	24181192.82	24181192.96	24181193.12	0.0280	0.0214	
Earth	61493-10-03 13:55 G	24181192.93	24181193.08	24181193.22	0.0280	0.0225	*
Mercury	61494-12-11 15:07 G	24181626.99	24181627.13	24181627.27	0.0277	0.0165	
Mercury	61495-03-10 10:34 G	24181715.77	24181715.94	24181716.11	0.0277	0.0016	
Mercury	61495-06-07 06:00 G	24181804.64	24181804.75	24181804.88	0.0276	0.0200	
Venus	61501-07-31 02:24 G	24184049.40	24184049.60	24184049.80	0.0269	0.0080	
Venus	61502-03-17 05:02 G	24184278.53	24184278.71	24184278.90	0.0270	0.0131	
Mars	61503-12-06 13:55 G	24184907.82	24184908.08	24184908.37	0.0271	0.0131	
Earth	61509-04-04 06:00 G	24186853.55	24186853.75	24186853.94	0.0280	0.0162	
Moon	61509-04-04 09:22 G	24186853.71	24186853.89	24186854.08	0.0280	0.0176	*
Mercury	61510-04-08 06:58 G	24187222.68	24187222.79	24187222.90	0.0282	0.0175	
Mercury	61510-07-05 19:41 G	24187311.18	24187311.32	24187311.46	0.0283	0.0022	
Mercury	61510-10-02 08:10 G	24187399.72	24187399.84	24187399.96	0.0283	0.0129	
Mercury	61510-12-29 20:24 G	24187488.34	24187488.35	24187488.38	0.0284	0.0279	
Venus	61516-01-12 03:22 G	24189327.49	24189327.64	24189327.79	0.0290	0.0200	
Venus	61516-08-29 00:58 G	24189557.34	24189557.54	24189557.75	0.0290	0.0067	
Moon	61523-10-12 10:34 G	24192157.72	24192157.94	24192158.18	0.0279	0.0118	
Earth	61523-10-12 12:29 G	24192157.79	24192158.02	24192158.25	0.0279	0.0112	*
Mercury	61524-04-30 16:05 G	24192359.06	24192359.17	24192359.29	0.0278	0.0206	
Mercury	61524-07-28 11:31 G	24192447.80	24192447.98	24192448.15	0.0277	0.0025	
Mercury	61524-10-25 06:58 G	24192536.65	24192536.79	24192536.94	0.0277	0.0159	
Venus	61530-06-26 06:14 G	24194606.71	24194606.76	24194606.83	0.0270	0.0256	
Venus	61531-02-10 09:07 G	24194835.67	24194835.88	24194836.09	0.0270	0.0046	

Venus	61531-09-27 11:46 G	24195064.83	24195064.99	24195065.16	0.0270	0.0165
Moon	61539-04-11 17:31 G	24197818.04	24197818.23	24197818.44	0.0280	0.0152
Earth	61539-04-11 19:55 G	24197818.13	24197818.33	24197818.53	0.0280	0.0160 *
Mercury	61539-08-26 08:38 G	24197954.78	24197954.86	24197954.95	0.0281	0.0220
Mercury	61539-11-22 21:36 G	24198043.26	24198043.40	24198043.53	0.0281	0.0068
Mercury	61540-02-19 10:05 G	24198131.79	24198131.92	24198132.05	0.0282	0.0084
Mercury	61540-05-17 22:19 G	24198220.36	24198220.43	24198220.51	0.0283	0.0233
Venus	61545-07-24 05:02 G	24200113.55	24200113.71	24200113.89	0.0290	0.0174
Venus	61546-03-11 02:38 G	24200343.41	24200343.61	24200343.81	0.0290	0.0092
Mars	61548-03-19 11:02 G	24201082.82	24201082.96	24201083.10	0.0288	0.0245
Earth	61552-10-05 13:26 G	24202743.88	24202744.06	24202744.26	0.0280	0.0173
Moon	61552-10-05 15:07 G	24202743.95	24202744.13	24202744.34	0.0280	0.0164 *
Mercury	61553-12-15 08:24 G	24203179.69	24203179.85	24203180.01	0.0277	0.0102
Mercury	61554-03-14 03:50 G	24203268.50	24203268.66	24203268.83	0.0277	0.0080
Mercury	61554-06-10 23:31 G	24203357.44	24203357.48	24203357.54	0.0276	0.0265
Venus	61560-01-06 05:17 G	24205392.62	24205392.72	24205392.82	0.0270	0.0236
Venus	61560-08-22 08:10 G	24205621.63	24205621.84	24205622.05	0.0269	0.0026
Venus	61561-04-08 10:48 G	24205850.80	24205850.95	24205851.11	0.0270	0.0185
Earth	61568-04-05 06:29 G	24208404.55	24208404.77	24208405.00	0.0280	0.0109
Moon	61568-04-05 08:10 G	24208404.62	24208404.84	24208405.07	0.0280	0.0118 *
Mercury	61569-01-12 09:36 G	24208686.88	24208686.90	24208686.94	0.0282	0.0274
Mercury	61569-04-10 22:34 G	24208775.31	24208775.44	24208775.57	0.0282	0.0120
Mercury	61569-07-08 11:17 G	24208863.83	24208863.97	24208864.10	0.0283	0.0033
Mercury	61569-10-04 23:31 G	24208952.38	24208952.48	24208952.59	0.0283	0.0182
Venus	61575-02-03 09:50 G	24210899.73	24210899.91	24210900.10	0.0290	0.0140
Venus	61575-09-21 07:41 G	24211129.63	24211129.82	24211130.02	0.0290	0.0127
Jupiter	61578-06-09 09:22 G	24212121.50	24212121.89	24212122.30	0.0287	0.0169
Moon	61582-10-13 07:12 G	24213708.62	24213708.80	24213709.01	0.0279	0.0166
Earth	61582-10-13 11:02 G	24213708.76	24213708.96	24213709.17	0.0279	0.0161 *
Mercury	61583-05-04 08:53 G	24213911.73	24213911.87	24213912.02	0.0278	0.0146

Mercury	61583-08-01 04:34 G	24214000.51	24214000.69	24214000.86	0.0277	0.0037
Mercury	61583-10-29 00:14 G	24214089.40	24214089.51	24214089.61	0.0277	0.0220
Venus	61589-07-18 12:00 G	24216178.86	24216179.00	24216179.14	0.0270	0.0202
Venus	61590-03-04 14:38 G	24216407.90	24216408.11	24216408.33	0.0270	0.0011
Venus	61590-10-19 17:46 G	24216637.12	24216637.24	24216637.36	0.0270	0.0219
Mars	61592-05-01 10:05 G	24217196.62	24217196.92	24217197.23	0.0271	0.0065
Earth	61598-04-12 21:50 G	24219369.26	24219369.41	24219369.56	0.0280	0.0216
Moon	61598-04-13 00:29 G	24219369.36	24219369.52	24219369.67	0.0280	0.0214 *
Mercury	61598-08-29 00:43 G	24219507.41	24219507.53	24219507.64	0.0281	0.0162
Mercury	61598-11-25 13:12 G	24219595.91	24219596.05	24219596.19	0.0281	0.0013
Mercury	61599-02-22 01:41 G	24219684.45	24219684.57	24219684.69	0.0282	0.0139
Venus	61604-08-15 12:29 G	24221685.83	24221686.02	24221686.23	0.0289	0.0112
Venus	61605-04-02 09:50 G	24221915.74	24221915.91	24221916.10	0.0289	0.0155
Earth	61611-10-07 12:43 G	24224294.81	24224295.03	24224295.25	0.0280	0.0122
Moon	61611-10-07 16:19 G	24224294.96	24224295.18	24224295.41	0.0280	0.0115 *
Mercury	61612-09-20 06:00 G	24224643.66	24224643.75	24224643.86	0.0278	0.0221
Mercury	61612-12-18 01:26 G	24224732.39	24224732.56	24224732.73	0.0277	0.0040
Mercury	61613-03-16 20:53 G	24224821.23	24224821.37	24224821.53	0.0277	0.0143
Venus	61619-01-28 10:48 G	24226964.79	24226964.95	24226965.10	0.0270	0.0182
Venus	61619-09-14 13:41 G	24227193.86	24227194.07	24227194.28	0.0270	0.0029
Venus	61620-04-30 16:34 G	24227423.10	24227423.19	24227423.29	0.0270	0.0239
Moon	61627-04-07 04:34 G	24229955.45	24229955.69	24229955.94	0.0280	0.0059
Earth	61627-04-07 07:26 G	24229955.58	24229955.81	24229956.06	0.0280	0.0055 *
Mercury	61628-01-16 01:26 G	24230239.47	24230239.56	24230239.65	0.0281	0.0218
Mercury	61628-04-13 14:10 G	24230327.96	24230328.09	24230328.23	0.0282	0.0065
Mercury	61628-07-11 02:38 G	24230416.48	24230416.61	24230416.74	0.0282	0.0086
Mercury	61628-10-07 15:07 G	24230505.06	24230505.13	24230505.20	0.0283	0.0235
Venus	61634-02-25 16:34 G	24232471.99	24232472.19	24232472.40	0.0290	0.0080
Venus	61634-10-13 14:10 G	24232701.94	24232702.09	24232702.26	0.0289	0.0187
Mars	61636-08-12 16:34 G	24233371.12	24233371.19	24233371.26	0.0288	0.0277

Moon	61641-10-14 08:53 G	24235259.72	24235259.87	24235260.04	0.0279	0.0210
Earth	61641-10-14 09:07 G	24235259.73	24235259.88	24235260.05	0.0279	0.0209 *
Mercury	61642-02-07 06:29 G	24235375.73	24235375.77	24235375.82	0.0278	0.0267
Mercury	61642-05-07 01:55 G	24235464.41	24235464.58	24235464.74	0.0278	0.0087
Mercury	61642-08-03 21:22 G	24235553.23	24235553.39	24235553.56	0.0277	0.0096
Venus	61648-08-09 17:17 G	24237751.05	24237751.22	24237751.40	0.0270	0.0149
Venus	61649-03-26 20:10 G	24237980.14	24237980.34	24237980.55	0.0270	0.0063
Earth	61657-04-13 23:46 G	24240920.45	24240920.49	24240920.56	0.0280	0.0273
Moon	61657-04-14 03:07 G	24240920.59	24240920.63	24240920.69	0.0280	0.0273
Mercury	61657-06-04 03:50 G	24240971.61	24240971.66	24240971.72	0.0280	0.0256
Mercury	61657-08-31 16:34 G	24241060.06	24241060.19	24241060.32	0.0281	0.0104
Mercury	61657-11-28 05:02 G	24241148.58	24241148.71	24241148.85	0.0281	0.0048
Mercury	61658-02-24 17:31 G	24241237.13	24241237.23	24241237.33	0.0282	0.0196
Venus	61663-09-07 20:53 G	24243258.16	24243258.37	24243258.58	0.0289	0.0047
Venus	61664-04-24 18:00 G	24243488.12	24243488.25	24243488.40	0.0289	0.0217
Moon	61670-10-08 11:46 G	24245845.75	24245845.99	24245846.25	0.0280	0.0070
Earth	61670-10-08 12:29 G	24245845.78	24245846.02	24245846.26	0.0280	0.0071 *
Mercury	61671-09-23 23:17 G	24246196.33	24246196.47	24246196.61	0.0278	0.0159
Mercury	61671-12-21 18:43 G	24246285.11	24246285.28	24246285.45	0.0278	0.0023
Mercury	61672-03-19 14:24 G	24246373.99	24246374.10	24246374.22	0.0277	0.0206
Venus	61678-02-19 16:05 G	24248536.99	24248537.17	24248537.36	0.0270	0.0128
Venus	61678-10-06 19:26 G	24248766.11	24248766.31	24248766.51	0.0270	0.0083
Mars	61680-09-24 03:07 G	24249484.32	24249484.63	24249484.94	0.0271	0.0038
Moon	61686-04-08 06:43 G	24251506.54	24251506.78	24251507.02	0.0280	0.0002
Earth	61686-04-08 09:36 G	24251506.66	24251506.90	24251507.15	0.0280	0.0003 *
Mercury	61687-01-18 17:31 G	24251792.11	24251792.23	24251792.34	0.0281	0.0160
Mercury	61687-04-17 06:00 G	24251880.61	24251880.75	24251880.89	0.0282	0.0009
Mercury	61687-07-14 18:29 G	24251969.15	24251969.27	24251969.39	0.0282	0.0142
Venus	61692-08-02 02:53 G	24253814.57	24253814.62	24253814.67	0.0289	0.0281
Venus	61693-03-20 00:14 G	24254044.30	24254044.51	24254044.73	0.0289	0.0017

Venus	61693-11-04 21:50 G	24254274.30	24254274.41	24254274.51	0.0289	0.0248
Earth	61700-10-16 07:26 G	24256810.74	24256810.81	24256810.92	0.0279	0.0258
Moon	61700-10-16 11:31 G	24256810.89	24256810.98	24256811.09	0.0279	0.0253 *
Mercury	61701-02-10 23:17 G	24256928.36	24256928.47	24256928.59	0.0278	0.0209
Mercury	61701-05-10 18:43 G	24257017.11	24257017.28	24257017.45	0.0278	0.0027
Mercury	61701-08-07 14:24 G	24257105.96	24257106.10	24257106.24	0.0277	0.0157
Venus	61707-09-02 23:02 G	24259323.26	24259323.46	24259323.66	0.0270	0.0094
Venus	61708-04-19 02:10 G	24259552.40	24259552.59	24259552.78	0.0270	0.0118
Earth	61715-04-04 07:26 G	24262093.72	24262093.81	24262093.94	0.0278	0.0249
Moon	61715-04-04 11:02 G	24262093.87	24262093.96	24262094.06	0.0278	0.0257 *
Mercury	61716-06-07 20:10 G	24262524.24	24262524.34	24262524.44	0.0280	0.0194
Mercury	61716-09-04 08:53 G	24262612.73	24262612.87	24262613.01	0.0281	0.0043
Mercury	61716-12-01 21:22 G	24262701.26	24262701.39	24262701.52	0.0281	0.0107
Mercury	61717-02-28 09:36 G	24262789.85	24262789.90	24262789.96	0.0282	0.0255
Venus	61722-02-13 08:38 G	24264600.75	24264600.86	24264600.98	0.0289	0.0244
Venus	61722-10-01 05:46 G	24264830.53	24264830.74	24264830.95	0.0289	0.0019
Venus	61723-05-19 02:38 G	24265060.58	24265060.61	24265060.67	0.0289	0.0282
Moon	61729-10-10 09:36 G	24267396.65	24267396.90	24267397.14	0.0280	0.0023
Earth	61729-10-10 13:26 G	24267396.81	24267397.06	24267397.31	0.0280	0.0017 *
Mercury	61730-06-30 21:22 G	24267660.37	24267660.39	24267660.43	0.0278	0.0274
Mercury	61730-09-27 16:34 G	24267749.04	24267749.19	24267749.36	0.0278	0.0095
Mercury	61730-12-25 12:14 G	24267837.84	24267838.01	24267838.18	0.0277	0.0088
Mercury	61731-03-24 08:10 G	24267926.81	24267926.84	24267926.86	0.0277	0.0273
Venus	61737-03-14 22:19 G	24270109.23	24270109.43	24270109.64	0.0270	0.0072
Venus	61737-10-30 01:41 G	24270338.39	24270338.57	24270338.75	0.0270	0.0139
Earth	61745-04-10 13:12 G	24273057.81	24273058.05	24273058.28	0.0280	0.0060
Moon	61745-04-10 13:55 G	24273057.86	24273058.08	24273058.32	0.0280	0.0061 *
Mercury	61745-10-25 20:53 G	24273256.31	24273256.37	24273256.43	0.0281	0.0251
Mercury	61746-01-22 09:36 G	24273344.77	24273344.90	24273345.03	0.0281	0.0099
Mercury	61746-04-20 22:05 G	24273433.29	24273433.42	24273433.56	0.0282	0.0052

Mercury	61746-07-18 10:34 G	24273521.84	24273521.94	24273522.03	0.0282	0.0201
Venus	61751-08-26 11:46 G	24275386.86	24275386.99	24275387.14	0.0289	0.0215
Venus	61752-04-12 09:07 G	24275616.68	24275616.88	24275617.10	0.0289	0.0050
Mercury	61760-02-14 16:48 G	24278481.05	24278481.20	24278481.35	0.0278	0.0145
Mercury	61760-05-13 12:14 G	24278569.84	24278570.01	24278570.18	0.0278	0.0038
Mercury	61760-08-10 07:55 G	24278658.73	24278658.83	24278658.94	0.0277	0.0222
Venus	61766-02-08 01:41 G	24280666.50	24280666.57	24280666.66	0.0271	0.0249
Venus	61766-09-25 05:17 G	24280895.51	24280895.72	24280895.93	0.0271	0.0037
Venus	61767-05-12 08:24 G	24281124.70	24281124.85	24281125.02	0.0271	0.0175
Mars	61769-02-19 05:46 G	24281773.43	24281773.74	24281774.05	0.0271	0.0036
Moon	61774-04-05 12:00 G	24283644.83	24283645.00	24283645.19	0.0278	0.0193
Earth	61774-04-05 12:43 G	24283644.86	24283645.03	24283645.22	0.0278	0.0187 *
Mercury	61775-06-11 12:43 G	24284076.91	24284077.03	24284077.15	0.0281	0.0129
Mercury	61775-09-08 01:12 G	24284165.42	24284165.55	24284165.69	0.0281	0.0023
Mercury	61775-12-05 13:41 G	24284253.96	24284254.07	24284254.18	0.0282	0.0170
Venus	61781-03-07 19:26 G	24286173.15	24286173.31	24286173.49	0.0289	0.0174
Venus	61781-10-23 16:34 G	24286402.99	24286403.19	24286403.39	0.0289	0.0089
Mars	61783-04-15 03:22 G	24286941.55	24286941.64	24286941.74	0.0288	0.0269
Moon	61788-10-11 15:22 G	24288947.91	24288948.14	24288948.38	0.0280	0.0033
Earth	61788-10-11 16:19 G	24288947.93	24288948.18	24288948.42	0.0280	0.0040 *
Mercury	61789-07-03 15:22 G	24289213.03	24289213.14	24289213.26	0.0278	0.0206
Mercury	61789-09-30 10:48 G	24289301.78	24289301.95	24289302.12	0.0278	0.0025
Mercury	61789-12-28 06:14 G	24289390.62	24289390.76	24289390.91	0.0277	0.0159
Venus	61795-08-21 01:55 G	24291452.47	24291452.58	24291452.70	0.0270	0.0225
Venus	61796-04-06 05:31 G	24291681.52	24291681.73	24291681.94	0.0270	0.0014
Venus	61796-11-21 08:38 G	24291910.73	24291910.86	24291911.01	0.0270	0.0197
Earth	61804-04-12 18:58 G	24294609.08	24294609.29	24294609.52	0.0280	0.0124
Moon	61804-04-12 22:48 G	24294609.23	24294609.45	24294609.67	0.0280	0.0125 *
Mercury	61804-10-29 13:26 G	24294808.96	24294809.06	24294809.17	0.0281	0.0185
Mercury	61805-01-26 02:10 G	24294897.45	24294897.59	24294897.73	0.0282	0.0033

Mercury	61805-04-24 14:38 G	24294985.99	24294986.11	24294986.24	0.0282	0.0117
Mercury	61805-07-22 02:53 G	24295074.58	24295074.62	24295074.67	0.0282	0.0265
Venus	61810-09-18 22:34 G	24296959.26	24296959.44	24296959.63	0.0289	0.0145
Venus	61811-05-06 19:41 G	24297189.13	24297189.32	24297189.52	0.0289	0.0118
Earth	61817-10-07 02:10 G	24299534.45	24299534.59	24299534.73	0.0281	0.0230
Moon	61817-10-07 02:53 G	24299534.48	24299534.62	24299534.77	0.0281	0.0233 *
Mercury	61818-11-21 15:36 G	24299945.08	24299945.15	24299945.21	0.0278	0.0256
Mercury	61819-02-18 10:34 G	24300033.78	24300033.94	24300034.11	0.0278	0.0076
Mercury	61819-05-18 06:14 G	24300122.60	24300122.76	24300122.92	0.0278	0.0107
Venus	61825-03-03 08:38 G	24302238.72	24302238.86	24302239.02	0.0271	0.0191
Venus	61825-10-18 12:29 G	24302467.81	24302468.02	24302468.23	0.0271	0.0022
Venus	61826-06-04 15:50 G	24302697.06	24302697.16	24302697.27	0.0271	0.0233
Moon	61833-04-07 15:50 G	24305195.94	24305196.16	24305196.38	0.0279	0.0125
Earth	61833-04-07 19:26 G	24305196.10	24305196.31	24305196.54	0.0279	0.0123 *
Mercury	61834-03-18 16:48 G	24305541.11	24305541.20	24305541.29	0.0281	0.0212
Mercury	61834-06-15 05:31 G	24305629.60	24305629.73	24305629.87	0.0281	0.0061
Mercury	61834-09-11 18:00 G	24305718.12	24305718.25	24305718.39	0.0281	0.0089
Mercury	61834-12-09 06:29 G	24305806.70	24305806.77	24305806.84	0.0282	0.0237
Venus	61840-03-31 07:55 G	24307745.63	24307745.83	24307746.03	0.0289	0.0100
Venus	61840-11-16 04:48 G	24307975.52	24307975.70	24307975.88	0.0289	0.0162
Earth	61847-10-14 21:50 G	24310499.19	24310499.41	24310499.65	0.0280	0.0104
Moon	61847-10-15 01:12 G	24310499.32	24310499.55	24310499.78	0.0280	0.0093 *
Mercury	61848-07-07 10:05 G	24310765.77	24310765.92	24310766.08	0.0278	0.0129
Mercury	61848-10-04 05:31 G	24310854.56	24310854.73	24310854.90	0.0278	0.0052
Mercury	61849-01-01 01:12 G	24310943.46	24310943.55	24310943.64	0.0277	0.0236
Venus	61854-09-13 10:05 G	24313024.76	24313024.92	24313025.09	0.0270	0.0165
Venus	61855-04-30 13:41 G	24313253.86	24313254.07	24313254.28	0.0270	0.0046
Venus	61855-12-15 16:48 G	24313483.15	24313483.20	24313483.28	0.0270	0.0257
Mars	61857-07-16 11:31 G	24314061.69	24314061.98	24314062.29	0.0271	0.0079
Earth	61863-04-15 02:53 G	24316160.45	24316160.62	24316160.81	0.0280	0.0191

Moon	61863-04-15 04:05 G	24316160.50	24316160.67	24316160.86	0.0280	0.0196 *
Mercury	61863-08-05 17:46 G	24316273.20	24316273.24	24316273.28	0.0281	0.0266
Mercury	61863-11-02 06:29 G	24316361.65	24316361.77	24316361.90	0.0281	0.0115
Mercury	61864-01-29 19:12 G	24316450.16	24316450.30	24316450.44	0.0282	0.0036
Mercury	61864-04-27 07:26 G	24316538.71	24316538.81	24316538.92	0.0282	0.0186
Venus	61869-10-11 11:02 G	24318531.76	24318531.96	24318532.17	0.0289	0.0072
Venus	61870-05-29 08:10 G	24318761.69	24318761.84	24318762.00	0.0289	0.0191
Mars	61871-09-09 18:58 G	24319230.12	24319230.29	24319230.47	0.0288	0.0220
Moon	61876-10-08 04:48 G	24321085.51	24321085.70	24321085.91	0.0280	0.0174
Earth	61876-10-08 07:55 G	24321085.64	24321085.83	24321086.04	0.0280	0.0167 *
Mercury	61877-11-24 09:50 G	24321497.79	24321497.91	24321498.05	0.0278	0.0181
Mercury	61878-02-21 05:17 G	24321586.55	24321586.72	24321586.90	0.0278	0.0006
Mercury	61878-05-21 00:58 G	24321675.41	24321675.54	24321675.67	0.0277	0.0184
Venus	61884-03-25 16:48 G	24323811.02	24323811.20	24323811.39	0.0271	0.0131
Venus	61884-11-09 20:38 G	24324040.16	24324040.36	24324040.57	0.0271	0.0082
Moon	61892-04-09 03:22 G	24326747.41	24326747.64	24326747.88	0.0279	0.0052
Earth	61892-04-09 04:34 G	24326747.45	24326747.69	24326747.93	0.0279	0.0053 *
Mercury	61893-03-21 10:05 G	24327093.80	24327093.92	24327094.05	0.0281	0.0139
Mercury	61893-06-17 22:48 G	24327182.31	24327182.45	24327182.59	0.0281	0.0012
Mercury	61893-09-14 11:17 G	24327270.86	24327270.97	24327271.08	0.0282	0.0161
Venus	61898-09-06 01:12 G	24329088.52	24329088.55	24329088.60	0.0288	0.0283
Venus	61899-04-23 22:05 G	24329318.21	24329318.42	24329318.64	0.0288	0.0023
Venus	61899-12-09 18:58 G	24329548.17	24329548.29	24329548.40	0.0288	0.0238
Earth	61906-10-17 06:00 G	24332050.56	24332050.75	24332050.95	0.0279	0.0171
Moon	61906-10-17 08:53 G	24332050.67	24332050.87	24332051.08	0.0279	0.0161 *
Mercury	61907-04-14 10:19 G	24332229.84	24332229.93	24332230.03	0.0278	0.0227
Mercury	61907-07-12 05:31 G	24332318.56	24332318.73	24332318.90	0.0278	0.0047
Mercury	61907-10-09 00:58 G	24332407.39	24332407.54	24332407.70	0.0278	0.0135
Venus	61913-10-06 19:26 G	24334597.12	24334597.31	24334597.51	0.0270	0.0103
Venus	61914-05-23 23:02 G	24334826.27	24334826.46	24334826.66	0.0270	0.0109

Moon	61922-04-17 09:22 G	24337711.84	24337711.89	24337711.96	0.0280	0.0271
Earth	61922-04-17 12:29 G	24337711.95	24337712.02	24337712.12	0.0280	0.0263 *
Mercury	61922-08-09 11:02 G	24337825.86	24337825.96	24337826.07	0.0281	0.0193
Mercury	61922-11-05 23:46 G	24337914.36	24337914.49	24337914.63	0.0281	0.0042
Mercury	61923-02-02 12:29 G	24338002.89	24338003.02	24338003.14	0.0282	0.0109
Mercury	61923-05-02 00:43 G	24338091.48	24338091.53	24338091.59	0.0282	0.0257
Venus	61928-03-19 04:34 G	24339874.59	24339874.69	24339874.79	0.0289	0.0255
Venus	61928-11-04 01:12 G	24340104.34	24340104.55	24340104.77	0.0289	0.0007
Venus	61929-06-21 22:05 G	24340334.34	24340334.42	24340334.50	0.0289	0.0267
Moon	61935-10-11 13:55 G	24342636.86	24342637.08	24342637.31	0.0280	0.0105
Earth	61935-10-11 16:48 G	24342636.97	24342637.20	24342637.44	0.0280	0.0097 *
Mercury	61936-08-31 10:19 G	24342961.92	24342961.93	24342961.94	0.0278	0.0277
Mercury	61936-11-28 05:17 G	24343050.57	24343050.72	24343050.89	0.0278	0.0099
Mercury	61937-02-25 00:43 G	24343139.37	24343139.53	24343139.70	0.0278	0.0084
Mercury	61937-05-24 20:24 G	24343228.32	24343228.35	24343228.40	0.0277	0.0268
Venus	61943-04-19 02:10 G	24345383.38	24345383.59	24345383.79	0.0271	0.0068
Venus	61943-12-04 05:46 G	24345612.57	24345612.74	24345612.93	0.0271	0.0145
Mars	61945-12-12 01:26 G	24346351.33	24346351.56	24346351.82	0.0272	0.0168
Earth	61951-04-12 14:24 G	24348298.86	24348299.10	24348299.35	0.0280	0.0020
Moon	61951-04-12 17:31 G	24348299.00	24348299.23	24348299.47	0.0280	0.0026 *
Mercury	61951-12-27 14:53 G	24348558.03	24348558.12	24348558.21	0.0281	0.0216
Mercury	61952-03-25 03:36 G	24348646.52	24348646.65	24348646.79	0.0281	0.0064
Mercury	61952-06-21 16:05 G	24348735.04	24348735.17	24348735.31	0.0282	0.0087
Mercury	61952-09-18 04:34 G	24348823.62	24348823.69	24348823.77	0.0282	0.0234
Venus	61957-09-29 16:34 G	24350661.05	24350661.19	24350661.35	0.0288	0.0204
Venus	61958-05-17 13:26 G	24350890.85	24350891.06	24350891.27	0.0288	0.0057
Mars	61960-02-05 12:29 G	24351519.77	24351520.02	24351520.27	0.0288	0.0130
Moon	61965-10-18 15:36 G	24353602.02	24353602.15	24353602.31	0.0279	0.0231
Earth	61965-10-18 16:48 G	24353602.10	24353602.20	24353602.33	0.0279	0.0244 *
Mercury	61966-04-17 06:29 G	24353782.62	24353782.77	24353782.92	0.0278	0.0139

Mercury	61966-07-15 01:41 G	24353871.40	24353871.57	24353871.74	0.0278	0.0042
Mercury	61966-10-11 21:07 G	24353960.29	24353960.38	24353960.49	0.0277	0.0226
Venus	61972-03-14 01:41 G	24355940.50	24355940.57	24355940.66	0.0271	0.0250
Venus	61972-10-29 05:46 G	24356169.53	24356169.74	24356169.95	0.0271	0.0038
Venus	61973-06-15 09:07 G	24356398.73	24356398.88	24356399.05	0.0270	0.0173
Moon	61980-04-06 00:43 G	24358885.42	24358885.53	24358885.66	0.0278	0.0242
Earth	61980-04-06 03:50 G	24358885.56	24358885.66	24358885.79	0.0278	0.0244 *
Mercury	61981-05-15 16:05 G	24359290.13	24359290.17	24359290.21	0.0281	0.0267
Mercury	61981-08-12 04:48 G	24359378.57	24359378.70	24359378.83	0.0281	0.0115
Mercury	61981-11-08 17:31 G	24359467.09	24359467.23	24359467.37	0.0282	0.0036
Mercury	61982-02-05 06:00 G	24359555.65	24359555.75	24359555.85	0.0282	0.0185
Venus	61987-04-11 20:10 G	24361447.18	24361447.34	24361447.51	0.0289	0.0175
Venus	61987-11-27 16:48 G	24361677.00	24361677.20	24361677.41	0.0289	0.0086
Earth	61994-10-13 03:22 G	24364188.40	24364188.64	24364188.89	0.0280	0.0024
Moon	61994-10-13 04:48 G	24364188.46	24364188.70	24364188.94	0.0280	0.0035 *
Mercury	61995-09-04 06:00 G	24364514.63	24364514.75	24364514.88	0.0278	0.0191
Mercury	61995-12-02 01:26 G	24364603.38	24364603.56	24364603.73	0.0278	0.0012
Mercury	61996-02-28 20:53 G	24364692.23	24364692.37	24364692.51	0.0277	0.0171

63RD MILLENNIUM CE

This is a list of transits visible from Saturn in the 63rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	62001-09-24 08:10 G		24366726.72	24366726.84	24366726.97	0.0271	0.0216	

Venus	62002-05-11 12:14 G	24366955.80	24366956.01	24366956.22	0.0271	0.0005
Venus	62002-12-26 15:36 G	24367185.03	24367185.15	24367185.30	0.0271	0.0210
Earth	62010-04-14 01:12 G	24369850.33	24369850.55	24369850.78	0.0280	0.0093
Moon	62010-04-14 04:05 G	24369850.44	24369850.67	24369850.90	0.0280	0.0100 *
Mercury	62010-12-30 08:24 G	24370110.73	24370110.85	24370110.98	0.0281	0.0139
Mercury	62011-03-28 21:07 G	24370199.25	24370199.38	24370199.52	0.0282	0.0015
Mercury	62011-06-25 09:36 G	24370287.79	24370287.90	24370288.02	0.0282	0.0162
Venus	62016-10-22 08:38 G	24372233.67	24372233.86	24372234.06	0.0288	0.0123
Venus	62017-06-09 05:31 G	24372463.54	24372463.73	24372463.91	0.0288	0.0138
Earth	62023-10-07 20:53 G	24374775.33	24374775.37	24374775.43	0.0281	0.0274
Mercury	62025-01-21 07:41 G	24375246.73	24375246.82	24375246.93	0.0278	0.0225
Mercury	62025-04-20 02:53 G	24375335.45	24375335.62	24375335.79	0.0278	0.0046
Mercury	62025-07-17 22:19 G	24375424.28	24375424.43	24375424.58	0.0278	0.0136
Venus	62031-04-06 12:58 G	24377512.89	24377513.04	24377513.20	0.0271	0.0184
Venus	62031-11-21 16:48 G	24377741.99	24377742.20	24377742.41	0.0271	0.0028
Venus	62032-07-07 20:10 G	24377971.25	24377971.34	24377971.45	0.0271	0.0239
Mars	62034-05-08 02:38 G	24378640.47	24378640.61	24378640.77	0.0271	0.0237
Moon	62039-04-08 12:14 G	24380436.82	24380437.01	24380437.20	0.0279	0.0169
Earth	62039-04-08 15:07 G	24380436.94	24380437.13	24380437.32	0.0279	0.0170 *
Mercury	62040-05-18 09:36 G	24380842.80	24380842.90	24380843.01	0.0281	0.0189
Mercury	62040-08-14 22:34 G	24380931.30	24380931.44	24380931.58	0.0281	0.0038
Mercury	62040-11-11 11:02 G	24381019.84	24381019.96	24381020.09	0.0282	0.0112
Mercury	62041-02-07 23:31 G	24381108.43	24381108.48	24381108.53	0.0282	0.0260
Venus	62046-05-04 12:14 G	24383019.81	24383020.01	24383020.21	0.0289	0.0095
Venus	62046-12-20 08:53 G	24383249.69	24383249.87	24383250.04	0.0289	0.0166
Mars	62048-07-01 14:53 G	24383808.85	24383809.12	24383809.39	0.0288	0.0064
Earth	62053-10-14 15:22 G	24385739.90	24385740.14	24385740.39	0.0280	0.0053
Moon	62053-10-14 19:26 G	24385740.06	24385740.31	24385740.56	0.0280	0.0039 *
Mercury	62054-06-10 07:26 G	24385978.81	24385978.81	24385978.81	0.0278	0.0278
Mercury	62054-09-07 02:24 G	24386067.44	24386067.60	24386067.76	0.0278	0.0100

Mercury	62054-12-04 21:50 G	24386156.24	24386156.41	24386156.57	0.0277	0.0081
Mercury	62055-03-03 17:17 G	24386245.18	24386245.22	24386245.28	0.0277	0.0264
Venus	62060-10-16 18:29 G	24388299.10	24388299.27	24388299.45	0.0271	0.0151
Venus	62061-06-02 22:34 G	24388528.24	24388528.44	24388528.65	0.0271	0.0061
Moon	62069-04-15 10:48 G	24391401.76	24391401.95	24391402.15	0.0280	0.0176
Earth	62069-04-15 11:46 G	24391401.81	24391401.99	24391402.20	0.0280	0.0169 *
Mercury	62069-10-05 13:12 G	24391574.96	24391575.05	24391575.14	0.0281	0.0214
Mercury	62070-01-02 02:10 G	24391663.45	24391663.59	24391663.72	0.0282	0.0062
Mercury	62070-03-31 14:38 G	24391751.98	24391752.11	24391752.25	0.0282	0.0089
Mercury	62070-06-28 03:07 G	24391840.56	24391840.63	24391840.71	0.0282	0.0237
Venus	62075-11-15 01:12 G	24393806.34	24393806.55	24393806.76	0.0288	0.0042
Venus	62076-07-01 21:36 G	24394036.27	24394036.40	24394036.54	0.0288	0.0219
Moon	62082-10-09 06:58 G	24396326.63	24396326.79	24396326.96	0.0281	0.0207
Earth	62082-10-09 10:34 G	24396326.77	24396326.94	24396327.13	0.0281	0.0195 *
Mercury	62084-01-25 04:34 G	24396799.54	24396799.69	24396799.84	0.0278	0.0130
Mercury	62084-04-22 23:46 G	24396888.32	24396888.49	24396888.66	0.0278	0.0050
Mercury	62084-07-20 19:12 G	24396977.21	24396977.30	24396977.40	0.0277	0.0233
Venus	62090-04-29 00:29 G	24399085.33	24399085.52	24399085.71	0.0271	0.0117
Venus	62090-12-14 03:50 G	24399314.47	24399314.66	24399314.87	0.0271	0.0095
Earth	62098-04-10 02:10 G	24401988.36	24401988.59	24401988.82	0.0279	0.0096
Moon	62098-04-10 03:07 G	24401988.40	24401988.63	24401988.85	0.0279	0.0092 *
Mercury	62099-02-22 14:38 G	24402307.06	24402307.11	24402307.15	0.0281	0.0263
Mercury	62099-05-22 03:22 G	24402395.52	24402395.64	24402395.77	0.0281	0.0111
Mercury	62099-08-18 16:05 G	24402484.03	24402484.17	24402484.31	0.0282	0.0040
Mercury	62099-11-15 04:34 G	24402572.59	24402572.69	24402572.80	0.0282	0.0188
Venus	62104-10-10 07:12 G	24404362.74	24404362.80	24404362.87	0.0289	0.0274
Venus	62105-05-28 04:05 G	24404592.45	24404592.67	24404592.88	0.0289	0.0016
Venus	62106-01-13 00:29 G	24404822.42	24404822.52	24404822.63	0.0289	0.0246
Earth	62112-10-17 03:36 G	24407291.44	24407291.65	24407291.88	0.0279	0.0130
Moon	62112-10-17 04:19 G	24407291.45	24407291.68	24407291.92	0.0279	0.0114 *

Mercury	62113-06-14 03:36 G	24407531.53	24407531.65	24407531.78	0.0278	0.0188
Mercury	62113-09-10 22:48 G	24407620.28	24407620.45	24407620.63	0.0278	0.0010
Mercury	62113-12-08 18:14 G	24407709.13	24407709.26	24407709.40	0.0277	0.0174
Venus	62119-11-10 05:17 G	24409871.53	24409871.72	24409871.93	0.0271	0.0086
Venus	62120-06-26 09:07 G	24410100.70	24410100.88	24410101.07	0.0271	0.0126
Moon	62128-04-17 18:14 G	24412953.16	24412953.26	24412953.37	0.0280	0.0251
Earth	62128-04-17 21:36 G	24412953.29	24412953.40	24412953.53	0.0280	0.0241 *
Mercury	62128-10-09 06:43 G	24413127.66	24413127.78	24413127.90	0.0281	0.0139
Mercury	62129-01-05 19:26 G	24413216.17	24413216.31	24413216.45	0.0282	0.0012
Mercury	62129-04-04 07:55 G	24413304.72	24413304.83	24413304.95	0.0282	0.0162
Venus	62134-04-22 19:41 G	24415149.20	24415149.32	24415149.47	0.0288	0.0223
Venus	62134-12-08 16:34 G	24415378.98	24415379.19	24415379.40	0.0288	0.0037
Mars	62136-11-27 16:05 G	24416098.90	24416099.17	24416099.45	0.0288	0.0043
Moon	62141-10-11 23:17 G	24417878.27	24417878.47	24417878.69	0.0280	0.0128
Earth	62141-10-12 00:00 G	24417878.28	24417878.50	24417878.73	0.0280	0.0116 *
Mercury	62142-11-01 06:00 G	24418263.65	24418263.75	24418263.86	0.0278	0.0215
Mercury	62143-01-29 01:12 G	24418352.38	24418352.55	24418352.72	0.0278	0.0036
Mercury	62143-04-27 20:24 G	24418441.21	24418441.35	24418441.50	0.0278	0.0146
Venus	62148-10-05 07:55 G	24420428.80	24420428.83	24420428.89	0.0271	0.0263
Venus	62149-05-22 11:46 G	24420657.79	24420657.99	24420658.20	0.0271	0.0052
Venus	62150-01-06 15:07 G	24420886.97	24420887.13	24420887.31	0.0270	0.0159
Earth	62157-04-12 12:00 G	24423539.76	24423540.00	24423540.24	0.0279	0.0024
Moon	62157-04-12 15:50 G	24423539.91	24423540.16	24423540.40	0.0279	0.0018 *
Mercury	62158-02-26 08:10 G	24423859.73	24423859.84	24423859.94	0.0281	0.0188
Mercury	62158-05-25 20:53 G	24423948.23	24423948.37	24423948.51	0.0281	0.0037
Mercury	62158-08-22 09:22 G	24424036.77	24424036.89	24424037.02	0.0282	0.0114
Mercury	62158-11-18 21:50 G	24424125.36	24424125.41	24424125.46	0.0282	0.0261
Venus	62163-11-02 22:19 G	24425935.29	24425935.43	24425935.59	0.0289	0.0197
Venus	62164-06-19 19:12 G	24426165.09	24426165.30	24426165.51	0.0289	0.0064
Moon	62171-10-19 12:14 G	24428842.83	24428843.01	24428843.20	0.0279	0.0188

Earth	62171-10-19 15:36 G	24428842.99	24428843.15	24428843.32	0.0279	0.0204 *
Mercury	62172-03-20 04:48 G	24428995.68	24428995.70	24428995.73	0.0278	0.0275
Mercury	62172-06-16 23:46 G	24429084.34	24429084.49	24429084.66	0.0278	0.0098
Mercury	62172-09-13 19:12 G	24429173.14	24429173.30	24429173.47	0.0278	0.0083
Mercury	62172-12-11 14:38 G	24429262.07	24429262.11	24429262.16	0.0277	0.0267
Venus	62178-04-17 11:46 G	24431214.89	24431214.99	24431215.10	0.0271	0.0233
Venus	62178-12-02 15:36 G	24431443.94	24431444.15	24431444.37	0.0271	0.0023
Venus	62179-07-19 19:26 G	24431673.16	24431673.31	24431673.46	0.0271	0.0189
Mars	62181-01-07 04:05 G	24432210.48	24432210.67	24432210.86	0.0272	0.0213
Moon	62186-04-07 06:14 G	24434126.69	24434126.76	24434126.84	0.0279	0.0264
Earth	62186-04-07 10:05 G	24434126.86	24434126.92	24434126.99	0.0279	0.0268
Mercury	62187-07-16 10:48 G	24434591.87	24434591.95	24434592.04	0.0281	0.0220
Mercury	62187-10-12 23:46 G	24434680.36	24434680.49	24434680.63	0.0282	0.0068
Mercury	62188-01-09 12:29 G	24434768.89	24434769.02	24434769.15	0.0282	0.0082
Mercury	62188-04-07 00:58 G	24434857.46	24434857.54	24434857.62	0.0282	0.0231
Venus	62193-05-15 10:05 G	24436721.74	24436721.92	24436722.10	0.0288	0.0147
Venus	62193-12-31 06:43 G	24436951.59	24436951.78	24436951.98	0.0288	0.0113
Earth	62200-10-14 11:46 G	24439429.74	24439429.99	24439430.23	0.0280	0.0040
Moon	62200-10-14 14:38 G	24439429.87	24439430.11	24439430.35	0.0280	0.0053 *
Mercury	62201-11-05 02:10 G	24439816.44	24439816.59	24439816.75	0.0278	0.0125
Mercury	62202-02-01 21:22 G	24439905.22	24439905.39	24439905.56	0.0278	0.0055
Mercury	62202-05-01 16:48 G	24439994.12	24439994.20	24439994.30	0.0277	0.0238
Venus	62207-10-29 19:12 G	24442001.16	24442001.30	24442001.45	0.0271	0.0198
Venus	62208-06-14 22:48 G	24442230.24	24442230.45	24442230.66	0.0270	0.0013
Venus	62209-01-30 01:55 G	24442459.47	24442459.58	24442459.71	0.0270	0.0223
Earth	62216-04-14 20:38 G	24445091.12	24445091.36	24445091.60	0.0279	0.0046
Moon	62216-04-14 21:36 G	24445091.16	24445091.40	24445091.65	0.0279	0.0056 *
Mercury	62216-12-03 12:14 G	24445323.98	24445324.01	24445324.06	0.0280	0.0268
Mercury	62217-03-02 01:12 G	24445412.43	24445412.55	24445412.68	0.0281	0.0116
Mercury	62217-05-29 13:55 G	24445500.94	24445501.08	24445501.22	0.0281	0.0035

Mercury	62217-08-26 02:24 G	24445589.50	24445589.60	24445589.71	0.0282	0.0183
Venus	62222-11-26 12:00 G	24447507.81	24447508.00	24447508.20	0.0289	0.0122
Venus	62223-07-14 08:38 G	24447737.68	24447737.86	24447738.05	0.0289	0.0138
Mars	62225-04-24 08:53 G	24448387.61	24448387.87	24448388.13	0.0288	0.0097
Moon	62230-10-21 22:34 G	24450394.37	24450394.44	24450394.54	0.0279	0.0261
Earth	62230-10-22 01:26 G	24450394.53	24450394.56	24450394.60	0.0279	0.0276 *
Mercury	62231-03-25 00:29 G	24450548.40	24450548.52	24450548.65	0.0278	0.0190
Mercury	62231-06-21 19:41 G	24450637.15	24450637.32	24450637.50	0.0278	0.0012
Mercury	62231-09-18 15:07 G	24450726.00	24450726.13	24450726.27	0.0277	0.0171
Venus	62237-05-10 21:36 G	24452787.24	24452787.40	24452787.57	0.0271	0.0171
Venus	62237-12-26 01:26 G	24453016.35	24453016.56	24453016.77	0.0271	0.0040
Venus	62238-08-12 04:48 G	24453245.63	24453245.70	24453245.78	0.0271	0.0251
Moon	62245-04-09 15:22 G	24455677.98	24455678.14	24455678.31	0.0279	0.0197
Earth	62245-04-09 16:19 G	24455678.01	24455678.18	24455678.34	0.0279	0.0203 *
Mercury	62246-07-20 03:36 G	24456144.54	24456144.65	24456144.77	0.0281	0.0153
Mercury	62246-10-16 16:34 G	24456233.05	24456233.19	24456233.33	0.0282	0.0007
Mercury	62247-01-13 05:02 G	24456321.59	24456321.71	24456321.83	0.0282	0.0148
Venus	62252-06-07 22:34 G	24458294.23	24458294.44	24458294.65	0.0289	0.0075
Venus	62253-01-23 19:26 G	24458524.15	24458524.31	24458524.47	0.0289	0.0185
Earth	62259-10-16 21:07 G	24460981.14	24460981.38	24460981.63	0.0280	0.0031
Moon	62259-10-17 00:14 G	24460981.26	24460981.51	24460981.76	0.0280	0.0018 *
Mercury	62260-08-11 02:38 G	24461280.52	24461280.61	24461280.72	0.0279	0.0219
Mercury	62260-11-07 21:50 G	24461369.24	24461369.41	24461369.58	0.0278	0.0040
Mercury	62261-02-04 17:17 G	24461458.07	24461458.22	24461458.37	0.0278	0.0142
Venus	62266-11-21 05:02 G	24463573.54	24463573.71	24463573.90	0.0271	0.0136
Venus	62267-07-08 08:24 G	24463802.66	24463802.85	24463803.06	0.0270	0.0076
Mars	62269-06-04 11:02 G	24464499.70	24464499.96	24464500.24	0.0271	0.0132
Moon	62275-04-16 23:46 G	24466642.28	24466642.49	24466642.72	0.0279	0.0126
Earth	62275-04-17 03:22 G	24466642.42	24466642.64	24466642.86	0.0279	0.0112 *
Mercury	62275-12-07 05:17 G	24466876.62	24466876.72	24466876.82	0.0280	0.0199

Mercury	62276-03-04 18:00 G	24466965.12	24466965.25	24466965.39	0.0281	0.0049
Mercury	62276-06-01 06:43 G	24467053.65	24467053.78	24467053.91	0.0281	0.0101
Mercury	62276-08-28 19:12 G	24467142.24	24467142.30	24467142.36	0.0282	0.0248
Venus	62281-12-19 00:14 G	24469080.30	24469080.51	24469080.72	0.0289	0.0051
Venus	62282-08-05 20:38 G	24469310.22	24469310.36	24469310.51	0.0289	0.0210
Moon	62288-10-09 19:55 G	24471567.27	24471567.33	24471567.41	0.0281	0.0269
Earth	62288-10-09 22:48 G	24471567.35	24471567.45	24471567.55	0.0281	0.0255 *
Mercury	62290-03-27 19:41 G	24472101.17	24472101.32	24472101.48	0.0278	0.0110
Mercury	62290-06-24 15:07 G	24472189.96	24472190.13	24472190.29	0.0278	0.0071
Mercury	62290-09-21 10:34 G	24472278.87	24472278.94	24472279.01	0.0277	0.0254
Venus	62296-06-02 06:43 G	24474359.59	24474359.78	24474359.97	0.0271	0.0110
Venus	62297-01-17 10:05 G	24474588.73	24474588.92	24474589.12	0.0271	0.0101
Earth	62304-04-11 20:38 G	24477229.16	24477229.36	24477229.58	0.0279	0.0142
Moon	62304-04-12 00:00 G	24477229.29	24477229.50	24477229.71	0.0279	0.0131 *
Mercury	62305-04-26 07:12 G	24477608.73	24477608.80	24477608.87	0.0281	0.0241
Mercury	62305-07-23 20:10 G	24477697.21	24477697.34	24477697.47	0.0281	0.0089
Mercury	62305-10-20 08:53 G	24477785.73	24477785.87	24477786.00	0.0282	0.0061
Mercury	62306-01-16 21:22 G	24477874.30	24477874.39	24477874.48	0.0282	0.0209
Venus	62310-11-14 12:00 G	24479636.93	24479637.00	24479637.09	0.0288	0.0267
Venus	62311-07-02 09:07 G	24479866.66	24479866.88	24479867.09	0.0289	0.0009
Venus	62312-02-17 05:46 G	24480096.65	24480096.74	24480096.85	0.0289	0.0252
Mars	62313-09-19 16:05 G	24480676.95	24480677.17	24480677.39	0.0288	0.0174
Moon	62318-10-19 02:10 G	24482532.35	24482532.59	24482532.84	0.0280	0.0079
Earth	62318-10-19 03:22 G	24482532.41	24482532.64	24482532.88	0.0280	0.0095 *
Mercury	62319-08-15 21:36 G	24482833.26	24482833.40	24482833.55	0.0279	0.0141
Mercury	62319-11-12 16:48 G	24482922.03	24482922.20	24482922.37	0.0278	0.0039
Mercury	62320-02-09 12:14 G	24483010.91	24483011.01	24483011.12	0.0278	0.0222
Venus	62325-12-14 14:10 G	24485145.89	24485146.09	24485146.29	0.0271	0.0075
Venus	62326-07-31 17:17 G	24485375.04	24485375.22	24485375.41	0.0270	0.0136
Moon	62334-04-19 05:31 G	24488193.56	24488193.73	24488193.91	0.0279	0.0189

Earth	62334-04-19 07:55 G	24488193.64	24488193.83	24488194.02	0.0279	0.0174	*
Mercury	62334-12-10 21:36 G	24488429.28	24488429.40	24488429.53	0.0280	0.0136	
Mercury	62335-03-09 10:19 G	24488517.80	24488517.93	24488518.07	0.0281	0.0017	
Mercury	62335-06-05 22:48 G	24488606.34	24488606.45	24488606.57	0.0281	0.0162	
Venus	62340-05-26 13:55 G	24490422.97	24490423.08	24490423.19	0.0288	0.0242	
Venus	62341-01-11 10:34 G	24490652.72	24490652.94	24490653.15	0.0289	0.0018	
Venus	62341-08-29 06:58 G	24490882.74	24490882.79	24490882.86	0.0289	0.0277	
Earth	62347-10-13 04:05 G	24493118.50	24493118.67	24493118.86	0.0281	0.0191	
Moon	62347-10-13 06:14 G	24493118.60	24493118.76	24493118.93	0.0281	0.0207	*
Mercury	62349-01-01 19:12 G	24493565.20	24493565.30	24493565.41	0.0279	0.0213	
Mercury	62349-03-31 14:24 G	24493653.93	24493654.10	24493654.27	0.0278	0.0034	
Mercury	62349-06-28 09:36 G	24493742.76	24493742.90	24493743.05	0.0278	0.0148	
Venus	62354-11-09 10:48 G	24495702.91	24495702.95	24495703.01	0.0271	0.0262	
Venus	62355-06-26 14:38 G	24495931.90	24495932.11	24495932.32	0.0270	0.0052	
Venus	62356-02-10 18:00 G	24496161.08	24496161.25	24496161.42	0.0270	0.0158	
Mars	62357-10-29 21:36 G	24496788.11	24496788.40	24496788.70	0.0271	0.0080	
Earth	62363-04-13 23:17 G	24498780.25	24498780.47	24498780.71	0.0279	0.0084	
Moon	62363-04-14 01:55 G	24498780.35	24498780.58	24498780.83	0.0279	0.0073	*
Mercury	62364-04-28 23:17 G	24499161.37	24499161.47	24499161.58	0.0281	0.0181	
Mercury	62364-07-26 12:00 G	24499249.87	24499250.00	24499250.14	0.0281	0.0032	
Mercury	62364-10-23 00:43 G	24499338.41	24499338.53	24499338.66	0.0282	0.0119	
Mercury	62365-01-19 13:12 G	24499427.01	24499427.05	24499427.09	0.0282	0.0266	
Venus	62369-12-06 20:53 G	24501209.23	24501209.37	24501209.53	0.0289	0.0204	
Venus	62370-07-24 18:00 G	24501439.04	24501439.25	24501439.46	0.0289	0.0057	
Moon	62377-10-20 02:53 G	24504083.42	24504083.62	24504083.84	0.0280	0.0137	
Earth	62377-10-20 06:58 G	24504083.58	24504083.79	24504084.00	0.0280	0.0154	*
Mercury	62378-05-21 20:38 G	24504297.29	24504297.36	24504297.44	0.0279	0.0249	
Mercury	62378-08-18 15:50 G	24504385.99	24504386.16	24504386.33	0.0279	0.0070	
Mercury	62378-11-15 11:02 G	24504474.81	24504474.96	24504475.12	0.0278	0.0111	
Venus	62384-05-21 18:29 G	24506489.16	24506489.27	24506489.38	0.0271	0.0227	

Venus	62385-01-05 22:05 G	24506718.21	24506718.42	24506718.63	0.0271	0.0017
Venus	62385-08-23 00:58 G	24506947.41	24506947.54	24506947.70	0.0270	0.0194
Earth	62393-04-20 11:46 G	24509744.86	24509744.99	24509745.12	0.0279	0.0233
Moon	62393-04-20 13:12 G	24509744.96	24509745.05	24509745.17	0.0279	0.0249 *
Mercury	62393-09-16 00:58 G	24509893.47	24509893.54	24509893.63	0.0280	0.0226
Mercury	62393-12-13 13:55 G	24509981.95	24509982.08	24509982.22	0.0280	0.0075
Mercury	62394-03-12 02:38 G	24510070.47	24510070.61	24510070.74	0.0281	0.0073
Mercury	62394-06-08 15:07 G	24510159.04	24510159.13	24510159.21	0.0281	0.0220
Venus	62399-06-18 22:48 G	24511995.29	24511995.45	24511995.62	0.0288	0.0177
Venus	62400-02-03 19:26 G	24512225.10	24512225.31	24512225.51	0.0289	0.0082
Mars	62402-02-12 14:10 G	24512964.91	24512965.09	24512965.31	0.0288	0.0200
Earth	62406-10-14 06:58 G	24514669.57	24514669.79	24514670.01	0.0281	0.0134
Moon	62406-10-14 10:19 G	24514669.73	24514669.93	24514670.15	0.0281	0.0151 *
Mercury	62408-01-05 12:58 G	24515117.90	24515118.04	24515118.19	0.0279	0.0145
Mercury	62408-04-03 08:24 G	24515206.68	24515206.85	24515207.02	0.0278	0.0036
Mercury	62408-07-01 03:50 G	24515295.55	24515295.66	24515295.77	0.0278	0.0218
Venus	62413-12-01 17:46 G	24517275.11	24517275.24	24517275.39	0.0271	0.0206
Venus	62414-07-18 21:36 G	24517504.19	24517504.40	24517504.61	0.0270	0.0005
Venus	62415-03-05 00:58 G	24517733.42	24517733.54	24517733.67	0.0270	0.0214
Moon	62422-04-14 23:17 G	24520331.22	24520331.47	24520331.73	0.0279	0.0016
Earth	62422-04-15 00:58 G	24520331.30	24520331.54	24520331.79	0.0279	0.0029 *
Mercury	62423-02-03 02:10 G	24520625.57	24520625.59	24520625.61	0.0280	0.0276
Mercury	62423-05-02 15:07 G	24520714.01	24520714.13	24520714.26	0.0281	0.0125
Mercury	62423-07-30 03:50 G	24520802.52	24520802.66	24520802.80	0.0281	0.0025
Mercury	62423-10-26 16:19 G	24520891.08	24520891.18	24520891.29	0.0282	0.0173
Venus	62428-12-29 04:19 G	24522781.51	24522781.68	24522781.88	0.0289	0.0143
Venus	62429-08-16 01:26 G	24523011.37	24523011.56	24523011.75	0.0289	0.0118
Moon	62436-10-21 07:55 G	24525634.66	24525634.83	24525635.01	0.0280	0.0192
Earth	62436-10-21 07:41 G	24525634.67	24525634.82	24525635.00	0.0280	0.0209 *
Mercury	62437-05-24 14:10 G	24525849.97	24525850.09	24525850.22	0.0279	0.0184

Mercury	62437-08-21 09:22 G	24525938.72	24525938.89	24525939.06	0.0279	0.0005
Mercury	62437-11-18 04:48 G	24526027.57	24526027.70	24526027.83	0.0278	0.0178
Venus	62443-06-14 01:12 G	24528061.39	24528061.55	24528061.72	0.0271	0.0171
Venus	62444-01-29 04:48 G	24528290.49	24528290.70	24528290.91	0.0271	0.0040
Venus	62444-09-14 08:10 G	24528519.76	24528519.84	24528519.92	0.0271	0.0249
Mars	62446-03-25 22:48 G	24529077.14	24529077.45	24529077.76	0.0271	0.0008
Moon	62451-04-09 22:34 G	24530918.40	24530918.44	24530918.51	0.0277	0.0270
Mercury	62452-09-18 17:02 G	24531446.10	24531446.21	24531446.33	0.0280	0.0167
Mercury	62452-12-16 06:00 G	24531534.61	24531534.75	24531534.89	0.0280	0.0019
Mercury	62453-03-14 18:29 G	24531623.15	24531623.27	24531623.39	0.0281	0.0130
Mercury	62453-06-11 06:58 G	24531711.76	24531711.79	24531711.81	0.0281	0.0275
Venus	62458-07-11 06:58 G	24533567.60	24533567.79	24533567.98	0.0288	0.0114
Venus	62459-02-26 03:22 G	24533797.46	24533797.64	24533797.83	0.0289	0.0145
Moon	62465-10-15 07:12 G	24536220.56	24536220.80	24536221.04	0.0281	0.0094
Earth	62465-10-15 07:55 G	24536220.59	24536220.83	24536221.07	0.0281	0.0079 *
Mercury	62466-10-11 11:31 G	24536581.92	24536581.98	24536582.04	0.0279	0.0259
Mercury	62467-01-08 06:29 G	24536670.61	24536670.77	24536670.94	0.0279	0.0080
Mercury	62467-04-07 01:41 G	24536759.42	24536759.57	24536759.74	0.0278	0.0102
Venus	62472-12-24 00:00 G	24538847.33	24538847.50	24538847.68	0.0271	0.0151
Venus	62473-08-10 03:50 G	24539076.45	24539076.66	24539076.86	0.0270	0.0060
Venus	62474-03-27 07:12 G	24539305.78	24539305.80	24539305.82	0.0270	0.0269
Moon	62481-04-15 22:48 G	24541882.21	24541882.45	24541882.69	0.0279	0.0041
Earth	62481-04-16 02:24 G	24541882.36	24541882.60	24541882.84	0.0279	0.0026 *
Mercury	62482-02-05 18:00 G	24542178.17	24542178.25	24542178.34	0.0280	0.0220
Mercury	62482-05-05 06:58 G	24542266.65	24542266.79	24542266.92	0.0281	0.0070
Mercury	62482-08-01 19:41 G	24542355.18	24542355.32	24542355.45	0.0281	0.0080
Mercury	62482-10-29 07:55 G	24542443.75	24542443.83	24542443.92	0.0282	0.0226
Venus	62488-01-21 11:31 G	24544353.78	24544353.98	24544354.18	0.0288	0.0082
Venus	62488-09-07 08:10 G	24544583.68	24544583.84	24544584.01	0.0289	0.0178
Mars	62490-07-09 00:29 G	24545253.37	24545253.52	24545253.68	0.0288	0.0239

Earth	62495-10-23 06:58 G	24547185.70	24547185.79	24547185.89	0.0280	0.0257
Moon	62495-10-23 10:48 G	24547185.83	24547185.95	24547186.07	0.0280	0.0244 *
Mercury	62496-05-27 07:12 G	24547402.65	24547402.80	24547402.95	0.0279	0.0124
Mercury	62496-08-24 02:24 G	24547491.43	24547491.60	24547491.77	0.0279	0.0057
Mercury	62496-11-20 21:50 G	24547580.33	24547580.41	24547580.50	0.0278	0.0241
Venus	62502-07-07 07:12 G	24549633.61	24549633.80	24549634.00	0.0271	0.0116
Venus	62503-02-21 10:48 G	24549862.76	24549862.95	24549863.15	0.0271	0.0095
Earth	62510-04-11 23:17 G	24552469.34	24552469.47	24552469.62	0.0277	0.0224
Moon	62510-04-12 03:07 G	24552469.48	24552469.63	24552469.80	0.0277	0.0210 *
Mercury	62511-06-26 20:10 G	24552910.30	24552910.34	24552910.39	0.0279	0.0259
Mercury	62511-09-23 09:07 G	24552998.75	24552998.88	24552999.01	0.0279	0.0110
Mercury	62511-12-20 21:50 G	24553087.27	24553087.41	24553087.54	0.0280	0.0039
Mercury	62512-03-18 10:19 G	24553175.82	24553175.93	24553176.03	0.0280	0.0185
Venus	62517-08-03 14:24 G	24555139.90	24555140.10	24555140.31	0.0288	0.0053
Venus	62518-03-21 10:48 G	24555369.81	24555369.95	24555370.10	0.0288	0.0206
Moon	62524-10-17 04:05 G	24557771.43	24557771.67	24557771.92	0.0281	0.0042
Earth	62524-10-17 07:41 G	24557771.58	24557771.82	24557772.07	0.0281	0.0028 *
Mercury	62525-10-15 04:34 G	24558134.58	24558134.69	24558134.81	0.0279	0.0197
Mercury	62526-01-11 23:46 G	24558223.32	24558223.49	24558223.66	0.0279	0.0018
Mercury	62526-04-10 18:58 G	24558312.16	24558312.29	24558312.44	0.0278	0.0165
Venus	62532-01-17 06:00 G	24560419.56	24560419.75	24560419.95	0.0271	0.0096
Venus	62532-09-02 09:36 G	24560648.71	24560648.90	24560649.10	0.0271	0.0115
Mars	62534-08-19 16:48 G	24561364.89	24561365.20	24561365.52	0.0271	0.0021
Earth	62540-04-18 03:22 G	24563433.41	24563433.64	24563433.87	0.0278	0.0079
Moon	62540-04-18 03:22 G	24563433.42	24563433.64	24563433.86	0.0278	0.0096 *
Mercury	62541-02-09 09:50 G	24563730.80	24563730.91	24563731.02	0.0280	0.0165
Mercury	62541-05-08 22:34 G	24563819.30	24563819.44	24563819.58	0.0281	0.0016
Mercury	62541-08-05 11:02 G	24563907.84	24563907.96	24563908.09	0.0281	0.0133
Mercury	62541-11-01 23:31 G	24563996.47	24563996.48	24563996.50	0.0281	0.0278
Venus	62546-06-28 21:36 G	24565696.36	24565696.40	24565696.46	0.0288	0.0279

Venus	62547-02-13 18:14 G	24565926.05	24565926.26	24565926.47	0.0288	0.0022
Venus	62547-10-01 14:53 G	24566156.00	24566156.12	24566156.24	0.0289	0.0237
Mercury	62555-03-04 04:48 G	24568866.63	24568866.70	24568866.79	0.0280	0.0245
Mercury	62555-06-01 00:00 G	24568955.33	24568955.50	24568955.67	0.0279	0.0066
Mercury	62555-08-28 19:12 G	24569044.15	24569044.30	24569044.46	0.0279	0.0117
Venus	62561-07-29 12:43 G	24571205.83	24571206.03	24571206.24	0.0271	0.0062
Venus	62562-03-15 16:34 G	24571435.01	24571435.19	24571435.37	0.0271	0.0149
Moon	62569-04-13 01:41 G	24574020.37	24574020.57	24574020.79	0.0277	0.0152
Earth	62569-04-13 01:55 G	24574020.39	24574020.58	24574020.78	0.0277	0.0168 *
Mercury	62570-06-29 12:29 G	24574462.92	24574463.02	24574463.11	0.0279	0.0200
Mercury	62570-09-26 01:12 G	24574551.41	24574551.55	24574551.69	0.0280	0.0052
Mercury	62570-12-23 13:41 G	24574639.94	24574640.07	24574640.20	0.0280	0.0096
Mercury	62571-03-22 02:10 G	24574728.52	24574728.59	24574728.66	0.0280	0.0241
Venus	62576-01-09 02:24 G	24576482.50	24576482.60	24576482.72	0.0288	0.0245
Venus	62576-08-25 22:34 G	24576712.23	24576712.44	24576712.66	0.0288	0.0012
Venus	62577-04-12 18:43 G	24576942.22	24576942.28	24576942.37	0.0288	0.0268
Mars	62578-12-02 21:07 G	24577541.26	24577541.38	24577541.50	0.0288	0.0258
Moon	62583-10-19 06:14 G	24579322.52	24579322.76	24579323.00	0.0281	0.0013
Earth	62583-10-19 07:26 G	24579322.56	24579322.81	24579323.06	0.0281	0.0024 *
Mercury	62584-10-17 21:36 G	24579687.25	24579687.40	24579687.55	0.0279	0.0137
Mercury	62585-01-14 16:48 G	24579776.03	24579776.20	24579776.37	0.0279	0.0044
Mercury	62585-04-13 12:14 G	24579864.91	24579865.01	24579865.11	0.0278	0.0227
Venus	62590-06-24 07:41 G	24581762.75	24581762.82	24581762.90	0.0271	0.0252
Venus	62591-02-08 11:46 G	24581991.78	24581991.99	24581992.20	0.0271	0.0041
Venus	62591-09-25 15:22 G	24582220.98	24582221.14	24582221.31	0.0271	0.0169
Earth	62599-04-20 05:17 G	24584984.51	24584984.72	24584984.93	0.0278	0.0135
Moon	62599-04-20 08:38 G	24584984.67	24584984.86	24584985.08	0.0278	0.0153 *
Mercury	62599-11-16 12:43 G	24585194.99	24585195.03	24585195.09	0.0280	0.0258
Mercury	62600-02-13 01:41 G	24585283.45	24585283.57	24585283.71	0.0280	0.0108
Mercury	62600-05-12 14:24 G	24585371.97	24585372.10	24585372.24	0.0280	0.0042

Mercury	62600-08-09 02:53 G	24585460.52	24585460.62	24585460.73	0.0281	0.0188
Venus	62605-07-22 05:02 G	24587268.58	24587268.71	24587268.85	0.0288	0.0218
Venus	62606-03-09 01:26 G	24587498.35	24587498.56	24587498.77	0.0288	0.0039
Earth	62612-10-13 15:07 G	24589909.04	24589909.13	24589909.26	0.0282	0.0250
Moon	62612-10-13 16:34 G	24589909.12	24589909.19	24589909.29	0.0282	0.0264 *
Mercury	62614-03-07 21:36 G	24590419.28	24590419.40	24590419.53	0.0280	0.0187
Mercury	62614-06-04 16:48 G	24590508.03	24590508.20	24590508.37	0.0279	0.0007
Mercury	62614-09-01 12:14 G	24590596.88	24590597.01	24590597.15	0.0279	0.0177
Venus	62620-01-05 14:10 G	24592548.98	24592549.09	24592549.22	0.0272	0.0218
Venus	62620-08-21 18:29 G	24592778.06	24592778.27	24592778.48	0.0272	0.0007
Venus	62621-04-07 22:05 G	24593007.30	24593007.42	24593007.57	0.0271	0.0205
Mars	62623-01-14 15:50 G	24593653.88	24593654.16	24593654.46	0.0271	0.0089
Moon	62628-04-15 01:12 G	24595571.33	24595571.55	24595571.79	0.0277	0.0095
Earth	62628-04-15 05:02 G	24595571.49	24595571.71	24595571.93	0.0277	0.0111 *
Mercury	62629-07-03 04:34 G	24596015.57	24596015.69	24596015.81	0.0279	0.0141
Mercury	62629-09-29 17:17 G	24596104.08	24596104.22	24596104.36	0.0280	0.0007
Mercury	62629-12-27 05:46 G	24596192.63	24596192.74	24596192.86	0.0280	0.0154
Venus	62635-02-01 11:02 G	24598054.81	24598054.96	24598055.14	0.0287	0.0181
Venus	62635-09-19 07:12 G	24598284.60	24598284.80	24598285.01	0.0288	0.0076
Earth	62642-10-21 07:55 G	24600873.60	24600873.83	24600874.08	0.0281	0.0079
Moon	62642-10-21 11:02 G	24600873.72	24600873.96	24600874.19	0.0281	0.0067 *
Mercury	62643-07-25 19:55 G	24601151.26	24601151.33	24601151.41	0.0280	0.0252
Mercury	62643-10-22 14:53 G	24601239.96	24601240.12	24601240.29	0.0279	0.0073
Mercury	62644-01-19 10:19 G	24601328.77	24601328.93	24601329.09	0.0279	0.0108
Venus	62649-07-17 13:26 G	24603334.92	24603335.06	24603335.21	0.0271	0.0197
Venus	62650-03-03 17:46 G	24603564.03	24603564.24	24603564.45	0.0271	0.0014
Venus	62650-10-18 21:36 G	24603793.29	24603793.40	24603793.52	0.0271	0.0224
Earth	62658-04-22 08:10 G	24606535.68	24606535.84	24606536.03	0.0278	0.0193
Moon	62658-04-22 09:50 G	24606535.75	24606535.91	24606536.08	0.0278	0.0206 *
Mercury	62658-11-20 05:02 G	24606747.62	24606747.71	24606747.82	0.0280	0.0197

Mercury	62659-02-16 18:00 G	24606836.11	24606836.25	24606836.39	0.0280	0.0048
Mercury	62659-05-16 06:29 G	24606924.64	24606924.77	24606924.91	0.0280	0.0100
Mercury	62659-08-12 18:58 G	24607013.23	24607013.29	24607013.36	0.0281	0.0245
Venus	62664-08-13 13:55 G	24608840.90	24608841.08	24608841.26	0.0288	0.0153
Venus	62665-03-31 10:05 G	24609070.73	24609070.92	24609071.12	0.0288	0.0104
Moon	62671-10-15 12:29 G	24611459.86	24611460.02	24611460.19	0.0282	0.0210
Earth	62671-10-15 15:36 G	24611459.99	24611460.15	24611460.34	0.0282	0.0197 *
Mercury	62673-03-10 14:38 G	24611971.97	24611972.11	24611972.27	0.0280	0.0126
Mercury	62673-06-07 10:05 G	24612060.75	24612060.92	24612061.09	0.0279	0.0056
Mercury	62673-09-04 05:31 G	24612149.65	24612149.73	24612149.82	0.0279	0.0239
Venus	62679-01-27 19:55 G	24614121.17	24614121.33	24614121.51	0.0272	0.0163
Venus	62679-09-14 00:29 G	24614350.31	24614350.52	24614350.73	0.0272	0.0049
Venus	62680-04-30 04:19 G	24614579.63	24614579.68	24614579.75	0.0272	0.0259
Moon	62687-04-17 07:55 G	24617122.60	24617122.83	24617123.07	0.0277	0.0037
Earth	62687-04-17 09:36 G	24617122.66	24617122.90	24617123.14	0.0277	0.0051 *
Mercury	62688-04-08 08:10 G	24617479.76	24617479.84	24617479.93	0.0279	0.0227
Mercury	62688-07-05 21:07 G	24617568.24	24617568.38	24617568.51	0.0279	0.0078
Mercury	62688-10-02 09:36 G	24617656.77	24617656.90	24617657.04	0.0280	0.0070
Mercury	62688-12-29 22:05 G	24617745.34	24617745.42	24617745.51	0.0280	0.0215
Venus	62694-02-23 21:22 G	24619627.20	24619627.39	24619627.59	0.0287	0.0113
Venus	62694-10-11 17:17 G	24619857.04	24619857.22	24619857.40	0.0288	0.0143
Earth	62701-10-23 10:34 G	24622424.72	24622424.94	24622425.16	0.0281	0.0134
Moon	62701-10-23 13:26 G	24622424.84	24622425.06	24622425.30	0.0281	0.0125 *
Mercury	62702-07-29 13:41 G	24622703.94	24622704.07	24622704.19	0.0280	0.0185
Mercury	62702-10-26 08:38 G	24622792.69	24622792.86	24622793.03	0.0279	0.0007
Mercury	62703-01-23 03:50 G	24622881.54	24622881.66	24622881.80	0.0279	0.0177
Venus	62708-08-09 20:10 G	24624907.17	24624907.34	24624907.53	0.0271	0.0140
Venus	62709-03-27 00:29 G	24625136.32	24625136.52	24625136.73	0.0271	0.0072
Mars	62711-06-10 13:41 G	24625941.80	24625942.07	24625942.35	0.0271	0.0120
Moon	62717-04-24 10:19 G	24628086.86	24628086.93	24628087.02	0.0279	0.0263

Earth	62717-04-24 13:26 G	24628086.97	24628087.06	24628087.16	0.0279	0.0253	*
Mercury	62717-11-23 21:50 G	24628300.28	24628300.41	24628300.53	0.0280	0.0134	
Mercury	62718-02-20 10:34 G	24628388.80	24628388.94	24628389.08	0.0280	0.0015	
Mercury	62718-05-19 23:02 G	24628477.35	24628477.46	24628477.57	0.0281	0.0161	
Venus	62723-09-07 00:00 G	24630413.29	24630413.50	24630413.70	0.0288	0.0086	
Venus	62724-04-23 19:55 G	24630643.17	24630643.33	24630643.51	0.0288	0.0170	
Moon	62730-10-17 15:22 G	24633010.95	24633011.14	24633011.36	0.0282	0.0151	
Earth	62730-10-17 18:14 G	24633011.05	24633011.26	24633011.48	0.0282	0.0140	*
Mercury	62731-12-16 13:12 G	24633435.97	24633436.05	24633436.15	0.0280	0.0238	
Mercury	62732-03-14 08:24 G	24633524.69	24633524.85	24633525.02	0.0279	0.0059	
Mercury	62732-06-11 03:50 G	24633613.50	24633613.66	24633613.81	0.0279	0.0123	
Venus	62738-02-20 02:38 G	24635693.42	24635693.61	24635693.81	0.0272	0.0106	
Venus	62738-10-07 07:12 G	24635922.61	24635922.80	24635923.00	0.0272	0.0106	
Earth	62746-04-19 15:07 G	24638673.89	24638674.13	24638674.38	0.0278	0.0013	
Moon	62746-04-19 17:46 G	24638674.00	24638674.24	24638674.47	0.0278	0.0026	*
Mercury	62747-04-13 00:58 G	24639032.43	24639032.54	24639032.66	0.0279	0.0161	
Mercury	62747-07-10 13:55 G	24639120.94	24639121.08	24639121.22	0.0280	0.0013	
Mercury	62747-10-07 02:24 G	24639209.48	24639209.60	24639209.72	0.0280	0.0134	
Mercury	62748-01-03 14:53 G	24639298.11	24639298.12	24639298.13	0.0280	0.0278	
Venus	62753-03-19 09:22 G	24641199.68	24641199.89	24641200.10	0.0287	0.0041	
Venus	62753-11-04 04:48 G	24641429.57	24641429.70	24641429.86	0.0287	0.0214	
Moon	62760-10-24 14:10 G	24643975.90	24643976.09	24643976.27	0.0281	0.0191	
Earth	62760-10-24 15:36 G	24643975.98	24643976.15	24643976.33	0.0281	0.0196	*
Mercury	62761-08-01 07:55 G	24644256.68	24644256.83	24644256.99	0.0280	0.0112	
Mercury	62761-10-29 03:07 G	24644345.46	24644345.63	24644345.80	0.0279	0.0068	
Mercury	62762-01-25 22:34 G	24644434.37	24644434.44	24644434.52	0.0279	0.0251	
Venus	62767-09-02 03:50 G	24646479.46	24646479.66	24646479.87	0.0272	0.0081	
Venus	62768-04-18 08:10 G	24646708.66	24646708.84	24646709.03	0.0271	0.0130	
Moon	62775-04-14 01:55 G	24649260.47	24649260.58	24649260.73	0.0277	0.0234	
Earth	62775-04-14 04:34 G	24649260.60	24649260.69	24649260.80	0.0277	0.0250	*

Mercury	62776-08-30 01:41 G	24649764.49	24649764.57	24649764.67	0.0279	0.0215
Mercury	62776-11-26 14:38 G	24649852.98	24649853.11	24649853.25	0.0280	0.0066
Mercury	62777-02-23 03:22 G	24649941.51	24649941.64	24649941.77	0.0280	0.0081
Mercury	62777-05-22 15:50 G	24650030.08	24650030.16	24650030.24	0.0281	0.0227
Venus	62782-02-11 16:05 G	24651756.10	24651756.17	24651756.25	0.0287	0.0268
Venus	62782-09-29 11:46 G	24651985.78	24651985.99	24651986.20	0.0288	0.0015
Venus	62783-05-17 07:55 G	24652215.71	24652215.83	24652215.94	0.0288	0.0240
Earth	62789-10-18 23:17 G	24654562.24	24654562.47	24654562.71	0.0282	0.0078
Moon	62789-10-19 01:26 G	24654562.33	24654562.56	24654562.79	0.0282	0.0084 *
Mercury	62790-12-19 07:41 G	24654988.69	24654988.82	24654988.96	0.0280	0.0166
Mercury	62791-03-18 02:53 G	24655077.45	24655077.62	24655077.79	0.0279	0.0015
Mercury	62791-06-14 22:05 G	24655166.30	24655166.42	24655166.55	0.0279	0.0197
Venus	62796-07-28 05:17 G	24657036.67	24657036.72	24657036.80	0.0273	0.0259
Venus	62797-03-14 10:19 G	24657265.73	24657265.93	24657266.14	0.0272	0.0047
Venus	62797-10-29 14:53 G	24657494.96	24657495.12	24657495.30	0.0272	0.0166
Mars	62799-11-04 20:24 G	24658231.14	24658231.35	24658231.56	0.0272	0.0199
Earth	62805-04-20 22:48 G	24660225.22	24660225.45	24660225.69	0.0278	0.0078
Moon	62805-04-21 02:10 G	24660225.36	24660225.59	24660225.83	0.0278	0.0093 *
Mercury	62806-01-17 05:17 G	24660496.65	24660496.72	24660496.79	0.0279	0.0240
Mercury	62806-04-15 18:14 G	24660585.13	24660585.26	24660585.39	0.0280	0.0091
Mercury	62806-07-13 06:58 G	24660673.65	24660673.79	24660673.93	0.0280	0.0057
Mercury	62806-10-09 19:26 G	24660762.22	24660762.31	24660762.40	0.0280	0.0202
Venus	62811-08-25 03:07 G	24662542.49	24662542.63	24662542.76	0.0287	0.0220
Venus	62812-04-10 22:34 G	24662772.23	24662772.44	24662772.65	0.0287	0.0033
Venus	62812-11-26 18:00 G	24663002.25	24663002.25	24663002.28	0.0287	0.0287
Mars	62813-12-30 08:10 G	24663400.67	24663400.84	24663401.03	0.0287	0.0221
Moon	62819-10-26 19:26 G	24665527.24	24665527.31	24665527.40	0.0281	0.0263
Earth	62819-10-26 23:02 G	24665527.39	24665527.46	24665527.56	0.0281	0.0263 *
Mercury	62820-05-07 08:10 G	24665720.73	24665720.84	24665720.95	0.0280	0.0211
Mercury	62820-08-04 03:07 G	24665809.46	24665809.63	24665809.80	0.0279	0.0033

Mercury	62820-10-31 22:19 G	24665898.29	24665898.43	24665898.58	0.0279	0.0149
Venus	62826-02-07 07:55 G	24667822.73	24667822.83	24667822.95	0.0272	0.0231
Venus	62826-09-24 12:43 G	24668051.82	24668052.03	24668052.25	0.0272	0.0020
Venus	62827-05-11 17:02 G	24668281.07	24668281.21	24668281.36	0.0271	0.0191
Jupiter	62829-11-10 07:41 G	24669194.61	24669194.82	24669195.07	0.0272	0.0233
Moon	62834-04-15 09:07 G	24670811.70	24670811.88	24670812.08	0.0277	0.0168
Earth	62834-04-15 12:29 G	24670811.85	24670812.02	24670812.21	0.0277	0.0183 *
Mercury	62835-09-02 18:58 G	24671317.18	24671317.29	24671317.42	0.0280	0.0145
Mercury	62835-11-30 07:55 G	24671405.69	24671405.83	24671405.97	0.0280	0.0005
Mercury	62836-02-26 20:24 G	24671494.24	24671494.35	24671494.47	0.0280	0.0151
Venus	62841-03-06 05:31 G	24673328.58	24673328.73	24673328.89	0.0287	0.0194
Venus	62841-10-22 01:12 G	24673558.35	24673558.55	24673558.76	0.0288	0.0060
Earth	62848-10-20 07:41 G	24676113.57	24676113.82	24676114.07	0.0281	0.0010
Moon	62848-10-20 11:17 G	24676113.72	24676113.97	24676114.22	0.0281	0.0013 *
Mercury	62849-09-24 07:41 G	24676452.78	24676452.82	24676452.88	0.0280	0.0264
Mercury	62849-12-22 02:38 G	24676541.45	24676541.61	24676541.78	0.0279	0.0087
Mercury	62850-03-20 21:50 G	24676630.25	24676630.41	24676630.58	0.0279	0.0095
Mercury	62850-06-17 17:17 G	24676719.22	24676719.22	24676719.24	0.0279	0.0278
Venus	62855-08-20 14:10 G	24678608.95	24678609.09	24678609.24	0.0273	0.0198
Venus	62856-04-05 19:12 G	24678838.08	24678838.30	24678838.51	0.0272	0.0016
Venus	62856-11-20 23:46 G	24679067.38	24679067.49	24679067.61	0.0272	0.0226
Moon	62864-04-22 07:26 G	24681776.60	24681776.81	24681777.02	0.0278	0.0160
Earth	62864-04-22 07:41 G	24681776.62	24681776.82	24681777.03	0.0278	0.0147 *
Mercury	62865-01-19 22:48 G	24682049.34	24682049.45	24682049.56	0.0280	0.0168
Mercury	62865-04-18 11:31 G	24682137.84	24682137.98	24682138.12	0.0280	0.0020
Mercury	62865-07-16 00:14 G	24682226.39	24682226.51	24682226.63	0.0280	0.0128
Mercury	62865-10-12 12:43 G	24682315.00	24682315.03	24682315.06	0.0281	0.0273
Venus	62870-09-16 17:31 G	24684115.05	24684115.23	24684115.42	0.0287	0.0144
Venus	62871-05-04 13:12 G	24684344.86	24684345.05	24684345.25	0.0287	0.0109
Moon	62877-10-14 17:17 G	24686700.18	24686700.22	24686700.28	0.0282	0.0276

Earth	62877-10-14 20:38 G	24686700.30	24686700.36	24686700.44	0.0282	0.0269
Mercury	62879-05-11 03:36 G	24687273.50	24687273.65	24687273.81	0.0280	0.0126
Mercury	62879-08-07 22:48 G	24687362.28	24687362.45	24687362.62	0.0279	0.0053
Mercury	62879-11-04 18:00 G	24687451.17	24687451.25	24687451.35	0.0279	0.0236
Venus	62885-03-01 18:00 G	24689395.09	24689395.25	24689395.42	0.0272	0.0168
Venus	62885-10-16 22:48 G	24689624.24	24689624.45	24689624.66	0.0272	0.0044
Venus	62886-06-03 02:53 G	24689853.56	24689853.62	24689853.71	0.0271	0.0255
Mars	62888-03-30 12:58 G	24690519.96	24690520.04	24690520.15	0.0272	0.0257
Earth	62893-04-16 22:34 G	24692363.21	24692363.44	24692363.66	0.0277	0.0113
Moon	62893-04-16 23:02 G	24692363.25	24692363.46	24692363.68	0.0277	0.0098 *
Mercury	62894-06-08 23:46 G	24692781.41	24692781.49	24692781.58	0.0279	0.0219
Mercury	62894-09-05 12:43 G	24692869.89	24692870.03	24692870.17	0.0280	0.0070
Mercury	62894-12-03 01:26 G	24692958.42	24692958.56	24692958.69	0.0280	0.0078
Mercury	62895-03-01 13:55 G	24693047.00	24693047.08	24693047.16	0.0281	0.0223
Venus	62900-03-29 20:24 G	24694901.16	24694901.35	24694901.55	0.0287	0.0117
Venus	62900-11-14 16:05 G	24695130.98	24695131.17	24695131.36	0.0288	0.0137
Mars	62902-05-27 06:14 G	24695689.53	24695689.76	24695690.00	0.0288	0.0160
Moon	62907-10-23 17:46 G	24697664.99	24697665.24	24697665.49	0.0281	0.0062
Earth	62907-10-23 17:46 G	24697665.00	24697665.24	24697665.48	0.0281	0.0062 *
Mercury	62908-09-28 03:22 G	24698005.51	24698005.64	24698005.77	0.0280	0.0180
Mercury	62908-12-25 22:19 G	24698094.26	24698094.43	24698094.61	0.0279	0.0007
Mercury	62909-03-24 17:31 G	24698183.11	24698183.23	24698183.37	0.0279	0.0181
Venus	62914-09-13 00:00 G	24700181.32	24700181.50	24700181.69	0.0272	0.0134
Venus	62915-04-30 04:48 G	24700410.50	24700410.70	24700410.91	0.0272	0.0078
Moon	62923-04-25 13:26 G	24703327.94	24703328.06	24703328.21	0.0279	0.0231
Earth	62923-04-25 17:31 G	24703328.08	24703328.23	24703328.38	0.0279	0.0219 *
Mercury	62923-10-28 03:07 G	24703513.57	24703513.63	24703513.71	0.0279	0.0244
Mercury	62924-01-24 16:19 G	24703602.04	24703602.18	24703602.31	0.0280	0.0094
Mercury	62924-04-22 05:02 G	24703690.57	24703690.71	24703690.85	0.0280	0.0054
Mercury	62924-07-19 17:31 G	24703779.14	24703779.23	24703779.33	0.0281	0.0200

Venus	62929-10-10 09:07 G	24705687.67	24705687.88	24705688.08	0.0287	0.0066
Venus	62930-05-28 04:48 G	24705917.54	24705917.70	24705917.86	0.0287	0.0187
Moon	62936-10-17 09:22 G	24708251.73	24708251.89	24708252.07	0.0282	0.0197
Earth	62936-10-17 10:05 G	24708251.74	24708251.92	24708252.10	0.0282	0.0190 *
Mercury	62938-02-15 05:17 G	24708737.61	24708737.72	24708737.83	0.0280	0.0212
Mercury	62938-05-15 00:00 G	24708826.33	24708826.50	24708826.67	0.0279	0.0035
Mercury	62938-08-11 19:12 G	24708915.16	24708915.30	24708915.45	0.0279	0.0146
Venus	62944-03-25 05:02 G	24710967.52	24710967.71	24710967.91	0.0272	0.0103
Venus	62944-11-09 09:50 G	24711196.72	24711196.91	24711197.10	0.0272	0.0109
Earth	62952-04-19 08:38 G	24713914.62	24713914.86	24713915.10	0.0278	0.0041
Moon	62952-04-19 12:29 G	24713914.78	24713915.02	24713915.26	0.0278	0.0027 *
Mercury	62953-06-12 17:31 G	24714334.11	24714334.23	24714334.35	0.0280	0.0143
Mercury	62953-09-09 06:14 G	24714422.62	24714422.76	24714422.90	0.0280	0.0008
Mercury	62953-12-06 18:58 G	24714511.17	24714511.29	24714511.41	0.0280	0.0152
Venus	62959-04-22 12:14 G	24716473.80	24716474.01	24716474.22	0.0287	0.0039
Venus	62959-12-08 07:41 G	24716703.68	24716703.82	24716703.96	0.0288	0.0215
Moon	62966-10-25 02:10 G	24719216.38	24719216.59	24719216.81	0.0281	0.0139
Earth	62966-10-25 05:17 G	24719216.52	24719216.72	24719216.95	0.0281	0.0138 *
Mercury	62967-07-05 04:34 G	24719469.65	24719469.69	24719469.74	0.0280	0.0268
Mercury	62967-10-01 23:31 G	24719558.32	24719558.48	24719558.64	0.0279	0.0091
Mercury	62967-12-29 18:29 G	24719647.11	24719647.27	24719647.44	0.0279	0.0089
Mercury	62968-03-27 13:55 G	24719736.05	24719736.08	24719736.12	0.0278	0.0271
Venus	62973-10-05 10:34 G	24721753.74	24721753.94	24721754.15	0.0272	0.0070
Venus	62974-05-22 15:22 G	24721982.96	24721983.14	24721983.32	0.0272	0.0142
Moon	62981-04-14 07:41 G	24724501.75	24724501.82	24724501.92	0.0277	0.0260
Earth	62981-04-14 11:31 G	24724501.95	24724501.98	24724502.01	0.0277	0.0275
Mercury	62982-10-30 20:53 G	24725066.26	24725066.37	24725066.49	0.0280	0.0168
Mercury	62983-01-27 09:50 G	24725154.77	24725154.91	24725155.05	0.0280	0.0019
Mercury	62983-04-25 22:34 G	24725243.32	24725243.44	24725243.56	0.0281	0.0128
Mercury	62983-07-23 10:48 G	24725331.93	24725331.95	24725331.99	0.0281	0.0274

Venus	62988-03-17 05:31 G	24727030.62	24727030.73	24727030.85	0.0287	0.0239
Venus	62988-11-02 00:58 G	24727260.32	24727260.54	24727260.75	0.0287	0.0014
Venus	62989-06-19 20:38 G	24727490.28	24727490.36	24727490.44	0.0287	0.0266
Mars	62990-10-22 07:41 G	24727979.55	24727979.82	24727980.10	0.0287	0.0052
Earth	62995-10-19 23:46 G	24729803.26	24729803.49	24729803.72	0.0282	0.0111
Moon	62995-10-20 02:53 G	24729803.40	24729803.62	24729803.85	0.0282	0.0116 *
Mercury	62997-02-18 01:41 G	24730290.42	24730290.57	24730290.72	0.0280	0.0120
Mercury	62997-05-17 20:38 G	24730379.19	24730379.36	24730379.53	0.0279	0.0059
Mercury	62997-08-14 15:50 G	24730468.08	24730468.16	24730468.25	0.0279	0.0241

64TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 64th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	63002-09-01 12:00 G		24732310.92	24732311.00	24732311.09	0.0272	0.0247	
Venus	63003-04-18 16:48 G		24732539.99	24732540.20	24732540.41	0.0272	0.0036	
Venus	63003-12-03 21:07 G		24732769.23	24732769.38	24732769.55	0.0272	0.0175	
Earth	63011-04-22 19:12 G		24735466.06	24735466.30	24735466.55	0.0278	0.0032	
Moon	63011-04-22 20:38 G		24735466.11	24735466.36	24735466.61	0.0278	0.0043 *	
Mercury	63012-03-19 22:05 G		24735798.34	24735798.42	24735798.52	0.0279	0.0216	
Mercury	63012-06-16 11:02 G		24735886.83	24735886.96	24735887.10	0.0280	0.0068	
Mercury	63012-09-12 23:46 G		24735975.36	24735975.49	24735975.63	0.0280	0.0081	
Mercury	63012-12-10 12:29 G		24736063.94	24736064.02	24736064.10	0.0281	0.0226	
Venus	63017-09-28 07:55 G		24737816.70	24737816.83	24737816.98	0.0287	0.0213	

Venus	63018-05-16 03:36 G	24738046.44	24738046.65	24738046.86	0.0287	0.0039
Moon	63025-10-27 15:36 G	24740768.00	24740768.15	24740768.31	0.0281	0.0216
Earth	63025-10-27 18:14 G	24740768.11	24740768.26	24740768.43	0.0281	0.0215 *
Mercury	63026-07-09 00:43 G	24741022.41	24741022.53	24741022.67	0.0280	0.0178
Mercury	63026-10-05 19:55 G	24741111.16	24741111.33	24741111.50	0.0279	0.0004
Mercury	63027-01-02 14:53 G	24741200.00	24741200.12	24741200.26	0.0279	0.0182
Venus	63032-03-13 16:34 G	24743097.06	24743097.19	24743097.32	0.0272	0.0217
Venus	63032-10-28 21:36 G	24743326.19	24743326.40	24743326.61	0.0272	0.0005
Venus	63033-06-15 02:10 G	24743555.46	24743555.59	24743555.73	0.0272	0.0206
Mars	63034-12-01 21:50 G	24744090.20	24744090.41	24744090.64	0.0272	0.0191
Moon	63040-04-16 18:43 G	24746053.12	24746053.28	24746053.45	0.0278	0.0192
Earth	63040-04-16 20:24 G	24746053.19	24746053.35	24746053.52	0.0278	0.0205 *
Mercury	63041-08-07 01:26 G	24746530.49	24746530.56	24746530.63	0.0280	0.0244
Mercury	63041-11-03 14:24 G	24746618.97	24746619.10	24746619.23	0.0280	0.0094
Mercury	63042-01-31 03:07 G	24746707.50	24746707.63	24746707.77	0.0280	0.0055
Mercury	63042-04-29 15:50 G	24746796.06	24746796.16	24746796.26	0.0281	0.0200
Venus	63047-04-10 20:38 G	24748603.19	24748603.36	24748603.54	0.0287	0.0163
Venus	63047-11-26 16:05 G	24748832.97	24748833.17	24748833.38	0.0287	0.0090
Earth	63054-10-22 13:26 G	24751354.81	24751355.06	24751355.31	0.0282	0.0032
Moon	63054-10-22 16:19 G	24751354.93	24751355.18	24751355.43	0.0282	0.0034 *
Mercury	63055-11-26 03:22 G	24751754.53	24751754.64	24751754.75	0.0280	0.0204
Mercury	63056-02-22 22:05 G	24751843.26	24751843.42	24751843.60	0.0279	0.0028
Mercury	63056-05-21 17:17 G	24751932.08	24751932.22	24751932.37	0.0279	0.0154
Venus	63061-09-23 23:46 G	24753883.34	24753883.49	24753883.65	0.0272	0.0182
Venus	63062-05-11 04:34 G	24754112.48	24754112.69	24754112.90	0.0272	0.0030
Venus	63062-12-26 08:38 G	24754341.77	24754341.86	24754341.96	0.0272	0.0240
Moon	63070-04-24 02:53 G	24757017.39	24757017.62	24757017.85	0.0278	0.0112
Earth	63070-04-24 05:31 G	24757017.51	24757017.73	24757017.96	0.0278	0.0105 *
Mercury	63071-03-23 15:50 G	24757351.04	24757351.16	24757351.29	0.0279	0.0141
Mercury	63071-06-20 04:48 G	24757439.56	24757439.70	24757439.84	0.0280	0.0008

Mercury	63071-09-16 17:17 G	24757528.11	24757528.22	24757528.34	0.0280	0.0154
Venus	63076-10-20 23:17 G	24759389.28	24759389.47	24759389.65	0.0287	0.0137
Venus	63077-06-07 18:43 G	24759619.09	24759619.28	24759619.48	0.0288	0.0117
Mars	63079-03-19 05:31 G	24760268.46	24760268.73	24760269.01	0.0288	0.0014
Mercury	63085-04-14 02:10 G	24762486.54	24762486.59	24762486.65	0.0280	0.0265
Mercury	63085-07-11 21:07 G	24762575.22	24762575.38	24762575.54	0.0279	0.0088
Mercury	63085-10-08 16:05 G	24762664.01	24762664.17	24762664.33	0.0279	0.0091
Mercury	63086-01-05 11:31 G	24762752.95	24762752.98	24762753.01	0.0279	0.0273
Venus	63091-04-06 03:22 G	24764669.47	24764669.64	24764669.82	0.0272	0.0152
Venus	63091-11-21 08:24 G	24764898.64	24764898.85	24764899.06	0.0272	0.0059
Venus	63092-07-07 12:58 G	24765128.01	24765128.04	24765128.06	0.0272	0.0269
Earth	63099-04-19 04:48 G	24767604.49	24767604.70	24767604.91	0.0278	0.0136
Moon	63099-04-19 06:58 G	24767604.58	24767604.79	24767605.00	0.0278	0.0123 *
Mercury	63100-08-10 18:43 G	24768083.17	24768083.28	24768083.39	0.0280	0.0172
Mercury	63100-11-07 07:41 G	24768171.68	24768171.82	24768171.96	0.0280	0.0024
Mercury	63101-02-03 20:24 G	24768260.22	24768260.35	24768260.47	0.0281	0.0124
Mercury	63101-05-03 08:53 G	24768348.83	24768348.87	24768348.91	0.0281	0.0269
Venus	63106-05-04 10:34 G	24770175.74	24770175.94	24770176.15	0.0287	0.0089
Venus	63106-12-20 06:14 G	24770405.59	24770405.76	24770405.94	0.0287	0.0164
Moon	63113-10-24 23:46 G	24772906.24	24772906.49	24772906.75	0.0281	0.0047
Earth	63113-10-25 01:55 G	24772906.33	24772906.58	24772906.82	0.0281	0.0045 *
Mercury	63114-11-29 23:31 G	24773307.33	24773307.48	24773307.64	0.0280	0.0114
Mercury	63115-02-26 18:29 G	24773396.11	24773396.27	24773396.44	0.0279	0.0065
Mercury	63115-05-26 13:55 G	24773485.00	24773485.08	24773485.16	0.0279	0.0246
Venus	63120-10-17 11:31 G	24775455.79	24775455.98	24775456.17	0.0272	0.0116
Venus	63121-06-03 16:05 G	24775684.97	24775685.17	24775685.36	0.0272	0.0095
Mars	63123-04-29 09:07 G	24776379.60	24776379.88	24776380.17	0.0271	0.0104
Moon	63129-04-26 11:02 G	24778568.80	24778568.96	24778569.15	0.0278	0.0183
Earth	63129-04-26 14:24 G	24778568.92	24778569.10	24778569.30	0.0278	0.0174 *
Mercury	63129-12-28 20:10 G	24778815.26	24778815.34	24778815.43	0.0279	0.0218

Mercury	63130-03-27 09:07 G	24778903.75	24778903.88	24778904.02	0.0279	0.0069
Mercury	63130-06-23 21:50 G	24778992.28	24778992.41	24778992.55	0.0280	0.0079
Mercury	63130-09-20 10:34 G	24779080.86	24779080.94	24779081.02	0.0280	0.0223
Venus	63135-11-14 12:58 G	24780961.83	24780962.04	24780962.25	0.0287	0.0063
Venus	63136-07-01 08:24 G	24781191.70	24781191.85	24781192.02	0.0288	0.0191
Earth	63142-10-19 03:36 G	24783492.52	24783492.65	24783492.78	0.0282	0.0240
Moon	63142-10-19 05:46 G	24783492.62	24783492.74	24783492.87	0.0282	0.0239 *
Mercury	63144-04-17 22:05 G	24784039.29	24784039.42	24784039.55	0.0280	0.0179
Mercury	63144-07-15 16:48 G	24784128.03	24784128.20	24784128.38	0.0279	0.0007
Mercury	63144-10-12 12:00 G	24784216.87	24784217.00	24784217.14	0.0279	0.0180
Venus	63150-04-29 13:55 G	24786241.88	24786242.08	24786242.28	0.0272	0.0089
Venus	63150-12-14 18:29 G	24786471.09	24786471.27	24786471.46	0.0272	0.0122
Earth	63158-04-21 11:46 G	24789155.75	24789155.99	24789156.22	0.0278	0.0070
Moon	63158-04-21 15:07 G	24789155.89	24789156.13	24789156.38	0.0278	0.0056 *
Mercury	63159-05-17 22:34 G	24789547.39	24789547.44	24789547.50	0.0280	0.0254
Mercury	63159-08-14 11:46 G	24789635.86	24789635.99	24789636.12	0.0280	0.0104
Mercury	63159-11-11 00:29 G	24789724.38	24789724.52	24789724.66	0.0280	0.0044
Mercury	63160-02-07 13:12 G	24789812.95	24789813.05	24789813.15	0.0281	0.0190
Venus	63164-10-09 03:36 G	24791518.59	24791518.65	24791518.73	0.0287	0.0269
Venus	63165-05-26 23:31 G	24791748.27	24791748.48	24791748.69	0.0287	0.0018
Venus	63166-01-11 19:12 G	24791978.18	24791978.30	24791978.42	0.0287	0.0236
Mars	63167-08-14 22:48 G	24792558.20	24792558.45	24792558.72	0.0287	0.0109
Moon	63172-10-26 08:10 G	24794457.63	24794457.84	24794458.07	0.0281	0.0122
Earth	63172-10-26 11:46 G	24794457.77	24794457.99	24794458.22	0.0281	0.0117 *
Mercury	63173-09-05 00:29 G	24794771.40	24794771.52	24794771.63	0.0280	0.0206
Mercury	63173-12-02 19:12 G	24794860.13	24794860.30	24794860.47	0.0280	0.0029
Mercury	63174-03-01 14:24 G	24794948.96	24794949.10	24794949.24	0.0279	0.0151
Venus	63179-03-25 17:17 G	24796799.18	24796799.22	24796799.28	0.0272	0.0263
Venus	63179-11-09 22:05 G	24797028.22	24797028.42	24797028.63	0.0272	0.0053
Venus	63180-06-26 02:24 G	24797257.43	24797257.60	24797257.77	0.0272	0.0158

Earth	63188-04-27 21:50 G	24800120.30	24800120.41	24800120.54	0.0278	0.0241
Moon	63188-04-27 22:19 G	24800120.33	24800120.43	24800120.54	0.0278	0.0247 *
Mercury	63188-12-31 13:12 G	24800367.94	24800368.05	24800368.18	0.0279	0.0149
Mercury	63189-03-30 02:10 G	24800456.45	24800456.59	24800456.73	0.0279	0.0005
Mercury	63189-06-26 14:53 G	24800545.00	24800545.12	24800545.24	0.0280	0.0145
Venus	63194-04-21 05:46 G	24802304.64	24802304.74	24802304.86	0.0287	0.0244
Venus	63194-12-07 01:12 G	24802534.34	24802534.55	24802534.77	0.0287	0.0009
Venus	63195-07-24 20:38 G	24802764.28	24802764.36	24802764.46	0.0288	0.0261
Earth	63201-10-20 12:00 G	24805043.81	24805044.00	24805044.21	0.0282	0.0171
Moon	63201-10-20 15:22 G	24805043.95	24805044.14	24805044.36	0.0282	0.0169 *
Mercury	63203-01-22 22:34 G	24805503.41	24805503.44	24805503.47	0.0280	0.0274
Mercury	63203-04-21 17:17 G	24805592.06	24805592.22	24805592.38	0.0280	0.0098
Mercury	63203-07-19 12:14 G	24805680.85	24805681.01	24805681.18	0.0279	0.0082
Mercury	63203-10-16 07:41 G	24805769.77	24805769.82	24805769.87	0.0279	0.0263
Venus	63208-10-04 18:43 G	24807585.19	24807585.28	24807585.39	0.0272	0.0238
Venus	63209-05-21 23:46 G	24807814.28	24807814.49	24807814.70	0.0272	0.0028
Venus	63210-01-06 04:05 G	24808043.52	24808043.67	24808043.83	0.0272	0.0183
Mars	63211-09-23 03:50 G	24808668.36	24808668.66	24808668.97	0.0272	0.0040
Moon	63217-04-22 16:19 G	24810706.93	24810707.18	24810707.43	0.0278	0.0002
Earth	63217-04-22 16:48 G	24810706.96	24810707.20	24810707.45	0.0278	0.0010 *
Mercury	63218-05-20 15:22 G	24811100.04	24811100.14	24811100.24	0.0280	0.0189
Mercury	63218-08-17 04:19 G	24811188.54	24811188.68	24811188.82	0.0280	0.0041
Mercury	63218-11-13 17:02 G	24811277.08	24811277.21	24811277.34	0.0280	0.0107
Mercury	63219-02-10 05:31 G	24811365.67	24811365.73	24811365.79	0.0281	0.0252
Venus	63223-11-01 14:24 G	24813090.96	24813091.10	24813091.25	0.0287	0.0203
Venus	63224-06-18 10:19 G	24813320.72	24813320.93	24813321.14	0.0287	0.0050
Moon	63231-10-28 18:58 G	24816009.12	24816009.29	24816009.47	0.0281	0.0190
Earth	63231-10-28 19:12 G	24816009.12	24816009.30	24816009.49	0.0281	0.0183 *
Mercury	63232-09-07 19:26 G	24816324.16	24816324.31	24816324.46	0.0280	0.0128
Mercury	63232-12-05 14:24 G	24816412.93	24816413.10	24816413.27	0.0280	0.0051

Mercury	63233-03-04 09:36 G	24816501.81	24816501.90	24816502.00	0.0279	0.0232
Venus	63238-04-17 02:53 G	24818371.49	24818371.62	24818371.77	0.0272	0.0202
Venus	63238-12-02 07:41 G	24818600.61	24818600.82	24818601.03	0.0272	0.0009
Venus	63239-07-19 11:31 G	24818829.87	24818829.98	24818830.12	0.0272	0.0219
Earth	63246-04-17 13:26 G	24821293.98	24821294.06	24821294.16	0.0276	0.0257
Moon	63246-04-17 14:38 G	24821294.00	24821294.11	24821294.21	0.0276	0.0246 *
Mercury	63247-10-07 17:02 G	24821832.14	24821832.21	24821832.29	0.0278	0.0232
Mercury	63248-01-04 06:00 G	24821920.62	24821920.75	24821920.89	0.0279	0.0084
Mercury	63248-04-01 18:43 G	24822009.15	24822009.28	24822009.42	0.0279	0.0063
Mercury	63248-06-29 07:12 G	24822097.72	24822097.80	24822097.90	0.0280	0.0208
Venus	63253-05-13 16:48 G	24823877.04	24823877.20	24823877.37	0.0287	0.0176
Venus	63253-12-29 12:14 G	24824106.81	24824107.01	24824107.22	0.0287	0.0076
Mars	63256-01-08 04:19 G	24824846.46	24824846.68	24824846.94	0.0288	0.0148
Moon	63260-10-21 18:43 G	24826595.05	24826595.28	24826595.53	0.0282	0.0101
Earth	63260-10-21 18:43 G	24826595.06	24826595.28	24826595.52	0.0282	0.0105 *
Mercury	63262-01-25 17:02 G	24827056.10	24827056.21	24827056.33	0.0280	0.0199
Mercury	63262-04-24 12:00 G	24827144.83	24827145.00	24827145.17	0.0280	0.0022
Mercury	63262-07-22 06:58 G	24827233.66	24827233.79	24827233.94	0.0279	0.0159
Venus	63267-10-28 03:22 G	24829157.49	24829157.64	24829157.80	0.0272	0.0179
Venus	63268-06-13 08:10 G	24829386.63	24829386.84	24829387.05	0.0272	0.0031
Venus	63269-01-28 12:29 G	24829615.93	24829616.02	24829616.12	0.0272	0.0241
Moon	63276-04-23 16:48 G	24832257.96	24832258.20	24832258.44	0.0278	0.0055
Earth	63276-04-23 20:38 G	24832258.12	24832258.36	24832258.60	0.0278	0.0051 *
Mercury	63277-02-23 18:29 G	24832564.26	24832564.27	24832564.29	0.0279	0.0277
Mercury	63277-05-23 07:41 G	24832652.69	24832652.82	24832652.95	0.0280	0.0128
Mercury	63277-08-19 20:24 G	24832741.21	24832741.35	24832741.50	0.0280	0.0021
Mercury	63277-11-16 09:07 G	24832829.77	24832829.88	24832829.99	0.0280	0.0165
Venus	63282-11-23 23:46 G	24834663.31	24834663.49	24834663.68	0.0287	0.0139
Venus	63283-07-11 19:26 G	24834893.12	24834893.31	24834893.51	0.0287	0.0113
Earth	63290-10-29 23:17 G	24837560.36	24837560.47	24837560.61	0.0281	0.0243

Moon	63290-10-30 02:53 G	24837560.51	24837560.62	24837560.73	0.0281	0.0252 *
Mercury	63291-06-14 18:43 G	24837788.19	24837788.28	24837788.37	0.0280	0.0234
Mercury	63291-09-11 13:26 G	24837876.90	24837877.06	24837877.23	0.0280	0.0057
Mercury	63291-12-09 08:38 G	24837965.71	24837965.86	24837966.02	0.0280	0.0124
Venus	63297-05-09 11:31 G	24839943.80	24839943.98	24839944.16	0.0272	0.0143
Venus	63297-12-24 16:05 G	24840172.97	24840173.17	24840173.38	0.0272	0.0068
Mars	63300-02-17 10:34 G	24840957.64	24840957.94	24840958.25	0.0271	0.0042
Earth	63305-04-19 17:46 G	24842845.08	24842845.24	24842845.42	0.0276	0.0197
Moon	63305-04-19 21:36 G	24842845.23	24842845.40	24842845.58	0.0276	0.0188 *
Mercury	63306-10-11 09:36 G	24843384.79	24843384.90	24843385.01	0.0278	0.0170
Mercury	63307-01-07 22:34 G	24843473.29	24843473.44	24843473.58	0.0279	0.0024
Mercury	63307-04-06 11:02 G	24843561.84	24843561.96	24843562.09	0.0279	0.0123
Mercury	63307-07-03 23:31 G	24843650.45	24843650.48	24843650.53	0.0280	0.0266
Venus	63312-06-06 02:10 G	24845449.40	24845449.59	24845449.79	0.0287	0.0112
Venus	63313-01-21 21:36 G	24845679.21	24845679.40	24845679.58	0.0287	0.0140
Moon	63319-10-24 19:12 G	24848146.05	24848146.30	24848146.55	0.0282	0.0038
Earth	63319-10-24 22:48 G	24848146.20	24848146.45	24848146.69	0.0282	0.0045 *
Mercury	63321-01-29 11:02 G	24848608.81	24848608.96	24848609.11	0.0280	0.0129
Mercury	63321-04-28 06:00 G	24848697.58	24848697.75	24848697.92	0.0280	0.0049
Mercury	63321-07-26 01:12 G	24848786.46	24848786.55	24848786.65	0.0279	0.0231
Venus	63326-11-20 11:02 G	24850729.77	24850729.96	24850730.15	0.0272	0.0122
Venus	63327-07-07 15:36 G	24850958.95	24850959.15	24850959.35	0.0272	0.0089
Moon	63335-04-26 21:36 G	24853809.19	24853809.40	24853809.63	0.0278	0.0108
Earth	63335-04-26 22:34 G	24853809.22	24853809.44	24853809.67	0.0278	0.0107 *
Mercury	63336-02-28 10:34 G	24854116.86	24854116.94	24854117.03	0.0279	0.0220
Mercury	63336-05-26 23:46 G	24854205.35	24854205.49	24854205.62	0.0279	0.0072
Mercury	63336-08-23 12:29 G	24854293.88	24854294.02	24854294.15	0.0280	0.0075
Mercury	63336-11-20 00:58 G	24854382.46	24854382.54	24854382.63	0.0280	0.0220
Venus	63341-12-17 07:41 G	24856235.62	24856235.82	24856236.03	0.0287	0.0078
Venus	63342-08-04 03:22 G	24856465.48	24856465.64	24856465.82	0.0287	0.0175

Mars	63344-06-03 22:05 G	24857135.23	24857135.42	24857135.63	0.0287	0.0203
Mercury	63350-06-18 12:14 G	24859340.88	24859341.01	24859341.15	0.0280	0.0169
Mercury	63350-09-15 07:12 G	24859429.63	24859429.80	24859429.97	0.0280	0.0010
Mercury	63350-12-13 02:24 G	24859518.48	24859518.60	24859518.73	0.0280	0.0191
Venus	63356-06-01 18:43 G	24861516.08	24861516.28	24861516.48	0.0272	0.0086
Venus	63357-01-16 23:17 G	24861745.28	24861745.47	24861745.66	0.0272	0.0124
Earth	63364-04-20 20:53 G	24864396.17	24864396.37	24864396.59	0.0276	0.0141
Moon	63364-04-20 22:05 G	24864396.21	24864396.42	24864396.65	0.0276	0.0134 *
Mercury	63365-07-17 12:43 G	24864848.99	24864849.03	24864849.08	0.0278	0.0259
Mercury	63365-10-14 01:41 G	24864937.45	24864937.57	24864937.71	0.0278	0.0112
Mercury	63366-01-10 14:38 G	24865025.97	24865026.11	24865026.25	0.0279	0.0035
Mercury	63366-04-09 03:07 G	24865114.53	24865114.63	24865114.74	0.0279	0.0179
Venus	63371-06-29 10:34 G	24867021.73	24867021.94	24867022.15	0.0287	0.0049
Venus	63372-02-14 05:46 G	24867251.60	24867251.74	24867251.90	0.0287	0.0202
Moon	63378-10-25 22:19 G	24869697.19	24869697.43	24869697.67	0.0282	0.0020
Earth	63378-10-26 00:14 G	24869697.27	24869697.51	24869697.76	0.0282	0.0011 *
Mercury	63379-11-05 09:36 G	24870072.83	24870072.90	24870072.99	0.0281	0.0242
Mercury	63380-02-02 04:34 G	24870161.53	24870161.69	24870161.86	0.0280	0.0064
Mercury	63380-04-30 23:31 G	24870250.33	24870250.48	24870250.64	0.0280	0.0116
Venus	63385-12-12 17:46 G	24872302.04	24872302.24	24872302.45	0.0272	0.0066
Venus	63386-07-29 22:19 G	24872531.25	24872531.43	24872531.61	0.0272	0.0144
Mars	63388-07-13 08:53 G	24873245.58	24873245.87	24873246.17	0.0271	0.0076
Earth	63394-04-28 00:00 G	24875360.31	24875360.50	24875360.71	0.0277	0.0161
Moon	63394-04-28 03:07 G	24875360.45	24875360.63	24875360.84	0.0277	0.0158 *
Mercury	63395-03-03 02:38 G	24875669.50	24875669.61	24875669.73	0.0279	0.0163
Mercury	63395-05-30 15:36 G	24875758.01	24875758.15	24875758.29	0.0279	0.0017
Mercury	63395-08-27 04:05 G	24875846.55	24875846.67	24875846.80	0.0280	0.0130
Mercury	63395-11-23 16:34 G	24875935.17	24875935.19	24875935.22	0.0280	0.0273
Venus	63400-05-24 19:41 G	24877578.24	24877578.32	24877578.39	0.0287	0.0268
Venus	63401-01-09 14:53 G	24877807.91	24877808.12	24877808.33	0.0287	0.0018

Venus	63401-08-27 10:19 G	24878037.82	24878037.93	24878038.06	0.0287	0.0234
Earth	63407-10-21 09:07 G	24880283.80	24880283.88	24880283.99	0.0283	0.0262
Moon	63407-10-21 10:34 G	24880283.84	24880283.94	24880284.07	0.0283	0.0253 *
Mercury	63409-06-22 05:17 G	24880893.57	24880893.72	24880893.88	0.0280	0.0108
Mercury	63409-09-19 00:14 G	24880982.35	24880982.51	24880982.68	0.0280	0.0072
Mercury	63409-12-16 19:41 G	24881071.25	24881071.32	24881071.39	0.0280	0.0254
Venus	63414-11-08 19:55 G	24882859.24	24882859.33	24882859.44	0.0273	0.0242
Venus	63415-06-26 01:12 G	24883088.34	24883088.55	24883088.76	0.0272	0.0031
Venus	63416-02-10 05:46 G	24883317.58	24883317.74	24883317.90	0.0272	0.0179
Moon	63423-04-23 20:24 G	24885947.11	24885947.35	24885947.58	0.0276	0.0083
Earth	63423-04-23 23:03 G	24885947.24	24885947.46	24885947.70	0.0276	0.0086 *
Mercury	63424-07-21 04:48 G	24886401.61	24886401.70	24886401.80	0.0278	0.0201
Mercury	63424-10-17 17:46 G	24886490.10	24886490.24	24886490.38	0.0278	0.0055
Mercury	63425-01-14 06:29 G	24886578.64	24886578.77	24886578.91	0.0279	0.0091
Mercury	63425-04-12 18:58 G	24886667.22	24886667.29	24886667.37	0.0279	0.0234
Venus	63429-12-04 23:17 G	24888364.36	24888364.47	24888364.60	0.0286	0.0236
Venus	63430-07-22 18:29 G	24888594.06	24888594.27	24888594.48	0.0287	0.0013
Venus	63431-03-09 13:41 G	24888823.99	24888824.07	24888824.16	0.0287	0.0263
Mars	63432-10-28 18:00 G	24889423.08	24889423.25	24889423.43	0.0287	0.0223
Earth	63437-10-28 00:58 G	24891248.30	24891248.54	24891248.79	0.0282	0.0063
Moon	63437-10-28 03:51 G	24891248.43	24891248.66	24891248.90	0.0282	0.0078 *
Mercury	63438-11-09 02:53 G	24891625.50	24891625.62	24891625.75	0.0281	0.0180
Mercury	63439-02-05 21:51 G	24891714.24	24891714.41	24891714.58	0.0280	0.0002
Mercury	63439-05-05 16:48 G	24891803.08	24891803.20	24891803.34	0.0280	0.0180
Venus	63444-05-20 18:43 G	24893645.17	24893645.28	24893645.41	0.0273	0.0222
Venus	63445-01-05 00:00 G	24893874.28	24893874.50	24893874.71	0.0272	0.0012
Venus	63445-08-22 04:19 G	24894103.54	24894103.68	24894103.83	0.0272	0.0199
Earth	63453-04-30 01:12 G	24896911.41	24896911.55	24896911.71	0.0277	0.0214
Moon	63453-04-30 03:51 G	24896911.51	24896911.66	24896911.83	0.0277	0.0209 *
Mercury	63453-12-08 05:31 G	24897133.68	24897133.73	24897133.78	0.0278	0.0256

Mercury	63454-03-06 18:29 G	24897222.14	24897222.27	24897222.40	0.0279	0.0108
Mercury	63454-06-03 07:27 G	24897310.67	24897310.81	24897310.95	0.0279	0.0039
Mercury	63454-08-30 19:55 G	24897399.23	24897399.33	24897399.44	0.0280	0.0182
Venus	63459-06-17 02:24 G	24899150.46	24899150.60	24899150.75	0.0287	0.0209
Venus	63460-02-01 21:36 G	24899380.20	24899380.40	24899380.62	0.0287	0.0042
Moon	63466-10-22 05:03 G	24901834.54	24901834.71	24901834.90	0.0283	0.0198
Earth	63466-10-22 08:24 G	24901834.70	24901834.85	24901835.02	0.0283	0.0212 *
Mercury	63468-03-28 03:07 G	24902357.54	24902357.63	24902357.74	0.0281	0.0228
Mercury	63468-06-24 22:05 G	24902446.25	24902446.42	24902446.59	0.0280	0.0050
Mercury	63468-09-21 17:03 G	24902535.07	24902535.21	24902535.37	0.0280	0.0131
Venus	63473-12-01 01:41 G	24904431.42	24904431.57	24904431.73	0.0273	0.0187
Venus	63474-07-18 06:58 G	24904660.58	24904660.79	24904661.00	0.0273	0.0024
Venus	63475-03-04 11:17 G	24904889.88	24904889.97	24904890.09	0.0272	0.0235
Mars	63476-12-08 07:55 G	24905534.58	24905534.83	24905535.10	0.0272	0.0145
Moon	63482-04-24 22:34 G	24907498.21	24907498.44	24907498.68	0.0276	0.0030
Earth	63482-04-25 01:41 G	24907498.33	24907498.57	24907498.81	0.0276	0.0031 *
Mercury	63483-07-24 21:07 G	24907954.26	24907954.38	24907954.50	0.0278	0.0143
Mercury	63483-10-21 09:51 G	24908042.77	24908042.91	24908043.06	0.0278	0.0010
Mercury	63484-01-17 22:34 G	24908131.32	24908131.44	24908131.56	0.0279	0.0147
Venus	63488-12-27 07:27 G	24909936.65	24909936.81	24909936.98	0.0286	0.0174
Venus	63489-08-14 02:24 G	24910166.39	24910166.60	24910166.80	0.0286	0.0074
Earth	63496-10-29 00:58 G	24912799.32	24912799.54	24912799.77	0.0282	0.0115
Moon	63496-10-29 04:05 G	24912799.45	24912799.67	24912799.90	0.0282	0.0131 *
Mercury	63497-11-11 19:55 G	24913178.18	24913178.33	24913178.48	0.0281	0.0119
Mercury	63498-02-08 14:53 G	24913266.96	24913267.12	24913267.29	0.0280	0.0060
Mercury	63498-05-08 10:05 G	24913355.84	24913355.92	24913356.01	0.0280	0.0242
Venus	63503-06-14 00:43 G	24915217.37	24915217.53	24915217.70	0.0273	0.0167
Venus	63504-01-29 05:46 G	24915446.53	24915446.74	24915446.95	0.0272	0.0044
Venus	63504-09-14 10:19 G	24915675.86	24915675.93	24915676.01	0.0272	0.0253
Moon	63512-05-02 01:12 G	24918462.47	24918462.55	24918462.65	0.0277	0.0257

Earth	63512-05-02 02:53 G	24918462.57	24918462.62	24918462.69	0.0277	0.0267	*
Mercury	63512-12-11 21:22 G	24918686.30	24918686.39	24918686.50	0.0278	0.0200	
Mercury	63513-03-10 10:19 G	24918774.80	24918774.93	24918775.07	0.0279	0.0054	
Mercury	63513-06-06 23:17 G	24918863.33	24918863.47	24918863.60	0.0279	0.0093	
Mercury	63513-09-03 11:46 G	24918951.92	24918951.99	24918952.06	0.0280	0.0236	
Venus	63518-07-10 09:36 G	24920722.72	24920722.90	24920723.09	0.0286	0.0148	
Venus	63519-02-25 04:48 G	24920952.50	24920952.70	24920952.90	0.0287	0.0101	
Mars	63521-03-24 21:22 G	24921711.27	24921711.39	24921711.53	0.0287	0.0255	
Moon	63525-10-24 05:17 G	24923385.52	24923385.72	24923385.93	0.0283	0.0147	
Earth	63525-10-24 07:41 G	24923385.63	24923385.82	24923386.03	0.0283	0.0162	*
Mercury	63527-04-01 19:55 G	24923910.20	24923910.33	24923910.47	0.0281	0.0170	
Mercury	63527-06-29 14:53 G	24923998.95	24923999.12	24923999.29	0.0280	0.0011	
Mercury	63527-09-26 10:05 G	24924087.80	24924087.92	24924088.05	0.0280	0.0191	
Venus	63532-12-24 07:27 G	24926003.62	24926003.81	24926003.99	0.0273	0.0132	
Venus	63533-08-10 12:29 G	24926232.82	24926233.02	24926233.23	0.0273	0.0079	
Earth	63541-04-27 04:05 G	24929049.43	24929049.67	24929049.92	0.0276	0.0025	
Moon	63541-04-27 05:31 G	24929049.50	24929049.73	24929049.97	0.0276	0.0022	*
Mercury	63542-05-01 00:15 G	24929418.44	24929418.51	24929418.59	0.0278	0.0232	
Mercury	63542-07-28 13:12 G	24929506.92	24929507.05	24929507.19	0.0278	0.0085	
Mercury	63542-10-25 02:10 G	24929595.45	24929595.59	24929595.72	0.0278	0.0060	
Mercury	63543-01-21 14:39 G	24929684.02	24929684.11	24929684.20	0.0279	0.0203	
Venus	63548-01-20 16:05 G	24931508.98	24931509.17	24931509.37	0.0286	0.0110	
Venus	63548-09-06 10:48 G	24931738.77	24931738.95	24931739.14	0.0286	0.0138	
Moon	63555-10-31 23:46 G	24934350.30	24934350.49	24934350.69	0.0282	0.0183	
Earth	63555-11-01 01:41 G	24934350.38	24934350.57	24934350.77	0.0282	0.0168	*
Mercury	63556-08-18 18:15 G	24934642.18	24934642.26	24934642.36	0.0281	0.0234	
Mercury	63556-11-15 13:12 G	24934730.88	24934731.05	24934731.21	0.0281	0.0057	
Mercury	63557-02-12 08:10 G	24934819.69	24934819.84	24934820.00	0.0280	0.0123	
Venus	63562-07-06 06:29 G	24936789.59	24936789.77	24936789.97	0.0273	0.0112	
Venus	63563-02-20 11:46 G	24937018.80	24937018.99	24937019.19	0.0272	0.0100	

Mars	63565-05-04 01:55 G	24937822.35	24937822.58	24937822.83	0.0272	0.0170
Moon	63570-04-21 15:22 G	24939636.02	24939636.14	24939636.28	0.0276	0.0235
Earth	63570-04-21 17:17 G	24939636.11	24939636.22	24939636.36	0.0276	0.0234 *
Mercury	63571-12-15 13:41 G	24940238.95	24940239.07	24940239.20	0.0278	0.0141
Mercury	63572-03-13 02:39 G	24940327.47	24940327.61	24940327.75	0.0279	0.0005
Mercury	63572-06-09 15:22 G	24940416.02	24940416.14	24940416.26	0.0279	0.0149
Venus	63577-08-01 18:00 G	24942295.05	24942295.25	24942295.46	0.0286	0.0086
Venus	63578-03-19 12:58 G	24942524.87	24942525.04	24942525.22	0.0287	0.0164
Earth	63584-10-25 07:41 G	24944936.59	24944936.82	24944937.05	0.0283	0.0110
Moon	63584-10-25 09:36 G	24944936.67	24944936.90	24944937.12	0.0283	0.0095 *
Mercury	63586-04-04 12:58 G	24945462.89	24945463.04	24945463.20	0.0281	0.0110
Mercury	63586-07-02 07:55 G	24945551.67	24945551.83	24945552.00	0.0280	0.0069
Mercury	63586-09-29 03:07 G	24945640.56	24945640.63	24945640.71	0.0280	0.0252
Venus	63592-01-16 13:12 G	24947575.85	24947576.05	24947576.25	0.0273	0.0077
Venus	63592-09-01 18:29 G	24947805.09	24947805.27	24947805.45	0.0273	0.0134
Earth	63600-04-28 07:41 G	24950600.59	24950600.82	24950601.06	0.0276	0.0083
Moon	63600-04-28 11:31 G	24950600.75	24950600.98	24950601.22	0.0276	0.0076 *
Mercury	63601-05-03 16:48 G	24950971.09	24950971.20	24950971.31	0.0278	0.0171
Mercury	63601-07-31 05:46 G	24951059.60	24951059.74	24951059.88	0.0278	0.0025
Mercury	63601-10-27 18:29 G	24951148.14	24951148.27	24951148.39	0.0279	0.0119
Mercury	63602-01-24 06:43 G	24951236.74	24951236.78	24951236.83	0.0279	0.0262
Venus	63607-02-12 01:41 G	24953081.36	24953081.57	24953081.78	0.0286	0.0045
Venus	63607-09-29 20:24 G	24953311.20	24953311.35	24953311.50	0.0286	0.0203
Moon	63614-11-02 00:43 G	24955901.40	24955901.53	24955901.66	0.0282	0.0240
Earth	63614-11-02 03:51 G	24955901.53	24955901.66	24955901.82	0.0282	0.0225 *
Mercury	63615-08-22 12:00 G	24956194.87	24956195.00	24956195.13	0.0281	0.0168
Mercury	63615-11-19 06:43 G	24956283.61	24956283.78	24956283.95	0.0281	0.0010
Mercury	63616-02-16 01:55 G	24956372.46	24956372.58	24956372.71	0.0280	0.0190
Venus	63620-12-11 07:27 G	24958132.77	24958132.81	24958132.86	0.0273	0.0266
Venus	63621-07-28 13:12 G	24958361.85	24958362.05	24958362.26	0.0273	0.0055

Venus	63622-03-14 18:29 G	24958591.10	24958591.27	24958591.45	0.0272	0.0156
Moon	63629-04-22 17:31 G	24961187.07	24961187.23	24961187.42	0.0276	0.0183
Earth	63629-04-22 21:07 G	24961187.20	24961187.38	24961187.58	0.0276	0.0176 *
Mercury	63630-09-20 17:17 G	24961703.14	24961703.22	24961703.30	0.0278	0.0227
Mercury	63630-12-18 06:15 G	24961791.63	24961791.76	24961791.90	0.0278	0.0080
Mercury	63631-03-16 18:58 G	24961880.16	24961880.29	24961880.43	0.0279	0.0066
Mercury	63631-06-13 07:41 G	24961968.73	24961968.82	24961968.91	0.0279	0.0209
Venus	63636-01-07 09:07 G	24963637.81	24963637.88	24963637.97	0.0286	0.0266
Venus	63636-08-24 03:36 G	24963867.44	24963867.65	24963867.87	0.0286	0.0020
Venus	63637-04-10 22:19 G	24964097.31	24964097.43	24964097.57	0.0287	0.0229
Earth	63643-10-27 09:36 G	24966487.66	24966487.90	24966488.15	0.0283	0.0054
Moon	63643-10-27 13:12 G	24966487.80	24966488.05	24966488.30	0.0283	0.0037 *
Mercury	63645-01-08 11:46 G	24966926.89	24966926.99	24966927.09	0.0281	0.0222
Mercury	63645-04-07 06:29 G	24967015.60	24967015.77	24967015.93	0.0281	0.0046
Mercury	63645-07-05 01:27 G	24967104.41	24967104.56	24967104.71	0.0280	0.0135
Venus	63650-06-23 13:41 G	24968918.96	24968919.07	24968919.18	0.0274	0.0233
Venus	63651-02-07 19:27 G	24969148.10	24969148.31	24969148.53	0.0273	0.0022
Venus	63651-09-25 00:43 G	24969377.39	24969377.53	24969377.69	0.0273	0.0191
Mars	63653-09-28 03:07 G	24970111.50	24970111.63	24970111.79	0.0273	0.0239
Moon	63659-04-30 12:43 G	24972151.82	24972152.03	24972152.26	0.0277	0.0134
Earth	63659-04-30 12:58 G	24972151.84	24972152.04	24972152.25	0.0277	0.0145 *
Mercury	63660-02-07 20:24 G	24972435.30	24972435.35	24972435.41	0.0278	0.0254
Mercury	63660-05-06 09:36 G	24972523.77	24972523.90	24972524.03	0.0278	0.0107
Mercury	63660-08-02 22:19 G	24972612.29	24972612.43	24972612.57	0.0278	0.0039
Mercury	63660-10-30 11:03 G	24972700.85	24972700.96	24972701.06	0.0279	0.0182
Venus	63665-07-19 18:29 G	24974424.14	24974424.27	24974424.41	0.0285	0.0221
Venus	63666-03-06 12:43 G	24974653.82	24974654.03	24974654.24	0.0286	0.0024
Venus	63666-10-22 07:12 G	24974883.74	24974883.80	24974883.88	0.0286	0.0270
Mercury	63674-05-28 11:17 G	24977658.94	24977658.97	24977659.01	0.0281	0.0274
Mercury	63674-08-25 06:00 G	24977747.59	24977747.75	24977747.91	0.0281	0.0098

Mercury	63674-11-22 00:58 G	24977836.38	24977836.54	24977836.70	0.0280	0.0080
Mercury	63675-02-18 19:55 G	24977925.28	24977925.33	24977925.40	0.0280	0.0262
Venus	63680-01-03 14:53 G	24979704.99	24979705.12	24979705.26	0.0273	0.0208
Venus	63680-08-19 20:53 G	24979934.15	24979934.37	24979934.58	0.0273	0.0007
Venus	63681-04-06 01:41 G	24980163.46	24980163.57	24980163.71	0.0273	0.0215
Earth	63688-04-24 02:53 G	24982738.40	24982738.62	24982738.84	0.0276	0.0114
Moon	63688-04-24 03:07 G	24982738.42	24982738.63	24982738.84	0.0276	0.0122 *
Mercury	63689-09-23 10:05 G	24983255.81	24983255.92	24983256.04	0.0278	0.0161
Mercury	63689-12-20 23:03 G	24983344.32	24983344.46	24983344.60	0.0279	0.0015
Mercury	63690-03-19 11:46 G	24983432.87	24983432.99	24983433.12	0.0279	0.0129
Mercury	63690-06-16 00:15 G	24983521.48	24983521.51	24983521.54	0.0279	0.0271
Venus	63695-01-29 20:10 G	24985210.19	24985210.34	24985210.50	0.0286	0.0198
Venus	63695-09-16 14:39 G	24985439.90	24985440.11	24985440.32	0.0286	0.0049
Earth	63702-10-29 14:10 G	24988038.84	24988039.09	24988039.34	0.0283	0.0007
Moon	63702-10-29 14:39 G	24988038.85	24988039.11	24988039.36	0.0283	0.0023 *
Mercury	63704-01-13 05:31 G	24988479.60	24988479.73	24988479.88	0.0281	0.0153
Mercury	63704-04-11 00:29 G	24988568.35	24988568.52	24988568.69	0.0280	0.0025
Mercury	63704-07-08 19:27 G	24988657.20	24988657.31	24988657.43	0.0280	0.0206
Venus	63709-07-16 20:53 G	24990491.22	24990491.37	24990491.54	0.0274	0.0175
Venus	63710-03-03 02:53 G	24990720.42	24990720.62	24990720.83	0.0274	0.0039
Venus	63710-10-18 08:24 G	24990949.77	24990949.85	24990949.94	0.0273	0.0249
Moon	63718-05-02 15:51 G	24993702.99	24993703.16	24993703.34	0.0277	0.0194
Earth	63718-05-02 19:12 G	24993703.16	24993703.30	24993703.47	0.0277	0.0209 *
Mercury	63719-02-11 13:41 G	24993987.96	24993988.07	24993988.17	0.0278	0.0186
Mercury	63719-05-11 02:39 G	24994076.47	24994076.61	24994076.75	0.0278	0.0041
Mercury	63719-08-07 15:22 G	24994165.01	24994165.14	24994165.27	0.0279	0.0105
Mercury	63719-11-04 03:51 G	24994253.60	24994253.66	24994253.72	0.0279	0.0247
Venus	63724-08-12 06:58 G	24995996.61	24995996.79	24995996.97	0.0285	0.0151
Venus	63725-03-30 01:12 G	24996226.35	24996226.55	24996226.75	0.0286	0.0095
Moon	63731-10-23 23:31 G	24998625.36	24998625.48	24998625.60	0.0283	0.0243

Earth	63731-10-23 23:31 G	24998625.38	24998625.48	24998625.58	0.0283	0.0259	*
Mercury	63733-06-01 06:00 G	24999211.64	24999211.75	24999211.87	0.0281	0.0198	
Mercury	63733-08-29 00:43 G	24999300.36	24999300.53	24999300.70	0.0281	0.0022	
Mercury	63733-11-25 19:41 G	24999389.18	24999389.32	24999389.46	0.0280	0.0158	
Venus	63739-01-26 23:31 G	25001277.31	25001277.48	25001277.66	0.0273	0.0148	
Venus	63739-09-13 05:17 G	25001506.51	25001506.72	25001506.93	0.0273	0.0064	
Earth	63747-04-27 10:05 G	25004289.69	25004289.92	25004290.17	0.0276	0.0049	
Moon	63747-04-27 13:41 G	25004289.83	25004290.07	25004290.30	0.0276	0.0059	*
Mercury	63748-06-30 14:24 G	25004720.03	25004720.10	25004720.17	0.0278	0.0239	
Mercury	63748-09-27 03:22 G	25004808.51	25004808.64	25004808.78	0.0278	0.0092	
Mercury	63748-12-24 16:19 G	25004897.04	25004897.18	25004897.32	0.0279	0.0053	
Mercury	63749-03-23 04:48 G	25004985.61	25004985.70	25004985.80	0.0279	0.0197	
Venus	63754-02-22 09:07 G	25006782.69	25006782.88	25006783.07	0.0286	0.0126	
Venus	63754-10-10 03:22 G	25007012.45	25007012.64	25007012.84	0.0286	0.0121	
Mars	63756-04-19 20:10 G	25007570.19	25007570.34	25007570.49	0.0287	0.0241	
Moon	63761-10-30 17:31 G	25009590.00	25009590.23	25009590.48	0.0282	0.0090	
Earth	63761-10-30 21:22 G	25009590.15	25009590.39	25009590.63	0.0282	0.0073	*
Mercury	63762-10-19 05:31 G	25009943.67	25009943.73	25009943.81	0.0281	0.0253	
Mercury	63763-01-16 00:15 G	25010032.35	25010032.51	25010032.67	0.0281	0.0077	
Mercury	63763-04-14 19:12 G	25010121.14	25010121.30	25010121.46	0.0280	0.0102	
Venus	63768-08-08 05:17 G	25012063.53	25012063.72	25012063.91	0.0274	0.0115	
Venus	63769-03-25 11:03 G	25012292.77	25012292.96	25012293.17	0.0274	0.0099	
Moon	63777-05-04 01:12 G	25015254.49	25015254.55	25015254.63	0.0277	0.0264	
Earth	63777-05-04 03:07 G	25015254.63	25015254.63	25015254.66	0.0277	0.0277	*
Mercury	63777-11-17 17:46 G	25015452.20	25015452.24	25015452.29	0.0278	0.0264	
Mercury	63778-02-14 06:58 G	25015540.66	25015540.79	25015540.92	0.0278	0.0116	
Mercury	63778-05-13 19:41 G	25015629.18	25015629.32	25015629.47	0.0279	0.0031	
Mercury	63778-08-10 08:24 G	25015717.74	25015717.85	25015717.96	0.0279	0.0173	
Venus	63783-09-04 20:39 G	25017569.16	25017569.36	25017569.57	0.0285	0.0077	
Venus	63784-04-21 14:53 G	25017798.96	25017799.12	25017799.30	0.0286	0.0168	

Earth	63790-10-25 09:22 G	25020176.71	25020176.89	25020177.08	0.0283	0.0186
Moon	63790-10-25 13:12 G	25020176.85	25020177.05	25020177.25	0.0283	0.0169 *
Mercury	63792-06-04 01:12 G	25020764.40	25020764.55	25020764.71	0.0281	0.0117
Mercury	63792-08-31 20:10 G	25020853.17	25020853.34	25020853.51	0.0280	0.0061
Mercury	63792-11-28 15:07 G	25020942.05	25020942.13	25020942.22	0.0280	0.0242
Venus	63798-02-18 09:22 G	25022849.69	25022849.89	25022850.09	0.0273	0.0086
Venus	63798-10-05 15:07 G	25023078.94	25023079.13	25023079.32	0.0273	0.0126
Mars	63800-05-30 13:41 G	25023680.96	25023681.07	25023681.19	0.0272	0.0252
Earth	63806-04-29 18:58 G	25025841.05	25025841.29	25025841.53	0.0276	0.0019
Moon	63806-04-29 21:22 G	25025841.14	25025841.39	25025841.64	0.0276	0.0010 *
Mercury	63807-07-05 07:41 G	25026272.71	25026272.82	25026272.94	0.0278	0.0167
Mercury	63807-10-01 20:53 G	25026361.23	25026361.37	25026361.51	0.0278	0.0021
Mercury	63807-12-29 09:36 G	25026449.77	25026449.90	25026450.02	0.0279	0.0124
Mercury	63808-03-26 22:05 G	25026538.38	25026538.42	25026538.46	0.0279	0.0266
Venus	63813-03-17 23:03 G	25028355.25	25028355.46	25028355.67	0.0286	0.0052
Venus	63813-11-02 17:17 G	25028585.07	25028585.22	25028585.38	0.0286	0.0194
Moon	63820-11-02 04:34 G	25031141.50	25031141.69	25031141.90	0.0282	0.0159
Earth	63820-11-02 06:58 G	25031141.58	25031141.79	25031142.00	0.0282	0.0145 *
Mercury	63821-10-23 00:43 G	25031496.41	25031496.53	25031496.67	0.0281	0.0172
Mercury	63822-01-19 19:41 G	25031585.15	25031585.32	25031585.49	0.0280	0.0006
Mercury	63822-04-18 14:39 G	25031673.99	25031674.11	25031674.24	0.0280	0.0185
Venus	63827-01-15 08:24 G	25033406.81	25033406.85	25033406.90	0.0274	0.0266
Venus	63827-09-01 14:39 G	25033635.91	25033636.11	25033636.32	0.0274	0.0053
Venus	63828-04-17 20:24 G	25033865.19	25033865.35	25033865.53	0.0274	0.0160
Moon	63835-04-24 20:10 G	25036428.20	25036428.34	25036428.49	0.0276	0.0217
Earth	63835-04-24 22:48 G	25036428.30	25036428.45	25036428.62	0.0276	0.0211 *
Mercury	63836-11-21 11:17 G	25037004.87	25037004.97	25037005.07	0.0278	0.0191
Mercury	63837-02-18 00:15 G	25037093.37	25037093.51	25037093.65	0.0279	0.0045
Mercury	63837-05-17 13:12 G	25037181.92	25037182.05	25037182.18	0.0279	0.0101
Mercury	63837-08-14 01:41 G	25037270.51	25037270.57	25037270.64	0.0279	0.0243

Venus	63842-02-10 17:46 G	25038912.13	25038912.24	25038912.34	0.0285	0.0245
Venus	63842-09-28 11:31 G	25039141.77	25039141.98	25039142.19	0.0285	0.0003
Venus	63843-05-16 06:00 G	25039371.64	25039371.75	25039371.86	0.0286	0.0243
Mars	63844-09-15 17:17 G	25039859.98	25039860.22	25039860.48	0.0286	0.0140
Earth	63849-10-27 21:36 G	25041728.18	25041728.40	25041728.64	0.0283	0.0110
Moon	63849-10-27 23:46 G	25041728.25	25041728.49	25041728.73	0.0283	0.0094 *
Mercury	63851-03-12 02:39 G	25042228.50	25042228.61	25042228.73	0.0281	0.0205
Mercury	63851-06-08 21:22 G	25042317.22	25042317.39	25042317.56	0.0281	0.0029
Mercury	63851-09-05 16:05 G	25042406.03	25042406.17	25042406.32	0.0280	0.0150
Venus	63856-07-27 14:10 G	25044192.98	25044193.09	25044193.20	0.0274	0.0233
Venus	63857-03-13 20:10 G	25044422.13	25044422.34	25044422.55	0.0273	0.0021
Venus	63857-10-29 01:41 G	25044651.42	25044651.57	25044651.73	0.0273	0.0190
Moon	63865-05-01 02:53 G	25047392.38	25047392.62	25047392.86	0.0277	0.0077
Earth	63865-05-01 04:48 G	25047392.47	25047392.70	25047392.93	0.0277	0.0090 *
Mercury	63866-04-10 12:15 G	25047736.95	25047737.01	25047737.09	0.0278	0.0240
Mercury	63866-07-08 01:27 G	25047825.43	25047825.56	25047825.70	0.0278	0.0093
Mercury	63866-10-04 14:24 G	25047913.96	25047914.10	25047914.24	0.0279	0.0053
Mercury	63867-01-01 03:07 G	25048002.53	25048002.63	25048002.73	0.0279	0.0196
Venus	63871-08-23 19:55 G	25049698.21	25049698.33	25049698.47	0.0285	0.0221
Venus	63872-04-09 14:10 G	25049927.87	25049928.09	25049928.30	0.0286	0.0024
Venus	63872-11-25 08:24 G	25050157.78	25050157.85	25050157.92	0.0286	0.0269
Earth	63879-11-04 17:46 G	25052693.10	25052693.24	25052693.41	0.0282	0.0219
Moon	63879-11-04 20:24 G	25052693.22	25052693.35	25052693.49	0.0282	0.0230 *
Mercury	63880-07-29 01:55 G	25052960.53	25052960.58	25052960.65	0.0281	0.0261
Mercury	63880-10-25 20:39 G	25053049.20	25053049.36	25053049.52	0.0281	0.0086
Mercury	63881-01-22 15:22 G	25053137.98	25053138.14	25053138.31	0.0280	0.0092
Mercury	63881-04-21 10:34 G	25053226.91	25053226.94	25053226.98	0.0280	0.0273
Venus	63886-02-06 18:58 G	25054979.15	25054979.29	25054979.44	0.0274	0.0202
Venus	63886-09-24 01:12 G	25055208.34	25055208.55	25055208.76	0.0274	0.0011
Venus	63887-05-11 06:58 G	25055437.67	25055437.79	25055437.92	0.0273	0.0222

Mars	63888-10-24 21:51 G	25055970.19	25055970.41	25055970.66	0.0273	0.0173
Earth	63894-04-26 07:55 G	25057979.62	25057979.83	25057980.04	0.0277	0.0141
Moon	63894-04-26 09:36 G	25057979.71	25057979.90	25057980.10	0.0277	0.0151 *
Mercury	63895-08-28 15:51 G	25058469.12	25058469.16	25058469.20	0.0278	0.0266
Mercury	63895-11-25 04:48 G	25058557.58	25058557.70	25058557.83	0.0279	0.0118
Mercury	63896-02-21 17:46 G	25058646.10	25058646.24	25058646.38	0.0279	0.0029
Mercury	63896-05-20 06:29 G	25058734.67	25058734.77	25058734.88	0.0279	0.0172
Venus	63901-03-06 08:24 G	25060484.69	25060484.85	25060485.03	0.0285	0.0171
Venus	63901-10-22 02:39 G	25060714.40	25060714.61	25060714.82	0.0285	0.0073
Moon	63908-10-30 08:53 G	25063279.62	25063279.87	25063280.13	0.0283	0.0019
Earth	63908-10-30 11:17 G	25063279.73	25063279.97	25063280.22	0.0283	0.0031 *
Mercury	63910-03-15 22:48 G	25063781.30	25063781.45	25063781.61	0.0281	0.0115
Mercury	63910-06-12 17:31 G	25063870.07	25063870.23	25063870.40	0.0280	0.0063
Mercury	63910-09-09 12:43 G	25063958.95	25063959.03	25063959.11	0.0280	0.0242
Venus	63915-08-21 01:41 G	25065765.41	25065765.57	25065765.74	0.0274	0.0168
Venus	63916-04-06 07:41 G	25065994.61	25065994.82	25065995.03	0.0273	0.0044
Venus	63916-11-21 12:58 G	25066223.98	25066224.04	25066224.12	0.0273	0.0254
Moon	63924-05-03 11:03 G	25068943.76	25068943.96	25068944.17	0.0277	0.0146
Earth	63924-05-03 14:39 G	25068943.92	25068944.11	25068944.31	0.0277	0.0161 *
Mercury	63925-04-14 06:15 G	25069289.65	25069289.76	25069289.87	0.0278	0.0165
Mercury	63925-07-11 19:12 G	25069378.16	25069378.30	25069378.44	0.0278	0.0019
Mercury	63925-10-08 07:55 G	25069466.71	25069466.83	25069466.96	0.0279	0.0126
Mercury	63926-01-04 20:39 G	25069555.32	25069555.36	25069555.40	0.0279	0.0268
Venus	63930-09-16 11:03 G	25071270.79	25071270.96	25071271.15	0.0285	0.0146
Venus	63931-05-04 05:17 G	25071500.53	25071500.72	25071500.93	0.0286	0.0100
Mars	63933-02-10 16:34 G	25072148.92	25072149.19	25072149.47	0.0287	0.0073
Mercury	63939-08-02 22:05 G	25074513.29	25074513.42	25074513.55	0.0281	0.0173
Mercury	63939-10-30 16:48 G	25074602.03	25074602.20	25074602.37	0.0280	0.0005
Mercury	63940-01-27 11:31 G	25074690.86	25074690.98	25074691.12	0.0280	0.0183
Venus	63945-03-02 06:00 G	25076551.57	25076551.75	25076551.94	0.0274	0.0138

Venus	63945-10-17 12:00 G	25076780.80	25076781.00	25076781.21	0.0273	0.0075
Earth	63953-04-28 16:34 G	25079530.96	25079531.19	25079531.43	0.0277	0.0072
Moon	63953-04-28 20:10 G	25079531.11	25079531.34	25079531.58	0.0277	0.0085 *
Mercury	63954-09-01 09:22 G	25080021.79	25080021.89	25080021.99	0.0279	0.0193
Mercury	63954-11-28 22:19 G	25080110.29	25080110.43	25080110.57	0.0279	0.0046
Mercury	63955-02-25 11:17 G	25080198.84	25080198.97	25080199.10	0.0279	0.0099
Mercury	63955-05-24 23:46 G	25080287.43	25080287.49	25080287.56	0.0280	0.0243
Venus	63960-03-28 23:17 G	25082057.28	25082057.47	25082057.68	0.0285	0.0097
Venus	63960-11-13 17:31 G	25082287.06	25082287.23	25082287.42	0.0286	0.0149
Moon	63967-11-01 21:22 G	25084831.16	25084831.39	25084831.64	0.0282	0.0061
Earth	63967-11-02 00:58 G	25084831.29	25084831.54	25084831.78	0.0282	0.0047 *
Mercury	63968-12-20 00:29 G	25085245.41	25085245.52	25085245.64	0.0281	0.0199
Mercury	63969-03-18 19:12 G	25085334.13	25085334.30	25085334.47	0.0281	0.0023
Mercury	63969-06-15 14:10 G	25085422.95	25085423.09	25085423.23	0.0280	0.0155
Venus	63974-09-12 13:55 G	25087337.89	25087338.08	25087338.28	0.0274	0.0102
Venus	63975-04-29 19:27 G	25087567.12	25087567.31	25087567.51	0.0273	0.0110
Mars	63977-03-22 08:24 G	25088259.57	25088259.85	25088260.14	0.0272	0.0088
Moon	63983-05-06 00:43 G	25090495.39	25090495.53	25090495.68	0.0277	0.0217
Earth	63983-05-06 00:43 G	25090495.41	25090495.53	25090495.67	0.0277	0.0232 *
Mercury	63984-01-19 10:48 G	25090753.88	25090753.95	25090754.02	0.0278	0.0238
Mercury	63984-04-17 00:00 G	25090842.36	25090842.50	25090842.63	0.0278	0.0091
Mercury	63984-07-14 12:43 G	25090930.90	25090931.03	25090931.17	0.0279	0.0055
Mercury	63984-10-11 01:27 G	25091019.47	25091019.56	25091019.66	0.0279	0.0197
Venus	63989-10-09 01:55 G	25092843.37	25092843.58	25092843.79	0.0286	0.0071
Venus	63990-05-26 20:10 G	25093073.18	25093073.34	25093073.51	0.0286	0.0174
Earth	63996-10-26 02:39 G	25095417.47	25095417.61	25095417.74	0.0283	0.0237
Moon	63996-10-26 06:00 G	25095417.60	25095417.75	25095417.91	0.0283	0.0221 *
Mercury	63998-05-08 23:31 G	25095977.43	25095977.48	25095977.55	0.0281	0.0259
Mercury	63998-08-05 18:00 G	25096066.10	25096066.25	25096066.42	0.0281	0.0085
Mercury	63998-11-02 12:58 G	25096154.88	25096155.04	25096155.20	0.0280	0.0093

Mercury 63999-01-30 07:55 G 25096243.80 25096243.83 25096243.87 0.0280 0.0273

65TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 65th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	64004-03-24 17:17	G	25098124.02	25098124.22	25098124.43	0.0274	0.0073	
Venus	64004-11-08 23:17	G	25098353.29	25098353.47	25098353.65	0.0273	0.0139	
Moon	64012-04-30 00:43	G	25101082.28	25101082.53	25101082.78	0.0277	0.0018	
Earth	64012-04-30 00:43	G	25101082.29	25101082.53	25101082.77	0.0277	0.0005	*
Mercury	64013-06-07 13:12	G	25101486.03	25101486.05	25101486.09	0.0278	0.0271	
Mercury	64013-09-04 02:39	G	25101574.48	25101574.61	25101574.74	0.0279	0.0122	
Mercury	64013-12-01 15:36	G	25101663.01	25101663.15	25101663.29	0.0279	0.0024	
Mercury	64014-02-28 04:19	G	25101751.57	25101751.68	25101751.80	0.0279	0.0168	
Venus	64018-09-03 19:12	G	25103400.23	25103400.30	25103400.37	0.0285	0.0267	
Venus	64019-04-21 13:27	G	25103629.85	25103630.06	25103630.27	0.0286	0.0024	
Venus	64019-12-07 07:55	G	25103859.70	25103859.83	25103859.96	0.0286	0.0221	
Mars	64021-07-08 18:15	G	25104438.98	25104439.26	25104439.54	0.0286	0.0036	
Moon	64026-11-03 13:27	G	25106382.85	25106383.06	25106383.27	0.0282	0.0137	
Earth	64026-11-03 13:41	G	25106382.86	25106383.07	25106383.30	0.0282	0.0125	*
Mercury	64027-12-23 20:39	G	25106798.21	25106798.36	25106798.52	0.0281	0.0110	
Mercury	64028-03-21 15:36	G	25106886.98	25106887.15	25106887.31	0.0280	0.0068	
Mercury	64028-06-18 10:34	G	25106975.86	25106975.94	25106976.02	0.0280	0.0247	
Venus	64033-02-17 19:41	G	25108681.24	25108681.32	25108681.42	0.0274	0.0248	

Venus	64033-10-05 01:55 G	25108910.37	25108910.58	25108910.79	0.0273	0.0036
Venus	64034-05-22 07:12 G	25109139.64	25109139.80	25109139.97	0.0273	0.0175
Earth	64041-04-24 21:51 G	25111669.32	25111669.41	25111669.52	0.0275	0.0251
Moon	64041-04-24 21:22 G	25111669.33	25111669.39	25111669.47	0.0275	0.0260 *
Mercury	64043-01-22 04:19 G	25112306.57	25112306.68	25112306.80	0.0278	0.0166
Mercury	64043-04-20 17:17 G	25112395.08	25112395.22	25112395.37	0.0278	0.0021
Mercury	64043-07-18 06:15 G	25112483.63	25112483.76	25112483.88	0.0279	0.0124
Mercury	64043-10-14 18:43 G	25112572.25	25112572.28	25112572.32	0.0279	0.0266
Venus	64048-03-15 21:51 G	25114186.30	25114186.41	25114186.53	0.0285	0.0241
Venus	64048-10-31 15:51 G	25114415.95	25114416.16	25114416.37	0.0286	0.0003
Venus	64049-06-18 10:05 G	25114645.83	25114645.92	25114646.04	0.0286	0.0247
Moon	64055-10-28 14:10 G	25116968.88	25116969.09	25116969.32	0.0283	0.0147
Earth	64055-10-28 14:24 G	25116968.90	25116969.10	25116969.30	0.0283	0.0161 *
Mercury	64057-05-11 19:12 G	25117530.18	25117530.30	25117530.44	0.0281	0.0174
Mercury	64057-08-08 13:55 G	25117618.91	25117619.08	25117619.25	0.0280	0.0003
Mercury	64057-11-05 08:53 G	25117707.74	25117707.87	25117708.00	0.0280	0.0181
Venus	64062-08-30 22:05 G	25119467.30	25119467.42	25119467.55	0.0274	0.0221
Venus	64063-04-17 04:19 G	25119696.47	25119696.68	25119696.89	0.0273	0.0010
Venus	64063-12-02 10:05 G	25119925.78	25119925.92	25119926.06	0.0273	0.0201
Mars	64065-08-16 09:36 G	25120548.60	25120548.90	25120549.21	0.0273	0.0016
Moon	64071-05-02 04:48 G	25122633.46	25122633.70	25122633.94	0.0277	0.0046
Earth	64071-05-02 08:10 G	25122633.60	25122633.84	25122634.08	0.0277	0.0061 *
Mercury	64072-06-10 06:43 G	25123038.68	25123038.78	25123038.88	0.0279	0.0201
Mercury	64072-09-06 19:41 G	25123127.19	25123127.32	25123127.47	0.0279	0.0055
Mercury	64072-12-04 08:39 G	25123215.73	25123215.86	25123216.00	0.0279	0.0091
Mercury	64073-03-02 21:22 G	25123304.32	25123304.39	25123304.47	0.0280	0.0234
Venus	64077-09-26 07:41 G	25124972.67	25124972.82	25124972.98	0.0285	0.0199
Venus	64078-05-14 02:10 G	25125202.38	25125202.59	25125202.80	0.0286	0.0046
Earth	64085-11-05 00:29 G	25127934.35	25127934.52	25127934.70	0.0282	0.0196
Moon	64085-11-05 03:36 G	25127934.50	25127934.65	25127934.82	0.0282	0.0209 *

Mercury	64086-09-28 21:51 G	25128262.30	25128262.41	25128262.53	0.0281	0.0200
Mercury	64086-12-26 16:34 G	25128351.02	25128351.19	25128351.36	0.0281	0.0025
Mercury	64087-03-25 11:17 G	25128439.83	25128439.97	25128440.12	0.0280	0.0154
Venus	64092-03-12 07:12 G	25130253.65	25130253.80	25130253.96	0.0274	0.0183
Venus	64092-10-27 13:12 G	25130482.84	25130483.05	25130483.26	0.0273	0.0029
Venus	64093-06-13 18:15 G	25130712.17	25130712.26	25130712.37	0.0273	0.0238
Earth	64100-04-27 05:46 G	25133220.56	25133220.74	25133220.92	0.0275	0.0185
Moon	64100-04-27 08:39 G	25133220.70	25133220.86	25133221.04	0.0275	0.0196 *
Mercury	64101-10-29 08:24 G	25133770.78	25133770.85	25133770.92	0.0277	0.0243
Mercury	64102-01-25 21:36 G	25133859.26	25133859.40	25133859.53	0.0278	0.0097
Mercury	64102-04-24 10:34 G	25133947.80	25133947.94	25133948.08	0.0278	0.0048
Mercury	64102-07-21 23:03 G	25134036.37	25134036.46	25134036.57	0.0279	0.0191
Venus	64107-04-09 10:19 G	25135758.77	25135758.93	25135759.10	0.0285	0.0172
Venus	64107-11-25 04:34 G	25135988.48	25135988.69	25135988.89	0.0286	0.0072
Mars	64109-12-03 07:27 G	25136727.55	25136727.81	25136728.09	0.0287	0.0090
Moon	64114-10-30 20:39 G	25138520.13	25138520.36	25138520.61	0.0283	0.0078
Earth	64114-10-31 00:43 G	25138520.29	25138520.53	25138520.76	0.0283	0.0089 *
Mercury	64116-02-16 20:10 G	25138994.30	25138994.34	25138994.40	0.0281	0.0265
Mercury	64116-05-15 14:39 G	25139082.96	25139083.11	25139083.27	0.0281	0.0091
Mercury	64116-08-12 09:22 G	25139171.74	25139171.89	25139172.06	0.0280	0.0087
Mercury	64116-11-09 04:34 G	25139260.64	25139260.69	25139260.74	0.0280	0.0266
Venus	64121-09-23 08:53 G	25141039.69	25141039.87	25141040.04	0.0274	0.0158
Venus	64122-05-10 14:39 G	25141268.90	25141269.11	25141269.32	0.0273	0.0053
Venus	64122-12-25 20:10 G	25141498.29	25141498.34	25141498.40	0.0273	0.0262
Moon	64130-05-04 11:31 G	25144184.77	25144184.98	25144185.20	0.0277	0.0109
Earth	64130-05-04 13:41 G	25144184.86	25144185.07	25144185.29	0.0277	0.0123 *
Mercury	64131-06-14 23:31 G	25144591.35	25144591.48	25144591.60	0.0279	0.0136
Mercury	64131-09-11 12:29 G	25144679.88	25144680.02	25144680.16	0.0279	0.0010
Mercury	64131-12-09 01:12 G	25144768.44	25144768.55	25144768.67	0.0279	0.0154
Venus	64136-10-19 18:43 G	25146545.10	25146545.28	25146545.47	0.0285	0.0133

Venus	64137-06-06 13:12 G	25146774.86	25146775.05	25146775.25	0.0286	0.0113
Earth	64144-11-07 08:39 G	25149485.79	25149485.86	25149485.96	0.0282	0.0264
Moon	64144-11-07 11:31 G	25149485.92	25149485.98	25149486.05	0.0282	0.0273 *
Mercury	64145-10-02 17:03 G	25149815.06	25149815.21	25149815.36	0.0281	0.0121
Mercury	64145-12-30 11:46 G	25149903.82	25149903.99	25149904.15	0.0281	0.0056
Mercury	64146-03-29 06:43 G	25149992.69	25149992.78	25149992.87	0.0280	0.0236
Venus	64151-04-05 17:31 G	25151826.05	25151826.23	25151826.42	0.0274	0.0121
Venus	64151-11-20 23:31 G	25152055.28	25152055.48	25152055.68	0.0273	0.0091
Mars	64154-01-11 23:17 G	25152838.17	25152838.47	25152838.76	0.0272	0.0076
Earth	64159-04-29 12:29 G	25154771.80	25154772.02	25154772.24	0.0275	0.0122
Moon	64159-04-29 15:07 G	25154771.92	25154772.13	25154772.35	0.0275	0.0134 *
Mercury	64160-11-01 01:27 G	25155323.45	25155323.56	25155323.67	0.0277	0.0177
Mercury	64161-01-28 14:24 G	25155411.96	25155412.10	25155412.25	0.0278	0.0032
Mercury	64161-04-27 03:22 G	25155500.51	25155500.64	25155500.77	0.0278	0.0112
Mercury	64161-07-24 15:51 G	25155589.11	25155589.16	25155589.22	0.0279	0.0254
Venus	64166-05-01 21:36 G	25157331.21	25157331.40	25157331.60	0.0285	0.0105
Venus	64166-12-17 15:51 G	25157560.97	25157561.16	25157561.34	0.0286	0.0139
Moon	64173-11-01 06:15 G	25160071.52	25160071.76	25160072.00	0.0283	0.0015
Earth	64173-11-01 07:55 G	25160071.58	25160071.83	25160072.08	0.0283	0.0023 *
Mercury	64175-02-19 14:53 G	25160547.00	25160547.12	25160547.25	0.0281	0.0190
Mercury	64175-05-19 09:36 G	25160635.73	25160635.90	25160636.07	0.0281	0.0015
Mercury	64175-08-16 04:19 G	25160724.55	25160724.68	25160724.82	0.0280	0.0164
Venus	64180-10-15 18:15 G	25162612.07	25162612.26	25162612.46	0.0274	0.0097
Venus	64181-06-02 00:00 G	25162841.31	25162841.50	25162841.69	0.0273	0.0114
Earth	64189-05-05 18:15 G	25165736.08	25165736.26	25165736.44	0.0277	0.0182
Moon	64189-05-05 19:55 G	25165736.15	25165736.33	25165736.52	0.0277	0.0167 *
Mercury	64190-03-21 02:53 G	25166055.54	25166055.62	25166055.71	0.0278	0.0221
Mercury	64190-06-17 16:05 G	25166144.03	25166144.17	25166144.31	0.0278	0.0075
Mercury	64190-09-14 05:03 G	25166232.57	25166232.71	25166232.84	0.0279	0.0070
Mercury	64190-12-11 17:31 G	25166321.15	25166321.23	25166321.33	0.0279	0.0213

Venus	64195-11-12 04:19 G	25168117.47	25168117.68	25168117.89	0.0286	0.0069
Venus	64196-06-28 22:48 G	25168347.29	25168347.45	25168347.62	0.0286	0.0176
Mars	64198-04-29 11:17 G	25169016.75	25169016.97	25169017.21	0.0287	0.0165
Moon	64202-10-27 21:36 G	25170658.35	25170658.40	25170658.48	0.0284	0.0275
Mercury	64204-07-09 16:48 G	25171279.10	25171279.20	25171279.30	0.0281	0.0223
Mercury	64204-10-06 11:17 G	25171367.81	25171367.97	25171368.14	0.0281	0.0048
Mercury	64205-01-03 06:15 G	25171456.61	25171456.76	25171456.91	0.0281	0.0130
Venus	64209-09-11 20:39 G	25173169.34	25173169.36	25173169.40	0.0274	0.0271
Venus	64210-04-29 02:53 G	25173398.42	25173398.62	25173398.83	0.0274	0.0060
Venus	64210-12-14 08:24 G	25173627.69	25173627.85	25173628.04	0.0273	0.0151
Moon	64218-05-01 15:22 G	25176322.90	25176323.14	25176323.38	0.0275	0.0077
Earth	64218-05-01 17:31 G	25176322.99	25176323.23	25176323.47	0.0275	0.0062 *
Mercury	64219-08-09 04:48 G	25176787.66	25176787.70	25176787.76	0.0277	0.0261
Mercury	64219-11-05 18:00 G	25176876.13	25176876.25	25176876.39	0.0277	0.0115
Mercury	64220-02-02 06:58 G	25176964.65	25176964.79	25176964.94	0.0278	0.0032
Mercury	64220-04-30 19:41 G	25177053.22	25177053.32	25177053.44	0.0278	0.0173
Venus	64224-10-07 13:41 G	25178674.04	25178674.07	25178674.10	0.0285	0.0281
Venus	64225-05-25 07:27 G	25178903.60	25178903.81	25178904.02	0.0285	0.0041
Venus	64226-01-10 01:41 G	25179133.42	25179133.57	25179133.72	0.0286	0.0203
Earth	64232-11-03 12:58 G	25181622.79	25181623.04	25181623.28	0.0283	0.0039
Moon	64232-11-03 15:36 G	25181622.92	25181623.15	25181623.39	0.0283	0.0043 *
Mercury	64234-02-23 09:07 G	25182099.73	25182099.88	25182100.03	0.0281	0.0119
Mercury	64234-05-23 03:51 G	25182188.49	25182188.66	25182188.82	0.0281	0.0058
Mercury	64234-08-19 22:48 G	25182277.36	25182277.45	25182277.54	0.0280	0.0237
Venus	64239-03-24 19:55 G	25183955.26	25183955.33	25183955.43	0.0274	0.0250
Venus	64239-11-09 02:39 G	25184184.40	25184184.61	25184184.82	0.0273	0.0038
Venus	64240-06-25 08:10 G	25184413.68	25184413.84	25184414.01	0.0273	0.0172
Mars	64242-06-08 06:00 G	25185126.47	25185126.75	25185127.02	0.0272	0.0121
Earth	64248-05-07 21:07 G	25187287.27	25187287.38	25187287.51	0.0277	0.0239
Moon	64248-05-08 00:58 G	25187287.40	25187287.54	25187287.69	0.0277	0.0222 *

Mercury	64249-03-24 19:12 G	25187608.19	25187608.30	25187608.42	0.0278	0.0162
Mercury	64249-06-21 08:24 G	25187696.70	25187696.85	25187696.99	0.0278	0.0018
Mercury	64249-09-17 21:07 G	25187785.26	25187785.38	25187785.51	0.0279	0.0127
Mercury	64249-12-15 09:36 G	25187873.87	25187873.90	25187873.94	0.0279	0.0269
Venus	64254-04-19 18:43 G	25189460.19	25189460.28	25189460.39	0.0285	0.0250
Venus	64254-12-05 12:43 G	25189689.82	25189690.03	25189690.25	0.0286	0.0010
Venus	64255-07-23 06:58 G	25189919.69	25189919.79	25189919.92	0.0286	0.0237
Moon	64261-10-28 20:10 G	25192209.19	25192209.34	25192209.50	0.0284	0.0223
Earth	64261-10-28 23:03 G	25192209.32	25192209.46	25192209.61	0.0284	0.0230 *
Mercury	64263-07-13 10:19 G	25192831.80	25192831.93	25192832.07	0.0281	0.0158
Mercury	64263-10-10 05:03 G	25192920.54	25192920.71	25192920.88	0.0281	0.0019
Mercury	64264-01-07 00:00 G	25193009.38	25193009.50	25193009.62	0.0281	0.0198
Venus	64268-10-04 04:34 G	25194741.56	25194741.69	25194741.83	0.0274	0.0213
Venus	64269-05-21 10:48 G	25194970.74	25194970.95	25194971.16	0.0274	0.0002
Venus	64270-01-05 16:19 G	25195200.05	25195200.18	25195200.32	0.0273	0.0209
Moon	64277-05-02 17:46 G	25197874.00	25197874.24	25197874.48	0.0275	0.0021
Earth	64277-05-02 21:22 G	25197874.15	25197874.39	25197874.63	0.0275	0.0004 *
Mercury	64278-08-11 21:22 G	25198340.30	25198340.39	25198340.49	0.0277	0.0200
Mercury	64278-11-08 10:34 G	25198428.80	25198428.94	25198429.08	0.0277	0.0054
Mercury	64279-02-04 23:17 G	25198517.34	25198517.47	25198517.61	0.0278	0.0089
Mercury	64279-05-04 12:00 G	25198605.93	25198606.00	25198606.08	0.0278	0.0230
Venus	64283-10-30 22:05 G	25200246.30	25200246.42	25200246.57	0.0284	0.0220
Venus	64284-06-16 16:05 G	25200475.96	25200476.17	25200476.38	0.0285	0.0022
Venus	64285-02-01 10:05 G	25200705.85	25200705.92	25200706.00	0.0286	0.0264
Mars	64286-09-23 11:17 G	25201304.77	25201304.97	25201305.19	0.0286	0.0192
Earth	64291-11-05 15:36 G	25203173.92	25203174.15	25203174.39	0.0283	0.0096
Moon	64291-11-05 18:43 G	25203174.05	25203174.28	25203174.52	0.0283	0.0098 *
Mercury	64292-11-29 08:10 G	25203563.75	25203563.84	25203563.94	0.0282	0.0228
Mercury	64293-02-26 02:39 G	25203652.45	25203652.61	25203652.78	0.0281	0.0053
Mercury	64293-05-25 21:36 G	25203741.25	25203741.40	25203741.55	0.0281	0.0125

Venus	64298-04-16 03:51 G	25205527.51	25205527.66	25205527.81	0.0274	0.0193
Venus	64298-12-01 10:05 G	25205756.71	25205756.92	25205757.13	0.0273	0.0019
Venus	64299-07-18 15:36 G	25205986.04	25205986.15	25205986.27	0.0273	0.0228
Earth	64306-04-28 12:29 G	25208460.95	25208461.02	25208461.12	0.0275	0.0257
Moon	64306-04-28 15:51 G	25208461.14	25208461.16	25208461.21	0.0275	0.0272
Mercury	64307-12-30 22:05 G	25209072.37	25209072.42	25209072.48	0.0278	0.0252
Mercury	64308-03-28 11:17 G	25209160.84	25209160.97	25209161.11	0.0278	0.0106
Mercury	64308-06-25 00:15 G	25209249.37	25209249.51	25209249.65	0.0278	0.0039
Mercury	64308-09-21 12:58 G	25209337.94	25209338.04	25209338.15	0.0279	0.0181
Venus	64313-05-13 02:10 G	25211032.44	25211032.59	25211032.75	0.0285	0.0191
Venus	64313-12-28 20:10 G	25211262.13	25211262.34	25211262.55	0.0286	0.0051
Moon	64320-10-30 20:39 G	25213760.18	25213760.36	25213760.56	0.0284	0.0171
Earth	64320-10-30 23:46 G	25213760.31	25213760.49	25213760.69	0.0284	0.0177 *
Mercury	64322-04-19 08:53 G	25214295.84	25214295.87	25214295.93	0.0282	0.0271
Mercury	64322-07-17 03:36 G	25214384.49	25214384.65	25214384.81	0.0281	0.0096
Mercury	64322-10-13 22:19 G	25214473.27	25214473.43	25214473.59	0.0281	0.0082
Mercury	64323-01-10 17:17 G	25214562.17	25214562.22	25214562.29	0.0281	0.0262
Venus	64327-10-28 11:17 G	25216313.80	25216313.97	25216314.15	0.0275	0.0157
Venus	64328-06-13 17:31 G	25216543.03	25216543.23	25216543.44	0.0274	0.0055
Venus	64329-01-28 23:17 G	25216772.42	25216772.47	25216772.52	0.0273	0.0264
Mars	64330-11-03 09:22 G	25217415.69	25217415.89	25217416.11	0.0273	0.0197
Earth	64336-05-05 00:00 G	25219425.27	25219425.50	25219425.74	0.0275	0.0052
Moon	64336-05-05 00:43 G	25219425.30	25219425.53	25219425.76	0.0275	0.0037 *
Mercury	64337-08-15 13:41 G	25219892.95	25219893.07	25219893.20	0.0277	0.0141
Mercury	64337-11-12 02:53 G	25219981.47	25219981.62	25219981.76	0.0277	0.0007
Mercury	64338-02-08 15:36 G	25220070.03	25220070.15	25220070.27	0.0278	0.0145
Venus	64342-11-23 06:43 G	25221818.60	25221818.78	25221818.96	0.0284	0.0158
Venus	64343-07-11 00:15 G	25222048.31	25222048.51	25222048.72	0.0285	0.0083
Moon	64350-11-07 16:05 G	25224724.95	25224725.17	25224725.39	0.0283	0.0147
Earth	64350-11-07 16:48 G	25224725.00	25224725.20	25224725.42	0.0283	0.0150 *

Mercury	64351-12-04 01:27 G	25225116.43	25225116.56	25225116.69	0.0282	0.0166
Mercury	64352-03-01 19:55 G	25225205.16	25225205.33	25225205.50	0.0281	0.0011
Mercury	64352-05-29 14:53 G	25225294.00	25225294.12	25225294.25	0.0281	0.0189
Venus	64357-05-09 10:05 G	25227099.75	25227099.92	25227100.11	0.0274	0.0137
Venus	64357-12-24 16:34 G	25227328.99	25227329.19	25227329.39	0.0274	0.0074
Moon	64365-04-29 14:10 G	25230011.94	25230012.09	25230012.25	0.0275	0.0217
Earth	64365-04-29 14:39 G	25230011.95	25230012.11	25230012.28	0.0275	0.0203 *
Mercury	64367-01-02 14:10 G	25230625.00	25230625.09	25230625.20	0.0277	0.0196
Mercury	64367-04-01 03:22 G	25230713.50	25230713.64	25230713.78	0.0278	0.0050
Mercury	64367-06-28 16:19 G	25230802.04	25230802.18	25230802.31	0.0278	0.0093
Mercury	64367-09-25 04:48 G	25230890.63	25230890.70	25230890.78	0.0279	0.0235
Venus	64372-06-04 09:22 G	25232604.70	25232604.89	25232605.08	0.0285	0.0132
Venus	64373-01-20 02:53 G	25232834.43	25232834.62	25232834.83	0.0285	0.0111
Mars	64375-02-17 17:03 G	25233593.06	25233593.21	25233593.39	0.0286	0.0230
Earth	64379-11-01 23:17 G	25235311.25	25235311.47	25235311.70	0.0284	0.0126
Moon	64379-11-02 00:15 G	25235311.30	25235311.51	25235311.73	0.0284	0.0125 *
Mercury	64381-04-22 01:41 G	25235848.47	25235848.57	25235848.68	0.0282	0.0214
Mercury	64381-07-19 20:24 G	25235937.18	25235937.35	25235937.51	0.0281	0.0038
Mercury	64381-10-16 15:07 G	25236025.99	25236026.13	25236026.28	0.0281	0.0141
Venus	64386-11-19 17:31 G	25237886.04	25237886.23	25237886.43	0.0275	0.0102
Venus	64387-07-06 23:46 G	25238115.30	25238115.49	25238115.69	0.0274	0.0110
Earth	64395-05-07 02:24 G	25240976.38	25240976.60	25240976.83	0.0275	0.0106
Moon	64395-05-07 06:00 G	25240976.52	25240976.75	25240976.98	0.0275	0.0092 *
Mercury	64396-05-21 16:48 G	25241357.13	25241357.20	25241357.28	0.0277	0.0229
Mercury	64396-08-18 06:00 G	25241445.61	25241445.75	25241445.89	0.0277	0.0084
Mercury	64396-11-14 18:58 G	25241534.15	25241534.29	25241534.43	0.0277	0.0059
Mercury	64397-02-11 07:27 G	25241622.72	25241622.81	25241622.91	0.0278	0.0201
Venus	64401-12-15 14:39 G	25243390.91	25243391.11	25243391.31	0.0284	0.0097
Venus	64402-08-02 07:55 G	25243620.66	25243620.83	25243621.02	0.0285	0.0144
Moon	64409-11-08 13:41 G	25246275.90	25246276.07	25246276.26	0.0283	0.0198

Earth	64409-11-08 17:31 G	25246276.06	25246276.23	25246276.41	0.0283	0.0202	*
Mercury	64410-09-09 00:00 G	25246580.49	25246580.50	25246580.53	0.0282	0.0279	
Mercury	64410-12-06 18:29 G	25246669.11	25246669.27	25246669.42	0.0282	0.0105	
Mercury	64411-03-05 13:12 G	25246757.88	25246758.05	25246758.21	0.0281	0.0072	
Mercury	64411-06-02 08:10 G	25246846.77	25246846.84	25246846.91	0.0281	0.0251	
Venus	64416-05-31 16:19 G	25248671.98	25248672.18	25248672.38	0.0274	0.0082	
Venus	64417-01-15 22:34 G	25248901.26	25248901.44	25248901.63	0.0274	0.0129	
Mars	64419-03-29 03:36 G	25249703.48	25249703.65	25249703.83	0.0272	0.0221	
Moon	64424-04-30 12:58 G	25251562.85	25251563.04	25251563.23	0.0275	0.0165	
Earth	64424-04-30 16:05 G	25251562.98	25251563.17	25251563.39	0.0275	0.0151	*
Mercury	64426-01-05 06:29 G	25252177.64	25252177.77	25252177.89	0.0277	0.0140	
Mercury	64426-04-03 19:27 G	25252266.17	25252266.31	25252266.45	0.0278	0.0006	
Mercury	64426-07-01 08:10 G	25252354.72	25252354.84	25252354.96	0.0278	0.0147	
Venus	64431-06-27 16:48 G	25254176.99	25254177.20	25254177.40	0.0285	0.0072	
Venus	64432-02-12 10:19 G	25254406.76	25254406.93	25254407.11	0.0285	0.0170	
Earth	64438-11-02 22:48 G	25256862.21	25256862.45	25256862.69	0.0283	0.0076	
Moon	64438-11-03 02:39 G	25256862.37	25256862.61	25256862.85	0.0283	0.0077	*
Mercury	64440-04-24 18:29 G	25257401.13	25257401.27	25257401.41	0.0282	0.0156	
Mercury	64440-07-22 13:12 G	25257489.88	25257490.05	25257490.21	0.0281	0.0021	
Mercury	64440-10-19 07:55 G	25257578.72	25257578.83	25257578.95	0.0281	0.0199	
Venus	64445-04-26 15:51 G	25259229.10	25259229.16	25259229.23	0.0275	0.0260	
Venus	64445-12-11 23:03 G	25259458.25	25259458.46	25259458.67	0.0275	0.0047	
Venus	64446-07-29 05:17 G	25259687.56	25259687.72	25259687.89	0.0274	0.0164	
Earth	64454-05-08 04:48 G	25262527.51	25262527.70	25262527.90	0.0276	0.0162	
Moon	64454-05-08 06:29 G	25262527.56	25262527.77	25262527.98	0.0276	0.0149	*
Mercury	64455-05-25 09:07 G	25262909.77	25262909.88	25262910.00	0.0277	0.0171	
Mercury	64455-08-21 22:19 G	25262998.28	25262998.43	25262998.57	0.0277	0.0027	
Mercury	64455-11-18 11:03 G	25263086.83	25263086.96	25263087.09	0.0277	0.0116	
Mercury	64456-02-14 23:46 G	25263175.44	25263175.49	25263175.54	0.0278	0.0256	
Venus	64460-05-22 06:15 G	25264733.71	25264733.76	25264733.82	0.0283	0.0272	

Venus	64461-01-06 23:03 G	25264963.25	25264963.46	25264963.67	0.0284	0.0035
Venus	64461-08-24 16:19 G	25265193.04	25265193.18	25265193.33	0.0285	0.0205
Mars	64463-07-13 22:05 G	25265881.31	25265881.42	25265881.54	0.0286	0.0260
Moon	64468-11-09 17:03 G	25267827.10	25267827.21	25267827.33	0.0283	0.0247
Earth	64468-11-09 17:46 G	25267827.15	25267827.24	25267827.36	0.0283	0.0255 *
Mercury	64469-09-11 17:03 G	25268133.11	25268133.21	25268133.31	0.0282	0.0219
Mercury	64469-12-09 11:31 G	25268221.81	25268221.98	25268222.14	0.0282	0.0045
Mercury	64470-03-08 06:15 G	25268310.61	25268310.76	25268310.91	0.0281	0.0133
Venus	64474-11-06 15:22 G	25270015.05	25270015.14	25270015.25	0.0275	0.0239
Venus	64475-06-23 22:34 G	25270244.23	25270244.44	25270244.65	0.0274	0.0027
Venus	64476-02-08 04:34 G	25270473.54	25270473.69	25270473.86	0.0274	0.0184
Jupiter	64478-05-14 02:10 G	25271299.19	25271299.59	25271299.99	0.0273	0.0132
Moon	64483-05-02 17:03 G	25273114.00	25273114.21	25273114.43	0.0275	0.0110
Earth	64483-05-02 18:43 G	25273114.05	25273114.28	25273114.51	0.0275	0.0095 *
Mercury	64484-10-11 09:36 G	25273641.82	25273641.90	25273641.98	0.0277	0.0227
Mercury	64485-01-07 22:34 G	25273730.31	25273730.44	25273730.58	0.0277	0.0083
Mercury	64485-04-06 11:31 G	25273818.84	25273818.98	25273819.12	0.0278	0.0061
Mercury	64485-07-04 00:15 G	25273907.42	25273907.51	25273907.61	0.0278	0.0202
Venus	64489-12-02 07:27 G	25275519.71	25275519.81	25275519.91	0.0284	0.0249
Venus	64490-07-20 00:29 G	25275749.31	25275749.52	25275749.73	0.0285	0.0011
Venus	64491-03-06 18:00 G	25275979.13	25275979.25	25275979.38	0.0285	0.0229
Earth	64497-11-03 22:48 G	25278413.20	25278413.45	25278413.70	0.0283	0.0024
Moon	64497-11-03 23:03 G	25278413.21	25278413.46	25278413.72	0.0283	0.0032 *
Mercury	64499-01-29 16:48 G	25278865.17	25278865.20	25278865.25	0.0282	0.0272
Mercury	64499-04-28 11:17 G	25278953.81	25278953.97	25278954.13	0.0282	0.0098
Mercury	64499-07-26 06:00 G	25279042.59	25279042.75	25279042.91	0.0281	0.0079
Mercury	64499-10-23 00:58 G	25279131.48	25279131.54	25279131.61	0.0281	0.0259
Venus	64504-05-19 21:36 G	25280801.26	25280801.40	25280801.54	0.0275	0.0206
Venus	64505-01-04 04:48 G	25281030.49	25281030.70	25281030.91	0.0275	0.0008
Venus	64505-08-21 11:03 G	25281259.84	25281259.96	25281260.09	0.0274	0.0219

Moon	64513-05-10 05:03 G	25284078.56	25284078.71	25284078.88	0.0276	0.0207
Earth	64513-05-10 07:41 G	25284078.69	25284078.82	25284078.98	0.0276	0.0218 *
Mercury	64514-03-01 12:29 G	25284373.97	25284374.02	25284374.07	0.0277	0.0257
Mercury	64514-05-29 01:41 G	25284462.44	25284462.57	25284462.70	0.0277	0.0112
Mercury	64514-08-25 14:39 G	25284550.97	25284551.11	25284551.25	0.0277	0.0032
Mercury	64514-11-22 03:22 G	25284639.53	25284639.64	25284639.75	0.0278	0.0173
Venus	64519-06-15 15:22 G	25286306.00	25286306.14	25286306.29	0.0283	0.0208
Venus	64520-01-31 08:24 G	25286535.64	25286535.85	25286536.06	0.0284	0.0029
Venus	64520-09-17 01:41 G	25286765.50	25286765.57	25286765.64	0.0285	0.0268
Mercury	64528-09-15 10:19 G	25289685.80	25289685.93	25289686.07	0.0282	0.0156
Mercury	64528-12-13 04:48 G	25289774.54	25289774.70	25289774.87	0.0282	0.0022
Mercury	64529-03-11 23:46 G	25289863.37	25289863.49	25289863.61	0.0281	0.0198
Venus	64533-11-29 21:51 G	25291587.26	25291587.41	25291587.57	0.0275	0.0183
Venus	64534-07-17 04:48 G	25291816.49	25291816.70	25291816.91	0.0274	0.0030
Venus	64535-03-03 11:17 G	25292045.87	25292045.97	25292046.07	0.0274	0.0239
Earth	64542-05-04 21:51 G	25294665.17	25294665.41	25294665.66	0.0275	0.0039
Moon	64542-05-05 00:43 G	25294665.30	25294665.53	25294665.76	0.0275	0.0053 *
Mercury	64543-10-16 01:55 G	25295194.47	25295194.58	25295194.70	0.0277	0.0167
Mercury	64544-01-12 15:07 G	25295282.99	25295283.13	25295283.27	0.0277	0.0023
Mercury	64544-04-10 03:51 G	25295371.54	25295371.66	25295371.79	0.0278	0.0119
Mercury	64544-07-07 16:34 G	25295460.14	25295460.19	25295460.24	0.0278	0.0260
Venus	64548-12-25 16:34 G	25297092.04	25297092.19	25297092.36	0.0284	0.0186
Venus	64549-08-12 09:36 G	25297321.69	25297321.90	25297322.11	0.0285	0.0052
Moon	64556-11-05 20:24 G	25299964.10	25299964.35	25299964.60	0.0283	0.0017
Earth	64556-11-06 00:15 G	25299964.26	25299964.51	25299964.76	0.0283	0.0031 *
Mercury	64558-02-02 09:51 G	25300417.81	25300417.91	25300418.03	0.0282	0.0211
Mercury	64558-05-02 04:34 G	25300506.52	25300506.69	25300506.85	0.0282	0.0037
Mercury	64558-07-29 23:17 G	25300595.32	25300595.47	25300595.61	0.0281	0.0142
Venus	64563-06-12 03:51 G	25302373.48	25302373.66	25302373.84	0.0275	0.0150
Venus	64564-01-27 10:48 G	25302602.75	25302602.95	25302603.16	0.0275	0.0064

Venus	64564-09-12 17:17 G	25302832.22	25302832.22	25302832.24	0.0274	0.0274
Mars	64565-11-27 22:48 G	25303273.40	25303273.45	25303273.53	0.0274	0.0267
Earth	64571-04-30 02:24 G	25305252.56	25305252.60	25305252.67	0.0275	0.0267
Moon	64572-05-11 09:22 G	25305629.84	25305629.89	25305629.95	0.0276	0.0267
Mercury	64573-03-04 05:03 G	25305926.61	25305926.71	25305926.82	0.0277	0.0195
Mercury	64573-05-31 18:15 G	25306015.12	25306015.26	25306015.40	0.0277	0.0050
Mercury	64573-08-28 07:12 G	25306103.67	25306103.80	25306103.93	0.0277	0.0093
Mercury	64573-11-24 19:55 G	25306192.25	25306192.33	25306192.40	0.0278	0.0233
Venus	64578-07-08 01:41 G	25307878.39	25307878.57	25307878.76	0.0283	0.0143
Venus	64579-02-22 18:29 G	25308108.07	25308108.27	25308108.48	0.0284	0.0095
Earth	64585-10-31 05:46 G	25310550.61	25310550.74	25310550.87	0.0284	0.0241
Moon	64585-10-31 09:07 G	25310550.78	25310550.88	25310551.01	0.0284	0.0252 *
Mercury	64587-06-22 09:51 G	25311149.86	25311149.91	25311149.97	0.0282	0.0261
Mercury	64587-09-19 04:05 G	25311238.52	25311238.67	25311238.83	0.0282	0.0089
Mercury	64587-12-16 22:48 G	25311327.29	25311327.45	25311327.61	0.0281	0.0088
Mercury	64588-03-14 17:31 G	25311416.19	25311416.23	25311416.29	0.0281	0.0268
Venus	64592-12-22 05:17 G	25313159.53	25313159.72	25313159.91	0.0275	0.0125
Venus	64593-08-08 12:00 G	25313388.81	25313389.00	25313389.21	0.0274	0.0087
Earth	64601-05-07 02:24 G	25316216.36	25316216.60	25316216.85	0.0275	0.0021
Moon	64601-05-07 05:46 G	25316216.49	25316216.74	25316216.98	0.0275	0.0010 *
Mercury	64602-07-23 05:31 G	25316658.67	25316658.73	25316658.79	0.0277	0.0250
Mercury	64602-10-19 18:43 G	25316747.15	25316747.28	25316747.41	0.0277	0.0105
Mercury	64603-01-16 07:41 G	25316835.68	25316835.82	25316835.96	0.0278	0.0039
Mercury	64603-04-14 20:24 G	25316924.25	25316924.35	25316924.46	0.0278	0.0180
Venus	64608-01-19 03:07 G	25318664.44	25318664.63	25318664.83	0.0284	0.0120
Venus	64608-09-04 20:10 G	25318894.15	25318894.34	25318894.53	0.0285	0.0118
Moon	64615-11-09 02:24 G	25321515.37	25321515.60	25321515.83	0.0283	0.0077
Earth	64615-11-09 04:05 G	25321515.44	25321515.67	25321515.91	0.0283	0.0091 *
Mercury	64617-02-06 03:36 G	25321970.51	25321970.65	25321970.80	0.0282	0.0144
Mercury	64617-05-05 22:19 G	25322059.26	25322059.43	25322059.60	0.0281	0.0032

Mercury	64617-08-02 17:03 G	25322148.10	25322148.21	25322148.33	0.0281	0.0211
Venus	64622-07-05 10:48 G	25323945.76	25323945.95	25323946.15	0.0275	0.0093
Venus	64623-02-19 18:00 G	25324175.06	25324175.25	25324175.44	0.0275	0.0120
Moon	64630-05-02 04:19 G	25326803.55	25326803.68	25326803.83	0.0275	0.0221
Earth	64630-05-02 07:27 G	25326803.65	25326803.81	25326803.97	0.0275	0.0207 *
Mercury	64631-12-10 08:39 G	25327390.86	25327390.86	25327390.88	0.0277	0.0276
Mercury	64632-03-07 22:05 G	25327479.29	25327479.42	25327479.55	0.0277	0.0130
Mercury	64632-06-04 11:03 G	25327567.82	25327567.96	25327568.11	0.0277	0.0016
Mercury	64632-09-01 00:00 G	25327656.38	25327656.50	25327656.62	0.0278	0.0156
Venus	64637-07-31 13:27 G	25329450.86	25329451.06	25329451.27	0.0283	0.0075
Venus	64638-03-18 06:15 G	25329680.59	25329680.76	25329680.94	0.0284	0.0163
Earth	64644-11-02 12:29 G	25332101.83	25332102.02	25332102.21	0.0284	0.0176
Moon	64644-11-02 14:24 G	25332101.90	25332102.10	25332102.29	0.0284	0.0185 *
Mercury	64646-06-26 04:05 G	25332702.55	25332702.67	25332702.80	0.0282	0.0189
Mercury	64646-09-22 22:34 G	25332791.27	25332791.44	25332791.61	0.0282	0.0015
Mercury	64646-12-20 17:17 G	25332880.08	25332880.22	25332880.36	0.0281	0.0163
Venus	64652-01-15 13:27 G	25334731.86	25334732.06	25334732.27	0.0275	0.0066
Venus	64652-08-31 20:10 G	25334961.17	25334961.34	25334961.53	0.0274	0.0147
Mars	64654-04-24 05:17 G	25335561.56	25335561.72	25335561.89	0.0273	0.0226
Moon	64660-05-08 07:27 G	25337767.57	25337767.81	25337768.06	0.0276	0.0076
Earth	64660-05-08 09:07 G	25337767.65	25337767.88	25337768.11	0.0276	0.0084 *
Mercury	64661-07-25 22:48 G	25338211.34	25338211.45	25338211.56	0.0277	0.0182
Mercury	64661-10-22 11:46 G	25338299.85	25338299.99	25338300.14	0.0277	0.0039
Mercury	64662-01-19 00:43 G	25338388.40	25338388.53	25338388.66	0.0278	0.0104
Mercury	64662-04-17 13:27 G	25338477.00	25338477.06	25338477.13	0.0278	0.0245
Venus	64667-02-10 15:07 G	25340236.92	25340237.13	25340237.34	0.0284	0.0051
Venus	64667-09-28 07:55 G	25340466.68	25340466.83	25340467.00	0.0285	0.0187
Earth	64674-11-10 10:05 G	25343066.72	25343066.92	25343067.13	0.0283	0.0155
Moon	64674-11-10 12:43 G	25343066.82	25343067.03	25343067.24	0.0283	0.0140 *
Mercury	64675-11-13 03:36 G	25343434.58	25343434.65	25343434.74	0.0282	0.0245

Mercury	64676-02-09 22:05 G	25343523.26	25343523.42	25343523.58	0.0282	0.0071
Mercury	64676-05-08 16:48 G	25343612.04	25343612.20	25343612.35	0.0281	0.0106
Venus	64680-12-10 11:03 G	25345288.88	25345288.96	25345289.07	0.0276	0.0247
Venus	64681-07-27 18:58 G	25345518.08	25345518.29	25345518.50	0.0275	0.0033
Venus	64682-03-14 01:55 G	25345747.43	25345747.58	25345747.75	0.0275	0.0180
Earth	64689-05-03 13:27 G	25348354.86	25348355.06	25348355.27	0.0276	0.0143
Moon	64689-05-03 14:39 G	25348354.92	25348355.11	25348355.31	0.0276	0.0155 *
Mercury	64690-12-13 01:55 G	25348943.49	25348943.58	25348943.68	0.0277	0.0208
Mercury	64691-03-11 15:07 G	25349031.99	25349032.13	25349032.27	0.0277	0.0063
Mercury	64691-06-08 04:05 G	25349120.54	25349120.67	25349120.81	0.0278	0.0081
Mercury	64691-09-04 16:48 G	25349209.12	25349209.20	25349209.29	0.0278	0.0221
Venus	64696-01-06 09:51 G	25350793.81	25350793.91	25350794.03	0.0283	0.0240
Venus	64696-08-23 02:24 G	25351023.39	25351023.60	25351023.81	0.0284	0.0005
Venus	64697-04-09 19:12 G	25351253.18	25351253.30	25351253.43	0.0284	0.0233
Mars	64698-08-10 02:24 G	25351740.43	25351740.60	25351740.81	0.0285	0.0212
Moon	64703-11-05 19:27 G	25353653.08	25353653.31	25353653.55	0.0284	0.0117
Earth	64703-11-05 21:51 G	25353653.18	25353653.41	25353653.65	0.0284	0.0105 *
Mercury	64705-04-02 05:03 G	25354166.71	25354166.71	25354166.72	0.0282	0.0282
Mercury	64705-06-29 23:17 G	25354255.32	25354255.47	25354255.62	0.0282	0.0110
Mercury	64705-09-26 17:46 G	25354344.08	25354344.24	25354344.40	0.0281	0.0066
Mercury	64705-12-24 12:29 G	25354432.94	25354433.02	25354433.11	0.0281	0.0244
Venus	64710-06-23 16:05 G	25356075.04	25356075.17	25356075.30	0.0276	0.0217
Venus	64711-02-07 23:17 G	25356304.26	25356304.47	25356304.68	0.0275	0.0004
Venus	64711-09-25 05:46 G	25356533.61	25356533.74	25356533.89	0.0274	0.0208
Moon	64719-05-11 13:12 G	25359318.85	25359319.05	25359319.26	0.0276	0.0146
Earth	64719-05-11 16:48 G	25359319.00	25359319.20	25359319.41	0.0276	0.0150 *
Mercury	64720-05-02 02:39 G	25359675.57	25359675.61	25359675.67	0.0277	0.0259
Mercury	64720-07-29 16:05 G	25359764.04	25359764.17	25359764.30	0.0277	0.0113
Mercury	64720-10-26 05:17 G	25359852.57	25359852.72	25359852.86	0.0277	0.0032
Mercury	64721-01-22 18:00 G	25359941.14	25359941.25	25359941.36	0.0278	0.0172

Venus	64725-07-19 12:00 G	25361579.86	25361580.00	25361580.13	0.0283	0.0216
Venus	64726-03-06 04:19 G	25361809.47	25361809.68	25361809.89	0.0284	0.0020
Venus	64726-10-21 21:07 G	25362039.30	25362039.38	25362039.48	0.0285	0.0258
Earth	64733-11-12 18:58 G	25364618.15	25364618.29	25364618.45	0.0283	0.0224
Moon	64733-11-12 22:19 G	25364618.27	25364618.43	25364618.61	0.0283	0.0209 *
Mercury	64734-11-16 22:34 G	25364987.31	25364987.44	25364987.58	0.0282	0.0167
Mercury	64735-02-13 17:03 G	25365076.04	25365076.21	25365076.38	0.0281	0.0008
Mercury	64735-05-13 11:46 G	25365164.87	25365164.99	25365165.12	0.0281	0.0185
Venus	64740-01-03 20:24 G	25366861.21	25366861.35	25366861.52	0.0276	0.0186
Venus	64740-08-20 04:05 G	25367090.46	25367090.67	25367090.88	0.0275	0.0029
Venus	64741-04-06 11:03 G	25367319.87	25367319.96	25367320.07	0.0275	0.0240
Mars	64742-09-19 08:24 G	25367850.60	25367850.85	25367851.09	0.0274	0.0156
Earth	64748-05-05 21:07 G	25369906.15	25369906.38	25369906.62	0.0276	0.0077
Moon	64748-05-06 00:43 G	25369906.30	25369906.53	25369906.76	0.0276	0.0088 *
Mercury	64749-12-16 19:27 G	25370496.19	25370496.31	25370496.44	0.0278	0.0137
Mercury	64750-03-15 08:39 G	25370584.72	25370584.86	25370585.00	0.0278	0.0007
Mercury	64750-06-11 21:22 G	25370673.28	25370673.39	25370673.52	0.0278	0.0150
Venus	64755-01-29 23:46 G	25372366.33	25372366.49	25372366.67	0.0283	0.0169
Venus	64755-09-16 16:19 G	25372595.98	25372596.18	25372596.39	0.0284	0.0068
Moon	64762-11-07 05:46 G	25375204.50	25375204.74	25375204.98	0.0283	0.0044
Earth	64762-11-07 09:22 G	25375204.64	25375204.89	25375205.14	0.0283	0.0030 *
Mercury	64764-04-05 00:29 G	25375719.41	25375719.52	25375719.64	0.0282	0.0199
Mercury	64764-07-02 18:43 G	25375808.12	25375808.28	25375808.45	0.0282	0.0026
Mercury	64764-09-29 13:12 G	25375896.92	25375897.05	25375897.20	0.0281	0.0152
Venus	64769-07-16 02:39 G	25377647.44	25377647.61	25377647.79	0.0275	0.0154
Venus	64770-03-02 09:51 G	25377876.71	25377876.91	25377877.12	0.0275	0.0060
Venus	64770-10-17 16:34 G	25378106.16	25378106.19	25378106.23	0.0274	0.0270
Moon	64778-05-13 01:27 G	25380870.42	25380870.56	25380870.70	0.0276	0.0216
Earth	64778-05-13 01:55 G	25380870.44	25380870.58	25380870.73	0.0276	0.0218 *
Mercury	64779-05-05 20:24 G	25381228.25	25381228.35	25381228.46	0.0277	0.0186

Mercury	64779-08-02 09:51 G	25381316.76	25381316.91	25381317.05	0.0277	0.0042
Mercury	64779-10-29 22:34 G	25381405.31	25381405.44	25381405.58	0.0278	0.0102
Mercury	64780-01-26 11:17 G	25381493.91	25381493.97	25381494.05	0.0278	0.0242
Venus	64784-08-11 01:41 G	25383152.40	25383152.57	25383152.76	0.0284	0.0145
Venus	64785-03-28 18:29 G	25383382.07	25383382.27	25383382.47	0.0284	0.0092
Mars	64787-01-04 21:07 G	25384029.15	25384029.38	25384029.63	0.0285	0.0152
Moon	64792-11-14 06:15 G	25386169.74	25386169.76	25386169.79	0.0283	0.0281
Mercury	64793-08-22 23:46 G	25386451.43	25386451.49	25386451.56	0.0282	0.0256
Mercury	64793-11-19 18:00 G	25386540.10	25386540.25	25386540.41	0.0281	0.0084
Mercury	64794-02-16 12:43 G	25386628.87	25386629.03	25386629.19	0.0281	0.0092
Mercury	64794-05-16 07:27 G	25386717.77	25386717.81	25386717.86	0.0281	0.0271
Venus	64799-01-26 07:12 G	25388433.62	25388433.80	25388433.99	0.0276	0.0122
Venus	64799-09-12 14:39 G	25388662.91	25388663.11	25388663.31	0.0275	0.0091
Earth	64807-05-08 05:17 G	25391457.48	25391457.72	25391457.97	0.0276	0.0011
Moon	64807-05-08 06:43 G	25391457.53	25391457.78	25391458.03	0.0276	0.0019 *
Mercury	64808-09-21 23:31 G	25391960.40	25391960.48	25391960.58	0.0278	0.0213
Mercury	64808-12-19 12:58 G	25392048.90	25392049.04	25392049.18	0.0278	0.0067
Mercury	64809-03-18 01:55 G	25392137.45	25392137.58	25392137.72	0.0278	0.0077
Mercury	64809-06-14 14:39 G	25392226.03	25392226.11	25392226.21	0.0278	0.0219
Venus	64814-02-21 14:10 G	25393938.89	25393939.09	25393939.29	0.0283	0.0096
Venus	64814-10-09 06:58 G	25394168.60	25394168.79	25394168.97	0.0284	0.0140
Earth	64821-11-08 22:34 G	25396756.19	25396756.44	25396756.68	0.0283	0.0047
Moon	64821-11-08 22:34 G	25396756.21	25396756.44	25396756.68	0.0283	0.0032 *
Mercury	64823-04-08 20:24 G	25397272.20	25397272.35	25397272.50	0.0282	0.0112
Mercury	64823-07-06 14:53 G	25397360.96	25397361.12	25397361.28	0.0281	0.0063
Mercury	64823-10-03 09:36 G	25397449.82	25397449.90	25397449.99	0.0281	0.0241
Venus	64828-08-07 14:24 G	25399219.90	25399220.10	25399220.30	0.0275	0.0088
Venus	64829-03-24 21:07 G	25399449.20	25399449.38	25399449.58	0.0275	0.0125
Mars	64831-02-13 13:12 G	25400139.77	25400140.05	25400140.35	0.0274	0.0079
Moon	64836-05-02 00:15 G	25402044.46	25402044.51	25402044.56	0.0275	0.0268

Earth	64836-05-02 01:27 G	25402044.48	25402044.56	25402044.66	0.0275	0.0255	*
Mercury	64838-02-09 00:58 G	25402692.49	25402692.54	25402692.59	0.0277	0.0258	
Mercury	64838-05-08 14:24 G	25402780.97	25402781.10	25402781.23	0.0277	0.0112	
Mercury	64838-08-05 03:22 G	25402869.50	25402869.64	25402869.79	0.0277	0.0032	
Mercury	64838-11-01 16:19 G	25402958.07	25402958.18	25402958.29	0.0278	0.0173	
Venus	64843-09-03 16:34 G	25404724.99	25404725.19	25404725.40	0.0284	0.0071	
Venus	64844-04-20 09:07 G	25404954.72	25404954.88	25404955.06	0.0284	0.0167	
Moon	64850-11-02 22:05 G	25407342.32	25407342.42	25407342.55	0.0284	0.0252	
Earth	64850-11-02 23:17 G	25407342.34	25407342.47	25407342.61	0.0284	0.0237	*
Mercury	64852-08-25 19:27 G	25408004.19	25408004.31	25408004.45	0.0282	0.0171	
Mercury	64852-11-22 13:55 G	25408092.91	25408093.08	25408093.25	0.0281	0.0003	
Mercury	64853-02-19 08:39 G	25408181.73	25408181.86	25408181.99	0.0281	0.0180	
Venus	64857-07-03 10:48 G	25409776.91	25409776.95	25409776.98	0.0276	0.0271	
Venus	64858-02-17 18:29 G	25410006.06	25410006.27	25410006.48	0.0275	0.0058	
Venus	64858-10-05 01:41 G	25410235.39	25410235.57	25410235.74	0.0275	0.0154	
Moon	64866-05-09 11:17 G	25413008.72	25413008.97	25413009.21	0.0276	0.0051	
Earth	64866-05-09 14:10 G	25413008.85	25413009.09	25413009.32	0.0276	0.0059	*
Mercury	64867-09-25 17:17 G	25413513.10	25413513.22	25413513.35	0.0278	0.0140	
Mercury	64867-12-23 06:29 G	25413601.63	25413601.77	25413601.91	0.0278	0.0005	
Mercury	64868-03-20 19:27 G	25413690.19	25413690.31	25413690.43	0.0278	0.0147	
Venus	64872-07-29 11:46 G	25415281.91	25415281.99	25415282.08	0.0283	0.0260	
Venus	64873-03-16 04:19 G	25415511.47	25415511.68	25415511.89	0.0284	0.0025	
Venus	64873-10-31 21:07 G	25415741.25	25415741.38	25415741.53	0.0284	0.0212	
Mars	64875-06-02 01:27 G	25416319.27	25416319.56	25416319.84	0.0285	0.0037	
Earth	64880-11-10 11:46 G	25418307.78	25418307.99	25418308.22	0.0283	0.0125	
Moon	64880-11-10 15:36 G	25418307.93	25418308.15	25418308.38	0.0283	0.0108	*
Mercury	64882-01-12 22:05 G	25418736.31	25418736.42	25418736.55	0.0282	0.0196	
Mercury	64882-04-11 16:34 G	25418825.02	25418825.19	25418825.36	0.0281	0.0022	
Mercury	64882-07-09 11:03 G	25418913.83	25418913.96	25418914.11	0.0281	0.0154	
Venus	64887-01-13 19:12 G	25420563.21	25420563.30	25420563.42	0.0276	0.0235	

Venus	64887-08-31 02:53 G	25420792.41	25420792.62	25420792.83	0.0275	0.0022
Venus	64888-04-16 09:22 G	25421021.75	25421021.89	25421022.05	0.0275	0.0190
Earth	64895-05-04 11:03 G	25423595.80	25423595.96	25423596.15	0.0275	0.0186
Moon	64895-05-04 14:10 G	25423595.93	25423596.09	25423596.26	0.0275	0.0197 *
Mercury	64897-02-11 18:43 G	25424245.18	25424245.28	25424245.39	0.0277	0.0184
Mercury	64897-05-11 08:10 G	25424333.69	25424333.84	25424333.98	0.0277	0.0040
Mercury	64897-08-07 21:07 G	25424422.25	25424422.38	25424422.51	0.0278	0.0103
Mercury	64897-11-04 09:51 G	25424510.85	25424510.91	25424510.98	0.0278	0.0243
Venus	64902-02-09 14:39 G	25426067.99	25426068.11	25426068.23	0.0283	0.0233
Venus	64902-09-27 06:58 G	25426297.58	25426297.79	25426298.01	0.0284	0.0004
Venus	64903-05-14 23:46 G	25426527.39	25426527.49	25426527.62	0.0284	0.0239
Moon	64909-11-05 08:53 G	25428893.68	25428893.87	25428894.06	0.0284	0.0176
Earth	64909-11-05 12:29 G	25428893.82	25428894.02	25428894.23	0.0284	0.0159 *
Mercury	64911-06-02 21:07 G	25429468.32	25429468.38	25429468.46	0.0282	0.0256
Mercury	64911-08-30 15:22 G	25429556.99	25429557.14	25429557.30	0.0282	0.0084
Mercury	64911-11-27 09:51 G	25429645.76	25429645.91	25429646.07	0.0281	0.0092
Mercury	64912-02-24 04:48 G	25429734.66	25429734.70	25429734.75	0.0281	0.0269
Venus	64916-07-26 22:19 G	25431349.30	25431349.43	25431349.57	0.0276	0.0207
Venus	64917-03-13 05:46 G	25431578.53	25431578.74	25431578.96	0.0275	0.0009
Venus	64917-10-28 12:43 G	25431807.91	25431808.03	25431808.17	0.0275	0.0218
Mars	64919-07-11 16:34 G	25432428.89	25432429.19	25432429.49	0.0274	0.0004
Moon	64925-05-11 18:58 G	25434560.09	25434560.29	25434560.52	0.0276	0.0122
Earth	64925-05-11 22:19 G	25434560.22	25434560.43	25434560.65	0.0276	0.0125 *
Mercury	64926-07-02 21:22 G	25434977.31	25434977.39	25434977.49	0.0278	0.0216
Mercury	64926-09-29 10:48 G	25435065.81	25435065.95	25435066.09	0.0278	0.0070
Mercury	64926-12-26 23:46 G	25435154.36	25435154.49	25435154.63	0.0278	0.0075
Mercury	64927-03-25 12:43 G	25435242.94	25435243.03	25435243.12	0.0278	0.0215
Venus	64931-08-23 01:41 G	25436854.41	25436854.57	25436854.72	0.0283	0.0190
Venus	64932-04-08 18:15 G	25437084.05	25437084.26	25437084.47	0.0284	0.0046
Venus	64932-11-24 11:31 G	25437313.96	25437313.98	25437314.00	0.0284	0.0283

Earth	64939-11-14 00:58 G	25439859.37	25439859.54	25439859.72	0.0283	0.0201
Moon	64939-11-14 02:39 G	25439859.43	25439859.61	25439859.81	0.0283	0.0185 *
Mercury	64940-10-20 00:15 G	25440200.49	25440200.51	25440200.53	0.0282	0.0279
Mercury	64941-01-16 18:15 G	25440289.11	25440289.26	25440289.41	0.0282	0.0108
Mercury	64941-04-15 12:43 G	25440377.86	25440378.03	25440378.19	0.0281	0.0066
Mercury	64941-07-13 07:12 G	25440466.73	25440466.80	25440466.89	0.0281	0.0244
Venus	64946-02-06 07:41 G	25442135.66	25442135.82	25442135.99	0.0276	0.0169
Venus	64946-09-23 14:53 G	25442364.91	25442365.12	25442365.33	0.0275	0.0044
Venus	64947-05-10 21:22 G	25442594.32	25442594.39	25442594.48	0.0275	0.0254
Earth	64954-05-06 20:39 G	25445147.15	25445147.36	25445147.58	0.0275	0.0118
Moon	64954-05-06 23:46 G	25445147.27	25445147.49	25445147.71	0.0275	0.0125 *
Mercury	64955-11-19 23:17 G	25445709.42	25445709.47	25445709.52	0.0277	0.0257
Mercury	64956-02-16 12:29 G	25445797.89	25445798.02	25445798.16	0.0277	0.0112
Mercury	64956-05-15 01:41 G	25445886.43	25445886.57	25445886.71	0.0277	0.0032
Mercury	64956-08-11 14:39 G	25445975.00	25445975.11	25445975.22	0.0278	0.0173
Venus	64961-03-04 04:05 G	25447640.51	25447640.67	25447640.85	0.0283	0.0164
Venus	64961-10-19 20:53 G	25447870.16	25447870.37	25447870.57	0.0284	0.0072
Mars	64963-10-27 19:41 G	25448608.04	25448608.32	25448608.61	0.0285	0.0028
Moon	64968-11-06 23:31 G	25450445.26	25450445.48	25450445.71	0.0284	0.0099
Earth	64968-11-07 00:43 G	25450445.30	25450445.53	25450445.78	0.0284	0.0084 *
Mercury	64970-06-05 17:03 G	25451021.08	25451021.21	25451021.34	0.0282	0.0171
Mercury	64970-09-02 11:17 G	25451109.80	25451109.97	25451110.13	0.0281	0.0004
Mercury	64970-11-30 05:46 G	25451198.62	25451198.74	25451198.87	0.0281	0.0179
Venus	64975-08-19 09:51 G	25452921.74	25452921.91	25452922.10	0.0275	0.0143
Venus	64976-04-04 17:17 G	25453151.02	25453151.22	25453151.43	0.0275	0.0070
Earth	64984-05-13 05:46 G	25456111.57	25456111.74	25456111.92	0.0276	0.0190
Moon	64984-05-13 07:12 G	25456111.64	25456111.80	25456111.97	0.0276	0.0191 *
Mercury	64985-07-05 14:53 G	25456530.00	25456530.12	25456530.24	0.0278	0.0147
Mercury	64985-10-02 04:05 G	25456618.52	25456618.67	25456618.81	0.0278	0.0003
Mercury	64985-12-29 17:03 G	25456707.09	25456707.21	25456707.33	0.0278	0.0140

Venus	64990-09-14 13:55 G	25458426.89	25458427.08	25458427.27	0.0284	0.0122
Venus	64991-05-02 06:58 G	25458656.59	25458656.79	25458656.98	0.0284	0.0114
Moon	64998-11-15 09:51 G	25461410.82	25461410.91	25461411.02	0.0283	0.0258
Earth	64998-11-15 12:29 G	25461410.97	25461411.02	25461411.08	0.0283	0.0274 *
Mercury	64999-10-23 19:41 G	25461753.21	25461753.32	25461753.44	0.0282	0.0196
Mercury	65000-01-20 13:55 G	25461841.92	25461842.08	25461842.25	0.0282	0.0023
Mercury	65000-04-19 08:24 G	25461930.72	25461930.85	25461931.00	0.0281	0.0153

66TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 66th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	65005-03-01 19:41 G		25463708.13	25463708.32	25463708.52	0.0275	0.0103	
Venus	65005-10-17 02:39 G		25463937.42	25463937.61	25463937.81	0.0275	0.0108	
Mars	65007-12-07 09:07 G		25464718.60	25464718.88	25464719.17	0.0274	0.0094	
Moon	65013-05-09 03:36 G		25466698.41	25466698.65	25466698.90	0.0275	0.0055	
Earth	65013-05-09 05:03 G		25466698.47	25466698.71	25466698.95	0.0275	0.0052 *	
Mercury	65014-11-23 16:34 G		25467262.09	25467262.19	25467262.30	0.0277	0.0187	
Mercury	65015-02-20 06:00 G		25467350.61	25467350.75	25467350.89	0.0277	0.0043	
Mercury	65015-05-19 18:58 G		25467439.16	25467439.29	25467439.42	0.0277	0.0099	
Mercury	65015-08-16 07:41 G		25467527.76	25467527.82	25467527.89	0.0278	0.0240	
Venus	65020-03-27 17:03 G		25469213.01	25469213.21	25469213.41	0.0283	0.0095	
Venus	65020-11-12 09:51 G		25469442.72	25469442.91	25469443.09	0.0284	0.0141	
Earth	65027-11-10 12:00 G		25471996.75	25471997.00	25471997.24	0.0284	0.0011	

Moon	65027-11-10 14:24 G	25471996.86	25471997.10	25471997.34	0.0284	0.0026 *
Mercury	65029-03-12 18:15 G	25472485.20	25472485.26	25472485.32	0.0282	0.0260
Mercury	65029-06-09 12:15 G	25472573.86	25472574.01	25472574.17	0.0282	0.0089
Mercury	65029-09-06 06:43 G	25472662.62	25472662.78	25472662.94	0.0281	0.0086
Mercury	65029-12-04 01:41 G	25472751.51	25472751.57	25472751.62	0.0281	0.0264
Venus	65034-09-11 20:53 G	25474494.18	25474494.37	25474494.58	0.0275	0.0079
Venus	65035-04-29 04:05 G	25474723.49	25474723.67	25474723.86	0.0275	0.0133
Earth	65043-05-16 12:15 G	25477662.92	25477663.01	25477663.11	0.0276	0.0253
Moon	65043-05-16 15:51 G	25477663.08	25477663.16	25477663.26	0.0276	0.0257 *
Mercury	65044-04-11 18:29 G	25477994.19	25477994.27	25477994.36	0.0277	0.0227
Mercury	65044-07-09 07:55 G	25478082.69	25478082.83	25478082.97	0.0278	0.0081
Mercury	65044-10-05 20:53 G	25478171.24	25478171.37	25478171.51	0.0278	0.0063
Mercury	65045-01-02 09:51 G	25478259.82	25478259.91	25478260.01	0.0278	0.0204
Venus	65049-10-08 01:12 G	25479999.34	25479999.55	25479999.76	0.0284	0.0057
Venus	65050-05-25 18:15 G	25480229.10	25480229.26	25480229.43	0.0284	0.0180
Mars	65052-03-24 10:05 G	25480897.67	25480897.92	25480898.18	0.0285	0.0122
Earth	65056-11-04 01:27 G	25482583.50	25482583.56	25482583.65	0.0284	0.0270
Mercury	65058-10-27 14:39 G	25483305.96	25483306.11	25483306.26	0.0282	0.0118
Mercury	65059-01-24 09:07 G	25483394.72	25483394.88	25483395.04	0.0282	0.0057
Mercury	65059-04-23 03:36 G	25483483.57	25483483.65	25483483.75	0.0281	0.0235
Venus	65063-08-07 23:03 G	25485051.38	25485051.46	25485051.55	0.0276	0.0252
Venus	65064-03-24 06:29 G	25485280.57	25485280.77	25485280.99	0.0275	0.0041
Venus	65064-11-08 13:41 G	25485509.90	25485510.07	25485510.23	0.0275	0.0171
Moon	65072-05-10 08:53 G	25488249.63	25488249.87	25488250.11	0.0275	0.0011
Earth	65072-05-10 12:29 G	25488249.78	25488250.02	25488250.26	0.0275	0.0012 *
Mercury	65073-08-29 20:39 G	25488726.32	25488726.36	25488726.40	0.0276	0.0264
Mercury	65073-11-26 09:51 G	25488814.79	25488814.91	25488815.05	0.0277	0.0120
Mercury	65074-02-22 23:03 G	25488903.32	25488903.46	25488903.61	0.0277	0.0024
Mercury	65074-05-22 12:00 G	25488991.89	25488992.00	25488992.12	0.0277	0.0164
Venus	65078-09-02 12:15 G	25490555.94	25490556.01	25490556.10	0.0283	0.0261

Venus	65079-04-20 04:34 G	25490785.48	25490785.69	25490785.90	0.0284	0.0028
Venus	65079-12-05 21:07 G	25491015.24	25491015.38	25491015.53	0.0284	0.0207
Earth	65086-11-11 20:10 G	25493548.11	25493548.34	25493548.59	0.0284	0.0058
Moon	65086-11-11 23:46 G	25493548.24	25493548.49	25493548.74	0.0284	0.0041 *
Mercury	65088-03-15 12:58 G	25494037.92	25494038.04	25494038.17	0.0282	0.0184
Mercury	65088-06-12 07:12 G	25494126.64	25494126.80	25494126.97	0.0282	0.0011
Mercury	65088-09-09 01:41 G	25494215.44	25494215.57	25494215.71	0.0281	0.0165
Venus	65093-02-16 23:46 G	25495837.38	25495837.49	25495837.61	0.0276	0.0229
Venus	65093-10-04 07:12 G	25496066.59	25496066.80	25496067.01	0.0275	0.0017
Venus	65094-05-21 14:10 G	25496295.94	25496296.09	25496296.24	0.0275	0.0193
Mars	65096-05-01 23:31 G	25497007.25	25497007.48	25497007.75	0.0274	0.0152
Earth	65101-05-06 07:27 G	25498836.68	25498836.81	25498836.94	0.0275	0.0232
Moon	65101-05-06 10:48 G	25498836.84	25498836.95	25498837.07	0.0275	0.0240 *
Mercury	65103-04-16 11:17 G	25499546.86	25499546.97	25499547.09	0.0277	0.0164
Mercury	65103-07-14 00:29 G	25499635.38	25499635.52	25499635.67	0.0278	0.0021
Mercury	65103-10-10 13:27 G	25499723.94	25499724.06	25499724.19	0.0278	0.0123
Mercury	65104-01-07 02:24 G	25499812.56	25499812.60	25499812.64	0.0278	0.0263
Venus	65108-03-15 18:29 G	25501342.15	25501342.27	25501342.40	0.0283	0.0228
Venus	65108-10-31 11:17 G	25501571.75	25501571.97	25501572.18	0.0284	0.0008
Venus	65109-06-18 04:19 G	25501801.58	25501801.68	25501801.80	0.0284	0.0243
Moon	65115-11-07 05:17 G	25504134.57	25504134.72	25504134.87	0.0284	0.0223
Earth	65115-11-07 08:24 G	25504134.69	25504134.85	25504135.03	0.0284	0.0206 *
Mercury	65117-08-03 15:07 G	25504770.02	25504770.13	25504770.23	0.0282	0.0216
Mercury	65117-10-31 09:07 G	25504858.72	25504858.88	25504859.05	0.0282	0.0045
Mercury	65118-01-28 03:51 G	25504947.51	25504947.66	25504947.81	0.0282	0.0132
Venus	65122-08-31 08:53 G	25506623.72	25506623.87	25506624.03	0.0276	0.0191
Venus	65123-04-17 16:19 G	25506852.97	25506853.18	25506853.39	0.0275	0.0022
Venus	65123-12-02 23:03 G	25507082.36	25507082.46	25507082.59	0.0275	0.0232
Moon	65131-05-13 16:48 G	25509800.98	25509801.20	25509801.44	0.0275	0.0072
Earth	65131-05-13 18:00 G	25509801.02	25509801.25	25509801.49	0.0275	0.0072 *

Mercury	65132-09-02 13:27 G	25510278.97	25510279.06	25510279.16	0.0276	0.0201
Mercury	65132-11-30 02:53 G	25510367.48	25510367.62	25510367.76	0.0277	0.0057
Mercury	65133-02-26 15:51 G	25510456.03	25510456.16	25510456.30	0.0277	0.0085
Mercury	65133-05-26 04:34 G	25510544.61	25510544.69	25510544.78	0.0277	0.0225
Venus	65137-09-25 22:34 G	25512128.29	25512128.44	25512128.59	0.0283	0.0197
Venus	65138-05-13 14:53 G	25512357.91	25512358.12	25512358.33	0.0284	0.0036
Venus	65138-12-29 07:41 G	25512587.76	25512587.82	25512587.88	0.0284	0.0271
Mars	65140-08-18 16:48 G	25513185.97	25513186.20	25513186.44	0.0285	0.0163
Moon	65145-11-14 01:41 G	25515099.33	25515099.57	25515099.81	0.0284	0.0103
Earth	65145-11-14 02:10 G	25515099.37	25515099.59	25515099.82	0.0284	0.0120 *
Mercury	65147-03-20 07:12 G	25515590.65	25515590.80	25515590.95	0.0282	0.0113
Mercury	65147-06-17 01:41 G	25515679.40	25515679.57	25515679.73	0.0282	0.0062
Mercury	65147-09-13 20:24 G	25515768.26	25515768.35	25515768.43	0.0281	0.0239
Venus	65152-03-12 08:53 G	25517409.70	25517409.87	25517410.03	0.0276	0.0169
Venus	65152-10-27 16:19 G	25517638.97	25517639.18	25517639.39	0.0275	0.0043
Venus	65153-06-13 23:03 G	25517868.39	25517868.46	25517868.55	0.0274	0.0252
Earth	65160-05-07 11:31 G	25520387.80	25520387.98	25520388.17	0.0275	0.0175
Moon	65160-05-07 12:58 G	25520387.85	25520388.04	25520388.23	0.0275	0.0179 *
Mercury	65162-01-20 14:24 G	25521011.04	25521011.10	25521011.17	0.0277	0.0249
Mercury	65162-04-19 03:51 G	25521099.53	25521099.66	25521099.80	0.0277	0.0104
Mercury	65162-07-16 17:03 G	25521188.07	25521188.21	25521188.35	0.0278	0.0039
Mercury	65162-10-13 06:00 G	25521276.64	25521276.75	25521276.86	0.0278	0.0180
Venus	65167-04-08 03:07 G	25522914.47	25522914.63	25522914.81	0.0283	0.0168
Venus	65167-11-23 19:55 G	25523144.12	25523144.33	25523144.53	0.0284	0.0067
Earth	65174-11-08 12:15 G	25525685.80	25525686.01	25525686.23	0.0284	0.0148
Moon	65174-11-08 13:27 G	25525685.87	25525686.06	25525686.26	0.0284	0.0165 *
Mercury	65176-08-06 08:39 G	25526322.73	25526322.86	25526323.01	0.0282	0.0150
Mercury	65176-11-03 03:07 G	25526411.46	25526411.63	25526411.80	0.0282	0.0024
Mercury	65177-01-30 21:36 G	25526500.29	25526500.40	25526500.52	0.0282	0.0201
Venus	65181-09-22 17:31 G	25528196.05	25528196.23	25528196.42	0.0276	0.0131

Venus	65182-05-10 00:58 G	25528425.34	25528425.54	25528425.74	0.0275	0.0081
Mars	65184-09-27 09:22 G	25529296.75	25529296.89	25529297.05	0.0274	0.0237
Earth	65190-05-14 22:19 G	25531352.21	25531352.43	25531352.64	0.0275	0.0129
Moon	65190-05-15 01:12 G	25531352.34	25531352.55	25531352.76	0.0275	0.0132 *
Mercury	65191-09-06 06:15 G	25531831.63	25531831.76	25531831.88	0.0276	0.0140
Mercury	65191-12-03 19:27 G	25531920.16	25531920.31	25531920.45	0.0277	0.0004
Mercury	65192-03-01 08:24 G	25532008.73	25532008.85	25532008.97	0.0277	0.0144
Venus	65196-10-18 07:27 G	25533700.63	25533700.81	25533701.00	0.0283	0.0136
Venus	65197-06-04 23:46 G	25533930.29	25533930.49	25533930.69	0.0283	0.0098
Moon	65204-11-15 02:24 G	25536650.41	25536650.60	25536650.81	0.0284	0.0163
Earth	65204-11-15 06:15 G	25536650.58	25536650.76	25536650.96	0.0284	0.0179 *
Mercury	65205-12-24 06:43 G	25537054.69	25537054.78	25537054.89	0.0282	0.0218
Mercury	65206-03-23 00:58 G	25537143.38	25537143.54	25537143.71	0.0282	0.0046
Mercury	65206-06-19 19:27 G	25537232.17	25537232.31	25537232.46	0.0282	0.0130
Venus	65211-04-04 16:48 G	25538982.01	25538982.20	25538982.40	0.0276	0.0110
Venus	65211-11-20 00:29 G	25539211.32	25539211.52	25539211.71	0.0275	0.0101
Moon	65219-05-09 11:03 G	25541938.75	25541938.96	25541939.19	0.0275	0.0121
Earth	65219-05-09 14:24 G	25541938.88	25541939.10	25541939.32	0.0275	0.0120 *
Mercury	65221-01-23 06:58 G	25542563.68	25542563.79	25542563.89	0.0277	0.0191
Mercury	65221-04-21 20:10 G	25542652.20	25542652.34	25542652.48	0.0277	0.0047
Mercury	65221-07-19 09:07 G	25542740.75	25542740.88	25542741.02	0.0277	0.0095
Mercury	65221-10-15 22:05 G	25542829.35	25542829.42	25542829.49	0.0278	0.0235
Venus	65226-04-30 11:03 G	25544486.77	25544486.96	25544487.16	0.0283	0.0108
Venus	65226-12-16 03:36 G	25544716.46	25544716.65	25544716.84	0.0284	0.0126
Mars	65229-01-12 05:03 G	25545474.53	25545474.71	25545474.91	0.0285	0.0214
Earth	65233-11-09 13:55 G	25547236.85	25547237.08	25547237.32	0.0284	0.0094
Moon	65233-11-09 17:46 G	25547237.01	25547237.24	25547237.47	0.0284	0.0109 *
Mercury	65235-05-13 07:41 G	25547786.77	25547786.82	25547786.89	0.0282	0.0260
Mercury	65235-08-10 01:55 G	25547875.42	25547875.58	25547875.74	0.0282	0.0089
Mercury	65235-11-06 20:24 G	25547964.19	25547964.35	25547964.51	0.0282	0.0086

Mercury	65236-02-03 15:07 G	25548053.08	25548053.13	25548053.19	0.0282	0.0264
Venus	65240-10-15 00:43 G	25549768.33	25549768.53	25549768.74	0.0276	0.0074
Venus	65241-06-01 08:24 G	25549997.67	25549997.85	25549998.03	0.0275	0.0138
Earth	65249-05-16 01:27 G	25552903.40	25552903.56	25552903.75	0.0275	0.0186
Moon	65249-05-16 04:19 G	25552903.52	25552903.68	25552903.88	0.0275	0.0191 *
Mercury	65250-06-12 09:22 G	25553295.81	25553295.89	25553295.98	0.0276	0.0224
Mercury	65250-09-08 22:48 G	25553384.31	25553384.45	25553384.59	0.0276	0.0081
Mercury	65250-12-06 11:46 G	25553472.85	25553472.99	25553473.13	0.0277	0.0061
Mercury	65251-03-05 00:43 G	25553561.43	25553561.53	25553561.63	0.0277	0.0200
Venus	65255-11-10 15:51 G	25555272.96	25555273.16	25555273.37	0.0283	0.0075
Venus	65256-06-27 07:55 G	25555502.67	25555502.83	25555503.02	0.0283	0.0159
Moon	65263-11-17 07:27 G	25558201.67	25558201.81	25558201.97	0.0284	0.0223
Earth	65263-11-17 08:24 G	25558201.71	25558201.85	25558201.99	0.0284	0.0233 *
Mercury	65264-12-27 00:00 G	25558607.37	25558607.50	25558607.64	0.0282	0.0156
Mercury	65265-03-25 18:29 G	25558696.10	25558696.27	25558696.43	0.0282	0.0019
Mercury	65265-06-22 12:58 G	25558784.92	25558785.04	25558785.16	0.0282	0.0194
Venus	65269-09-09 15:36 G	25560325.11	25560325.15	25560325.22	0.0276	0.0267
Venus	65270-04-27 00:00 G	25560554.29	25560554.50	25560554.71	0.0276	0.0054
Venus	65270-12-12 07:27 G	25560783.64	25560783.81	25560783.99	0.0275	0.0158
Mars	65273-02-20 07:41 G	25561584.77	25561584.82	25561584.89	0.0273	0.0267
Moon	65278-05-10 13:55 G	25563489.86	25563490.08	25563490.32	0.0275	0.0063
Earth	65278-05-10 16:34 G	25563489.96	25563490.19	25563490.43	0.0275	0.0067 *
Mercury	65280-01-26 23:03 G	25564116.34	25564116.46	25564116.59	0.0277	0.0135
Mercury	65280-04-24 12:15 G	25564204.87	25564205.01	25564205.16	0.0277	0.0009
Mercury	65280-07-22 01:12 G	25564293.43	25564293.55	25564293.67	0.0277	0.0149
Venus	65284-10-05 02:10 G	25565829.58	25565829.59	25565829.62	0.0283	0.0281
Venus	65285-05-22 18:15 G	25566059.05	25566059.26	25566059.47	0.0283	0.0050
Venus	65286-01-07 10:34 G	25566288.79	25566288.94	25566289.11	0.0284	0.0184
Earth	65292-11-10 14:24 G	25568787.85	25568788.10	25568788.35	0.0284	0.0042
Moon	65292-11-10 14:39 G	25568787.86	25568788.11	25568788.37	0.0284	0.0054 *

Mercury	65294-05-16 00:29 G	25569339.42	25569339.52	25569339.64	0.0282	0.0203
Mercury	65294-08-12 18:58 G	25569428.12	25569428.29	25569428.45	0.0282	0.0030
Mercury	65294-11-09 13:12 G	25569516.92	25569517.05	25569517.20	0.0282	0.0147
Venus	65299-03-22 23:03 G	25571111.35	25571111.46	25571111.58	0.0277	0.0231
Venus	65299-11-07 07:27 G	25571340.60	25571340.81	25571341.02	0.0276	0.0018
Venus	65300-06-24 14:53 G	25571569.98	25571570.12	25571570.27	0.0276	0.0194
Moon	65308-05-18 02:10 G	25574454.50	25574454.59	25574454.70	0.0275	0.0250
Earth	65308-05-18 04:05 G	25574454.57	25574454.67	25574454.80	0.0275	0.0240 *
Mercury	65309-06-16 01:41 G	25574848.46	25574848.57	25574848.69	0.0276	0.0167
Mercury	65309-09-12 15:07 G	25574936.98	25574937.13	25574937.27	0.0276	0.0026
Mercury	65309-12-10 04:05 G	25575025.54	25575025.67	25575025.80	0.0277	0.0117
Mercury	65310-03-08 16:34 G	25575114.15	25575114.19	25575114.25	0.0277	0.0255
Venus	65314-04-18 08:24 G	25576615.75	25576615.85	25576615.96	0.0282	0.0244
Venus	65314-12-04 00:00 G	25576845.29	25576845.50	25576845.71	0.0283	0.0014
Venus	65315-07-21 16:05 G	25577075.04	25577075.17	25577075.31	0.0283	0.0218
Mars	65317-06-08 08:10 G	25577762.70	25577762.84	25577763.00	0.0285	0.0244
Moon	65322-11-19 12:43 G	25579753.00	25579753.03	25579753.08	0.0284	0.0280
Mercury	65323-10-03 23:03 G	25580071.42	25580071.46	25580071.52	0.0283	0.0266
Mercury	65323-12-31 17:03 G	25580160.06	25580160.21	25580160.37	0.0282	0.0096
Mercury	65324-03-29 11:31 G	25580248.82	25580248.98	25580249.14	0.0282	0.0079
Mercury	65324-06-26 06:00 G	25580337.69	25580337.75	25580337.83	0.0282	0.0257
Venus	65328-10-02 22:19 G	25581897.30	25581897.43	25581897.56	0.0276	0.0211
Venus	65329-05-20 06:29 G	25582126.56	25582126.77	25582126.98	0.0276	0.0003
Venus	65330-01-04 13:55 G	25582355.95	25582356.08	25582356.21	0.0275	0.0212
Earth	65337-05-12 18:43 G	25585041.04	25585041.28	25585041.52	0.0275	0.0013
Moon	65337-05-12 20:53 G	25585041.13	25585041.37	25585041.61	0.0275	0.0005 *
Mercury	65338-11-03 01:55 G	25585580.50	25585580.58	25585580.67	0.0276	0.0223
Mercury	65339-01-30 15:22 G	25585669.00	25585669.14	25585669.28	0.0277	0.0079
Mercury	65339-04-29 04:19 G	25585757.55	25585757.68	25585757.83	0.0277	0.0064
Mercury	65339-07-26 17:17 G	25585846.13	25585846.22	25585846.32	0.0277	0.0203

Venus	65343-10-29 09:51 G	25587401.78	25587401.91	25587402.04	0.0283	0.0222
Venus	65344-06-15 01:41 G	25587631.36	25587631.57	25587631.78	0.0283	0.0009
Venus	65345-01-30 18:00 G	25587861.14	25587861.25	25587861.36	0.0284	0.0242
Moon	65351-11-13 10:19 G	25590338.68	25590338.93	25590339.18	0.0284	0.0002
Earth	65351-11-13 13:55 G	25590338.83	25590339.08	25590339.32	0.0284	0.0009 *
Mercury	65353-05-19 17:03 G	25590892.08	25590892.21	25590892.36	0.0282	0.0147
Mercury	65353-08-16 11:31 G	25590980.81	25590980.98	25590981.14	0.0282	0.0027
Mercury	65353-11-13 06:00 G	25591069.64	25591069.75	25591069.87	0.0282	0.0204
Venus	65358-04-15 04:34 G	25592683.54	25592683.69	25592683.87	0.0277	0.0177
Venus	65358-11-30 13:12 G	25592912.85	25592913.05	25592913.26	0.0276	0.0038
Venus	65359-07-17 20:53 G	25593142.28	25593142.37	25593142.46	0.0276	0.0248
Moon	65366-05-07 20:39 G	25595628.25	25595628.36	25595628.50	0.0274	0.0238
Earth	65366-05-07 22:34 G	25595628.34	25595628.44	25595628.56	0.0274	0.0241 *
Mercury	65368-03-22 04:48 G	25596312.64	25596312.70	25596312.76	0.0276	0.0253
Mercury	65368-06-18 18:15 G	25596401.12	25596401.26	25596401.39	0.0276	0.0109
Mercury	65368-09-15 07:12 G	25596489.66	25596489.80	25596489.95	0.0276	0.0034
Mercury	65368-12-12 20:10 G	25596578.23	25596578.34	25596578.45	0.0277	0.0172
Venus	65373-05-10 16:34 G	25598188.04	25598188.19	25598188.36	0.0282	0.0184
Venus	65373-12-26 08:10 G	25598417.63	25598417.84	25598418.05	0.0282	0.0046
Venus	65374-08-13 00:00 G	25598647.47	25598647.50	25598647.55	0.0283	0.0277
Earth	65380-11-06 13:41 G	25600925.02	25600925.07	25600925.15	0.0284	0.0273
Mercury	65382-10-06 16:05 G	25601624.06	25601624.17	25601624.28	0.0283	0.0207
Mercury	65383-01-03 10:05 G	25601712.76	25601712.92	25601713.09	0.0282	0.0035
Mercury	65383-04-02 04:34 G	25601801.55	25601801.69	25601801.84	0.0282	0.0141
Venus	65387-10-26 04:34 G	25603469.52	25603469.69	25603469.87	0.0277	0.0156
Venus	65388-06-11 12:43 G	25603698.83	25603699.03	25603699.24	0.0276	0.0058
Venus	65389-01-26 20:10 G	25603928.30	25603928.34	25603928.40	0.0275	0.0267
Earth	65396-05-13 20:53 G	25606592.13	25606592.37	25606592.61	0.0275	0.0040
Moon	65396-05-14 00:15 G	25606592.27	25606592.51	25606592.75	0.0275	0.0052 *
Mercury	65397-11-05 18:15 G	25607133.15	25607133.26	25607133.38	0.0276	0.0166

Mercury	65398-02-02 07:41 G	25607221.67	25607221.82	25607221.96	0.0277	0.0023
Mercury	65398-05-01 20:39 G	25607310.23	25607310.36	25607310.49	0.0277	0.0118
Mercury	65398-07-29 09:22 G	25607398.84	25607398.89	25607398.94	0.0277	0.0256
Venus	65402-11-21 17:31 G	25608974.06	25608974.23	25608974.41	0.0282	0.0162
Venus	65403-07-09 09:07 G	25609203.68	25609203.88	25609204.10	0.0283	0.0070
Mars	65405-11-02 07:55 G	25610050.76	25610050.83	25610050.93	0.0285	0.0272
Moon	65410-11-15 11:31 G	25611889.75	25611889.98	25611890.22	0.0284	0.0053
Earth	65410-11-15 13:55 G	25611889.83	25611890.08	25611890.32	0.0284	0.0060 *
Mercury	65412-02-24 15:51 G	25612356.10	25612356.16	25612356.22	0.0283	0.0260
Mercury	65412-05-23 09:51 G	25612444.76	25612444.91	25612445.07	0.0282	0.0089
Mercury	65412-08-20 04:19 G	25612533.52	25612533.68	25612533.84	0.0282	0.0085
Mercury	65412-11-16 23:03 G	25612622.40	25612622.46	25612622.52	0.0282	0.0263
Venus	65417-05-08 10:34 G	25614255.75	25614255.94	25614256.13	0.0277	0.0122
Venus	65417-12-23 18:58 G	25614485.09	25614485.29	25614485.49	0.0276	0.0092
Mars	65419-10-24 08:39 G	25615154.71	25615154.86	25615155.05	0.0275	0.0225
Moon	65425-05-09 21:36 G	25617179.23	25617179.40	25617179.59	0.0275	0.0182
Earth	65425-05-10 01:12 G	25617179.38	25617179.55	25617179.74	0.0275	0.0186 *
Mercury	65427-03-26 21:22 G	25617865.29	25617865.39	25617865.49	0.0276	0.0194
Mercury	65427-06-23 10:34 G	25617953.80	25617953.94	25617954.08	0.0276	0.0051
Mercury	65427-09-19 23:31 G	25618042.35	25618042.48	25618042.62	0.0276	0.0090
Mercury	65427-12-17 12:29 G	25618130.94	25618131.02	25618131.10	0.0277	0.0228
Venus	65432-06-03 01:41 G	25619760.38	25619760.57	25619760.77	0.0282	0.0122
Venus	65433-01-18 17:03 G	25619990.02	25619990.21	25619990.41	0.0282	0.0108
Earth	65439-11-09 15:51 G	25622476.01	25622476.16	25622476.33	0.0284	0.0217
Moon	65439-11-09 18:00 G	25622476.11	25622476.25	25622476.42	0.0284	0.0226 *
Mercury	65441-10-10 09:07 G	25623176.74	25623176.88	25623177.02	0.0283	0.0146
Mercury	65442-01-07 03:22 G	25623265.48	25623265.64	25623265.81	0.0282	0.0027
Mercury	65442-04-05 21:51 G	25623354.30	25623354.41	25623354.53	0.0282	0.0204
Venus	65446-11-18 11:03 G	25625041.77	25625041.96	25625042.16	0.0277	0.0100
Venus	65447-07-05 19:12 G	25625271.11	25625271.30	25625271.50	0.0276	0.0113

Moon	65455-05-16 23:31 G	25628143.25	25628143.48	25628143.71	0.0275	0.0108
Earth	65455-05-17 00:00 G	25628143.27	25628143.50	25628143.72	0.0275	0.0096 *
Mercury	65456-08-12 21:22 G	25628597.33	25628597.39	25628597.45	0.0276	0.0251
Mercury	65456-11-09 10:48 G	25628685.82	25628685.95	25628686.09	0.0276	0.0107
Mercury	65457-02-06 00:00 G	25628774.36	25628774.50	25628774.64	0.0277	0.0035
Mercury	65457-05-05 12:58 G	25628862.93	25628863.04	25628863.15	0.0277	0.0175
Venus	65461-12-14 02:10 G	25630546.40	25630546.59	25630546.80	0.0282	0.0101
Venus	65462-07-31 17:46 G	25630776.06	25630776.24	25630776.43	0.0283	0.0130
Earth	65469-11-16 14:39 G	25633440.89	25633441.11	25633441.35	0.0284	0.0114
Moon	65469-11-16 17:03 G	25633440.98	25633441.21	25633441.43	0.0284	0.0110 *
Mercury	65471-02-27 08:53 G	25633908.75	25633908.87	25633908.98	0.0283	0.0201
Mercury	65471-05-27 02:53 G	25633997.46	25633997.62	25633997.79	0.0282	0.0029
Mercury	65471-08-23 21:22 G	25634086.25	25634086.39	25634086.53	0.0282	0.0146
Venus	65476-05-30 16:34 G	25635827.99	25635828.19	25635828.40	0.0277	0.0067
Venus	65477-01-15 00:58 G	25636057.37	25636057.54	25636057.72	0.0276	0.0147
Moon	65484-05-11 04:05 G	25638730.46	25638730.67	25638730.88	0.0275	0.0123
Earth	65484-05-11 04:34 G	25638730.48	25638730.69	25638730.90	0.0275	0.0129 *
Mercury	65486-03-29 13:55 G	25639417.95	25639418.08	25639418.21	0.0276	0.0134
Mercury	65486-06-26 03:07 G	25639506.49	25639506.63	25639506.78	0.0276	0.0009
Mercury	65486-09-22 16:05 G	25639595.05	25639595.17	25639595.29	0.0277	0.0148
Venus	65491-06-26 11:31 G	25641332.77	25641332.98	25641333.19	0.0282	0.0059
Venus	65492-02-11 02:53 G	25641562.45	25641562.62	25641562.79	0.0282	0.0170
Moon	65498-11-10 17:03 G	25644027.01	25644027.21	25644027.43	0.0284	0.0163
Earth	65498-11-10 19:41 G	25644027.13	25644027.32	25644027.54	0.0284	0.0157 *
Mercury	65500-07-17 08:39 G	25644640.79	25644640.86	25644640.94	0.0283	0.0251
Mercury	65500-10-14 02:39 G	25644729.46	25644729.61	25644729.77	0.0282	0.0080
Mercury	65501-01-10 20:53 G	25644818.22	25644818.37	25644818.53	0.0282	0.0094
Mercury	65501-04-09 15:36 G	25644907.11	25644907.15	25644907.20	0.0282	0.0271
Venus	65505-04-26 09:22 G	25646384.81	25646384.89	25646384.97	0.0277	0.0257
Venus	65505-12-11 18:15 G	25646614.05	25646614.26	25646614.47	0.0277	0.0043

Venus	65506-07-29 02:24 G	25646843.43	25646843.60	25646843.76	0.0276	0.0169
Mars	65508-03-19 08:24 G	25647442.65	25647442.85	25647443.07	0.0275	0.0196
Moon	65514-05-19 00:29 G	25649694.33	25649694.52	25649694.72	0.0275	0.0168
Earth	65514-05-19 03:51 G	25649694.47	25649694.66	25649694.87	0.0275	0.0155 *
Mercury	65515-08-17 14:10 G	25650149.99	25650150.09	25650150.20	0.0276	0.0189
Mercury	65515-11-14 03:36 G	25650238.51	25650238.65	25650238.79	0.0276	0.0045
Mercury	65516-02-10 16:34 G	25650327.06	25650327.19	25650327.33	0.0277	0.0096
Mercury	65516-05-09 05:31 G	25650415.66	25650415.73	25650415.81	0.0277	0.0234
Venus	65520-05-21 21:07 G	25651889.33	25651889.38	25651889.47	0.0282	0.0265
Venus	65521-01-06 12:29 G	25652118.81	25652119.02	25652119.23	0.0282	0.0037
Venus	65521-08-24 03:51 G	25652348.51	25652348.66	25652348.82	0.0283	0.0193
Earth	65528-11-18 17:31 G	25654992.05	25654992.23	25654992.44	0.0284	0.0172
Moon	65528-11-18 21:22 G	25654992.20	25654992.39	25654992.60	0.0284	0.0170 *
Mercury	65530-03-03 02:10 G	25655461.45	25655461.59	25655461.73	0.0282	0.0137
Mercury	65530-05-30 20:24 G	25655550.18	25655550.35	25655550.51	0.0282	0.0036
Mercury	65530-08-27 14:53 G	25655639.01	25655639.12	25655639.23	0.0282	0.0212
Venus	65534-11-06 14:24 G	25657170.98	25657171.10	25657171.22	0.0278	0.0225
Venus	65535-06-23 23:31 G	25657400.26	25657400.48	25657400.69	0.0277	0.0012
Venus	65536-02-08 07:27 G	25657629.68	25657629.81	25657629.97	0.0276	0.0203
Earth	65543-05-14 08:39 G	25660281.63	25660281.86	25660282.10	0.0275	0.0070
Moon	65543-05-14 12:00 G	25660281.77	25660282.00	25660282.24	0.0275	0.0060 *
Mercury	65545-01-03 17:31 G	25660882.14	25660882.23	25660882.32	0.0276	0.0215
Mercury	65545-04-02 06:43 G	25660970.64	25660970.78	25660970.92	0.0277	0.0071
Mercury	65545-06-29 19:55 G	25661059.19	25661059.33	25661059.47	0.0277	0.0070
Mercury	65545-09-26 08:53 G	25661147.78	25661147.87	25661147.96	0.0277	0.0209
Venus	65549-12-02 07:12 G	25662675.68	25662675.80	25662675.95	0.0281	0.0221
Venus	65550-07-19 22:19 G	25662905.22	25662905.43	25662905.64	0.0282	0.0006
Venus	65551-03-06 13:41 G	25663134.96	25663135.07	25663135.19	0.0282	0.0235
Mars	65552-07-04 12:43 G	25663620.92	25663621.03	25663621.15	0.0283	0.0261
Moon	65557-11-12 22:34 G	25665578.21	25665578.44	25665578.67	0.0284	0.0095

Earth	65557-11-13 01:55 G	25665578.34	25665578.58	25665578.81	0.0284	0.0093	*
Mercury	65559-07-21 02:39 G	25666193.49	25666193.61	25666193.74	0.0283	0.0182	
Mercury	65559-10-17 20:53 G	25666282.20	25666282.37	25666282.53	0.0282	0.0012	
Mercury	65560-01-14 15:07 G	25666371.00	25666371.13	25666371.27	0.0282	0.0165	
Venus	65564-05-18 17:31 G	25667957.09	25667957.23	25667957.38	0.0277	0.0198	
Venus	65565-01-03 02:24 G	25668186.39	25668186.60	25668186.81	0.0277	0.0016	
Venus	65565-08-20 10:19 G	25668415.82	25668415.93	25668416.05	0.0276	0.0227	
Moon	65573-05-20 07:27 G	25671245.69	25671245.81	25671245.95	0.0275	0.0231	
Earth	65573-05-20 09:22 G	25671245.75	25671245.89	25671246.05	0.0275	0.0216	*
Mercury	65574-05-23 17:46 G	25671614.21	25671614.24	25671614.28	0.0276	0.0268	
Mercury	65574-08-20 07:12 G	25671702.68	25671702.80	25671702.94	0.0276	0.0124	
Mercury	65574-11-16 20:39 G	25671791.21	25671791.36	25671791.50	0.0277	0.0019	
Mercury	65575-02-13 09:36 G	25671879.78	25671879.90	25671880.02	0.0277	0.0158	
Venus	65579-06-14 08:39 G	25673461.71	25673461.86	25673462.01	0.0282	0.0199	
Venus	65580-01-29 23:31 G	25673691.27	25673691.48	25673691.69	0.0282	0.0029	
Venus	65580-09-15 14:53 G	25673921.04	25673921.12	25673921.21	0.0283	0.0258	
Moon	65587-11-20 22:19 G	25676543.31	25676543.43	25676543.58	0.0283	0.0238	
Earth	65587-11-20 23:17 G	25676543.33	25676543.47	25676543.61	0.0283	0.0234	*
Mercury	65588-12-07 02:10 G	25676925.51	25676925.59	25676925.68	0.0282	0.0238	
Mercury	65589-03-05 20:10 G	25677014.18	25677014.34	25677014.50	0.0282	0.0067	
Mercury	65589-06-02 14:24 G	25677102.95	25677103.10	25677103.26	0.0282	0.0107	
Venus	65593-11-28 22:05 G	25678743.26	25678743.42	25678743.60	0.0277	0.0167	
Venus	65594-07-16 07:12 G	25678972.59	25678972.80	25678973.01	0.0277	0.0047	
Venus	65595-03-02 15:22 G	25679202.08	25679202.14	25679202.22	0.0276	0.0259	
Mars	65596-08-13 05:17 G	25679731.47	25679731.72	25679731.99	0.0275	0.0136	
Earth	65602-05-15 13:55 G	25681832.84	25681833.08	25681833.32	0.0275	0.0009	
Moon	65602-05-15 16:05 G	25681832.92	25681833.17	25681833.42	0.0275	0.0004	*
Mercury	65604-01-07 10:34 G	25682434.81	25682434.94	25682435.06	0.0277	0.0150	
Mercury	65604-04-04 23:46 G	25682523.35	25682523.49	25682523.64	0.0277	0.0007	
Mercury	65604-07-02 12:43 G	25682611.91	25682612.03	25682612.16	0.0277	0.0134	

Mercury	65604-09-29 01:41 G	25682700.55	25682700.57	25682700.60	0.0277	0.0272
Venus	65608-12-24 19:27 G	25684248.14	25684248.31	25684248.50	0.0281	0.0155
Venus	65609-08-11 10:34 G	25684477.74	25684477.94	25684478.15	0.0282	0.0073
Earth	65616-11-14 10:19 G	25687129.68	25687129.93	25687130.18	0.0284	0.0025
Moon	65616-11-14 11:31 G	25687129.74	25687129.98	25687130.22	0.0284	0.0023 *
Mercury	65618-04-26 03:36 G	25687657.62	25687657.65	25687657.68	0.0283	0.0275
Mercury	65618-07-23 21:22 G	25687746.24	25687746.39	25687746.54	0.0282	0.0106
Mercury	65618-10-20 15:36 G	25687834.99	25687835.15	25687835.31	0.0282	0.0067
Mercury	65619-01-17 10:05 G	25687923.84	25687923.92	25687924.00	0.0282	0.0242
Venus	65623-06-11 03:07 G	25689529.45	25689529.63	25689529.81	0.0277	0.0137
Venus	65624-01-26 11:31 G	25689758.78	25689758.98	25689759.19	0.0277	0.0076
Moon	65631-05-10 06:00 G	25692419.66	25692419.75	25692419.86	0.0275	0.0246
Earth	65631-05-10 07:41 G	25692419.75	25692419.82	25692419.92	0.0275	0.0257 *
Mercury	65633-05-26 11:03 G	25693166.87	25693166.96	25693167.07	0.0276	0.0201
Mercury	65633-08-23 00:43 G	25693255.38	25693255.53	25693255.67	0.0276	0.0057
Mercury	65633-11-19 13:41 G	25693343.94	25693344.07	25693344.21	0.0277	0.0085
Mercury	65634-02-16 02:39 G	25693432.53	25693432.61	25693432.70	0.0277	0.0223
Venus	65638-07-06 20:53 G	25695034.19	25695034.37	25695034.56	0.0282	0.0132
Venus	65639-02-21 12:00 G	25695263.80	25695264.00	25695264.20	0.0282	0.0097
Mars	65640-11-28 00:29 G	25695909.34	25695909.52	25695909.73	0.0284	0.0210
Mercury	65647-12-10 20:39 G	25698478.23	25698478.36	25698478.50	0.0282	0.0164
Mercury	65648-03-08 14:39 G	25698566.95	25698567.11	25698567.28	0.0282	0.0011
Mercury	65648-06-05 09:07 G	25698655.76	25698655.88	25698656.01	0.0282	0.0183
Venus	65652-12-21 07:27 G	25700315.62	25700315.81	25700316.00	0.0277	0.0107
Venus	65653-08-07 16:05 G	25700544.98	25700545.17	25700545.37	0.0277	0.0108
Moon	65661-05-16 17:46 G	25703384.01	25703384.24	25703384.49	0.0276	0.0071
Earth	65661-05-16 20:39 G	25703384.12	25703384.36	25703384.60	0.0276	0.0055 *
Mercury	65662-10-13 14:24 G	25703899.02	25703899.10	25703899.18	0.0277	0.0226
Mercury	65663-01-10 03:51 G	25703987.52	25703987.66	25703987.80	0.0277	0.0082
Mercury	65663-04-08 17:03 G	25704076.07	25704076.21	25704076.35	0.0277	0.0060

Mercury	65663-07-06 06:00 G	25704164.66	25704164.75	25704164.85	0.0277	0.0200
Venus	65668-01-17 08:24 G	25705820.65	25705820.85	25705821.06	0.0282	0.0087
Venus	65668-09-02 23:31 G	25706050.30	25706050.48	25706050.67	0.0282	0.0142
Earth	65675-11-16 20:53 G	25708681.13	25708681.37	25708681.62	0.0284	0.0047
Moon	65675-11-17 00:29 G	25708681.28	25708681.52	25708681.77	0.0284	0.0053 *
Mercury	65677-04-28 22:34 G	25709210.33	25709210.44	25709210.56	0.0282	0.0196
Mercury	65677-07-26 16:34 G	25709299.03	25709299.19	25709299.36	0.0282	0.0025
Mercury	65677-10-23 10:48 G	25709387.81	25709387.95	25709388.10	0.0282	0.0149
Venus	65682-07-03 13:41 G	25711101.87	25711102.07	25711102.28	0.0277	0.0075
Venus	65683-02-17 22:05 G	25711331.24	25711331.42	25711331.60	0.0276	0.0139
Mars	65685-01-07 02:24 G	25712020.32	25712020.60	25712020.90	0.0275	0.0072
Earth	65690-05-11 15:22 G	25713970.98	25713971.14	25713971.32	0.0275	0.0192
Moon	65690-05-11 18:00 G	25713971.08	25713971.25	25713971.43	0.0275	0.0179 *
Mercury	65692-03-01 15:07 G	25714631.13	25714631.13	25714631.15	0.0276	0.0275
Mercury	65692-05-29 04:48 G	25714719.57	25714719.70	25714719.83	0.0276	0.0130
Mercury	65692-08-25 18:15 G	25714808.11	25714808.26	25714808.40	0.0277	0.0014
Mercury	65692-11-22 07:12 G	25714896.68	25714896.80	25714896.92	0.0277	0.0152
Venus	65697-07-29 10:19 G	25716606.72	25716606.93	25716607.14	0.0282	0.0062
Venus	65698-03-16 01:27 G	25716836.39	25716836.56	25716836.73	0.0283	0.0166
Moon	65704-11-10 17:46 G	25719267.11	25719267.24	25719267.39	0.0284	0.0234
Earth	65704-11-10 21:36 G	25719267.26	25719267.40	25719267.54	0.0284	0.0235 *
Mercury	65706-09-16 21:51 G	25719942.35	25719942.41	25719942.49	0.0282	0.0253
Mercury	65706-12-14 15:51 G	25720031.00	25720031.16	25720031.32	0.0282	0.0084
Mercury	65707-03-13 10:05 G	25720119.76	25720119.92	25720120.08	0.0282	0.0089
Mercury	65707-06-10 04:34 G	25720208.64	25720208.69	25720208.75	0.0282	0.0265
Venus	65711-05-30 08:24 G	25721658.78	25721658.85	25721658.93	0.0278	0.0259
Venus	65712-01-14 17:46 G	25721888.03	25721888.24	25721888.45	0.0277	0.0044
Venus	65712-08-31 02:10 G	25722117.43	25722117.59	25722117.76	0.0277	0.0169
Moon	65720-05-19 00:43 G	25724935.33	25724935.53	25724935.74	0.0276	0.0136
Earth	65720-05-19 03:51 G	25724935.45	25724935.66	25724935.89	0.0276	0.0120 *

Mercury	65721-10-17 07:41 G	25725451.71	25725451.82	25725451.95	0.0277	0.0157
Mercury	65722-01-13 21:22 G	25725540.24	25725540.39	25725540.53	0.0277	0.0015
Mercury	65722-04-12 10:19 G	25725628.81	25725628.93	25725629.06	0.0277	0.0128
Mercury	65722-07-09 23:17 G	25725717.44	25725717.47	25725717.51	0.0278	0.0266
Venus	65726-06-25 06:58 G	25727163.70	25727163.79	25727163.91	0.0281	0.0244
Venus	65727-02-09 22:05 G	25727393.21	25727393.42	25727393.63	0.0282	0.0017
Venus	65727-09-27 13:27 G	25727622.92	25727623.06	25727623.20	0.0282	0.0212
Mars	65729-04-26 02:39 G	25728199.34	25728199.61	25728199.89	0.0283	0.0099
Earth	65734-11-19 09:07 G	25730232.66	25730232.88	25730233.11	0.0283	0.0123
Moon	65734-11-19 10:48 G	25730232.72	25730232.95	25730233.18	0.0283	0.0127 *
Mercury	65736-02-04 00:15 G	25730674.50	25730674.51	25730674.54	0.0283	0.0281
Mercury	65736-05-02 18:15 G	25730763.11	25730763.26	25730763.41	0.0282	0.0112
Mercury	65736-07-30 12:15 G	25730851.85	25730852.01	25730852.18	0.0282	0.0060
Mercury	65736-10-27 06:43 G	25730940.69	25730940.78	25730940.87	0.0282	0.0235
Venus	65740-12-09 16:19 G	25732445.07	25732445.18	25732445.32	0.0278	0.0224
Venus	65741-07-27 01:27 G	25732674.35	25732674.56	25732674.77	0.0277	0.0010
Venus	65742-03-13 09:22 G	25732903.76	25732903.89	25732904.04	0.0276	0.0202
Earth	65749-05-14 00:29 G	25735522.31	25735522.52	25735522.74	0.0275	0.0124
Moon	65749-05-14 03:51 G	25735522.44	25735522.66	25735522.89	0.0275	0.0110 *
Mercury	65751-03-06 09:07 G	25736183.78	25736183.88	25736183.98	0.0276	0.0202
Mercury	65751-06-02 22:34 G	25736272.30	25736272.44	25736272.58	0.0276	0.0059
Mercury	65751-08-30 11:46 G	25736360.85	25736360.99	25736361.13	0.0277	0.0083
Mercury	65751-11-27 00:43 G	25736449.45	25736449.53	25736449.62	0.0277	0.0222
Venus	65756-01-05 09:36 G	25737949.77	25737949.90	25737950.03	0.0281	0.0219
Venus	65756-08-22 00:15 G	25738179.30	25738179.51	25738179.73	0.0282	0.0010
Venus	65757-04-08 15:22 G	25738409.04	25738409.14	25738409.27	0.0283	0.0237
Moon	65763-11-13 08:10 G	25740818.65	25740818.84	25740819.05	0.0284	0.0159
Earth	65763-11-13 09:36 G	25740818.70	25740818.90	25740819.11	0.0284	0.0160 *
Mercury	65765-09-19 17:17 G	25741495.10	25741495.22	25741495.36	0.0282	0.0171
Mercury	65765-12-17 11:17 G	25741583.81	25741583.97	25741584.14	0.0282	0.0008

Mercury	65766-03-16 05:46 G	25741672.61	25741672.74	25741672.87	0.0282	0.0174
Venus	65770-06-21 19:55 G	25743231.19	25743231.33	25743231.49	0.0277	0.0195
Venus	65771-02-06 05:03 G	25743460.50	25743460.71	25743460.92	0.0277	0.0019
Venus	65771-09-23 13:12 G	25743689.94	25743690.05	25743690.17	0.0276	0.0231
Mars	65773-06-04 05:03 G	25744309.41	25744309.71	25744310.00	0.0275	0.0003
Earth	65779-05-21 11:31 G	25746486.82	25746486.98	25746487.18	0.0276	0.0187
Moon	65779-05-21 12:15 G	25746486.87	25746487.01	25746487.18	0.0276	0.0201 *
Mercury	65780-07-23 11:46 G	25746915.92	25746915.99	25746916.07	0.0277	0.0232
Mercury	65780-10-20 01:27 G	25747004.42	25747004.56	25747004.70	0.0277	0.0087
Mercury	65781-01-16 14:39 G	25747092.97	25747093.11	25747093.26	0.0277	0.0056
Mercury	65781-04-15 03:36 G	25747181.56	25747181.65	25747181.76	0.0278	0.0196
Venus	65785-07-17 20:24 G	25748736.19	25748736.35	25748736.52	0.0282	0.0176
Venus	65786-03-04 11:46 G	25748965.78	25748965.99	25748966.20	0.0282	0.0052
Venus	65786-10-20 03:22 G	25749195.62	25749195.64	25749195.66	0.0283	0.0281
Moon	65793-11-20 20:10 G	25751784.17	25751784.34	25751784.52	0.0283	0.0206
Earth	65793-11-20 22:34 G	25751784.28	25751784.44	25751784.63	0.0283	0.0200 *
Mercury	65795-02-06 20:10 G	25752227.23	25752227.34	25752227.46	0.0282	0.0195
Mercury	65795-05-06 14:10 G	25752315.93	25752316.09	25752316.25	0.0282	0.0025
Mercury	65795-08-03 08:24 G	25752404.71	25752404.85	25752404.99	0.0282	0.0149
Venus	65800-01-02 05:03 G	25754017.54	25754017.71	25754017.89	0.0277	0.0157
Venus	65800-08-19 13:41 G	25754246.87	25754247.07	25754247.28	0.0277	0.0056
Venus	65801-04-05 21:36 G	25754476.35	25754476.40	25754476.46	0.0276	0.0267
Moon	65808-05-16 09:51 G	25757073.67	25757073.91	25757074.16	0.0275	0.0043
Earth	65808-05-16 10:05 G	25757073.68	25757073.92	25757074.16	0.0275	0.0056 *
Mercury	65809-12-11 13:12 G	25757648.05	25757648.05	25757648.07	0.0276	0.0274
Mercury	65810-03-10 03:07 G	25757736.50	25757736.63	25757736.75	0.0276	0.0130
Mercury	65810-06-06 16:19 G	25757825.04	25757825.18	25757825.33	0.0277	0.0013
Mercury	65810-09-03 05:31 G	25757913.61	25757913.73	25757913.85	0.0277	0.0153
Venus	65815-01-28 23:31 G	25759522.30	25759522.48	25759522.66	0.0282	0.0149
Venus	65815-09-15 14:24 G	25759751.90	25759752.10	25759752.31	0.0282	0.0078

Mars	65817-09-20 23:17 G	25760488.18	25760488.47	25760488.76	0.0284	0.0032
Earth	65822-11-15 22:34 G	25762370.20	25762370.44	25762370.68	0.0284	0.0083
Moon	65822-11-16 01:27 G	25762370.33	25762370.56	25762370.80	0.0284	0.0078 *
Mercury	65824-06-26 19:12 G	25762959.24	25762959.30	25762959.37	0.0282	0.0255
Mercury	65824-09-23 12:58 G	25763047.89	25763048.04	25763048.20	0.0282	0.0086
Mercury	65824-12-21 07:12 G	25763136.64	25763136.80	25763136.96	0.0282	0.0086
Mercury	65825-03-20 01:27 G	25763225.51	25763225.56	25763225.63	0.0282	0.0262
Venus	65829-07-15 07:55 G	25764803.65	25764803.83	25764804.02	0.0277	0.0130
Venus	65830-03-01 16:48 G	25765033.00	25765033.20	25765033.40	0.0277	0.0084
Earth	65838-05-23 19:55 G	25768038.25	25768038.33	25768038.44	0.0276	0.0252
Moon	65838-05-23 23:46 G	25768038.43	25768038.49	25768038.54	0.0276	0.0268 *
Mercury	65839-07-28 05:31 G	25768468.61	25768468.73	25768468.85	0.0277	0.0161
Mercury	65839-10-24 18:58 G	25768557.15	25768557.29	25768557.44	0.0277	0.0018
Mercury	65840-01-21 08:10 G	25768645.71	25768645.84	25768645.97	0.0277	0.0124
Mercury	65840-04-18 21:07 G	25768734.34	25768734.38	25768734.43	0.0278	0.0263
Venus	65844-08-10 09:51 G	25770308.71	25770308.91	25770309.11	0.0282	0.0108
Venus	65845-03-28 00:58 G	25770538.36	25770538.54	25770538.74	0.0282	0.0121
Moon	65852-11-23 07:55 G	25773335.83	25773335.83	25773335.86	0.0283	0.0283
Earth	65852-11-23 11:31 G	25773335.93	25773335.98	25773336.05	0.0283	0.0274
Mercury	65853-11-13 22:05 G	25773691.40	25773691.42	25773691.46	0.0283	0.0278
Mercury	65854-02-10 16:05 G	25773780.02	25773780.17	25773780.32	0.0282	0.0110
Mercury	65854-05-10 10:05 G	25773868.76	25773868.92	25773869.08	0.0282	0.0062
Mercury	65854-08-07 04:19 G	25773957.60	25773957.68	25773957.78	0.0282	0.0237
Venus	65859-01-25 18:00 G	25775590.05	25775590.25	25775590.45	0.0277	0.0090
Venus	65859-09-12 02:10 G	25775819.41	25775819.59	25775819.79	0.0277	0.0122
Mars	65861-10-30 21:51 G	25776599.14	25776599.41	25776599.69	0.0275	0.0097
Moon	65867-05-18 16:05 G	25778624.93	25778625.17	25778625.41	0.0275	0.0027
Earth	65867-05-18 19:27 G	25778625.07	25778625.31	25778625.56	0.0275	0.0012 *
Mercury	65868-12-14 07:12 G	25779200.71	25779200.80	25779200.90	0.0276	0.0202
Mercury	65869-03-12 20:53 G	25779289.22	25779289.37	25779289.51	0.0276	0.0059

Mercury	65869-06-09 09:51 G	25779377.78	25779377.91	25779378.05	0.0277	0.0084
Mercury	65869-09-05 22:48 G	25779466.37	25779466.45	25779466.54	0.0277	0.0222
Venus	65874-02-20 12:58 G	25781094.84	25781095.04	25781095.24	0.0282	0.0080
Venus	65874-10-08 04:05 G	25781324.49	25781324.67	25781324.85	0.0282	0.0147
Earth	65881-11-17 11:31 G	25783921.73	25783921.98	25783922.23	0.0284	0.0007
Moon	65881-11-17 14:53 G	25783921.86	25783922.12	25783922.37	0.0284	0.0002 *
Mercury	65883-06-30 14:53 G	25784511.99	25784512.12	25784512.25	0.0282	0.0171
Mercury	65883-09-27 08:53 G	25784600.70	25784600.87	25784601.03	0.0282	0.0002
Mercury	65883-12-25 03:07 G	25784689.50	25784689.63	25784689.76	0.0282	0.0173
Venus	65887-12-21 11:03 G	25786146.96	25786146.96	25786146.97	0.0278	0.0277
Venus	65888-08-06 20:10 G	25786376.14	25786376.34	25786376.55	0.0277	0.0064
Venus	65889-03-24 04:34 G	25786605.52	25786605.69	25786605.87	0.0276	0.0148
Earth	65896-05-12 18:15 G	25789212.13	25789212.26	25789212.41	0.0275	0.0223
Moon	65896-05-12 22:05 G	25789212.27	25789212.42	25789212.58	0.0275	0.0208 *
Mercury	65898-05-03 09:22 G	25789932.82	25789932.89	25789932.97	0.0277	0.0237
Mercury	65898-07-30 23:03 G	25790021.32	25790021.46	25790021.60	0.0277	0.0093
Mercury	65898-10-27 12:15 G	25790109.87	25790110.01	25790110.16	0.0277	0.0050
Mercury	65899-01-24 01:27 G	25790198.46	25790198.56	25790198.66	0.0278	0.0190
Venus	65903-01-17 07:12 G	25791651.75	25791651.80	25791651.88	0.0282	0.0267
Venus	65903-09-03 22:19 G	25791881.22	25791881.43	25791881.64	0.0282	0.0041
Venus	65904-04-20 13:41 G	25792110.92	25792111.07	25792111.24	0.0283	0.0188
Mars	65906-02-16 21:51 G	25792778.14	25792778.41	25792778.70	0.0284	0.0076
Moon	65910-11-13 00:15 G	25794508.41	25794508.51	25794508.62	0.0284	0.0255
Earth	65910-11-13 03:22 G	25794508.54	25794508.64	25794508.73	0.0284	0.0260 *
Mercury	65912-11-17 17:46 G	25795244.12	25795244.24	25795244.36	0.0282	0.0195
Mercury	65913-02-14 11:31 G	25795332.82	25795332.98	25795333.15	0.0282	0.0027
Mercury	65913-05-14 05:46 G	25795421.60	25795421.74	25795421.89	0.0282	0.0148
Venus	65917-07-03 21:22 G	25796933.29	25796933.39	25796933.50	0.0278	0.0238
Venus	65918-02-18 06:15 G	25797162.55	25797162.76	25797162.97	0.0277	0.0025
Venus	65918-10-05 14:24 G	25797391.95	25797392.10	25797392.26	0.0277	0.0187

Moon	65926-05-21 02:24 G	25800176.38	25800176.60	25800176.82	0.0275	0.0094
Earth	65926-05-21 04:19 G	25800176.45	25800176.68	25800176.92	0.0275	0.0078 *
Mercury	65927-09-21 11:17 G	25800664.97	25800664.97	25800664.99	0.0276	0.0275
Mercury	65927-12-19 00:58 G	25800753.41	25800753.54	25800753.67	0.0276	0.0131
Mercury	65928-03-16 14:24 G	25800841.95	25800842.10	25800842.24	0.0276	0.0011
Mercury	65928-06-13 03:22 G	25800930.53	25800930.64	25800930.77	0.0277	0.0152
Venus	65932-07-29 11:03 G	25802437.85	25802437.96	25802438.08	0.0281	0.0237
Venus	65933-03-16 01:41 G	25802667.36	25802667.57	25802667.79	0.0282	0.0014
Venus	65933-10-31 16:48 G	25802897.08	25802897.20	25802897.35	0.0282	0.0216
Moon	65940-11-19 21:22 G	25805473.15	25805473.39	25805473.65	0.0284	0.0077
Earth	65940-11-19 22:48 G	25805473.21	25805473.45	25805473.70	0.0284	0.0066 *
Mercury	65942-04-06 16:19 G	25805976.12	25805976.18	25805976.25	0.0283	0.0258
Mercury	65942-07-04 10:19 G	25806064.77	25806064.93	25806065.08	0.0282	0.0090
Mercury	65942-10-01 04:19 G	25806153.52	25806153.68	25806153.84	0.0282	0.0082
Mercury	65942-12-28 22:34 G	25806242.38	25806242.44	25806242.51	0.0282	0.0257
Venus	65947-01-13 23:03 G	25807719.32	25807719.46	25807719.59	0.0277	0.0213
Venus	65947-08-31 07:55 G	25807948.62	25807948.83	25807949.04	0.0277	0.0003
Venus	65948-04-16 15:51 G	25808178.04	25808178.16	25808178.31	0.0276	0.0212
Mars	65950-03-27 19:27 G	25808888.08	25808888.31	25808888.56	0.0275	0.0164
Earth	65955-05-16 01:41 G	25810763.37	25810763.57	25810763.77	0.0275	0.0160
Moon	65955-05-16 03:22 G	25810763.44	25810763.64	25810763.86	0.0275	0.0144 *
Mercury	65957-05-07 02:39 G	25811485.50	25811485.61	25811485.73	0.0277	0.0170
Mercury	65957-08-03 16:19 G	25811574.03	25811574.18	25811574.32	0.0277	0.0027
Mercury	65957-10-31 05:31 G	25811662.60	25811662.73	25811662.86	0.0277	0.0114
Mercury	65958-01-27 18:29 G	25811751.21	25811751.27	25811751.33	0.0278	0.0253
Venus	65962-02-08 18:29 G	25813224.13	25813224.27	25813224.42	0.0282	0.0203
Venus	65962-09-26 09:36 G	25813453.69	25813453.90	25813454.11	0.0282	0.0024
Venus	65963-05-14 01:12 G	25813683.46	25813683.55	25813683.65	0.0283	0.0252
Earth	65969-11-14 12:58 G	25816059.86	25816060.04	25816060.23	0.0284	0.0191
Moon	65969-11-14 14:24 G	25816059.92	25816060.10	25816060.29	0.0284	0.0184 *

Mercury	65971-11-21 12:43 G	25816796.89	25816797.03	25816797.18	0.0282	0.0117
Mercury	65972-02-18 06:43 G	25816885.62	25816885.78	25816885.95	0.0282	0.0056
Mercury	65972-05-17 01:12 G	25816974.46	25816974.55	25816974.65	0.0282	0.0229
Venus	65976-07-26 09:22 G	25818505.72	25818505.89	25818506.05	0.0278	0.0173
Venus	65977-03-12 18:00 G	25818735.04	25818735.25	25818735.46	0.0277	0.0040
Venus	65977-10-28 01:55 G	25818964.50	25818964.58	25818964.68	0.0276	0.0251
Earth	65985-05-22 12:00 G	25821727.80	25821728.00	25821728.22	0.0275	0.0142
Moon	65985-05-22 14:24 G	25821727.92	25821728.10	25821728.31	0.0275	0.0159 *
Mercury	65986-09-24 05:03 G	25822217.61	25822217.71	25822217.80	0.0276	0.0206
Mercury	65986-12-21 18:29 G	25822306.13	25822306.27	25822306.41	0.0276	0.0063
Mercury	65987-03-20 07:41 G	25822394.68	25822394.82	25822394.96	0.0276	0.0077
Mercury	65987-06-16 20:39 G	25822483.28	25822483.36	25822483.45	0.0276	0.0216
Venus	65991-08-21 22:19 G	25824010.28	25824010.43	25824010.61	0.0281	0.0174
Venus	65992-04-07 13:27 G	25824239.85	25824240.06	25824240.27	0.0282	0.0053
Venus	65992-11-23 04:48 G	25824469.68	25824469.70	25824469.73	0.0282	0.0280
Mars	65994-07-13 12:15 G	25825066.76	25825067.01	25825067.27	0.0284	0.0131
Moon	65999-11-22 04:34 G	25827024.49	25827024.69	25827024.91	0.0284	0.0149
Earth	65999-11-22 08:24 G	25827024.64	25827024.85	25827025.07	0.0284	0.0135 *

67TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 67th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	66001-04-09 11:17 G	25827528.85	25827528.97	25827529.10	0.0283	0.0181		

Mercury	66001-07-07 05:17 G	25827617.55	25827617.72	25827617.88	0.0282	0.0012
Mercury	66001-10-03 23:17 G	25827706.34	25827706.47	25827706.61	0.0282	0.0162
Venus	66006-02-05 09:36 G	25829291.74	25829291.90	25829292.09	0.0277	0.0151
Venus	66006-09-22 18:43 G	25829521.07	25829521.28	25829521.48	0.0277	0.0063
Venus	66007-05-10 02:39 G	25829750.59	25829750.61	25829750.65	0.0276	0.0272
Moon	66014-05-17 05:03 G	25832314.47	25832314.71	25832314.95	0.0275	0.0084
Earth	66014-05-17 07:41 G	25832314.60	25832314.82	25832315.05	0.0275	0.0099 *
Mercury	66016-02-11 06:00 G	25832949.70	25832949.75	25832949.82	0.0277	0.0251
Mercury	66016-05-09 19:41 G	25833038.19	25833038.32	25833038.46	0.0277	0.0107
Mercury	66016-08-06 09:07 G	25833126.74	25833126.88	25833127.03	0.0277	0.0036
Mercury	66016-11-02 22:19 G	25833215.32	25833215.43	25833215.54	0.0277	0.0176
Venus	66021-03-03 04:34 G	25834796.52	25834796.69	25834796.88	0.0282	0.0141
Venus	66021-10-18 19:55 G	25835026.13	25835026.33	25835026.53	0.0282	0.0086
Earth	66028-11-15 20:24 G	25837611.13	25837611.35	25837611.57	0.0284	0.0127
Moon	66028-11-15 23:46 G	25837611.28	25837611.49	25837611.73	0.0284	0.0118 *
Mercury	66030-08-27 13:27 G	25838260.96	25838261.06	25838261.17	0.0283	0.0213
Mercury	66030-11-24 07:12 G	25838349.64	25838349.80	25838349.97	0.0282	0.0045
Mercury	66031-02-21 01:27 G	25838438.42	25838438.56	25838438.71	0.0282	0.0129
Venus	66035-08-18 19:27 G	25840078.12	25840078.31	25840078.51	0.0278	0.0111
Venus	66036-04-04 04:19 G	25840307.48	25840307.68	25840307.88	0.0277	0.0102
Mars	66038-08-22 11:17 G	25841177.89	25841177.97	25841178.08	0.0275	0.0260
Earth	66044-05-23 18:29 G	25843279.12	25843279.27	25843279.44	0.0275	0.0203
Moon	66044-05-23 21:51 G	25843279.27	25843279.41	25843279.56	0.0275	0.0218 *
Mercury	66045-09-26 22:05 G	25843770.30	25843770.42	25843770.55	0.0276	0.0141
Mercury	66045-12-24 11:31 G	25843858.84	25843858.98	25843859.13	0.0276	0.0002
Mercury	66046-03-23 00:43 G	25843947.41	25843947.53	25843947.65	0.0276	0.0140
Venus	66050-09-13 09:07 G	25845582.68	25845582.88	25845583.07	0.0281	0.0110
Venus	66051-05-01 00:00 G	25845812.30	25845812.50	25845812.69	0.0282	0.0116
Moon	66058-11-23 14:24 G	25848575.95	25848576.10	25848576.27	0.0284	0.0212
Earth	66058-11-23 15:07 G	25848575.97	25848576.13	25848576.32	0.0284	0.0199 *

Mercury	66060-01-14 11:46 G	25848992.97	25848992.99	25848993.03	0.0283	0.0277
Mercury	66060-04-12 05:46 G	25849081.59	25849081.74	25849081.89	0.0283	0.0109
Mercury	66060-07-09 23:46 G	25849170.33	25849170.49	25849170.65	0.0282	0.0062
Mercury	66060-10-06 18:00 G	25849259.16	25849259.25	25849259.34	0.0282	0.0237
Venus	66065-02-27 19:41 G	25850864.13	25850864.32	25850864.53	0.0277	0.0089
Venus	66065-10-15 04:19 G	25851093.50	25851093.68	25851093.88	0.0277	0.0124
Moon	66073-05-18 09:22 G	25853865.66	25853865.89	25853866.13	0.0275	0.0027
Earth	66073-05-18 12:29 G	25853865.78	25853866.02	25853866.26	0.0275	0.0042 *
Mercury	66075-02-13 23:03 G	25854502.35	25854502.46	25854502.57	0.0276	0.0189
Mercury	66075-05-13 12:29 G	25854590.88	25854591.02	25854591.17	0.0277	0.0046
Mercury	66075-08-10 01:41 G	25854679.44	25854679.57	25854679.71	0.0277	0.0096
Mercury	66075-11-06 14:53 G	25854768.04	25854768.12	25854768.19	0.0277	0.0234
Venus	66080-03-25 13:41 G	25856368.87	25856369.07	25856369.27	0.0282	0.0081
Venus	66080-11-10 04:48 G	25856598.52	25856598.70	25856598.88	0.0282	0.0146
Mars	66082-12-07 10:05 G	25857355.71	25857355.92	25857356.12	0.0284	0.0199
Earth	66087-11-18 01:27 G	25859162.32	25859162.56	25859162.80	0.0284	0.0067
Moon	66087-11-18 02:39 G	25859162.36	25859162.61	25859162.86	0.0284	0.0057 *
Mercury	66089-08-30 07:12 G	25859813.67	25859813.80	25859813.95	0.0283	0.0146
Mercury	66089-11-27 01:12 G	25859902.39	25859902.55	25859902.72	0.0283	0.0026
Mercury	66090-02-23 19:27 G	25859991.20	25859991.31	25859991.43	0.0282	0.0199
Venus	66094-01-23 19:27 G	25861421.24	25861421.31	25861421.37	0.0278	0.0264
Venus	66094-09-10 04:34 G	25861650.49	25861650.69	25861650.91	0.0278	0.0051
Venus	66095-04-27 13:12 G	25861879.89	25861880.05	25861880.23	0.0277	0.0162
Earth	66102-05-14 15:51 G	25864453.13	25864453.16	25864453.21	0.0274	0.0270
Moon	66102-05-14 19:12 G	25864453.23	25864453.30	25864453.40	0.0274	0.0256
Moon	66103-05-26 22:19 G	25864830.41	25864830.43	25864830.48	0.0275	0.0272
Earth	66103-05-26 23:31 G	25864830.42	25864830.48	25864830.56	0.0275	0.0261 *
Mercury	66104-07-04 01:27 G	25865234.48	25865234.56	25865234.65	0.0276	0.0222
Mercury	66104-09-30 15:07 G	25865322.99	25865323.13	25865323.27	0.0276	0.0079
Mercury	66104-12-28 04:19 G	25865411.54	25865411.68	25865411.82	0.0276	0.0061

Mercury	66105-03-26 17:17 G	25865500.13	25865500.22	25865500.32	0.0276	0.0200
Venus	66109-02-19 04:19 G	25866925.63	25866925.68	25866925.74	0.0280	0.0270
Venus	66109-10-06 18:29 G	25867155.07	25867155.27	25867155.49	0.0281	0.0048
Venus	66110-05-24 09:22 G	25867384.73	25867384.89	25867385.06	0.0282	0.0178
Earth	66117-11-25 20:10 G	25870127.25	25870127.34	25870127.45	0.0284	0.0258
Moon	66117-11-25 23:17 G	25870127.41	25870127.47	25870127.53	0.0284	0.0273 *
Mercury	66119-01-18 05:46 G	25870545.63	25870545.74	25870545.85	0.0283	0.0210
Mercury	66119-04-16 23:31 G	25870634.32	25870634.48	25870634.64	0.0283	0.0041
Mercury	66119-07-14 17:31 G	25870723.09	25870723.23	25870723.38	0.0282	0.0131
Venus	66123-08-06 18:43 G	25872207.19	25872207.28	25872207.39	0.0278	0.0243
Venus	66124-03-23 04:19 G	25872436.47	25872436.68	25872436.89	0.0277	0.0030
Venus	66124-11-07 12:58 G	25872665.89	25872666.04	25872666.20	0.0277	0.0182
Jupiter	66126-11-07 11:03 G	25873395.52	25873395.96	25873396.42	0.0275	0.0064
Earth	66132-05-20 16:05 G	25875416.93	25875417.17	25875417.41	0.0275	0.0014
Moon	66132-05-20 16:48 G	25875416.97	25875417.20	25875417.43	0.0275	0.0028 *
Mercury	66133-11-21 01:55 G	25875966.57	25875966.58	25875966.60	0.0276	0.0274
Mercury	66134-02-17 15:36 G	25876055.02	25876055.15	25876055.28	0.0276	0.0130
Mercury	66134-05-17 05:03 G	25876143.57	25876143.71	25876143.86	0.0277	0.0012
Mercury	66134-08-13 18:15 G	25876232.14	25876232.26	25876232.38	0.0277	0.0152
Venus	66138-09-01 07:12 G	25877711.71	25877711.80	25877711.91	0.0281	0.0245
Venus	66139-04-18 21:51 G	25877941.20	25877941.41	25877941.62	0.0282	0.0022
Venus	66139-12-04 12:58 G	25878170.89	25878171.04	25878171.18	0.0282	0.0205
Moon	66146-11-20 00:43 G	25880713.28	25880713.53	25880713.78	0.0284	0.0002
Earth	66146-11-20 03:51 G	25880713.42	25880713.66	25880713.91	0.0284	0.0013 *
Mercury	66148-06-06 06:43 G	25881277.72	25881277.78	25881277.86	0.0283	0.0252
Mercury	66148-09-03 00:29 G	25881366.37	25881366.52	25881366.68	0.0283	0.0084
Mercury	66148-11-30 18:29 G	25881455.12	25881455.27	25881455.43	0.0283	0.0089
Mercury	66149-02-27 12:58 G	25881543.99	25881544.04	25881544.10	0.0282	0.0263
Venus	66153-02-16 03:22 G	25882993.50	25882993.64	25882993.78	0.0278	0.0206
Venus	66153-10-03 12:43 G	25883222.82	25883223.03	25883223.24	0.0278	0.0008

Venus	66154-05-20 21:22 G	25883452.27	25883452.39	25883452.52	0.0277	0.0219
Moon	66161-05-15 20:10 G	25886004.17	25886004.34	25886004.52	0.0274	0.0198
Earth	66161-05-15 19:55 G	25886004.19	25886004.33	25886004.49	0.0274	0.0214 *
Mercury	66163-07-07 18:15 G	25886787.14	25886787.26	25886787.38	0.0276	0.0162
Mercury	66163-10-04 07:41 G	25886875.67	25886875.82	25886875.97	0.0276	0.0020
Mercury	66163-12-31 20:53 G	25886964.24	25886964.37	25886964.50	0.0276	0.0119
Mercury	66164-03-29 09:51 G	25887052.86	25887052.91	25887052.96	0.0276	0.0256
Venus	66168-03-13 12:43 G	25888497.90	25888498.03	25888498.18	0.0280	0.0210
Venus	66168-10-29 03:07 G	25888727.42	25888727.63	25888727.84	0.0281	0.0012
Venus	66169-06-15 17:46 G	25888957.14	25888957.24	25888957.37	0.0282	0.0237
Mars	66171-05-03 15:36 G	25889643.99	25889644.15	25889644.31	0.0283	0.0236
Moon	66175-11-14 05:46 G	25891299.71	25891299.74	25891299.78	0.0284	0.0281
Mercury	66178-01-20 23:03 G	25892098.32	25892098.46	25892098.60	0.0283	0.0148
Mercury	66178-04-19 17:03 G	25892187.04	25892187.21	25892187.37	0.0283	0.0023
Mercury	66178-07-17 11:17 G	25892275.85	25892275.97	25892276.09	0.0282	0.0196
Venus	66182-08-29 02:39 G	25893779.45	25893779.61	25893779.76	0.0278	0.0185
Venus	66183-04-15 11:46 G	25894008.79	25894008.99	25894009.21	0.0277	0.0029
Venus	66183-11-30 20:24 G	25894238.26	25894238.35	25894238.47	0.0277	0.0239
Mars	66185-04-23 06:58 G	25894747.67	25894747.79	25894747.92	0.0275	0.0248
Earth	66191-05-22 18:29 G	25896968.04	25896968.27	25896968.51	0.0275	0.0068
Moon	66191-05-22 22:05 G	25896968.19	25896968.42	25896968.65	0.0275	0.0082 *
Mercury	66192-11-23 18:15 G	25897519.18	25897519.26	25897519.36	0.0276	0.0217
Mercury	66193-02-20 07:55 G	25897607.69	25897607.83	25897607.98	0.0276	0.0074
Mercury	66193-05-19 21:22 G	25897696.25	25897696.39	25897696.53	0.0276	0.0067
Mercury	66193-08-16 10:19 G	25897784.84	25897784.93	25897785.03	0.0277	0.0206
Venus	66197-09-23 14:53 G	25899283.96	25899284.12	25899284.28	0.0281	0.0187
Venus	66198-05-11 05:17 G	25899513.51	25899513.72	25899513.94	0.0282	0.0037
Venus	66198-12-26 20:10 G	25899743.28	25899743.34	25899743.43	0.0282	0.0262
Moon	66205-11-22 02:10 G	25902264.35	25902264.59	25902264.83	0.0284	0.0056
Earth	66205-11-22 04:48 G	25902264.46	25902264.70	25902264.95	0.0284	0.0041 *

Mercury	66207-06-10 23:46 G	25902830.37	25902830.49	25902830.60	0.0283	0.0194
Mercury	66207-09-07 17:31 G	25902919.07	25902919.23	25902919.39	0.0283	0.0025
Mercury	66207-12-05 11:46 G	25903007.85	25903007.99	25903008.13	0.0283	0.0148
Venus	66212-03-11 09:51 G	25904565.74	25904565.91	25904566.09	0.0278	0.0150
Venus	66212-10-26 19:27 G	25904795.11	25904795.31	25904795.52	0.0278	0.0064
Venus	66213-06-13 04:19 G	25905024.65	25905024.68	25905024.70	0.0277	0.0274
Moon	66220-05-17 19:12 G	25907555.10	25907555.30	25907555.51	0.0275	0.0142
Earth	66220-05-17 23:03 G	25907555.26	25907555.46	25907555.66	0.0275	0.0159 *
Mercury	66222-04-13 20:53 G	25908251.32	25908251.37	25908251.44	0.0275	0.0248
Mercury	66222-07-11 10:48 G	25908339.81	25908339.95	25908340.08	0.0276	0.0104
Mercury	66222-10-08 00:00 G	25908428.36	25908428.50	25908428.65	0.0276	0.0038
Mercury	66223-01-04 13:12 G	25908516.94	25908517.05	25908517.16	0.0276	0.0175
Venus	66227-04-06 21:07 G	25910070.20	25910070.38	25910070.56	0.0280	0.0151
Venus	66227-11-22 11:17 G	25910299.76	25910299.97	25910300.18	0.0281	0.0071
Earth	66234-11-16 03:36 G	25912850.53	25912850.65	25912850.79	0.0284	0.0241
Moon	66234-11-16 05:46 G	25912850.59	25912850.74	25912850.90	0.0284	0.0224 *
Mercury	66236-10-27 22:19 G	25913562.37	25913562.43	25913562.50	0.0283	0.0256
Mercury	66237-01-24 16:05 G	25913651.02	25913651.17	25913651.33	0.0283	0.0088
Mercury	66237-04-23 10:05 G	25913739.76	25913739.92	25913740.08	0.0283	0.0083
Mercury	66237-07-21 04:19 G	25913828.62	25913828.68	25913828.75	0.0283	0.0258
Venus	66241-09-21 09:22 G	25915351.70	25915351.89	25915352.08	0.0278	0.0129
Venus	66242-05-08 18:43 G	25915581.08	25915581.28	25915581.48	0.0277	0.0084
Earth	66250-05-24 20:53 G	25918519.16	25918519.37	25918519.59	0.0275	0.0121
Moon	66250-05-24 22:19 G	25918519.22	25918519.43	25918519.66	0.0275	0.0133 *
Mercury	66251-11-28 10:48 G	25919071.84	25919071.95	25919072.07	0.0276	0.0160
Mercury	66252-02-25 00:15 G	25919160.37	25919160.51	25919160.66	0.0276	0.0020
Mercury	66252-05-23 13:27 G	25919248.94	25919249.06	25919249.19	0.0276	0.0122
Mercury	66252-08-20 02:24 G	25919337.56	25919337.60	25919337.65	0.0277	0.0259
Venus	66256-10-16 22:05 G	25920856.24	25920856.42	25920856.61	0.0281	0.0130
Venus	66257-06-03 12:43 G	25921085.83	25921086.03	25921086.23	0.0282	0.0094

Mars	66259-09-27 16:34 G	25921932.11	25921932.19	25921932.30	0.0284	0.0268
Earth	66264-11-23 04:34 G	25923815.46	25923815.69	25923815.93	0.0284	0.0091
Moon	66264-11-23 06:43 G	25923815.56	25923815.78	25923816.01	0.0284	0.0108 *
Mercury	66266-06-13 16:05 G	25924383.04	25924383.17	25924383.32	0.0283	0.0139
Mercury	66266-09-10 10:05 G	25924471.76	25924471.92	25924472.09	0.0283	0.0032
Mercury	66266-12-08 04:19 G	25924560.57	25924560.68	25924560.80	0.0283	0.0206
Venus	66271-04-03 15:51 G	25926137.97	25926138.16	25926138.36	0.0278	0.0095
Venus	66271-11-19 01:41 G	25926367.38	25926367.57	25926367.76	0.0278	0.0119
Mars	66273-09-18 04:34 G	25927036.49	25927036.69	25927036.92	0.0276	0.0188
Moon	66279-05-19 23:46 G	25929106.27	25929106.49	25929106.71	0.0275	0.0091
Earth	66279-05-20 01:12 G	25929106.32	25929106.55	25929106.77	0.0275	0.0105 *
Mercury	66281-04-16 13:41 G	25929803.96	25929804.07	25929804.17	0.0276	0.0190
Mercury	66281-07-14 03:07 G	25929892.49	25929892.63	25929892.77	0.0276	0.0048
Mercury	66281-10-10 16:19 G	25929981.05	25929981.18	25929981.32	0.0276	0.0092
Mercury	66282-01-07 05:17 G	25930069.65	25930069.72	25930069.80	0.0276	0.0229
Venus	66286-04-29 05:17 G	25931642.52	25931642.72	25931642.92	0.0280	0.0092
Venus	66286-12-14 19:27 G	25931872.12	25931872.31	25931872.50	0.0281	0.0130
Moon	66293-11-17 02:24 G	25934401.40	25934401.60	25934401.81	0.0284	0.0169
Earth	66293-11-17 05:17 G	25934401.54	25934401.72	25934401.92	0.0284	0.0186 *
Mercury	66295-10-31 15:07 G	25935115.03	25935115.13	25935115.26	0.0283	0.0198
Mercury	66296-01-28 09:07 G	25935203.72	25935203.88	25935204.04	0.0283	0.0028
Mercury	66296-04-26 03:07 G	25935292.49	25935292.63	25935292.78	0.0283	0.0144
Venus	66300-10-14 15:51 G	25936923.96	25936924.16	25936924.37	0.0278	0.0074
Venus	66301-06-01 01:12 G	25937153.37	25937153.55	25937153.74	0.0277	0.0139
Moon	66309-05-26 19:41 G	25940070.15	25940070.32	25940070.51	0.0275	0.0182
Earth	66309-05-26 23:03 G	25940070.28	25940070.46	25940070.65	0.0275	0.0174 *
Mercury	66310-09-04 13:27 G	25940536.00	25940536.06	25940536.13	0.0276	0.0247
Mercury	66310-12-02 03:07 G	25940624.50	25940624.63	25940624.77	0.0276	0.0104
Mercury	66311-02-28 16:34 G	25940713.05	25940713.19	25940713.34	0.0276	0.0037
Mercury	66311-05-28 05:46 G	25940801.63	25940801.74	25940801.85	0.0276	0.0176

Venus	66315-11-10 05:46 G	25942428.54	25942428.74	25942428.95	0.0281	0.0071
Venus	66316-06-26 19:55 G	25942658.16	25942658.33	25942658.52	0.0281	0.0153
Earth	66323-11-26 04:19 G	25945366.47	25945366.68	25945366.90	0.0284	0.0142
Moon	66323-11-26 07:55 G	25945366.62	25945366.83	25945367.04	0.0284	0.0158 *
Mercury	66325-03-20 15:07 G	25945847.06	25945847.13	25945847.21	0.0283	0.0250
Mercury	66325-06-17 08:53 G	25945935.71	25945935.87	25945936.02	0.0283	0.0083
Mercury	66325-09-14 02:53 G	25946024.46	25946024.62	25946024.77	0.0283	0.0088
Mercury	66325-12-11 21:07 G	25946113.33	25946113.38	25946113.44	0.0283	0.0263
Venus	66329-09-09 11:17 G	25947480.89	25947480.97	25947481.06	0.0279	0.0255
Venus	66330-04-26 21:36 G	25947710.19	25947710.40	25947710.61	0.0279	0.0040
Venus	66330-12-12 07:27 G	25947939.65	25947939.81	25947939.97	0.0278	0.0173
Earth	66338-05-22 03:22 G	25950657.41	25950657.64	25950657.89	0.0275	0.0051
Moon	66338-05-22 06:43 G	25950657.54	25950657.78	25950658.01	0.0275	0.0038 *
Mercury	66340-01-22 16:19 G	25951268.18	25951268.18	25951268.19	0.0276	0.0275
Mercury	66340-04-20 06:15 G	25951356.63	25951356.76	25951356.88	0.0276	0.0132
Mercury	66340-07-17 19:41 G	25951445.17	25951445.32	25951445.46	0.0276	0.0012
Mercury	66340-10-14 08:39 G	25951533.74	25951533.86	25951533.99	0.0276	0.0148
Venus	66344-10-05 00:29 G	25952985.43	25952985.52	25952985.61	0.0279	0.0251
Venus	66345-05-22 13:55 G	25953214.87	25953215.08	25953215.29	0.0280	0.0032
Venus	66346-01-07 03:51 G	25953444.51	25953444.66	25953444.82	0.0281	0.0190
Moon	66352-11-19 04:05 G	25955952.45	25955952.67	25955952.90	0.0284	0.0116
Earth	66352-11-19 06:58 G	25955952.58	25955952.79	25955953.02	0.0284	0.0131 *
Mercury	66354-11-04 08:10 G	25956667.71	25956667.84	25956667.99	0.0283	0.0138
Mercury	66355-02-01 02:10 G	25956756.43	25956756.59	25956756.75	0.0283	0.0032
Mercury	66355-04-30 20:10 G	25956845.23	25956845.34	25956845.46	0.0283	0.0206
Venus	66359-03-22 12:29 G	25958266.90	25958267.02	25958267.13	0.0279	0.0232
Venus	66359-11-06 22:34 G	25958496.23	25958496.44	25958496.65	0.0278	0.0018
Venus	66360-06-23 07:41 G	25958725.68	25958725.82	25958725.98	0.0278	0.0195
Mars	66362-02-12 00:43 G	25959324.30	25959324.53	25959324.76	0.0276	0.0165
Moon	66368-05-27 22:48 G	25961621.34	25961621.45	25961621.59	0.0275	0.0233

Earth	66368-05-28 01:41 G	25961621.44	25961621.57	25961621.71	0.0275	0.0228	*
Mercury	66369-09-07 06:00 G	25962088.65	25962088.75	25962088.86	0.0276	0.0189	
Mercury	66369-12-04 19:41 G	25962177.18	25962177.32	25962177.46	0.0276	0.0047	
Mercury	66370-03-03 08:53 G	25962265.74	25962265.87	25962266.01	0.0276	0.0094	
Mercury	66370-05-30 22:05 G	25962354.34	25962354.42	25962354.50	0.0276	0.0230	
Venus	66374-04-17 00:15 G	25963771.41	25963771.51	25963771.64	0.0280	0.0232	
Venus	66374-12-02 14:10 G	25964000.87	25964001.09	25964001.30	0.0281	0.0013	
Venus	66375-07-20 04:05 G	25964230.54	25964230.67	25964230.82	0.0281	0.0212	
Moon	66382-11-27 04:34 G	25966917.51	25966917.69	25966917.86	0.0284	0.0207	
Earth	66382-11-27 05:17 G	25966917.55	25966917.72	25966917.91	0.0284	0.0195	*
Mercury	66384-03-23 07:55 G	25967399.71	25967399.83	25967399.95	0.0283	0.0193	
Mercury	66384-06-20 01:41 G	25967488.41	25967488.57	25967488.73	0.0283	0.0024	
Mercury	66384-09-16 19:41 G	25967577.18	25967577.32	25967577.46	0.0283	0.0148	
Venus	66388-10-01 17:31 G	25969053.08	25969053.23	25969053.37	0.0279	0.0201	
Venus	66389-05-19 03:36 G	25969282.44	25969282.65	25969282.87	0.0279	0.0016	
Venus	66390-01-03 13:27 G	25969511.94	25969512.06	25969512.18	0.0278	0.0227	
Earth	66397-05-23 06:00 G	25972208.51	25972208.75	25972209.00	0.0275	0.0007	
Moon	66397-05-23 08:53 G	25972208.62	25972208.87	25972209.11	0.0275	0.0015	*
Mercury	66399-01-25 09:07 G	25972820.79	25972820.88	25972820.97	0.0276	0.0216	
Mercury	66399-04-23 22:48 G	25972909.31	25972909.45	25972909.59	0.0276	0.0074	
Mercury	66399-07-21 12:00 G	25972997.86	25972998.00	25972998.14	0.0276	0.0067	
Mercury	66399-10-18 01:12 G	25973086.45	25973086.55	25973086.65	0.0276	0.0204	
Venus	66403-10-28 09:36 G	25974557.75	25974557.90	25974558.05	0.0279	0.0191	
Venus	66404-06-13 23:17 G	25974787.25	25974787.47	25974787.68	0.0280	0.0029	
Venus	66405-01-29 13:12 G	25975016.96	25975017.05	25975017.15	0.0281	0.0250	
Earth	66411-11-21 10:19 G	25977503.69	25977503.93	25977504.17	0.0284	0.0073	
Moon	66411-11-21 11:17 G	25977503.74	25977503.97	25977504.21	0.0284	0.0060	*
Mercury	66413-08-10 07:55 G	25978131.75	25978131.83	25978131.92	0.0283	0.0242	
Mercury	66413-11-07 01:41 G	25978220.41	25978220.57	25978220.72	0.0283	0.0075	
Mercury	66414-02-03 19:27 G	25978309.16	25978309.31	25978309.47	0.0283	0.0096	

Mercury	66414-05-03 13:41 G	25978398.03	25978398.07	25978398.12	0.0283	0.0270
Venus	66418-04-13 19:27 G	25979839.15	25979839.31	25979839.47	0.0279	0.0176
Venus	66418-11-29 05:31 G	25980068.52	25980068.73	25980068.94	0.0278	0.0038
Venus	66419-07-16 14:39 G	25980298.03	25980298.11	25980298.21	0.0278	0.0250
Moon	66426-05-17 18:43 G	25982795.17	25982795.28	25982795.41	0.0275	0.0233
Earth	66426-05-17 21:36 G	25982795.30	25982795.40	25982795.51	0.0275	0.0245 *
Mercury	66428-06-13 09:07 G	25983552.86	25983552.88	25983552.91	0.0276	0.0271
Mercury	66428-09-09 22:48 G	25983641.33	25983641.45	25983641.59	0.0276	0.0129
Mercury	66428-12-07 12:29 G	25983729.87	25983730.02	25983730.16	0.0276	0.0015
Mercury	66429-03-06 01:27 G	25983818.45	25983818.56	25983818.69	0.0276	0.0152
Venus	66433-05-09 09:51 G	25985343.75	25985343.91	25985344.08	0.0280	0.0171
Venus	66433-12-24 23:31 G	25985573.27	25985573.48	25985573.69	0.0281	0.0050
Venus	66434-08-11 13:27 G	25985803.02	25985803.06	25985803.12	0.0281	0.0272
Moon	66441-11-28 03:51 G	25988468.57	25988468.66	25988468.76	0.0284	0.0261
Earth	66441-11-28 07:27 G	25988468.71	25988468.81	25988468.94	0.0284	0.0251 *
Mercury	66443-03-27 00:58 G	25988952.40	25988952.54	25988952.68	0.0283	0.0132
Mercury	66443-06-23 18:43 G	25989041.12	25989041.28	25989041.45	0.0283	0.0038
Mercury	66443-09-20 12:58 G	25989129.93	25989130.04	25989130.15	0.0283	0.0211
Venus	66447-10-25 00:00 G	25990625.32	25990625.50	25990625.68	0.0279	0.0145
Venus	66448-06-10 10:19 G	25990854.73	25990854.93	25990855.14	0.0279	0.0070
Mars	66450-07-08 16:48 G	25991612.94	25991613.20	25991613.47	0.0277	0.0113
Moon	66456-05-24 07:55 G	25993759.59	25993759.83	25993760.08	0.0275	0.0068
Earth	66456-05-24 09:36 G	25993759.67	25993759.90	25993760.14	0.0275	0.0063 *
Mercury	66458-01-28 01:55 G	25994373.46	25994373.58	25994373.70	0.0276	0.0155
Mercury	66458-04-26 15:22 G	25994462.00	25994462.14	25994462.29	0.0276	0.0015
Mercury	66458-07-24 04:34 G	25994550.57	25994550.69	25994550.83	0.0276	0.0127
Mercury	66458-10-20 17:46 G	25994639.20	25994639.24	25994639.28	0.0276	0.0263
Venus	66462-11-19 19:41 G	25996130.13	25996130.32	25996130.51	0.0280	0.0129
Venus	66463-07-07 09:07 G	25996359.69	25996359.88	25996360.09	0.0280	0.0092
Earth	66470-11-22 15:36 G	25999054.90	25999055.15	25999055.40	0.0284	0.0011

Moon	66470-11-22 19:12 G	25999055.05	25999055.30	25999055.55	0.0284	0.0004 *
Mercury	66472-08-13 01:41 G	25999684.45	25999684.57	25999684.70	0.0283	0.0175
Mercury	66472-11-09 19:27 G	25999773.15	25999773.31	25999773.47	0.0283	0.0007
Mercury	66473-02-06 13:27 G	25999861.93	25999862.06	25999862.19	0.0283	0.0165
Venus	66477-05-06 03:36 G	26001411.46	26001411.65	26001411.84	0.0279	0.0118
Venus	66477-12-21 13:27 G	26001640.87	26001641.06	26001641.26	0.0278	0.0097
Earth	66485-05-19 01:55 G	26004346.41	26004346.58	26004346.77	0.0275	0.0186
Moon	66485-05-19 03:07 G	26004346.46	26004346.63	26004346.82	0.0275	0.0177 *
Mercury	66487-06-17 02:10 G	26005105.50	26005105.59	26005105.69	0.0276	0.0208
Mercury	66487-09-13 15:51 G	26005194.02	26005194.16	26005194.30	0.0276	0.0066
Mercury	66487-12-11 05:17 G	26005282.58	26005282.72	26005282.86	0.0276	0.0074
Mercury	66488-03-08 18:15 G	26005371.18	26005371.26	26005371.36	0.0276	0.0212
Venus	66492-05-31 20:24 G	26006916.16	26006916.35	26006916.55	0.0280	0.0108
Venus	66493-01-16 09:51 G	26007145.72	26007145.91	26007146.11	0.0281	0.0113
Mars	66494-10-22 06:15 G	26007789.64	26007789.76	26007789.92	0.0282	0.0249
Moon	66499-11-16 11:03 G	26009640.92	26009640.96	26009641.01	0.0284	0.0278
Mercury	66502-01-01 00:58 G	26010416.46	26010416.54	26010416.63	0.0283	0.0233
Mercury	66502-03-30 18:29 G	26010505.12	26010505.27	26010505.43	0.0283	0.0067
Mercury	66502-06-27 12:29 G	26010593.87	26010594.02	26010594.18	0.0283	0.0105
Mercury	66502-09-24 06:43 G	26010682.76	26010682.78	26010682.81	0.0282	0.0279
Venus	66506-11-17 07:41 G	26012197.62	26012197.82	26012198.02	0.0279	0.0088
Venus	66507-07-04 18:00 G	26012427.06	26012427.25	26012427.43	0.0278	0.0127
Moon	66515-05-27 10:48 G	26015310.74	26015310.95	26015311.17	0.0276	0.0126
Earth	66515-05-27 14:10 G	26015310.88	26015311.09	26015311.32	0.0276	0.0123 *
Mercury	66516-11-04 05:17 G	26015837.64	26015837.72	26015837.80	0.0276	0.0234
Mercury	66517-01-31 18:58 G	26015926.15	26015926.29	26015926.43	0.0276	0.0091
Mercury	66517-04-30 08:24 G	26016014.71	26016014.85	26016014.99	0.0276	0.0050
Mercury	66517-07-27 21:36 G	26016103.30	26016103.40	26016103.51	0.0276	0.0188
Venus	66521-12-13 06:58 G	26017702.59	26017702.79	26017703.00	0.0280	0.0065
Venus	66522-07-30 20:39 G	26017932.19	26017932.36	26017932.54	0.0280	0.0155

Earth	66529-11-24 23:03 G	26020606.22	26020606.46	26020606.70	0.0284	0.0054
Moon	66529-11-25 00:29 G	26020606.27	26020606.52	26020606.77	0.0284	0.0067 *
Mercury	66531-05-21 02:24 G	26021148.56	26021148.60	26021148.65	0.0283	0.0270
Mercury	66531-08-17 19:55 G	26021237.18	26021237.33	26021237.48	0.0283	0.0104
Mercury	66531-11-14 13:41 G	26021325.91	26021326.07	26021326.23	0.0283	0.0065
Mercury	66532-02-11 07:55 G	26021414.74	26021414.83	26021414.92	0.0283	0.0238
Venus	66535-10-13 02:24 G	26022754.56	26022754.60	26022754.64	0.0279	0.0273
Venus	66536-05-29 12:43 G	26022983.82	26022984.03	26022984.24	0.0279	0.0058
Venus	66537-01-13 22:34 G	26023213.27	26023213.44	26023213.61	0.0278	0.0156
Mars	66538-12-03 04:48 G	26023901.42	26023901.70	26023901.99	0.0277	0.0065
Earth	66544-05-21 07:55 G	26025897.62	26025897.83	26025898.05	0.0275	0.0125
Moon	66544-05-21 11:46 G	26025897.77	26025897.99	26025898.21	0.0275	0.0114 *
Mercury	66546-06-20 19:41 G	26026658.19	26026658.32	26026658.44	0.0276	0.0142
Mercury	66546-09-17 09:07 G	26026746.74	26026746.88	26026747.03	0.0276	0.0003
Mercury	66546-12-14 22:19 G	26026835.31	26026835.43	26026835.56	0.0276	0.0139
Mercury	66547-03-13 11:31 G	26026923.97	26026923.98	26026923.99	0.0276	0.0275
Venus	66550-11-07 18:29 G	26028259.21	26028259.27	26028259.36	0.0280	0.0262
Venus	66551-06-25 07:55 G	26028488.62	26028488.83	26028489.04	0.0280	0.0044
Venus	66552-02-09 21:36 G	26028718.24	26028718.40	26028718.57	0.0281	0.0177
Moon	66558-11-18 21:36 G	26031192.26	26031192.40	26031192.57	0.0284	0.0215
Earth	66558-11-18 22:19 G	26031192.29	26031192.43	26031192.58	0.0284	0.0228 *
Mercury	66561-01-03 18:58 G	26031969.17	26031969.29	26031969.43	0.0283	0.0163
Mercury	66561-04-02 12:58 G	26032057.87	26032058.04	26032058.20	0.0283	0.0007
Mercury	66561-06-30 06:58 G	26032146.66	26032146.79	26032146.92	0.0283	0.0178
Venus	66565-04-24 06:00 G	26033540.65	26033540.75	26033540.85	0.0279	0.0244
Venus	66565-12-09 16:48 G	26033769.99	26033770.20	26033770.41	0.0279	0.0029
Venus	66566-07-27 02:39 G	26033999.46	26033999.61	26033999.77	0.0278	0.0185
Moon	66574-05-28 19:12 G	26036862.14	26036862.30	26036862.48	0.0276	0.0187
Earth	66574-05-28 19:55 G	26036862.16	26036862.33	26036862.52	0.0276	0.0184 *
Mercury	66575-11-07 22:34 G	26037390.33	26037390.44	26037390.56	0.0276	0.0169

Mercury	66576-02-04 12:15 G	26037478.86	26037479.01	26037479.16	0.0276	0.0026
Mercury	66576-05-03 01:41 G	26037567.43	26037567.57	26037567.70	0.0277	0.0114
Mercury	66576-07-30 14:39 G	26037656.05	26037656.11	26037656.17	0.0277	0.0251
Venus	66580-05-20 05:46 G	26039045.61	26039045.74	26039045.87	0.0279	0.0218
Venus	66581-01-04 19:12 G	26039275.08	26039275.30	26039275.51	0.0280	0.0004
Venus	66581-08-22 08:53 G	26039504.74	26039504.87	26039505.00	0.0281	0.0221
Mars	66583-03-20 01:41 G	26040079.32	26040079.57	26040079.82	0.0282	0.0148
Moon	66588-11-26 05:46 G	26042157.52	26042157.74	26042157.96	0.0283	0.0135
Earth	66588-11-26 08:39 G	26042157.65	26042157.86	26042158.09	0.0283	0.0125 *
Mercury	66590-05-23 21:07 G	26042701.27	26042701.38	26042701.50	0.0283	0.0194
Mercury	66590-08-20 14:39 G	26042789.95	26042790.11	26042790.28	0.0283	0.0028
Mercury	66590-11-17 08:39 G	26042878.72	26042878.86	26042879.00	0.0283	0.0144
Venus	66594-11-04 12:43 G	26044326.90	26044327.03	26044327.18	0.0279	0.0211
Venus	66595-06-21 23:17 G	26044556.25	26044556.47	26044556.68	0.0279	0.0007
Venus	66596-02-06 08:39 G	26044785.73	26044785.86	26044786.00	0.0278	0.0216
Earth	66603-05-24 15:22 G	26047448.91	26047449.14	26047449.38	0.0275	0.0061
Moon	66603-05-24 16:05 G	26047448.93	26047449.17	26047449.42	0.0275	0.0055 *
Mercury	66605-03-27 23:17 G	26048122.39	26048122.47	26048122.57	0.0276	0.0217
Mercury	66605-06-24 13:12 G	26048210.91	26048211.05	26048211.19	0.0276	0.0074
Mercury	66605-09-21 02:39 G	26048299.47	26048299.61	26048299.75	0.0276	0.0067
Mercury	66605-12-18 15:51 G	26048388.06	26048388.16	26048388.25	0.0276	0.0204
Venus	66609-12-01 07:27 G	26049831.66	26049831.81	26049831.97	0.0280	0.0195
Venus	66610-07-18 20:53 G	26050061.16	26050061.37	26050061.58	0.0280	0.0024
Venus	66611-03-05 10:34 G	26050290.84	26050290.94	26050291.05	0.0281	0.0244
Earth	66617-11-21 08:24 G	26052743.65	26052743.85	26052744.06	0.0284	0.0157
Moon	66617-11-21 12:00 G	26052743.79	26052744.00	26052744.21	0.0284	0.0145 *
Mercury	66619-10-11 20:24 G	26053433.28	26053433.35	26053433.42	0.0283	0.0252
Mercury	66620-01-08 13:55 G	26053521.93	26053522.08	26053522.24	0.0283	0.0086
Mercury	66620-04-06 07:41 G	26053610.67	26053610.82	26053610.98	0.0283	0.0083
Mercury	66620-07-04 01:41 G	26053699.52	26053699.57	26053699.65	0.0282	0.0257

Venus	66624-05-17 16:05 G	26055113.02	26055113.17	26055113.34	0.0279	0.0183
Venus	66625-01-02 02:39 G	26055342.40	26055342.61	26055342.82	0.0279	0.0033
Venus	66625-08-19 12:29 G	26055571.93	26055572.02	26055572.12	0.0278	0.0245
Mars	66627-04-30 02:24 G	26056190.30	26056190.60	26056190.89	0.0277	0.0003
Earth	66633-05-31 02:39 G	26058413.52	26058413.61	26058413.73	0.0276	0.0248
Moon	66633-05-31 06:15 G	26058413.66	26058413.76	26058413.86	0.0276	0.0247 *
Mercury	66634-08-15 02:10 G	26058854.53	26058854.59	26058854.66	0.0276	0.0245
Mercury	66634-11-11 16:05 G	26058943.03	26058943.17	26058943.31	0.0277	0.0101
Mercury	66635-02-08 05:31 G	26059031.59	26059031.73	26059031.88	0.0277	0.0041
Mercury	66635-05-07 18:43 G	26059120.18	26059120.28	26059120.40	0.0277	0.0180
Venus	66639-06-13 18:15 G	26060618.09	26060618.26	26060618.44	0.0280	0.0154
Venus	66640-01-29 07:55 G	26060847.62	26060847.83	26060848.04	0.0280	0.0066
Jupiter	66642-04-13 03:51 G	26061652.20	26061652.66	26061653.13	0.0282	0.0019
Moon	66647-11-29 17:03 G	26063709.06	26063709.21	26063709.39	0.0283	0.0206
Earth	66647-11-29 20:24 G	26063709.17	26063709.35	26063709.53	0.0283	0.0197 *
Mercury	66649-02-27 22:48 G	26064165.44	26064165.45	26064165.49	0.0283	0.0279
Mercury	66649-05-27 16:19 G	26064254.04	26064254.18	26064254.33	0.0283	0.0114
Mercury	66649-08-24 10:05 G	26064342.76	26064342.92	26064343.08	0.0283	0.0055
Mercury	66649-11-21 04:05 G	26064431.58	26064431.67	26064431.77	0.0282	0.0227
Venus	66653-11-28 00:43 G	26065899.35	26065899.53	26065899.71	0.0279	0.0147
Venus	66654-07-15 10:48 G	26066128.75	26066128.95	26066129.16	0.0279	0.0068
Moon	66662-05-25 20:24 G	26069000.11	26069000.35	26069000.60	0.0275	0.0008
Earth	66662-05-26 00:00 G	26069000.26	26069000.50	26069000.74	0.0275	0.0006 *
Mercury	66664-03-30 17:17 G	26069675.10	26069675.22	26069675.35	0.0276	0.0146
Mercury	66664-06-27 06:58 G	26069763.64	26069763.79	26069763.93	0.0276	0.0006
Mercury	66664-09-23 20:10 G	26069852.22	26069852.34	26069852.47	0.0276	0.0135
Mercury	66664-12-21 09:22 G	26069940.87	26069940.89	26069940.91	0.0276	0.0272
Venus	66668-12-23 20:39 G	26071404.18	26071404.36	26071404.55	0.0280	0.0129
Venus	66669-08-10 10:05 G	26071633.72	26071633.92	26071634.12	0.0280	0.0091
Mars	66671-08-14 19:12 G	26072368.02	26072368.30	26072368.59	0.0282	0.0085

Earth	66676-11-22 20:24 G	26074295.11	26074295.35	26074295.58	0.0284	0.0083
Moon	66676-11-22 22:48 G	26074295.20	26074295.45	26074295.70	0.0284	0.0074 *
Mercury	66678-10-14 15:36 G	26074986.02	26074986.15	26074986.28	0.0283	0.0173
Mercury	66679-01-11 09:07 G	26075074.72	26075074.88	26075075.05	0.0283	0.0008
Mercury	66679-04-10 03:07 G	26075163.50	26075163.63	26075163.77	0.0282	0.0165
Venus	66683-06-10 03:36 G	26076685.47	26076685.65	26076685.85	0.0279	0.0119
Venus	66684-01-25 13:55 G	26076914.88	26076915.08	26076915.28	0.0278	0.0095
Earth	66691-05-21 01:12 G	26079587.41	26079587.55	26079587.69	0.0276	0.0222
Moon	66691-05-21 04:19 G	26079587.54	26079587.68	26079587.84	0.0276	0.0217 *
Mercury	66693-08-17 19:55 G	26080407.22	26080407.33	26080407.45	0.0277	0.0175
Mercury	66693-11-14 09:36 G	26080495.76	26080495.90	26080496.05	0.0277	0.0033
Mercury	66694-02-10 23:03 G	26080584.33	26080584.46	26080584.60	0.0277	0.0108
Mercury	66694-05-10 12:15 G	26080672.95	26080673.01	26080673.08	0.0277	0.0246
Venus	66698-07-06 07:27 G	26082190.61	26082190.81	26082191.01	0.0280	0.0087
Venus	66699-02-20 21:07 G	26082420.20	26082420.38	26082420.57	0.0281	0.0134
Earth	66706-12-02 09:07 G	26085260.82	26085260.88	26085260.95	0.0283	0.0271
Moon	66706-12-02 10:19 G	26085260.90	26085260.93	26085260.99	0.0283	0.0277 *
Mercury	66708-03-03 18:29 G	26085718.16	26085718.27	26085718.39	0.0283	0.0196
Mercury	66708-05-31 12:00 G	26085806.84	26085807.00	26085807.16	0.0283	0.0030
Mercury	66708-08-28 05:46 G	26085895.60	26085895.74	26085895.89	0.0282	0.0140
Venus	66712-12-21 13:12 G	26087471.85	26087472.05	26087472.25	0.0279	0.0081
Venus	66713-08-07 23:03 G	26087701.28	26087701.46	26087701.65	0.0278	0.0132
Mars	66715-09-25 13:12 G	26088479.77	26088480.05	26088480.33	0.0277	0.0088
Moon	66721-05-28 06:58 G	26090551.56	26090551.79	26090552.02	0.0275	0.0070
Earth	66721-05-28 09:07 G	26090551.65	26090551.88	26090552.12	0.0275	0.0072 *
Mercury	66723-01-05 21:36 G	26091139.31	26091139.40	26091139.48	0.0276	0.0217
Mercury	66723-04-04 11:17 G	26091227.83	26091227.97	26091228.11	0.0276	0.0074
Mercury	66723-07-02 00:43 G	26091316.39	26091316.53	26091316.67	0.0276	0.0066
Mercury	66723-09-28 13:55 G	26091404.99	26091405.08	26091405.18	0.0276	0.0204
Venus	66727-06-01 21:07 G	26092747.37	26092747.38	26092747.41	0.0279	0.0278

Venus	66728-01-17 10:19 G	26092976.72	26092976.93	26092977.14	0.0280	0.0061
Venus	66728-09-03 00:00 G	26093206.32	26093206.50	26093206.67	0.0281	0.0159
Moon	66735-11-26 07:12 G	26095846.54	26095846.80	26095847.06	0.0284	0.0003
Earth	66735-11-26 09:07 G	26095846.63	26095846.88	26095847.13	0.0284	0.0008 *
Mercury	66737-07-21 17:31 G	26096450.17	26096450.23	26096450.30	0.0283	0.0256
Mercury	66737-10-18 11:03 G	26096538.81	26096538.96	26096539.11	0.0283	0.0090
Mercury	66738-01-15 04:48 G	26096627.54	26096627.70	26096627.86	0.0283	0.0078
Mercury	66738-04-13 22:48 G	26096716.38	26096716.45	26096716.53	0.0282	0.0250
Venus	66741-11-16 05:17 G	26098028.67	26098028.72	26098028.78	0.0279	0.0268
Venus	66742-07-03 16:05 G	26098257.96	26098258.17	26098258.37	0.0279	0.0054
Venus	66743-02-18 01:41 G	26098487.41	26098487.57	26098487.75	0.0278	0.0160
Earth	66750-05-23 09:22 G	26101138.69	26101138.89	26101139.09	0.0276	0.0158
Moon	66750-05-23 11:46 G	26101138.79	26101138.99	26101139.20	0.0276	0.0153 *
Mercury	66752-05-24 23:31 G	26101871.43	26101871.48	26101871.55	0.0277	0.0251
Mercury	66752-08-21 13:41 G	26101959.93	26101960.07	26101960.20	0.0277	0.0106
Mercury	66752-11-18 03:07 G	26102048.49	26102048.63	26102048.78	0.0277	0.0036
Mercury	66753-02-14 16:34 G	26102137.08	26102137.19	26102137.30	0.0277	0.0175
Venus	66756-12-12 06:29 G	26103533.68	26103533.77	26103533.89	0.0280	0.0240
Venus	66757-07-29 20:10 G	26103763.13	26103763.34	26103763.56	0.0280	0.0022
Venus	66758-03-16 10:05 G	26103992.78	26103992.92	26103993.08	0.0281	0.0200
Mars	66760-01-10 21:22 G	26104658.10	26104658.39	26104658.69	0.0282	0.0033
Earth	66764-11-20 01:55 G	26106433.49	26106433.58	26106433.69	0.0283	0.0256
Moon	66764-11-20 03:22 G	26106433.53	26106433.64	26106433.77	0.0283	0.0246 *
Mercury	66766-12-08 20:53 G	26107182.34	26107182.37	26107182.40	0.0283	0.0277
Mercury	66767-03-07 14:10 G	26107270.94	26107271.09	26107271.24	0.0283	0.0113
Mercury	66767-06-04 07:41 G	26107359.67	26107359.82	26107359.99	0.0283	0.0056
Mercury	66767-09-01 01:41 G	26107448.48	26107448.57	26107448.68	0.0282	0.0227
Venus	66771-05-29 15:51 G	26108815.04	26108815.16	26108815.28	0.0279	0.0228
Venus	66772-01-14 02:10 G	26109044.38	26109044.59	26109044.80	0.0279	0.0014
Venus	66772-08-30 11:31 G	26109273.85	26109273.98	26109274.14	0.0278	0.0198

Earth	66780-05-29 18:15 G	26112103.06	26112103.26	26112103.48	0.0275	0.0139
Moon	66780-05-29 20:24 G	26112103.14	26112103.35	26112103.55	0.0275	0.0134 *
Mercury	66782-01-08 15:22 G	26112692.02	26112692.14	26112692.27	0.0276	0.0146
Mercury	66782-04-07 05:03 G	26112780.56	26112780.71	26112780.86	0.0276	0.0004
Mercury	66782-07-04 18:29 G	26112869.14	26112869.27	26112869.39	0.0276	0.0135
Mercury	66782-10-01 07:27 G	26112957.79	26112957.81	26112957.84	0.0276	0.0272
Venus	66786-06-24 10:34 G	26114319.80	26114319.94	26114320.08	0.0280	0.0211
Venus	66787-02-08 23:46 G	26114549.28	26114549.49	26114549.70	0.0280	0.0007
Venus	66787-09-26 13:12 G	26114778.94	26114779.05	26114779.19	0.0281	0.0227
Moon	66794-11-27 18:43 G	26117398.05	26117398.28	26117398.52	0.0284	0.0073
Earth	66794-11-27 22:19 G	26117398.19	26117398.43	26117398.68	0.0284	0.0068 *
Mercury	66796-07-24 13:12 G	26118002.92	26118003.05	26118003.18	0.0283	0.0173
Mercury	66796-10-21 06:43 G	26118091.62	26118091.78	26118091.94	0.0283	0.0007
Mercury	66797-01-18 00:29 G	26118180.39	26118180.52	26118180.66	0.0282	0.0164
Venus	66800-12-08 18:00 G	26119601.11	26119601.25	26119601.40	0.0279	0.0203
Venus	66801-07-26 04:34 G	26119830.47	26119830.69	26119830.90	0.0278	0.0012
Venus	66802-03-12 13:55 G	26120059.97	26120060.08	26120060.21	0.0278	0.0223
Mars	66804-02-19 12:58 G	26120768.80	26120769.04	26120769.28	0.0277	0.0158
Moon	66809-05-24 15:36 G	26122689.92	26122690.15	26122690.39	0.0276	0.0093
Earth	66809-05-24 17:03 G	26122689.99	26122690.21	26122690.44	0.0276	0.0095 *
Mercury	66811-05-28 17:17 G	26123424.12	26123424.22	26123424.34	0.0277	0.0182
Mercury	66811-08-25 07:12 G	26123512.65	26123512.80	26123512.95	0.0277	0.0038
Mercury	66811-11-21 20:39 G	26123601.23	26123601.36	26123601.50	0.0277	0.0102
Mercury	66812-02-18 09:51 G	26123689.84	26123689.91	26123689.98	0.0277	0.0240
Venus	66816-01-04 18:58 G	26125106.13	26125106.29	26125106.46	0.0280	0.0175
Venus	66816-08-21 08:39 G	26125335.65	26125335.86	26125336.07	0.0281	0.0044
Venus	66817-04-07 22:48 G	26125565.38	26125565.45	26125565.52	0.0281	0.0264
Earth	66823-11-22 13:55 G	26127984.90	26127985.08	26127985.28	0.0283	0.0184
Moon	66823-11-22 17:46 G	26127985.05	26127985.24	26127985.45	0.0283	0.0172 *
Mercury	66825-12-11 16:05 G	26128735.06	26128735.17	26128735.29	0.0283	0.0197

Mercury	66826-03-10 09:36 G	26128823.74	26128823.90	26128824.06	0.0283	0.0031
Mercury	66826-06-07 03:22 G	26128912.50	26128912.64	26128912.79	0.0283	0.0139
Venus	66830-06-21 04:34 G	26130387.53	26130387.69	26130387.88	0.0279	0.0163
Venus	66831-02-05 14:53 G	26130616.92	26130617.12	26130617.33	0.0279	0.0052
Venus	66831-09-23 00:29 G	26130846.45	26130846.52	26130846.59	0.0278	0.0262
Earth	66839-06-01 03:36 G	26133654.50	26133654.65	26133654.82	0.0275	0.0204
Moon	66839-06-01 06:58 G	26133654.63	26133654.79	26133654.97	0.0275	0.0200 *
Mercury	66840-10-14 19:27 G	26134156.22	26134156.31	26134156.40	0.0276	0.0218
Mercury	66841-01-11 09:22 G	26134244.75	26134244.89	26134245.03	0.0276	0.0075
Mercury	66841-04-09 22:48 G	26134333.31	26134333.45	26134333.59	0.0276	0.0065
Mercury	66841-07-07 12:00 G	26134421.91	26134422.00	26134422.10	0.0276	0.0203
Venus	66845-07-16 23:03 G	26135892.28	26135892.46	26135892.65	0.0280	0.0145
Venus	66846-03-03 12:29 G	26136121.81	26136122.02	26136122.23	0.0280	0.0073
Mars	66848-06-05 17:03 G	26136946.94	26136947.21	26136947.49	0.0282	0.0098
Moon	66853-11-29 09:07 G	26138949.68	26138949.88	26138950.09	0.0284	0.0145
Earth	66853-11-29 10:05 G	26138949.71	26138949.92	26138950.15	0.0284	0.0141 *
Mercury	66855-04-30 15:07 G	26139467.07	26139467.13	26139467.20	0.0283	0.0257
Mercury	66855-07-28 08:24 G	26139555.70	26139555.85	26139556.01	0.0283	0.0092
Mercury	66855-10-25 02:10 G	26139644.43	26139644.59	26139644.75	0.0283	0.0076
Mercury	66856-01-21 20:10 G	26139733.27	26139733.34	26139733.42	0.0282	0.0247
Venus	66860-01-01 06:29 G	26141173.59	26141173.77	26141173.95	0.0279	0.0137
Venus	66860-08-17 16:34 G	26141402.99	26141403.19	26141403.40	0.0278	0.0077
Moon	66868-05-25 20:53 G	26144241.13	26144241.37	26144241.61	0.0276	0.0032
Earth	66868-05-26 00:29 G	26144241.28	26144241.52	26144241.76	0.0276	0.0032 *
Mercury	66870-03-03 20:53 G	26144888.33	26144888.37	26144888.43	0.0276	0.0259
Mercury	66870-05-31 10:48 G	26144976.82	26144976.95	26144977.09	0.0277	0.0115
Mercury	66870-08-28 00:29 G	26145065.38	26145065.52	26145065.67	0.0277	0.0028
Mercury	66870-11-24 13:55 G	26145153.97	26145154.08	26145154.20	0.0277	0.0166
Venus	66875-01-27 06:15 G	26146678.57	26146678.76	26146678.96	0.0280	0.0112
Venus	66875-09-13 19:55 G	26146908.14	26146908.33	26146908.53	0.0281	0.0108

Earth	66882-11-24 00:58 G	26149536.32	26149536.54	26149536.77	0.0284	0.0113
Moon	66882-11-24 01:55 G	26149536.35	26149536.58	26149536.83	0.0284	0.0105 *
Mercury	66884-09-16 18:00 G	26150199.25	26150199.25	26150199.25	0.0283	0.0283
Mercury	66884-12-14 11:17 G	26150287.82	26150287.97	26150288.11	0.0283	0.0119
Mercury	66885-03-13 04:48 G	26150376.54	26150376.70	26150376.86	0.0283	0.0049
Mercury	66885-06-09 22:48 G	26150465.35	26150465.45	26150465.56	0.0283	0.0220
Venus	66889-07-13 17:03 G	26151960.02	26151960.21	26151960.42	0.0279	0.0097
Venus	66890-02-28 03:07 G	26152189.44	26152189.63	26152189.82	0.0279	0.0117
Mars	66892-07-16 08:39 G	26153058.78	26153058.86	26153058.96	0.0277	0.0262
Earth	66897-05-21 03:36 G	26154828.59	26154828.65	26154828.73	0.0275	0.0261
Moon	66897-05-21 07:41 G	26154828.73	26154828.82	26154828.91	0.0275	0.0254 *
Earth	66898-06-02 11:46 G	26155205.95	26155205.99	26155206.05	0.0275	0.0268
Moon	66898-06-02 12:15 G	26155205.95	26155206.01	26155206.10	0.0275	0.0261 *
Mercury	66899-10-18 13:12 G	26155708.93	26155709.05	26155709.17	0.0276	0.0149
Mercury	66900-01-15 02:53 G	26155797.47	26155797.62	26155797.77	0.0276	0.0007
Mercury	66900-04-13 16:05 G	26155886.05	26155886.17	26155886.31	0.0276	0.0132
Mercury	66900-07-11 05:17 G	26155974.70	26155974.72	26155974.76	0.0276	0.0268
Venus	66904-08-09 10:48 G	26157464.75	26157464.95	26157465.16	0.0280	0.0081
Venus	66905-03-27 00:15 G	26157694.33	26157694.51	26157694.70	0.0280	0.0138
Earth	66912-12-01 20:24 G	26160501.19	26160501.35	26160501.53	0.0284	0.0210
Moon	66912-12-01 23:31 G	26160501.33	26160501.48	26160501.65	0.0284	0.0213 *
Mercury	66914-05-04 09:51 G	26161019.80	26161019.91	26161020.04	0.0283	0.0181
Mercury	66914-08-01 03:22 G	26161108.48	26161108.64	26161108.81	0.0283	0.0017
Mercury	66914-10-28 21:07 G	26161197.25	26161197.38	26161197.53	0.0283	0.0156
Venus	66919-01-24 18:00 G	26162746.05	26162746.25	26162746.46	0.0279	0.0073
Venus	66919-09-11 04:05 G	26162975.49	26162975.67	26162975.85	0.0278	0.0140
Moon	66927-05-29 06:43 G	26165792.55	26165792.78	26165793.01	0.0276	0.0026
Earth	66927-05-29 07:27 G	26165792.57	26165792.81	26165793.05	0.0276	0.0029 *
Mercury	66929-03-07 14:24 G	26166441.00	26166441.10	26166441.21	0.0276	0.0193
Mercury	66929-06-04 04:05 G	26166529.53	26166529.67	26166529.82	0.0276	0.0051

Mercury	66929-08-31 17:46 G	26166618.10	26166618.24	26166618.38	0.0277	0.0091
Mercury	66929-11-28 06:58 G	26166706.71	26166706.79	26166706.87	0.0277	0.0228
Venus	66933-07-05 03:22 G	26168021.59	26168021.64	26168021.71	0.0280	0.0267
Venus	66934-02-19 16:48 G	26168250.99	26168251.20	26168251.41	0.0280	0.0050
Venus	66934-10-07 06:29 G	26168480.60	26168480.77	26168480.94	0.0281	0.0170
Mars	66936-11-01 00:29 G	26169236.31	26169236.52	26169236.75	0.0282	0.0184
Moon	66941-11-26 05:46 G	26171087.49	26171087.74	26171087.99	0.0284	0.0045
Earth	66941-11-26 09:07 G	26171087.64	26171087.88	26171088.13	0.0284	0.0049 *
Mercury	66943-09-21 12:15 G	26171751.91	26171752.01	26171752.12	0.0283	0.0211
Mercury	66943-12-19 05:46 G	26171840.58	26171840.74	26171840.90	0.0283	0.0045
Mercury	66944-03-16 23:31 G	26171929.34	26171929.48	26171929.63	0.0283	0.0124
Venus	66947-12-20 17:31 G	26173303.14	26173303.23	26173303.34	0.0280	0.0246
Venus	66948-08-06 04:19 G	26173532.47	26173532.68	26173532.89	0.0279	0.0033
Venus	66949-03-23 14:24 G	26173761.94	26173762.10	26173762.26	0.0279	0.0180
Mars	66950-10-23 15:36 G	26174341.12	26174341.15	26174341.22	0.0277	0.0273
Earth	66956-05-23 10:48 G	26176379.80	26176379.95	26176380.13	0.0275	0.0199
Moon	66956-05-23 11:31 G	26176379.82	26176379.98	26176380.17	0.0275	0.0197 *
Mercury	66958-07-25 16:48 G	26177173.12	26177173.20	26177173.28	0.0275	0.0226
Mercury	66958-10-22 06:29 G	26177261.64	26177261.77	26177261.92	0.0276	0.0084
Mercury	66959-01-18 20:10 G	26177350.20	26177350.34	26177350.48	0.0276	0.0057
Mercury	66959-04-17 09:22 G	26177438.79	26177438.89	26177439.00	0.0276	0.0194
Venus	66963-01-15 08:24 G	26178807.75	26178807.85	26178807.98	0.0279	0.0234
Venus	66963-09-01 21:36 G	26179037.18	26179037.40	26179037.61	0.0280	0.0019
Venus	66964-04-18 11:03 G	26179266.81	26179266.96	26179267.11	0.0280	0.0200
Earth	66971-12-04 04:48 G	26182052.66	26182052.70	26182052.77	0.0284	0.0276
Moon	66971-12-04 07:55 G	26182052.78	26182052.83	26182052.90	0.0284	0.0274
Mercury	66973-02-07 11:17 G	26182483.93	26182483.97	26182484.01	0.0283	0.0271
Mercury	66973-05-07 04:34 G	26182572.54	26182572.69	26182572.84	0.0283	0.0107
Mercury	66973-08-03 22:05 G	26182661.26	26182661.42	26182661.58	0.0283	0.0060
Mercury	66973-10-31 16:05 G	26182750.08	26182750.17	26182750.26	0.0283	0.0231

Venus	66977-07-01 18:00 G	26184089.13	26184089.25	26184089.38	0.0279	0.0224
Venus	66978-02-16 04:48 G	26184318.49	26184318.70	26184318.91	0.0279	0.0010
Venus	66978-10-03 14:39 G	26184547.97	26184548.11	26184548.26	0.0278	0.0201
Earth	66986-05-30 12:43 G	26187343.81	26187344.03	26187344.27	0.0275	0.0087
Moon	66986-05-30 16:19 G	26187343.95	26187344.18	26187344.41	0.0275	0.0080 *
Mercury	66987-12-12 17:31 G	26187905.22	26187905.23	26187905.24	0.0276	0.0274
Mercury	66988-03-10 07:27 G	26187993.68	26187993.81	26187993.94	0.0276	0.0130
Mercury	66988-06-06 21:07 G	26188082.23	26188082.38	26188082.53	0.0276	0.0011
Mercury	66988-09-03 10:34 G	26188170.82	26188170.94	26188171.06	0.0276	0.0150
Venus	66992-07-27 12:43 G	26189593.89	26189594.03	26189594.18	0.0280	0.0207
Venus	66993-03-14 01:55 G	26189823.37	26189823.58	26189823.80	0.0280	0.0011
Venus	66993-10-29 15:51 G	26190053.04	26190053.16	26190053.28	0.0281	0.0229
Moon	67000-11-28 12:43 G	26192638.79	26192639.03	26192639.27	0.0284	0.0012
Earth	67000-11-28 15:07 G	26192638.88	26192639.13	26192639.38	0.0284	0.0013 *

68TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 68th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	67002-09-25 06:15 G	26193304.62	26193304.76	26193304.90	0.0283	0.0144		
Mercury	67002-12-22 23:46 G	26193393.33	26193393.49	26193393.65	0.0283	0.0023		
Mercury	67003-03-21 17:46 G	26193482.12	26193482.24	26193482.36	0.0283	0.0194		
Venus	67007-01-13 03:22 G	26194875.49	26194875.64	26194875.80	0.0280	0.0185		
Venus	67007-08-30 14:10 G	26195104.88	26195105.09	26195105.30	0.0279	0.0029		

Venus	67008-04-16 00:00 G	26195334.40	26195334.50	26195334.61	0.0279	0.0241
Moon	67015-05-26 13:41 G	26197930.87	26197931.07	26197931.29	0.0275	0.0143
Earth	67015-05-26 17:03 G	26197931.01	26197931.21	26197931.43	0.0275	0.0139 *
Mercury	67017-07-29 10:05 G	26198725.80	26198725.92	26198726.04	0.0275	0.0162
Mercury	67017-10-25 23:46 G	26198814.34	26198814.49	26198814.64	0.0275	0.0020
Mercury	67018-01-22 13:12 G	26198902.92	26198903.05	26198903.18	0.0276	0.0118
Mercury	67018-04-21 02:10 G	26198991.55	26198991.59	26198991.65	0.0276	0.0255
Venus	67022-02-07 18:15 G	26200380.10	26200380.26	26200380.44	0.0279	0.0173
Venus	67022-09-25 07:12 G	26200609.60	26200609.80	26200610.02	0.0280	0.0044
Venus	67023-05-12 20:53 G	26200839.30	26200839.37	26200839.45	0.0280	0.0260
Mars	67025-03-28 11:17 G	26201524.81	26201524.97	26201525.15	0.0282	0.0231
Earth	67029-11-22 13:55 G	26203225.00	26203225.08	26203225.17	0.0284	0.0265
Moon	67029-11-22 16:05 G	26203225.07	26203225.17	26203225.26	0.0284	0.0262 *
Mercury	67032-02-12 05:03 G	26204036.60	26204036.71	26204036.82	0.0283	0.0205
Mercury	67032-05-10 22:19 G	26204125.27	26204125.43	26204125.59	0.0283	0.0040
Mercury	67032-08-07 16:05 G	26204214.03	26204214.17	26204214.32	0.0283	0.0129
Venus	67036-07-25 03:22 G	26205661.48	26205661.64	26205661.82	0.0279	0.0164
Venus	67037-03-11 14:10 G	26205890.88	26205891.09	26205891.30	0.0279	0.0050
Venus	67037-10-27 00:00 G	26206120.43	26206120.50	26206120.57	0.0278	0.0260
Mars	67039-03-19 22:34 G	26206629.30	26206629.44	26206629.61	0.0277	0.0231
Earth	67045-06-01 17:03 G	26208895.02	26208895.21	26208895.43	0.0275	0.0145
Moon	67045-06-01 19:27 G	26208895.10	26208895.31	26208895.53	0.0275	0.0133 *
Mercury	67046-12-16 10:34 G	26209457.84	26209457.94	26209458.03	0.0276	0.0213
Mercury	67047-03-15 00:15 G	26209546.37	26209546.51	26209546.65	0.0276	0.0071
Mercury	67047-06-11 13:41 G	26209634.94	26209635.07	26209635.22	0.0276	0.0071
Mercury	67047-09-08 03:07 G	26209723.54	26209723.63	26209723.73	0.0276	0.0207
Venus	67051-08-20 21:07 G	26211166.20	26211166.38	26211166.56	0.0280	0.0149
Venus	67052-04-06 10:19 G	26211395.72	26211395.93	26211396.13	0.0280	0.0069
Earth	67059-11-30 18:29 G	26214190.03	26214190.27	26214190.52	0.0284	0.0070
Moon	67059-11-30 20:39 G	26214190.13	26214190.36	26214190.60	0.0284	0.0066 *

Mercury	67061-07-01 06:15 G	26214768.69	26214768.76	26214768.84	0.0283	0.0245
Mercury	67061-09-27 23:31 G	26214857.33	26214857.48	26214857.64	0.0283	0.0081
Mercury	67061-12-25 17:17 G	26214946.07	26214946.22	26214946.38	0.0283	0.0088
Mercury	67062-03-24 11:17 G	26215034.91	26215034.97	26215035.04	0.0283	0.0260
Venus	67066-02-04 12:00 G	26216447.82	26216448.00	26216448.19	0.0280	0.0126
Venus	67066-09-21 22:48 G	26216677.25	26216677.45	26216677.65	0.0279	0.0088
Moon	67074-05-27 19:27 G	26219482.09	26219482.31	26219482.54	0.0275	0.0087
Earth	67074-05-27 21:51 G	26219482.18	26219482.41	26219482.64	0.0275	0.0081 *
Mercury	67076-05-04 12:58 G	26220189.98	26220190.04	26220190.11	0.0275	0.0244
Mercury	67076-08-01 02:53 G	26220278.49	26220278.62	26220278.76	0.0275	0.0101
Mercury	67076-10-28 16:34 G	26220367.04	26220367.19	26220367.33	0.0275	0.0039
Mercury	67077-01-25 05:46 G	26220455.63	26220455.74	26220455.86	0.0276	0.0177
Venus	67081-03-02 03:22 G	26221952.44	26221952.64	26221952.83	0.0279	0.0113
Venus	67081-10-17 16:05 G	26222181.98	26222182.17	26222182.37	0.0279	0.0103
Moon	67088-11-23 15:07 G	26224775.97	26224776.13	26224776.31	0.0284	0.0210
Earth	67088-11-23 17:31 G	26224776.08	26224776.23	26224776.41	0.0284	0.0208 *
Mercury	67091-02-14 22:19 G	26225589.30	26225589.43	26225589.57	0.0283	0.0142
Mercury	67091-05-14 15:51 G	26225678.00	26225678.16	26225678.33	0.0283	0.0025
Mercury	67091-08-11 09:36 G	26225766.79	26225766.90	26225767.03	0.0283	0.0195
Venus	67095-08-17 11:31 G	26227233.79	26227233.98	26227234.18	0.0279	0.0106
Venus	67096-04-02 22:19 G	26227463.23	26227463.43	26227463.62	0.0279	0.0108
Moon	67104-06-03 18:15 G	26230446.08	26230446.26	26230446.45	0.0275	0.0184
Earth	67104-06-03 20:53 G	26230446.20	26230446.37	26230446.54	0.0275	0.0198 *
Mercury	67105-12-20 03:07 G	26231010.51	26231010.63	26231010.75	0.0276	0.0155
Mercury	67106-03-18 16:48 G	26231099.06	26231099.20	26231099.35	0.0276	0.0015
Mercury	67106-06-15 06:15 G	26231187.64	26231187.76	26231187.89	0.0276	0.0126
Mercury	67106-09-11 19:27 G	26231276.27	26231276.31	26231276.36	0.0276	0.0262
Venus	67110-09-13 05:03 G	26232738.51	26232738.71	26232738.91	0.0280	0.0091
Venus	67111-04-30 18:00 G	26232968.07	26232968.25	26232968.45	0.0280	0.0126
Mars	67113-08-22 18:00 G	26233813.19	26233813.25	26233813.33	0.0282	0.0274

Earth	67118-12-02 19:41 G	26235741.11	26235741.32	26235741.56	0.0284	0.0123
Moon	67118-12-02 23:17 G	26235741.25	26235741.47	26235741.71	0.0284	0.0117 *
Mercury	67120-07-04 23:03 G	26236321.34	26236321.46	26236321.58	0.0283	0.0188
Mercury	67120-10-01 16:34 G	26236410.03	26236410.19	26236410.35	0.0283	0.0022
Mercury	67120-12-29 10:19 G	26236498.79	26236498.93	26236499.07	0.0283	0.0147
Venus	67125-02-27 19:12 G	26238020.10	26238020.30	26238020.51	0.0280	0.0069
Venus	67125-10-15 05:46 G	26238249.57	26238249.74	26238249.93	0.0279	0.0146
Mars	67127-08-15 01:41 G	26238918.34	26238918.57	26238918.81	0.0278	0.0162
Earth	67133-05-30 01:27 G	26241033.32	26241033.56	26241033.80	0.0275	0.0025
Moon	67133-05-30 03:07 G	26241033.40	26241033.63	26241033.87	0.0275	0.0033 *
Mercury	67135-05-09 05:46 G	26241742.64	26241742.74	26241742.86	0.0275	0.0184
Mercury	67135-08-05 19:41 G	26241831.17	26241831.32	26241831.47	0.0275	0.0043
Mercury	67135-11-02 09:07 G	26241919.74	26241919.88	26241920.02	0.0275	0.0096
Mercury	67136-01-29 22:19 G	26242008.36	26242008.43	26242008.51	0.0276	0.0232
Venus	67139-08-08 23:03 G	26243295.42	26243295.46	26243295.53	0.0278	0.0268
Venus	67140-03-25 11:31 G	26243524.77	26243524.98	26243525.19	0.0279	0.0055
Venus	67140-11-10 00:15 G	26243754.34	26243754.51	26243754.69	0.0279	0.0160
Moon	67147-11-26 16:34 G	26246326.99	26246327.19	26246327.40	0.0284	0.0157
Earth	67147-11-26 19:55 G	26246327.13	26246327.33	26246327.54	0.0284	0.0153 *
Mercury	67149-11-21 22:05 G	26247053.35	26247053.42	26247053.50	0.0283	0.0246
Mercury	67150-02-18 15:22 G	26247141.99	26247142.14	26247142.30	0.0283	0.0083
Mercury	67150-05-18 09:07 G	26247230.72	26247230.88	26247231.03	0.0283	0.0086
Mercury	67150-08-15 02:53 G	26247319.56	26247319.62	26247319.70	0.0283	0.0257
Venus	67154-01-23 07:41 G	26248576.76	26248576.82	26248576.90	0.0280	0.0263
Venus	67154-09-09 18:58 G	26248806.09	26248806.29	26248806.50	0.0280	0.0049
Venus	67155-04-27 05:31 G	26249035.57	26249035.73	26249035.91	0.0279	0.0165
Earth	67162-05-24 15:36 G	26251620.15	26251620.15	26251620.17	0.0275	0.0275
Moon	67163-06-05 20:24 G	26251997.24	26251997.35	26251997.47	0.0275	0.0237
Earth	67163-06-05 23:17 G	26251997.39	26251997.47	26251997.58	0.0275	0.0252 *
Mercury	67164-09-25 05:46 G	26252474.67	26252474.74	26252474.81	0.0275	0.0240

Mercury	67164-12-22 19:41 G	26252563.18	26252563.32	26252563.46	0.0276	0.0098
Mercury	67165-03-21 09:22 G	26252651.74	26252651.89	26252652.03	0.0276	0.0042
Mercury	67165-06-17 22:34 G	26252740.34	26252740.44	26252740.56	0.0276	0.0180
Venus	67169-02-18 00:00 G	26254081.41	26254081.50	26254081.60	0.0279	0.0247
Venus	67169-10-05 12:29 G	26254310.81	26254311.02	26254311.23	0.0279	0.0034
Venus	67170-05-23 01:12 G	26254540.40	26254540.55	26254540.72	0.0280	0.0183
Moon	67177-12-03 20:10 G	26257292.13	26257292.34	26257292.55	0.0284	0.0164
Earth	67177-12-03 19:55 G	26257292.15	26257292.33	26257292.54	0.0284	0.0174 *
Mercury	67179-07-08 15:36 G	26257874.01	26257874.15	26257874.29	0.0283	0.0133
Mercury	67179-10-05 09:07 G	26257962.72	26257962.88	26257963.04	0.0283	0.0035
Mercury	67180-01-02 02:53 G	26258051.52	26258051.62	26258051.74	0.0283	0.0205
Venus	67183-08-05 13:55 G	26259362.97	26259363.08	26259363.21	0.0280	0.0229
Venus	67184-03-22 01:27 G	26259592.35	26259592.56	26259592.78	0.0280	0.0015
Venus	67184-11-06 12:15 G	26259821.87	26259822.01	26259822.16	0.0279	0.0200
Earth	67192-05-31 03:51 G	26262584.42	26262584.66	26262584.90	0.0275	0.0030
Moon	67192-05-31 07:27 G	26262584.57	26262584.81	26262585.05	0.0275	0.0021 *
Mercury	67194-02-12 08:24 G	26263206.83	26263206.85	26263206.89	0.0275	0.0269
Mercury	67194-05-11 22:34 G	26263295.31	26263295.44	26263295.57	0.0275	0.0126
Mercury	67194-08-08 12:15 G	26263383.86	26263384.01	26263384.15	0.0275	0.0015
Mercury	67194-11-05 01:41 G	26263472.44	26263472.57	26263472.69	0.0276	0.0152
Venus	67198-08-31 07:41 G	26264867.68	26264867.82	26264867.96	0.0278	0.0209
Venus	67199-04-17 19:41 G	26265097.11	26265097.32	26265097.54	0.0279	0.0007
Venus	67199-12-03 08:24 G	26265326.73	26265326.85	26265326.99	0.0279	0.0218
Earth	67206-11-27 21:36 G	26267878.17	26267878.40	26267878.64	0.0284	0.0099
Moon	67206-11-27 21:51 G	26267878.20	26267878.41	26267878.64	0.0284	0.0107 *
Mercury	67208-11-24 14:53 G	26268606.01	26268606.12	26268606.24	0.0283	0.0189
Mercury	67209-02-21 08:24 G	26268694.69	26268694.85	26268695.01	0.0283	0.0024
Mercury	67209-05-21 01:55 G	26268783.45	26268783.58	26268783.73	0.0283	0.0145
Venus	67213-02-14 14:24 G	26270148.96	26270149.10	26270149.24	0.0280	0.0208
Venus	67213-10-02 01:41 G	26270378.36	26270378.57	26270378.78	0.0280	0.0007

Venus	67214-05-19 12:15 G	26270607.88	26270608.01	26270608.14	0.0279	0.0219
Mars	67216-01-07 21:36 G	26271206.16	26271206.40	26271206.66	0.0277	0.0140
Moon	67221-05-25 14:10 G	26273170.98	26273171.09	26273171.24	0.0275	0.0229
Earth	67221-05-25 18:00 G	26273171.12	26273171.25	26273171.40	0.0275	0.0221 *
Mercury	67223-09-28 22:19 G	26274027.32	26274027.43	26274027.54	0.0275	0.0183
Mercury	67223-12-26 12:15 G	26274115.86	26274116.01	26274116.15	0.0276	0.0042
Mercury	67224-03-24 01:41 G	26274204.43	26274204.57	26274204.71	0.0276	0.0098
Mercury	67224-06-20 14:53 G	26274293.05	26274293.12	26274293.20	0.0276	0.0234
Venus	67228-03-12 07:27 G	26275653.67	26275653.81	26275653.97	0.0279	0.0191
Venus	67228-10-27 19:55 G	26275883.12	26275883.33	26275883.54	0.0279	0.0023
Venus	67229-06-14 08:53 G	26276112.77	26276112.87	26276112.99	0.0280	0.0239
Moon	67236-12-04 16:05 G	26278843.02	26278843.17	26278843.35	0.0284	0.0211
Earth	67236-12-04 19:41 G	26278843.18	26278843.32	26278843.48	0.0284	0.0224 *
Mercury	67238-04-13 14:39 G	26279338.04	26279338.11	26279338.20	0.0283	0.0243
Mercury	67238-07-11 08:10 G	26279426.68	26279426.84	26279426.99	0.0283	0.0078
Mercury	67238-10-08 01:41 G	26279515.42	26279515.57	26279515.73	0.0283	0.0090
Mercury	67239-01-04 19:41 G	26279604.26	26279604.32	26279604.38	0.0283	0.0261
Venus	67242-08-27 19:55 G	26280935.17	26280935.33	26280935.49	0.0280	0.0175
Venus	67243-04-14 07:27 G	26281164.60	26281164.81	26281165.02	0.0280	0.0041
Venus	67243-11-29 18:15 G	26281394.18	26281394.26	26281394.36	0.0279	0.0253
Moon	67251-06-02 06:15 G	26284135.52	26284135.76	26284136.01	0.0275	0.0071
Earth	67251-06-02 06:15 G	26284135.53	26284135.76	26284135.99	0.0275	0.0084 *
Mercury	67253-02-15 00:58 G	26284759.46	26284759.54	26284759.64	0.0275	0.0212
Mercury	67253-05-14 15:07 G	26284847.98	26284848.13	26284848.27	0.0275	0.0070
Mercury	67253-08-11 04:34 G	26284936.55	26284936.69	26284936.83	0.0276	0.0070
Mercury	67253-11-07 18:00 G	26285025.15	26285025.25	26285025.34	0.0276	0.0207
Venus	67257-09-22 15:36 G	26286439.98	26286440.15	26286440.34	0.0278	0.0152
Venus	67258-05-10 04:05 G	26286669.46	26286669.67	26286669.88	0.0279	0.0061
Venus	67258-12-25 16:34 G	26286899.17	26286899.19	26286899.24	0.0279	0.0276
Earth	67265-11-28 23:17 G	26289429.23	26289429.47	26289429.72	0.0284	0.0045

Moon	67265-11-29 03:07 G	26289429.39	26289429.63	26289429.88	0.0284	0.0056 *
Mercury	67267-11-28 07:41 G	26290158.68	26290158.82	26290158.97	0.0283	0.0131
Mercury	67268-02-25 01:12 G	26290247.39	26290247.55	26290247.71	0.0283	0.0036
Mercury	67268-05-23 18:58 G	26290336.18	26290336.29	26290336.41	0.0283	0.0205
Venus	67272-03-08 21:07 G	26291721.21	26291721.38	26291721.56	0.0280	0.0152
Venus	67272-10-24 08:24 G	26291950.64	26291950.85	26291951.05	0.0280	0.0062
Venus	67273-06-10 18:58 G	26292180.25	26292180.29	26292180.33	0.0279	0.0273
Earth	67280-05-26 20:10 G	26294722.15	26294722.34	26294722.54	0.0275	0.0167
Moon	67280-05-26 20:24 G	26294722.18	26294722.35	26294722.53	0.0275	0.0179 *
Mercury	67282-07-05 00:58 G	26295491.51	26295491.54	26295491.57	0.0275	0.0268
Mercury	67282-10-01 14:53 G	26295579.99	26295580.12	26295580.26	0.0275	0.0126
Mercury	67282-12-29 04:34 G	26295668.55	26295668.69	26295668.84	0.0276	0.0017
Mercury	67283-03-27 18:00 G	26295757.13	26295757.25	26295757.38	0.0276	0.0153
Venus	67287-04-04 15:36 G	26297225.97	26297226.15	26297226.34	0.0279	0.0133
Venus	67287-11-20 04:05 G	26297455.47	26297455.67	26297455.87	0.0279	0.0081
Moon	67295-12-06 18:29 G	26300394.20	26300394.27	26300394.38	0.0284	0.0262
Earth	67295-12-06 20:39 G	26300394.30	26300394.36	26300394.41	0.0284	0.0275 *
Mercury	67297-04-16 07:27 G	26300890.69	26300890.81	26300890.93	0.0283	0.0186
Mercury	67297-07-14 00:43 G	26300979.37	26300979.53	26300979.69	0.0283	0.0022
Mercury	67297-10-10 18:29 G	26301068.13	26301068.27	26301068.41	0.0283	0.0147
Venus	67301-09-20 01:41 G	26302507.38	26302507.57	26302507.76	0.0280	0.0121
Venus	67302-05-07 13:12 G	26302736.85	26302737.05	26302737.25	0.0280	0.0094
Mars	67304-06-03 11:46 G	26303494.73	26303494.99	26303495.28	0.0278	0.0093
Moon	67310-06-04 04:48 G	26305686.48	26305686.70	26305686.92	0.0275	0.0122
Earth	67310-06-04 08:10 G	26305686.64	26305686.84	26305687.06	0.0275	0.0139 *
Mercury	67312-02-19 17:46 G	26306312.12	26306312.24	26306312.37	0.0276	0.0153
Mercury	67312-05-18 07:41 G	26306400.67	26306400.82	26306400.96	0.0276	0.0013
Mercury	67312-08-14 21:07 G	26306489.25	26306489.38	26306489.51	0.0276	0.0126
Mercury	67312-11-11 10:19 G	26306577.89	26306577.93	26306577.97	0.0276	0.0262
Venus	67316-10-16 00:29 G	26308012.33	26308012.52	26308012.73	0.0278	0.0094

Venus	67317-06-02 12:58 G	26308241.85	26308242.04	26308242.23	0.0279	0.0120
Earth	67324-12-01 01:41 G	26310980.33	26310980.57	26310980.82	0.0283	0.0012
Moon	67324-12-01 02:53 G	26310980.36	26310980.62	26310980.88	0.0283	0.0003 *
Mercury	67326-09-04 07:41 G	26311622.73	26311622.82	26311622.91	0.0283	0.0234
Mercury	67326-12-02 00:43 G	26311711.38	26311711.53	26311711.69	0.0283	0.0072
Mercury	67327-02-28 18:29 G	26311800.11	26311800.27	26311800.42	0.0283	0.0096
Mercury	67327-05-28 12:15 G	26311888.96	26311889.01	26311889.07	0.0283	0.0267
Venus	67331-04-02 04:05 G	26313293.48	26313293.67	26313293.87	0.0280	0.0097
Venus	67331-11-17 15:22 G	26313522.95	26313523.14	26313523.33	0.0280	0.0118
Earth	67339-05-29 23:03 G	26316273.25	26316273.46	26316273.69	0.0275	0.0112
Moon	67339-05-30 02:53 G	26316273.41	26316273.62	26316273.84	0.0275	0.0126 *
Mercury	67341-07-08 17:46 G	26317044.15	26317044.24	26317044.34	0.0275	0.0209
Mercury	67341-10-05 07:41 G	26317132.68	26317132.82	26317132.96	0.0275	0.0067
Mercury	67342-01-01 21:22 G	26317221.25	26317221.39	26317221.53	0.0276	0.0072
Mercury	67342-03-31 10:34 G	26317309.85	26317309.94	26317310.04	0.0276	0.0209
Venus	67346-04-28 00:29 G	26318798.32	26318798.52	26318798.73	0.0279	0.0074
Venus	67346-12-13 12:43 G	26319027.85	26319028.03	26319028.22	0.0279	0.0140
Mars	67348-09-15 13:41 G	26319669.98	26319670.07	26319670.19	0.0281	0.0261
Earth	67353-11-25 00:58 G	26321566.47	26321566.54	26321566.63	0.0284	0.0269
Moon	67353-11-25 00:58 G	26321566.53	26321566.54	26321566.56	0.0284	0.0283 *
Mercury	67356-04-20 00:15 G	26322443.37	26322443.51	26322443.65	0.0283	0.0128
Mercury	67356-07-17 17:46 G	26322532.08	26322532.24	26322532.40	0.0283	0.0038
Mercury	67356-10-14 11:31 G	26322620.87	26322620.98	26322621.09	0.0283	0.0207
Venus	67360-10-12 08:10 G	26324079.64	26324079.84	26324080.05	0.0280	0.0066
Venus	67361-05-29 19:41 G	26324309.14	26324309.32	26324309.50	0.0280	0.0148
Moon	67369-06-05 09:22 G	26327237.72	26327237.89	26327238.08	0.0276	0.0178
Earth	67369-06-05 10:48 G	26327237.79	26327237.95	26327238.13	0.0276	0.0194 *
Mercury	67370-11-25 20:24 G	26327776.28	26327776.35	26327776.43	0.0276	0.0237
Mercury	67371-02-22 10:34 G	26327864.80	26327864.94	26327865.08	0.0276	0.0094
Mercury	67371-05-22 00:15 G	26327953.36	26327953.51	26327953.65	0.0276	0.0046

Mercury	67371-08-18 13:41 G	26328041.96	26328042.07	26328042.18	0.0276	0.0183
Venus	67375-03-23 22:05 G	26329355.33	26329355.42	26329355.53	0.0278	0.0245
Venus	67375-11-08 10:05 G	26329584.71	26329584.92	26329585.13	0.0278	0.0034
Venus	67376-06-24 22:19 G	26329814.28	26329814.43	26329814.60	0.0279	0.0180
Moon	67383-12-03 02:53 G	26332531.38	26332531.62	26332531.88	0.0283	0.0055
Earth	67383-12-03 06:29 G	26332531.53	26332531.77	26332532.02	0.0283	0.0071 *
Mercury	67385-09-07 00:58 G	26333175.42	26333175.54	26333175.67	0.0283	0.0171
Mercury	67385-12-04 18:29 G	26333264.11	26333264.27	26333264.43	0.0283	0.0008
Mercury	67386-03-03 12:00 G	26333352.87	26333353.00	26333353.14	0.0283	0.0162
Venus	67389-09-07 00:00 G	26334636.42	26334636.50	26334636.60	0.0281	0.0255
Venus	67390-04-24 11:46 G	26334865.79	26334865.99	26334866.20	0.0280	0.0040
Venus	67390-12-09 22:48 G	26335095.30	26335095.45	26335095.63	0.0280	0.0175
Mars	67392-10-27 16:34 G	26335782.90	26335783.19	26335783.47	0.0278	0.0057
Earth	67398-05-31 03:07 G	26337824.39	26337824.63	26337824.86	0.0275	0.0055
Moon	67398-05-31 04:19 G	26337824.44	26337824.68	26337824.92	0.0275	0.0070 *
Mercury	67400-07-12 10:48 G	26338596.82	26338596.95	26338597.07	0.0275	0.0148
Mercury	67400-10-09 00:29 G	26338685.38	26338685.52	26338685.67	0.0276	0.0010
Mercury	67401-01-05 14:10 G	26338773.96	26338774.09	26338774.22	0.0276	0.0132
Mercury	67401-04-04 03:22 G	26338862.61	26338862.64	26338862.67	0.0276	0.0267
Venus	67404-10-03 22:34 G	26340141.32	26340141.44	26340141.57	0.0278	0.0224
Venus	67405-05-21 10:34 G	26340370.72	26340370.94	26340371.15	0.0279	0.0014
Venus	67406-01-05 22:48 G	26340600.31	26340600.45	26340600.60	0.0279	0.0200
Earth	67412-11-27 05:03 G	26343117.55	26343117.71	26343117.89	0.0283	0.0209
Moon	67412-11-27 08:39 G	26343117.72	26343117.86	26343118.01	0.0283	0.0225 *
Mercury	67415-01-26 00:15 G	26343907.42	26343907.51	26343907.61	0.0283	0.0229
Mercury	67415-04-24 17:31 G	26343996.07	26343996.23	26343996.39	0.0283	0.0066
Mercury	67415-07-22 11:03 G	26344084.81	26344084.96	26344085.11	0.0283	0.0101
Mercury	67415-10-19 04:48 G	26344173.67	26344173.70	26344173.75	0.0283	0.0272
Venus	67419-03-21 03:36 G	26345422.53	26345422.65	26345422.78	0.0281	0.0226
Venus	67419-11-05 15:36 G	26345651.94	26345652.15	26345652.36	0.0280	0.0010

Venus	67420-06-22 02:53 G	26345881.48	26345881.62	26345881.77	0.0280	0.0204
Earth	67428-06-07 14:39 G	26348789.03	26348789.11	26348789.22	0.0276	0.0251
Moon	67428-06-07 18:00 G	26348789.13	26348789.25	26348789.37	0.0276	0.0235 *
Mercury	67429-11-29 13:27 G	26349328.95	26349329.06	26349329.18	0.0276	0.0175
Mercury	67430-02-26 03:36 G	26349417.50	26349417.65	26349417.79	0.0276	0.0034
Mercury	67430-05-25 17:03 G	26349506.08	26349506.21	26349506.35	0.0276	0.0106
Mercury	67430-08-22 06:29 G	26349594.70	26349594.77	26349594.84	0.0276	0.0242
Venus	67434-04-16 08:39 G	26350927.70	26350927.86	26350928.02	0.0278	0.0184
Venus	67434-12-01 20:24 G	26351157.14	26351157.35	26351157.57	0.0278	0.0028
Venus	67435-07-19 09:07 G	26351386.77	26351386.88	26351386.99	0.0279	0.0240
Mars	67437-02-11 01:12 G	26351959.32	26351959.55	26351959.78	0.0280	0.0173
Moon	67442-12-05 10:34 G	26354082.72	26354082.94	26354083.16	0.0283	0.0118
Earth	67442-12-05 12:58 G	26354082.83	26354083.04	26354083.27	0.0283	0.0134 *
Mercury	67444-06-14 01:41 G	26354639.53	26354639.57	26354639.63	0.0283	0.0265
Mercury	67444-09-10 18:58 G	26354728.14	26354728.29	26354728.44	0.0283	0.0103
Mercury	67444-12-08 12:29 G	26354816.86	26354817.02	26354817.17	0.0283	0.0063
Mercury	67445-03-07 06:00 G	26354905.67	26354905.75	26354905.85	0.0283	0.0232
Venus	67448-09-30 09:07 G	26356208.74	26356208.88	26356209.04	0.0281	0.0196
Venus	67449-05-17 20:53 G	26356438.16	26356438.37	26356438.58	0.0280	0.0020
Venus	67450-01-02 07:41 G	26356667.72	26356667.82	26356667.95	0.0280	0.0233
Moon	67457-06-02 05:17 G	26359375.47	26359375.72	26359375.97	0.0275	0.0012
Earth	67457-06-02 08:10 G	26359375.60	26359375.84	26359376.08	0.0275	0.0004 *
Mercury	67459-04-18 13:55 G	26360061.00	26360061.08	26360061.17	0.0275	0.0227
Mercury	67459-07-16 04:05 G	26360149.52	26360149.67	26360149.81	0.0275	0.0085
Mercury	67459-10-12 17:46 G	26360238.09	26360238.24	26360238.38	0.0276	0.0056
Mercury	67460-01-09 06:58 G	26360326.69	26360326.79	26360326.90	0.0276	0.0193
Venus	67463-10-27 09:07 G	26361713.72	26361713.88	26361714.06	0.0278	0.0163
Venus	67464-06-12 21:22 G	26361943.18	26361943.39	26361943.60	0.0279	0.0049
Venus	67465-01-28 09:36 G	26362172.84	26362172.90	26362172.98	0.0279	0.0262
Earth	67471-11-29 12:00 G	26364668.79	26364669.00	26364669.22	0.0283	0.0145

Moon	67471-11-29 14:24 G	26364668.89	26364669.10	26364669.32	0.0283	0.0159 *
Mercury	67474-01-28 18:15 G	26365460.13	26365460.26	26365460.39	0.0283	0.0161
Mercury	67474-04-27 11:31 G	26365548.82	26365548.98	26365549.14	0.0283	0.0003
Mercury	67474-07-25 05:17 G	26365637.59	26365637.72	26365637.85	0.0283	0.0171
Venus	67478-04-12 12:15 G	26366994.85	26366995.01	26366995.19	0.0281	0.0168
Venus	67478-11-28 00:15 G	26367224.31	26367224.51	26367224.72	0.0280	0.0048
Venus	67479-07-15 11:17 G	26367453.91	26367453.97	26367454.06	0.0280	0.0261
Mars	67481-03-24 09:07 G	26368071.59	26368071.88	26368072.17	0.0279	0.0005
Earth	67486-05-28 09:51 G	26369962.78	26369962.91	26369963.07	0.0276	0.0220
Moon	67486-05-28 12:15 G	26369962.89	26369963.01	26369963.14	0.0276	0.0233 *
Mercury	67488-09-04 16:34 G	26370793.14	26370793.19	26370793.25	0.0276	0.0255
Mercury	67488-12-02 06:43 G	26370881.65	26370881.78	26370881.92	0.0276	0.0112
Mercury	67489-02-28 20:39 G	26370970.21	26370970.36	26370970.50	0.0276	0.0030
Mercury	67489-05-28 10:05 G	26371058.81	26371058.92	26371059.04	0.0276	0.0167
Venus	67493-05-08 19:41 G	26372500.13	26372500.32	26372500.51	0.0278	0.0123
Venus	67493-12-24 07:55 G	26372729.63	26372729.83	26372730.03	0.0279	0.0090
Earth	67501-12-07 21:36 G	26375634.23	26375634.40	26375634.58	0.0283	0.0201
Moon	67501-12-07 23:17 G	26375634.30	26375634.47	26375634.66	0.0283	0.0186 *
Mercury	67503-06-18 20:10 G	26376192.23	26376192.34	26376192.46	0.0283	0.0193
Mercury	67503-09-15 13:27 G	26376280.90	26376281.06	26376281.22	0.0283	0.0030
Mercury	67503-12-13 06:58 G	26376369.65	26376369.79	26376369.93	0.0283	0.0137
Venus	67507-10-24 19:27 G	26377781.13	26377781.31	26377781.50	0.0281	0.0135
Venus	67508-06-10 06:58 G	26378010.59	26378010.79	26378010.99	0.0280	0.0080
Moon	67516-06-04 12:00 G	26380926.77	26380927.00	26380927.23	0.0275	0.0051
Earth	67516-06-04 14:53 G	26380926.89	26380927.12	26380927.36	0.0275	0.0067 *
Mercury	67518-04-22 07:27 G	26381613.70	26381613.81	26381613.94	0.0276	0.0160
Mercury	67518-07-19 21:22 G	26381702.25	26381702.39	26381702.54	0.0276	0.0020
Mercury	67518-10-16 11:03 G	26381790.83	26381790.96	26381791.09	0.0276	0.0121
Mercury	67519-01-13 00:15 G	26381879.47	26381879.51	26381879.57	0.0276	0.0257
Venus	67522-11-19 21:07 G	26383286.18	26383286.38	26383286.58	0.0278	0.0100

Venus	67523-07-07 09:22 G	26383515.70	26383515.89	26383516.09	0.0279	0.0113
Mars	67525-07-08 12:58 G	26384247.77	26384248.04	26384248.31	0.0280	0.0121
Moon	67530-12-01 19:12 G	26386220.06	26386220.30	26386220.54	0.0283	0.0093
Earth	67530-12-01 21:07 G	26386220.14	26386220.38	26386220.62	0.0283	0.0077 *
Mercury	67532-11-04 19:27 G	26386924.24	26386924.31	26386924.39	0.0283	0.0251
Mercury	67533-02-01 12:29 G	26387012.87	26387013.02	26387013.18	0.0283	0.0090
Mercury	67533-05-01 06:00 G	26387101.60	26387101.75	26387101.91	0.0283	0.0077
Mercury	67533-07-28 23:46 G	26387190.42	26387190.49	26387190.57	0.0283	0.0246
Venus	67537-05-05 22:34 G	26388567.25	26388567.44	26388567.64	0.0280	0.0107
Venus	67537-12-21 10:19 G	26388796.74	26388796.93	26388797.12	0.0280	0.0108
Earth	67545-05-30 15:51 G	26391513.97	26391514.16	26391514.36	0.0276	0.0159
Moon	67545-05-30 19:27 G	26391514.12	26391514.31	26391514.50	0.0276	0.0173 *
Mercury	67547-09-09 10:05 G	26392345.82	26392345.92	26392346.03	0.0276	0.0189
Mercury	67547-12-07 00:15 G	26392434.36	26392434.51	26392434.65	0.0276	0.0047
Mercury	67548-03-04 13:55 G	26392522.94	26392523.08	26392523.22	0.0276	0.0094
Mercury	67548-06-01 03:22 G	26392611.56	26392611.64	26392611.72	0.0277	0.0231
Venus	67551-10-15 19:27 G	26393843.27	26393843.31	26393843.36	0.0278	0.0270
Venus	67552-06-01 07:27 G	26394072.60	26394072.81	26394073.02	0.0278	0.0060
Venus	67553-01-16 19:41 G	26394302.15	26394302.32	26394302.50	0.0279	0.0153
Earth	67560-12-09 08:24 G	26397185.79	26397185.85	26397185.93	0.0283	0.0271
Moon	67560-12-09 12:15 G	26397185.91	26397186.01	26397186.12	0.0283	0.0254 *
Mercury	67562-03-24 22:05 G	26397656.40	26397656.42	26397656.46	0.0283	0.0277
Mercury	67562-06-21 15:07 G	26397744.99	26397745.13	26397745.28	0.0283	0.0116
Mercury	67562-09-18 08:24 G	26397833.69	26397833.85	26397834.01	0.0283	0.0049
Mercury	67562-12-16 02:10 G	26397922.49	26397922.59	26397922.70	0.0283	0.0217
Venus	67566-11-16 07:27 G	26399353.60	26399353.81	26399354.01	0.0280	0.0070
Venus	67567-07-03 18:29 G	26399583.09	26399583.27	26399583.46	0.0280	0.0143
Mars	67569-08-19 12:29 G	26400360.74	26400361.02	26400361.30	0.0278	0.0072
Earth	67575-06-06 22:34 G	26402478.23	26402478.44	26402478.66	0.0275	0.0130
Moon	67575-06-06 23:17 G	26402478.26	26402478.47	26402478.69	0.0275	0.0116 *

Mercury	67577-01-26 11:17 G	26403077.89	26403077.97	26403078.05	0.0276	0.0234
Mercury	67577-04-25 01:27 G	26403166.42	26403166.56	26403166.70	0.0276	0.0091
Mercury	67577-07-22 15:07 G	26403254.99	26403255.13	26403255.28	0.0276	0.0049
Mercury	67577-10-19 04:34 G	26403343.59	26403343.69	26403343.80	0.0276	0.0187
Venus	67581-04-26 22:05 G	26404629.32	26404629.42	26404629.52	0.0278	0.0245
Venus	67581-12-12 09:51 G	26404858.70	26404858.91	26404859.12	0.0278	0.0035
Venus	67582-07-29 21:51 G	26405088.26	26405088.41	26405088.59	0.0279	0.0178
Moon	67589-12-03 04:34 G	26407771.45	26407771.69	26407771.94	0.0283	0.0023
Earth	67589-12-03 08:24 G	26407771.60	26407771.85	26407772.10	0.0283	0.0005 *
Mercury	67591-11-08 14:24 G	26408476.97	26408477.10	26408477.22	0.0283	0.0175
Mercury	67592-02-05 07:27 G	26408565.65	26408565.81	26408565.97	0.0283	0.0013
Mercury	67592-05-04 00:58 G	26408654.41	26408654.54	26408654.68	0.0283	0.0156
Venus	67595-10-11 21:51 G	26409910.34	26409910.41	26409910.50	0.0281	0.0259
Venus	67596-05-28 09:51 G	26410139.71	26410139.91	26410140.12	0.0280	0.0044
Venus	67597-01-12 21:07 G	26410369.22	26410369.38	26410369.56	0.0280	0.0170
Moon	67604-05-31 22:34 G	26413065.21	26413065.44	26413065.66	0.0276	0.0113
Earth	67604-05-31 23:03 G	26413065.24	26413065.46	26413065.69	0.0276	0.0097 *
Mercury	67606-06-15 13:27 G	26413810.03	26413810.06	26413810.11	0.0276	0.0266
Mercury	67606-09-12 03:51 G	26413898.53	26413898.66	26413898.80	0.0276	0.0121
Mercury	67606-12-09 17:46 G	26413987.09	26413987.24	26413987.39	0.0277	0.0021
Mercury	67607-03-08 07:12 G	26414075.69	26414075.80	26414075.93	0.0277	0.0160
Venus	67610-11-07 07:41 G	26415415.68	26415415.82	26415415.96	0.0278	0.0207
Venus	67611-06-24 19:55 G	26415645.12	26415645.33	26415645.55	0.0279	0.0005
Venus	67612-02-09 08:24 G	26415874.72	26415874.85	26415874.99	0.0279	0.0217
Mars	67613-12-03 13:55 G	26416537.79	26416538.08	26416538.38	0.0280	0.0007
Earth	67618-11-28 00:58 G	26418358.44	26418358.54	26418358.67	0.0283	0.0250
Moon	67618-11-28 04:48 G	26418358.63	26418358.70	26418358.79	0.0283	0.0267 *
Mercury	67621-03-27 17:17 G	26419209.11	26419209.22	26419209.34	0.0283	0.0199
Mercury	67621-06-24 10:19 G	26419297.78	26419297.93	26419298.10	0.0283	0.0037
Mercury	67621-09-21 03:51 G	26419386.52	26419386.66	26419386.81	0.0283	0.0130

Venus	67625-04-23 07:55 G	26420696.71	26420696.83	26420696.97	0.0281	0.0220
Venus	67625-12-08 19:55 G	26420926.12	26420926.33	26420926.54	0.0280	0.0006
Venus	67626-07-26 06:58 G	26421155.65	26421155.79	26421155.93	0.0280	0.0207
Earth	67634-06-08 07:27 G	26424029.65	26424029.81	26424029.99	0.0275	0.0196
Moon	67634-06-08 11:17 G	26424029.79	26424029.97	26424030.15	0.0275	0.0180 *
Mercury	67636-01-30 05:17 G	26424630.60	26424630.72	26424630.84	0.0276	0.0162
Mercury	67636-04-27 19:12 G	26424719.16	26424719.30	26424719.45	0.0276	0.0022
Mercury	67636-07-25 08:53 G	26424807.74	26424807.87	26424808.00	0.0276	0.0118
Mercury	67636-10-21 22:19 G	26424896.38	26424896.43	26424896.48	0.0276	0.0254
Venus	67640-05-19 11:03 G	26426201.80	26426201.96	26426202.12	0.0278	0.0181
Venus	67641-01-03 22:48 G	26426431.24	26426431.45	26426431.66	0.0279	0.0030
Venus	67641-08-21 11:17 G	26426660.86	26426660.97	26426661.07	0.0279	0.0242
Moon	67648-12-04 20:39 G	26429323.12	26429323.36	26429323.59	0.0283	0.0052
Earth	67648-12-04 20:53 G	26429323.13	26429323.37	26429323.62	0.0283	0.0068 *
Mercury	67650-08-14 16:34 G	26429941.13	26429941.19	26429941.26	0.0283	0.0256
Mercury	67650-11-11 09:36 G	26430029.75	26430029.90	26430030.05	0.0283	0.0095
Mercury	67651-02-08 02:53 G	26430118.47	26430118.62	26430118.78	0.0283	0.0070
Mercury	67651-05-07 20:39 G	26430207.28	26430207.36	26430207.45	0.0283	0.0238
Venus	67654-11-03 10:34 G	26431482.80	26431482.94	26431483.10	0.0281	0.0193
Venus	67655-06-20 22:34 G	26431712.23	26431712.44	26431712.65	0.0280	0.0021
Venus	67656-02-05 09:36 G	26431941.79	26431941.90	26431942.01	0.0280	0.0233
Mars	67658-01-13 11:17 G	26432649.73	26432649.97	26432650.23	0.0278	0.0140
Moon	67663-06-03 03:07 G	26434616.39	26434616.63	26434616.87	0.0276	0.0051
Earth	67663-06-03 06:58 G	26434616.55	26434616.79	26434617.03	0.0276	0.0034 *
Mercury	67665-06-18 07:27 G	26435362.71	26435362.81	26435362.92	0.0276	0.0196
Mercury	67665-09-14 21:36 G	26435451.25	26435451.40	26435451.54	0.0277	0.0053
Mercury	67665-12-12 11:17 G	26435539.83	26435539.97	26435540.11	0.0277	0.0087
Mercury	67666-03-11 00:43 G	26435628.45	26435628.53	26435628.62	0.0277	0.0225
Venus	67669-11-29 19:55 G	26436988.15	26436988.33	26436988.52	0.0279	0.0144
Venus	67670-07-17 08:24 G	26437217.64	26437217.85	26437218.06	0.0279	0.0068

Earth	67677-11-29 13:55 G	26439909.90	26439910.08	26439910.28	0.0283	0.0177
Moon	67677-11-29 13:55 G	26439909.90	26439910.08	26439910.28	0.0283	0.0193 *
Mercury	67680-01-01 19:41 G	26440673.30	26440673.32	26440673.35	0.0283	0.0278
Mercury	67680-03-30 12:43 G	26440761.88	26440762.03	26440762.17	0.0283	0.0118
Mercury	67680-06-27 06:00 G	26440850.59	26440850.75	26440850.91	0.0283	0.0046
Mercury	67680-09-23 23:31 G	26440939.38	26440939.48	26440939.59	0.0283	0.0214
Venus	67684-05-15 21:07 G	26442269.21	26442269.38	26442269.56	0.0281	0.0154
Venus	67684-12-31 08:53 G	26442498.66	26442498.87	26442499.08	0.0280	0.0061
Venus	67685-08-17 19:41 G	26442728.28	26442728.32	26442728.37	0.0280	0.0272
Earth	67692-05-28 07:27 G	26445203.76	26445203.81	26445203.89	0.0276	0.0266
Earth	67693-06-09 16:48 G	26445581.14	26445581.20	26445581.28	0.0275	0.0262
Moon	67693-06-09 18:15 G	26445581.16	26445581.26	26445581.38	0.0275	0.0247 *
Mercury	67694-11-05 09:22 G	26446094.81	26446094.89	26446094.97	0.0276	0.0233
Mercury	67695-02-01 23:31 G	26446183.34	26446183.48	26446183.62	0.0276	0.0091
Mercury	67695-05-01 13:12 G	26446271.91	26446272.05	26446272.20	0.0276	0.0050
Mercury	67695-07-29 02:53 G	26446360.51	26446360.62	26446360.72	0.0276	0.0187
Venus	67699-06-12 00:00 G	26447774.31	26447774.50	26447774.70	0.0278	0.0115
Venus	67700-01-27 12:15 G	26448003.81	26448004.01	26448004.21	0.0279	0.0096
Mars	67702-04-30 11:46 G	26448826.70	26448826.99	26448827.28	0.0280	0.0064
Earth	67707-12-08 09:36 G	26450874.70	26450874.90	26450875.12	0.0283	0.0143
Moon	67707-12-08 13:27 G	26450874.84	26450875.06	26450875.28	0.0283	0.0126 *
Mercury	67709-08-18 11:46 G	26451493.87	26451493.99	26451494.12	0.0283	0.0177
Mercury	67709-11-15 05:03 G	26451582.55	26451582.71	26451582.87	0.0283	0.0014
Mercury	67710-02-11 22:19 G	26451671.30	26451671.43	26451671.57	0.0283	0.0153
Venus	67713-11-26 23:31 G	26453055.30	26453055.48	26453055.67	0.0280	0.0128
Venus	67714-07-14 11:03 G	26453284.76	26453284.96	26453285.16	0.0280	0.0086
Moon	67722-06-05 14:10 G	26456167.85	26456168.09	26456168.32	0.0276	0.0015
Earth	67722-06-05 15:07 G	26456167.89	26456168.13	26456168.37	0.0276	0.0030 *
Mercury	67724-03-25 11:03 G	26456826.94	26456826.96	26456826.99	0.0276	0.0271
Mercury	67724-06-22 01:12 G	26456915.42	26456915.55	26456915.69	0.0276	0.0127

Mercury	67724-09-18 15:22 G	26457003.99	26457004.14	26457004.28	0.0277	0.0016
Mercury	67724-12-16 04:48 G	26457092.58	26457092.70	26457092.83	0.0277	0.0154
Venus	67728-12-23 08:10 G	26458560.64	26458560.84	26458561.04	0.0279	0.0081
Venus	67729-08-09 20:24 G	26458790.17	26458790.35	26458790.54	0.0279	0.0132
Moon	67736-12-01 22:48 G	26461461.23	26461461.45	26461461.68	0.0283	0.0121
Earth	67736-12-02 02:24 G	26461461.37	26461461.60	26461461.84	0.0283	0.0105 *
Mercury	67739-01-05 14:53 G	26462226.01	26462226.12	26462226.24	0.0283	0.0200
Mercury	67739-04-04 08:10 G	26462314.68	26462314.84	26462314.99	0.0283	0.0038
Mercury	67739-07-02 01:27 G	26462403.42	26462403.56	26462403.71	0.0283	0.0129
Venus	67743-06-09 10:34 G	26463841.75	26463841.94	26463842.15	0.0281	0.0087
Venus	67744-01-24 22:05 G	26464071.24	26464071.42	26464071.61	0.0280	0.0127
Mars	67746-06-11 08:24 G	26464939.72	26464939.85	26464939.99	0.0278	0.0245
Earth	67751-05-31 17:17 G	26466755.06	26466755.22	26466755.39	0.0276	0.0200
Moon	67751-05-31 18:43 G	26466755.13	26466755.28	26466755.45	0.0276	0.0214 *
Mercury	67753-11-09 03:22 G	26467647.52	26467647.64	26467647.76	0.0276	0.0162
Mercury	67754-02-05 17:31 G	26467736.08	26467736.23	26467736.37	0.0276	0.0022
Mercury	67754-05-05 06:58 G	26467824.66	26467824.79	26467824.93	0.0276	0.0119
Mercury	67754-08-01 20:39 G	26467913.30	26467913.36	26467913.41	0.0276	0.0254
Venus	67757-11-18 00:43 G	26469117.47	26469117.53	26469117.61	0.0278	0.0260
Venus	67758-07-05 12:43 G	26469346.82	26469347.03	26469347.24	0.0278	0.0051
Venus	67759-02-20 00:43 G	26469576.36	26469576.53	26469576.71	0.0279	0.0161
Earth	67766-12-09 22:05 G	26472426.27	26472426.42	26472426.59	0.0283	0.0215
Moon	67766-12-10 00:29 G	26472426.35	26472426.52	26472426.71	0.0283	0.0200 *
Mercury	67768-05-24 14:10 G	26472958.03	26472958.09	26472958.16	0.0283	0.0257
Mercury	67768-08-21 07:12 G	26473046.65	26473046.80	26473046.95	0.0283	0.0097
Mercury	67768-11-18 00:29 G	26473135.36	26473135.52	26473135.67	0.0283	0.0068
Mercury	67769-02-14 18:00 G	26473224.16	26473224.25	26473224.34	0.0283	0.0235
Venus	67772-05-04 00:00 G	26474398.47	26474398.50	26474398.55	0.0281	0.0276
Venus	67772-12-19 12:15 G	26474627.81	26474628.01	26474628.22	0.0280	0.0063
Venus	67773-08-05 23:31 G	26474857.31	26474857.48	26474857.67	0.0280	0.0151

Earth	67781-06-06 22:48 G	26477719.23	26477719.45	26477719.68	0.0276	0.0092
Moon	67781-06-07 01:41 G	26477719.35	26477719.57	26477719.81	0.0276	0.0080 *
Mercury	67783-03-29 04:48 G	26478379.60	26478379.70	26478379.80	0.0276	0.0203
Mercury	67783-06-25 18:58 G	26478468.15	26478468.29	26478468.44	0.0276	0.0060
Mercury	67783-09-22 08:53 G	26478556.73	26478556.87	26478557.01	0.0277	0.0081
Mercury	67783-12-19 22:19 G	26478645.34	26478645.43	26478645.52	0.0277	0.0218
Venus	67787-05-31 07:41 G	26479903.70	26479903.82	26479903.94	0.0278	0.0228
Venus	67788-01-15 19:41 G	26480133.11	26480133.32	26480133.54	0.0279	0.0018
Venus	67788-09-01 08:10 G	26480362.69	26480362.84	26480363.00	0.0279	0.0194
Mars	67790-09-25 04:19 G	26481116.46	26481116.68	26481116.94	0.0281	0.0167
Moon	67795-12-04 11:17 G	26483012.73	26483012.97	26483013.21	0.0283	0.0051
Earth	67795-12-04 13:41 G	26483012.82	26483013.07	26483013.31	0.0283	0.0035 *
Mercury	67797-10-11 17:03 G	26483690.21	26483690.21	26483690.22	0.0283	0.0282
Mercury	67798-01-08 09:51 G	26483778.77	26483778.91	26483779.06	0.0283	0.0123
Mercury	67798-04-07 03:07 G	26483867.47	26483867.63	26483867.79	0.0283	0.0042
Mercury	67798-07-04 20:39 G	26483956.26	26483956.36	26483956.48	0.0283	0.0209
Venus	67801-11-15 11:31 G	26485184.87	26485184.98	26485185.10	0.0281	0.0234
Venus	67802-07-02 23:31 G	26485414.27	26485414.48	26485414.69	0.0281	0.0021
Venus	67803-02-17 10:34 G	26485643.79	26485643.94	26485644.10	0.0280	0.0192
Moon	67810-06-02 23:46 G	26488306.29	26488306.49	26488306.71	0.0276	0.0150
Earth	67810-06-03 02:24 G	26488306.40	26488306.60	26488306.82	0.0276	0.0135 *
Mercury	67812-08-16 07:12 G	26489111.73	26489111.80	26489111.88	0.0276	0.0235
Mercury	67812-11-12 21:22 G	26489200.25	26489200.39	26489200.53	0.0276	0.0093
Mercury	67813-02-09 11:17 G	26489288.82	26489288.97	26489289.11	0.0276	0.0048
Mercury	67813-05-09 00:43 G	26489377.43	26489377.53	26489377.64	0.0276	0.0185
Venus	67816-12-11 12:58 G	26490689.89	26490690.04	26490690.19	0.0278	0.0196
Venus	67817-07-29 00:43 G	26490919.31	26490919.53	26490919.74	0.0278	0.0014
Venus	67818-03-15 12:58 G	26491148.91	26491149.04	26491149.16	0.0279	0.0224
Moon	67825-12-12 06:58 G	26493977.73	26493977.79	26493977.87	0.0283	0.0272
Mercury	67827-05-29 09:07 G	26494510.76	26494510.88	26494511.00	0.0283	0.0181

Mercury	67827-08-26 02:10 G	26494599.43	26494599.59	26494599.75	0.0283	0.0019
Mercury	67827-11-22 19:27 G	26494688.18	26494688.31	26494688.45	0.0283	0.0147
Venus	67831-05-28 12:29 G	26495970.89	26495971.02	26495971.17	0.0281	0.0211
Venus	67832-01-13 00:43 G	26496200.32	26496200.53	26496200.74	0.0280	0.0005
Venus	67832-08-29 11:46 G	26496429.86	26496429.99	26496430.13	0.0280	0.0215
Earth	67840-06-09 06:15 G	26499270.56	26499270.76	26499270.97	0.0276	0.0153
Moon	67840-06-09 09:07 G	26499270.68	26499270.88	26499271.10	0.0276	0.0140 *
Mercury	67842-04-01 22:34 G	26499932.31	26499932.44	26499932.57	0.0276	0.0136
Mercury	67842-06-29 12:29 G	26500020.87	26500021.02	26500021.17	0.0276	0.0005
Mercury	67842-09-26 02:10 G	26500109.47	26500109.59	26500109.72	0.0276	0.0144
Venus	67846-06-23 18:15 G	26501476.09	26501476.26	26501476.43	0.0278	0.0168
Venus	67847-02-08 06:15 G	26501705.55	26501705.76	26501705.97	0.0279	0.0043
Venus	67847-09-25 18:43 G	26501935.20	26501935.28	26501935.37	0.0279	0.0255
Earth	67854-12-06 22:34 G	26504564.20	26504564.44	26504564.69	0.0283	0.0031
Moon	67854-12-07 00:15 G	26504564.27	26504564.51	26504564.75	0.0283	0.0017 *
Mercury	67856-10-15 11:31 G	26505242.88	26505242.98	26505243.09	0.0283	0.0211
Mercury	67857-01-12 04:34 G	26505331.53	26505331.69	26505331.85	0.0283	0.0049
Mercury	67857-04-10 21:51 G	26505420.27	26505420.41	26505420.56	0.0283	0.0117
Venus	67860-12-07 23:17 G	26506757.31	26506757.47	26506757.64	0.0281	0.0170
Venus	67861-07-25 11:17 G	26506986.76	26506986.97	26506987.18	0.0281	0.0044
Venus	67862-03-11 22:19 G	26507216.35	26507216.43	26507216.52	0.0280	0.0255
Moon	67869-06-04 06:58 G	26509857.57	26509857.79	26509858.02	0.0276	0.0089
Earth	67869-06-04 10:19 G	26509857.70	26509857.93	26509858.17	0.0276	0.0072 *
Mercury	67871-08-20 00:58 G	26510664.42	26510664.54	26510664.66	0.0275	0.0168
Mercury	67871-11-16 15:07 G	26510752.98	26510753.13	26510753.27	0.0276	0.0027
Mercury	67872-02-13 04:48 G	26510841.56	26510841.70	26510841.83	0.0276	0.0112
Mercury	67872-05-11 18:00 G	26510930.20	26510930.25	26510930.32	0.0276	0.0249
Venus	67876-01-04 00:00 G	26512262.32	26512262.50	26512262.69	0.0278	0.0134
Venus	67876-08-20 11:46 G	26512491.78	26512491.99	26512492.19	0.0278	0.0075
Mars	67879-02-19 22:05 G	26513405.26	26513405.42	26513405.61	0.0280	0.0227

Moon	67883-11-30 20:53 G	26515150.28	26515150.37	26515150.49	0.0283	0.0257
Earth	67883-11-30 23:03 G	26515150.34	26515150.46	26515150.60	0.0283	0.0242 *
Mercury	67886-03-04 10:48 G	26515974.90	26515974.95	26515975.00	0.0283	0.0268
Mercury	67886-06-01 03:36 G	26516063.50	26516063.65	26516063.80	0.0283	0.0108
Mercury	67886-08-28 20:53 G	26516152.21	26516152.37	26516152.53	0.0283	0.0055
Mercury	67886-11-25 14:24 G	26516241.00	26516241.10	26516241.20	0.0283	0.0222
Venus	67890-06-19 23:46 G	26517543.32	26517543.49	26517543.68	0.0281	0.0148
Venus	67891-02-04 11:46 G	26517772.79	26517772.99	26517773.20	0.0280	0.0066
Venus	67891-09-21 23:03 G	26518002.43	26518002.46	26518002.49	0.0280	0.0276
Mars	67893-02-11 13:55 G	26518510.94	26518511.08	26518511.24	0.0278	0.0237
Moon	67899-06-11 11:31 G	26520821.82	26520821.98	26520822.16	0.0276	0.0201
Earth	67899-06-11 12:29 G	26520821.88	26520822.02	26520822.18	0.0276	0.0212 *
Mercury	67901-01-07 01:27 G	26521396.48	26521396.56	26521396.66	0.0276	0.0217
Mercury	67901-04-05 15:51 G	26521485.02	26521485.16	26521485.30	0.0276	0.0073
Mercury	67901-07-03 05:46 G	26521573.59	26521573.74	26521573.88	0.0276	0.0068
Mercury	67901-09-29 19:12 G	26521662.21	26521662.30	26521662.40	0.0276	0.0205
Venus	67905-07-17 04:05 G	26523048.47	26523048.67	26523048.86	0.0278	0.0108
Venus	67906-03-03 16:05 G	26523277.97	26523278.17	26523278.37	0.0279	0.0103
Earth	67913-12-09 05:03 G	26526115.48	26526115.71	26526115.95	0.0283	0.0092
Moon	67913-12-09 08:53 G	26526115.63	26526115.87	26526116.11	0.0283	0.0077 *
Mercury	67915-10-20 05:31 G	26526795.59	26526795.73	26526795.87	0.0283	0.0143
Mercury	67916-01-16 22:34 G	26526884.28	26526884.44	26526884.60	0.0283	0.0021
Mercury	67916-04-14 16:05 G	26526973.05	26526973.17	26526973.30	0.0283	0.0186
Venus	67920-01-01 09:51 G	26528329.72	26528329.91	26528330.11	0.0281	0.0107
Venus	67920-08-17 21:36 G	26528559.21	26528559.40	26528559.60	0.0281	0.0106
Earth	67928-06-06 17:17 G	26531408.98	26531409.22	26531409.46	0.0276	0.0011
Moon	67928-06-06 17:46 G	26531409.01	26531409.24	26531409.47	0.0276	0.0026 *
Mercury	67930-05-27 04:19 G	26532128.61	26532128.68	26532128.75	0.0275	0.0245
Mercury	67930-08-23 18:29 G	26532217.13	26532217.27	26532217.41	0.0275	0.0103
Mercury	67930-11-20 08:24 G	26532305.70	26532305.85	26532305.99	0.0275	0.0037

Mercury	67931-02-16 21:51 G	26532394.30	26532394.41	26532394.53	0.0275	0.0175
Venus	67935-01-27 10:05 G	26533834.71	26533834.92	26533835.12	0.0278	0.0074
Venus	67935-09-13 21:51 G	26534064.22	26534064.41	26534064.59	0.0278	0.0136
Moon	67942-12-03 01:55 G	26536701.42	26536701.58	26536701.77	0.0283	0.0196
Earth	67942-12-03 06:00 G	26536701.56	26536701.75	26536701.94	0.0283	0.0180 *
Mercury	67945-03-08 04:34 G	26537527.59	26537527.69	26537527.81	0.0283	0.0202
Mercury	67945-06-04 21:36 G	26537616.25	26537616.40	26537616.56	0.0283	0.0040
Mercury	67945-09-01 15:07 G	26537704.98	26537705.13	26537705.27	0.0283	0.0125
Venus	67949-07-13 10:05 G	26539115.73	26539115.92	26539116.13	0.0281	0.0086
Venus	67950-02-27 21:51 G	26539345.23	26539345.41	26539345.60	0.0280	0.0127
Earth	67957-06-01 08:24 G	26541995.78	26541995.85	26541995.95	0.0276	0.0258
Moon	67957-06-01 07:27 G	26541995.79	26541995.81	26541995.86	0.0276	0.0273 *
Moon	67958-06-13 13:41 G	26542373.01	26542373.07	26542373.17	0.0276	0.0259
Earth	67958-06-13 17:31 G	26542373.19	26542373.23	26542373.29	0.0276	0.0269
Mercury	67960-01-10 18:43 G	26542949.16	26542949.28	26542949.41	0.0276	0.0154
Mercury	67960-04-08 08:53 G	26543037.72	26543037.87	26543038.01	0.0276	0.0015
Mercury	67960-07-05 22:34 G	26543126.31	26543126.44	26543126.57	0.0276	0.0126
Mercury	67960-10-02 11:46 G	26543214.96	26543214.99	26543215.04	0.0276	0.0262
Venus	67963-12-23 01:12 G	26544391.47	26544391.55	26544391.63	0.0278	0.0257
Venus	67964-08-08 12:43 G	26544620.82	26544621.03	26544621.24	0.0278	0.0049
Venus	67965-03-26 00:29 G	26544850.35	26544850.52	26544850.70	0.0279	0.0161
Earth	67972-12-10 09:36 G	26547666.69	26547666.90	26547667.12	0.0283	0.0149
Moon	67972-12-10 09:51 G	26547666.69	26547666.91	26547667.14	0.0283	0.0137 *
Mercury	67974-07-26 06:15 G	26548259.68	26548259.76	26548259.84	0.0283	0.0241
Mercury	67974-10-22 23:03 G	26548348.31	26548348.46	26548348.61	0.0283	0.0080
Mercury	67975-01-19 16:19 G	26548437.03	26548437.18	26548437.33	0.0283	0.0084
Mercury	67975-04-18 09:51 G	26548525.84	26548525.91	26548525.99	0.0283	0.0252
Venus	67978-06-08 06:15 G	26549672.69	26549672.76	26549672.84	0.0281	0.0262
Venus	67979-01-23 18:58 G	26549902.08	26549902.29	26549902.50	0.0281	0.0047
Venus	67979-09-10 06:43 G	26550131.61	26550131.78	26550131.95	0.0281	0.0166

Mars	67981-07-10 00:29 G	26550800.28	26550800.52	26550800.76	0.0279	0.0154
Earth	67987-06-08 22:19 G	26552960.19	26552960.43	26552960.67	0.0276	0.0047
Moon	67987-06-09 02:10 G	26552960.35	26552960.59	26552960.83	0.0276	0.0033 *
Mercury	67989-05-29 21:22 G	26553681.28	26553681.39	26553681.51	0.0275	0.0183
Mercury	67989-08-26 11:31 G	26553769.83	26553769.98	26553770.13	0.0275	0.0042
Mercury	67989-11-23 01:12 G	26553858.42	26553858.55	26553858.69	0.0275	0.0098
Mercury	67990-02-19 14:53 G	26553947.04	26553947.12	26553947.20	0.0275	0.0233
Venus	67993-07-04 07:55 G	26555177.71	26555177.83	26555177.97	0.0277	0.0221
Venus	67994-02-18 19:12 G	26555407.09	26555407.30	26555407.51	0.0278	0.0015
Venus	67994-10-06 06:43 G	26555636.64	26555636.78	26555636.94	0.0278	0.0195

69TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 69th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	68001-12-04 10:05 G		26558252.70	26558252.92	26558253.15	0.0283	0.0122	
Moon	68001-12-04 10:48 G		26558252.74	26558252.95	26558253.16	0.0283	0.0134 *	
Mercury	68004-03-10 22:05 G		26559080.28	26559080.42	26559080.56	0.0283	0.0139	
Mercury	68004-06-07 15:07 G		26559168.97	26559169.13	26559169.29	0.0283	0.0025	
Mercury	68004-09-04 08:39 G		26559257.74	26559257.86	26559257.98	0.0283	0.0190	
Venus	68007-12-19 06:29 G		26560458.67	26560458.77	26560458.89	0.0281	0.0241	
Venus	68008-08-04 18:58 G		26560688.08	26560688.29	26560688.50	0.0281	0.0028	
Venus	68009-03-22 06:43 G		26560917.63	26560917.78	26560917.94	0.0280	0.0185	
Moon	68016-06-02 09:07 G		26563546.74	26563546.88	26563547.04	0.0276	0.0216	

Earth	68016-06-02 12:58 G	26563546.88	26563547.04	26563547.21	0.0276	0.0201	*
Mercury	68018-10-16 21:22 G	26564413.32	26564413.39	26564413.47	0.0276	0.0238	
Mercury	68019-01-13 11:46 G	26564501.85	26564501.99	26564502.13	0.0276	0.0095	
Mercury	68019-04-12 01:41 G	26564590.42	26564590.57	26564590.71	0.0276	0.0046	
Mercury	68019-07-09 15:07 G	26564679.03	26564679.13	26564679.24	0.0276	0.0183	
Venus	68023-01-14 09:22 G	26565963.75	26565963.89	26565964.04	0.0278	0.0200	
Venus	68023-08-31 20:39 G	26566193.15	26566193.36	26566193.58	0.0278	0.0009	
Venus	68024-04-17 08:24 G	26566422.73	26566422.85	26566422.99	0.0279	0.0218	
Moon	68031-12-12 07:41 G	26569217.65	26569217.82	26569218.01	0.0283	0.0194	
Earth	68031-12-12 11:46 G	26569217.82	26569217.99	26569218.17	0.0283	0.0202	*
Mercury	68033-07-28 22:48 G	26569812.34	26569812.45	26569812.58	0.0283	0.0184	
Mercury	68033-10-25 15:51 G	26569901.01	26569901.16	26569901.33	0.0283	0.0023	
Mercury	68034-01-22 09:22 G	26569989.75	26569989.89	26569990.03	0.0283	0.0144	
Venus	68037-06-30 14:10 G	26571244.95	26571245.09	26571245.24	0.0282	0.0205	
Venus	68038-02-15 02:39 G	26571474.40	26571474.61	26571474.83	0.0281	0.0012	
Venus	68038-10-02 14:24 G	26571703.98	26571704.10	26571704.24	0.0281	0.0223	
Earth	68046-06-10 02:10 G	26574511.37	26574511.59	26574511.82	0.0276	0.0103	
Moon	68046-06-10 03:07 G	26574511.40	26574511.63	26574511.87	0.0276	0.0093	*
Mercury	68048-03-05 00:00 G	26575145.47	26575145.50	26575145.54	0.0275	0.0267	
Mercury	68048-06-01 14:24 G	26575233.97	26575234.10	26575234.23	0.0275	0.0124	
Mercury	68048-08-29 04:19 G	26575322.53	26575322.68	26575322.83	0.0275	0.0017	
Mercury	68048-11-25 18:00 G	26575411.13	26575411.25	26575411.37	0.0275	0.0154	
Venus	68052-07-26 16:19 G	26576750.02	26576750.18	26576750.36	0.0277	0.0164	
Venus	68053-03-13 03:36 G	26576979.44	26576979.65	26576979.86	0.0277	0.0043	
Venus	68053-10-28 15:07 G	26577209.05	26577209.13	26577209.22	0.0278	0.0251	
Earth	68060-12-05 13:12 G	26579803.81	26579804.05	26579804.29	0.0283	0.0066	
Moon	68060-12-05 17:03 G	26579803.97	26579804.21	26579804.45	0.0283	0.0075	*
Mercury	68062-12-15 22:19 G	26580544.35	26580544.43	26580544.52	0.0283	0.0238	
Mercury	68063-03-14 15:22 G	26580632.98	26580633.14	26580633.29	0.0283	0.0078	
Mercury	68063-06-11 08:24 G	26580721.70	26580721.85	26580722.01	0.0283	0.0086	

Mercury	68063-09-08 01:55 G	26580810.52	26580810.58	26580810.66	0.0283	0.0253
Venus	68067-01-10 14:39 G	26582030.95	26582031.11	26582031.27	0.0281	0.0183
Venus	68067-08-28 02:53 G	26582260.41	26582260.62	26582260.83	0.0281	0.0031
Venus	68068-04-13 14:24 G	26582490.01	26582490.10	26582490.22	0.0280	0.0243
Mars	68069-12-03 00:43 G	26583088.28	26583088.53	26583088.79	0.0279	0.0128
Moon	68075-06-04 15:07 G	26585097.95	26585098.13	26585098.33	0.0275	0.0159
Earth	68075-06-04 15:51 G	26585097.97	26585098.16	26585098.38	0.0275	0.0147 *
Mercury	68077-10-19 14:10 G	26585965.98	26585966.09	26585966.21	0.0276	0.0180
Mercury	68078-01-16 04:19 G	26586054.53	26586054.68	26586054.83	0.0276	0.0038
Mercury	68078-04-14 18:15 G	26586143.12	26586143.26	26586143.39	0.0276	0.0101
Mercury	68078-07-12 07:41 G	26586231.75	26586231.82	26586231.89	0.0276	0.0237
Venus	68082-02-05 17:03 G	26587536.03	26587536.21	26587536.39	0.0278	0.0144
Venus	68082-09-23 04:19 G	26587765.47	26587765.68	26587765.89	0.0278	0.0064
Venus	68083-05-10 16:05 G	26587995.13	26587995.17	26587995.21	0.0279	0.0273
Moon	68090-12-13 10:48 G	26590768.85	26590768.95	26590769.06	0.0283	0.0250
Earth	68090-12-13 12:15 G	26590768.91	26590769.01	26590769.13	0.0283	0.0253 *
Mercury	68092-07-31 15:36 G	26591365.01	26591365.15	26591365.29	0.0283	0.0128
Mercury	68092-10-28 08:39 G	26591453.70	26591453.86	26591454.02	0.0283	0.0035
Mercury	68093-01-25 02:10 G	26591542.48	26591542.59	26591542.70	0.0283	0.0201
Venus	68096-07-22 20:53 G	26592817.19	26592817.37	26592817.55	0.0282	0.0150
Venus	68097-03-09 09:22 G	26593046.69	26593046.89	26593047.10	0.0281	0.0065
Venus	68097-10-24 21:07 G	26593276.36	26593276.38	26593276.42	0.0281	0.0277
Moon	68105-06-12 01:55 G	26596062.38	26596062.58	26596062.79	0.0276	0.0153
Earth	68105-06-12 05:17 G	26596062.52	26596062.72	26596062.92	0.0276	0.0158 *
Mercury	68107-03-09 16:48 G	26596698.11	26596698.20	26596698.31	0.0275	0.0208
Mercury	68107-06-06 07:12 G	26596786.65	26596786.80	26596786.94	0.0275	0.0066
Mercury	68107-09-02 21:07 G	26596875.23	26596875.38	26596875.52	0.0275	0.0074
Mercury	68107-11-30 10:34 G	26596963.85	26596963.94	26596964.04	0.0275	0.0209
Venus	68111-08-20 00:29 G	26598322.33	26598322.52	26598322.72	0.0277	0.0107
Venus	68112-04-05 11:31 G	26598551.79	26598551.98	26598552.19	0.0277	0.0100

Mars	68114-03-17 06:29 G	26599262.77	26599262.77	26599262.79	0.0279	0.0279
Earth	68119-12-08 14:53 G	26601354.87	26601355.12	26601355.37	0.0283	0.0013
Moon	68119-12-08 15:51 G	26601354.91	26601355.16	26601355.42	0.0283	0.0019 *
Mercury	68121-12-19 15:07 G	26602097.01	26602097.13	26602097.25	0.0283	0.0182
Mercury	68122-03-18 08:10 G	26602185.68	26602185.84	26602186.00	0.0283	0.0021
Mercury	68122-06-15 01:27 G	26602274.42	26602274.56	26602274.70	0.0283	0.0144
Venus	68126-02-02 21:51 G	26603603.22	26603603.41	26603603.59	0.0281	0.0128
Venus	68126-09-20 10:05 G	26603832.72	26603832.92	26603833.12	0.0281	0.0086
Earth	68134-06-06 18:29 G	26606649.05	26606649.27	26606649.51	0.0275	0.0093
Moon	68134-06-06 21:36 G	26606649.18	26606649.40	26606649.63	0.0275	0.0102 *
Mercury	68136-07-26 16:34 G	26607430.16	26607430.19	26607430.23	0.0275	0.0265
Mercury	68136-10-23 06:58 G	26607518.65	26607518.79	26607518.92	0.0275	0.0122
Mercury	68137-01-19 20:53 G	26607607.22	26607607.37	26607607.52	0.0275	0.0018
Mercury	68137-04-18 10:34 G	26607695.82	26607695.94	26607696.06	0.0275	0.0155
Venus	68141-03-01 00:15 G	26609108.32	26609108.51	26609108.72	0.0278	0.0089
Venus	68141-10-16 11:31 G	26609337.79	26609337.98	26609338.18	0.0278	0.0120
Mercury	68151-05-08 15:07 G	26612829.04	26612829.13	26612829.22	0.0283	0.0234
Mercury	68151-08-05 07:55 G	26612917.68	26612917.83	26612917.99	0.0283	0.0074
Mercury	68151-11-02 01:12 G	26613006.40	26613006.55	26613006.70	0.0283	0.0090
Mercury	68152-01-29 18:43 G	26613095.22	26613095.28	26613095.35	0.0283	0.0257
Venus	68155-08-16 02:53 G	26614389.43	26614389.62	26614389.82	0.0282	0.0096
Venus	68156-04-01 15:22 G	26614618.96	26614619.14	26614619.34	0.0281	0.0120
Mars	68158-04-29 18:00 G	26615376.98	26615377.25	26615377.53	0.0280	0.0076
Moon	68164-06-13 04:48 G	26617613.56	26617613.70	26617613.86	0.0276	0.0209
Earth	68164-06-13 07:12 G	26617613.66	26617613.80	26617613.96	0.0276	0.0212 *
Mercury	68166-03-12 09:36 G	26618250.78	26618250.90	26618251.03	0.0275	0.0150
Mercury	68166-06-08 23:46 G	26618339.34	26618339.49	26618339.64	0.0275	0.0010
Mercury	68166-09-05 13:27 G	26618427.93	26618428.06	26618428.19	0.0276	0.0128
Mercury	68166-12-03 02:53 G	26618516.59	26618516.62	26618516.66	0.0276	0.0263
Venus	68170-01-24 22:05 G	26619665.34	26619665.42	26619665.50	0.0277	0.0255

Venus	68170-09-11 08:39 G	26619894.65	26619894.86	26619895.07	0.0277	0.0051
Venus	68171-04-28 19:41 G	26620124.15	26620124.32	26620124.50	0.0277	0.0156
Moon	68178-12-09 13:27 G	26622905.81	26622906.06	26622906.31	0.0283	0.0040
Earth	68178-12-09 16:34 G	26622905.94	26622906.19	26622906.44	0.0283	0.0041 *
Mercury	68180-12-22 07:41 G	26623649.68	26623649.82	26623649.97	0.0283	0.0126
Mercury	68181-03-21 00:43 G	26623738.38	26623738.53	26623738.69	0.0283	0.0038
Mercury	68181-06-17 18:15 G	26623827.15	26623827.26	26623827.37	0.0283	0.0202
Venus	68185-02-25 04:19 G	26625175.48	26625175.68	26625175.89	0.0282	0.0073
Venus	68185-10-12 16:34 G	26625405.01	26625405.19	26625405.38	0.0281	0.0141
Earth	68193-06-07 21:07 G	26628200.14	26628200.38	26628200.62	0.0275	0.0038
Moon	68193-06-07 23:46 G	26628200.25	26628200.49	26628200.74	0.0275	0.0047 *
Mercury	68195-07-30 09:22 G	26628982.79	26628982.89	26628982.99	0.0275	0.0207
Mercury	68195-10-26 23:31 G	26629071.34	26629071.48	26629071.63	0.0275	0.0065
Mercury	68196-01-23 13:27 G	26629159.92	26629160.06	26629160.20	0.0275	0.0074
Mercury	68196-04-21 02:53 G	26629248.54	26629248.62	26629248.72	0.0275	0.0211
Venus	68199-08-06 21:51 G	26630451.30	26630451.41	26630451.51	0.0277	0.0236
Venus	68200-03-24 08:24 G	26630680.64	26630680.85	26630681.06	0.0277	0.0032
Venus	68200-11-08 19:27 G	26630910.15	26630910.31	26630910.48	0.0278	0.0176
Mars	68202-08-11 00:58 G	26631550.44	26631550.54	26631550.68	0.0279	0.0255
Earth	68207-12-04 16:05 G	26633492.04	26633492.17	26633492.31	0.0283	0.0235
Moon	68207-12-04 19:12 G	26633492.18	26633492.30	26633492.43	0.0283	0.0240 *
Mercury	68210-05-12 07:27 G	26634381.69	26634381.81	26634381.93	0.0283	0.0181
Mercury	68210-08-09 00:29 G	26634470.36	26634470.52	26634470.68	0.0283	0.0021
Mercury	68210-11-05 17:31 G	26634559.10	26634559.23	26634559.38	0.0283	0.0145
Venus	68214-01-21 19:41 G	26635732.24	26635732.32	26635732.40	0.0282	0.0257
Venus	68214-09-08 08:39 G	26635961.66	26635961.86	26635962.07	0.0282	0.0043
Venus	68215-04-25 21:07 G	26636191.22	26636191.38	26636191.56	0.0281	0.0172
Moon	68222-06-03 20:53 G	26638787.34	26638787.37	26638787.41	0.0276	0.0273
Earth	68222-06-03 23:31 G	26638787.42	26638787.48	26638787.58	0.0276	0.0260
Earth	68223-06-16 09:22 G	26639164.83	26639164.89	26639164.96	0.0276	0.0265

Moon	68223-06-16 11:03 G	26639164.91	26639164.96	26639165.03	0.0276	0.0266 *
Mercury	68224-12-17 12:00 G	26639714.93	26639715.00	26639715.08	0.0276	0.0235
Mercury	68225-03-16 02:24 G	26639803.46	26639803.60	26639803.74	0.0276	0.0093
Mercury	68225-06-12 16:19 G	26639892.03	26639892.18	26639892.33	0.0276	0.0047
Mercury	68225-09-09 06:00 G	26639980.64	26639980.75	26639980.86	0.0276	0.0184
Venus	68229-02-17 06:15 G	26641237.62	26641237.76	26641237.91	0.0277	0.0199
Venus	68229-10-04 17:03 G	26641467.00	26641467.21	26641467.42	0.0277	0.0006
Venus	68230-05-22 04:05 G	26641696.54	26641696.67	26641696.81	0.0277	0.0212
Moon	68237-12-11 15:51 G	26644456.93	26644457.16	26644457.39	0.0283	0.0095
Earth	68237-12-11 18:43 G	26644457.05	26644457.28	26644457.52	0.0283	0.0095 *
Mercury	68239-09-29 07:55 G	26645113.74	26645113.83	26645113.92	0.0283	0.0227
Mercury	68239-12-27 00:43 G	26645202.37	26645202.53	26645202.68	0.0283	0.0067
Mercury	68240-03-24 17:46 G	26645291.09	26645291.24	26645291.40	0.0283	0.0096
Mercury	68240-06-21 11:17 G	26645379.92	26645379.97	26645380.03	0.0283	0.0263
Venus	68243-08-03 22:48 G	26646518.34	26646518.45	26646518.57	0.0282	0.0232
Venus	68244-03-20 11:31 G	26646747.77	26646747.98	26646748.19	0.0282	0.0018
Venus	68244-11-04 23:46 G	26646977.34	26646977.49	26646977.64	0.0281	0.0196
Mars	68246-09-23 17:31 G	26647664.96	26647665.23	26647665.52	0.0280	0.0051
Moon	68252-06-09 22:05 G	26649751.18	26649751.42	26649751.68	0.0276	0.0013
Earth	68252-06-09 23:46 G	26649751.25	26649751.49	26649751.74	0.0276	0.0017 *
Mercury	68254-08-03 02:10 G	26650535.46	26650535.59	26650535.72	0.0275	0.0149
Mercury	68254-10-30 16:19 G	26650624.03	26650624.18	26650624.33	0.0275	0.0009
Mercury	68255-01-27 06:00 G	26650712.62	26650712.75	26650712.88	0.0275	0.0130
Mercury	68255-04-25 19:41 G	26650801.28	26650801.32	26650801.35	0.0275	0.0265
Venus	68258-08-30 06:00 G	26652023.59	26652023.75	26652023.91	0.0277	0.0180
Venus	68259-04-16 16:48 G	26652252.98	26652253.20	26652253.41	0.0277	0.0026
Venus	68259-12-02 03:36 G	26652482.55	26652482.65	26652482.78	0.0278	0.0232
Earth	68266-12-05 17:46 G	26655043.06	26655043.24	26655043.44	0.0283	0.0181
Moon	68266-12-05 20:24 G	26655043.17	26655043.35	26655043.55	0.0283	0.0183 *
Mercury	68269-05-15 00:00 G	26655934.36	26655934.50	26655934.64	0.0283	0.0125

Mercury	68269-08-11 17:03 G	26656023.05	26656023.21	26656023.37	0.0283	0.0037
Mercury	68269-11-08 10:34 G	26656111.83	26656111.94	26656112.05	0.0283	0.0202
Venus	68273-02-13 01:55 G	26657304.44	26657304.58	26657304.73	0.0282	0.0204
Venus	68273-09-30 14:53 G	26657533.91	26657534.12	26657534.34	0.0282	0.0013
Venus	68274-05-18 03:36 G	26657763.52	26657763.65	26657763.77	0.0281	0.0225
Earth	68281-06-05 01:41 G	26660338.42	26660338.57	26660338.74	0.0277	0.0206
Moon	68281-06-05 03:22 G	26660338.50	26660338.64	26660338.79	0.0277	0.0216 *
Mercury	68283-12-21 04:48 G	26661267.59	26661267.70	26661267.82	0.0276	0.0177
Mercury	68284-03-18 18:58 G	26661356.15	26661356.29	26661356.44	0.0276	0.0036
Mercury	68284-06-15 08:53 G	26661444.74	26661444.87	26661445.01	0.0276	0.0104
Mercury	68284-09-11 22:19 G	26661533.37	26661533.43	26661533.51	0.0276	0.0240
Venus	68288-03-11 15:07 G	26662809.95	26662810.13	26662810.32	0.0277	0.0142
Venus	68288-10-27 01:55 G	26663039.38	26663039.58	26663039.79	0.0277	0.0064
Venus	68289-06-13 13:12 G	26663269.01	26663269.05	26663269.10	0.0277	0.0270
Mars	68291-01-05 04:34 G	26663839.47	26663839.69	26663839.93	0.0278	0.0178
Earth	68296-12-12 22:19 G	26666008.22	26666008.43	26666008.64	0.0283	0.0152
Moon	68296-12-12 23:31 G	26666008.29	26666008.48	26666008.69	0.0283	0.0156 *
Mercury	68298-10-02 00:58 G	26666666.41	26666666.54	26666666.67	0.0283	0.0167
Mercury	68298-12-29 17:46 G	26666755.08	26666755.24	26666755.40	0.0283	0.0008
Mercury	68299-03-28 11:03 G	26666843.83	26666843.96	26666844.10	0.0283	0.0158
Venus	68302-08-27 06:15 G	26668090.60	26668090.76	26668090.93	0.0282	0.0177
Venus	68303-04-13 18:58 G	26668320.09	26668320.29	26668320.50	0.0282	0.0039
Venus	68303-11-29 06:58 G	26668549.71	26668549.79	26668549.90	0.0281	0.0252
Moon	68311-06-12 23:31 G	26671302.26	26671302.48	26671302.72	0.0276	0.0071
Earth	68311-06-13 03:22 G	26671302.41	26671302.64	26671302.87	0.0276	0.0072 *
Mercury	68313-05-10 04:48 G	26671999.62	26671999.70	26671999.78	0.0275	0.0231
Mercury	68313-08-06 19:12 G	26672088.16	26672088.30	26672088.44	0.0275	0.0089
Mercury	68313-11-03 09:07 G	26672176.74	26672176.88	26672177.03	0.0275	0.0051
Mercury	68314-01-30 22:48 G	26672265.35	26672265.45	26672265.56	0.0275	0.0188
Venus	68317-09-22 15:07 G	26673595.95	26673596.13	26673596.33	0.0277	0.0123

Venus	68318-05-10 01:55 G	26673825.38	26673825.58	26673825.79	0.0277	0.0083
Moon	68325-12-07 18:58 G	26676594.06	26676594.29	26676594.52	0.0283	0.0120
Earth	68325-12-07 21:07 G	26676594.16	26676594.38	26676594.61	0.0283	0.0124 *
Mercury	68328-02-20 00:15 G	26677398.42	26677398.51	26677398.60	0.0283	0.0225
Mercury	68328-05-18 17:03 G	26677487.06	26677487.21	26677487.36	0.0283	0.0066
Mercury	68328-08-15 10:05 G	26677575.77	26677575.92	26677576.08	0.0283	0.0097
Mercury	68328-11-12 03:36 G	26677664.60	26677664.65	26677664.71	0.0283	0.0264
Venus	68332-03-08 09:22 G	26678876.71	26678876.89	26678877.07	0.0282	0.0149
Venus	68332-10-23 22:05 G	26679106.22	26679106.42	26679106.63	0.0282	0.0067
Venus	68333-06-10 10:34 G	26679335.92	26679335.94	26679335.97	0.0281	0.0279
Mars	68335-02-18 05:03 G	26679953.43	26679953.71	26679954.00	0.0280	0.0007
Earth	68340-06-07 04:34 G	26681889.49	26681889.69	26681889.90	0.0277	0.0151
Moon	68340-06-07 08:24 G	26681889.65	26681889.85	26681890.05	0.0277	0.0156 *
Mercury	68342-09-27 07:27 G	26682731.76	26682731.81	26682731.86	0.0276	0.0260
Mercury	68342-12-24 21:51 G	26682820.27	26682820.41	26682820.55	0.0276	0.0117
Mercury	68343-03-23 12:00 G	26682908.85	26682909.00	26682909.15	0.0276	0.0025
Mercury	68343-06-20 01:41 G	26682997.45	26682997.57	26682997.69	0.0276	0.0162
Venus	68347-04-05 00:43 G	26684382.33	26684382.53	26684382.73	0.0277	0.0084
Venus	68347-11-20 11:31 G	26684611.80	26684611.98	26684612.18	0.0277	0.0122
Earth	68355-12-16 03:36 G	26687559.50	26687559.65	26687559.83	0.0283	0.0213
Moon	68355-12-16 07:55 G	26687559.67	26687559.83	26687559.99	0.0283	0.0219 *
Mercury	68357-07-09 01:55 G	26688130.52	26688130.58	26688130.64	0.0283	0.0260
Mercury	68357-10-05 18:29 G	26688219.12	26688219.27	26688219.42	0.0283	0.0103
Mercury	68358-01-02 11:31 G	26688307.82	26688307.98	26688308.14	0.0283	0.0059
Mercury	68358-04-01 04:48 G	26688396.61	26688396.70	26688396.80	0.0283	0.0225
Venus	68361-09-18 14:53 G	26689662.93	26689663.12	26689663.32	0.0282	0.0119
Venus	68362-05-06 03:36 G	26689892.45	26689892.65	26689892.85	0.0281	0.0096
Earth	68370-06-14 07:41 G	26692853.61	26692853.82	26692854.04	0.0276	0.0130
Moon	68370-06-14 07:55 G	26692853.62	26692853.83	26692854.03	0.0276	0.0133 *
Mercury	68372-05-12 22:05 G	26693552.30	26693552.42	26693552.54	0.0275	0.0168

Mercury	68372-08-09 12:15 G	26693640.86	26693641.01	26693641.16	0.0275	0.0028
Mercury	68372-11-06 02:10 G	26693729.46	26693729.59	26693729.73	0.0276	0.0112
Mercury	68373-02-02 15:36 G	26693818.10	26693818.15	26693818.22	0.0276	0.0248
Venus	68376-02-28 15:07 G	26694939.08	26694939.13	26694939.19	0.0277	0.0266
Venus	68376-10-15 01:27 G	26695168.36	26695168.56	26695168.77	0.0277	0.0063
Venus	68377-06-01 12:29 G	26695397.84	26695398.02	26695398.20	0.0277	0.0143
Mars	68379-06-01 09:07 G	26696127.62	26696127.88	26696128.15	0.0279	0.0135
Moon	68384-12-08 23:31 G	26698145.24	26698145.48	26698145.72	0.0283	0.0054
Earth	68384-12-09 03:07 G	26698145.39	26698145.63	26698145.87	0.0283	0.0062 *
Mercury	68387-02-22 17:31 G	26698951.11	26698951.23	26698951.37	0.0283	0.0162
Mercury	68387-05-22 10:34 G	26699039.78	26699039.94	26699040.10	0.0283	0.0005
Mercury	68387-08-19 03:51 G	26699128.53	26699128.66	26699128.79	0.0283	0.0163
Venus	68391-03-31 17:46 G	26700449.04	26700449.24	26700449.44	0.0282	0.0092
Venus	68391-11-16 06:29 G	26700678.58	26700678.77	26700678.96	0.0281	0.0122
Moon	68399-06-09 08:24 G	26703440.61	26703440.85	26703441.08	0.0277	0.0095
Earth	68399-06-09 08:24 G	26703440.63	26703440.85	26703441.08	0.0277	0.0095 *
Mercury	68401-09-30 00:43 G	26704284.42	26704284.53	26704284.63	0.0276	0.0198
Mercury	68401-12-27 14:53 G	26704372.98	26704373.12	26704373.27	0.0276	0.0055
Mercury	68402-03-26 04:48 G	26704461.57	26704461.70	26704461.85	0.0276	0.0085
Mercury	68402-06-22 18:43 G	26704550.19	26704550.28	26704550.36	0.0276	0.0222
Venus	68405-09-10 00:43 G	26705725.41	26705725.53	26705725.64	0.0277	0.0229
Venus	68406-04-27 11:17 G	26705954.76	26705954.97	26705955.18	0.0277	0.0025
Venus	68406-12-12 22:05 G	26706184.27	26706184.42	26706184.59	0.0277	0.0182
Earth	68414-12-17 11:31 G	26709110.94	26709110.98	26709111.04	0.0282	0.0276
Mercury	68416-07-11 19:41 G	26709683.21	26709683.32	26709683.44	0.0283	0.0193
Mercury	68416-10-08 12:43 G	26709771.87	26709772.03	26709772.18	0.0283	0.0034
Mercury	68417-01-05 05:46 G	26709860.60	26709860.74	26709860.88	0.0283	0.0130
Venus	68420-02-24 12:00 G	26711005.96	26711006.00	26711006.06	0.0282	0.0273
Venus	68420-10-11 00:58 G	26711235.34	26711235.54	26711235.75	0.0282	0.0059
Venus	68421-05-28 13:27 G	26711464.89	26711465.06	26711465.24	0.0281	0.0155

Mars	68423-07-14 22:19 G	26712242.15	26712242.43	26712242.71	0.0280	0.0053
Earth	68429-06-15 13:41 G	26714404.90	26714405.07	26714405.25	0.0276	0.0190
Moon	68429-06-15 17:17 G	26714405.07	26714405.22	26714405.40	0.0276	0.0198 *
Mercury	68431-02-17 01:12 G	26715016.49	26715016.55	26715016.62	0.0276	0.0246
Mercury	68431-05-16 15:36 G	26715105.01	26715105.15	26715105.29	0.0276	0.0103
Mercury	68431-08-13 05:46 G	26715193.59	26715193.74	26715193.89	0.0276	0.0037
Mercury	68431-11-09 19:27 G	26715282.20	26715282.31	26715282.43	0.0276	0.0175
Venus	68435-03-23 02:10 G	26716511.45	26716511.59	26716511.73	0.0277	0.0206
Venus	68435-11-07 12:43 G	26716740.81	26716741.03	26716741.24	0.0277	0.0003
Venus	68436-06-23 23:46 G	26716970.35	26716970.49	26716970.63	0.0277	0.0203
Earth	68443-12-11 11:17 G	26719696.73	26719696.97	26719697.22	0.0282	0.0006
Moon	68443-12-11 11:46 G	26719696.75	26719696.99	26719697.23	0.0282	0.0014 *
Mercury	68445-11-28 19:12 G	26720415.23	26720415.30	26720415.37	0.0283	0.0250
Mercury	68446-02-25 11:46 G	26720503.84	26720503.99	26720504.14	0.0283	0.0093
Mercury	68446-05-25 04:48 G	26720592.54	26720592.70	26720592.86	0.0283	0.0069
Mercury	68446-08-21 22:05 G	26720681.34	26720681.42	26720681.51	0.0283	0.0234
Venus	68449-09-05 14:24 G	26721792.01	26721792.10	26721792.21	0.0282	0.0247
Venus	68450-04-23 03:36 G	26722021.44	26722021.65	26722021.86	0.0282	0.0032
Venus	68450-12-08 16:05 G	26722251.02	26722251.17	26722251.34	0.0281	0.0181
Moon	68458-06-10 09:51 G	26724991.67	26724991.91	26724992.16	0.0277	0.0034
Earth	68458-06-10 13:27 G	26724991.82	26724992.06	26724992.30	0.0277	0.0037 *
Mercury	68460-10-02 18:00 G	26725837.12	26725837.25	26725837.38	0.0276	0.0134
Mercury	68460-12-30 08:10 G	26725925.70	26725925.84	26725925.99	0.0276	0.0011
Mercury	68461-03-28 22:05 G	26726014.30	26726014.42	26726014.55	0.0276	0.0147
Venus	68464-10-02 11:31 G	26727297.82	26727297.98	26727298.15	0.0277	0.0169
Venus	68465-05-19 22:34 G	26727527.23	26727527.44	26727527.65	0.0277	0.0036
Venus	68466-01-04 09:51 G	26727756.81	26727756.91	26727757.01	0.0278	0.0242
Mars	68467-10-27 04:48 G	26728417.40	26728417.70	26728418.00	0.0279	0.0028
Moon	68472-12-05 03:22 G	26730283.51	26730283.64	26730283.80	0.0282	0.0232
Earth	68472-12-05 04:05 G	26730283.54	26730283.67	26730283.80	0.0282	0.0238 *

Mercury	68475-04-17 21:51 G	26731147.38	26731147.41	26731147.44	0.0283	0.0276
Mercury	68475-07-15 14:24 G	26731235.96	26731236.10	26731236.24	0.0283	0.0119
Mercury	68475-10-12 07:12 G	26731324.65	26731324.80	26731324.96	0.0283	0.0042
Mercury	68476-01-09 00:29 G	26731413.42	26731413.52	26731413.63	0.0283	0.0206
Venus	68479-03-18 23:17 G	26732578.34	26732578.47	26732578.62	0.0282	0.0211
Venus	68479-11-03 12:15 G	26732807.80	26732808.01	26732808.23	0.0282	0.0008
Venus	68480-06-20 00:29 G	26733037.39	26733037.52	26733037.66	0.0281	0.0216
Earth	68487-06-05 10:05 G	26735578.90	26735578.92	26735578.95	0.0277	0.0275
Earth	68488-06-16 20:53 G	26735956.28	26735956.37	26735956.48	0.0276	0.0251
Moon	68488-06-16 22:34 G	26735956.37	26735956.44	26735956.53	0.0276	0.0260 *
Mercury	68490-02-19 19:12 G	26736569.18	26736569.30	26736569.41	0.0276	0.0178
Mercury	68490-05-19 09:22 G	26736657.74	26736657.89	26736658.04	0.0276	0.0036
Mercury	68490-08-15 23:17 G	26736746.34	26736746.47	26736746.61	0.0276	0.0103
Mercury	68490-11-12 12:58 G	26736834.97	26736835.04	26736835.12	0.0276	0.0239
Venus	68494-04-14 13:55 G	26738083.91	26738084.08	26738084.27	0.0277	0.0144
Venus	68494-11-30 00:43 G	26738313.32	26738313.53	26738313.74	0.0277	0.0060
Venus	68495-07-17 12:00 G	26738542.94	26738543.00	26738543.06	0.0278	0.0266
Earth	68502-12-13 21:51 G	26741248.17	26741248.41	26741248.65	0.0282	0.0072
Moon	68502-12-14 01:27 G	26741248.32	26741248.56	26741248.79	0.0282	0.0084 *
Mercury	68504-12-02 13:41 G	26741967.95	26741968.07	26741968.19	0.0283	0.0178
Mercury	68505-03-01 06:29 G	26742056.61	26742056.77	26742056.93	0.0283	0.0019
Mercury	68505-05-28 23:31 G	26742145.34	26742145.48	26742145.62	0.0283	0.0144
Venus	68508-09-29 01:41 G	26743364.42	26743364.57	26743364.74	0.0282	0.0185
Venus	68509-05-16 14:53 G	26743593.91	26743594.12	26743594.33	0.0281	0.0030
Venus	68510-01-01 03:22 G	26743823.53	26743823.64	26743823.75	0.0281	0.0241
Mars	68511-12-09 15:51 G	26744530.91	26744531.16	26744531.43	0.0280	0.0112
Moon	68517-06-12 18:15 G	26746543.02	26746543.26	26746543.49	0.0277	0.0027
Earth	68517-06-12 20:10 G	26746543.10	26746543.34	26746543.58	0.0277	0.0024 *
Mercury	68519-07-10 21:22 G	26747301.29	26747301.39	26747301.48	0.0277	0.0211
Mercury	68519-10-07 11:46 G	26747389.84	26747389.99	26747390.13	0.0277	0.0068

Mercury	68520-01-04 01:41 G	26747478.43	26747478.57	26747478.72	0.0277	0.0074
Mercury	68520-04-01 15:36 G	26747567.06	26747567.15	26747567.24	0.0277	0.0211
Venus	68523-10-26 23:03 G	26748870.27	26748870.46	26748870.66	0.0277	0.0109
Venus	68524-06-12 10:19 G	26749099.73	26749099.93	26749100.13	0.0278	0.0098
Moon	68531-12-08 12:00 G	26751834.80	26751835.00	26751835.21	0.0282	0.0161
Earth	68531-12-08 15:22 G	26751834.95	26751835.14	26751835.35	0.0282	0.0169 *
Mercury	68534-04-21 16:48 G	26752700.09	26752700.20	26752700.31	0.0283	0.0201
Mercury	68534-07-19 09:22 G	26752788.74	26752788.89	26752789.05	0.0283	0.0043
Mercury	68534-10-16 02:24 G	26752877.46	26752877.60	26752877.75	0.0283	0.0120
Venus	68538-04-11 12:00 G	26754150.83	26754151.00	26754151.19	0.0282	0.0146
Venus	68538-11-27 00:43 G	26754380.33	26754380.53	26754380.74	0.0282	0.0069
Venus	68539-07-14 12:43 G	26754610.02	26754610.03	26754610.06	0.0281	0.0280
Earth	68546-06-07 18:15 G	26757130.12	26757130.26	26757130.43	0.0277	0.0212
Moon	68546-06-07 20:53 G	26757130.22	26757130.37	26757130.53	0.0277	0.0214 *
Mercury	68548-11-26 22:34 G	26758033.39	26758033.44	26758033.50	0.0276	0.0252
Mercury	68549-02-23 13:12 G	26758121.91	26758122.05	26758122.19	0.0276	0.0109
Mercury	68549-05-23 03:22 G	26758210.49	26758210.64	26758210.79	0.0276	0.0032
Mercury	68549-08-19 17:03 G	26758299.10	26758299.21	26758299.33	0.0276	0.0170
Venus	68553-05-08 02:24 G	26759656.40	26759656.60	26759656.81	0.0277	0.0081
Venus	68553-12-23 13:12 G	26759885.87	26759886.05	26759886.25	0.0277	0.0124
Mars	68556-03-22 23:17 G	26760706.17	26760706.47	26760706.77	0.0279	0.0038
Earth	68561-12-15 10:19 G	26762799.72	26762799.93	26762800.15	0.0282	0.0144
Moon	68561-12-15 12:29 G	26762799.81	26762800.02	26762800.24	0.0282	0.0155 *
Mercury	68563-09-08 16:05 G	26763432.11	26763432.17	26763432.24	0.0283	0.0257
Mercury	68563-12-06 08:39 G	26763520.71	26763520.86	26763521.01	0.0283	0.0100
Mercury	68564-03-04 01:27 G	26763609.41	26763609.56	26763609.72	0.0283	0.0061
Mercury	68564-05-31 18:43 G	26763698.19	26763698.28	26763698.38	0.0283	0.0225
Venus	68567-10-22 14:10 G	26764936.91	26764937.09	26764937.29	0.0282	0.0121
Venus	68568-06-08 03:07 G	26765166.43	26765166.63	26765166.83	0.0281	0.0093
Earth	68576-06-14 03:22 G	26768094.41	26768094.64	26768094.87	0.0277	0.0085

Moon	68576-06-14 05:17 G	26768094.50	26768094.72	26768094.95	0.0277	0.0091 *
Mercury	68578-07-13 15:07 G	26768854.00	26768854.13	26768854.26	0.0277	0.0143
Mercury	68578-10-10 05:17 G	26768942.58	26768942.72	26768942.87	0.0277	0.0009
Mercury	68579-01-06 19:27 G	26769031.18	26769031.31	26769031.44	0.0277	0.0138
Mercury	68579-04-05 08:53 G	26769119.87	26769119.87	26769119.89	0.0277	0.0275
Venus	68582-04-03 00:00 G	26770213.42	26770213.50	26770213.60	0.0277	0.0251
Venus	68582-11-18 11:03 G	26770442.75	26770442.96	26770443.17	0.0277	0.0046
Venus	68583-07-05 22:19 G	26770672.26	26770672.43	26770672.61	0.0278	0.0160
Moon	68590-12-10 01:27 G	26773386.34	26773386.56	26773386.80	0.0282	0.0091
Earth	68590-12-10 03:51 G	26773386.44	26773386.66	26773386.90	0.0282	0.0098 *
Mercury	68593-01-25 19:27 G	26774164.29	26774164.31	26774164.33	0.0283	0.0279
Mercury	68593-04-24 11:46 G	26774252.85	26774252.99	26774253.14	0.0283	0.0123
Mercury	68593-07-22 04:34 G	26774341.54	26774341.69	26774341.85	0.0283	0.0038
Mercury	68593-10-18 21:51 G	26774430.30	26774430.41	26774430.52	0.0283	0.0200
Venus	68597-05-04 01:12 G	26775723.35	26775723.55	26775723.76	0.0282	0.0080
Venus	68597-12-19 13:55 G	26775952.90	26775953.08	26775953.27	0.0281	0.0134
Mars	68600-05-06 08:39 G	26776820.69	26776820.86	26776821.07	0.0280	0.0211
Moon	68605-06-10 01:55 G	26778681.38	26778681.58	26778681.80	0.0277	0.0145
Earth	68605-06-10 03:51 G	26778681.47	26778681.66	26778681.88	0.0277	0.0147 *
Mercury	68607-12-01 17:03 G	26779586.09	26779586.21	26779586.32	0.0276	0.0180
Mercury	68608-02-28 07:12 G	26779674.66	26779674.80	26779674.95	0.0276	0.0039
Mercury	68608-05-26 21:22 G	26779763.25	26779763.39	26779763.53	0.0276	0.0101
Mercury	68608-08-23 11:03 G	26779851.89	26779851.96	26779852.04	0.0276	0.0237
Venus	68611-10-15 04:19 G	26780999.57	26780999.68	26780999.82	0.0277	0.0221
Venus	68612-05-31 15:22 G	26781228.92	26781229.14	26781229.35	0.0277	0.0018
Venus	68613-01-16 02:10 G	26781458.44	26781458.59	26781458.75	0.0277	0.0188
Moon	68620-12-17 20:53 G	26784351.24	26784351.37	26784351.53	0.0282	0.0229
Earth	68620-12-17 23:03 G	26784351.31	26784351.46	26784351.63	0.0282	0.0216 *
Mercury	68622-09-12 11:03 G	26784984.85	26784984.96	26784985.09	0.0283	0.0180
Mercury	68622-12-10 03:51 G	26785073.50	26785073.66	26785073.82	0.0283	0.0022

Mercury	68623-03-08 20:53 G	26785162.23	26785162.37	26785162.51	0.0283	0.0141
Venus	68626-03-30 14:10 G	26786280.04	26786280.09	26786280.16	0.0282	0.0268
Venus	68626-11-15 03:36 G	26786509.44	26786509.65	26786509.86	0.0282	0.0054
Venus	68627-07-02 16:05 G	26786739.00	26786739.17	26786739.35	0.0281	0.0158
Jupiter	68629-02-15 09:07 G	26787332.70	26787332.88	26787333.12	0.0280	0.0252
Earth	68635-06-17 11:31 G	26789645.78	26789645.98	26789646.19	0.0277	0.0147
Moon	68635-06-17 15:07 G	26789645.93	26789646.13	26789646.34	0.0277	0.0155 *
Mercury	68637-04-19 18:29 G	26790318.18	26790318.27	26790318.36	0.0277	0.0219
Mercury	68637-07-17 08:53 G	26790406.73	26790406.87	26790407.02	0.0277	0.0076
Mercury	68637-10-13 23:03 G	26790495.32	26790495.46	26790495.61	0.0277	0.0066
Mercury	68638-01-10 12:58 G	26790583.94	26790584.04	26790584.14	0.0277	0.0203
Venus	68641-04-26 11:46 G	26791785.84	26791785.99	26791786.15	0.0277	0.0189
Venus	68641-12-11 22:48 G	26792015.24	26792015.45	26792015.66	0.0278	0.0016
Venus	68642-07-29 10:05 G	26792244.80	26792244.92	26792245.06	0.0278	0.0222
Mars	68644-08-18 20:24 G	26792996.10	26792996.35	26792996.61	0.0279	0.0148
Earth	68649-12-12 16:34 G	26794937.94	26794938.19	26794938.44	0.0282	0.0027
Moon	68649-12-12 18:29 G	26794938.03	26794938.27	26794938.51	0.0282	0.0016 *
Mercury	68652-01-30 14:24 G	26795716.99	26795717.10	26795717.21	0.0283	0.0202
Mercury	68652-04-28 07:12 G	26795805.64	26795805.80	26795805.95	0.0283	0.0045
Mercury	68652-07-26 00:00 G	26795894.36	26795894.50	26795894.65	0.0283	0.0118
Mercury	68652-10-22 17:31 G	26795983.23	26795983.23	26795983.23	0.0283	0.0283
Venus	68655-10-11 01:55 G	26797066.46	26797066.58	26797066.71	0.0282	0.0226
Venus	68656-05-27 14:53 G	26797295.91	26797296.12	26797296.34	0.0282	0.0014
Venus	68657-01-12 03:36 G	26797525.50	26797525.65	26797525.79	0.0281	0.0200
Moon	68664-06-11 10:19 G	26800232.70	26800232.93	26800233.16	0.0277	0.0076
Earth	68664-06-11 13:55 G	26800232.85	26800233.08	26800233.31	0.0277	0.0081 *
Mercury	68666-09-06 20:39 G	26801050.30	26801050.36	26801050.42	0.0276	0.0253
Mercury	68666-12-04 11:03 G	26801138.83	26801138.96	26801139.10	0.0276	0.0110
Mercury	68667-03-03 01:27 G	26801227.41	26801227.56	26801227.71	0.0276	0.0032
Mercury	68667-05-30 15:22 G	26801316.02	26801316.14	26801316.25	0.0276	0.0169

Venus	68670-11-06 16:48 G	26802572.03	26802572.20	26802572.38	0.0277	0.0158
Venus	68671-06-24 03:51 G	26802801.45	26802801.66	26802801.87	0.0277	0.0046
Venus	68672-02-08 14:53 G	26803031.04	26803031.12	26803031.21	0.0277	0.0251
Moon	68678-12-06 15:22 G	26805524.13	26805524.14	26805524.18	0.0282	0.0280
Mercury	68681-06-18 13:41 G	26806449.02	26806449.07	26806449.14	0.0283	0.0258
Mercury	68681-09-15 06:15 G	26806537.62	26806537.76	26806537.91	0.0283	0.0102
Mercury	68681-12-12 23:17 G	26806626.31	26806626.47	26806626.62	0.0283	0.0059
Mercury	68682-03-11 16:19 G	26806715.09	26806715.18	26806715.28	0.0283	0.0222
Venus	68685-04-22 03:22 G	26807852.50	26807852.64	26807852.80	0.0282	0.0202
Venus	68685-12-07 16:48 G	26808081.99	26808082.20	26808082.41	0.0281	0.0012
Venus	68686-07-25 05:03 G	26808311.59	26808311.71	26808311.84	0.0281	0.0223
Mars	68688-09-30 05:17 G	26809109.70	26809109.72	26809109.78	0.0280	0.0277
Earth	68694-06-18 19:55 G	26811197.19	26811197.33	26811197.50	0.0277	0.0210
Moon	68694-06-18 19:41 G	26811197.19	26811197.32	26811197.49	0.0277	0.0221 *
Mercury	68696-04-22 12:29 G	26811870.89	26811871.02	26811871.15	0.0277	0.0150
Mercury	68696-07-20 02:53 G	26811959.47	26811959.62	26811959.77	0.0277	0.0008
Mercury	68696-10-16 16:48 G	26812048.07	26812048.20	26812048.33	0.0277	0.0132
Mercury	68697-01-13 06:43 G	26812136.74	26812136.78	26812136.81	0.0277	0.0268
Venus	68700-05-19 23:17 G	26813358.29	26813358.47	26813358.67	0.0277	0.0128
Venus	68701-01-04 10:34 G	26813587.73	26813587.94	26813588.14	0.0278	0.0078
Earth	68708-12-15 03:51 G	26816489.42	26816489.66	26816489.91	0.0282	0.0042
Moon	68708-12-15 07:41 G	26816489.57	26816489.82	26816490.07	0.0282	0.0056 *
Mercury	68710-11-06 17:03 G	26817181.20	26817181.21	26817181.21	0.0283	0.0282
Mercury	68711-02-03 09:22 G	26817269.75	26817269.89	26817270.03	0.0283	0.0127
Mercury	68711-05-03 02:10 G	26817358.43	26817358.59	26817358.75	0.0283	0.0033
Mercury	68711-07-30 19:12 G	26817447.19	26817447.30	26817447.42	0.0283	0.0196
Venus	68714-11-03 15:07 G	26818638.96	26818639.13	26818639.31	0.0282	0.0159
Venus	68715-06-21 04:05 G	26818868.47	26818868.67	26818868.88	0.0282	0.0055
Venus	68716-02-05 16:19 G	26819098.12	26819098.18	26819098.26	0.0281	0.0265
Earth	68723-06-14 23:31 G	26821784.24	26821784.48	26821784.72	0.0276	0.0015

Moon	68723-06-14 23:46 G	26821784.25	26821784.49	26821784.72	0.0276	0.0009 *
Mercury	68725-09-10 14:53 G	26822603.01	26822603.12	26822603.23	0.0276	0.0182
Mercury	68725-12-08 05:17 G	26822691.57	26822691.72	26822691.87	0.0276	0.0040
Mercury	68726-03-06 19:12 G	26822780.17	26822780.30	26822780.44	0.0276	0.0100
Mercury	68726-06-03 09:07 G	26822868.81	26822868.88	26822868.95	0.0276	0.0236
Venus	68729-11-30 05:03 G	26824144.51	26824144.71	26824144.91	0.0277	0.0095
Venus	68730-07-17 15:36 G	26824373.96	26824374.15	26824374.36	0.0277	0.0110
Mars	68733-01-13 18:15 G	26825285.08	26825285.26	26825285.45	0.0279	0.0218
Moon	68737-12-09 02:53 G	26827075.46	26827075.62	26827075.78	0.0282	0.0210
Earth	68737-12-09 06:00 G	26827075.61	26827075.75	26827075.91	0.0282	0.0223 *
Mercury	68740-06-22 08:53 G	26828001.75	26828001.87	26828001.99	0.0283	0.0182
Mercury	68740-09-19 01:27 G	26828090.40	26828090.56	26828090.72	0.0283	0.0024
Mercury	68740-12-16 18:15 G	26828179.13	26828179.26	26828179.41	0.0283	0.0138
Venus	68744-05-15 16:34 G	26829425.01	26829425.19	26829425.38	0.0282	0.0136
Venus	68744-12-31 05:31 G	26829654.53	26829654.73	26829654.94	0.0281	0.0078
Mars	68747-01-08 01:41 G	26830392.50	26830392.57	26830392.68	0.0280	0.0265
Moon	68752-06-08 16:34 G	26832371.09	26832371.19	26832371.29	0.0277	0.0252
Earth	68752-06-08 16:48 G	26832371.11	26832371.20	26832371.29	0.0277	0.0256 *
Earth	68753-06-21 03:51 G	26832748.63	26832748.66	26832748.72	0.0277	0.0271
Mercury	68755-01-28 15:51 G	26833335.07	26833335.16	26833335.24	0.0276	0.0227
Mercury	68755-04-27 06:15 G	26833423.62	26833423.76	26833423.91	0.0276	0.0083
Mercury	68755-07-24 20:24 G	26833512.21	26833512.35	26833512.50	0.0276	0.0058
Mercury	68755-10-21 10:19 G	26833600.83	26833600.93	26833601.04	0.0276	0.0195
Venus	68758-10-25 23:17 G	26834701.43	26834701.47	26834701.53	0.0277	0.0269
Venus	68759-06-12 10:19 G	26834930.72	26834930.93	26834931.13	0.0277	0.0067
Venus	68760-01-27 21:07 G	26835160.20	26835160.38	26835160.57	0.0278	0.0139
Moon	68767-12-17 13:27 G	26838040.83	26838041.06	26838041.29	0.0282	0.0123
Earth	68767-12-17 13:27 G	26838040.84	26838041.06	26838041.30	0.0282	0.0108 *
Mercury	68769-11-09 11:17 G	26838733.87	26838733.97	26838734.08	0.0283	0.0211
Mercury	68770-02-06 03:51 G	26838822.51	26838822.66	26838822.82	0.0283	0.0054

Mercury	68770-05-05 20:53 G	26838911.22	26838911.37	26838911.52	0.0283	0.0107
Mercury	68770-08-02 14:10 G	26839000.05	26839000.09	26839000.13	0.0283	0.0272
Venus	68773-11-26 03:36 G	26840211.45	26840211.65	26840211.85	0.0282	0.0094
Venus	68774-07-13 16:34 G	26840441.00	26840441.19	26840441.38	0.0282	0.0119
Earth	68782-06-16 08:10 G	26843335.61	26843335.84	26843336.08	0.0276	0.0049
Moon	68782-06-16 11:46 G	26843335.76	26843335.99	26843336.23	0.0276	0.0060 *
Mercury	68784-06-16 18:15 G	26844067.21	26844067.26	26844067.32	0.0276	0.0256
Mercury	68784-09-13 08:53 G	26844155.74	26844155.87	26844156.01	0.0276	0.0113
Mercury	68784-12-10 23:17 G	26844244.32	26844244.47	26844244.61	0.0276	0.0029
Mercury	68785-03-09 12:58 G	26844332.93	26844333.04	26844333.16	0.0276	0.0166
Venus	68788-05-07 06:00 G	26845487.64	26845487.75	26845487.86	0.0276	0.0234
Venus	68788-12-22 16:19 G	26845716.97	26845717.18	26845717.39	0.0277	0.0033
Venus	68789-08-09 02:53 G	26845946.47	26845946.62	26845946.80	0.0277	0.0171
Earth	68796-12-10 15:51 G	26848626.95	26848627.16	26848627.36	0.0282	0.0157
Moon	68796-12-10 16:19 G	26848626.98	26848627.18	26848627.39	0.0282	0.0144 *
Mercury	68799-03-29 10:48 G	26849465.90	26849465.95	26849466.01	0.0283	0.0266
Mercury	68799-06-26 03:22 G	26849554.49	26849554.64	26849554.78	0.0283	0.0110
Mercury	68799-09-22 19:55 G	26849643.18	26849643.33	26849643.49	0.0283	0.0050
Mercury	68799-12-20 12:58 G	26849731.95	26849732.04	26849732.16	0.0283	0.0213
Venus	68803-06-08 04:34 G	26850997.49	26850997.69	26850997.90	0.0282	0.0072
Venus	68804-01-23 17:31 G	26851227.05	26851227.23	26851227.41	0.0281	0.0141
Moon	68811-06-10 20:53 G	26853922.20	26853922.37	26853922.56	0.0277	0.0189
Earth	68811-06-11 00:15 G	26853922.35	26853922.51	26853922.69	0.0277	0.0195 *
Mercury	68814-01-31 09:22 G	26854887.77	26854887.89	26854888.02	0.0276	0.0161
Mercury	68814-04-29 23:46 G	26854976.34	26854976.49	26854976.64	0.0276	0.0020
Mercury	68814-07-27 13:55 G	26855064.95	26855065.08	26855065.21	0.0276	0.0121
Mercury	68814-10-24 03:36 G	26855153.60	26855153.65	26855153.71	0.0276	0.0257
Venus	68817-11-17 09:22 G	26856273.76	26856273.89	26856274.03	0.0277	0.0210
Venus	68818-07-04 20:10 G	26856503.13	26856503.34	26856503.55	0.0277	0.0008
Venus	68819-02-19 07:12 G	26856732.65	26856732.80	26856732.95	0.0278	0.0197

Moon	68826-12-18 17:03 G	26859592.03	26859592.21	26859592.41	0.0282	0.0186
Earth	68826-12-18 20:39 G	26859592.18	26859592.36	26859592.57	0.0282	0.0171 *
Mercury	68828-11-12 05:17 G	26860286.59	26860286.72	26860286.86	0.0283	0.0144
Mercury	68829-02-08 22:05 G	26860375.26	26860375.42	26860375.58	0.0283	0.0015
Mercury	68829-05-08 15:07 G	26860464.01	26860464.13	26860464.26	0.0283	0.0178
Venus	68832-05-03 01:12 G	26861554.45	26861554.55	26861554.66	0.0282	0.0244
Venus	68832-12-18 14:53 G	26861783.91	26861784.12	26861784.33	0.0282	0.0031
Venus	68833-08-05 03:36 G	26862013.50	26862013.65	26862013.82	0.0282	0.0182
Mars	68835-06-04 19:12 G	26862682.09	26862682.30	26862682.54	0.0281	0.0170
Earth	68841-06-17 15:51 G	26864886.94	26864887.16	26864887.39	0.0276	0.0111
Moon	68841-06-17 18:00 G	26864887.03	26864887.25	26864887.48	0.0276	0.0121 *
Mercury	68843-06-20 12:15 G	26865619.90	26865620.01	26865620.12	0.0276	0.0189
Mercury	68843-09-17 02:39 G	26865708.46	26865708.61	26865708.76	0.0276	0.0047
Mercury	68843-12-14 16:34 G	26865797.06	26865797.19	26865797.34	0.0276	0.0093
Mercury	68844-03-12 06:29 G	26865885.69	26865885.77	26865885.85	0.0276	0.0228
Venus	68847-05-30 16:34 G	26867060.02	26867060.19	26867060.35	0.0276	0.0175
Venus	68848-01-15 02:39 G	26867289.40	26867289.61	26867289.83	0.0277	0.0028
Venus	68848-08-31 13:12 G	26867518.95	26867519.05	26867519.18	0.0277	0.0230
Earth	68855-12-12 23:03 G	26870178.23	26870178.46	26870178.70	0.0282	0.0095
Moon	68855-12-13 02:39 G	26870178.38	26870178.61	26870178.85	0.0282	0.0080 *
Mercury	68858-04-01 04:48 G	26871018.59	26871018.70	26871018.81	0.0283	0.0198
Mercury	68858-06-28 21:22 G	26871107.24	26871107.39	26871107.55	0.0283	0.0042
Mercury	68858-09-25 14:10 G	26871195.95	26871196.09	26871196.24	0.0283	0.0120
Venus	68861-11-13 01:55 G	26872340.46	26872340.58	26872340.72	0.0282	0.0223
Venus	68862-06-30 15:22 G	26872569.93	26872570.14	26872570.35	0.0282	0.0010
Venus	68863-02-15 03:51 G	26872799.53	26872799.66	26872799.82	0.0281	0.0203
Moon	68870-06-12 04:19 G	26875473.48	26875473.68	26875473.90	0.0277	0.0130
Earth	68870-06-12 06:43 G	26875473.57	26875473.78	26875474.00	0.0277	0.0135 *
Mercury	68872-11-06 12:15 G	26876351.94	26876352.01	26876352.09	0.0276	0.0241
Mercury	68873-02-03 02:53 G	26876440.48	26876440.62	26876440.76	0.0276	0.0097

Mercury	68873-05-02 17:03 G	26876529.07	26876529.21	26876529.36	0.0276	0.0044
Mercury	68873-07-30 06:58 G	26876617.69	26876617.79	26876617.91	0.0276	0.0181
Venus	68876-12-09 18:43 G	26877846.11	26877846.28	26877846.46	0.0277	0.0152
Venus	68877-07-27 05:31 G	26878075.52	26878075.73	26878075.94	0.0277	0.0051
Venus	68878-03-13 16:19 G	26878305.10	26878305.18	26878305.27	0.0278	0.0255
Moon	68885-12-19 23:46 G	26881143.38	26881143.49	26881143.62	0.0282	0.0244
Earth	68885-12-20 01:41 G	26881143.44	26881143.57	26881143.73	0.0282	0.0228 *
Mercury	68887-08-19 06:15 G	26881750.68	26881750.76	26881750.85	0.0283	0.0237
Mercury	68887-11-15 22:48 G	26881839.30	26881839.45	26881839.60	0.0283	0.0081
Mercury	68888-02-12 15:36 G	26881928.00	26881928.15	26881928.31	0.0283	0.0080
Mercury	68888-05-11 08:53 G	26882016.79	26882016.87	26882016.95	0.0283	0.0243
Venus	68891-05-26 10:48 G	26883126.79	26883126.95	26883127.11	0.0282	0.0185
Venus	68892-01-11 00:29 G	26883356.31	26883356.52	26883356.73	0.0282	0.0029
Venus	68892-08-27 13:12 G	26883585.95	26883586.05	26883586.17	0.0282	0.0241
Moon	68900-06-19 19:55 G	26886438.15	26886438.33	26886438.52	0.0276	0.0183
Earth	68900-06-19 21:51 G	26886438.23	26886438.41	26886438.61	0.0276	0.0171 *
Mercury	68902-03-27 14:53 G	26887084.10	26887084.12	26887084.16	0.0276	0.0269
Mercury	68902-06-24 05:46 G	26887172.60	26887172.74	26887172.87	0.0276	0.0125
Mercury	68902-09-20 19:55 G	26887261.18	26887261.33	26887261.48	0.0276	0.0016
Mercury	68902-12-18 09:51 G	26887349.79	26887349.91	26887350.04	0.0276	0.0153
Venus	68906-06-23 01:55 G	26888632.39	26888632.58	26888632.78	0.0276	0.0116
Venus	68907-02-07 12:15 G	26888861.81	26888862.01	26888862.21	0.0276	0.0085
Earth	68914-12-15 04:19 G	26891729.43	26891729.68	26891729.93	0.0282	0.0036
Moon	68914-12-15 06:15 G	26891729.50	26891729.76	26891730.02	0.0282	0.0021 *
Mercury	68917-04-04 22:19 G	26892571.29	26892571.43	26892571.57	0.0283	0.0136
Mercury	68917-07-02 15:07 G	26892659.97	26892660.13	26892660.28	0.0283	0.0024
Mercury	68917-09-29 07:55 G	26892748.72	26892748.83	26892748.96	0.0283	0.0185
Venus	68920-12-06 11:46 G	26893912.82	26893912.99	26893913.16	0.0282	0.0163
Venus	68921-07-24 01:12 G	26894142.34	26894142.55	26894142.75	0.0282	0.0050
Venus	68922-03-10 13:41 G	26894372.00	26894372.07	26894372.15	0.0282	0.0261

Mars	68923-10-30 01:41 G	26894970.33	26894970.57	26894970.82	0.0280	0.0133
Earth	68929-06-14 12:00 G	26897024.77	26897025.00	26897025.23	0.0276	0.0078
Moon	68929-06-14 14:10 G	26897024.86	26897025.09	26897025.32	0.0276	0.0068 *
Mercury	68931-11-11 05:31 G	26897904.62	26897904.73	26897904.85	0.0276	0.0179
Mercury	68932-02-07 19:55 G	26897993.19	26897993.33	26897993.48	0.0276	0.0038
Mercury	68932-05-06 10:05 G	26898081.79	26898081.92	26898082.06	0.0276	0.0102
Mercury	68932-08-02 23:46 G	26898170.43	26898170.49	26898170.57	0.0276	0.0238
Venus	68936-01-03 03:22 G	26899418.44	26899418.64	26899418.84	0.0277	0.0095
Venus	68936-08-19 13:41 G	26899647.87	26899648.07	26899648.27	0.0277	0.0108
Earth	68944-12-22 04:34 G	26902694.68	26902694.69	26902694.72	0.0282	0.0281
Mercury	68946-08-22 23:17 G	26903303.35	26903303.47	26903303.59	0.0283	0.0179
Mercury	68946-11-19 15:51 G	26903392.00	26903392.16	26903392.32	0.0283	0.0022
Mercury	68947-02-16 08:53 G	26903480.73	26903480.87	26903481.01	0.0283	0.0140
Venus	68950-06-18 18:58 G	26904699.11	26904699.29	26904699.49	0.0283	0.0128
Venus	68951-02-03 08:39 G	26904928.66	26904928.86	26904929.06	0.0282	0.0087
Moon	68959-06-21 22:48 G	26907989.35	26907989.45	26907989.58	0.0276	0.0242
Earth	68959-06-22 02:24 G	26907989.47	26907989.60	26907989.74	0.0276	0.0227 *
Mercury	68961-03-30 08:10 G	26908636.75	26908636.84	26908636.95	0.0276	0.0207
Mercury	68961-06-26 22:48 G	26908725.30	26908725.45	26908725.60	0.0276	0.0065
Mercury	68961-09-23 12:58 G	26908813.90	26908814.04	26908814.18	0.0276	0.0075
Mercury	68961-12-21 02:53 G	26908902.53	26908902.62	26908902.71	0.0276	0.0211
Venus	68964-11-28 00:58 G	26909975.47	26909975.54	26909975.61	0.0276	0.0258
Venus	68965-07-15 10:48 G	26910204.75	26910204.95	26910205.16	0.0276	0.0059
Venus	68966-03-01 20:53 G	26910434.20	26910434.37	26910434.56	0.0276	0.0143
Mars	68968-02-08 13:27 G	26911142.96	26911143.06	26911143.17	0.0278	0.0259
Moon	68973-12-16 05:03 G	26913280.46	26913280.71	26913280.97	0.0282	0.0036
Earth	68973-12-16 07:55 G	26913280.58	26913280.83	26913281.07	0.0282	0.0020 *
Mercury	68976-01-09 23:03 G	26914035.37	26914035.46	26914035.55	0.0283	0.0232
Mercury	68976-04-07 15:22 G	26914123.99	26914124.14	26914124.30	0.0283	0.0076
Mercury	68976-07-05 08:10 G	26914212.69	26914212.84	26914213.00	0.0283	0.0084

Mercury	68976-10-02 01:12 G	26914301.48	26914301.55	26914301.64	0.0283	0.0247
Venus	68979-12-29 19:55 G	26915485.14	26915485.33	26915485.53	0.0282	0.0106
Venus	68980-08-15 09:22 G	26915714.69	26915714.89	26915715.08	0.0282	0.0107
Earth	68988-06-15 15:51 G	26918575.91	26918576.16	26918576.40	0.0276	0.0023
Moon	68988-06-15 19:12 G	26918576.06	26918576.30	26918576.55	0.0276	0.0009 *
Mercury	68990-08-17 07:41 G	26919368.79	26919368.82	26919368.87	0.0276	0.0264
Mercury	68990-11-13 22:34 G	26919457.30	26919457.44	26919457.58	0.0276	0.0120
Mercury	68991-02-10 12:58 G	26919545.89	26919546.04	26919546.19	0.0276	0.0021
Mercury	68991-05-10 02:53 G	26919634.50	26919634.62	26919634.74	0.0276	0.0158
Venus	68994-06-10 01:12 G	26920761.45	26920761.55	26920761.66	0.0276	0.0239
Venus	68995-01-25 11:17 G	26920990.76	26920990.97	26920991.18	0.0277	0.0039
Venus	68995-09-11 21:22 G	26921220.23	26921220.39	26921220.57	0.0277	0.0163

70TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 70th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	69002-12-11 11:03 G	26923866.85	26923866.96	26923867.09	0.0282	0.0246		
Moon	69002-12-11 14:24 G	26923866.96	26923867.10	26923867.25	0.0282	0.0229 *		
Mercury	69005-05-29 23:17 G	26924767.46	26924767.47	26924767.50	0.0283	0.0280		
Mercury	69005-08-26 15:51 G	26924856.02	26924856.16	26924856.30	0.0283	0.0125		
Mercury	69005-11-23 08:24 G	26924944.70	26924944.85	26924945.01	0.0283	0.0035		
Mercury	69006-02-20 01:41 G	26925033.45	26925033.57	26925033.68	0.0283	0.0196		
Venus	69009-07-12 02:10 G	26926271.39	26926271.59	26926271.80	0.0283	0.0072		

Venus	69010-02-26 15:36 G	26926500.97	26926501.15	26926501.34	0.0282	0.0142
Mars	69012-03-25 23:46 G	26927259.23	26927259.49	26927259.77	0.0281	0.0074
Moon	69017-06-11 15:36 G	26929163.03	26929163.15	26929163.29	0.0277	0.0230
Earth	69017-06-11 18:58 G	26929163.18	26929163.29	26929163.42	0.0277	0.0241 *
Mercury	69020-04-03 01:12 G	26930189.43	26930189.55	26930189.68	0.0276	0.0148
Mercury	69020-06-30 15:36 G	26930278.00	26930278.15	26930278.30	0.0276	0.0009
Mercury	69020-09-27 05:46 G	26930366.61	26930366.74	26930366.87	0.0276	0.0131
Mercury	69020-12-24 19:27 G	26930455.28	26930455.31	26930455.35	0.0276	0.0266
Venus	69023-12-22 09:07 G	26931547.74	26931547.88	26931548.03	0.0276	0.0203
Venus	69024-08-07 18:58 G	26931777.08	26931777.29	26931777.51	0.0276	0.0007
Venus	69025-03-25 05:17 G	26932006.57	26932006.72	26932006.87	0.0276	0.0198
Moon	69032-12-18 06:29 G	26934831.55	26934831.77	26934832.01	0.0282	0.0090
Earth	69032-12-18 09:51 G	26934831.67	26934831.91	26934832.15	0.0282	0.0073 *
Mercury	69035-01-13 15:36 G	26935588.04	26935588.15	26935588.28	0.0283	0.0176
Mercury	69035-04-12 08:10 G	26935676.69	26935676.84	26935677.00	0.0283	0.0021
Mercury	69035-07-10 01:12 G	26935765.41	26935765.55	26935765.69	0.0283	0.0142
Venus	69038-06-06 13:27 G	26936828.00	26936828.06	26936828.15	0.0283	0.0264
Venus	69039-01-22 03:22 G	26937057.44	26937057.64	26937057.86	0.0282	0.0051
Venus	69039-09-08 16:34 G	26937287.03	26937287.19	26937287.37	0.0282	0.0163
Moon	69047-06-18 17:31 G	26940126.98	26940127.23	26940127.48	0.0276	0.0047
Earth	69047-06-18 18:29 G	26940127.03	26940127.27	26940127.51	0.0276	0.0032 *
Mercury	69049-08-21 00:43 G	26940921.43	26940921.53	26940921.64	0.0276	0.0206
Mercury	69049-11-17 15:22 G	26941009.99	26941010.14	26941010.29	0.0276	0.0063
Mercury	69050-02-14 05:31 G	26941098.59	26941098.73	26941098.88	0.0276	0.0076
Mercury	69050-05-13 19:27 G	26941187.22	26941187.31	26941187.40	0.0276	0.0212
Venus	69053-07-03 08:53 G	26942333.72	26942333.87	26942334.03	0.0276	0.0185
Venus	69054-02-17 18:43 G	26942563.07	26942563.28	26942563.50	0.0276	0.0017
Venus	69054-10-05 05:03 G	26942792.58	26942792.71	26942792.84	0.0277	0.0217
Mars	69056-07-04 09:36 G	26943430.74	26943430.90	26943431.08	0.0278	0.0231
Earth	69061-12-12 11:31 G	26945417.81	26945417.98	26945418.16	0.0282	0.0195

Moon	69061-12-12 14:24 G	26945417.90	26945418.10	26945418.30	0.0282	0.0177 *
Mercury	69064-06-01 15:36 G	26946320.07	26946320.15	26946320.25	0.0283	0.0228
Mercury	69064-08-29 08:10 G	26946408.69	26946408.84	26946408.99	0.0283	0.0072
Mercury	69064-11-26 00:58 G	26946497.39	26946497.54	26946497.69	0.0283	0.0088
Mercury	69065-02-22 18:15 G	26946586.19	26946586.26	26946586.33	0.0283	0.0251
Venus	69067-12-17 18:15 G	26947614.15	26947614.26	26947614.39	0.0283	0.0233
Venus	69068-08-03 08:24 G	26947843.64	26947843.85	26947844.06	0.0283	0.0019
Venus	69069-03-20 21:51 G	26948073.26	26948073.41	26948073.57	0.0282	0.0195
Earth	69076-06-12 20:53 G	26950714.19	26950714.37	26950714.55	0.0277	0.0188
Moon	69076-06-12 21:36 G	26950714.22	26950714.40	26950714.58	0.0277	0.0177 *
Mercury	69079-01-08 03:22 G	26951653.56	26951653.64	26951653.72	0.0276	0.0234
Mercury	69079-04-06 18:00 G	26951742.11	26951742.25	26951742.39	0.0276	0.0091
Mercury	69079-07-04 08:24 G	26951830.70	26951830.85	26951830.99	0.0276	0.0049
Mercury	69079-09-30 22:19 G	26951919.32	26951919.43	26951919.54	0.0276	0.0186
Venus	69083-01-13 17:17 G	26953120.04	26953120.22	26953120.40	0.0276	0.0148
Venus	69083-08-31 02:53 G	26953349.41	26953349.62	26953349.83	0.0276	0.0052
Venus	69084-04-16 12:58 G	26953578.96	26953579.04	26953579.13	0.0276	0.0252
Earth	69091-12-20 11:03 G	26956382.75	26956382.96	26956383.19	0.0282	0.0125
Moon	69091-12-20 12:43 G	26956382.82	26956383.03	26956383.24	0.0282	0.0140 *
Mercury	69093-10-19 16:05 G	26957052.14	26957052.17	26957052.20	0.0283	0.0275
Mercury	69094-01-16 08:24 G	26957140.71	26957140.85	26957140.99	0.0283	0.0121
Mercury	69094-04-15 00:58 G	26957229.38	26957229.54	26957229.70	0.0283	0.0037
Mercury	69094-07-12 17:46 G	26957318.13	26957318.24	26957318.36	0.0283	0.0199
Venus	69097-06-28 20:39 G	26958400.22	26958400.36	26958400.51	0.0283	0.0209
Venus	69098-02-13 10:19 G	26958629.72	26958629.93	26958630.15	0.0283	0.0007
Venus	69098-09-30 23:31 G	26958859.35	26958859.48	26958859.62	0.0282	0.0217
Mars	69100-08-19 22:19 G	26959547.15	26959547.43	26959547.71	0.0281	0.0051
Moon	69106-06-20 17:17 G	26961678.00	26961678.22	26961678.45	0.0276	0.0102
Earth	69106-06-20 20:53 G	26961678.15	26961678.37	26961678.61	0.0276	0.0086 *
Mercury	69108-08-24 17:31 G	26962474.11	26962474.23	26962474.36	0.0276	0.0148

Mercury	69108-11-21 08:10 G	26962562.68	26962562.84	26962562.99	0.0276	0.0011
Mercury	69109-02-17 22:05 G	26962651.29	26962651.42	26962651.55	0.0276	0.0131
Mercury	69109-05-17 11:46 G	26962739.96	26962739.99	26962740.03	0.0276	0.0267
Venus	69112-07-26 16:34 G	26963906.01	26963906.19	26963906.38	0.0276	0.0130
Venus	69113-03-13 02:24 G	26964135.39	26964135.60	26964135.81	0.0276	0.0070
Venus	69113-10-28 12:29 G	26964364.99	26964365.02	26964365.07	0.0277	0.0271
Moon	69120-12-14 09:07 G	26966968.66	26966968.88	26966969.12	0.0282	0.0131
Earth	69120-12-14 11:31 G	26966968.77	26966968.98	26966969.20	0.0282	0.0145 *
Mercury	69123-06-06 07:55 G	26967872.71	26967872.83	26967872.96	0.0283	0.0176
Mercury	69123-09-03 00:29 G	26967961.36	26967961.52	26967961.68	0.0283	0.0020
Mercury	69123-11-30 17:17 G	26968050.09	26968050.22	26968050.36	0.0283	0.0142
Venus	69127-01-10 00:29 G	26969186.36	26969186.52	26969186.68	0.0283	0.0180
Venus	69127-08-27 14:24 G	26969415.89	26969416.10	26969416.31	0.0283	0.0034
Venus	69128-04-13 03:51 G	26969645.57	26969645.66	26969645.77	0.0282	0.0247
Earth	69135-06-15 22:05 G	26972265.22	26972265.42	26972265.64	0.0277	0.0137
Moon	69135-06-16 01:27 G	26972265.35	26972265.56	26972265.79	0.0277	0.0122 *
Mercury	69138-01-11 20:10 G	26973206.22	26973206.34	26973206.46	0.0276	0.0177
Mercury	69138-04-10 10:34 G	26973294.79	26973294.94	26973295.09	0.0276	0.0035
Mercury	69138-07-08 00:43 G	26973383.40	26973383.53	26973383.67	0.0276	0.0104
Mercury	69138-10-04 14:39 G	26973472.04	26973472.11	26973472.18	0.0276	0.0240
Venus	69142-02-06 00:58 G	26974692.34	26974692.54	26974692.74	0.0276	0.0094
Venus	69142-09-23 10:48 G	26974921.76	26974921.95	26974922.15	0.0276	0.0106
Jupiter	69144-08-27 19:41 G	26975626.15	26975626.32	26975626.54	0.0277	0.0249
Mars	69144-11-29 07:27 G	26975719.57	26975719.81	26975720.07	0.0277	0.0162
Earth	69150-12-22 13:12 G	26977933.87	26977934.05	26977934.25	0.0282	0.0178
Moon	69150-12-22 16:48 G	26977934.03	26977934.20	26977934.40	0.0282	0.0191 *
Mercury	69152-10-23 08:39 G	26978604.77	26978604.86	26978604.96	0.0283	0.0220
Mercury	69153-01-20 00:58 G	26978693.39	26978693.54	26978693.70	0.0283	0.0065
Mercury	69153-04-18 17:46 G	26978782.09	26978782.24	26978782.39	0.0283	0.0094
Mercury	69153-07-16 10:48 G	26978870.89	26978870.95	26978871.02	0.0283	0.0257

Venus	69156-07-22 03:36 G	26979972.48	26979972.65	26979972.84	0.0283	0.0155
Venus	69157-03-08 17:17 G	26980202.02	26980202.22	26980202.43	0.0283	0.0060
Venus	69157-10-24 06:29 G	26980431.72	26980431.77	26980431.83	0.0282	0.0271
Moon	69165-06-21 22:19 G	26983229.24	26983229.43	26983229.63	0.0276	0.0153
Earth	69165-06-21 23:03 G	26983229.26	26983229.46	26983229.68	0.0276	0.0139 *
Mercury	69167-05-31 19:41 G	26983938.24	26983938.32	26983938.40	0.0276	0.0234
Mercury	69167-08-28 10:19 G	26984026.79	26984026.93	26984027.08	0.0276	0.0091
Mercury	69167-11-25 00:43 G	26984115.38	26984115.53	26984115.68	0.0276	0.0049
Mercury	69168-02-21 14:39 G	26984204.01	26984204.11	26984204.22	0.0276	0.0186
Venus	69171-01-01 14:53 G	26985249.10	26985249.12	26985249.16	0.0276	0.0273
Venus	69171-08-19 00:29 G	26985478.32	26985478.52	26985478.73	0.0276	0.0075
Venus	69172-04-04 10:19 G	26985707.74	26985707.93	26985708.12	0.0276	0.0125
Moon	69179-12-16 09:22 G	26988519.65	26988519.89	26988520.12	0.0282	0.0081
Earth	69179-12-16 12:29 G	26988519.79	26988520.02	26988520.26	0.0282	0.0093 *
Mercury	69182-03-12 08:10 G	26989336.81	26989336.84	26989336.87	0.0283	0.0277
Mercury	69182-06-09 00:15 G	26989425.37	26989425.51	26989425.65	0.0283	0.0123
Mercury	69182-09-05 16:48 G	26989514.05	26989514.20	26989514.36	0.0283	0.0036
Mercury	69182-12-03 09:51 G	26989602.80	26989602.91	26989603.03	0.0283	0.0196
Venus	69186-02-01 06:29 G	26990758.59	26990758.77	26990758.96	0.0283	0.0128
Venus	69186-09-18 20:24 G	26990988.15	26990988.35	26990988.55	0.0283	0.0087
Mars	69189-01-13 07:41 G	26991835.54	26991835.82	26991836.10	0.0282	0.0012
Earth	69194-06-16 23:46 G	26993816.26	26993816.49	26993816.73	0.0278	0.0084
Moon	69194-06-17 01:27 G	26993816.31	26993816.56	26993816.80	0.0278	0.0070 *
Mercury	69196-10-17 22:05 G	26994670.38	26994670.42	26994670.47	0.0276	0.0263
Mercury	69197-01-14 12:58 G	26994758.90	26994759.04	26994759.18	0.0276	0.0119
Mercury	69197-04-13 03:22 G	26994847.49	26994847.64	26994847.79	0.0276	0.0022
Mercury	69197-07-10 17:31 G	26994936.11	26994936.23	26994936.35	0.0276	0.0159
Venus	69200-07-13 23:46 G	26996035.39	26996035.49	26996035.60	0.0276	0.0237
Venus	69201-02-28 09:22 G	26996264.68	26996264.89	26996265.10	0.0276	0.0039
Venus	69201-10-15 19:12 G	26996494.13	26996494.30	26996494.48	0.0276	0.0162

Earth	69209-12-23 15:51 G	26999485.04	26999485.16	26999485.31	0.0282	0.0233
Moon	69209-12-23 16:05 G	26999485.05	26999485.17	26999485.31	0.0282	0.0240 *
Mercury	69211-10-27 01:27 G	27000157.43	27000157.56	27000157.69	0.0283	0.0163
Mercury	69212-01-23 18:00 G	27000246.09	27000246.25	27000246.40	0.0283	0.0010
Mercury	69212-04-21 10:48 G	27000334.81	27000334.95	27000335.08	0.0283	0.0153
Venus	69215-08-14 11:17 G	27001544.78	27001544.97	27001545.17	0.0283	0.0099
Venus	69216-03-31 00:43 G	27001774.34	27001774.53	27001774.73	0.0283	0.0114
Earth	69224-06-23 01:55 G	27004780.41	27004780.58	27004780.76	0.0277	0.0193
Moon	69224-06-23 04:48 G	27004780.56	27004780.70	27004780.87	0.0277	0.0208 *
Mercury	69226-06-03 12:43 G	27005490.91	27005491.03	27005491.15	0.0276	0.0174
Mercury	69226-08-31 03:22 G	27005579.49	27005579.64	27005579.79	0.0276	0.0033
Mercury	69226-11-27 17:31 G	27005668.09	27005668.23	27005668.37	0.0276	0.0106
Mercury	69227-02-24 07:27 G	27005756.74	27005756.81	27005756.88	0.0276	0.0241
Venus	69230-01-23 23:31 G	27006821.36	27006821.48	27006821.62	0.0276	0.0218
Venus	69230-09-10 09:07 G	27007050.67	27007050.88	27007051.09	0.0276	0.0019
Venus	69231-04-27 18:58 G	27007280.13	27007280.29	27007280.45	0.0276	0.0181
Mars	69233-04-24 04:34 G	27008007.43	27008007.69	27008007.97	0.0277	0.0132
Earth	69238-12-17 15:22 G	27010070.90	27010071.14	27010071.39	0.0282	0.0038
Moon	69238-12-17 15:36 G	27010070.92	27010071.15	27010071.39	0.0282	0.0029 *
Mercury	69241-03-15 00:43 G	27010889.44	27010889.53	27010889.63	0.0283	0.0221
Mercury	69241-06-11 17:03 G	27010978.06	27010978.21	27010978.37	0.0283	0.0067
Mercury	69241-09-08 09:51 G	27011066.76	27011066.91	27011067.06	0.0283	0.0093
Mercury	69241-12-06 02:53 G	27011155.56	27011155.62	27011155.69	0.0283	0.0255
Venus	69245-02-23 13:41 G	27012330.87	27012331.07	27012331.28	0.0283	0.0073
Venus	69245-10-11 03:22 G	27012560.46	27012560.64	27012560.83	0.0283	0.0141
Moon	69253-06-17 23:03 G	27015367.21	27015367.46	27015367.71	0.0278	0.0016
Earth	69253-06-18 01:55 G	27015367.34	27015367.58	27015367.82	0.0278	0.0032 *
Mercury	69255-10-21 15:07 G	27016223.03	27016223.13	27016223.23	0.0276	0.0205
Mercury	69256-01-18 05:46 G	27016311.59	27016311.74	27016311.89	0.0276	0.0062
Mercury	69256-04-15 20:10 G	27016400.19	27016400.34	27016400.48	0.0276	0.0078

Mercury	69256-07-13 10:05 G	27016488.83	27016488.92	27016489.01	0.0276	0.0215
Venus	69259-08-06 08:24 G	27017607.70	27017607.85	27017608.02	0.0276	0.0182
Venus	69260-03-22 18:15 G	27017837.05	27017837.26	27017837.47	0.0276	0.0017
Venus	69260-11-07 04:19 G	27018066.55	27018066.68	27018066.81	0.0276	0.0217
Moon	69267-12-12 04:34 G	27020657.62	27020657.69	27020657.78	0.0281	0.0266
Earth	69267-12-12 04:34 G	27020657.68	27020657.69	27020657.72	0.0281	0.0280 *
Mercury	69270-08-02 02:24 G	27021621.54	27021621.60	27021621.67	0.0283	0.0256
Mercury	69270-10-29 18:43 G	27021710.13	27021710.28	27021710.42	0.0283	0.0103
Mercury	69271-01-26 11:17 G	27021798.81	27021798.97	27021799.12	0.0283	0.0055
Mercury	69271-04-25 04:05 G	27021887.57	27021887.67	27021887.78	0.0283	0.0216
Venus	69274-01-19 05:31 G	27022887.65	27022887.73	27022887.83	0.0283	0.0256
Venus	69274-09-05 19:41 G	27023117.11	27023117.32	27023117.52	0.0283	0.0043
Venus	69275-04-23 08:53 G	27023346.71	27023346.87	27023347.04	0.0283	0.0170
Mars	69277-06-08 17:03 G	27024123.94	27024124.21	27024124.50	0.0281	0.0032
Earth	69282-06-12 17:17 G	27025954.22	27025954.22	27025954.25	0.0277	0.0277
Moon	69282-06-12 20:24 G	27025954.28	27025954.35	27025954.44	0.0277	0.0260
Earth	69283-06-25 05:46 G	27026331.65	27026331.74	27026331.86	0.0277	0.0249
Moon	69283-06-25 08:39 G	27026331.80	27026331.86	27026331.95	0.0277	0.0263 *
Mercury	69285-03-09 15:07 G	27026955.08	27026955.13	27026955.19	0.0276	0.0257
Mercury	69285-06-06 06:00 G	27027043.61	27027043.75	27027043.89	0.0276	0.0113
Mercury	69285-09-02 20:24 G	27027132.20	27027132.35	27027132.50	0.0276	0.0027
Mercury	69285-11-30 10:34 G	27027220.82	27027220.94	27027221.06	0.0276	0.0165
Venus	69289-02-15 09:07 G	27028393.72	27028393.88	27028394.06	0.0276	0.0161
Venus	69289-10-02 18:43 G	27028623.07	27028623.28	27028623.50	0.0276	0.0039
Venus	69290-05-20 04:48 G	27028852.59	27028852.70	27028852.81	0.0276	0.0238
Earth	69297-12-18 20:10 G	27031622.09	27031622.34	27031622.59	0.0282	0.0021
Moon	69297-12-18 23:31 G	27031622.24	27031622.48	27031622.73	0.0282	0.0030 *
Mercury	69300-03-18 17:46 G	27032442.12	27032442.24	27032442.37	0.0283	0.0162
Mercury	69300-06-15 10:19 G	27032530.77	27032530.93	27032531.09	0.0283	0.0006
Mercury	69300-09-12 03:07 G	27032619.50	27032619.63	27032619.76	0.0283	0.0154

Venus	69303-08-02 07:41 G	27033673.71	27033673.82	27033673.95	0.0283	0.0231
Venus	69304-03-18 21:51 G	27033903.20	27033903.41	27033903.62	0.0283	0.0018
Venus	69304-11-03 11:17 G	27034132.83	27034132.97	27034133.13	0.0282	0.0196
Moon	69312-06-20 02:10 G	27036918.35	27036918.59	27036918.82	0.0278	0.0040
Earth	69312-06-20 05:03 G	27036918.47	27036918.71	27036918.95	0.0278	0.0024 *
Mercury	69314-10-25 08:10 G	27037775.71	27037775.84	27037775.97	0.0277	0.0144
Mercury	69315-01-21 22:48 G	27037864.30	27037864.45	27037864.60	0.0277	0.0002
Mercury	69315-04-20 12:58 G	27037952.91	27037953.04	27037953.17	0.0276	0.0137
Mercury	69315-07-18 02:53 G	27038041.60	27038041.62	27038041.65	0.0276	0.0273
Venus	69318-08-29 17:46 G	27039180.06	27039180.24	27039180.44	0.0276	0.0126
Venus	69319-04-16 03:51 G	27039409.46	27039409.66	27039409.87	0.0276	0.0074
Venus	69319-12-01 13:55 G	27039639.06	27039639.08	27039639.11	0.0276	0.0274
Mars	69321-09-19 17:17 G	27040296.92	27040297.22	27040297.53	0.0277	0.0036
Moon	69326-12-14 07:55 G	27042208.67	27042208.83	27042209.01	0.0281	0.0207
Earth	69326-12-14 11:31 G	27042208.84	27042208.98	27042209.15	0.0281	0.0219 *
Mercury	69329-08-05 20:10 G	27043174.23	27043174.34	27043174.45	0.0282	0.0192
Mercury	69329-11-02 12:29 G	27043262.86	27043263.02	27043263.17	0.0283	0.0037
Mercury	69330-01-30 05:03 G	27043351.57	27043351.71	27043351.86	0.0283	0.0122
Venus	69333-02-11 15:36 G	27044460.00	27044460.15	27044460.30	0.0283	0.0197
Venus	69333-09-29 05:17 G	27044689.51	27044689.72	27044689.93	0.0283	0.0016
Venus	69334-05-16 18:29 G	27044919.15	27044919.27	27044919.40	0.0283	0.0228
Earth	69341-06-14 22:34 G	27047505.30	27047505.44	27047505.59	0.0278	0.0219
Moon	69341-06-15 01:27 G	27047505.40	27047505.56	27047505.74	0.0278	0.0201 *
Mercury	69344-03-13 08:39 G	27048507.76	27048507.86	27048507.97	0.0276	0.0193
Mercury	69344-06-09 23:17 G	27048596.33	27048596.47	27048596.63	0.0276	0.0051
Mercury	69344-09-06 13:41 G	27048684.93	27048685.07	27048685.21	0.0276	0.0090
Mercury	69344-12-04 03:36 G	27048773.57	27048773.65	27048773.74	0.0276	0.0226
Venus	69348-03-10 19:27 G	27049966.12	27049966.31	27049966.51	0.0276	0.0103
Venus	69348-10-26 05:17 G	27050195.52	27050195.72	27050195.92	0.0276	0.0097
Earth	69356-12-21 03:22 G	27053173.41	27053173.64	27053173.88	0.0281	0.0083

Moon	69356-12-21 05:31 G	27053173.49	27053173.73	27053173.98	0.0281	0.0091 *
Mercury	69358-12-23 19:12 G	27053906.24	27053906.30	27053906.38	0.0282	0.0250
Mercury	69359-03-22 11:31 G	27053994.84	27053994.98	27053995.13	0.0283	0.0096
Mercury	69359-06-19 04:05 G	27054083.52	27054083.67	27054083.83	0.0283	0.0061
Mercury	69359-09-15 21:07 G	27054172.28	27054172.38	27054172.48	0.0283	0.0222
Venus	69362-08-24 17:17 G	27055246.06	27055246.22	27055246.39	0.0283	0.0173
Venus	69363-04-11 07:12 G	27055475.60	27055475.80	27055476.01	0.0283	0.0041
Venus	69363-11-26 20:39 G	27055705.28	27055705.36	27055705.46	0.0282	0.0253
Mars	69365-11-03 05:17 G	27056412.45	27056412.72	27056412.99	0.0282	0.0079
Earth	69371-06-22 09:22 G	27058469.66	27058469.89	27058470.13	0.0278	0.0080
Moon	69371-06-22 11:03 G	27058469.74	27058469.96	27058470.18	0.0278	0.0095 *
Mercury	69373-07-31 10:48 G	27059239.87	27059239.95	27059240.04	0.0277	0.0226
Mercury	69373-10-28 01:41 G	27059328.42	27059328.57	27059328.71	0.0277	0.0081
Mercury	69374-01-24 16:05 G	27059417.02	27059417.17	27059417.32	0.0277	0.0060
Mercury	69374-04-23 06:15 G	27059505.66	27059505.76	27059505.86	0.0277	0.0197
Venus	69377-02-03 18:29 G	27060523.23	27060523.27	27060523.34	0.0276	0.0267
Venus	69377-09-21 04:34 G	27060752.48	27060752.69	27060752.90	0.0276	0.0067
Venus	69378-05-08 14:24 G	27060981.92	27060982.10	27060982.29	0.0276	0.0133
Moon	69385-12-15 18:43 G	27063760.08	27063760.28	27063760.50	0.0281	0.0146
Earth	69385-12-15 20:39 G	27063760.16	27063760.36	27063760.58	0.0281	0.0155 *
Mercury	69388-05-11 22:05 G	27064638.39	27064638.42	27064638.46	0.0282	0.0275
Mercury	69388-08-08 14:10 G	27064726.95	27064727.09	27064727.23	0.0282	0.0123
Mercury	69388-11-05 06:43 G	27064815.62	27064815.78	27064815.94	0.0282	0.0033
Mercury	69389-02-01 23:31 G	27064904.36	27064904.48	27064904.60	0.0283	0.0193
Venus	69392-03-06 02:39 G	27066032.42	27066032.61	27066032.79	0.0283	0.0136
Venus	69392-10-21 16:05 G	27066261.97	27066262.17	27066262.37	0.0283	0.0077
Moon	69400-06-17 03:36 G	27069056.44	27069056.65	27069056.86	0.0278	0.0143
Earth	69400-06-17 05:17 G	27069056.53	27069056.72	27069056.92	0.0278	0.0159 *
Mercury	69402-12-19 11:46 G	27069971.96	27069971.99	27069972.02	0.0276	0.0270
Mercury	69403-03-18 02:39 G	27070060.47	27070060.61	27070060.74	0.0276	0.0126

Mercury	69403-06-14 17:03 G	27070149.06	27070149.21	27070149.36	0.0276	0.0017
Mercury	69403-09-11 07:12 G	27070237.68	27070237.80	27070237.93	0.0276	0.0154
Venus	69406-08-17 21:22 G	27071309.29	27071309.39	27071309.49	0.0276	0.0240
Venus	69407-04-04 06:43 G	27071538.57	27071538.78	27071539.00	0.0276	0.0043
Venus	69407-11-19 16:34 G	27071768.02	27071768.19	27071768.37	0.0276	0.0157
Mars	69410-02-14 06:15 G	27072585.45	27072585.76	27072586.07	0.0277	0.0022
Moon	69415-12-24 10:34 G	27074724.73	27074724.94	27074725.16	0.0281	0.0151
Earth	69415-12-24 12:58 G	27074724.84	27074725.04	27074725.26	0.0281	0.0150 *
Mercury	69417-12-27 13:27 G	27075458.95	27075459.06	27075459.19	0.0282	0.0181
Mercury	69418-03-26 06:00 G	27075547.59	27075547.75	27075547.90	0.0282	0.0026
Mercury	69418-06-22 22:34 G	27075636.30	27075636.44	27075636.58	0.0283	0.0133
Venus	69421-09-17 04:34 G	27076818.50	27076818.69	27076818.89	0.0283	0.0111
Venus	69422-05-04 18:15 G	27077048.07	27077048.26	27077048.46	0.0282	0.0102
Earth	69430-06-24 15:22 G	27080020.93	27080021.14	27080021.35	0.0278	0.0138
Moon	69430-06-24 19:12 G	27080021.09	27080021.30	27080021.50	0.0278	0.0151 *
Mercury	69432-08-04 04:34 G	27080792.57	27080792.69	27080792.81	0.0277	0.0160
Mercury	69432-10-31 19:12 G	27080881.15	27080881.30	27080881.45	0.0277	0.0017
Mercury	69433-01-28 09:36 G	27080969.76	27080969.90	27080970.03	0.0277	0.0123
Mercury	69433-04-26 23:31 G	27081058.43	27081058.48	27081058.53	0.0277	0.0259
Venus	69436-02-28 05:31 G	27082095.60	27082095.73	27082095.88	0.0276	0.0207
Venus	69436-10-14 15:36 G	27082324.93	27082325.15	27082325.36	0.0276	0.0009
Venus	69437-06-01 01:27 G	27082554.42	27082554.56	27082554.73	0.0277	0.0193
Earth	69444-12-18 07:41 G	27085311.58	27085311.82	27085312.05	0.0281	0.0087
Moon	69444-12-18 10:19 G	27085311.70	27085311.93	27085312.16	0.0281	0.0081 *
Mercury	69447-05-16 16:34 G	27086191.09	27086191.19	27086191.30	0.0282	0.0204
Mercury	69447-08-13 08:53 G	27086279.72	27086279.87	27086280.03	0.0282	0.0050
Mercury	69447-11-10 01:27 G	27086368.42	27086368.56	27086368.71	0.0282	0.0108
Mercury	69448-02-06 18:15 G	27086457.22	27086457.26	27086457.32	0.0283	0.0270
Venus	69451-03-30 14:39 G	27087604.91	27087605.11	27087605.32	0.0283	0.0073
Venus	69451-11-15 04:19 G	27087834.50	27087834.68	27087834.86	0.0283	0.0140

Mars	69454-03-31 15:22 G	27088701.92	27088702.14	27088702.37	0.0282	0.0166
Moon	69459-06-19 09:51 G	27090607.68	27090607.91	27090608.14	0.0278	0.0082
Earth	69459-06-19 13:12 G	27090607.83	27090608.05	27090608.28	0.0278	0.0097 *
Mercury	69461-12-22 06:00 G	27091524.64	27091524.75	27091524.85	0.0276	0.0201
Mercury	69462-03-20 20:39 G	27091613.21	27091613.36	27091613.51	0.0276	0.0057
Mercury	69462-06-17 11:03 G	27091701.82	27091701.96	27091702.11	0.0276	0.0083
Mercury	69462-09-14 01:12 G	27091790.46	27091790.55	27091790.64	0.0276	0.0219
Venus	69465-09-09 09:07 G	27092881.73	27092881.88	27092882.05	0.0276	0.0180
Venus	69466-04-26 18:58 G	27093111.08	27093111.29	27093111.50	0.0276	0.0019
Venus	69466-12-12 04:48 G	27093340.58	27093340.70	27093340.84	0.0276	0.0218
Moon	69474-12-25 21:07 G	27096276.23	27096276.38	27096276.54	0.0281	0.0218
Earth	69474-12-26 00:29 G	27096276.38	27096276.52	27096276.69	0.0281	0.0219 *
Mercury	69476-10-02 16:05 G	27096923.12	27096923.17	27096923.23	0.0282	0.0259
Mercury	69476-12-30 08:10 G	27097011.70	27097011.84	27097011.99	0.0282	0.0107
Mercury	69477-03-29 00:43 G	27097100.37	27097100.53	27097100.68	0.0282	0.0049
Mercury	69477-06-25 17:17 G	27097189.12	27097189.22	27097189.33	0.0283	0.0210
Venus	69480-02-23 02:39 G	27098161.54	27098161.61	27098161.70	0.0283	0.0260
Venus	69480-10-09 16:48 G	27098390.99	27098391.20	27098391.41	0.0283	0.0048
Venus	69481-05-27 06:15 G	27098620.59	27098620.76	27098620.94	0.0282	0.0164
Jupiter	69483-01-13 04:19 G	27099216.33	27099216.68	27099217.05	0.0282	0.0187
Earth	69489-06-25 22:48 G	27101572.28	27101572.45	27101572.62	0.0278	0.0198
Moon	69489-06-25 22:48 G	27101572.29	27101572.45	27101572.62	0.0278	0.0207 *
Mercury	69491-05-11 07:27 G	27102256.74	27102256.81	27102256.89	0.0277	0.0238
Mercury	69491-08-07 22:34 G	27102345.29	27102345.44	27102345.58	0.0277	0.0093
Mercury	69491-11-04 12:58 G	27102433.89	27102434.04	27102434.19	0.0277	0.0049
Mercury	69492-02-01 03:07 G	27102522.53	27102522.63	27102522.74	0.0277	0.0187
Venus	69495-03-22 16:48 G	27103668.03	27103668.20	27103668.39	0.0277	0.0148
Venus	69495-11-07 03:07 G	27103897.42	27103897.63	27103897.84	0.0277	0.0053
Venus	69496-06-23 13:12 G	27104126.98	27104127.05	27104127.15	0.0277	0.0253
Mars	69498-07-12 04:48 G	27104875.44	27104875.70	27104875.98	0.0277	0.0135

Earth	69503-12-21 19:27 G	27106863.06	27106863.31	27106863.56	0.0281	0.0019
Moon	69503-12-21 22:48 G	27106863.19	27106863.45	27106863.70	0.0281	0.0015 *
Mercury	69506-02-20 19:27 G	27107655.30	27107655.31	27107655.33	0.0282	0.0280
Mercury	69506-05-20 11:31 G	27107743.84	27107743.98	27107744.12	0.0282	0.0129
Mercury	69506-08-17 03:51 G	27107832.50	27107832.66	27107832.82	0.0282	0.0027
Mercury	69506-11-13 20:39 G	27107921.24	27107921.36	27107921.48	0.0282	0.0186
Venus	69509-09-05 14:10 G	27108947.96	27108948.09	27108948.23	0.0283	0.0219
Venus	69510-04-23 04:05 G	27109177.46	27109177.67	27109177.88	0.0283	0.0007
Venus	69510-12-08 17:31 G	27109407.09	27109407.23	27109407.38	0.0283	0.0205
Moon	69518-06-21 22:05 G	27112159.19	27112159.42	27112159.65	0.0278	0.0019
Earth	69518-06-21 22:48 G	27112159.21	27112159.45	27112159.69	0.0278	0.0032 *
Mercury	69520-09-28 09:07 G	27112988.88	27112988.88	27112988.91	0.0276	0.0275
Mercury	69520-12-26 00:15 G	27113077.38	27113077.51	27113077.65	0.0276	0.0130
Mercury	69521-03-24 14:53 G	27113165.97	27113166.12	27113166.27	0.0276	0.0012
Mercury	69521-06-21 05:03 G	27113254.59	27113254.71	27113254.84	0.0276	0.0151
Venus	69524-10-02 21:36 G	27114454.21	27114454.40	27114454.59	0.0276	0.0118
Venus	69525-05-20 07:27 G	27114683.61	27114683.81	27114684.01	0.0276	0.0081
Moon	69532-12-14 19:41 G	27117449.27	27117449.32	27117449.39	0.0281	0.0271
Earth	69532-12-14 22:34 G	27117449.42	27117449.44	27117449.50	0.0281	0.0277
Mercury	69535-10-07 11:03 G	27118475.85	27118475.96	27118476.08	0.0282	0.0183
Mercury	69536-01-04 03:22 G	27118564.48	27118564.64	27118564.79	0.0282	0.0030
Mercury	69536-04-01 19:55 G	27118653.19	27118653.33	27118653.47	0.0282	0.0128
Venus	69539-03-18 16:05 G	27119734.02	27119734.17	27119734.32	0.0283	0.0195
Venus	69539-11-03 06:00 G	27119963.54	27119963.75	27119963.96	0.0282	0.0018
Venus	69540-06-19 19:12 G	27120193.19	27120193.30	27120193.43	0.0282	0.0228
Mars	69542-08-26 11:03 G	27120990.80	27120990.96	27120991.12	0.0281	0.0230
Earth	69547-06-16 16:19 G	27122746.14	27122746.18	27122746.24	0.0278	0.0271
Moon	69547-06-16 17:31 G	27122746.14	27122746.23	27122746.33	0.0278	0.0255 *
Moon	69548-06-28 03:22 G	27123123.58	27123123.64	27123123.72	0.0278	0.0265
Earth	69548-06-28 06:29 G	27123123.70	27123123.77	27123123.87	0.0278	0.0260 *

Mercury	69550-05-15 01:41 G	27123809.45	27123809.57	27123809.69	0.0277	0.0169
Mercury	69550-08-11 16:19 G	27123898.03	27123898.18	27123898.33	0.0277	0.0026
Mercury	69550-11-08 06:43 G	27123986.65	27123986.78	27123986.92	0.0277	0.0115
Mercury	69551-02-04 20:53 G	27124075.31	27124075.37	27124075.43	0.0277	0.0252
Venus	69554-04-15 04:34 G	27125240.49	27125240.69	27125240.90	0.0277	0.0087
Venus	69554-11-30 14:39 G	27125469.92	27125470.11	27125470.31	0.0277	0.0114
Moon	69562-12-23 07:27 G	27128414.56	27128414.81	27128415.07	0.0281	0.0052
Earth	69562-12-23 07:55 G	27128414.59	27128414.83	27128415.08	0.0281	0.0051 *
Mercury	69565-02-23 14:24 G	27129208.00	27129208.10	27129208.21	0.0282	0.0205
Mercury	69565-05-23 06:29 G	27129296.62	27129296.77	27129296.93	0.0282	0.0053
Mercury	69565-08-19 23:03 G	27129385.32	27129385.46	27129385.61	0.0282	0.0105
Mercury	69565-11-16 15:51 G	27129474.12	27129474.16	27129474.22	0.0282	0.0266
Venus	69568-09-28 03:36 G	27130520.48	27130520.65	27130520.84	0.0283	0.0153
Venus	69569-05-15 17:31 G	27130750.03	27130750.23	27130750.44	0.0283	0.0059
Venus	69569-12-31 06:58 G	27130979.73	27130979.79	27130979.85	0.0282	0.0269
Earth	69577-06-23 08:39 G	27133710.62	27133710.86	27133711.10	0.0278	0.0033
Moon	69577-06-23 11:31 G	27133710.74	27133710.98	27133711.21	0.0278	0.0046 *
Mercury	69579-10-02 03:36 G	27134541.56	27134541.65	27134541.76	0.0276	0.0203
Mercury	69579-12-29 18:29 G	27134630.13	27134630.27	27134630.42	0.0276	0.0060
Mercury	69580-03-27 09:07 G	27134718.74	27134718.88	27134719.02	0.0276	0.0082
Mercury	69580-06-23 23:17 G	27134807.38	27134807.47	27134807.56	0.0276	0.0218
Venus	69583-03-11 00:15 G	27135797.44	27135797.51	27135797.61	0.0276	0.0252
Venus	69583-10-26 10:05 G	27136026.71	27136026.92	27136027.13	0.0276	0.0055
Venus	69584-06-11 19:55 G	27136256.15	27136256.33	27136256.52	0.0276	0.0144
Mars	69586-12-07 04:48 G	27137164.52	27137164.70	27137164.92	0.0277	0.0211
Earth	69591-12-17 11:17 G	27139000.82	27139000.97	27139001.15	0.0281	0.0207
Moon	69591-12-17 12:00 G	27139000.84	27139001.00	27139001.17	0.0281	0.0202 *
Mercury	69594-07-13 14:10 G	27139940.03	27139940.09	27139940.15	0.0282	0.0258
Mercury	69594-10-10 06:00 G	27140028.61	27140028.75	27140028.90	0.0282	0.0107
Mercury	69595-01-06 22:34 G	27140117.28	27140117.44	27140117.59	0.0282	0.0049

Mercury	69595-04-05 15:07 G	27140206.03	27140206.13	27140206.24	0.0282	0.0208
Venus	69598-04-10 05:46 G	27141306.55	27141306.74	27141306.92	0.0283	0.0129
Venus	69598-11-25 19:27 G	27141536.11	27141536.31	27141536.51	0.0282	0.0083
Moon	69606-06-17 22:19 G	27144297.27	27144297.43	27144297.62	0.0278	0.0192
Earth	69606-06-18 01:27 G	27144297.42	27144297.56	27144297.74	0.0278	0.0208 *
Mercury	69609-02-18 04:48 G	27145273.63	27145273.70	27145273.77	0.0277	0.0245
Mercury	69609-05-17 19:55 G	27145362.18	27145362.33	27145362.47	0.0277	0.0100
Mercury	69609-08-14 10:19 G	27145450.78	27145450.93	27145451.08	0.0277	0.0042
Mercury	69609-11-11 00:29 G	27145539.42	27145539.52	27145539.64	0.0277	0.0181
Venus	69612-09-20 06:15 G	27146583.64	27146583.76	27146583.88	0.0277	0.0224
Venus	69613-05-07 16:05 G	27146812.96	27146813.17	27146813.38	0.0277	0.0026
Venus	69613-12-23 02:24 G	27147042.44	27147042.60	27147042.76	0.0277	0.0174
Moon	69621-12-24 16:05 G	27149965.95	27149966.17	27149966.40	0.0281	0.0119
Earth	69621-12-24 19:41 G	27149966.10	27149966.32	27149966.55	0.0281	0.0119 *
Mercury	69623-11-30 17:17 G	27150672.22	27150672.22	27150672.22	0.0282	0.0282
Mercury	69624-02-27 09:07 G	27150760.75	27150760.88	27150761.02	0.0282	0.0131
Mercury	69624-05-26 01:27 G	27150849.41	27150849.56	27150849.72	0.0282	0.0025
Mercury	69624-08-22 18:15 G	27150938.14	27150938.26	27150938.38	0.0282	0.0182
Venus	69627-10-21 17:31 G	27152093.03	27152093.23	27152093.43	0.0283	0.0086
Venus	69628-06-07 07:12 G	27152322.61	27152322.80	27152322.99	0.0283	0.0126
Earth	69636-06-24 18:15 G	27155262.04	27155262.26	27155262.50	0.0278	0.0099
Moon	69636-06-24 21:22 G	27155262.17	27155262.39	27155262.62	0.0278	0.0111 *
Mercury	69638-07-08 07:12 G	27156005.80	27156005.80	27156005.81	0.0276	0.0276
Mercury	69638-10-04 22:05 G	27156094.29	27156094.42	27156094.56	0.0276	0.0131
Mercury	69639-01-01 12:58 G	27156182.89	27156183.04	27156183.19	0.0276	0.0012
Mercury	69639-03-31 03:07 G	27156271.51	27156271.63	27156271.76	0.0276	0.0150
Venus	69642-04-02 12:29 G	27157369.87	27157370.02	27157370.18	0.0276	0.0190
Venus	69642-11-17 22:05 G	27157599.21	27157599.42	27157599.64	0.0276	0.0009
Venus	69643-07-05 08:10 G	27157828.70	27157828.84	27157828.99	0.0276	0.0205
Earth	69650-12-18 23:31 G	27160552.27	27160552.48	27160552.71	0.0281	0.0138

Moon	69650-12-19 03:22 G	27160552.43	27160552.64	27160552.86	0.0281	0.0133 *
Mercury	69653-07-16 08:53 G	27161492.76	27161492.87	27161492.99	0.0282	0.0184
Mercury	69653-10-13 01:12 G	27161581.39	27161581.55	27161581.70	0.0282	0.0031
Mercury	69654-01-09 17:31 G	27161670.09	27161670.23	27161670.38	0.0282	0.0126
Venus	69656-09-15 04:48 G	27162649.66	27162649.70	27162649.76	0.0283	0.0274
Venus	69657-05-02 18:58 G	27162879.09	27162879.29	27162879.50	0.0283	0.0063
Venus	69657-12-18 08:39 G	27163108.69	27163108.86	27163109.05	0.0282	0.0149
Moon	69665-06-19 07:55 G	27165848.62	27165848.83	27165849.04	0.0278	0.0130
Earth	69665-06-19 10:34 G	27165848.74	27165848.94	27165849.15	0.0278	0.0144 *
Mercury	69668-02-21 23:03 G	27166826.34	27166826.46	27166826.58	0.0277	0.0176
Mercury	69668-05-20 13:41 G	27166914.92	27166915.07	27166915.23	0.0277	0.0034
Mercury	69668-08-17 04:05 G	27167003.54	27167003.67	27167003.82	0.0277	0.0108
Mercury	69668-11-13 18:15 G	27167092.20	27167092.26	27167092.33	0.0277	0.0245
Venus	69671-10-13 17:03 G	27168156.05	27168156.21	27168156.39	0.0277	0.0164
Venus	69672-05-30 03:07 G	27168385.42	27168385.63	27168385.85	0.0277	0.0036
Venus	69673-01-14 13:27 G	27168614.95	27168615.06	27168615.18	0.0277	0.0234
Moon	69680-12-26 03:36 G	27171517.47	27171517.65	27171517.83	0.0281	0.0184
Earth	69680-12-26 05:46 G	27171517.56	27171517.74	27171517.93	0.0281	0.0185 *
Mercury	69682-12-03 11:31 G	27172224.89	27172224.98	27172225.09	0.0282	0.0212
Mercury	69683-03-02 03:51 G	27172313.50	27172313.66	27172313.81	0.0282	0.0060
Mercury	69683-05-29 20:10 G	27172402.20	27172402.34	27172402.49	0.0282	0.0097
Mercury	69683-08-26 12:58 G	27172490.98	27172491.04	27172491.11	0.0282	0.0258
Venus	69686-03-28 16:05 G	27173436.06	27173436.17	27173436.30	0.0283	0.0232
Venus	69686-11-13 06:15 G	27173665.55	27173665.76	27173665.98	0.0283	0.0021
Venus	69687-06-30 19:55 G	27173895.18	27173895.33	27173895.49	0.0283	0.0191
Mars	69689-04-29 12:00 G	27174563.83	27174564.00	27174564.19	0.0282	0.0211
Moon	69695-06-27 02:39 G	27176813.42	27176813.61	27176813.81	0.0278	0.0172
Earth	69695-06-27 04:05 G	27176813.48	27176813.67	27176813.87	0.0278	0.0163 *
Mercury	69697-07-11 01:41 G	27177558.47	27177558.57	27177558.67	0.0276	0.0204
Mercury	69697-10-07 16:34 G	27177647.04	27177647.19	27177647.34	0.0276	0.0061

Mercury	69698-01-04 06:58 G	27177735.65	27177735.79	27177735.94	0.0276	0.0079
Mercury	69698-04-02 21:07 G	27177824.29	27177824.38	27177824.47	0.0276	0.0216
Venus	69701-04-26 00:00 G	27178942.32	27178942.50	27178942.69	0.0276	0.0129
Venus	69701-12-11 09:36 G	27179171.70	27179171.90	27179172.11	0.0276	0.0069
Venus	69702-07-28 19:55 G	27179401.27	27179401.33	27179401.38	0.0276	0.0265
Earth	69709-12-21 09:51 G	27182103.68	27182103.91	27182104.16	0.0281	0.0072
Moon	69709-12-21 12:00 G	27182103.75	27182104.00	27182104.25	0.0281	0.0070 *
Mercury	69712-04-22 11:31 G	27182956.93	27182956.98	27182957.04	0.0282	0.0263
Mercury	69712-07-20 03:22 G	27183045.50	27183045.64	27183045.79	0.0282	0.0113
Mercury	69712-10-16 19:55 G	27183134.17	27183134.33	27183134.48	0.0282	0.0043
Mercury	69713-01-13 12:29 G	27183222.91	27183223.02	27183223.13	0.0283	0.0201
Venus	69715-10-09 17:31 G	27184222.10	27184222.23	27184222.38	0.0283	0.0210
Venus	69716-05-26 07:41 G	27184451.61	27184451.82	27184452.03	0.0283	0.0003
Venus	69717-01-10 21:22 G	27184681.26	27184681.39	27184681.53	0.0282	0.0213
Earth	69724-06-21 18:43 G	27187400.06	27187400.28	27187400.52	0.0278	0.0082
Moon	69724-06-21 20:39 G	27187400.14	27187400.36	27187400.59	0.0278	0.0071 *
Mercury	69726-11-29 01:55 G	27188290.52	27188290.58	27188290.64	0.0277	0.0254
Mercury	69727-02-25 16:48 G	27188379.06	27188379.20	27188379.34	0.0277	0.0110
Mercury	69727-05-25 07:27 G	27188467.66	27188467.81	27188467.96	0.0277	0.0033
Mercury	69727-08-21 21:51 G	27188556.29	27188556.41	27188556.53	0.0277	0.0171
Venus	69730-11-06 03:22 G	27189728.45	27189728.64	27189728.84	0.0276	0.0104
Venus	69731-06-23 13:27 G	27189957.86	27189958.06	27189958.26	0.0277	0.0094
Earth	69739-12-29 13:55 G	27193068.98	27193069.08	27193069.21	0.0281	0.0247
Moon	69739-12-29 16:19 G	27193069.06	27193069.18	27193069.30	0.0281	0.0244 *
Mercury	69741-12-07 05:46 G	27193777.61	27193777.74	27193777.87	0.0282	0.0144
Mercury	69742-03-05 22:05 G	27193866.26	27193866.42	27193866.57	0.0282	0.0011
Mercury	69742-06-02 14:39 G	27193954.98	27193955.11	27193955.24	0.0282	0.0168
Venus	69745-04-21 03:51 G	27195008.50	27195008.66	27195008.83	0.0283	0.0169
Venus	69745-12-06 18:15 G	27195238.05	27195238.26	27195238.47	0.0283	0.0043
Venus	69746-07-24 07:41 G	27195467.74	27195467.82	27195467.92	0.0283	0.0254

Moon	69754-06-29 08:39 G	27198364.73	27198364.86	27198365.00	0.0277	0.0231
Earth	69754-06-29 12:15 G	27198364.88	27198365.01	27198365.16	0.0277	0.0226 *
Mercury	69756-07-14 19:41 G	27199111.19	27199111.32	27199111.45	0.0276	0.0137
Mercury	69756-10-11 10:19 G	27199199.78	27199199.93	27199200.08	0.0276	0.0007
Mercury	69757-01-08 00:43 G	27199288.40	27199288.53	27199288.66	0.0276	0.0144
Venus	69759-10-02 01:12 G	27200285.51	27200285.55	27200285.62	0.0275	0.0265
Venus	69760-05-18 10:48 G	27200514.75	27200514.95	27200515.16	0.0276	0.0069
Venus	69761-01-02 20:24 G	27200744.17	27200744.35	27200744.54	0.0276	0.0128
Moon	69768-12-22 15:22 G	27203654.88	27203655.14	27203655.39	0.0281	0.0014
Earth	69768-12-22 18:15 G	27203655.01	27203655.26	27203655.51	0.0281	0.0009 *
Mercury	69771-04-26 05:31 G	27204509.62	27204509.73	27204509.84	0.0282	0.0196
Mercury	69771-07-23 21:36 G	27204598.25	27204598.40	27204598.56	0.0282	0.0044
Mercury	69771-10-20 14:10 G	27204686.94	27204687.09	27204687.23	0.0283	0.0113
Mercury	69772-01-17 06:43 G	27204775.75	27204775.78	27204775.83	0.0283	0.0273
Venus	69774-11-01 05:03 G	27205794.54	27205794.71	27205794.90	0.0283	0.0147
Venus	69775-06-18 19:12 G	27206024.09	27206024.30	27206024.51	0.0283	0.0065
Venus	69776-02-03 08:39 G	27206253.82	27206253.86	27206253.92	0.0283	0.0275
Mars	69777-09-24 01:27 G	27206852.34	27206852.56	27206852.80	0.0282	0.0163
Earth	69783-06-24 02:24 G	27208951.36	27208951.60	27208951.84	0.0278	0.0020
Moon	69783-06-24 06:00 G	27208951.51	27208951.75	27208951.99	0.0278	0.0011 *
Mercury	69785-12-01 19:41 G	27209843.21	27209843.32	27209843.44	0.0277	0.0188
Mercury	69786-02-28 10:34 G	27209931.79	27209931.94	27209932.09	0.0276	0.0045
Mercury	69786-05-28 01:12 G	27210020.41	27210020.55	27210020.69	0.0276	0.0095
Mercury	69786-08-24 15:07 G	27210109.06	27210109.13	27210109.22	0.0276	0.0233
Venus	69789-04-13 03:36 G	27211071.55	27211071.65	27211071.75	0.0276	0.0242
Venus	69789-11-28 13:12 G	27211300.84	27211301.05	27211301.26	0.0276	0.0046
Venus	69790-07-15 23:03 G	27211530.28	27211530.46	27211530.64	0.0276	0.0152
Earth	69797-12-17 03:51 G	27214241.58	27214241.66	27214241.76	0.0281	0.0260
Moon	69797-12-17 06:58 G	27214241.72	27214241.79	27214241.89	0.0281	0.0262 *
Mercury	69800-09-13 07:12 G	27215241.72	27215241.80	27215241.89	0.0282	0.0233

Mercury	69800-12-10 23:17 G	27215330.32	27215330.47	27215330.62	0.0282	0.0082
Mercury	69801-03-09 15:36 G	27215419.00	27215419.15	27215419.30	0.0282	0.0074
Mercury	69801-06-06 08:24 G	27215507.76	27215507.85	27215507.94	0.0283	0.0233
Venus	69804-05-14 14:10 G	27216580.90	27216581.09	27216581.29	0.0283	0.0108
Venus	69804-12-30 04:34 G	27216810.49	27216810.69	27216810.89	0.0283	0.0104
Moon	69812-06-19 02:39 G	27219538.48	27219538.61	27219538.76	0.0278	0.0225
Earth	69812-06-19 06:15 G	27219538.64	27219538.76	27219538.89	0.0278	0.0238 *
Mercury	69815-04-21 22:19 G	27220575.34	27220575.43	27220575.53	0.0276	0.0216
Mercury	69815-07-19 13:27 G	27220663.91	27220664.06	27220664.21	0.0276	0.0072
Mercury	69815-10-16 03:51 G	27220752.52	27220752.66	27220752.81	0.0276	0.0069
Mercury	69816-01-12 18:15 G	27220841.16	27220841.26	27220841.36	0.0276	0.0205
Venus	69818-10-25 11:17 G	27221857.84	27221857.97	27221858.11	0.0275	0.0206
Venus	69819-06-11 20:39 G	27222087.15	27222087.36	27222087.58	0.0275	0.0012
Venus	69820-01-27 06:00 G	27222316.61	27222316.75	27222316.92	0.0276	0.0186
Mars	69822-01-02 13:12 G	27223022.91	27223023.05	27223023.22	0.0276	0.0240
Moon	69827-12-25 21:22 G	27225206.15	27225206.39	27225206.63	0.0281	0.0042
Earth	69827-12-26 00:29 G	27225206.27	27225206.52	27225206.76	0.0281	0.0050 *
Mercury	69830-04-29 23:03 G	27226062.33	27226062.46	27226062.60	0.0282	0.0133
Mercury	69830-07-27 15:22 G	27226150.98	27226151.14	27226151.30	0.0283	0.0021
Mercury	69830-10-24 07:55 G	27226239.71	27226239.83	27226239.95	0.0283	0.0179
Venus	69833-11-24 15:36 G	27227366.95	27227367.15	27227367.35	0.0283	0.0086
Venus	69834-07-12 05:31 G	27227596.54	27227596.73	27227596.92	0.0283	0.0125
Earth	69842-06-26 08:24 G	27230502.61	27230502.85	27230503.09	0.0277	0.0039
Moon	69842-06-26 08:39 G	27230502.61	27230502.86	27230503.11	0.0277	0.0044 *
Mercury	69844-09-07 22:05 G	27231307.40	27231307.42	27231307.46	0.0276	0.0270
Mercury	69844-12-05 13:12 G	27231395.92	27231396.05	27231396.19	0.0276	0.0125
Mercury	69845-03-04 03:51 G	27231484.51	27231484.66	27231484.82	0.0276	0.0018
Mercury	69845-05-31 18:15 G	27231573.14	27231573.26	27231573.39	0.0276	0.0155
Venus	69848-05-06 12:15 G	27232643.86	27232644.01	27232644.18	0.0276	0.0186
Venus	69848-12-21 21:51 G	27232873.20	27232873.41	27232873.63	0.0276	0.0011

Venus	69849-08-08 07:41 G	27233102.68	27233102.82	27233102.96	0.0276	0.0208
Earth	69856-12-19 07:12 G	27235792.64	27235792.80	27235792.98	0.0281	0.0205
Moon	69856-12-19 10:05 G	27235792.76	27235792.92	27235793.10	0.0281	0.0208 *
Mercury	69859-09-17 00:15 G	27236794.39	27236794.51	27236794.63	0.0282	0.0176
Mercury	69859-12-14 16:19 G	27236883.03	27236883.18	27236883.34	0.0282	0.0023
Mercury	69860-03-12 08:53 G	27236971.73	27236971.87	27236972.01	0.0283	0.0134
Venus	69862-10-20 08:10 G	27237923.77	27237923.84	27237923.92	0.0283	0.0262
Venus	69863-06-06 22:48 G	27238153.24	27238153.45	27238153.66	0.0283	0.0051
Venus	69864-01-22 13:12 G	27238382.88	27238383.05	27238383.22	0.0283	0.0161
Mars	69866-02-19 07:55 G	27239141.57	27239141.83	27239142.10	0.0282	0.0089
Moon	69871-06-21 10:34 G	27241089.76	27241089.94	27241090.13	0.0278	0.0168
Earth	69871-06-21 11:31 G	27241089.80	27241089.98	27241090.17	0.0278	0.0179 *
Mercury	69874-04-24 16:05 G	27242128.04	27242128.17	27242128.30	0.0276	0.0152
Mercury	69874-07-22 06:43 G	27242216.63	27242216.78	27242216.94	0.0276	0.0012
Mercury	69874-10-18 21:07 G	27242305.25	27242305.38	27242305.52	0.0276	0.0129
Mercury	69875-01-15 11:17 G	27242393.93	27242393.97	27242394.01	0.0276	0.0264
Venus	69877-11-16 20:24 G	27243430.18	27243430.35	27243430.53	0.0275	0.0150
Venus	69878-07-04 05:46 G	27243659.54	27243659.74	27243659.96	0.0275	0.0046
Venus	69879-02-18 15:07 G	27243889.04	27243889.13	27243889.24	0.0275	0.0242
Earth	69886-12-27 04:05 G	27246757.44	27246757.67	27246757.90	0.0281	0.0105
Moon	69886-12-27 05:03 G	27246757.49	27246757.71	27246757.94	0.0281	0.0096 *
Mercury	69889-02-03 00:15 G	27247526.42	27247526.51	27247526.60	0.0282	0.0225
Mercury	69889-05-02 16:05 G	27247615.03	27247615.17	27247615.33	0.0283	0.0075
Mercury	69889-07-30 08:39 G	27247703.71	27247703.86	27247704.01	0.0283	0.0081
Mercury	69889-10-27 01:12 G	27247792.47	27247792.55	27247792.64	0.0283	0.0240
Venus	69892-05-01 09:51 G	27248709.81	27248709.91	27248710.03	0.0283	0.0240
Venus	69892-12-17 00:29 G	27248939.31	27248939.52	27248939.73	0.0283	0.0028
Venus	69893-08-03 14:24 G	27249168.94	27249169.10	27249169.26	0.0283	0.0183
Moon	69901-06-28 09:36 G	27252053.68	27252053.90	27252054.14	0.0277	0.0099
Earth	69901-06-28 13:12 G	27252053.82	27252054.05	27252054.28	0.0277	0.0095 *

Mercury	69903-09-12 15:36 G	27252860.05	27252860.15	27252860.25	0.0276	0.0208
Mercury	69903-12-10 06:29 G	27252948.62	27252948.77	27252948.92	0.0276	0.0065
Mercury	69904-03-07 21:07 G	27253037.23	27253037.38	27253037.52	0.0276	0.0075
Mercury	69904-06-04 11:17 G	27253125.88	27253125.97	27253126.07	0.0276	0.0212
Venus	69907-05-30 20:39 G	27254216.18	27254216.36	27254216.55	0.0276	0.0131
Venus	69908-01-15 06:00 G	27254445.55	27254445.75	27254445.96	0.0276	0.0065
Venus	69908-08-31 15:36 G	27254675.09	27254675.15	27254675.22	0.0276	0.0261
Mars	69910-05-29 14:53 G	27255310.93	27255311.12	27255311.35	0.0277	0.0202
Moon	69915-12-22 07:12 G	27257343.60	27257343.80	27257344.02	0.0281	0.0161
Earth	69915-12-22 08:39 G	27257343.66	27257343.86	27257344.07	0.0281	0.0154 *
Mercury	69918-06-24 00:58 G	27258258.50	27258258.54	27258258.58	0.0282	0.0272
Mercury	69918-09-20 16:48 G	27258347.06	27258347.20	27258347.34	0.0282	0.0121
Mercury	69918-12-18 09:07 G	27258435.72	27258435.88	27258436.03	0.0283	0.0034
Mercury	69919-03-17 01:41 G	27258524.45	27258524.57	27258524.68	0.0283	0.0191
Venus	69921-11-12 15:51 G	27259496.02	27259496.16	27259496.31	0.0283	0.0207
Venus	69922-06-30 06:29 G	27259725.56	27259725.77	27259725.98	0.0283	0.0006
Venus	69923-02-14 20:53 G	27259955.24	27259955.37	27259955.50	0.0283	0.0216
Earth	69930-06-23 15:22 G	27262640.93	27262641.14	27262641.36	0.0278	0.0123
Moon	69930-06-23 18:15 G	27262641.05	27262641.26	27262641.49	0.0278	0.0113 *
Mercury	69933-01-29 18:15 G	27263592.18	27263592.26	27263592.34	0.0276	0.0236
Mercury	69933-04-28 09:07 G	27263680.74	27263680.88	27263681.03	0.0276	0.0092
Mercury	69933-07-25 23:46 G	27263769.34	27263769.49	27263769.64	0.0276	0.0049
Mercury	69933-10-22 14:10 G	27263857.98	27263858.09	27263858.20	0.0276	0.0186
Venus	69936-12-10 04:48 G	27265002.50	27265002.70	27265002.90	0.0275	0.0095
Venus	69937-07-27 14:10 G	27265231.89	27265232.09	27265232.29	0.0275	0.0101
Earth	69945-12-29 06:15 G	27268308.56	27268308.76	27268308.97	0.0281	0.0158
Moon	69945-12-29 09:36 G	27268308.70	27268308.90	27268309.12	0.0281	0.0147 *
Mercury	69948-02-07 16:48 G	27269079.08	27269079.20	27269079.33	0.0282	0.0171
Mercury	69948-05-06 08:53 G	27269167.72	27269167.87	27269168.03	0.0283	0.0020
Mercury	69948-08-03 01:27 G	27269256.42	27269256.56	27269256.70	0.0283	0.0139

Venus	69951-05-25 17:31 G	27270282.08	27270282.23	27270282.40	0.0283	0.0186
Venus	69952-01-10 08:10 G	27270511.63	27270511.84	27270512.06	0.0283	0.0028
Venus	69952-08-26 22:05 G	27270741.32	27270741.42	27270741.54	0.0283	0.0238
Mars	69954-07-16 09:36 G	27271429.64	27271429.90	27271430.18	0.0282	0.0063
Moon	69960-06-29 13:55 G	27273604.90	27273605.08	27273605.29	0.0277	0.0153
Earth	69960-06-29 16:19 G	27273604.99	27273605.18	27273605.39	0.0277	0.0151 *
Mercury	69962-09-15 08:39 G	27274412.73	27274412.86	27274412.99	0.0276	0.0149
Mercury	69962-12-12 23:31 G	27274501.33	27274501.48	27274501.63	0.0276	0.0008
Mercury	69963-03-11 13:55 G	27274589.95	27274590.08	27274590.21	0.0276	0.0131
Mercury	69963-06-08 03:51 G	27274678.64	27274678.66	27274678.70	0.0276	0.0267
Venus	69965-11-04 19:27 G	27275559.28	27275559.31	27275559.36	0.0276	0.0270
Venus	69966-06-22 04:48 G	27275788.49	27275788.70	27275788.90	0.0276	0.0076
Venus	69967-02-06 13:55 G	27276017.89	27276018.08	27276018.27	0.0276	0.0120
Moon	69974-12-23 05:17 G	27278894.49	27278894.72	27278894.95	0.0281	0.0114
Earth	69974-12-23 08:53 G	27278894.64	27278894.87	27278895.10	0.0281	0.0104 *
Mercury	69977-06-26 17:03 G	27279811.12	27279811.21	27279811.30	0.0282	0.0221
Mercury	69977-09-23 08:53 G	27279899.73	27279899.87	27279900.03	0.0282	0.0071
Mercury	69977-12-21 01:27 G	27279988.41	27279988.56	27279988.71	0.0283	0.0086
Mercury	69978-03-19 18:00 G	27280077.18	27280077.25	27280077.33	0.0283	0.0245
Venus	69980-12-04 22:19 G	27281068.25	27281068.43	27281068.61	0.0283	0.0155
Venus	69981-07-22 12:58 G	27281297.83	27281298.04	27281298.25	0.0283	0.0058
Venus	69982-03-09 03:07 G	27281527.57	27281527.63	27281527.70	0.0283	0.0269
Earth	69989-06-24 17:46 G	27284192.01	27284192.24	27284192.48	0.0278	0.0070
Moon	69989-06-24 20:39 G	27284192.12	27284192.36	27284192.60	0.0278	0.0062 *
Mercury	69992-02-02 11:03 G	27285144.85	27285144.96	27285145.09	0.0276	0.0178
Mercury	69992-05-01 02:10 G	27285233.44	27285233.59	27285233.74	0.0276	0.0035
Mercury	69992-07-28 16:34 G	27285322.05	27285322.19	27285322.33	0.0276	0.0105
Mercury	69992-10-25 06:43 G	27285410.71	27285410.78	27285410.86	0.0276	0.0241
Venus	69995-05-18 03:51 G	27286345.56	27286345.66	27286345.77	0.0275	0.0235
Venus	69996-01-02 12:58 G	27286574.83	27286575.04	27286575.25	0.0275	0.0041

Venus	69996-08-18 22:05 G	27286804.25	27286804.42	27286804.60	0.0275	0.0154
Mars	69998-10-23 12:29 G	27287599.75	27287600.02	27287600.29	0.0276	0.0133

71ST MILLENNIUM CE

This is a list of transits visible from Saturn in the 71st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	70004-12-30 07:41 G		27289859.66	27289859.82	27289859.99	0.0281	0.0209	
Moon	70004-12-30 08:39 G		27289859.68	27289859.86	27289860.05	0.0281	0.0196	*
Mercury	70006-11-13 17:31 G		27290543.19	27290543.23	27290543.28	0.0282	0.0266	
Mercury	70007-02-10 09:22 G		27290631.75	27290631.89	27290632.03	0.0282	0.0117	
Mercury	70007-05-10 01:41 G		27290720.41	27290720.57	27290720.72	0.0283	0.0037	
Mercury	70007-08-06 18:00 G		27290809.14	27290809.25	27290809.37	0.0283	0.0195	
Venus	70010-06-17 00:58 G		27291854.36	27291854.54	27291854.73	0.0283	0.0131	
Venus	70011-02-01 15:36 G		27292083.94	27292084.15	27292084.35	0.0283	0.0082	
Earth	70019-07-01 19:12 G		27295156.14	27295156.30	27295156.47	0.0277	0.0204	
Moon	70019-07-01 21:07 G		27295156.23	27295156.38	27295156.55	0.0277	0.0202	*
Mercury	70021-06-21 10:34 G		27295876.86	27295876.94	27295877.02	0.0276	0.0235	
Mercury	70021-09-18 01:27 G		27295965.42	27295965.56	27295965.71	0.0276	0.0092	
Mercury	70021-12-15 16:19 G		27296054.03	27296054.18	27296054.33	0.0276	0.0049	
Mercury	70022-03-14 06:29 G		27296142.67	27296142.77	27296142.88	0.0276	0.0186	
Venus	70024-11-27 03:07 G		27297131.51	27297131.63	27297131.77	0.0275	0.0217	
Venus	70025-07-14 12:29 G		27297360.80	27297361.02	27297361.23	0.0275	0.0023	
Venus	70026-02-28 21:22 G		27297590.23	27297590.39	27297590.56	0.0276	0.0173	

Moon	70033-12-24 08:24 G	27300445.62	27300445.85	27300446.08	0.0281	0.0066
Earth	70033-12-24 09:07 G	27300445.63	27300445.88	27300446.12	0.0281	0.0054 *
Mercury	70036-06-29 09:07 G	27301363.76	27301363.88	27301364.00	0.0282	0.0171
Mercury	70036-09-26 01:12 G	27301452.39	27301452.55	27301452.71	0.0282	0.0019
Mercury	70036-12-23 17:31 G	27301541.10	27301541.23	27301541.37	0.0283	0.0138
Venus	70039-12-28 04:19 G	27302640.49	27302640.68	27302640.88	0.0283	0.0103
Venus	70040-08-13 18:58 G	27302870.10	27302870.29	27302870.49	0.0283	0.0109
Mars	70042-12-09 20:53 G	27303718.09	27303718.37	27303718.65	0.0283	0.0021
Moon	70048-06-25 16:48 G	27305742.96	27305743.20	27305743.45	0.0279	0.0019
Earth	70048-06-25 19:12 G	27305743.06	27305743.30	27305743.54	0.0279	0.0018 *
Mercury	70050-11-08 12:58 G	27306609.00	27306609.04	27306609.08	0.0277	0.0265
Mercury	70051-02-05 04:05 G	27306697.53	27306697.67	27306697.81	0.0277	0.0120
Mercury	70051-05-04 18:43 G	27306786.13	27306786.28	27306786.44	0.0276	0.0022
Mercury	70051-08-01 09:07 G	27306874.76	27306874.88	27306875.01	0.0276	0.0160
Venus	70054-06-09 11:46 G	27307917.84	27307917.99	27307918.15	0.0275	0.0182
Venus	70055-01-24 20:53 G	27308147.16	27308147.37	27308147.58	0.0275	0.0013
Venus	70055-09-11 06:00 G	27308376.61	27308376.75	27308376.89	0.0275	0.0207
Moon	70064-01-01 06:15 G	27311410.64	27311410.76	27311410.89	0.0281	0.0244
Earth	70064-01-01 09:07 G	27311410.81	27311410.88	27311410.99	0.0281	0.0261 *
Mercury	70065-11-16 09:51 G	27312095.82	27312095.91	27312096.02	0.0282	0.0214
Mercury	70066-02-13 01:55 G	27312184.43	27312184.58	27312184.73	0.0282	0.0063
Mercury	70066-05-12 18:15 G	27312273.11	27312273.26	27312273.41	0.0283	0.0092
Mercury	70066-08-09 10:48 G	27312361.88	27312361.95	27312362.02	0.0283	0.0250
Venus	70069-07-09 07:55 G	27313426.63	27313426.83	27313427.03	0.0283	0.0077
Venus	70070-02-23 22:19 G	27313656.24	27313656.43	27313656.61	0.0283	0.0135
Earth	70077-06-20 06:58 G	27316329.74	27316329.79	27316329.86	0.0278	0.0268
Moon	70077-06-20 09:36 G	27316329.84	27316329.90	27316329.97	0.0278	0.0266 *
Earth	70078-07-02 21:22 G	27316707.31	27316707.39	27316707.49	0.0277	0.0256
Moon	70078-07-03 00:58 G	27316707.44	27316707.54	27316707.65	0.0277	0.0250 *
Mercury	70080-06-24 03:36 G	27317429.53	27317429.65	27317429.77	0.0276	0.0177

Mercury	70080-09-20 18:29 G	27317518.12	27317518.27	27317518.42	0.0276	0.0035
Mercury	70080-12-18 08:53 G	27317606.74	27317606.87	27317607.02	0.0276	0.0105
Mercury	70081-03-16 23:17 G	27317695.40	27317695.47	27317695.54	0.0276	0.0241
Venus	70083-12-20 11:17 G	27318703.80	27318703.97	27318704.14	0.0275	0.0164
Venus	70084-08-05 20:10 G	27318933.13	27318933.34	27318933.56	0.0275	0.0032
Venus	70085-03-23 05:17 G	27319162.60	27319162.72	27319162.85	0.0275	0.0226
Mars	70087-03-18 06:15 G	27319887.49	27319887.76	27319888.06	0.0276	0.0106
Earth	70092-12-25 09:36 G	27321996.65	27321996.90	27321997.14	0.0281	0.0006
Moon	70092-12-25 13:12 G	27321996.80	27321997.05	27321997.29	0.0281	0.0020 *
Mercury	70095-04-05 09:22 G	27322827.85	27322827.89	27322827.94	0.0282	0.0270
Mercury	70095-07-03 01:12 G	27322916.41	27322916.55	27322916.69	0.0282	0.0121
Mercury	70095-09-29 17:31 G	27323005.07	27323005.23	27323005.38	0.0282	0.0033
Mercury	70095-12-27 09:51 G	27323093.80	27323093.91	27323094.03	0.0283	0.0191
Venus	70098-06-03 19:41 G	27323983.24	27323983.32	27323983.40	0.0283	0.0263
Venus	70099-01-19 10:34 G	27324212.73	27324212.94	27324213.15	0.0283	0.0051
Venus	70099-09-06 00:58 G	27324442.37	27324442.54	27324442.72	0.0283	0.0161
Moon	70107-06-28 17:17 G	27327293.98	27327294.22	27327294.46	0.0279	0.0029
Earth	70107-06-28 20:39 G	27327294.12	27327294.36	27327294.60	0.0279	0.0033 *
Mercury	70109-11-12 05:46 G	27328161.64	27328161.74	27328161.84	0.0277	0.0208
Mercury	70110-02-08 20:53 G	27328250.22	27328250.37	27328250.52	0.0277	0.0064
Mercury	70110-05-08 11:31 G	27328338.83	27328338.98	27328339.12	0.0277	0.0077
Mercury	70110-08-05 01:55 G	27328427.48	27328427.58	27328427.67	0.0276	0.0214
Venus	70113-07-02 19:41 G	27329490.14	27329490.32	27329490.51	0.0275	0.0129
Venus	70114-02-17 04:48 G	27329719.49	27329719.70	27329719.91	0.0275	0.0066
Venus	70114-10-04 13:41 G	27329949.02	27329949.07	27329949.15	0.0275	0.0260
Moon	70121-12-20 18:43 G	27332583.19	27332583.28	27332583.38	0.0280	0.0259
Earth	70121-12-20 22:34 G	27332583.32	27332583.44	27332583.57	0.0280	0.0243 *
Mercury	70124-11-20 02:39 G	27333648.48	27333648.61	27333648.74	0.0282	0.0159
Mercury	70125-02-16 18:43 G	27333737.12	27333737.28	27333737.43	0.0282	0.0011
Mercury	70125-05-16 11:03 G	27333825.82	27333825.96	27333826.09	0.0282	0.0148

Venus	70127-12-16 00:43 G	27334769.42	27334769.53	27334769.65	0.0283	0.0235
Venus	70128-08-01 15:22 G	27334998.93	27334999.14	27334999.35	0.0283	0.0023
Venus	70129-03-19 05:17 G	27335228.57	27335228.72	27335228.89	0.0283	0.0189
Mars	70131-05-06 00:58 G	27336006.26	27336006.54	27336006.82	0.0283	0.0012
Earth	70136-06-22 08:53 G	27337880.74	27337880.87	27337881.04	0.0279	0.0217
Moon	70136-06-22 12:29 G	27337880.87	27337881.02	27337881.18	0.0279	0.0215 *
Mercury	70139-04-01 05:17 G	27338893.68	27338893.72	27338893.77	0.0276	0.0264
Mercury	70139-06-28 20:24 G	27338982.22	27338982.35	27338982.49	0.0276	0.0120
Mercury	70139-09-25 11:17 G	27339070.82	27339070.97	27339071.12	0.0276	0.0022
Mercury	70139-12-23 01:41 G	27339159.45	27339159.57	27339159.70	0.0276	0.0160
Venus	70143-01-12 19:41 G	27340276.12	27340276.32	27340276.51	0.0275	0.0109
Venus	70143-08-30 04:34 G	27340505.49	27340505.69	27340505.89	0.0275	0.0085
Earth	70151-12-28 11:46 G	27343547.75	27343547.99	27343548.24	0.0280	0.0049
Moon	70151-12-28 13:55 G	27343547.82	27343548.08	27343548.33	0.0280	0.0033 *
Mercury	70154-04-09 01:55 G	27344380.48	27344380.58	27344380.68	0.0282	0.0217
Mercury	70154-07-06 17:46 G	27344469.09	27344469.24	27344469.39	0.0282	0.0067
Mercury	70154-10-03 10:05 G	27344557.77	27344557.92	27344558.07	0.0282	0.0088
Mercury	70154-12-31 02:39 G	27344646.54	27344646.61	27344646.69	0.0282	0.0246
Venus	70157-06-27 02:24 G	27345555.47	27345555.60	27345555.75	0.0283	0.0210
Venus	70158-02-11 17:17 G	27345785.01	27345785.22	27345785.43	0.0283	0.0003
Venus	70158-09-29 07:27 G	27346014.68	27346014.81	27346014.96	0.0283	0.0213
Earth	70166-06-29 21:51 G	27348845.18	27348845.41	27348845.64	0.0279	0.0084
Moon	70166-06-29 22:48 G	27348845.22	27348845.45	27348845.67	0.0279	0.0077 *
Mercury	70168-11-14 22:34 G	27349714.32	27349714.44	27349714.57	0.0277	0.0151
Mercury	70169-02-11 13:41 G	27349802.91	27349803.07	27349803.22	0.0277	0.0009
Mercury	70169-05-11 04:19 G	27349891.54	27349891.68	27349891.81	0.0277	0.0132
Mercury	70169-08-07 18:29 G	27349980.24	27349980.27	27349980.30	0.0277	0.0268
Venus	70171-12-08 19:12 G	27350833.25	27350833.30	27350833.34	0.0276	0.0269
Venus	70172-07-25 04:05 G	27351062.47	27351062.67	27351062.88	0.0275	0.0075
Venus	70173-03-11 13:12 G	27351291.86	27351292.05	27351292.24	0.0275	0.0120

Mars	70175-08-13 12:58 G	27352176.73	27352177.04	27352177.35	0.0276	0.0020
Moon	70180-12-22 00:58 G	27354134.38	27354134.54	27354134.70	0.0280	0.0204
Earth	70180-12-22 02:10 G	27354134.42	27354134.59	27354134.79	0.0280	0.0189 *
Mercury	70183-08-27 03:36 G	27355112.59	27355112.65	27355112.72	0.0282	0.0251
Mercury	70183-11-23 19:27 G	27355201.17	27355201.31	27355201.46	0.0282	0.0102
Mercury	70184-02-20 11:31 G	27355289.83	27355289.98	27355290.14	0.0282	0.0051
Mercury	70184-05-19 04:05 G	27355378.56	27355378.67	27355378.78	0.0282	0.0208
Venus	70187-01-07 08:39 G	27356341.71	27356341.86	27356342.03	0.0283	0.0180
Venus	70187-08-24 23:17 G	27356571.26	27356571.47	27356571.68	0.0283	0.0032
Venus	70188-04-10 13:27 G	27356800.96	27356801.06	27356801.17	0.0283	0.0243
Moon	70195-06-24 12:00 G	27359431.80	27359432.00	27359432.20	0.0279	0.0164
Earth	70195-06-24 12:29 G	27359431.83	27359432.02	27359432.22	0.0279	0.0162 *
Mercury	70198-04-03 22:34 G	27360446.34	27360446.44	27360446.55	0.0276	0.0203
Mercury	70198-07-01 13:41 G	27360534.92	27360535.07	27360535.22	0.0276	0.0060
Mercury	70198-09-28 04:19 G	27360623.54	27360623.68	27360623.83	0.0276	0.0081
Mercury	70198-12-25 18:43 G	27360712.19	27360712.28	27360712.37	0.0276	0.0218
Venus	70201-06-20 19:41 G	27361619.24	27361619.32	27361619.42	0.0275	0.0248
Venus	70202-02-05 04:48 G	27361848.49	27361848.70	27361848.90	0.0275	0.0055
Venus	70202-09-22 13:27 G	27362077.89	27362078.06	27362078.25	0.0275	0.0141
Moon	70210-12-30 12:58 G	27365098.80	27365099.04	27365099.29	0.0280	0.0089
Earth	70210-12-30 15:51 G	27365098.94	27365099.16	27365099.40	0.0280	0.0105 *
Mercury	70213-04-12 18:43 G	27365933.15	27365933.28	27365933.41	0.0282	0.0160
Mercury	70213-07-10 10:48 G	27366021.79	27366021.95	27366022.10	0.0282	0.0010
Mercury	70213-10-07 03:07 G	27366110.49	27366110.63	27366110.76	0.0282	0.0147
Venus	70216-07-20 10:34 G	27367127.77	27367127.94	27367128.12	0.0283	0.0155
Venus	70217-03-07 01:12 G	27367357.34	27367357.55	27367357.75	0.0283	0.0056
Venus	70217-10-22 15:22 G	27367587.07	27367587.14	27367587.21	0.0283	0.0266
Mars	70219-09-30 06:58 G	27368294.52	27368294.79	27368295.07	0.0283	0.0048
Earth	70225-07-02 00:00 G	27370396.29	27370396.50	27370396.72	0.0279	0.0136
Moon	70225-07-02 03:36 G	27370396.44	27370396.65	27370396.87	0.0279	0.0126 *

Mercury	70227-08-23 00:29 G	27371178.44	27371178.52	27371178.60	0.0277	0.0238
Mercury	70227-11-19 15:36 G	27371267.01	27371267.15	27371267.30	0.0277	0.0093
Mercury	70228-02-16 06:29 G	27371355.62	27371355.77	27371355.92	0.0277	0.0050
Mercury	70228-05-14 21:07 G	27371444.27	27371444.38	27371444.49	0.0277	0.0188
Venus	70231-01-01 03:51 G	27372405.53	27372405.66	27372405.79	0.0276	0.0215
Venus	70231-08-18 12:58 G	27372634.83	27372635.04	27372635.25	0.0276	0.0021
Venus	70232-04-03 22:05 G	27372864.26	27372864.42	27372864.59	0.0276	0.0175
Earth	70239-12-25 08:39 G	27375685.64	27375685.86	27375686.08	0.0279	0.0130
Moon	70239-12-25 11:03 G	27375685.77	27375685.96	27375686.18	0.0279	0.0146 *
Mercury	70242-08-30 21:07 G	27376665.27	27376665.38	27376665.49	0.0282	0.0190
Mercury	70242-11-27 12:58 G	27376753.89	27376754.04	27376754.19	0.0282	0.0040
Mercury	70243-02-24 05:03 G	27376842.57	27376842.71	27376842.86	0.0282	0.0115
Mercury	70243-05-23 21:36 G	27376931.37	27376931.40	27376931.45	0.0282	0.0272
Venus	70246-01-30 18:15 G	27377914.07	27377914.26	27377914.45	0.0283	0.0122
Venus	70246-09-17 08:24 G	27378143.66	27378143.85	27378144.06	0.0283	0.0090
Moon	70254-06-26 12:58 G	27380982.82	27380983.04	27380983.27	0.0279	0.0112
Earth	70254-06-26 16:34 G	27380982.97	27380983.19	27380983.42	0.0279	0.0107 *
Mercury	70257-04-07 16:05 G	27381999.04	27381999.17	27381999.30	0.0277	0.0141
Mercury	70257-07-05 06:58 G	27382087.64	27382087.79	27382087.95	0.0276	0.0008
Mercury	70257-10-01 21:36 G	27382176.27	27382176.40	27382176.53	0.0276	0.0141
Venus	70260-07-13 05:31 G	27383191.58	27383191.73	27383191.88	0.0275	0.0191
Venus	70261-02-27 14:24 G	27383420.89	27383421.10	27383421.32	0.0275	0.0005
Venus	70261-10-14 23:31 G	27383650.33	27383650.48	27383650.63	0.0275	0.0196
Mars	70264-01-07 17:17 G	27384464.91	27384465.22	27384465.53	0.0276	0.0026
Moon	70269-12-31 19:12 G	27386650.10	27386650.30	27386650.51	0.0280	0.0150
Earth	70269-12-31 22:19 G	27386650.23	27386650.43	27386650.64	0.0280	0.0164 *
Mercury	70272-01-17 20:24 G	27387397.28	27387397.35	27387397.42	0.0282	0.0247
Mercury	70272-04-15 12:00 G	27387485.86	27387486.00	27387486.15	0.0282	0.0099
Mercury	70272-07-13 04:19 G	27387574.52	27387574.68	27387574.83	0.0282	0.0054
Mercury	70272-10-09 20:39 G	27387663.26	27387663.36	27387663.47	0.0282	0.0210

Venus	70275-08-12 19:41 G	27388700.13	27388700.32	27388700.52	0.0283	0.0098
Venus	70276-03-29 10:05 G	27388929.73	27388929.92	27388930.12	0.0283	0.0113
Earth	70284-07-03 04:05 G	27391947.50	27391947.67	27391947.85	0.0279	0.0190
Moon	70284-07-03 05:17 G	27391947.54	27391947.72	27391947.92	0.0279	0.0181 *
Mercury	70286-08-25 18:00 G	27392731.13	27392731.25	27392731.37	0.0278	0.0176
Mercury	70286-11-22 08:53 G	27392819.72	27392819.87	27392820.03	0.0277	0.0033
Mercury	70287-02-18 23:46 G	27392908.35	27392908.49	27392908.63	0.0277	0.0109
Mercury	70287-05-18 14:10 G	27392997.02	27392997.09	27392997.16	0.0277	0.0247
Venus	70290-01-23 13:27 G	27393977.89	27393978.06	27393978.24	0.0276	0.0159
Venus	70290-09-09 22:48 G	27394207.24	27394207.45	27394207.66	0.0276	0.0036
Venus	70291-04-27 07:55 G	27394436.72	27394436.83	27394436.95	0.0276	0.0231
Earth	70298-12-26 16:34 G	27397236.95	27397237.19	27397237.43	0.0279	0.0069
Moon	70298-12-26 19:55 G	27397237.09	27397237.33	27397237.57	0.0279	0.0084 *
Mercury	70301-06-06 23:17 G	27398129.44	27398129.47	27398129.51	0.0282	0.0272
Mercury	70301-09-03 14:53 G	27398217.98	27398218.12	27398218.26	0.0282	0.0125
Mercury	70301-12-01 06:58 G	27398306.63	27398306.79	27398306.94	0.0282	0.0027
Mercury	70302-02-27 23:03 G	27398395.35	27398395.46	27398395.59	0.0282	0.0183
Venus	70304-07-08 14:10 G	27399257.04	27399257.09	27399257.16	0.0283	0.0272
Venus	70305-02-23 04:48 G	27399486.50	27399486.70	27399486.91	0.0283	0.0062
Venus	70305-10-10 18:58 G	27399716.12	27399716.29	27399716.47	0.0283	0.0149
Mars	70308-02-25 07:27 G	27400583.57	27400583.81	27400584.07	0.0283	0.0118
Moon	70313-06-28 20:53 G	27402534.14	27402534.37	27402534.60	0.0279	0.0056
Earth	70313-06-28 22:34 G	27402534.20	27402534.44	27402534.68	0.0279	0.0049 *
Mercury	70316-01-13 18:43 G	27403463.19	27403463.28	27403463.37	0.0277	0.0221
Mercury	70316-04-11 09:51 G	27403551.76	27403551.91	27403552.06	0.0277	0.0077
Mercury	70316-07-09 00:43 G	27403640.38	27403640.53	27403640.67	0.0276	0.0065
Mercury	70316-10-05 15:07 G	27403729.03	27403729.13	27403729.23	0.0276	0.0202
Venus	70319-08-06 16:05 G	27404763.98	27404764.17	27404764.35	0.0275	0.0134
Venus	70320-03-23 00:58 G	27404993.34	27404993.54	27404993.75	0.0275	0.0061
Venus	70320-11-07 10:19 G	27405222.85	27405222.93	27405223.01	0.0275	0.0254

Earth	70329-01-03 07:12 G	27408201.67	27408201.80	27408201.95	0.0280	0.0228
Moon	70329-01-03 07:55 G	27408201.68	27408201.83	27408201.99	0.0280	0.0215 *
Mercury	70331-01-21 14:24 G	27408949.98	27408950.10	27408950.21	0.0282	0.0181
Mercury	70331-04-20 06:15 G	27409038.60	27409038.76	27409038.91	0.0282	0.0032
Mercury	70331-07-17 22:19 G	27409127.29	27409127.43	27409127.57	0.0282	0.0123
Mercury	70331-10-14 14:53 G	27409216.11	27409216.12	27409216.14	0.0282	0.0280
Venus	70334-01-18 15:51 G	27410043.06	27410043.16	27410043.26	0.0283	0.0248
Venus	70334-09-05 06:29 G	27410272.56	27410272.77	27410272.98	0.0283	0.0038
Venus	70335-04-22 20:53 G	27410502.21	27410502.37	27410502.54	0.0283	0.0172
Moon	70343-07-06 06:15 G	27413498.63	27413498.76	27413498.91	0.0279	0.0232
Earth	70343-07-06 09:07 G	27413498.77	27413498.88	27413499.00	0.0279	0.0246 *
Mercury	70345-06-01 20:10 G	27414195.29	27414195.34	27414195.39	0.0278	0.0259
Mercury	70345-08-29 11:31 G	27414283.84	27414283.98	27414284.12	0.0278	0.0113
Mercury	70345-11-26 02:24 G	27414372.45	27414372.60	27414372.76	0.0277	0.0031
Mercury	70346-02-22 17:03 G	27414461.10	27414461.21	27414461.33	0.0277	0.0170
Venus	70349-02-15 23:46 G	27415550.30	27415550.49	27415550.69	0.0276	0.0102
Venus	70349-10-03 09:07 G	27415779.68	27415779.88	27415780.08	0.0276	0.0094
Mars	70352-06-04 11:03 G	27416754.69	27416754.96	27416755.24	0.0276	0.0132
Moon	70357-12-29 02:24 G	27418788.34	27418788.60	27418788.86	0.0279	0.0020
Earth	70357-12-29 02:39 G	27418788.36	27418788.61	27418788.86	0.0279	0.0005 *
Mercury	70360-06-09 17:17 G	27419682.12	27419682.22	27419682.33	0.0282	0.0205
Mercury	70360-09-06 09:07 G	27419770.73	27419770.88	27419771.03	0.0282	0.0056
Mercury	70360-12-04 01:12 G	27419859.41	27419859.55	27419859.70	0.0282	0.0097
Mercury	70361-03-02 17:31 G	27419948.17	27419948.23	27419948.31	0.0282	0.0255
Venus	70363-08-01 02:24 G	27420829.46	27420829.60	27420829.74	0.0283	0.0209
Venus	70364-03-17 16:48 G	27421058.99	27421059.20	27421059.41	0.0283	0.0004
Venus	70364-11-02 06:43 G	27421288.65	27421288.78	27421288.93	0.0283	0.0211
Earth	70372-06-30 06:15 G	27424085.51	27424085.76	27424086.00	0.0279	0.0013
Moon	70372-06-30 08:53 G	27424085.64	27424085.87	27424086.11	0.0279	0.0005 *
Mercury	70375-01-16 12:43 G	27425015.91	27425016.03	27425016.16	0.0277	0.0153

Mercury	70375-04-15 03:51 G	27425104.51	27425104.66	27425104.82	0.0277	0.0011
Mercury	70375-07-12 18:29 G	27425193.14	27425193.27	27425193.41	0.0277	0.0131
Mercury	70375-10-09 08:53 G	27425281.84	27425281.87	27425281.91	0.0276	0.0267
Venus	70378-01-11 18:29 G	27426107.22	27426107.27	27426107.32	0.0275	0.0267
Venus	70378-08-29 03:22 G	27426336.44	27426336.64	27426336.85	0.0275	0.0074
Venus	70379-04-15 12:29 G	27426565.84	27426566.02	27426566.22	0.0275	0.0120
Earth	70386-12-23 06:15 G	27429374.68	27429374.76	27429374.87	0.0279	0.0257
Moon	70386-12-23 06:58 G	27429374.76	27429374.79	27429374.84	0.0279	0.0275 *
Moon	70388-01-05 21:22 G	27429753.38	27429753.39	27429753.42	0.0280	0.0279
Mercury	70389-10-27 17:03 G	27430414.15	27430414.21	27430414.27	0.0282	0.0258
Mercury	70390-01-24 08:39 G	27430502.72	27430502.86	27430503.00	0.0282	0.0111
Mercury	70390-04-23 00:43 G	27430591.37	27430591.53	27430591.68	0.0282	0.0041
Mercury	70390-07-20 16:48 G	27430680.10	27430680.20	27430680.32	0.0282	0.0196
Venus	70393-02-10 03:51 G	27431615.51	27431615.66	27431615.83	0.0283	0.0186
Venus	70393-09-27 18:29 G	27431845.06	27431845.27	27431845.48	0.0283	0.0025
Venus	70394-05-15 08:39 G	27432074.75	27432074.86	27432074.99	0.0283	0.0234
Mars	70396-07-20 22:05 G	27432872.21	27432872.42	27432872.65	0.0283	0.0174
Moon	70401-06-24 19:27 G	27434672.20	27434672.31	27434672.46	0.0280	0.0237
Earth	70401-06-24 22:34 G	27434672.32	27434672.44	27434672.60	0.0280	0.0227 *
Mercury	70404-06-04 14:10 G	27435747.98	27435748.09	27435748.20	0.0278	0.0192
Mercury	70404-09-01 05:17 G	27435836.57	27435836.72	27435836.88	0.0278	0.0048
Mercury	70404-11-28 20:10 G	27435925.20	27435925.34	27435925.49	0.0277	0.0095
Mercury	70405-02-25 10:48 G	27436013.87	27436013.95	27436014.03	0.0277	0.0233
Venus	70407-07-25 01:12 G	27436893.45	27436893.55	27436893.66	0.0276	0.0237
Venus	70408-03-10 10:34 G	27437122.73	27437122.94	27437123.15	0.0276	0.0043
Venus	70408-10-25 20:10 G	27437352.16	27437352.34	27437352.52	0.0276	0.0152
Moon	70416-12-30 10:05 G	27440339.68	27440339.92	27440340.17	0.0280	0.0046
Earth	70416-12-30 13:55 G	27440339.84	27440340.08	27440340.32	0.0280	0.0062 *
Mercury	70419-03-16 20:24 G	27441146.34	27441146.35	27441146.37	0.0281	0.0280
Mercury	70419-06-13 12:00 G	27441234.87	27441235.00	27441235.14	0.0282	0.0133

Mercury	70419-09-10 03:51 G	27441323.51	27441323.66	27441323.82	0.0282	0.0019
Mercury	70419-12-07 20:10 G	27441412.22	27441412.34	27441412.47	0.0282	0.0172
Venus	70422-08-23 15:36 G	27442401.97	27442402.15	27442402.33	0.0283	0.0145
Venus	70423-04-10 06:00 G	27442631.54	27442631.75	27442631.95	0.0283	0.0065
Venus	70423-11-25 19:41 G	27442861.28	27442861.32	27442861.38	0.0283	0.0275
Earth	70431-07-02 14:53 G	27445636.90	27445637.12	27445637.36	0.0279	0.0076
Moon	70431-07-02 18:15 G	27445637.02	27445637.26	27445637.50	0.0279	0.0062 *
Mercury	70433-10-22 15:51 G	27446480.08	27446480.16	27446480.25	0.0277	0.0228
Mercury	70434-01-19 07:12 G	27446568.65	27446568.80	27446568.95	0.0277	0.0083
Mercury	70434-04-17 22:05 G	27446657.27	27446657.42	27446657.57	0.0277	0.0058
Mercury	70434-07-15 12:29 G	27446745.92	27446746.02	27446746.13	0.0277	0.0197
Venus	70437-02-03 06:15 G	27447679.63	27447679.76	27447679.90	0.0275	0.0207
Venus	70437-09-20 15:22 G	27447908.93	27447909.14	27447909.35	0.0275	0.0014
Venus	70438-05-08 00:29 G	27448138.37	27448138.52	27448138.69	0.0275	0.0180
Mars	70440-10-29 07:12 G	27449043.61	27449043.80	27449044.03	0.0276	0.0204
Earth	70445-12-24 18:29 G	27450926.10	27450926.27	27450926.46	0.0279	0.0189
Moon	70445-12-24 22:19 G	27450926.28	27450926.43	27450926.61	0.0279	0.0206 *
Mercury	70448-10-30 11:31 G	27451966.87	27451966.98	27451967.10	0.0282	0.0187
Mercury	70449-01-27 03:22 G	27452055.49	27452055.64	27452055.80	0.0282	0.0038
Mercury	70449-04-25 19:27 G	27452144.17	27452144.31	27452144.46	0.0282	0.0116
Mercury	70449-07-23 12:00 G	27452232.97	27452233.00	27452233.04	0.0282	0.0272
Venus	70452-03-04 17:03 G	27453188.02	27453188.21	27453188.40	0.0283	0.0122
Venus	70452-10-20 07:27 G	27453417.61	27453417.81	27453418.01	0.0283	0.0089
Moon	70460-06-26 04:34 G	27456223.51	27456223.69	27456223.88	0.0280	0.0177
Earth	70460-06-26 07:27 G	27456223.62	27456223.81	27456224.01	0.0280	0.0165 *
Mercury	70463-03-11 17:03 G	27457212.18	27457212.21	27457212.24	0.0278	0.0270
Mercury	70463-06-08 08:24 G	27457300.71	27457300.85	27457300.99	0.0278	0.0124
Mercury	70463-09-04 23:31 G	27457389.32	27457389.48	27457389.63	0.0278	0.0021
Mercury	70463-12-02 14:10 G	27457477.97	27457478.09	27457478.21	0.0277	0.0160
Venus	70466-08-16 12:43 G	27458465.87	27458466.03	27458466.19	0.0276	0.0178

Venus	70467-04-02 22:05 G	27458695.21	27458695.42	27458695.63	0.0276	0.0017
Venus	70467-11-18 07:27 G	27458924.69	27458924.81	27458924.96	0.0276	0.0212
Moon	70476-01-01 23:31 G	27461891.27	27461891.48	27461891.71	0.0280	0.0115
Earth	70476-01-02 01:41 G	27461891.35	27461891.57	27461891.79	0.0280	0.0129 *
Mercury	70478-03-19 14:53 G	27462699.03	27462699.12	27462699.23	0.0281	0.0209
Mercury	70478-06-16 06:43 G	27462787.63	27462787.78	27462787.93	0.0282	0.0060
Mercury	70478-09-12 22:48 G	27462876.30	27462876.45	27462876.60	0.0282	0.0093
Mercury	70478-12-10 15:07 G	27462965.06	27462965.13	27462965.21	0.0282	0.0249
Venus	70481-09-15 05:03 G	27463974.51	27463974.71	27463974.92	0.0283	0.0079
Venus	70482-05-02 19:12 G	27464204.12	27464204.30	27464204.50	0.0283	0.0132
Mars	70484-12-15 19:27 G	27465162.28	27465162.31	27465162.37	0.0283	0.0279
Moon	70490-07-03 23:46 G	27467188.28	27467188.49	27467188.72	0.0279	0.0126
Earth	70490-07-04 01:12 G	27467188.35	27467188.55	27467188.77	0.0279	0.0141 *
Mercury	70492-10-25 10:34 G	27468032.81	27468032.94	27468033.07	0.0277	0.0156
Mercury	70493-01-22 01:41 G	27468121.42	27468121.57	27468121.72	0.0277	0.0013
Mercury	70493-04-20 16:19 G	27468210.05	27468210.18	27468210.32	0.0277	0.0128
Mercury	70493-07-18 06:43 G	27468298.75	27468298.78	27468298.83	0.0277	0.0264
Venus	70496-02-26 18:29 G	27469252.09	27469252.27	27469252.45	0.0275	0.0146
Venus	70496-10-13 03:36 G	27469481.44	27469481.65	27469481.86	0.0275	0.0048
Venus	70497-05-30 12:58 G	27469710.94	27469711.04	27469711.14	0.0275	0.0241
Earth	70504-12-27 07:12 G	27472477.58	27472477.80	27472478.03	0.0279	0.0121
Moon	70504-12-27 08:24 G	27472477.63	27472477.85	27472478.08	0.0279	0.0136 *
Mercury	70507-08-07 14:53 G	27473431.07	27473431.12	27473431.19	0.0282	0.0259
Mercury	70507-11-04 06:29 G	27473519.63	27473519.77	27473519.92	0.0282	0.0112
Mercury	70508-01-31 22:34 G	27473608.28	27473608.44	27473608.59	0.0282	0.0039
Mercury	70508-04-29 14:39 G	27473697.00	27473697.11	27473697.23	0.0282	0.0194
Venus	70510-08-11 16:34 G	27474531.12	27474531.19	27474531.26	0.0283	0.0264
Venus	70511-03-29 06:58 G	27474760.59	27474760.79	27474761.00	0.0283	0.0056
Venus	70511-11-13 21:07 G	27474990.21	27474990.38	27474990.57	0.0283	0.0154
Earth	70519-06-29 16:34 G	27477774.97	27477775.19	27477775.43	0.0280	0.0102

Moon	70519-06-29 17:46 G	27477775.03	27477775.24	27477775.46	0.0280	0.0113	*
Mercury	70522-03-15 11:17 G	27478764.87	27478764.97	27478765.08	0.0278	0.0200	
Mercury	70522-06-12 02:39 G	27478853.46	27478853.61	27478853.76	0.0278	0.0055	
Mercury	70522-09-08 17:31 G	27478942.09	27478942.23	27478942.38	0.0277	0.0087	
Mercury	70522-12-06 08:10 G	27479030.75	27479030.84	27479030.92	0.0277	0.0225	
Venus	70525-09-08 23:46 G	27480038.31	27480038.49	27480038.69	0.0276	0.0119	
Venus	70526-04-26 09:22 G	27480267.69	27480267.89	27480268.10	0.0276	0.0077	
Venus	70526-12-11 18:43 G	27480497.26	27480497.28	27480497.34	0.0276	0.0272	
Earth	70535-01-04 13:12 G	27483442.88	27483443.05	27483443.23	0.0280	0.0196	
Moon	70535-01-04 15:51 G	27483442.99	27483443.16	27483443.35	0.0280	0.0184	*
Mercury	70537-03-23 09:36 G	27484251.77	27484251.90	27484252.04	0.0281	0.0136	
Mercury	70537-06-20 01:27 G	27484340.41	27484340.56	27484340.72	0.0282	0.0016	
Mercury	70537-09-16 17:46 G	27484429.12	27484429.24	27484429.37	0.0282	0.0168	
Venus	70540-02-22 04:05 G	27485317.55	27485317.67	27485317.81	0.0283	0.0222	
Venus	70540-10-08 18:43 G	27485547.07	27485547.28	27485547.49	0.0283	0.0013	
Venus	70541-05-26 08:53 G	27485776.73	27485776.87	27485777.03	0.0283	0.0197	
Mars	70543-03-26 01:41 G	27486445.52	27486445.57	27486445.65	0.0283	0.0274	
Moon	70549-07-06 08:10 G	27488739.67	27488739.84	27488740.02	0.0279	0.0190	
Earth	70549-07-06 11:31 G	27488739.83	27488739.98	27488740.15	0.0279	0.0206	*
Mercury	70551-08-02 13:55 G	27489496.99	27489497.08	27489497.16	0.0277	0.0229	
Mercury	70551-10-30 05:03 G	27489585.57	27489585.71	27489585.86	0.0277	0.0085	
Mercury	70552-01-26 20:10 G	27489674.19	27489674.34	27489674.49	0.0277	0.0058	
Mercury	70552-04-24 10:48 G	27489762.84	27489762.95	27489763.05	0.0277	0.0196	
Venus	70555-03-22 06:43 G	27490824.58	27490824.78	27490824.99	0.0275	0.0084	
Venus	70555-11-06 15:51 G	27491053.97	27491054.16	27491054.36	0.0275	0.0110	
Moon	70563-12-29 16:19 G	27494028.94	27494029.18	27494029.43	0.0280	0.0066	
Earth	70563-12-29 19:27 G	27494029.07	27494029.31	27494029.56	0.0280	0.0053	*
Mercury	70566-08-10 09:36 G	27494983.79	27494983.90	27494984.02	0.0282	0.0186	
Mercury	70566-11-07 01:27 G	27495072.41	27495072.56	27495072.71	0.0282	0.0037	
Mercury	70567-02-03 17:31 G	27495161.09	27495161.23	27495161.37	0.0282	0.0115	

Mercury	70567-05-03 09:51 G	27495249.87	27495249.91	27495249.95	0.0282	0.0271
Venus	70569-09-03 06:00 G	27496103.61	27496103.75	27496103.90	0.0283	0.0199
Venus	70570-04-20 20:39 G	27496333.15	27496333.36	27496333.57	0.0283	0.0010
Venus	70570-12-06 10:34 G	27496562.82	27496562.94	27496563.09	0.0283	0.0220
Earth	70578-07-01 02:24 G	27499326.36	27499326.60	27499326.84	0.0279	0.0037
Moon	70578-07-01 06:00 G	27499326.51	27499326.75	27499326.99	0.0279	0.0049 *
Mercury	70580-12-19 14:10 G	27500229.09	27500229.09	27500229.11	0.0278	0.0277
Mercury	70581-03-18 05:46 G	27500317.60	27500317.74	27500317.88	0.0278	0.0130
Mercury	70581-06-14 20:53 G	27500406.22	27500406.37	27500406.52	0.0277	0.0014
Mercury	70581-09-11 11:31 G	27500494.86	27500494.98	27500495.11	0.0277	0.0154
Venus	70584-02-15 01:41 G	27501381.50	27501381.57	27501381.67	0.0276	0.0252
Venus	70584-10-01 11:17 G	27501610.76	27501610.97	27501611.18	0.0276	0.0058
Venus	70585-05-18 20:39 G	27501840.18	27501840.36	27501840.55	0.0276	0.0137
Earth	70594-01-05 23:31 G	27504994.41	27504994.48	27504994.58	0.0280	0.0261
Moon	70594-01-06 02:53 G	27504994.52	27504994.62	27504994.75	0.0280	0.0250 *
Mercury	70595-12-28 12:29 G	27505715.93	27505716.02	27505716.12	0.0281	0.0213
Mercury	70596-03-26 04:19 G	27505804.53	27505804.68	27505804.83	0.0282	0.0065
Mercury	70596-06-22 20:10 G	27505893.19	27505893.34	27505893.49	0.0282	0.0087
Mercury	70596-09-19 12:29 G	27505981.95	27505982.02	27505982.11	0.0282	0.0243
Venus	70599-03-16 17:31 G	27506890.06	27506890.23	27506890.41	0.0283	0.0157
Venus	70599-11-01 08:10 G	27507119.63	27507119.84	27507120.05	0.0283	0.0053
Venus	70600-06-18 22:19 G	27507349.36	27507349.43	27507349.52	0.0283	0.0261
Moon	70607-06-27 01:55 G	27509913.51	27509913.58	27509913.66	0.0280	0.0265
Earth	70607-06-27 05:31 G	27509913.64	27509913.73	27509913.84	0.0280	0.0256 *
Moon	70608-07-08 20:53 G	27510291.28	27510291.37	27510291.46	0.0279	0.0257
Earth	70608-07-08 22:05 G	27510291.37	27510291.42	27510291.48	0.0279	0.0271 *
Mercury	70610-08-06 08:24 G	27511049.73	27511049.85	27511049.98	0.0277	0.0157
Mercury	70610-11-02 23:31 G	27511138.33	27511138.48	27511138.64	0.0277	0.0016
Mercury	70611-01-30 14:24 G	27511226.97	27511227.10	27511227.24	0.0277	0.0126
Mercury	70611-04-29 04:48 G	27511315.66	27511315.70	27511315.75	0.0277	0.0263

Venus	70613-08-28 09:36 G	27512167.77	27512167.90	27512168.03	0.0275	0.0215
Venus	70614-04-14 18:29 G	27512397.06	27512397.27	27512397.49	0.0275	0.0024
Venus	70614-11-30 03:36 G	27512626.49	27512626.65	27512626.82	0.0275	0.0170
Moon	70623-01-01 03:07 G	27515580.39	27515580.63	27515580.88	0.0280	0.0001
Earth	70623-01-01 06:15 G	27515580.51	27515580.76	27515581.01	0.0280	0.0013 *
Mercury	70625-05-17 12:43 G	27516447.98	27516448.03	27516448.09	0.0282	0.0261
Mercury	70625-08-14 04:19 G	27516536.54	27516536.68	27516536.82	0.0282	0.0115
Mercury	70625-11-10 20:10 G	27516625.18	27516625.34	27516625.49	0.0282	0.0036
Mercury	70626-02-07 12:15 G	27516713.90	27516714.01	27516714.13	0.0282	0.0189
Venus	70628-09-26 19:12 G	27517676.12	27517676.30	27517676.49	0.0283	0.0134
Venus	70629-05-14 09:36 G	27517905.70	27517905.90	27517906.11	0.0283	0.0075
Venus	70629-12-30 00:00 G	27518135.49	27518135.50	27518135.51	0.0283	0.0282
Mars	70631-08-20 20:10 G	27518734.17	27518734.34	27518734.52	0.0283	0.0216
Earth	70637-07-03 11:31 G	27520877.74	27520877.98	27520878.22	0.0279	0.0027
Moon	70637-07-03 13:12 G	27520877.80	27520878.05	27520878.30	0.0279	0.0013 *
Mercury	70639-12-24 08:39 G	27521781.76	27521781.86	27521781.96	0.0277	0.0207
Mercury	70640-03-22 00:00 G	27521870.35	27521870.50	27521870.65	0.0277	0.0062
Mercury	70640-06-18 14:53 G	27521958.98	27521959.12	27521959.27	0.0277	0.0080
Mercury	70640-09-15 05:31 G	27522047.64	27522047.73	27522047.82	0.0277	0.0218
Venus	70643-03-10 12:43 G	27522953.88	27522954.03	27522954.19	0.0276	0.0192
Venus	70643-10-25 22:05 G	27523183.21	27523183.42	27523183.63	0.0276	0.0002
Venus	70644-06-11 07:27 G	27523412.66	27523412.81	27523412.96	0.0276	0.0195
Earth	70651-12-26 20:10 G	27526167.20	27526167.34	27526167.49	0.0279	0.0226
Moon	70651-12-26 23:46 G	27526167.37	27526167.49	27526167.62	0.0279	0.0242 *
Mercury	70655-01-01 06:29 G	27527268.64	27527268.77	27527268.91	0.0282	0.0146
Mercury	70655-03-30 22:19 G	27527357.28	27527357.43	27527357.59	0.0282	0.0005
Mercury	70655-06-27 14:24 G	27527445.98	27527446.10	27527446.24	0.0282	0.0157
Venus	70658-04-09 05:31 G	27528462.53	27528462.73	27528462.93	0.0283	0.0094
Venus	70658-11-24 20:10 G	27528692.15	27528692.34	27528692.53	0.0283	0.0115
Moon	70666-06-28 13:27 G	27531464.91	27531465.06	27531465.23	0.0280	0.0203

Earth	70666-06-28 14:53 G	27531464.96	27531465.12	27531465.31	0.0280	0.0191	*
Mercury	70669-05-12 11:31 G	27532513.90	27532513.98	27532514.06	0.0277	0.0233	
Mercury	70669-08-09 02:53 G	27532602.47	27532602.62	27532602.77	0.0277	0.0088	
Mercury	70669-11-05 17:46 G	27532691.09	27532691.24	27532691.39	0.0277	0.0055	
Mercury	70670-02-02 08:24 G	27532779.75	27532779.85	27532779.96	0.0277	0.0193	
Venus	70672-09-19 20:39 G	27533740.20	27533740.36	27533740.54	0.0275	0.0157	
Venus	70673-05-07 05:46 G	27533969.53	27533969.74	27533969.95	0.0275	0.0036	
Venus	70673-12-22 14:53 G	27534199.01	27534199.12	27534199.24	0.0275	0.0228	
Mars	70675-11-26 00:29 G	27534902.36	27534902.52	27534902.73	0.0275	0.0223	
Earth	70682-01-02 15:07 G	27537131.89	27537132.13	27537132.37	0.0280	0.0075	
Moon	70682-01-02 15:22 G	27537131.91	27537132.14	27537132.38	0.0280	0.0065	*
Mercury	70684-05-20 06:43 G	27538000.67	27538000.78	27538000.89	0.0282	0.0195	
Mercury	70684-08-16 22:19 G	27538089.28	27538089.43	27538089.59	0.0282	0.0048	
Mercury	70684-11-13 14:24 G	27538177.96	27538178.10	27538178.25	0.0282	0.0105	
Mercury	70685-02-10 06:43 G	27538266.72	27538266.78	27538266.84	0.0282	0.0260	
Venus	70687-03-04 16:48 G	27539019.17	27539019.20	27539019.23	0.0283	0.0279	
Venus	70687-10-20 07:27 G	27539248.60	27539248.81	27539249.01	0.0283	0.0072	
Venus	70688-06-05 21:51 G	27539478.23	27539478.41	27539478.59	0.0283	0.0138	
Moon	70696-07-04 17:17 G	27542428.98	27542429.22	27542429.46	0.0279	0.0072	
Earth	70696-07-04 20:10 G	27542429.11	27542429.34	27542429.57	0.0279	0.0089	*
Mercury	70698-12-27 02:53 G	27543334.48	27543334.62	27543334.75	0.0277	0.0139	
Mercury	70699-03-25 18:00 G	27543423.10	27543423.25	27543423.40	0.0277	0.0005	
Mercury	70699-06-22 08:39 G	27543511.74	27543511.86	27543511.99	0.0277	0.0144	
Venus	70702-04-02 22:48 G	27544526.27	27544526.45	27544526.64	0.0276	0.0134	
Venus	70702-11-18 07:55 G	27544755.63	27544755.83	27544756.04	0.0276	0.0060	
Venus	70703-07-05 17:17 G	27544985.14	27544985.22	27544985.31	0.0276	0.0252	
Moon	70710-12-29 01:27 G	27547718.38	27547718.56	27547718.77	0.0279	0.0183	
Earth	70710-12-29 02:24 G	27547718.41	27547718.60	27547718.80	0.0279	0.0169	*
Mercury	70713-10-08 08:39 G	27548732.78	27548732.86	27548732.95	0.0281	0.0230	
Mercury	70714-01-05 00:15 G	27548821.36	27548821.51	27548821.66	0.0282	0.0083	

Mercury	70714-04-03 16:05 G	27548910.02	27548910.17	27548910.32	0.0282	0.0068
Mercury	70714-07-01 08:24 G	27548998.76	27548998.85	27548998.95	0.0282	0.0223
Venus	70716-09-15 01:12 G	27549805.45	27549805.55	27549805.67	0.0283	0.0243
Venus	70717-05-02 16:19 G	27550034.97	27550035.18	27550035.39	0.0283	0.0033
Venus	70717-12-18 06:58 G	27550264.63	27550264.79	27550264.96	0.0284	0.0176
Mars	70720-01-16 10:34 G	27551023.69	27551023.94	27551024.19	0.0283	0.0128
Earth	70725-06-30 22:48 G	27553016.24	27553016.45	27553016.67	0.0280	0.0129
Moon	70725-07-01 01:41 G	27553016.37	27553016.57	27553016.78	0.0280	0.0143 *
Mercury	70728-05-16 05:31 G	27554066.61	27554066.73	27554066.86	0.0277	0.0165
Mercury	70728-08-12 20:53 G	27554155.21	27554155.37	27554155.52	0.0277	0.0023
Mercury	70728-11-09 11:31 G	27554243.85	27554243.98	27554244.12	0.0277	0.0119
Mercury	70729-02-06 02:10 G	27554332.53	27554332.59	27554332.65	0.0277	0.0255
Venus	70731-10-14 06:58 G	27555312.60	27555312.79	27555313.00	0.0275	0.0099
Venus	70732-05-30 16:05 G	27555541.97	27555542.17	27555542.37	0.0275	0.0094
Earth	70741-01-04 21:51 G	27558683.20	27558683.41	27558683.63	0.0280	0.0134
Moon	70741-01-05 01:27 G	27558683.35	27558683.56	27558683.79	0.0280	0.0124 *
Mercury	70743-02-25 09:07 G	27559464.85	27559464.88	27559464.90	0.0282	0.0277
Mercury	70743-05-25 00:29 G	27559553.38	27559553.52	27559553.65	0.0282	0.0132
Mercury	70743-08-21 16:05 G	27559642.02	27559642.17	27559642.33	0.0282	0.0020
Mercury	70743-11-18 08:10 G	27559730.72	27559730.84	27559730.97	0.0282	0.0171
Venus	70746-03-28 03:36 G	27560591.52	27560591.65	27560591.78	0.0283	0.0220
Venus	70746-11-12 18:15 G	27560821.05	27560821.26	27560821.47	0.0283	0.0011
Venus	70747-06-30 08:39 G	27561050.71	27561050.86	27561051.01	0.0283	0.0198
Moon	70755-07-07 23:46 G	27563980.29	27563980.49	27563980.71	0.0279	0.0132
Earth	70755-07-08 02:39 G	27563980.42	27563980.61	27563980.83	0.0279	0.0149 *
Mercury	70757-10-03 05:03 G	27564798.62	27564798.71	27564798.81	0.0277	0.0220
Mercury	70757-12-30 20:39 G	27564887.21	27564887.36	27564887.51	0.0277	0.0075
Mercury	70758-03-29 11:31 G	27564975.83	27564975.98	27564976.13	0.0277	0.0066
Mercury	70758-06-26 02:10 G	27565064.49	27565064.59	27565064.69	0.0277	0.0205
Venus	70760-09-07 23:03 G	27565869.43	27565869.46	27565869.52	0.0276	0.0269

Venus	70761-04-25 08:10 G	27566098.64	27566098.84	27566099.05	0.0276	0.0077
Venus	70761-12-10 17:17 G	27566328.03	27566328.22	27566328.41	0.0276	0.0115
Mars	70764-04-21 10:48 G	27567190.72	27567190.95	27567191.21	0.0276	0.0170
Moon	70769-12-30 02:10 G	27569269.38	27569269.59	27569269.82	0.0279	0.0127
Earth	70769-12-30 06:00 G	27569269.54	27569269.75	27569269.99	0.0279	0.0115 *
Mercury	70772-10-11 01:41 G	27570285.45	27570285.57	27570285.69	0.0282	0.0173
Mercury	70773-01-07 17:17 G	27570374.07	27570374.22	27570374.38	0.0282	0.0025
Mercury	70773-04-06 09:22 G	27570462.75	27570462.89	27570463.03	0.0282	0.0128
Venus	70775-10-08 10:19 G	27571377.78	27571377.93	27571378.10	0.0283	0.0186
Venus	70776-05-25 01:27 G	27571607.35	27571607.56	27571607.78	0.0284	0.0025
Venus	70777-01-09 16:19 G	27571837.07	27571837.18	27571837.31	0.0284	0.0234
Earth	70784-07-02 05:17 G	27574567.49	27574567.72	27574567.95	0.0280	0.0069
Moon	70784-07-02 08:10 G	27574567.61	27574567.84	27574568.08	0.0280	0.0084 *
Mercury	70787-02-20 07:55 G	27575530.76	27575530.83	27575530.90	0.0277	0.0246
Mercury	70787-05-19 23:17 G	27575619.33	27575619.47	27575619.62	0.0277	0.0101
Mercury	70787-08-16 14:24 G	27575707.95	27575708.10	27575708.25	0.0277	0.0041
Mercury	70787-11-13 05:03 G	27575796.60	27575796.71	27575796.83	0.0277	0.0180
Venus	70790-03-21 07:55 G	27576655.72	27576655.83	27576655.94	0.0275	0.0233
Venus	70790-11-05 16:34 G	27576884.98	27576885.19	27576885.40	0.0275	0.0042
Venus	70791-06-23 01:27 G	27577114.39	27577114.56	27577114.74	0.0275	0.0150
Earth	70800-01-07 02:24 G	27580234.42	27580234.60	27580234.78	0.0280	0.0189
Moon	70800-01-07 03:51 G	27580234.47	27580234.66	27580234.86	0.0280	0.0182 *
Mercury	70802-02-28 01:55 G	27581017.49	27581017.58	27581017.68	0.0282	0.0220
Mercury	70802-05-27 17:31 G	27581106.08	27581106.23	27581106.38	0.0282	0.0073
Mercury	70802-08-24 09:22 G	27581194.74	27581194.89	27581195.04	0.0282	0.0078
Mercury	70802-11-21 01:41 G	27581283.48	27581283.57	27581283.66	0.0282	0.0232
Venus	70805-04-19 12:43 G	27582163.87	27582164.03	27582164.22	0.0283	0.0163
Venus	70805-12-05 03:36 G	27582393.45	27582393.65	27582393.86	0.0284	0.0048
Venus	70806-07-22 18:00 G	27582623.17	27582623.25	27582623.35	0.0284	0.0256
Mars	70808-06-10 18:00 G	27583311.99	27583312.25	27583312.52	0.0283	0.0091

Earth	70814-07-09 07:55 G	27585531.68	27585531.83	27585532.01	0.0279	0.0206
Moon	70814-07-09 09:36 G	27585531.74	27585531.90	27585532.08	0.0279	0.0191 *
Mercury	70816-10-05 22:48 G	27586351.32	27586351.45	27586351.58	0.0277	0.0158
Mercury	70817-01-02 13:55 G	27586439.93	27586440.08	27586440.24	0.0277	0.0015
Mercury	70817-04-01 04:48 G	27586528.57	27586528.70	27586528.84	0.0277	0.0126
Mercury	70817-06-28 19:12 G	27586617.26	27586617.30	27586617.35	0.0277	0.0262
Venus	70819-10-01 07:55 G	27587441.70	27587441.83	27587441.97	0.0276	0.0214
Venus	70820-05-17 16:48 G	27587670.99	27587671.20	27587671.41	0.0275	0.0022
Venus	70821-01-02 01:41 G	27587900.40	27587900.57	27587900.74	0.0275	0.0170
Moon	70828-12-31 07:41 G	27590820.59	27590820.82	27590821.05	0.0279	0.0070
Earth	70828-12-31 08:24 G	27590820.61	27590820.85	27590821.09	0.0279	0.0062 *
Mercury	70831-07-18 02:39 G	27591749.57	27591749.61	27591749.67	0.0281	0.0265
Mercury	70831-10-14 18:15 G	27591838.12	27591838.26	27591838.40	0.0282	0.0119
Mercury	70832-01-11 10:05 G	27591926.76	27591926.92	27591927.07	0.0282	0.0031
Mercury	70832-04-09 02:10 G	27592015.47	27592015.59	27592015.71	0.0282	0.0184
Venus	70834-10-30 18:29 G	27592950.09	27592950.27	27592950.46	0.0283	0.0130
Venus	70835-06-17 09:22 G	27593179.69	27593179.89	27593180.10	0.0284	0.0080
Moon	70843-07-04 07:55 G	27596118.59	27596118.83	27596119.09	0.0280	0.0029
Earth	70843-07-04 09:22 G	27596118.65	27596118.89	27596119.13	0.0280	0.0013 *
Mercury	70846-02-23 01:12 G	27597083.44	27597083.55	27597083.67	0.0277	0.0185
Mercury	70846-05-22 16:34 G	27597172.04	27597172.19	27597172.35	0.0277	0.0042
Mercury	70846-08-19 07:41 G	27597260.68	27597260.82	27597260.96	0.0277	0.0100
Mercury	70846-11-15 22:19 G	27597349.35	27597349.43	27597349.50	0.0277	0.0237
Venus	70849-04-12 16:19 G	27598228.02	27598228.18	27598228.35	0.0275	0.0179
Venus	70849-11-28 01:12 G	27598457.33	27598457.55	27598457.76	0.0275	0.0014
Venus	70850-07-15 09:51 G	27598686.78	27598686.91	27598687.06	0.0275	0.0204
Mars	70852-09-15 10:34 G	27599479.65	27599479.94	27599480.24	0.0275	0.0097
Moon	70859-01-08 01:27 G	27601785.44	27601785.56	27601785.70	0.0280	0.0240
Earth	70859-01-08 05:03 G	27601785.59	27601785.71	27601785.83	0.0280	0.0241 *
Mercury	70861-03-02 18:29 G	27602570.16	27602570.27	27602570.40	0.0282	0.0166

Mercury	70861-05-30 10:19 G	27602658.78	27602658.93	27602659.08	0.0282	0.0017
Mercury	70861-08-27 02:10 G	27602747.46	27602747.59	27602747.73	0.0282	0.0135
Venus	70864-05-11 21:07 G	27603736.18	27603736.38	27603736.57	0.0284	0.0107
Venus	70864-12-27 12:00 G	27603965.80	27603966.00	27603966.19	0.0284	0.0103
Earth	70872-06-27 19:12 G	27606705.23	27606705.30	27606705.38	0.0280	0.0265
Moon	70872-06-27 20:24 G	27606705.35	27606705.35	27606705.36	0.0280	0.0279 *
Earth	70873-07-10 12:00 G	27607082.93	27607083.00	27607083.10	0.0279	0.0261
Moon	70873-07-10 15:51 G	27607083.05	27607083.16	27607083.28	0.0279	0.0246 *
Mercury	70875-07-13 00:29 G	27607815.45	27607815.52	27607815.60	0.0277	0.0243
Mercury	70875-10-09 16:05 G	27607904.02	27607904.17	27607904.31	0.0277	0.0098
Mercury	70876-01-06 07:12 G	27607992.65	27607992.80	27607992.95	0.0277	0.0044
Mercury	70876-04-03 21:51 G	27608081.30	27608081.41	27608081.52	0.0276	0.0183
Venus	70878-10-23 15:51 G	27609014.00	27609014.16	27609014.35	0.0275	0.0161
Venus	70879-06-10 00:58 G	27609243.33	27609243.54	27609243.75	0.0275	0.0032
Venus	70880-01-25 09:36 G	27609472.78	27609472.90	27609473.03	0.0275	0.0223
Earth	70888-01-02 08:53 G	27612371.62	27612371.87	27612372.12	0.0279	0.0013
Moon	70888-01-02 12:15 G	27612371.77	27612372.01	27612372.26	0.0279	0.0016 *
Mercury	70890-07-20 18:43 G	27613302.19	27613302.28	27613302.39	0.0282	0.0216
Mercury	70890-10-17 10:19 G	27613390.79	27613390.93	27613391.09	0.0282	0.0069
Mercury	70891-01-14 02:24 G	27613479.45	27613479.60	27613479.75	0.0282	0.0083
Mercury	70891-04-12 18:43 G	27613568.19	27613568.28	27613568.36	0.0282	0.0237
Venus	70893-11-22 01:27 G	27614522.36	27614522.56	27614522.76	0.0284	0.0077
Venus	70894-07-09 16:19 G	27614752.00	27614752.18	27614752.37	0.0284	0.0133
Mars	70896-11-04 10:34 G	27615600.66	27615600.94	27615601.21	0.0284	0.0042
Moon	70902-07-06 08:39 G	27617669.62	27617669.86	27617670.10	0.0280	0.0024
Earth	70902-07-06 12:00 G	27617669.77	27617670.00	27617670.24	0.0280	0.0041 *
Mercury	70904-11-30 02:53 G	27618547.60	27618547.62	27618547.65	0.0277	0.0272
Mercury	70905-02-26 18:29 G	27618636.13	27618636.27	27618636.41	0.0277	0.0126
Mercury	70905-05-26 09:36 G	27618724.75	27618724.90	27618725.06	0.0277	0.0017
Mercury	70905-08-23 00:29 G	27618813.39	27618813.52	27618813.64	0.0277	0.0156

Venus	70908-05-06 00:15 G	27619800.32	27619800.51	27619800.70	0.0275	0.0126
Venus	70908-12-21 08:53 G	27620029.67	27620029.87	27620030.08	0.0275	0.0066
Venus	70909-08-07 17:46 G	27620259.17	27620259.24	27620259.32	0.0275	0.0256
Moon	70916-12-27 16:34 G	27622958.11	27622958.19	27622958.30	0.0279	0.0257
Earth	70916-12-27 20:10 G	27622958.24	27622958.34	27622958.45	0.0279	0.0251 *
Mercury	70919-12-08 19:41 G	27624034.27	27624034.32	27624034.38	0.0281	0.0258
Mercury	70920-03-06 11:03 G	27624122.82	27624122.96	27624123.10	0.0282	0.0113
Mercury	70920-06-03 02:53 G	27624211.47	27624211.62	27624211.77	0.0282	0.0037
Mercury	70920-08-30 18:58 G	27624300.18	27624300.29	27624300.41	0.0282	0.0190
Venus	70922-10-18 13:41 G	27625078.99	27625079.07	27625079.15	0.0283	0.0261
Venus	70923-06-05 04:34 G	27625308.48	27625308.69	27625308.90	0.0284	0.0053
Venus	70924-01-20 19:12 G	27625538.13	27625538.30	27625538.48	0.0284	0.0157
Earth	70931-06-30 21:51 G	27628256.26	27628256.41	27628256.57	0.0280	0.0212
Moon	70931-07-01 01:27 G	27628256.43	27628256.56	27628256.71	0.0280	0.0228 *
Mercury	70934-07-16 17:31 G	27629368.12	27629368.23	27629368.35	0.0277	0.0185
Mercury	70934-10-13 08:53 G	27629456.72	27629456.87	27629457.03	0.0277	0.0042
Mercury	70935-01-10 00:00 G	27629545.36	27629545.50	27629545.64	0.0277	0.0100
Mercury	70935-04-08 14:24 G	27629634.04	27629634.10	27629634.19	0.0276	0.0238
Venus	70937-11-15 23:46 G	27630586.30	27630586.49	27630586.69	0.0275	0.0107
Venus	70938-07-03 08:24 G	27630815.65	27630815.85	27630816.06	0.0275	0.0084
Venus	70939-02-17 17:03 G	27631045.21	27631045.21	27631045.24	0.0275	0.0274
Mars	70941-02-09 04:34 G	27631767.39	27631767.69	27631767.99	0.0275	0.0069
Earth	70947-01-04 08:39 G	27633922.62	27633922.86	27633923.11	0.0279	0.0036
Moon	70947-01-04 11:03 G	27633922.71	27633922.96	27633923.21	0.0279	0.0035 *
Mercury	70949-07-24 10:48 G	27634854.83	27634854.95	27634855.07	0.0282	0.0167
Mercury	70949-10-21 02:24 G	27634943.45	27634943.60	27634943.76	0.0282	0.0020
Mercury	70950-01-17 18:29 G	27635032.13	27635032.27	27635032.41	0.0282	0.0133
Venus	70952-04-29 16:05 G	27635865.07	27635865.17	27635865.30	0.0283	0.0236
Venus	70952-12-15 07:27 G	27636094.60	27636094.81	27636095.03	0.0284	0.0027
Venus	70953-08-01 22:19 G	27636324.28	27636324.43	27636324.60	0.0284	0.0184

Moon	70961-07-07 12:43 G	27639220.81	27639221.03	27639221.26	0.0280	0.0077
Earth	70961-07-07 13:27 G	27639220.84	27639221.06	27639221.30	0.0280	0.0092 *
Mercury	70963-12-03 19:55 G	27640100.24	27640100.33	27640100.43	0.0278	0.0215
Mercury	70964-03-01 11:31 G	27640188.83	27640188.98	27640189.13	0.0277	0.0070
Mercury	70964-05-29 02:24 G	27640277.46	27640277.60	27640277.75	0.0277	0.0073
Mercury	70964-08-25 17:17 G	27640366.12	27640366.22	27640366.31	0.0277	0.0210
Venus	70966-10-11 23:17 G	27641143.42	27641143.47	27641143.54	0.0275	0.0264
Venus	70967-05-29 08:10 G	27641372.63	27641372.84	27641373.04	0.0275	0.0073
Venus	70968-01-13 16:48 G	27641602.01	27641602.20	27641602.39	0.0275	0.0118
Moon	70975-12-29 18:58 G	27644509.14	27644509.29	27644509.46	0.0278	0.0207
Earth	70975-12-29 21:36 G	27644509.23	27644509.40	27644509.57	0.0278	0.0201 *
Mercury	70978-12-11 12:00 G	27645586.90	27645587.00	27645587.10	0.0281	0.0207
Mercury	70979-03-10 03:22 G	27645675.49	27645675.64	27645675.79	0.0282	0.0061
Mercury	70979-06-06 19:12 G	27645764.15	27645764.30	27645764.45	0.0282	0.0089
Mercury	70979-09-03 11:17 G	27645852.90	27645852.97	27645853.06	0.0282	0.0243
Venus	70981-11-09 20:24 G	27646651.22	27646651.35	27646651.50	0.0283	0.0209
Venus	70982-06-27 11:31 G	27646880.76	27646880.98	27646881.19	0.0284	0.0006
Venus	70983-02-12 02:10 G	27647110.45	27647110.59	27647110.73	0.0284	0.0209
Mars	70985-03-31 12:58 G	27647888.76	27647889.04	27647889.32	0.0284	0.0014
Earth	70990-07-02 00:00 G	27649807.31	27649807.50	27649807.71	0.0280	0.0160
Moon	70990-07-02 00:58 G	27649807.35	27649807.54	27649807.74	0.0280	0.0175 *
Mercury	70993-04-21 18:58 G	27650832.28	27650832.29	27650832.32	0.0277	0.0273
Mercury	70993-07-19 10:48 G	27650920.81	27650920.95	27650921.09	0.0277	0.0127
Mercury	70993-10-16 01:55 G	27651009.43	27651009.58	27651009.73	0.0277	0.0016
Mercury	70994-01-12 16:48 G	27651098.08	27651098.20	27651098.33	0.0277	0.0155
Venus	70996-04-22 22:34 G	27651929.36	27651929.44	27651929.55	0.0275	0.0245
Venus	70996-12-08 07:27 G	27652158.60	27652158.81	27652159.02	0.0275	0.0055
Venus	70997-07-25 16:05 G	27652387.99	27652388.17	27652388.36	0.0275	0.0136

72ND MILLENNIUM CE

This is a list of transits visible from Saturn in the 72nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	71006-01-06 06:43	G	27655473.54	27655473.78	27655474.03	0.0279	0.0089	
Earth	71006-01-06 08:53	G	27655473.64	27655473.87	27655474.12	0.0279	0.0085	*
Mercury	71008-04-30 11:31	G	27656318.93	27656318.98	27656319.03	0.0281	0.0263	
Mercury	71008-07-28 02:53	G	27656407.48	27656407.62	27656407.76	0.0282	0.0118	
Mercury	71008-10-24 18:43	G	27656496.12	27656496.28	27656496.43	0.0282	0.0032	
Mercury	71009-01-21 10:34	G	27656584.83	27656584.94	27656585.06	0.0282	0.0184	
Venus	71011-05-23 22:19	G	27657437.28	27657437.43	27657437.60	0.0283	0.0185	
Venus	71012-01-08 13:41	G	27657666.86	27657667.07	27657667.28	0.0284	0.0025	
Venus	71012-08-25 04:34	G	27657896.58	27657896.69	27657896.81	0.0284	0.0234	
Earth	71020-07-09 14:24	G	27660771.90	27660772.10	27660772.31	0.0280	0.0141	
Moon	71020-07-09 17:46	G	27660772.02	27660772.24	27660772.45	0.0280	0.0127	*
Mercury	71022-12-07 12:43	G	27661652.91	27661653.03	27661653.16	0.0278	0.0159	
Mercury	71023-03-06 04:05	G	27661741.52	27661741.67	27661741.83	0.0277	0.0015	
Mercury	71023-06-02 18:58	G	27661830.16	27661830.29	27661830.43	0.0277	0.0127	
Mercury	71023-08-30 09:36	G	27661918.86	27661918.90	27661918.95	0.0277	0.0263	
Venus	71025-11-04 06:43	G	27662715.66	27662715.78	27662715.92	0.0275	0.0213	
Venus	71026-06-21 15:36	G	27662944.94	27662945.15	27662945.37	0.0275	0.0022	
Venus	71027-02-06 00:15	G	27663174.35	27663174.51	27663174.68	0.0275	0.0170	
Mars	71029-07-07 06:15	G	27664056.45	27664056.76	27664057.08	0.0275	0.0010	
Earth	71034-12-31 23:17	G	27666060.27	27666060.47	27666060.69	0.0278	0.0150	

Moon	71035-01-01 01:27 G	27666060.36	27666060.56	27666060.76	0.0278	0.0151 *
Mercury	71037-12-15 04:19 G	27667139.55	27667139.68	27667139.81	0.0281	0.0156
Mercury	71038-03-13 19:55 G	27667228.17	27667228.33	27667228.48	0.0282	0.0009
Mercury	71038-06-10 11:46 G	27667316.86	27667316.99	27667317.13	0.0282	0.0143
Venus	71040-12-03 03:22 G	27668223.47	27668223.64	27668223.83	0.0284	0.0157
Venus	71041-07-20 18:29 G	27668453.06	27668453.27	27668453.47	0.0284	0.0053
Venus	71042-03-07 08:53 G	27668682.80	27668682.87	27668682.96	0.0284	0.0261
Moon	71049-07-03 22:34 G	27671358.23	27671358.44	27671358.66	0.0280	0.0124
Earth	71049-07-04 02:10 G	27671358.37	27671358.59	27671358.82	0.0280	0.0108 *
Mercury	71052-04-25 12:15 G	27672384.91	27672385.01	27672385.11	0.0277	0.0214
Mercury	71052-07-23 03:36 G	27672473.51	27672473.65	27672473.81	0.0277	0.0070
Mercury	71052-10-19 18:43 G	27672562.14	27672562.28	27672562.43	0.0277	0.0073
Mercury	71053-01-16 09:36 G	27672650.80	27672650.90	27672651.00	0.0277	0.0210
Venus	71055-05-17 06:58 G	27673501.64	27673501.79	27673501.94	0.0275	0.0192
Venus	71056-01-01 15:36 G	27673730.94	27673731.15	27673731.36	0.0275	0.0002
Venus	71056-08-18 00:00 G	27673960.36	27673960.50	27673960.67	0.0275	0.0189
Moon	71065-01-07 06:58 G	27677024.58	27677024.79	27677025.00	0.0279	0.0140
Earth	71065-01-07 10:19 G	27677024.72	27677024.93	27677025.15	0.0279	0.0134 *
Mercury	71067-05-04 03:36 G	27677871.56	27677871.65	27677871.75	0.0281	0.0213
Mercury	71067-07-31 18:58 G	27677960.15	27677960.29	27677960.45	0.0281	0.0068
Mercury	71067-10-28 10:48 G	27678048.80	27678048.95	27678049.10	0.0282	0.0083
Mercury	71068-01-25 03:07 G	27678137.54	27678137.63	27678137.71	0.0282	0.0236
Venus	71070-06-15 05:03 G	27679009.52	27679009.71	27679009.89	0.0283	0.0133
Venus	71071-01-30 20:10 G	27679239.14	27679239.34	27679239.54	0.0284	0.0076
Mars	71073-08-25 15:51 G	27680176.89	27680177.16	27680177.44	0.0284	0.0016
Earth	71079-07-11 15:22 G	27682322.98	27682323.14	27682323.33	0.0280	0.0192
Moon	71079-07-11 18:00 G	27682323.07	27682323.25	27682323.45	0.0280	0.0178 *
Mercury	71081-09-12 13:55 G	27683117.02	27683117.08	27683117.15	0.0278	0.0249
Mercury	71081-12-10 05:46 G	27683205.59	27683205.74	27683205.88	0.0278	0.0102
Mercury	71082-03-08 20:53 G	27683294.22	27683294.37	27683294.52	0.0278	0.0041

Mercury	71082-06-05 11:46 G	27683382.88	27683382.99	27683383.11	0.0277	0.0181
Venus	71084-11-26 14:39 G	27684287.94	27684288.11	27684288.29	0.0276	0.0161
Venus	71085-07-13 23:31 G	27684517.27	27684517.48	27684517.70	0.0275	0.0031
Venus	71086-02-28 08:24 G	27684746.72	27684746.85	27684746.97	0.0275	0.0221
Earth	71094-01-02 02:24 G	27687611.37	27687611.60	27687611.84	0.0278	0.0098
Moon	71094-01-02 06:15 G	27687611.52	27687611.76	27687612.00	0.0278	0.0096 *
Mercury	71096-09-20 05:31 G	27688603.66	27688603.73	27688603.81	0.0281	0.0246
Mercury	71096-12-17 20:53 G	27688692.23	27688692.37	27688692.52	0.0281	0.0101
Mercury	71097-03-16 12:43 G	27688780.87	27688781.03	27688781.18	0.0281	0.0048
Mercury	71097-06-13 04:34 G	27688869.58	27688869.69	27688869.80	0.0282	0.0200
Venus	71099-12-26 11:31 G	27689795.78	27689795.98	27689796.18	0.0284	0.0102
Venus	71100-08-13 02:10 G	27690025.40	27690025.59	27690025.79	0.0284	0.0107
Moon	71108-07-06 03:07 G	27692909.40	27692909.63	27692909.85	0.0280	0.0070
Earth	71108-07-06 04:48 G	27692909.47	27692909.70	27692909.94	0.0280	0.0056 *
Mercury	71111-04-30 05:31 G	27693937.60	27693937.73	27693937.86	0.0277	0.0155
Mercury	71111-07-27 20:53 G	27694026.22	27694026.37	27694026.53	0.0277	0.0011
Mercury	71111-10-24 11:46 G	27694114.86	27694114.99	27694115.13	0.0277	0.0130
Mercury	71112-01-21 02:39 G	27694203.57	27694203.61	27694203.65	0.0277	0.0266
Venus	71114-06-09 15:22 G	27695073.97	27695074.14	27695074.33	0.0275	0.0139
Venus	71115-01-25 00:15 G	27695303.30	27695303.51	27695303.72	0.0275	0.0052
Venus	71115-09-11 08:53 G	27695532.77	27695532.87	27695532.97	0.0275	0.0241
Mars	71117-12-01 03:22 G	27696344.33	27696344.64	27696344.95	0.0275	0.0045
Earth	71124-01-10 13:27 G	27698575.89	27698576.06	27698576.25	0.0279	0.0187
Moon	71124-01-10 13:41 G	27698575.91	27698576.07	27698576.25	0.0279	0.0197 *
Mercury	71126-05-07 20:10 G	27699424.22	27699424.34	27699424.47	0.0281	0.0159
Mercury	71126-08-04 11:46 G	27699512.83	27699512.99	27699513.14	0.0281	0.0013
Mercury	71126-11-01 03:36 G	27699601.52	27699601.65	27699601.79	0.0282	0.0138
Venus	71129-07-08 12:29 G	27700581.82	27700582.02	27700582.22	0.0283	0.0080
Venus	71130-02-23 03:22 G	27700811.46	27700811.64	27700811.83	0.0284	0.0129
Moon	71138-07-13 14:39 G	27703873.99	27703874.11	27703874.26	0.0280	0.0233

Earth	71138-07-13 17:03 G	27703874.10	27703874.21	27703874.35	0.0280	0.0242	*
Mercury	71140-09-16 07:12 G	27704669.69	27704669.80	27704669.91	0.0278	0.0191	
Mercury	71140-12-13 22:48 G	27704758.29	27704758.45	27704758.60	0.0278	0.0045	
Mercury	71141-03-12 13:55 G	27704846.93	27704847.08	27704847.22	0.0278	0.0097	
Mercury	71141-06-09 04:34 G	27704935.62	27704935.69	27704935.77	0.0278	0.0236	
Venus	71143-12-20 23:17 G	27705860.28	27705860.47	27705860.67	0.0276	0.0107	
Venus	71144-08-06 08:10 G	27706089.64	27706089.84	27706090.05	0.0275	0.0085	
Venus	71145-03-23 17:03 G	27706319.20	27706319.21	27706319.23	0.0275	0.0274	
Moon	71153-01-04 06:58 G	27709162.54	27709162.79	27709163.05	0.0278	0.0036	
Earth	71153-01-04 07:27 G	27709162.57	27709162.81	27709163.06	0.0278	0.0043	*
Mercury	71155-09-24 22:34 G	27710156.33	27710156.44	27710156.55	0.0281	0.0189	
Mercury	71155-12-22 13:55 G	27710244.93	27710245.08	27710245.24	0.0281	0.0044	
Mercury	71156-03-20 05:46 G	27710333.60	27710333.74	27710333.88	0.0281	0.0106	
Mercury	71156-06-16 21:51 G	27710422.36	27710422.41	27710422.47	0.0282	0.0259	
Venus	71158-06-03 05:17 G	27711138.63	27711138.72	27711138.81	0.0283	0.0253	
Venus	71159-01-18 20:10 G	27711368.13	27711368.34	27711368.55	0.0284	0.0046	
Venus	71159-09-05 10:48 G	27711597.78	27711597.95	27711598.13	0.0284	0.0162	
Mars	71162-01-20 07:27 G	27712465.55	27712465.81	27712466.08	0.0284	0.0069	
Earth	71167-07-08 08:39 G	27714460.62	27714460.86	27714461.10	0.0280	0.0003	
Moon	71167-07-08 11:03 G	27714460.73	27714460.96	27714461.20	0.0280	0.0012	*
Mercury	71170-02-03 07:12 G	27715401.73	27715401.80	27715401.88	0.0278	0.0241	
Mercury	71170-05-02 23:03 G	27715490.31	27715490.46	27715490.60	0.0277	0.0094	
Mercury	71170-07-30 14:10 G	27715578.94	27715579.09	27715579.25	0.0277	0.0049	
Mercury	71170-10-27 05:03 G	27715667.60	27715667.71	27715667.83	0.0277	0.0188	
Venus	71172-11-14 15:51 G	27716417.15	27716417.16	27716417.20	0.0275	0.0274	
Venus	71173-07-02 00:58 G	27716646.34	27716646.54	27716646.74	0.0275	0.0084	
Venus	71174-02-16 09:22 G	27716875.71	27716875.89	27716876.10	0.0275	0.0107	
Earth	71183-01-11 18:58 G	27720127.18	27720127.29	27720127.42	0.0279	0.0243	
Moon	71183-01-11 22:48 G	27720127.36	27720127.45	27720127.56	0.0279	0.0256	*
Mercury	71185-02-10 21:51 G	27720888.35	27720888.41	27720888.49	0.0281	0.0245	

Mercury	71185-05-10 13:12 G	27720976.91	27720977.05	27720977.20	0.0281	0.0101
Mercury	71185-08-07 04:48 G	27721065.55	27721065.70	27721065.86	0.0281	0.0048
Mercury	71185-11-03 20:53 G	27721154.26	27721154.37	27721154.48	0.0282	0.0199
Venus	71187-12-14 06:15 G	27721924.65	27721924.76	27721924.89	0.0283	0.0231
Venus	71188-07-30 21:22 G	27722154.18	27722154.39	27722154.60	0.0283	0.0024
Venus	71189-03-17 12:00 G	27722383.85	27722384.00	27722384.17	0.0284	0.0185
Moon	71196-07-01 21:36 G	27725047.31	27725047.40	27725047.52	0.0281	0.0253
Earth	71196-07-02 00:15 G	27725047.39	27725047.51	27725047.64	0.0281	0.0240 *
Mercury	71199-09-20 00:29 G	27726222.38	27726222.52	27726222.66	0.0278	0.0131
Mercury	71199-12-17 15:51 G	27726311.01	27726311.16	27726311.32	0.0278	0.0015
Mercury	71200-03-15 06:58 G	27726399.66	27726399.79	27726399.92	0.0278	0.0155
Venus	71202-05-27 23:17 G	27727203.38	27727203.47	27727203.58	0.0276	0.0243
Venus	71203-01-12 08:24 G	27727432.64	27727432.85	27727433.06	0.0276	0.0052
Venus	71203-08-29 17:17 G	27727662.04	27727662.22	27727662.41	0.0275	0.0139
Mars	71206-04-27 15:36 G	27728633.89	27728634.15	27728634.43	0.0275	0.0143
Moon	71212-01-06 10:48 G	27730713.70	27730713.95	27730714.20	0.0278	0.0027
Earth	71212-01-06 14:39 G	27730713.87	27730714.11	27730714.36	0.0278	0.0016 *
Mercury	71214-07-01 00:58 G	27731620.50	27731620.54	27731620.58	0.0281	0.0270
Mercury	71214-09-27 16:05 G	27731709.03	27731709.17	27731709.31	0.0281	0.0127
Mercury	71214-12-25 07:41 G	27731797.66	27731797.82	27731797.97	0.0281	0.0020
Mercury	71215-03-23 23:31 G	27731886.36	27731886.48	27731886.60	0.0281	0.0170
Venus	71217-06-25 15:22 G	27732711.00	27732711.14	27732711.30	0.0283	0.0195
Venus	71218-02-10 06:15 G	27732940.55	27732940.76	27732940.97	0.0284	0.0013
Venus	71218-09-27 20:39 G	27733170.24	27733170.36	27733170.50	0.0284	0.0220
Earth	71226-07-09 13:41 G	27736011.83	27736012.07	27736012.31	0.0280	0.0054
Moon	71226-07-09 16:48 G	27736011.96	27736012.20	27736012.44	0.0280	0.0046 *
Mercury	71229-02-06 01:12 G	27736954.43	27736954.55	27736954.67	0.0278	0.0176
Mercury	71229-05-05 16:48 G	27737043.04	27737043.20	27737043.35	0.0277	0.0032
Mercury	71229-08-02 07:55 G	27737131.69	27737131.83	27737131.97	0.0277	0.0111
Mercury	71229-10-29 22:34 G	27737220.38	27737220.44	27737220.51	0.0277	0.0248

Venus	71231-12-08 01:55 G	27737989.46	27737989.58	27737989.72	0.0275	0.0218
Venus	71232-07-24 11:03 G	27738218.75	27738218.96	27738219.18	0.0275	0.0028
Venus	71233-03-10 19:41 G	27738448.16	27738448.32	27738448.50	0.0275	0.0163
Earth	71240-12-30 18:58 G	27741300.17	27741300.29	27741300.44	0.0278	0.0232
Moon	71240-12-30 23:03 G	27741300.31	27741300.46	27741300.60	0.0278	0.0222 *
Mercury	71244-02-14 15:36 G	27742441.04	27742441.15	27742441.27	0.0281	0.0182
Mercury	71244-05-13 06:58 G	27742529.64	27742529.79	27742529.94	0.0281	0.0037
Mercury	71244-08-09 22:34 G	27742618.30	27742618.44	27742618.59	0.0281	0.0112
Mercury	71244-11-06 14:39 G	27742707.07	27742707.11	27742707.17	0.0282	0.0265
Venus	71247-01-05 16:34 G	27743497.03	27743497.19	27743497.36	0.0283	0.0173
Venus	71247-08-23 07:41 G	27743726.61	27743726.82	27743727.03	0.0283	0.0035
Venus	71248-04-08 22:05 G	27743956.32	27743956.42	27743956.54	0.0284	0.0242
Mars	71250-06-15 15:51 G	27744753.92	27744754.16	27744754.43	0.0284	0.0113
Moon	71255-07-04 01:41 G	27746598.40	27746598.57	27746598.74	0.0281	0.0199
Earth	71255-07-04 04:34 G	27746598.52	27746598.69	27746598.89	0.0281	0.0187 *
Mercury	71258-06-26 02:24 G	27747686.51	27747686.60	27747686.70	0.0279	0.0216
Mercury	71258-09-22 18:00 G	27747775.11	27747775.25	27747775.41	0.0278	0.0069
Mercury	71258-12-20 09:22 G	27747863.74	27747863.89	27747864.04	0.0278	0.0075
Mercury	71259-03-19 00:15 G	27747952.42	27747952.51	27747952.61	0.0278	0.0215
Venus	71261-06-19 09:22 G	27748775.74	27748775.89	27748776.04	0.0276	0.0187
Venus	71262-02-03 18:29 G	27749005.06	27749005.27	27749005.48	0.0276	0.0004
Venus	71262-09-21 03:22 G	27749234.50	27749234.64	27749234.79	0.0276	0.0195
Moon	71271-01-07 22:19 G	27752265.20	27752265.43	27752265.66	0.0278	0.0089
Earth	71271-01-07 23:31 G	27752265.25	27752265.48	27752265.73	0.0278	0.0077 *
Mercury	71273-07-03 18:43 G	27753173.18	27753173.28	27753173.38	0.0281	0.0206
Mercury	71273-09-30 10:05 G	27753261.77	27753261.92	27753262.07	0.0281	0.0061
Mercury	71273-12-28 01:41 G	27753350.42	27753350.57	27753350.72	0.0281	0.0087
Mercury	71274-03-26 17:46 G	27753439.16	27753439.24	27753439.32	0.0281	0.0239
Venus	71276-07-18 03:07 G	27754283.45	27754283.63	27754283.82	0.0283	0.0134
Venus	71277-03-04 17:46 G	27754513.04	27754513.24	27754513.45	0.0284	0.0073

Venus	71277-10-20 08:10 G	27754742.82	27754742.84	27754742.88	0.0284	0.0280
Moon	71285-07-10 20:24 G	27757563.13	27757563.35	27757563.59	0.0280	0.0109
Earth	71285-07-10 20:53 G	27757563.16	27757563.37	27757563.60	0.0280	0.0114 *
Mercury	71287-11-13 03:36 G	27758418.59	27758418.65	27758418.71	0.0278	0.0256
Mercury	71288-02-09 19:27 G	27758507.16	27758507.31	27758507.45	0.0278	0.0109
Mercury	71288-05-08 10:48 G	27758595.80	27758595.95	27758596.10	0.0277	0.0035
Mercury	71288-08-05 01:41 G	27758684.46	27758684.57	27758684.69	0.0277	0.0175
Venus	71290-12-30 13:12 G	27759561.88	27759562.05	27759562.23	0.0275	0.0159
Venus	71291-08-16 22:19 G	27759791.21	27759791.43	27759791.64	0.0275	0.0031
Venus	71292-04-02 06:43 G	27760020.67	27760020.78	27760020.92	0.0275	0.0221
Mars	71294-09-21 06:58 G	27760922.60	27760922.79	27760923.01	0.0275	0.0208
Earth	71300-01-02 05:31 G	27762851.53	27762851.73	27762851.92	0.0278	0.0168
Moon	71300-01-02 06:43 G	27762851.57	27762851.78	27762851.99	0.0278	0.0159 *
Mercury	71302-11-21 18:29 G	27763905.22	27763905.27	27763905.33	0.0281	0.0258
Mercury	71303-02-18 09:51 G	27763993.77	27763993.91	27763994.05	0.0281	0.0115
Mercury	71303-05-18 01:12 G	27764082.40	27764082.55	27764082.71	0.0281	0.0032
Mercury	71303-08-14 17:03 G	27764171.09	27764171.21	27764171.33	0.0281	0.0182
Venus	71306-01-29 04:34 G	27765069.50	27765069.69	27765069.89	0.0283	0.0112
Venus	71306-09-15 19:12 G	27765299.11	27765299.30	27765299.51	0.0283	0.0096
Earth	71314-07-06 11:03 G	27768149.75	27768149.96	27768150.18	0.0281	0.0129
Moon	71314-07-06 11:17 G	27768149.78	27768149.97	27768150.18	0.0281	0.0139 *
Mercury	71317-06-29 20:24 G	27769239.22	27769239.35	27769239.48	0.0279	0.0150
Mercury	71317-09-26 12:00 G	27769327.84	27769328.00	27769328.15	0.0278	0.0007
Mercury	71317-12-24 03:07 G	27769416.50	27769416.63	27769416.76	0.0278	0.0138
Mercury	71318-03-22 17:46 G	27769505.23	27769505.24	27769505.26	0.0278	0.0276
Venus	71320-07-12 19:41 G	27770348.14	27770348.32	27770348.51	0.0276	0.0130
Venus	71321-02-27 05:03 G	27770577.50	27770577.71	27770577.92	0.0276	0.0062
Venus	71321-10-14 13:55 G	27770807.01	27770807.08	27770807.18	0.0276	0.0252
Earth	71330-01-10 10:34 G	27773816.73	27773816.94	27773817.16	0.0278	0.0141
Moon	71330-01-10 13:27 G	27773816.85	27773817.06	27773817.26	0.0278	0.0155 *

Mercury	71332-04-09 21:51 G	27774637.41	27774637.41	27774637.43	0.0280	0.0279
Mercury	71332-07-07 12:58 G	27774725.91	27774726.04	27774726.18	0.0281	0.0138
Mercury	71332-10-04 04:34 G	27774814.53	27774814.69	27774814.84	0.0281	0.0009
Mercury	71332-12-31 20:10 G	27774903.22	27774903.34	27774903.47	0.0281	0.0159
Venus	71334-12-25 01:12 G	27775626.51	27775626.55	27775626.60	0.0283	0.0276
Venus	71335-08-11 15:51 G	27775855.96	27775856.16	27775856.37	0.0283	0.0072
Venus	71336-03-28 06:29 G	27776085.59	27776085.77	27776085.96	0.0284	0.0136
Mars	71338-11-11 06:43 G	27777043.61	27777043.78	27777043.98	0.0284	0.0206
Moon	71344-07-13 01:55 G	27779114.40	27779114.58	27779114.78	0.0280	0.0171
Earth	71344-07-13 05:31 G	27779114.55	27779114.73	27779114.92	0.0280	0.0175 *
Mercury	71346-11-16 22:05 G	27779971.31	27779971.42	27779971.54	0.0278	0.0186
Mercury	71347-02-13 13:41 G	27780059.92	27780060.07	27780060.22	0.0278	0.0041
Mercury	71347-05-13 05:03 G	27780148.56	27780148.71	27780148.85	0.0278	0.0102
Mercury	71347-08-09 19:41 G	27780237.25	27780237.32	27780237.40	0.0277	0.0241
Venus	71350-01-23 00:58 G	27781134.35	27781134.54	27781134.74	0.0275	0.0100
Venus	71350-09-09 09:51 G	27781363.72	27781363.91	27781364.12	0.0275	0.0091
Moon	71359-01-04 14:24 G	27784402.86	27784403.10	27784403.34	0.0278	0.0092
Earth	71359-01-04 17:03 G	27784402.99	27784403.21	27784403.45	0.0278	0.0103 *
Mercury	71361-11-24 12:58 G	27785457.93	27785458.04	27785458.15	0.0281	0.0188
Mercury	71362-02-21 04:19 G	27785546.53	27785546.68	27785546.83	0.0281	0.0044
Mercury	71362-05-20 19:55 G	27785635.19	27785635.33	27785635.47	0.0281	0.0104
Mercury	71362-08-17 12:00 G	27785723.93	27785724.00	27785724.06	0.0281	0.0256
Venus	71364-07-06 02:39 G	27786412.53	27786412.61	27786412.71	0.0283	0.0254
Venus	71365-02-20 17:31 G	27786642.02	27786642.23	27786642.44	0.0283	0.0048
Venus	71365-10-08 08:10 G	27786871.67	27786871.84	27786872.02	0.0283	0.0159
Earth	71373-07-07 19:41 G	27789701.08	27789701.32	27789701.55	0.0281	0.0067
Moon	71373-07-07 23:17 G	27789701.24	27789701.47	27789701.70	0.0281	0.0076 *
Mercury	71376-04-04 22:48 G	27790703.37	27790703.45	27790703.54	0.0279	0.0230
Mercury	71376-07-02 14:39 G	27790791.96	27790792.11	27790792.26	0.0279	0.0082
Mercury	71376-09-29 06:00 G	27790880.60	27790880.75	27790880.90	0.0278	0.0062

Mercury	71376-12-26 21:07 G	27790969.28	27790969.38	27790969.48	0.0278	0.0202
Venus	71378-12-18 21:22 G	27791691.34	27791691.39	27791691.47	0.0277	0.0262
Venus	71379-08-05 06:58 G	27791920.59	27791920.79	27791921.00	0.0276	0.0071
Venus	71380-03-21 16:19 G	27792149.99	27792150.18	27792150.37	0.0276	0.0120
Earth	71389-01-11 21:51 G	27795368.26	27795368.41	27795368.59	0.0278	0.0207
Moon	71389-01-12 01:12 G	27795368.41	27795368.55	27795368.72	0.0278	0.0220 *
Mercury	71391-04-13 16:19 G	27796190.09	27796190.18	27796190.28	0.0280	0.0210
Mercury	71391-07-11 07:41 G	27796278.67	27796278.82	27796278.97	0.0281	0.0066
Mercury	71391-10-07 23:17 G	27796367.32	27796367.47	27796367.62	0.0281	0.0082
Mercury	71392-01-04 15:07 G	27796456.05	27796456.13	27796456.22	0.0281	0.0233
Venus	71394-01-16 15:07 G	27797198.99	27797199.13	27797199.27	0.0283	0.0211
Venus	71394-09-03 05:46 G	27797428.53	27797428.74	27797428.95	0.0283	0.0006
Venus	71395-04-20 20:10 G	27797658.20	27797658.34	27797658.50	0.0284	0.0201
Moon	71403-07-16 13:27 G	27800665.94	27800666.06	27800666.19	0.0280	0.0237
Earth	71403-07-16 15:07 G	27800666.02	27800666.13	27800666.27	0.0280	0.0240 *
Mercury	71405-08-24 00:58 G	27801435.49	27801435.54	27801435.59	0.0278	0.0263
Mercury	71405-11-20 16:48 G	27801524.06	27801524.20	27801524.34	0.0278	0.0115
Mercury	71406-02-17 08:10 G	27801612.69	27801612.84	27801613.00	0.0278	0.0030
Mercury	71406-05-16 23:17 G	27801701.35	27801701.47	27801701.59	0.0278	0.0170
Venus	71408-07-01 04:05 G	27802477.56	27802477.67	27802477.79	0.0276	0.0229
Venus	71409-02-15 13:12 G	27802706.84	27802707.05	27802707.26	0.0275	0.0039
Venus	71409-10-02 22:05 G	27802936.24	27802936.42	27802936.60	0.0275	0.0150
Moon	71418-01-07 02:39 G	27805954.36	27805954.61	27805954.85	0.0278	0.0024
Earth	71418-01-07 06:00 G	27805954.50	27805954.75	27805955.00	0.0278	0.0036 *
Mercury	71420-08-31 16:34 G	27806922.14	27806922.19	27806922.25	0.0281	0.0258
Mercury	71420-11-28 07:41 G	27807010.69	27807010.82	27807010.96	0.0281	0.0116
Mercury	71421-02-24 23:17 G	27807099.31	27807099.47	27807099.62	0.0281	0.0031
Mercury	71421-05-24 14:53 G	27807188.01	27807188.12	27807188.24	0.0281	0.0180
Venus	71423-07-30 16:48 G	27807985.05	27807985.20	27807985.36	0.0283	0.0189
Venus	71424-03-16 07:27 G	27808214.60	27808214.81	27808215.03	0.0283	0.0018

Venus	71424-10-31 21:51 G	27808444.29	27808444.41	27808444.55	0.0283	0.0224
Mars	71427-04-08 03:51 G	27809332.57	27809332.66	27809332.74	0.0284	0.0269
Earth	71432-07-10 05:03 G	27811252.47	27811252.71	27811252.95	0.0281	0.0005
Moon	71432-07-10 06:43 G	27811252.53	27811252.78	27811253.03	0.0281	0.0009 *
Mercury	71435-04-09 17:31 G	27812256.10	27812256.23	27812256.35	0.0279	0.0160
Mercury	71435-07-07 09:07 G	27812344.72	27812344.88	27812345.03	0.0278	0.0015
Mercury	71435-10-04 00:15 G	27812433.38	27812433.51	27812433.65	0.0278	0.0129
Mercury	71435-12-31 15:07 G	27812522.09	27812522.13	27812522.17	0.0278	0.0267
Venus	71438-01-11 08:53 G	27813263.73	27813263.87	27813264.02	0.0277	0.0203
Venus	71438-08-28 18:15 G	27813493.05	27813493.26	27813493.48	0.0276	0.0013
Venus	71439-04-15 03:36 G	27813722.49	27813722.65	27813722.81	0.0276	0.0179
Earth	71447-01-02 01:27 G	27816541.49	27816541.56	27816541.65	0.0278	0.0261
Moon	71447-01-02 05:03 G	27816541.61	27816541.71	27816541.82	0.0278	0.0251 *
Earth	71448-01-15 09:22 G	27816919.85	27816919.89	27816919.96	0.0278	0.0271
Mercury	71450-04-17 10:48 G	27817742.83	27817742.95	27817743.09	0.0281	0.0140
Mercury	71450-07-15 02:24 G	27817831.44	27817831.60	27817831.75	0.0281	0.0008
Mercury	71450-10-11 18:00 G	27817920.12	27817920.25	27817920.38	0.0281	0.0155
Venus	71453-02-09 04:48 G	27818771.52	27818771.70	27818771.88	0.0283	0.0146
Venus	71453-09-26 19:27 G	27819001.10	27819001.31	27819001.52	0.0283	0.0060
Venus	71454-05-14 09:51 G	27819230.85	27819230.91	27819230.99	0.0284	0.0266
Moon	71461-07-05 04:48 G	27821839.58	27821839.70	27821839.83	0.0281	0.0234
Earth	71461-07-05 06:29 G	27821839.62	27821839.77	27821839.91	0.0281	0.0225 *
Mercury	71464-08-26 19:55 G	27822988.22	27822988.33	27822988.44	0.0278	0.0188
Mercury	71464-11-23 11:31 G	27823076.83	27823076.98	27823077.14	0.0278	0.0043
Mercury	71465-02-20 02:53 G	27823165.48	27823165.62	27823165.76	0.0278	0.0100
Mercury	71465-05-19 17:46 G	27823254.17	27823254.24	27823254.32	0.0277	0.0239
Venus	71467-07-24 16:34 G	27824050.02	27824050.19	27824050.36	0.0276	0.0168
Venus	71468-03-10 01:27 G	27824279.35	27824279.56	27824279.77	0.0275	0.0022
Venus	71468-10-25 10:05 G	27824508.80	27824508.92	27824509.07	0.0275	0.0211
Earth	71477-01-08 18:00 G	27827506.00	27827506.25	27827506.50	0.0278	0.0031

Moon	71477-01-08 18:29 G	27827506.04	27827506.27	27827506.51	0.0278	0.0045 *
Mercury	71479-09-04 11:17 G	27828474.86	27828474.97	27828475.08	0.0281	0.0187
Mercury	71479-12-02 02:24 G	27828563.45	27828563.60	27828563.76	0.0281	0.0044
Mercury	71480-02-28 18:00 G	27828652.11	27828652.25	27828652.40	0.0281	0.0105
Mercury	71480-05-27 09:51 G	27828740.86	27828740.91	27828740.98	0.0281	0.0256
Venus	71482-08-22 06:58 G	27829557.60	27829557.79	27829557.98	0.0283	0.0123
Venus	71483-04-08 21:36 G	27829787.20	27829787.40	27829787.60	0.0283	0.0083
Moon	71491-07-12 12:15 G	27832803.78	27832804.01	27832804.26	0.0281	0.0061
Earth	71491-07-12 15:22 G	27832803.90	27832804.14	27832804.38	0.0281	0.0060 *
Mercury	71494-01-13 19:55 G	27833720.26	27833720.33	27833720.42	0.0279	0.0238
Mercury	71494-04-12 12:00 G	27833808.85	27833809.00	27833809.15	0.0278	0.0090
Mercury	71494-07-10 03:22 G	27833897.49	27833897.64	27833897.79	0.0278	0.0055
Mercury	71494-10-06 18:29 G	27833986.16	27833986.27	27833986.38	0.0278	0.0195
Venus	71497-02-02 20:24 G	27834836.17	27834836.35	27834836.53	0.0276	0.0143
Venus	71497-09-20 05:31 G	27835065.52	27835065.73	27835065.94	0.0276	0.0048
Venus	71498-05-07 14:39 G	27835295.01	27835295.11	27835295.22	0.0276	0.0238
Moon	71506-01-04 10:48 G	27838092.77	27838092.95	27838093.15	0.0278	0.0185
Earth	71506-01-04 11:46 G	27838092.83	27838092.99	27838093.17	0.0278	0.0198 *
Mercury	71509-01-22 14:10 G	27839207.00	27839207.09	27839207.19	0.0280	0.0213
Mercury	71509-04-21 05:31 G	27839295.58	27839295.73	27839295.87	0.0281	0.0069
Mercury	71509-07-18 20:53 G	27839384.22	27839384.37	27839384.52	0.0281	0.0078
Mercury	71509-10-15 12:58 G	27839472.95	27839473.04	27839473.12	0.0281	0.0229
Venus	71512-03-04 18:15 G	27840344.06	27840344.26	27840344.47	0.0283	0.0082
Venus	71512-10-20 09:07 G	27840573.69	27840573.88	27840574.07	0.0283	0.0125
Earth	71520-07-07 17:17 G	27843391.03	27843391.22	27843391.43	0.0281	0.0158
Moon	71520-07-07 19:55 G	27843391.14	27843391.33	27843391.52	0.0281	0.0163 *
Mercury	71523-06-03 22:48 G	27844452.40	27844452.45	27844452.50	0.0278	0.0264
Mercury	71523-08-31 14:39 G	27844540.97	27844541.11	27844541.26	0.0278	0.0116
Mercury	71523-11-28 06:15 G	27844629.61	27844629.76	27844629.91	0.0278	0.0028
Mercury	71524-02-24 21:22 G	27844718.27	27844718.39	27844718.51	0.0278	0.0169

Venus	71526-08-17 04:19 G	27845622.49	27845622.68	27845622.88	0.0276	0.0108
Venus	71527-04-03 13:27 G	27845851.86	27845852.06	27845852.26	0.0275	0.0082
Venus	71527-11-18 22:05 G	27846081.39	27846081.42	27846081.47	0.0275	0.0270
Mars	71529-10-19 02:39 G	27846781.42	27846781.61	27846781.82	0.0275	0.0212
Earth	71536-01-12 04:48 G	27849057.47	27849057.70	27849057.94	0.0278	0.0096
Moon	71536-01-12 08:53 G	27849057.64	27849057.87	27849058.10	0.0278	0.0112 *
Mercury	71538-06-11 14:39 G	27849939.06	27849939.11	27849939.17	0.0281	0.0258
Mercury	71538-09-08 05:46 G	27850027.60	27850027.74	27850027.88	0.0281	0.0117
Mercury	71538-12-05 21:07 G	27850116.23	27850116.38	27850116.53	0.0281	0.0029
Mercury	71539-03-04 12:43 G	27850204.92	27850205.03	27850205.16	0.0281	0.0178
Venus	71541-01-28 05:46 G	27850900.67	27850900.74	27850900.82	0.0283	0.0263
Venus	71541-09-14 20:24 G	27851130.15	27851130.35	27851130.56	0.0283	0.0059
Venus	71542-05-02 11:03 G	27851359.78	27851359.96	27851360.14	0.0283	0.0147
Moon	71550-07-14 22:19 G	27854355.23	27854355.43	27854355.65	0.0280	0.0128
Earth	71550-07-15 01:12 G	27854355.35	27854355.55	27854355.78	0.0280	0.0126 *
Mercury	71553-01-17 14:53 G	27855272.99	27855273.12	27855273.24	0.0278	0.0166
Mercury	71553-04-16 06:29 G	27855361.62	27855361.77	27855361.93	0.0278	0.0020
Mercury	71553-07-13 21:36 G	27855450.27	27855450.40	27855450.55	0.0278	0.0123
Mercury	71553-10-10 12:43 G	27855538.98	27855539.03	27855539.08	0.0278	0.0261
Venus	71555-07-12 22:34 G	27856179.41	27856179.44	27856179.47	0.0277	0.0273
Venus	71556-02-27 07:41 G	27856408.62	27856408.82	27856409.02	0.0276	0.0084
Venus	71556-10-13 16:34 G	27856638.00	27856638.19	27856638.39	0.0276	0.0107
Moon	71565-01-05 16:48 G	27859643.98	27859644.20	27859644.42	0.0278	0.0122
Earth	71565-01-05 20:24 G	27859644.14	27859644.35	27859644.57	0.0278	0.0137 *
Mercury	71568-01-26 08:10 G	27860759.71	27860759.84	27860759.97	0.0281	0.0147
Mercury	71568-04-23 23:31 G	27860848.33	27860848.48	27860848.63	0.0281	0.0003
Mercury	71568-07-21 15:07 G	27860937.00	27860937.13	27860937.27	0.0281	0.0147
Venus	71570-08-10 15:51 G	27861687.04	27861687.16	27861687.30	0.0283	0.0224
Venus	71571-03-28 06:58 G	27861916.58	27861916.79	27861917.00	0.0283	0.0019
Venus	71571-11-12 21:36 G	27862146.25	27862146.40	27862146.56	0.0284	0.0188

Mars	71573-12-11 11:31 G	27862905.79	27862905.98	27862906.19	0.0284	0.0190
Earth	71579-07-10 04:05 G	27864942.44	27864942.67	27864942.90	0.0281	0.0091
Moon	71579-07-10 07:12 G	27864942.58	27864942.80	27864943.04	0.0281	0.0098 *
Mercury	71582-06-06 17:31 G	27866005.12	27866005.23	27866005.35	0.0278	0.0191
Mercury	71582-09-03 09:22 G	27866093.74	27866093.89	27866094.04	0.0278	0.0045
Mercury	71582-12-01 00:43 G	27866182.38	27866182.53	27866182.67	0.0278	0.0098
Mercury	71583-02-27 15:36 G	27866271.07	27866271.15	27866271.23	0.0277	0.0236
Venus	71585-01-22 06:58 G	27866965.69	27866965.79	27866965.90	0.0276	0.0237
Venus	71585-09-08 15:51 G	27867194.96	27867195.16	27867195.37	0.0275	0.0048
Venus	71586-04-26 00:43 G	27867424.35	27867424.53	27867424.71	0.0275	0.0141
Earth	71595-01-13 14:24 G	27870608.89	27870609.10	27870609.30	0.0278	0.0158
Moon	71595-01-13 15:36 G	27870608.95	27870609.15	27870609.35	0.0278	0.0173 *
Mercury	71597-06-14 08:39 G	27871491.76	27871491.86	27871491.98	0.0281	0.0193
Mercury	71597-09-11 00:00 G	27871580.35	27871580.50	27871580.65	0.0281	0.0049
Mercury	71597-12-08 15:36 G	27871669.00	27871669.15	27871669.29	0.0281	0.0099
Mercury	71598-03-07 07:12 G	27871757.74	27871757.80	27871757.88	0.0281	0.0249
Venus	71600-02-20 18:29 G	27872473.13	27872473.27	27872473.43	0.0283	0.0201
Venus	71600-10-07 09:22 G	27872702.67	27872702.89	27872703.10	0.0283	0.0007
Venus	71601-05-24 23:46 G	27872932.36	27872932.49	27872932.64	0.0284	0.0211
Earth	71609-07-16 10:34 G	27875906.77	27875906.94	27875907.13	0.0280	0.0188
Moon	71609-07-16 11:17 G	27875906.81	27875906.97	27875907.15	0.0280	0.0193 *
Mercury	71611-10-24 17:17 G	27876737.15	27876737.22	27876737.30	0.0278	0.0244
Mercury	71612-01-21 09:07 G	27876825.74	27876825.88	27876826.03	0.0278	0.0097
Mercury	71612-04-19 00:43 G	27876914.38	27876914.53	27876914.68	0.0278	0.0047
Mercury	71612-07-16 15:36 G	27877003.05	27877003.15	27877003.27	0.0278	0.0188
Venus	71614-08-04 08:53 G	27877751.75	27877751.87	27877752.01	0.0276	0.0215
Venus	71615-03-21 18:00 G	27877981.04	27877981.25	27877981.47	0.0276	0.0026
Venus	71615-11-06 03:07 G	27878210.46	27878210.63	27878210.80	0.0276	0.0164
Mars	71618-03-14 21:51 G	27879070.16	27879070.41	27879070.70	0.0275	0.0146
Moon	71624-01-08 01:55 G	27881195.35	27881195.58	27881195.81	0.0278	0.0065

Earth	71624-01-08 02:53 G	27881195.39	27881195.62	27881195.87	0.0278	0.0079	*
Mercury	71626-11-01 10:48 G	27882223.86	27882223.95	27882224.04	0.0281	0.0227	
Mercury	71627-01-29 01:41 G	27882312.43	27882312.57	27882312.72	0.0281	0.0085	
Mercury	71627-04-27 17:17 G	27882401.07	27882401.22	27882401.37	0.0281	0.0062	
Mercury	71627-07-25 08:53 G	27882489.78	27882489.87	27882489.98	0.0281	0.0213	
Venus	71629-09-02 03:07 G	27883259.46	27883259.63	27883259.80	0.0283	0.0164	
Venus	71630-04-19 18:00 G	27883489.04	27883489.25	27883489.46	0.0283	0.0042	
Venus	71630-12-05 08:53 G	27883718.77	27883718.87	27883718.98	0.0284	0.0248	
Moon	71638-07-11 12:58 G	27886493.79	27886494.04	27886494.29	0.0281	0.0031	
Earth	71638-07-11 12:58 G	27886493.80	27886494.04	27886494.28	0.0281	0.0028	*
Mercury	71641-03-12 20:10 G	27887469.30	27887469.34	27887469.38	0.0278	0.0269	
Mercury	71641-06-09 12:00 G	27887557.86	27887558.00	27887558.14	0.0278	0.0121	
Mercury	71641-09-06 03:36 G	27887646.50	27887646.65	27887646.81	0.0278	0.0023	
Mercury	71641-12-03 18:43 G	27887735.16	27887735.28	27887735.41	0.0278	0.0164	
Venus	71644-02-14 17:46 G	27888538.09	27888538.24	27888538.41	0.0276	0.0180	
Venus	71644-10-01 02:53 G	27888767.40	27888767.62	27888767.83	0.0275	0.0011	
Venus	71645-05-18 11:31 G	27888996.84	27888996.98	27888997.13	0.0275	0.0198	
Moon	71654-01-14 18:15 G	27892160.13	27892160.26	27892160.41	0.0278	0.0232	
Earth	71654-01-14 21:22 G	27892160.24	27892160.39	27892160.55	0.0278	0.0216	*
Mercury	71656-03-20 11:17 G	27892955.94	27892955.97	27892956.01	0.0281	0.0271	
Mercury	71656-06-17 02:24 G	27893044.46	27893044.60	27893044.73	0.0281	0.0130	
Mercury	71656-09-13 17:46 G	27893133.08	27893133.24	27893133.39	0.0281	0.0016	
Mercury	71656-12-11 09:22 G	27893221.76	27893221.89	27893222.01	0.0281	0.0163	
Venus	71659-03-15 05:31 G	27894045.56	27894045.73	27894045.92	0.0283	0.0141	
Venus	71659-10-30 20:24 G	27894275.15	27894275.35	27894275.56	0.0283	0.0065	
Venus	71660-06-16 11:03 G	27894504.90	27894504.96	27894505.03	0.0284	0.0270	
Mars	71662-05-07 02:24 G	27895194.37	27895194.60	27895194.84	0.0284	0.0141	
Earth	71667-07-05 22:34 G	27897080.41	27897080.44	27897080.47	0.0281	0.0278	
Earth	71668-07-17 18:43 G	27897458.18	27897458.28	27897458.40	0.0280	0.0250	
Moon	71668-07-17 22:19 G	27897458.34	27897458.43	27897458.53	0.0280	0.0254	*

Mercury	71670-10-27 11:31 G	27898289.86	27898289.98	27898290.10	0.0278	0.0176
Mercury	71671-01-24 03:22 G	27898378.48	27898378.64	27898378.79	0.0278	0.0030
Mercury	71671-04-22 18:43 G	27898467.14	27898467.28	27898467.42	0.0278	0.0112
Mercury	71671-07-20 09:36 G	27898555.84	27898555.90	27898555.97	0.0277	0.0250
Venus	71673-08-26 19:12 G	27899324.12	27899324.30	27899324.47	0.0276	0.0158
Venus	71674-04-13 03:51 G	27899553.45	27899553.66	27899553.88	0.0276	0.0031
Venus	71674-11-28 12:29 G	27899782.91	27899783.02	27899783.16	0.0275	0.0220
Earth	71683-01-09 07:12 G	27902746.55	27902746.80	27902747.05	0.0278	0.0025
Moon	71683-01-09 10:05 G	27902746.68	27902746.92	27902747.16	0.0278	0.0009 *
Mercury	71685-11-04 03:36 G	27903776.54	27903776.65	27903776.78	0.0281	0.0170
Mercury	71686-01-31 18:58 G	27903865.14	27903865.29	27903865.44	0.0281	0.0026
Mercury	71686-04-30 10:34 G	27903953.80	27903953.94	27903954.08	0.0281	0.0122
Mercury	71686-07-28 02:24 G	27904042.57	27904042.60	27904042.64	0.0281	0.0273
Venus	71688-09-24 12:43 G	27904831.84	27904832.03	27904832.23	0.0283	0.0107
Venus	71689-05-12 03:51 G	27905061.47	27905061.66	27905061.86	0.0284	0.0100
Moon	71697-07-12 16:34 G	27908044.95	27908045.19	27908045.43	0.0281	0.0033
Earth	71697-07-12 20:10 G	27908045.10	27908045.34	27908045.58	0.0281	0.0033 *
Mercury	71700-03-16 14:24 G	27909021.99	27909022.10	27909022.21	0.0278	0.0201
Mercury	71700-06-13 06:00 G	27909110.60	27909110.75	27909110.91	0.0278	0.0056
Mercury	71700-09-09 21:22 G	27909199.25	27909199.39	27909199.54	0.0278	0.0088
Mercury	71700-12-07 12:29 G	27909287.94	27909288.02	27909288.11	0.0277	0.0226
Venus	71703-03-10 03:51 G	27910110.47	27910110.66	27910110.85	0.0275	0.0123
Venus	71703-10-25 12:29 G	27910339.82	27910340.02	27910340.23	0.0275	0.0066
Venus	71704-06-10 21:07 G	27910569.31	27910569.38	27910569.47	0.0275	0.0253
Mars	71706-08-10 03:36 G	27911359.34	27911359.65	27911359.96	0.0274	0.0062
Moon	71712-01-04 16:19 G	27913333.06	27913333.18	27913333.31	0.0277	0.0242
Earth	71712-01-04 19:12 G	27913333.22	27913333.30	27913333.40	0.0277	0.0257 *
Earth	71713-01-17 02:24 G	27913711.56	27913711.60	27913711.66	0.0278	0.0271
Mercury	71715-03-25 04:19 G	27914508.59	27914508.68	27914508.78	0.0281	0.0214
Mercury	71715-06-21 19:27 G	27914597.17	27914597.31	27914597.46	0.0281	0.0072

Mercury	71715-09-18 10:48 G	27914685.81	27914685.95	27914686.10	0.0281	0.0075
Mercury	71715-12-16 02:39 G	27914774.52	27914774.61	27914774.71	0.0281	0.0225
Venus	71718-04-07 15:36 G	27915617.95	27915618.15	27915618.35	0.0283	0.0083
Venus	71718-11-23 06:15 G	27915847.57	27915847.76	27915847.95	0.0284	0.0123
Earth	71726-07-08 04:48 G	27918631.56	27918631.70	27918631.86	0.0281	0.0219
Moon	71726-07-08 08:39 G	27918631.72	27918631.86	27918632.01	0.0281	0.0221 *
Mercury	71729-08-03 13:27 G	27919754.01	27919754.06	27919754.12	0.0278	0.0259
Mercury	71729-10-31 05:31 G	27919842.59	27919842.73	27919842.87	0.0278	0.0112
Mercury	71730-01-27 21:07 G	27919931.22	27919931.38	27919931.53	0.0278	0.0033
Mercury	71730-04-26 12:15 G	27920019.89	27920020.01	27920020.13	0.0277	0.0173
Venus	71732-09-19 04:19 G	27920896.48	27920896.68	27920896.88	0.0276	0.0103
Venus	71733-05-06 12:58 G	27921125.84	27921126.04	27921126.24	0.0275	0.0086
Venus	71733-12-21 21:22 G	27921355.38	27921355.39	27921355.43	0.0275	0.0273
Earth	71742-01-11 09:51 G	27924297.66	27924297.91	27924298.16	0.0278	0.0028
Moon	71742-01-11 12:58 G	27924297.79	27924298.04	27924298.29	0.0278	0.0043 *
Mercury	71744-08-11 05:17 G	27925240.67	27925240.72	27925240.78	0.0281	0.0258
Mercury	71744-11-07 20:10 G	27925329.21	27925329.34	27925329.48	0.0281	0.0117
Mercury	71745-02-04 11:31 G	27925417.83	27925417.98	27925418.14	0.0281	0.0030
Mercury	71745-05-04 03:22 G	27925506.52	27925506.64	27925506.76	0.0281	0.0177
Venus	71747-03-03 05:46 G	27926174.67	27926174.74	27926174.84	0.0283	0.0257
Venus	71747-10-18 20:53 G	27926404.17	27926404.37	27926404.58	0.0283	0.0053
Venus	71748-06-04 12:00 G	27926633.83	27926634.00	27926634.18	0.0284	0.0154
Mars	71750-10-02 02:24 G	27927483.34	27927483.60	27927483.87	0.0285	0.0078
Moon	71756-07-14 23:31 G	27929596.26	27929596.48	27929596.70	0.0281	0.0094
Earth	71756-07-15 01:12 G	27929596.32	27929596.55	27929596.78	0.0281	0.0090 *
Mercury	71759-03-20 08:10 G	27930574.70	27930574.84	27930574.97	0.0278	0.0138
Mercury	71759-06-16 23:46 G	27930663.33	27930663.49	27930663.64	0.0278	0.0007
Mercury	71759-09-13 14:53 G	27930752.00	27930752.12	27930752.25	0.0278	0.0148
Venus	71761-08-15 04:05 G	27931453.61	27931453.67	27931453.76	0.0276	0.0257
Venus	71762-04-01 12:58 G	27931682.84	27931683.04	27931683.25	0.0275	0.0069

Venus	71762-11-16 21:22 G	27931912.21	27931912.39	27931912.59	0.0275	0.0120
Moon	71771-01-05 19:12 G	27934884.13	27934884.30	27934884.48	0.0277	0.0189
Earth	71771-01-05 22:05 G	27934884.27	27934884.42	27934884.60	0.0277	0.0205 *
Mercury	71774-03-27 21:07 G	27936061.26	27936061.38	27936061.50	0.0281	0.0160
Mercury	71774-06-24 12:15 G	27936149.86	27936150.01	27936150.16	0.0281	0.0017
Mercury	71774-09-21 03:36 G	27936238.52	27936238.65	27936238.79	0.0281	0.0132
Venus	71776-09-12 09:07 G	27936960.77	27936960.88	27936961.01	0.0283	0.0233
Venus	71777-04-30 00:15 G	27937190.30	27937190.51	27937190.72	0.0283	0.0029
Venus	71777-12-15 14:53 G	27937419.96	27937420.12	27937420.29	0.0284	0.0178
Earth	71785-07-09 09:36 G	27940182.72	27940182.90	27940183.11	0.0281	0.0164
Moon	71785-07-09 11:03 G	27940182.76	27940182.96	27940183.17	0.0281	0.0160 *
Mercury	71788-08-06 06:58 G	27941306.69	27941306.79	27941306.91	0.0278	0.0197
Mercury	71788-11-02 23:03 G	27941395.31	27941395.46	27941395.61	0.0278	0.0051
Mercury	71789-01-30 14:24 G	27941483.96	27941484.10	27941484.25	0.0277	0.0092
Mercury	71789-04-29 05:31 G	27941572.65	27941572.73	27941572.81	0.0277	0.0231
Venus	71791-02-25 04:05 G	27942239.57	27942239.67	27942239.78	0.0276	0.0238
Venus	71791-10-12 12:43 G	27942468.82	27942469.03	27942469.24	0.0275	0.0050
Venus	71792-05-28 21:22 G	27942698.21	27942698.39	27942698.57	0.0275	0.0138
Mars	71795-01-03 02:39 G	27943647.29	27943647.61	27943647.92	0.0275	0.0025
Moon	71801-01-13 09:22 G	27945848.65	27945848.89	27945849.14	0.0278	0.0092
Earth	71801-01-13 10:48 G	27945848.71	27945848.95	27945849.19	0.0278	0.0076 *
Mercury	71803-08-15 21:22 G	27946793.29	27946793.39	27946793.49	0.0281	0.0209
Mercury	71803-11-12 12:29 G	27946881.87	27946882.02	27946882.17	0.0281	0.0066
Mercury	71804-02-09 03:51 G	27946970.52	27946970.66	27946970.81	0.0281	0.0080
Mercury	71804-05-07 19:41 G	27947059.23	27947059.32	27947059.41	0.0281	0.0230
Venus	71806-03-26 12:43 G	27947746.90	27947747.03	27947747.19	0.0283	0.0206
Venus	71806-11-11 04:05 G	27947976.46	27947976.67	27947976.88	0.0283	0.0002
Venus	71807-06-28 18:58 G	27948206.15	27948206.29	27948206.44	0.0284	0.0206
Earth	71815-07-18 03:51 G	27951147.46	27951147.66	27951147.88	0.0281	0.0143
Moon	71815-07-18 06:58 G	27951147.60	27951147.79	27951147.99	0.0281	0.0152 *

Mercury	71817-12-25 09:22 G	27952038.81	27952038.89	27952038.99	0.0279	0.0226
Mercury	71818-03-24 01:27 G	27952127.41	27952127.56	27952127.71	0.0278	0.0079
Mercury	71818-06-20 16:48 G	27952216.05	27952216.20	27952216.36	0.0278	0.0065
Mercury	71818-09-17 07:55 G	27952304.73	27952304.83	27952304.94	0.0278	0.0205
Venus	71820-09-07 12:15 G	27953025.88	27953026.01	27953026.17	0.0276	0.0205
Venus	71821-04-24 21:07 G	27953255.17	27953255.38	27953255.59	0.0275	0.0016
Venus	71821-12-10 05:31 G	27953484.57	27953484.73	27953484.90	0.0275	0.0172
Earth	71830-01-08 00:15 G	27956435.31	27956435.51	27956435.72	0.0277	0.0155
Moon	71830-01-08 02:10 G	27956435.38	27956435.59	27956435.80	0.0277	0.0138 *
Mercury	71833-01-01 22:19 G	27957525.37	27957525.43	27957525.50	0.0280	0.0250
Mercury	71833-03-31 13:27 G	27957613.92	27957614.06	27957614.20	0.0281	0.0109
Mercury	71833-06-28 04:34 G	27957702.54	27957702.69	27957702.85	0.0281	0.0037
Mercury	71833-09-24 20:24 G	27957791.23	27957791.35	27957791.46	0.0281	0.0184
Venus	71835-10-06 16:34 G	27958533.03	27958533.19	27958533.36	0.0283	0.0180
Venus	71836-05-23 07:27 G	27958762.60	27958762.81	27958763.02	0.0284	0.0025
Venus	71837-01-07 22:19 G	27958992.32	27958992.43	27958992.56	0.0284	0.0231
Mars	71839-02-26 06:43 G	27959771.51	27959771.78	27959772.05	0.0285	0.0048
Moon	71844-07-11 09:36 G	27961733.68	27961733.90	27961734.14	0.0281	0.0103
Earth	71844-07-11 12:43 G	27961733.82	27961734.03	27961734.26	0.0281	0.0110 *
Mercury	71847-08-11 00:29 G	27962859.39	27962859.52	27962859.66	0.0278	0.0137
Mercury	71847-11-07 16:19 G	27962948.02	27962948.18	27962948.33	0.0278	0.0010
Mercury	71848-02-04 07:27 G	27963036.68	27963036.81	27963036.94	0.0277	0.0149
Venus	71850-03-20 12:00 G	27963811.85	27963812.00	27963812.17	0.0276	0.0186
Venus	71850-11-04 20:53 G	27964041.15	27964041.37	27964041.58	0.0275	0.0005
Venus	71851-06-22 05:17 G	27964270.57	27964270.72	27964270.88	0.0275	0.0190
Moon	71860-01-15 07:12 G	27967399.58	27967399.80	27967400.01	0.0278	0.0138
Earth	71860-01-15 10:48 G	27967399.74	27967399.95	27967400.18	0.0278	0.0124 *
Mercury	71862-08-18 13:12 G	27968345.93	27968346.05	27968346.18	0.0281	0.0162
Mercury	71862-11-15 04:19 G	27968434.53	27968434.68	27968434.84	0.0281	0.0020
Mercury	71863-02-11 19:55 G	27968523.20	27968523.33	27968523.47	0.0281	0.0129

Mercury	71863-05-11 11:46 G	27968611.98	27968611.99	27968612.01	0.0281	0.0280
Venus	71865-04-17 19:12 G	27969319.13	27969319.30	27969319.48	0.0283	0.0155
Venus	71865-12-03 10:19 G	27969548.72	27969548.93	27969549.14	0.0284	0.0051
Venus	71866-07-21 01:27 G	27969778.47	27969778.56	27969778.65	0.0284	0.0256
Earth	71874-07-19 06:00 G	27972698.58	27972698.75	27972698.92	0.0281	0.0194
Moon	71874-07-19 08:39 G	27972698.70	27972698.86	27972699.04	0.0281	0.0205 *
Mercury	71876-12-28 02:39 G	27973591.49	27973591.61	27973591.73	0.0279	0.0168
Mercury	71877-03-26 18:29 G	27973680.11	27973680.27	27973680.42	0.0278	0.0022
Mercury	71877-06-23 09:51 G	27973768.77	27973768.91	27973769.05	0.0278	0.0120
Mercury	71877-09-20 00:43 G	27973857.48	27973857.53	27973857.59	0.0278	0.0259
Venus	71879-09-30 20:24 G	27974598.17	27974598.35	27974598.52	0.0276	0.0153
Venus	71880-05-17 04:48 G	27974827.49	27974827.70	27974827.92	0.0275	0.0036
Venus	71881-01-01 13:12 G	27975056.94	27975057.05	27975057.18	0.0275	0.0223
Mars	71883-05-31 03:51 G	27975936.36	27975936.66	27975936.98	0.0274	0.0055
Earth	71889-01-09 01:41 G	27977986.35	27977986.57	27977986.81	0.0277	0.0106
Moon	71889-01-09 05:17 G	27977986.49	27977986.72	27977986.97	0.0277	0.0090 *
Mercury	71892-01-05 14:39 G	27979078.01	27979078.11	27979078.22	0.0280	0.0200
Mercury	71892-04-03 05:46 G	27979166.59	27979166.74	27979166.89	0.0281	0.0059
Mercury	71892-06-30 20:53 G	27979255.23	27979255.37	27979255.52	0.0281	0.0088
Mercury	71892-09-27 12:43 G	27979343.95	27979344.03	27979344.11	0.0281	0.0237
Venus	71894-10-28 23:31 G	27980105.30	27980105.48	27980105.67	0.0283	0.0128
Venus	71895-06-15 14:24 G	27980334.90	27980335.10	27980335.31	0.0284	0.0077
Venus	71896-01-31 05:17 G	27980564.71	27980564.72	27980564.75	0.0284	0.0282
Moon	71903-07-14 12:15 G	27983284.78	27983285.01	27983285.25	0.0281	0.0051
Earth	71903-07-14 14:53 G	27983284.89	27983285.12	27983285.36	0.0281	0.0059 *
Mercury	71906-05-18 01:41 G	27984323.48	27984323.57	27984323.66	0.0278	0.0227
Mercury	71906-08-14 17:31 G	27984412.08	27984412.23	27984412.38	0.0278	0.0080
Mercury	71906-11-11 09:07 G	27984500.73	27984500.88	27984501.03	0.0278	0.0063
Mercury	71907-02-08 00:15 G	27984589.41	27984589.51	27984589.62	0.0277	0.0203
Venus	71909-04-12 19:41 G	27985384.14	27985384.32	27985384.51	0.0275	0.0134

Venus	71909-11-28 04:19 G	27985613.47	27985613.68	27985613.89	0.0275	0.0054
Venus	71910-07-15 12:43 G	27985842.94	27985843.03	27985843.14	0.0275	0.0241
Earth	71919-01-17 11:17 G	27988950.78	27988950.97	27988951.17	0.0278	0.0171
Moon	71919-01-17 11:17 G	27988950.80	27988950.97	27988951.16	0.0278	0.0183 *
Mercury	71921-05-25 14:10 G	27989810.04	27989810.09	27989810.16	0.0280	0.0255
Mercury	71921-08-22 05:03 G	27989898.58	27989898.71	27989898.86	0.0281	0.0115
Mercury	71921-11-18 20:24 G	27989987.20	27989987.35	27989987.51	0.0281	0.0031
Mercury	71922-02-15 12:00 G	27990075.88	27990076.00	27990076.12	0.0281	0.0178
Venus	71924-05-11 01:12 G	27990891.36	27990891.55	27990891.75	0.0283	0.0105
Venus	71924-12-26 16:19 G	27991120.99	27991121.18	27991121.38	0.0284	0.0101
Mars	71927-07-23 10:19 G	27992059.66	27992059.93	27992060.20	0.0285	0.0017
Moon	71933-07-21 04:48 G	27994249.60	27994249.70	27994249.81	0.0282	0.0255
Earth	71933-07-21 06:29 G	27994249.65	27994249.77	27994249.90	0.0282	0.0242 *
Mercury	71935-10-05 03:22 G	27995055.59	27995055.64	27995055.69	0.0279	0.0261
Mercury	71936-01-01 19:27 G	27995144.17	27995144.31	27995144.45	0.0279	0.0113
Mercury	71936-03-30 11:03 G	27995232.81	27995232.96	27995233.12	0.0278	0.0034
Mercury	71936-06-27 02:24 G	27995321.49	27995321.60	27995321.72	0.0278	0.0174
Venus	71938-10-24 03:36 G	27996170.46	27996170.65	27996170.85	0.0276	0.0102
Venus	71939-06-10 12:15 G	27996399.81	27996400.01	27996400.22	0.0275	0.0087
Venus	71940-01-25 20:53 G	27996629.35	27996629.37	27996629.39	0.0275	0.0273
Moon	71948-01-12 02:53 G	27999537.37	27999537.62	27999537.88	0.0277	0.0045
Earth	71948-01-12 03:07 G	27999537.40	27999537.63	27999537.88	0.0277	0.0058 *
Mercury	71951-01-09 06:43 G	28000630.66	28000630.78	28000630.91	0.0280	0.0151
Mercury	71951-04-07 21:51 G	28000719.26	28000719.41	28000719.56	0.0281	0.0009
Mercury	71951-07-05 13:12 G	28000807.92	28000808.05	28000808.19	0.0281	0.0139
Venus	71953-04-05 15:36 G	28001448.13	28001448.15	28001448.18	0.0283	0.0280
Venus	71953-11-21 06:15 G	28001677.56	28001677.76	28001677.97	0.0283	0.0077
Venus	71954-07-08 21:07 G	28001907.20	28001907.38	28001907.57	0.0284	0.0129
Earth	71962-07-15 16:48 G	28004835.96	28004836.20	28004836.45	0.0282	0.0009
Moon	71962-07-15 18:15 G	28004836.03	28004836.26	28004836.49	0.0282	0.0003 *

Mercury	71965-05-20 18:43 G	28005876.16	28005876.28	28005876.41	0.0278	0.0169
Mercury	71965-08-17 10:48 G	28005964.79	28005964.95	28005965.10	0.0278	0.0024
Mercury	71965-11-14 02:10 G	28006053.45	28006053.59	28006053.73	0.0278	0.0119
Mercury	71966-02-10 17:03 G	28006142.16	28006142.21	28006142.27	0.0277	0.0258
Venus	71967-09-18 18:58 G	28006727.25	28006727.29	28006727.33	0.0276	0.0269
Venus	71968-05-05 03:36 G	28006956.45	28006956.65	28006956.85	0.0275	0.0082
Venus	71968-12-20 12:00 G	28007185.81	28007186.00	28007186.20	0.0275	0.0106
Mars	71971-10-24 20:10 G	28008224.05	28008224.34	28008224.65	0.0274	0.0084
Earth	71978-01-18 12:00 G	28010501.85	28010502.00	28010502.16	0.0278	0.0219
Moon	71978-01-18 15:51 G	28010502.02	28010502.16	28010502.30	0.0278	0.0226 *
Mercury	71980-05-28 06:00 G	28011362.66	28011362.75	28011362.86	0.0280	0.0208
Mercury	71980-08-24 21:07 G	28011451.24	28011451.38	28011451.53	0.0281	0.0066
Mercury	71980-11-21 12:29 G	28011539.88	28011540.02	28011540.17	0.0281	0.0080
Mercury	71981-02-18 04:19 G	28011628.59	28011628.68	28011628.77	0.0281	0.0229
Venus	71982-10-16 16:19 G	28012234.10	28012234.18	28012234.27	0.0283	0.0258
Venus	71983-06-03 07:27 G	28012463.60	28012463.81	28012464.02	0.0283	0.0055
Venus	71984-01-18 22:48 G	28012693.27	28012693.45	28012693.63	0.0284	0.0151
Moon	71991-07-10 06:00 G	28015422.63	28015422.75	28015422.90	0.0283	0.0238
Earth	71991-07-10 07:27 G	28015422.70	28015422.81	28015422.94	0.0283	0.0246 *
Mercury	71994-10-07 20:10 G	28016608.24	28016608.34	28016608.45	0.0279	0.0206
Mercury	71995-01-04 12:15 G	28016696.86	28016697.01	28016697.17	0.0279	0.0058
Mercury	71995-04-03 03:51 G	28016785.52	28016785.66	28016785.81	0.0279	0.0086
Mercury	71995-06-30 18:58 G	28016874.21	28016874.29	28016874.39	0.0278	0.0226
Venus	71997-03-31 01:55 G	28017513.49	28017513.58	28017513.69	0.0276	0.0240
Venus	71997-11-15 11:03 G	28017742.75	28017742.96	28017743.17	0.0276	0.0051
Venus	71998-07-02 19:41 G	28017972.14	28017972.32	28017972.51	0.0275	0.0138

73RD MILLENNIUM CE

This is a list of transits visible from Saturn in the 73rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	72007-01-13 02:24	G	28021088.35	28021088.60	28021088.86	0.0277	0.0005	
Earth	72007-01-13 06:00	G	28021088.51	28021088.75	28021089.00	0.0277	0.0009	*
Mercury	72009-10-15 08:10	G	28022094.77	28022094.84	28022094.93	0.0280	0.0239	
Mercury	72010-01-11 23:17	G	28022183.33	28022183.47	28022183.61	0.0280	0.0099	
Mercury	72010-04-10 14:24	G	28022271.95	28022272.10	28022272.25	0.0280	0.0045	
Mercury	72010-07-08 05:46	G	28022360.64	28022360.74	28022360.86	0.0281	0.0193	
Venus	72012-04-27 22:48	G	28023020.34	28023020.45	28023020.59	0.0283	0.0228	
Venus	72012-12-13 13:55	G	28023249.87	28023250.08	28023250.29	0.0283	0.0024	
Venus	72013-07-31 04:48	G	28023479.54	28023479.70	28023479.86	0.0284	0.0181	
Mars	72015-12-16 19:27	G	28024348.04	28024348.31	28024348.58	0.0285	0.0022	
Earth	72021-07-16 18:29	G	28026387.04	28026387.27	28026387.52	0.0282	0.0043	
Moon	72021-07-16 22:19	G	28026387.19	28026387.43	28026387.67	0.0282	0.0055	*
Mercury	72024-02-24 19:55	G	28027340.28	28027340.33	28027340.38	0.0279	0.0260	
Mercury	72024-05-23 12:00	G	28027428.86	28027429.00	28027429.14	0.0278	0.0112	
Mercury	72024-08-20 03:51	G	28027517.50	28027517.66	28027517.81	0.0278	0.0034	
Mercury	72024-11-16 18:58	G	28027606.18	28027606.29	28027606.41	0.0278	0.0175	
Venus	72026-10-11 02:53	G	28028299.49	28028299.62	28028299.75	0.0276	0.0217	
Venus	72027-05-28 11:46	G	28028528.78	28028528.99	28028529.20	0.0275	0.0030	
Venus	72028-01-12 20:10	G	28028758.17	28028758.34	28028758.52	0.0275	0.0158	
Earth	72036-01-07 09:51	G	28031674.81	28031674.91	28031675.02	0.0276	0.0251	
Moon	72036-01-07 13:12	G	28031674.94	28031675.05	28031675.19	0.0276	0.0237	*
Earth	72037-01-19 14:24	G	28032053.05	28032053.10	28032053.17	0.0278	0.0269	

Moon	72037-01-19 15:51 G	28032053.13	28032053.16	28032053.22	0.0278	0.0272	*
Mercury	72039-05-31 22:34 G	28032915.31	28032915.44	28032915.56	0.0280	0.0156	
Mercury	72039-08-28 13:41 G	28033003.91	28033004.07	28033004.22	0.0280	0.0015	
Mercury	72039-11-25 05:03 G	28033092.57	28033092.71	28033092.84	0.0281	0.0132	
Venus	72041-11-07 23:17 G	28033806.34	28033806.47	28033806.62	0.0283	0.0207	
Venus	72042-06-25 14:24 G	28034035.89	28034036.10	28034036.31	0.0283	0.0004	
Venus	72043-02-10 05:31 G	28034265.59	28034265.73	28034265.88	0.0284	0.0202	
Moon	72050-07-11 04:48 G	28036973.53	28036973.70	28036973.89	0.0283	0.0186	
Earth	72050-07-11 08:24 G	28036973.69	28036973.85	28036974.03	0.0283	0.0198	*
Mercury	72053-10-10 13:12 G	28038160.92	28038161.05	28038161.19	0.0279	0.0149	
Mercury	72054-01-07 05:17 G	28038249.56	28038249.72	28038249.87	0.0279	0.0004	
Mercury	72054-04-05 20:39 G	28038338.23	28038338.36	28038338.50	0.0279	0.0141	
Venus	72056-04-22 09:51 G	28039085.76	28039085.91	28039086.07	0.0276	0.0188	
Venus	72056-12-07 18:58 G	28039315.08	28039315.29	28039315.50	0.0276	0.0002	
Venus	72057-07-25 03:36 G	28039544.51	28039544.65	28039544.82	0.0275	0.0190	
Mars	72060-03-20 01:27 G	28040513.32	28040513.56	28040513.81	0.0274	0.0170	
Moon	72066-01-14 08:10 G	28042639.60	28042639.84	28042640.07	0.0277	0.0054	
Earth	72066-01-14 09:51 G	28042639.67	28042639.91	28042640.16	0.0277	0.0045	*
Mercury	72068-10-18 00:58 G	28043647.43	28043647.54	28043647.66	0.0280	0.0185	
Mercury	72069-01-14 15:51 G	28043736.01	28043736.16	28043736.32	0.0280	0.0045	
Mercury	72069-04-13 07:12 G	28043824.66	28043824.80	28043824.95	0.0280	0.0101	
Mercury	72069-07-10 22:48 G	28043913.39	28043913.45	28043913.53	0.0281	0.0249	
Venus	72071-05-21 07:27 G	28044592.64	28044592.81	28044592.98	0.0283	0.0173	
Venus	72072-01-05 22:19 G	28044822.22	28044822.43	28044822.64	0.0283	0.0031	
Venus	72072-08-22 12:58 G	28045051.93	28045052.04	28045052.16	0.0284	0.0235	
Earth	72080-07-17 21:51 G	28047938.18	28047938.41	28047938.63	0.0282	0.0094	
Moon	72080-07-17 22:05 G	28047938.20	28047938.42	28047938.66	0.0282	0.0109	*
Mercury	72083-02-27 13:12 G	28048892.95	28048893.05	28048893.17	0.0279	0.0200	
Mercury	72083-05-27 05:17 G	28048981.57	28048981.72	28048981.88	0.0278	0.0053	
Mercury	72083-08-23 20:53 G	28049070.23	28049070.37	28049070.52	0.0278	0.0091	

Mercury	72083-11-20 12:15 G	28049158.93	28049159.01	28049159.09	0.0278	0.0231
Venus	72085-11-02 11:31 G	28049871.81	28049871.98	28049872.15	0.0276	0.0164
Venus	72086-06-19 20:24 G	28050101.14	28050101.35	28050101.56	0.0275	0.0024
Venus	72087-02-04 04:48 G	28050330.58	28050330.70	28050330.85	0.0275	0.0211
Earth	72095-01-08 14:39 G	28053225.95	28053226.11	28053226.29	0.0276	0.0198
Moon	72095-01-08 16:19 G	28053226.01	28053226.18	28053226.39	0.0276	0.0186 *
Mercury	72098-03-07 00:29 G	28054379.45	28054379.52	28054379.60	0.0280	0.0240
Mercury	72098-06-03 15:22 G	28054468.00	28054468.14	28054468.28	0.0280	0.0101
Mercury	72098-08-31 06:29 G	28054556.62	28054556.77	28054556.92	0.0280	0.0042
Mercury	72098-11-27 21:51 G	28054645.30	28054645.41	28054645.53	0.0281	0.0190
Venus	72100-12-01 07:55 G	28055378.66	28055378.83	28055379.01	0.0283	0.0153
Venus	72101-07-18 22:48 G	28055608.25	28055608.45	28055608.66	0.0283	0.0052
Venus	72102-03-05 13:41 G	28055837.99	28055838.07	28055838.17	0.0284	0.0256
Mars	72104-05-11 22:05 G	28056636.16	28056636.42	28056636.69	0.0285	0.0054
Earth	72109-07-13 10:34 G	28058524.74	28058524.94	28058525.15	0.0283	0.0148
Moon	72109-07-13 10:34 G	28058524.74	28058524.94	28058525.15	0.0283	0.0134 *
Mercury	72112-07-17 14:24 G	28059625.02	28059625.10	28059625.18	0.0280	0.0241
Mercury	72112-10-14 06:29 G	28059713.62	28059713.77	28059713.92	0.0279	0.0092
Mercury	72113-01-10 22:19 G	28059802.28	28059802.43	28059802.58	0.0279	0.0054
Mercury	72113-04-09 13:41 G	28059890.96	28059891.07	28059891.18	0.0279	0.0196
Venus	72115-05-16 18:15 G	28060658.08	28060658.26	28060658.45	0.0277	0.0135
Venus	72116-01-01 03:22 G	28060887.44	28060887.64	28060887.85	0.0276	0.0055
Venus	72116-08-17 12:15 G	28061116.92	28061117.01	28061117.12	0.0275	0.0242
Earth	72125-01-16 15:36 G	28064190.92	28064191.15	28064191.39	0.0277	0.0100
Moon	72125-01-16 18:00 G	28064191.03	28064191.25	28064191.47	0.0277	0.0107 *
Mercury	72127-07-26 03:22 G	28065111.60	28065111.64	28065111.68	0.0279	0.0266
Mercury	72127-10-22 18:00 G	28065200.12	28065200.25	28065200.39	0.0280	0.0128
Mercury	72128-01-19 09:07 G	28065288.73	28065288.88	28065289.03	0.0280	0.0014
Mercury	72128-04-17 00:29 G	28065377.40	28065377.52	28065377.65	0.0280	0.0160
Venus	72130-06-13 16:48 G	28066165.01	28066165.20	28066165.40	0.0283	0.0117

Venus	72131-01-29 07:41 G	28066394.62	28066394.82	28066395.02	0.0283	0.0087
Moon	72139-07-20 22:34 G	28069489.25	28069489.44	28069489.64	0.0282	0.0166
Earth	72139-07-21 02:10 G	28069489.39	28069489.59	28069489.80	0.0282	0.0149 *
Mercury	72142-03-03 07:12 G	28070445.66	28070445.80	28070445.93	0.0279	0.0137
Mercury	72142-05-30 23:03 G	28070534.30	28070534.46	28070534.62	0.0278	0.0009
Mercury	72142-08-27 14:24 G	28070622.98	28070623.10	28070623.23	0.0278	0.0152
Venus	72144-11-25 21:07 G	28071444.19	28071444.38	28071444.58	0.0276	0.0109
Venus	72145-07-13 06:15 G	28071673.56	28071673.76	28071673.96	0.0275	0.0079
Venus	72146-02-27 14:39 G	28071903.07	28071903.11	28071903.18	0.0275	0.0265
Mars	72148-08-14 07:41 G	28072801.65	28072801.82	28072802.01	0.0274	0.0222
Moon	72154-01-10 18:58 G	28074777.07	28074777.29	28074777.51	0.0276	0.0132
Earth	72154-01-10 21:51 G	28074777.20	28074777.41	28074777.62	0.0276	0.0141 *
Mercury	72157-03-10 17:46 G	28075932.13	28075932.24	28075932.35	0.0280	0.0182
Mercury	72157-06-07 08:39 G	28076020.71	28076020.86	28076021.01	0.0280	0.0041
Mercury	72157-09-03 23:46 G	28076109.35	28076109.49	28076109.64	0.0280	0.0103
Mercury	72157-12-01 15:22 G	28076198.08	28076198.14	28076198.21	0.0281	0.0251
Venus	72159-12-24 17:46 G	28076951.04	28076951.24	28076951.44	0.0283	0.0096
Venus	72160-08-10 08:24 G	28077180.66	28077180.85	28077181.05	0.0283	0.0108
Earth	72168-07-14 14:39 G	28080075.89	28080076.11	28080076.35	0.0283	0.0095
Moon	72168-07-14 18:29 G	28080076.04	28080076.27	28080076.50	0.0283	0.0078 *
Mercury	72171-07-21 07:55 G	28081177.71	28081177.83	28081177.95	0.0280	0.0179
Mercury	72171-10-18 00:00 G	28081266.35	28081266.50	28081266.66	0.0279	0.0031
Mercury	72172-01-14 15:36 G	28081355.02	28081355.15	28081355.30	0.0279	0.0114
Mercury	72172-04-12 06:58 G	28081443.73	28081443.79	28081443.85	0.0279	0.0254
Venus	72173-10-21 18:15 G	28082001.21	28082001.26	28082001.31	0.0277	0.0269
Venus	72174-06-08 03:36 G	28082230.45	28082230.65	28082230.86	0.0277	0.0080
Venus	72175-01-23 12:43 G	28082459.84	28082460.03	28082460.23	0.0276	0.0109
Earth	72184-01-18 23:31 G	28085742.28	28085742.48	28085742.69	0.0277	0.0157
Moon	72184-01-19 02:53 G	28085742.43	28085742.62	28085742.84	0.0277	0.0164 *
Mercury	72186-07-28 20:53 G	28086664.27	28086664.37	28086664.47	0.0279	0.0205

Mercury	72186-10-25 11:46 G	28086752.84	28086752.99	28086753.14	0.0280	0.0066
Mercury	72187-01-22 02:53 G	28086841.48	28086841.62	28086841.77	0.0280	0.0078
Mercury	72187-04-20 18:29 G	28086930.18	28086930.27	28086930.36	0.0280	0.0225
Venus	72188-11-18 13:27 G	28087507.98	28087508.06	28087508.15	0.0282	0.0258
Venus	72189-07-06 04:05 G	28087737.46	28087737.67	28087737.88	0.0283	0.0057
Venus	72190-02-20 18:43 G	28087967.10	28087967.28	28087967.47	0.0283	0.0146
Mars	72192-10-06 02:53 G	28088925.39	28088925.62	28088925.87	0.0285	0.0131
Moon	72198-07-22 06:43 G	28091040.65	28091040.78	28091040.93	0.0282	0.0223
Earth	72198-07-22 08:39 G	28091040.70	28091040.86	28091041.03	0.0282	0.0206 *
Mercury	72200-12-08 09:07 G	28091909.78	28091909.88	28091909.97	0.0279	0.0220
Mercury	72201-03-07 01:12 G	28091998.40	28091998.55	28091998.70	0.0279	0.0072
Mercury	72201-06-03 16:48 G	28092087.06	28092087.20	28092087.36	0.0278	0.0074
Mercury	72201-08-31 08:10 G	28092175.75	28092175.84	28092175.94	0.0278	0.0214
Venus	72203-05-04 22:34 G	28092787.34	28092787.44	28092787.55	0.0276	0.0240
Venus	72203-12-20 07:41 G	28093016.61	28093016.82	28093017.03	0.0276	0.0052
Venus	72204-08-05 16:34 G	28093246.01	28093246.19	28093246.38	0.0275	0.0136
Moon	72213-01-13 03:51 G	28096328.43	28096328.66	28096328.90	0.0276	0.0075
Earth	72213-01-13 06:58 G	28096328.55	28096328.79	28096329.03	0.0276	0.0080 *
Mercury	72215-12-16 20:53 G	28097396.31	28097396.37	28097396.43	0.0280	0.0256
Mercury	72216-03-14 11:31 G	28097484.84	28097484.98	28097485.12	0.0280	0.0118
Mercury	72216-06-11 02:39 G	28097573.45	28097573.61	28097573.76	0.0280	0.0024
Mercury	72216-09-07 17:46 G	28097662.12	28097662.24	28097662.37	0.0280	0.0169
Venus	72218-06-01 14:10 G	28098293.99	28098294.09	28098294.21	0.0282	0.0238
Venus	72219-01-17 05:03 G	28098523.50	28098523.71	28098523.92	0.0283	0.0036
Venus	72219-09-03 19:41 G	28098753.16	28098753.32	28098753.50	0.0283	0.0167
Earth	72227-07-17 20:53 G	28101627.13	28101627.37	28101627.61	0.0283	0.0039
Moon	72227-07-17 22:34 G	28101627.19	28101627.44	28101627.69	0.0283	0.0023 *
Mercury	72230-04-27 09:36 G	28102641.85	28102641.90	28102641.95	0.0280	0.0265
Mercury	72230-07-25 01:55 G	28102730.44	28102730.58	28102730.73	0.0280	0.0115
Mercury	72230-10-21 18:00 G	28102819.09	28102819.25	28102819.40	0.0279	0.0033

Mercury	72231-01-18 09:22 G	28102907.78	28102907.89	28102908.01	0.0279	0.0176
Venus	72232-11-14 04:19 G	28103573.55	28103573.68	28103573.82	0.0277	0.0212
Venus	72233-07-01 13:55 G	28103802.87	28103803.08	28103803.29	0.0277	0.0023
Venus	72234-02-15 23:03 G	28104032.30	28104032.46	28104032.64	0.0276	0.0165
Moon	72243-01-21 08:39 G	28107293.71	28107293.86	28107294.02	0.0277	0.0218
Earth	72243-01-21 09:07 G	28107293.74	28107293.88	28107294.04	0.0277	0.0219 *
Mercury	72245-05-05 00:00 G	28108128.50	28108128.50	28108128.52	0.0279	0.0279
Mercury	72245-08-01 14:53 G	28108216.99	28108217.12	28108217.25	0.0279	0.0141
Mercury	72245-10-29 05:46 G	28108305.59	28108305.74	28108305.89	0.0280	0.0004
Mercury	72246-01-25 21:07 G	28108394.25	28108394.38	28108394.51	0.0280	0.0145
Venus	72247-12-13 01:41 G	28109080.43	28109080.57	28109080.73	0.0282	0.0198
Venus	72248-07-29 16:19 G	28109309.97	28109310.18	28109310.39	0.0283	0.0004
Venus	72249-03-16 06:43 G	28109539.65	28109539.78	28109539.93	0.0283	0.0208
Moon	72256-07-11 14:53 G	28112214.03	28112214.12	28112214.23	0.0283	0.0255
Earth	72256-07-11 16:48 G	28112214.14	28112214.20	28112214.29	0.0283	0.0268 *
Earth	72257-07-24 17:17 G	28112592.14	28112592.22	28112592.29	0.0282	0.0266
Moon	72257-07-24 19:41 G	28112592.32	28112592.32	28112592.32	0.0282	0.0282
Mercury	72259-12-12 03:36 G	28113462.52	28113462.65	28113462.78	0.0279	0.0151
Mercury	72260-03-09 19:41 G	28113551.16	28113551.32	28113551.47	0.0279	0.0006
Mercury	72260-06-06 11:17 G	28113639.84	28113639.97	28113640.10	0.0279	0.0140
Venus	72262-05-27 09:51 G	28114359.76	28114359.91	28114360.08	0.0276	0.0182
Venus	72263-01-11 19:12 G	28114589.09	28114589.30	28114589.51	0.0276	0.0007
Venus	72263-08-29 04:05 G	28114818.53	28114818.67	28114818.83	0.0275	0.0193
Earth	72272-01-15 17:46 G	28117879.99	28117880.24	28117880.49	0.0276	0.0018
Moon	72272-01-15 18:58 G	28117880.05	28117880.29	28117880.53	0.0276	0.0016 *
Mercury	72274-12-19 15:07 G	28118949.02	28118949.13	28118949.24	0.0280	0.0190
Mercury	72275-03-18 05:46 G	28119037.59	28119037.74	28119037.89	0.0280	0.0050
Mercury	72275-06-14 20:53 G	28119126.23	28119126.37	28119126.52	0.0280	0.0093
Mercury	72275-09-11 12:29 G	28119214.94	28119215.02	28119215.10	0.0280	0.0240
Venus	72277-06-24 03:07 G	28119866.47	28119866.63	28119866.80	0.0282	0.0176

Venus	72278-02-08 17:46 G	28120096.04	28120096.24	28120096.46	0.0283	0.0027
Venus	72278-09-26 08:39 G	28120325.74	28120325.86	28120325.98	0.0283	0.0229
Mars	72281-03-02 18:29 G	28121214.07	28121214.27	28121214.49	0.0285	0.0186
Moon	72286-07-19 02:39 G	28123178.36	28123178.61	28123178.86	0.0283	0.0037
Earth	72286-07-19 05:03 G	28123178.47	28123178.71	28123178.95	0.0283	0.0022 *
Mercury	72289-04-30 04:05 G	28124194.56	28124194.67	28124194.78	0.0280	0.0196
Mercury	72289-07-27 20:24 G	28124283.19	28124283.35	28124283.50	0.0280	0.0048
Mercury	72289-10-24 12:00 G	28124371.86	28124372.00	28124372.15	0.0279	0.0098
Mercury	72290-01-21 03:22 G	28124460.57	28124460.64	28124460.72	0.0279	0.0239
Venus	72291-12-07 15:07 G	28125145.96	28125146.13	28125146.31	0.0277	0.0154
Venus	72292-07-24 00:43 G	28125375.32	28125375.53	28125375.74	0.0277	0.0035
Venus	72293-03-10 10:05 G	28125604.80	28125604.92	28125605.04	0.0276	0.0222
Moon	72301-01-10 15:07 G	28128467.00	28128467.13	28128467.29	0.0276	0.0228
Earth	72301-01-10 16:05 G	28128467.06	28128467.17	28128467.31	0.0276	0.0235 *
Moon	72302-01-23 16:34 G	28128845.19	28128845.19	28128845.20	0.0277	0.0277
Mercury	72304-05-08 18:29 G	28129681.17	28129681.27	28129681.36	0.0279	0.0212
Mercury	72304-08-05 09:07 G	28129769.74	28129769.88	28129770.03	0.0280	0.0073
Mercury	72304-11-02 00:15 G	28129858.36	28129858.51	28129858.66	0.0280	0.0070
Mercury	72305-01-29 15:36 G	28129947.06	28129947.15	28129947.25	0.0280	0.0217
Venus	72307-01-05 15:07 G	28130652.94	28130653.13	28130653.32	0.0282	0.0135
Venus	72307-08-23 05:31 G	28130882.53	28130882.73	28130882.94	0.0283	0.0068
Venus	72308-04-08 20:10 G	28131112.28	28131112.34	28131112.41	0.0284	0.0270
Earth	72315-07-15 03:07 G	28133765.47	28133765.63	28133765.80	0.0283	0.0203
Moon	72315-07-15 04:48 G	28133765.54	28133765.70	28133765.89	0.0283	0.0189 *
Mercury	72318-09-18 06:00 G	28134926.67	28134926.75	28134926.85	0.0279	0.0229
Mercury	72318-12-15 22:19 G	28135015.28	28135015.43	28135015.58	0.0279	0.0080
Mercury	72319-03-14 14:10 G	28135103.94	28135104.09	28135104.24	0.0279	0.0066
Mercury	72319-06-11 05:46 G	28135192.64	28135192.74	28135192.84	0.0279	0.0208
Venus	72321-06-19 22:05 G	28135932.24	28135932.42	28135932.62	0.0276	0.0121
Venus	72322-02-04 07:12 G	28136161.60	28136161.80	28136162.01	0.0276	0.0067

Venus	72322-09-21 16:05 G	28136391.10	28136391.17	28136391.26	0.0275	0.0252
Earth	72331-01-18 06:00 G	28139431.50	28139431.75	28139431.99	0.0276	0.0047
Moon	72331-01-18 09:36 G	28139431.66	28139431.90	28139432.15	0.0276	0.0047 *
Mercury	72333-09-25 18:58 G	28140413.23	28140413.29	28140413.34	0.0279	0.0258
Mercury	72333-12-23 09:22 G	28140501.76	28140501.89	28140502.03	0.0280	0.0121
Mercury	72334-03-22 00:29 G	28140590.37	28140590.52	28140590.67	0.0280	0.0021
Mercury	72334-06-18 15:36 G	28140679.03	28140679.15	28140679.28	0.0280	0.0166
Venus	72336-07-17 16:48 G	28141439.01	28141439.20	28141439.40	0.0282	0.0113
Venus	72337-03-04 07:27 G	28141668.61	28141668.81	28141669.01	0.0283	0.0090
Moon	72345-07-21 11:17 G	28144729.75	28144729.97	28144730.20	0.0282	0.0100
Earth	72345-07-21 14:39 G	28144729.88	28144730.11	28144730.34	0.0282	0.0084 *
Mercury	72348-02-05 06:15 G	28145658.75	28145658.76	28145658.79	0.0280	0.0277
Mercury	72348-05-03 22:48 G	28145747.31	28145747.45	28145747.59	0.0280	0.0126
Mercury	72348-07-31 14:53 G	28145835.96	28145836.12	28145836.27	0.0279	0.0022
Mercury	72348-10-28 06:15 G	28145924.64	28145924.76	28145924.89	0.0279	0.0166
Venus	72350-12-31 02:39 G	28146718.42	28146718.61	28146718.81	0.0277	0.0095
Venus	72351-08-17 12:15 G	28146947.81	28146948.01	28146948.21	0.0276	0.0094
Moon	72360-01-12 23:31 G	28150018.28	28150018.48	28150018.68	0.0276	0.0166
Earth	72360-01-13 02:53 G	28150018.44	28150018.62	28150018.83	0.0276	0.0172 *
Mercury	72363-05-12 12:43 G	28151233.90	28151234.03	28151234.16	0.0279	0.0143
Mercury	72363-08-09 03:36 G	28151322.50	28151322.65	28151322.81	0.0280	0.0006
Mercury	72363-11-05 18:43 G	28151411.16	28151411.28	28151411.42	0.0280	0.0142
Venus	72365-06-12 14:10 G	28151996.04	28151996.09	28151996.15	0.0282	0.0270
Venus	72366-01-28 04:48 G	28152225.50	28152225.70	28152225.91	0.0283	0.0071
Venus	72366-09-14 19:27 G	28152455.13	28152455.31	28152455.50	0.0283	0.0132
Earth	72374-07-16 14:39 G	28155316.91	28155317.11	28155317.33	0.0283	0.0136
Moon	72374-07-16 18:29 G	28155317.05	28155317.27	28155317.49	0.0283	0.0119 *
Mercury	72377-09-21 01:12 G	28156479.42	28156479.55	28156479.68	0.0279	0.0154
Mercury	72377-12-18 17:17 G	28156568.07	28156568.22	28156568.38	0.0279	0.0008
Mercury	72378-03-17 09:07 G	28156656.74	28156656.88	28156657.01	0.0279	0.0137

Mercury	72378-06-14 00:15 G	28156745.50	28156745.51	28156745.53	0.0278	0.0276
Venus	72379-11-26 00:58 G	28157275.46	28157275.54	28157275.64	0.0277	0.0249
Venus	72380-07-12 10:34 G	28157504.74	28157504.94	28157505.15	0.0276	0.0061
Venus	72381-02-26 19:41 G	28157734.13	28157734.32	28157734.51	0.0276	0.0126
Mars	72383-09-10 17:17 G	28158660.03	28158660.22	28158660.44	0.0274	0.0207
Earth	72390-01-19 18:00 G	28160983.03	28160983.25	28160983.49	0.0277	0.0113
Moon	72390-01-19 19:41 G	28160983.09	28160983.32	28160983.56	0.0277	0.0112 *
Mercury	72392-09-28 13:12 G	28161965.95	28161966.05	28161966.17	0.0279	0.0189
Mercury	72392-12-26 04:05 G	28162054.52	28162054.67	28162054.82	0.0280	0.0049
Mercury	72393-03-24 19:12 G	28162143.16	28162143.30	28162143.45	0.0280	0.0094
Mercury	72393-06-21 10:34 G	28162231.87	28162231.94	28162232.02	0.0280	0.0240
Venus	72394-12-23 16:48 G	28162782.11	28162782.20	28162782.31	0.0282	0.0247
Venus	72395-08-10 07:12 G	28163011.59	28163011.80	28163012.01	0.0283	0.0047
Venus	72396-03-26 21:36 G	28163241.23	28163241.40	28163241.58	0.0283	0.0155
Earth	72404-07-23 01:12 G	28166281.35	28166281.55	28166281.76	0.0282	0.0149
Moon	72404-07-23 01:12 G	28166281.36	28166281.55	28166281.74	0.0282	0.0164 *
Mercury	72407-02-08 01:12 G	28167211.45	28167211.55	28167211.66	0.0280	0.0204
Mercury	72407-05-07 17:31 G	28167300.08	28167300.23	28167300.39	0.0279	0.0055
Mercury	72407-08-04 09:22 G	28167388.75	28167388.89	28167389.04	0.0279	0.0091
Mercury	72407-11-01 00:43 G	28167477.45	28167477.53	28167477.62	0.0279	0.0232
Venus	72409-06-07 04:34 G	28168061.58	28168061.69	28168061.83	0.0277	0.0225
Venus	72410-01-22 14:24 G	28168290.89	28168291.10	28168291.31	0.0277	0.0036
Venus	72410-09-08 23:46 G	28168520.32	28168520.49	28168520.67	0.0276	0.0153
Moon	72419-01-14 11:46 G	28171569.77	28171569.99	28171570.22	0.0276	0.0105
Earth	72419-01-14 13:41 G	28171569.84	28171570.07	28171570.30	0.0276	0.0109 *
Mercury	72422-02-15 16:19 G	28172698.09	28172698.18	28172698.28	0.0279	0.0213
Mercury	72422-05-15 06:58 G	28172786.65	28172786.79	28172786.94	0.0280	0.0076
Mercury	72422-08-11 22:05 G	28172875.28	28172875.42	28172875.57	0.0280	0.0068
Mercury	72422-11-08 13:27 G	28172963.97	28172964.06	28172964.16	0.0280	0.0213
Venus	72424-07-05 03:51 G	28173568.52	28173568.66	28173568.81	0.0282	0.0207

Venus	72425-02-19 18:29 G	28173798.06	28173798.27	28173798.48	0.0283	0.0006
Venus	72425-10-07 09:07 G	28174027.73	28174027.88	28174028.03	0.0283	0.0196
Mars	72427-11-06 06:00 G	28174787.70	28174787.75	28174787.83	0.0285	0.0275
Moon	72433-07-18 02:24 G	28176868.35	28176868.60	28176868.85	0.0283	0.0052
Earth	72433-07-18 02:24 G	28176868.37	28176868.60	28176868.83	0.0283	0.0069 *
Mercury	72436-06-27 03:51 G	28177943.58	28177943.66	28177943.76	0.0279	0.0230
Mercury	72436-09-23 20:24 G	28178032.20	28178032.35	28178032.50	0.0279	0.0080
Mercury	72436-12-21 12:15 G	28178120.86	28178121.01	28178121.16	0.0279	0.0065
Mercury	72437-03-20 03:51 G	28178209.56	28178209.66	28178209.76	0.0279	0.0207
Venus	72438-12-18 13:27 G	28178847.91	28178848.06	28178848.22	0.0277	0.0188
Venus	72439-08-04 23:03 G	28179077.25	28179077.46	28179077.67	0.0276	0.0001
Venus	72440-03-21 07:55 G	28179306.68	28179306.83	28179306.99	0.0275	0.0186
Jupiter	72441-09-03 11:03 G	28179837.85	28179837.96	28179838.10	0.0274	0.0263
Moon	72449-01-21 02:53 G	28182534.43	28182534.62	28182534.83	0.0277	0.0173
Earth	72449-01-21 05:31 G	28182534.55	28182534.73	28182534.93	0.0277	0.0177 *
Mercury	72451-07-05 17:03 G	28183430.16	28183430.21	28183430.28	0.0279	0.0257
Mercury	72451-10-02 07:41 G	28183518.69	28183518.82	28183518.96	0.0280	0.0120
Mercury	72451-12-29 22:48 G	28183607.29	28183607.45	28183607.60	0.0280	0.0023
Mercury	72452-03-27 13:55 G	28183695.96	28183696.08	28183696.20	0.0280	0.0166
Venus	72454-01-15 06:43 G	28184354.62	28184354.78	28184354.94	0.0282	0.0184
Venus	72454-09-01 21:07 G	28184584.17	28184584.38	28184584.59	0.0283	0.0017
Venus	72455-04-19 11:31 G	28184813.85	28184813.98	28184814.12	0.0283	0.0219
Earth	72463-07-25 12:29 G	28187832.86	28187833.02	28187833.17	0.0282	0.0214
Moon	72463-07-25 15:51 G	28187833.03	28187833.16	28187833.31	0.0282	0.0231 *
Mercury	72466-02-10 20:24 G	28188764.21	28188764.35	28188764.49	0.0279	0.0131
Mercury	72466-05-10 12:15 G	28188852.86	28188853.01	28188853.17	0.0279	0.0018
Mercury	72466-08-07 03:51 G	28188941.54	28188941.66	28188941.79	0.0279	0.0160
Venus	72468-06-29 16:19 G	28189634.02	28189634.18	28189634.36	0.0277	0.0165
Venus	72469-02-14 01:55 G	28189863.37	28189863.58	28189863.80	0.0277	0.0025
Venus	72469-10-01 11:03 G	28190092.83	28190092.96	28190093.10	0.0276	0.0211

Mars	72472-02-04 20:39 G	28190949.09	28190949.36	28190949.65	0.0275	0.0127
Earth	72478-01-15 22:48 G	28193121.20	28193121.45	28193121.69	0.0276	0.0049
Moon	72478-01-16 01:12 G	28193121.31	28193121.55	28193121.79	0.0276	0.0047 *
Mercury	72481-02-18 10:19 G	28194250.81	28194250.93	28194251.06	0.0279	0.0148
Mercury	72481-05-18 01:12 G	28194339.40	28194339.55	28194339.71	0.0280	0.0010
Mercury	72481-08-14 16:19 G	28194428.05	28194428.18	28194428.32	0.0280	0.0136
Venus	72483-07-28 16:48 G	28195141.02	28195141.20	28195141.38	0.0282	0.0145
Venus	72484-03-14 07:27 G	28195370.60	28195370.81	28195371.02	0.0283	0.0056
Venus	72484-10-29 21:51 G	28195600.34	28195600.41	28195600.51	0.0283	0.0259
Moon	72492-07-19 09:51 G	28198419.66	28198419.91	28198420.15	0.0283	0.0014
Earth	72492-07-19 13:27 G	28198419.82	28198420.06	28198420.31	0.0283	0.0004 *
Mercury	72495-06-30 23:03 G	28199496.33	28199496.46	28199496.59	0.0279	0.0155
Mercury	72495-09-27 15:07 G	28199584.98	28199585.13	28199585.29	0.0279	0.0010
Mercury	72495-12-25 06:43 G	28199673.65	28199673.78	28199673.92	0.0279	0.0136
Mercury	72496-03-22 22:19 G	28199762.41	28199762.43	28199762.45	0.0278	0.0275
Venus	72498-01-10 01:41 G	28200420.38	28200420.57	28200420.75	0.0276	0.0129
Venus	72498-08-27 10:48 G	28200649.74	28200649.95	28200650.16	0.0276	0.0059
Venus	72499-04-13 19:41 G	28200879.23	28200879.32	28200879.42	0.0275	0.0244
Moon	72507-01-11 09:22 G	28203707.85	28203707.89	28203707.94	0.0276	0.0270
Earth	72507-01-11 12:15 G	28203708.00	28203708.01	28203708.05	0.0276	0.0274
Moon	72508-01-24 12:15 G	28204085.89	28204086.01	28204086.15	0.0277	0.0234
Earth	72508-01-24 15:36 G	28204086.04	28204086.15	28204086.29	0.0277	0.0239 *
Mercury	72510-07-09 11:17 G	28204982.86	28204982.97	28204983.08	0.0280	0.0191
Mercury	72510-10-06 01:55 G	28205071.44	28205071.58	28205071.73	0.0280	0.0052
Mercury	72511-01-02 17:03 G	28205160.07	28205160.21	28205160.36	0.0280	0.0091
Mercury	72511-04-01 08:24 G	28205248.77	28205248.85	28205248.93	0.0280	0.0237
Venus	72513-02-07 19:55 G	28205927.14	28205927.33	28205927.52	0.0282	0.0121
Venus	72513-09-25 10:19 G	28206156.73	28206156.93	28206157.13	0.0283	0.0080
Venus	72514-05-13 00:58 G	28206386.51	28206386.54	28206386.56	0.0283	0.0281
Mars	72516-04-02 03:07 G	28207076.45	28207076.63	28207076.81	0.0285	0.0215

Earth	72521-07-14 22:05 G	28209006.32	28209006.42	28209006.53	0.0283	0.0253
Moon	72521-07-15 01:27 G	28209006.44	28209006.56	28209006.70	0.0283	0.0237 *
Earth	72522-07-27 22:34 G	28209384.40	28209384.44	28209384.47	0.0282	0.0278
Mercury	72524-11-17 22:34 G	28210228.34	28210228.44	28210228.55	0.0279	0.0209
Mercury	72525-02-14 14:53 G	28210316.97	28210317.12	28210317.28	0.0279	0.0060
Mercury	72525-05-14 06:43 G	28210405.64	28210405.78	28210405.93	0.0279	0.0085
Mercury	72525-08-10 22:05 G	28210494.34	28210494.42	28210494.52	0.0279	0.0227
Venus	72527-07-24 03:51 G	28211206.46	28211206.66	28211206.86	0.0277	0.0106
Venus	72528-03-09 12:58 G	28211435.84	28211436.04	28211436.25	0.0276	0.0082
Venus	72528-10-24 22:05 G	28211665.37	28211665.42	28211665.47	0.0276	0.0267
Earth	72537-01-18 06:00 G	28214672.50	28214672.75	28214673.00	0.0277	0.0010
Moon	72537-01-18 09:22 G	28214672.64	28214672.89	28214673.14	0.0277	0.0008 *
Mercury	72539-11-26 13:12 G	28215714.97	28215715.05	28215715.15	0.0279	0.0224
Mercury	72540-02-23 04:05 G	28215803.52	28215803.67	28215803.81	0.0280	0.0086
Mercury	72540-05-21 18:58 G	28215892.14	28215892.29	28215892.44	0.0280	0.0056
Mercury	72540-08-18 10:19 G	28215980.83	28215980.93	28215981.04	0.0280	0.0201
Venus	72542-08-21 04:19 G	28216713.48	28216713.68	28216713.89	0.0282	0.0086
Venus	72543-04-07 19:12 G	28216943.11	28216943.30	28216943.49	0.0283	0.0116
Moon	72551-07-22 21:51 G	28219971.18	28219971.41	28219971.63	0.0283	0.0078
Earth	72551-07-22 23:31 G	28219971.25	28219971.48	28219971.72	0.0283	0.0063 *
Mercury	72554-04-07 01:27 G	28220960.48	28220960.56	28220960.65	0.0280	0.0233
Mercury	72554-07-04 17:46 G	28221049.10	28221049.24	28221049.40	0.0279	0.0084
Mercury	72554-10-01 09:51 G	28221137.76	28221137.91	28221138.06	0.0279	0.0062
Mercury	72554-12-29 01:12 G	28221226.45	28221226.55	28221226.66	0.0279	0.0204
Venus	72556-06-18 03:36 G	28221763.59	28221763.65	28221763.74	0.0277	0.0258
Venus	72557-02-02 13:12 G	28221992.84	28221993.05	28221993.25	0.0276	0.0071
Venus	72557-09-19 22:05 G	28222222.23	28222222.42	28222222.61	0.0276	0.0117
Mars	72560-07-02 07:41 G	28223238.51	28223238.82	28223239.14	0.0274	0.0033
Moon	72566-01-12 16:48 G	28225259.06	28225259.20	28225259.36	0.0276	0.0217
Earth	72566-01-12 19:55 G	28225259.18	28225259.33	28225259.49	0.0276	0.0216 *

Mercury	72569-04-14 14:10 G	28226447.06	28226447.09	28226447.15	0.0279	0.0266
Mercury	72569-07-12 04:48 G	28226535.57	28226535.70	28226535.84	0.0280	0.0129
Mercury	72569-10-08 19:41 G	28226624.17	28226624.32	28226624.48	0.0280	0.0013
Mercury	72570-01-05 10:48 G	28226712.83	28226712.95	28226713.08	0.0280	0.0156
Venus	72571-07-16 17:17 G	28227270.15	28227270.22	28227270.31	0.0282	0.0260
Venus	72572-03-02 07:41 G	28227499.62	28227499.82	28227500.03	0.0283	0.0061
Venus	72572-10-17 22:05 G	28227729.24	28227729.42	28227729.61	0.0283	0.0141
Earth	72580-07-16 07:41 G	28230557.64	28230557.82	28230558.00	0.0283	0.0189
Moon	72580-07-16 09:22 G	28230557.70	28230557.89	28230558.09	0.0283	0.0174 *
Mercury	72583-11-21 17:17 G	28231781.08	28231781.22	28231781.36	0.0279	0.0140
Mercury	72584-02-18 09:22 G	28231869.73	28231869.89	28231870.05	0.0279	0.0008
Mercury	72584-05-17 00:58 G	28231958.41	28231958.54	28231958.67	0.0279	0.0151
Venus	72585-12-29 04:34 G	28232549.59	28232549.69	28232549.81	0.0277	0.0237
Venus	72586-08-15 14:10 G	28232778.88	28232779.09	28232779.30	0.0276	0.0049
Venus	72587-04-01 23:03 G	28233008.29	28233008.46	28233008.65	0.0276	0.0138
Moon	72596-01-20 09:51 G	28236223.66	28236223.91	28236224.16	0.0277	0.0057
Earth	72596-01-20 11:03 G	28236223.72	28236223.96	28236224.21	0.0277	0.0064 *
Mercury	72598-11-29 06:29 G	28237267.65	28237267.77	28237267.89	0.0280	0.0167
Mercury	72599-02-25 21:07 G	28237356.23	28237356.38	28237356.54	0.0280	0.0029
Mercury	72599-05-25 12:15 G	28237444.88	28237445.01	28237445.15	0.0280	0.0116
Mercury	72599-08-22 03:51 G	28237533.61	28237533.66	28237533.71	0.0280	0.0262
Venus	72601-01-27 00:00 G	28238056.39	28238056.50	28238056.63	0.0282	0.0228
Venus	72601-09-13 14:53 G	28238285.91	28238286.12	28238286.33	0.0283	0.0028
Venus	72602-05-01 05:31 G	28238515.57	28238515.73	28238515.90	0.0283	0.0174
Mars	72604-08-28 12:00 G	28239365.76	28239366.00	28239366.24	0.0285	0.0134
Earth	72610-07-25 07:12 G	28241522.59	28241522.80	28241523.02	0.0283	0.0125
Moon	72610-07-25 09:22 G	28241522.70	28241522.89	28241523.11	0.0283	0.0138 *
Mercury	72613-04-10 19:55 G	28242513.21	28242513.33	28242513.46	0.0279	0.0164
Mercury	72613-07-08 12:15 G	28242601.85	28242602.01	28242602.16	0.0279	0.0017
Mercury	72613-10-05 03:51 G	28242690.53	28242690.66	28242690.80	0.0279	0.0127

Mercury	72614-01-01 19:12 G	28242779.27	28242779.30	28242779.35	0.0279	0.0267
Venus	72615-07-12 14:10 G	28243335.95	28243336.09	28243336.24	0.0277	0.0202
Venus	72616-02-26 23:31 G	28243565.26	28243565.48	28243565.69	0.0276	0.0015
Venus	72616-10-13 08:10 G	28243794.68	28243794.84	28243795.01	0.0275	0.0172
Earth	72625-01-15 01:27 G	28246810.36	28246810.56	28246810.76	0.0276	0.0161
Moon	72625-01-15 02:39 G	28246810.43	28246810.61	28246810.81	0.0276	0.0165 *
Mercury	72628-04-18 07:27 G	28247999.71	28247999.81	28247999.91	0.0279	0.0208
Mercury	72628-07-15 22:05 G	28248088.27	28248088.42	28248088.57	0.0280	0.0070
Mercury	72628-10-12 12:58 G	28248176.90	28248177.04	28248177.19	0.0280	0.0071
Mercury	72629-01-09 04:19 G	28248265.59	28248265.68	28248265.78	0.0280	0.0216
Venus	72630-08-09 03:22 G	28248842.51	28248842.64	28248842.80	0.0282	0.0204
Venus	72631-03-26 18:00 G	28249072.04	28249072.25	28249072.46	0.0283	0.0005
Venus	72631-11-11 08:24 G	28249301.70	28249301.85	28249302.00	0.0283	0.0198
Moon	72639-07-19 12:58 G	28252108.82	28252109.04	28252109.28	0.0283	0.0114
Earth	72639-07-19 15:07 G	28252108.93	28252109.13	28252109.36	0.0283	0.0129 *
Mercury	72642-08-28 18:58 G	28253245.20	28253245.29	28253245.39	0.0279	0.0222
Mercury	72642-11-25 11:31 G	28253333.82	28253333.98	28253334.13	0.0279	0.0073
Mercury	72643-02-22 03:22 G	28253422.49	28253422.64	28253422.79	0.0279	0.0072
Mercury	72643-05-21 18:58 G	28253511.19	28253511.29	28253511.39	0.0278	0.0214
Venus	72645-01-21 14:53 G	28254121.96	28254122.12	28254122.28	0.0277	0.0181
Venus	72645-09-08 00:00 G	28254351.29	28254351.50	28254351.71	0.0276	0.0006
Venus	72646-04-25 08:53 G	28254580.72	28254580.87	28254581.02	0.0276	0.0192
Mars	72648-11-26 13:41 G	28255526.76	28255527.07	28255527.39	0.0274	0.0015
Moon	72655-01-22 10:19 G	28257774.70	28257774.93	28257775.16	0.0277	0.0104
Earth	72655-01-22 13:55 G	28257774.86	28257775.08	28257775.31	0.0277	0.0115 *
Mercury	72657-09-05 08:24 G	28258731.79	28258731.85	28258731.92	0.0279	0.0251
Mercury	72657-12-02 23:03 G	28258820.32	28258820.46	28258820.60	0.0280	0.0114
Mercury	72658-03-01 13:55 G	28258908.93	28258909.08	28258909.23	0.0280	0.0027
Mercury	72658-05-29 05:03 G	28258997.59	28258997.71	28258997.84	0.0280	0.0171
Venus	72660-02-19 08:39 G	28259628.70	28259628.86	28259629.03	0.0282	0.0174

Venus	72660-10-05 23:31 G	28259858.27	28259858.48	28259858.69	0.0283	0.0027
Venus	72661-05-23 14:10 G	28260087.97	28260088.09	28260088.22	0.0283	0.0228
Earth	72669-07-26 13:12 G	28263073.87	28263074.05	28263074.24	0.0283	0.0182
Moon	72669-07-26 16:19 G	28263074.02	28263074.18	28263074.37	0.0283	0.0196 *
Mercury	72672-01-15 21:22 G	28263977.33	28263977.39	28263977.47	0.0280	0.0250
Mercury	72672-04-13 13:55 G	28264065.93	28264066.08	28264066.23	0.0279	0.0100
Mercury	72672-07-11 06:00 G	28264154.60	28264154.75	28264154.90	0.0279	0.0046
Mercury	72672-10-07 21:36 G	28264243.29	28264243.40	28264243.51	0.0279	0.0188
Venus	72674-08-03 23:31 G	28264908.31	28264908.48	28264908.67	0.0277	0.0148
Venus	72675-03-21 08:39 G	28265137.65	28265137.86	28265138.07	0.0276	0.0040
Venus	72675-11-05 17:17 G	28265367.11	28265367.22	28265367.35	0.0275	0.0225
Earth	72684-01-17 05:03 G	28268361.48	28268361.71	28268361.94	0.0276	0.0109
Moon	72684-01-17 08:39 G	28268361.64	28268361.86	28268362.09	0.0276	0.0114 *
Mercury	72687-04-22 00:00 G	28269552.38	28269552.50	28269552.63	0.0280	0.0155
Mercury	72687-07-19 14:53 G	28269640.97	28269641.12	28269641.27	0.0280	0.0016
Mercury	72687-10-16 06:00 G	28269729.61	28269729.75	28269729.88	0.0280	0.0127
Mercury	72688-01-12 21:22 G	28269818.36	28269818.39	28269818.42	0.0280	0.0274
Venus	72689-08-31 12:29 G	28270414.84	28270415.02	28270415.20	0.0282	0.0150
Venus	72690-04-18 02:53 G	28270644.42	28270644.62	28270644.83	0.0283	0.0052
Venus	72690-12-03 17:31 G	28270874.14	28270874.23	28270874.33	0.0284	0.0253
Mars	72693-01-21 21:36 G	28271654.15	28271654.40	28271654.67	0.0285	0.0095
Moon	72698-07-20 17:31 G	28273660.00	28273660.23	28273660.46	0.0283	0.0056
Earth	72698-07-20 20:53 G	28273660.14	28273660.37	28273660.61	0.0283	0.0071 *
Mercury	72701-09-01 12:58 G	28274797.91	28274798.04	28274798.17	0.0279	0.0158
Mercury	72701-11-29 05:17 G	28274886.56	28274886.72	28274886.87	0.0279	0.0013
Mercury	72702-02-25 20:53 G	28274975.24	28274975.37	28274975.51	0.0278	0.0133
Mercury	72702-05-25 12:15 G	28275063.99	28275064.01	28275064.05	0.0278	0.0272
Venus	72704-02-14 23:46 G	28275694.31	28275694.49	28275694.68	0.0276	0.0128
Venus	72704-10-01 08:39 G	28275923.66	28275923.86	28275924.07	0.0276	0.0059
Venus	72705-05-18 17:31 G	28276153.13	28276153.23	28276153.33	0.0275	0.0244

Moon	72714-01-24 14:39 G	28279325.92	28279326.11	28279326.31	0.0277	0.0153
Earth	72714-01-24 15:22 G	28279325.94	28279326.14	28279326.34	0.0277	0.0164 *
Mercury	72716-09-09 00:29 G	28280284.42	28280284.52	28280284.62	0.0279	0.0203
Mercury	72716-12-06 15:07 G	28280372.98	28280373.13	28280373.28	0.0280	0.0065
Mercury	72717-03-05 06:15 G	28280461.61	28280461.76	28280461.90	0.0280	0.0077
Mercury	72717-06-01 21:22 G	28280550.30	28280550.39	28280550.49	0.0280	0.0223
Venus	72719-03-14 15:51 G	28281200.97	28281201.16	28281201.35	0.0282	0.0123
Venus	72719-10-30 06:29 G	28281430.57	28281430.77	28281430.98	0.0283	0.0078
Venus	72720-06-15 21:36 G	28281660.37	28281660.40	28281660.43	0.0284	0.0279
Moon	72727-07-16 18:15 G	28284247.25	28284247.26	28284247.30	0.0284	0.0282
Earth	72728-07-28 16:48 G	28284625.08	28284625.20	28284625.35	0.0283	0.0236
Moon	72728-07-28 16:48 G	28284625.09	28284625.20	28284625.33	0.0283	0.0245 *
Mercury	72731-01-19 15:07 G	28285530.02	28285530.13	28285530.25	0.0280	0.0188
Mercury	72731-04-18 07:27 G	28285618.66	28285618.81	28285618.97	0.0279	0.0040
Mercury	72731-07-15 23:31 G	28285707.33	28285707.48	28285707.62	0.0279	0.0106
Mercury	72731-10-12 14:53 G	28285796.05	28285796.12	28285796.19	0.0279	0.0247
Venus	72733-08-27 08:24 G	28286480.65	28286480.85	28286481.05	0.0276	0.0094
Venus	72734-04-13 17:17 G	28286710.02	28286710.22	28286710.42	0.0276	0.0093
Mars	72737-04-23 17:31 G	28287815.94	28287816.23	28287816.53	0.0273	0.0100
Earth	72743-01-19 06:58 G	28289912.55	28289912.79	28289913.04	0.0276	0.0061
Moon	72743-01-19 08:10 G	28289912.59	28289912.84	28289913.09	0.0276	0.0067 *
Mercury	72746-01-27 01:41 G	28291016.51	28291016.57	28291016.65	0.0279	0.0242
Mercury	72746-04-25 16:19 G	28291105.04	28291105.18	28291105.32	0.0280	0.0105
Mercury	72746-07-23 07:12 G	28291193.65	28291193.80	28291193.95	0.0280	0.0036
Mercury	72746-10-19 22:19 G	28291282.32	28291282.43	28291282.55	0.0280	0.0180
Venus	72748-09-23 19:55 G	28291987.13	28291987.33	28291987.53	0.0283	0.0098
Venus	72749-05-11 10:34 G	28292216.74	28292216.94	28292217.14	0.0283	0.0104
Earth	72757-07-23 00:43 G	28295211.29	28295211.53	28295211.77	0.0283	0.0017
Moon	72757-07-23 01:12 G	28295211.32	28295211.55	28295211.79	0.0283	0.0005 *
Mercury	72760-06-07 13:55 G	28296262.02	28296262.08	28296262.16	0.0279	0.0247

Mercury	72760-09-04 06:29 G	28296350.63	28296350.77	28296350.92	0.0279	0.0097
Mercury	72760-12-01 22:34 G	28296439.29	28296439.44	28296439.60	0.0279	0.0049
Mercury	72761-02-28 14:24 G	28296527.98	28296528.10	28296528.21	0.0278	0.0191
Venus	72762-07-22 22:48 G	28297037.39	28297037.45	28297037.53	0.0277	0.0262
Venus	72763-03-09 08:10 G	28297266.64	28297266.84	28297267.04	0.0276	0.0075
Venus	72763-10-24 17:03 G	28297496.01	28297496.21	28297496.40	0.0276	0.0111
Earth	72773-01-25 15:22 G	28300876.99	28300877.14	28300877.31	0.0276	0.0210
Moon	72773-01-25 18:43 G	28300877.11	28300877.28	28300877.45	0.0276	0.0197 *
Mercury	72775-09-12 16:19 G	28301837.06	28301837.18	28301837.31	0.0279	0.0156
Mercury	72775-12-10 07:12 G	28301925.64	28301925.80	28301925.95	0.0280	0.0019
Mercury	72776-03-07 22:05 G	28302014.29	28302014.42	28302014.56	0.0280	0.0126
Mercury	72776-06-04 13:41 G	28302103.03	28302103.07	28302103.10	0.0280	0.0272
Venus	72777-08-19 07:41 G	28302543.77	28302543.82	28302543.88	0.0282	0.0272
Venus	72778-04-05 22:19 G	28302773.23	28302773.43	28302773.64	0.0282	0.0073
Venus	72778-11-21 12:58 G	28303002.86	28303003.04	28303003.24	0.0283	0.0128
Mars	72781-06-18 06:15 G	28303942.50	28303942.76	28303943.03	0.0285	0.0056
Moon	72786-07-17 15:51 G	28305798.03	28305798.16	28305798.30	0.0284	0.0235
Earth	72786-07-17 16:34 G	28305798.09	28305798.19	28305798.32	0.0284	0.0250 *
Mercury	72790-01-22 08:24 G	28307082.71	28307082.85	28307082.99	0.0280	0.0129
Mercury	72790-04-21 00:43 G	28307171.37	28307171.53	28307171.69	0.0279	0.0018
Mercury	72790-07-18 16:19 G	28307260.06	28307260.18	28307260.31	0.0279	0.0162
Venus	72792-02-02 06:58 G	28307823.68	28307823.79	28307823.91	0.0277	0.0230
Venus	72792-09-18 16:19 G	28308052.97	28308053.18	28308053.39	0.0276	0.0043
Venus	72793-05-06 00:58 G	28308282.36	28308282.54	28308282.73	0.0276	0.0143
Moon	72802-01-20 05:03 G	28311463.46	28311463.71	28311463.96	0.0275	0.0024
Earth	72802-01-20 08:24 G	28311463.60	28311463.85	28311464.10	0.0275	0.0013 *
Mercury	72805-01-29 18:00 G	28312569.14	28312569.25	28312569.35	0.0279	0.0193
Mercury	72805-04-28 08:24 G	28312657.71	28312657.85	28312658.00	0.0279	0.0056
Mercury	72805-07-25 23:17 G	28312746.33	28312746.47	28312746.62	0.0280	0.0086
Mercury	72805-10-22 14:39 G	28312835.03	28312835.11	28312835.20	0.0280	0.0230

Venus	72807-03-01 12:00 G	28313329.91	28313330.00	28313330.12	0.0282	0.0246
Venus	72807-10-17 02:39 G	28313559.40	28313559.61	28313559.82	0.0283	0.0047
Venus	72808-06-02 17:17 G	28313789.04	28313789.22	28313789.40	0.0283	0.0154
Earth	72816-07-24 02:53 G	28316762.38	28316762.62	28316762.86	0.0283	0.0034
Moon	72816-07-24 06:43 G	28316762.54	28316762.78	28316763.02	0.0283	0.0044 *
Mercury	72819-06-11 07:27 G	28317814.70	28317814.81	28317814.93	0.0279	0.0188
Mercury	72819-09-07 23:46 G	28317903.34	28317903.49	28317903.65	0.0279	0.0039
Mercury	72819-12-05 15:51 G	28317992.01	28317992.16	28317992.30	0.0279	0.0106
Mercury	72820-03-03 07:12 G	28318080.74	28318080.80	28318080.88	0.0278	0.0246
Venus	72821-08-14 06:58 G	28318609.66	28318609.79	28318609.93	0.0277	0.0210
Venus	72822-03-31 16:05 G	28318838.96	28318839.17	28318839.38	0.0276	0.0024
Venus	72822-11-16 00:58 G	28319068.37	28319068.54	28319068.71	0.0275	0.0162
Mars	72825-09-16 10:05 G	28320103.65	28320103.92	28320104.21	0.0274	0.0130
Earth	72831-01-14 13:27 G	28322049.97	28322050.06	28322050.18	0.0275	0.0251
Moon	72831-01-14 17:17 G	28322050.15	28322050.22	28322050.30	0.0275	0.0260 *
Earth	72832-01-27 15:36 G	28322428.06	28322428.15	28322428.25	0.0276	0.0255
Moon	72832-01-27 18:00 G	28322428.14	28322428.25	28322428.38	0.0276	0.0241 *
Mercury	72834-06-18 17:31 G	28323301.17	28323301.23	28323301.30	0.0279	0.0247
Mercury	72834-09-15 07:55 G	28323389.70	28323389.83	28323389.98	0.0279	0.0112
Mercury	72834-12-12 22:48 G	28323478.30	28323478.45	28323478.60	0.0280	0.0030
Mercury	72835-03-11 13:55 G	28323566.97	28323567.08	28323567.21	0.0280	0.0173
Venus	72836-09-10 13:27 G	28324115.93	28324116.06	28324116.19	0.0282	0.0224
Venus	72837-04-28 04:05 G	28324345.46	28324345.67	28324345.88	0.0283	0.0025
Venus	72837-12-13 18:58 G	28324575.13	28324575.29	28324575.45	0.0283	0.0177
Moon	72845-07-18 13:41 G	28327348.90	28327349.07	28327349.25	0.0284	0.0192
Earth	72845-07-18 17:17 G	28327349.06	28327349.22	28327349.39	0.0284	0.0203 *
Mercury	72848-10-28 08:53 G	28328546.78	28328546.87	28328546.97	0.0280	0.0224
Mercury	72849-01-25 01:27 G	28328635.41	28328635.56	28328635.72	0.0280	0.0073
Mercury	72849-04-23 17:31 G	28328724.08	28328724.23	28328724.38	0.0280	0.0073
Mercury	72849-07-21 09:22 G	28328812.79	28328812.89	28328812.98	0.0279	0.0215

Venus	72851-02-24 14:39 G	28329395.95	28329396.11	28329396.27	0.0277	0.0180
Venus	72851-10-11 23:46 G	28329625.28	28329625.49	28329625.70	0.0276	0.0008
Venus	72852-05-28 08:39 G	28329854.71	28329854.86	28329855.01	0.0276	0.0193
Moon	72861-01-21 06:58 G	28333014.55	28333014.79	28333015.03	0.0275	0.0020
Earth	72861-01-21 09:22 G	28333014.65	28333014.89	28333015.14	0.0275	0.0035 *
Mercury	72864-02-02 09:51 G	28334121.79	28334121.91	28334122.04	0.0279	0.0146
Mercury	72864-05-01 00:29 G	28334210.37	28334210.52	28334210.68	0.0279	0.0010
Mercury	72864-07-28 15:36 G	28334299.02	28334299.15	28334299.28	0.0280	0.0135
Mercury	72864-10-25 06:58 G	28334387.79	28334387.79	28334387.79	0.0280	0.0280
Venus	72866-03-23 18:58 G	28334902.14	28334902.29	28334902.45	0.0282	0.0195
Venus	72866-11-08 09:22 G	28335131.68	28335131.89	28335132.10	0.0283	0.0004
Venus	72867-06-26 00:00 G	28335361.36	28335361.50	28335361.65	0.0283	0.0205
Mars	72869-11-11 12:15 G	28336230.74	28336231.01	28336231.28	0.0285	0.0023
Earth	72875-07-26 04:48 G	28338313.47	28338313.70	28338313.93	0.0283	0.0084
Moon	72875-07-26 05:31 G	28338313.50	28338313.73	28338313.98	0.0283	0.0088 *
Mercury	72878-06-14 00:43 G	28339367.39	28339367.53	28339367.67	0.0279	0.0130
Mercury	72878-09-10 17:03 G	28339456.05	28339456.21	28339456.37	0.0279	0.0018
Mercury	72878-12-08 08:53 G	28339544.74	28339544.87	28339544.99	0.0279	0.0161
Venus	72880-09-05 14:39 G	28340181.94	28340182.11	28340182.29	0.0276	0.0159
Venus	72881-04-22 23:46 G	28340411.28	28340411.49	28340411.70	0.0276	0.0028
Venus	72881-12-08 08:24 G	28340640.72	28340640.85	28340640.99	0.0275	0.0212
Earth	72890-01-15 14:53 G	28343600.96	28343601.12	28343601.29	0.0275	0.0203
Moon	72890-01-15 16:34 G	28343601.05	28343601.19	28343601.37	0.0275	0.0217 *
Mercury	72893-06-21 09:22 G	28344853.79	28344853.89	28344854.00	0.0279	0.0201
Mercury	72893-09-18 00:00 G	28344942.35	28344942.50	28344942.65	0.0279	0.0064
Mercury	72893-12-15 14:53 G	28345030.97	28345031.12	28345031.27	0.0280	0.0076
Mercury	72894-03-14 06:00 G	28345119.66	28345119.75	28345119.85	0.0280	0.0221
Venus	72895-10-03 19:12 G	28345688.14	28345688.30	28345688.47	0.0282	0.0175
Venus	72896-05-20 10:05 G	28345917.70	28345917.92	28345918.13	0.0283	0.0025
Venus	72897-01-05 00:43 G	28346147.41	28346147.53	28346147.67	0.0283	0.0226

Moon	72904-07-20 16:19 G	28348899.99	28348900.18	28348900.38	0.0284	0.0151
Earth	72904-07-20 16:48 G	28348900.01	28348900.20	28348900.41	0.0284	0.0158 *
Mercury	72907-11-02 01:55 G	28350099.46	28350099.58	28350099.71	0.0280	0.0168
Mercury	72908-01-29 18:29 G	28350188.11	28350188.27	28350188.42	0.0280	0.0020
Mercury	72908-04-27 10:19 G	28350276.79	28350276.93	28350277.07	0.0280	0.0126
Mercury	72908-07-25 01:55 G	28350365.54	28350365.58	28350365.62	0.0279	0.0267
Venus	72910-03-19 21:51 G	28350968.23	28350968.41	28350968.60	0.0277	0.0129
Venus	72910-11-04 06:58 G	28351197.59	28351197.79	28351198.00	0.0276	0.0059
Venus	72911-06-21 16:05 G	28351427.07	28351427.17	28351427.27	0.0276	0.0243
Mars	72914-02-11 11:46 G	28352392.81	28352392.99	28352393.20	0.0273	0.0213
Earth	72920-01-24 11:31 G	28354565.75	28354565.98	28354566.22	0.0275	0.0082
Moon	72920-01-24 13:55 G	28354565.85	28354566.08	28354566.32	0.0275	0.0066 *
Mercury	72922-11-09 11:31 G	28355585.91	28355585.98	28355586.07	0.0279	0.0233
Mercury	72923-02-06 02:10 G	28355674.45	28355674.59	28355674.73	0.0279	0.0097
Mercury	72923-05-05 16:48 G	28355763.05	28355763.20	28355763.35	0.0279	0.0043
Mercury	72923-08-02 07:55 G	28355851.72	28355851.83	28355851.94	0.0280	0.0185
Venus	72925-04-16 01:41 G	28356474.40	28356474.57	28356474.76	0.0282	0.0145
Venus	72925-12-01 16:19 G	28356703.97	28356704.18	28356704.39	0.0283	0.0055
Venus	72926-07-19 06:58 G	28356933.70	28356933.79	28356933.88	0.0284	0.0255
Moon	72934-07-28 02:53 G	28359864.42	28359864.62	28359864.85	0.0283	0.0132
Earth	72934-07-28 06:29 G	28359864.56	28359864.77	28359864.99	0.0283	0.0133 *
Mercury	72937-03-21 01:12 G	28360831.47	28360831.55	28360831.66	0.0280	0.0223
Mercury	72937-06-17 18:00 G	28360920.10	28360920.25	28360920.40	0.0279	0.0072
Mercury	72937-09-14 10:05 G	28361008.77	28361008.92	28361009.07	0.0279	0.0074
Mercury	72937-12-12 01:41 G	28361097.48	28361097.57	28361097.67	0.0279	0.0216
Venus	72939-09-29 22:34 G	28361754.25	28361754.44	28361754.64	0.0276	0.0108
Venus	72940-05-16 07:41 G	28361983.62	28361983.82	28361984.03	0.0276	0.0079
Venus	72940-12-31 16:34 G	28362213.13	28362213.19	28362213.25	0.0275	0.0262
Moon	72949-01-17 14:10 G	28365151.90	28365152.09	28365152.30	0.0275	0.0171
Earth	72949-01-17 17:03 G	28365152.01	28365152.21	28365152.42	0.0275	0.0155 *

Mercury	72952-06-25 01:27 G	28366406.44	28366406.56	28366406.69	0.0279	0.0153
Mercury	72952-09-21 16:05 G	28366495.02	28366495.17	28366495.32	0.0279	0.0016
Mercury	72952-12-19 06:58 G	28366583.66	28366583.79	28366583.93	0.0280	0.0127
Mercury	72953-03-17 22:19 G	28366672.40	28366672.43	28366672.47	0.0280	0.0271
Venus	72954-10-27 01:55 G	28367260.39	28367260.58	28367260.77	0.0282	0.0125
Venus	72955-06-13 16:34 G	28367489.99	28367490.19	28367490.39	0.0283	0.0075
Venus	72956-01-29 07:27 G	28367719.77	28367719.81	28367719.87	0.0283	0.0275
Mars	72958-04-07 11:03 G	28368518.69	28368518.96	28368519.23	0.0285	0.0002
Earth	72963-07-22 17:46 G	28370451.02	28370451.24	28370451.46	0.0284	0.0110
Moon	72963-07-22 20:39 G	28370451.15	28370451.36	28370451.59	0.0284	0.0107 *
Mercury	72966-08-08 02:10 G	28371563.54	28371563.59	28371563.65	0.0281	0.0265
Mercury	72966-11-04 18:58 G	28371652.15	28371652.29	28371652.44	0.0280	0.0112
Mercury	72967-02-01 11:17 G	28371740.82	28371740.97	28371741.13	0.0280	0.0036
Mercury	72967-05-01 03:07 G	28371829.52	28371829.63	28371829.75	0.0280	0.0180
Venus	72968-08-24 19:41 G	28372311.27	28372311.32	28372311.39	0.0278	0.0265
Venus	72969-04-11 05:17 G	28372540.52	28372540.72	28372540.93	0.0277	0.0078
Venus	72969-11-26 14:39 G	28372769.92	28372770.11	28372770.31	0.0276	0.0109
Earth	72979-01-25 14:53 G	28376116.91	28376117.12	28376117.34	0.0275	0.0131
Moon	72979-01-25 18:29 G	28376117.04	28376117.27	28376117.50	0.0275	0.0114 *
Mercury	72981-11-12 04:05 G	28377138.56	28377138.67	28377138.78	0.0279	0.0181
Mercury	72982-02-08 18:29 G	28377227.13	28377227.27	28377227.42	0.0279	0.0046
Mercury	72982-05-08 09:22 G	28377315.75	28377315.89	28377316.04	0.0279	0.0095
Mercury	72982-08-05 00:43 G	28377404.45	28377404.53	28377404.60	0.0280	0.0239
Venus	72984-05-08 09:36 G	28378046.71	28378046.90	28378047.11	0.0282	0.0092
Venus	72984-12-24 00:15 G	28378276.31	28378276.51	28378276.70	0.0283	0.0108
Moon	72993-07-29 06:15 G	28381415.59	28381415.76	28381415.95	0.0283	0.0181
Earth	72993-07-29 08:39 G	28381415.68	28381415.86	28381416.05	0.0283	0.0183 *
Mercury	72996-03-23 18:43 G	28382384.16	28382384.28	28382384.41	0.0280	0.0164
Mercury	72996-06-20 11:17 G	28382472.81	28382472.97	28382473.13	0.0280	0.0015
Mercury	72996-09-17 03:22 G	28382561.50	28382561.64	28382561.78	0.0279	0.0130

Mercury	72996-12-14 18:58 G	28382650.26	28382650.29	28382650.32	0.0279	0.0271
Venus	72998-03-06 21:51 G	28383097.30	28383097.41	28383097.51	0.0277	0.0241
Venus	72998-10-22 07:12 G	28383326.59	28383326.80	28383327.01	0.0276	0.0054
Venus	72999-06-08 16:05 G	28383555.99	28383556.17	28383556.37	0.0276	0.0132

74TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 74th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	73002-07-08 11:31 G		28384680.88	28384680.98	28384681.11	0.0273	0.0254	
Moon	73008-01-20 18:29 G		28386703.06	28386703.27	28386703.50	0.0275	0.0120	
Earth	73008-01-20 21:36 G		28386703.18	28386703.40	28386703.64	0.0275	0.0104	*
Mercury	73011-04-02 03:36 G		28387870.58	28387870.65	28387870.73	0.0279	0.0236	
Mercury	73011-06-29 18:00 G		28387959.11	28387959.25	28387959.39	0.0279	0.0101	
Mercury	73011-09-26 08:39 G		28388047.72	28388047.86	28388048.02	0.0279	0.0040	
Mercury	73011-12-23 23:46 G		28388136.38	28388136.49	28388136.61	0.0280	0.0180	
Venus	73013-04-03 19:41 G		28388603.26	28388603.32	28388603.38	0.0281	0.0269	
Venus	73013-11-19 09:51 G		28388832.70	28388832.91	28388833.11	0.0282	0.0072	
Venus	73014-07-07 00:15 G		28389062.33	28389062.51	28389062.70	0.0283	0.0127	
Earth	73022-07-24 18:58 G		28392002.06	28392002.29	28392002.53	0.0285	0.0063	
Moon	73022-07-24 21:36 G		28392002.16	28392002.40	28392002.65	0.0285	0.0060	*
Mercury	73025-08-11 19:27 G		28393116.21	28393116.31	28393116.42	0.0281	0.0207	
Mercury	73025-11-08 12:15 G		28393204.85	28393205.01	28393205.16	0.0281	0.0056	
Mercury	73026-02-05 04:19 G		28393293.53	28393293.68	28393293.83	0.0280	0.0091	

Mercury	73026-05-04 20:10 G	28393382.26	28393382.34	28393382.42	0.0280	0.0234
Venus	73027-09-18 03:36 G	28393883.52	28393883.65	28393883.79	0.0278	0.0213
Venus	73028-05-04 13:27 G	28394112.85	28394113.06	28394113.27	0.0277	0.0025
Venus	73028-12-19 22:48 G	28394342.28	28394342.45	28394342.63	0.0276	0.0161
Moon	73038-01-27 19:12 G	28397668.10	28397668.30	28397668.51	0.0275	0.0167
Earth	73038-01-27 19:55 G	28397668.15	28397668.33	28397668.52	0.0275	0.0183 *
Mercury	73040-08-19 06:29 G	28398602.73	28398602.77	28398602.83	0.0278	0.0261
Mercury	73040-11-15 20:53 G	28398691.24	28398691.37	28398691.51	0.0278	0.0127
Mercury	73041-02-12 11:31 G	28398779.83	28398779.98	28398780.13	0.0279	0.0010
Mercury	73041-05-12 02:24 G	28398868.47	28398868.60	28398868.73	0.0279	0.0152
Venus	73042-10-15 04:34 G	28399389.58	28399389.69	28399389.81	0.0281	0.0233
Venus	73043-06-01 18:43 G	28399619.07	28399619.28	28399619.49	0.0282	0.0037
Venus	73044-01-17 09:07 G	28399848.71	28399848.88	28399849.06	0.0283	0.0163
Mars	73046-09-02 06:15 G	28400807.50	28400807.76	28400808.03	0.0285	0.0059
Earth	73052-07-31 12:43 G	28402966.91	28402967.03	28402967.17	0.0284	0.0236
Moon	73052-07-31 14:24 G	28402966.97	28402967.10	28402967.24	0.0284	0.0231 *
Mercury	73054-12-29 19:55 G	28403848.26	28403848.33	28403848.39	0.0280	0.0254
Mercury	73055-03-28 12:43 G	28403936.88	28403937.03	28403937.17	0.0280	0.0102
Mercury	73055-06-25 04:48 G	28404025.55	28404025.70	28404025.86	0.0280	0.0047
Mercury	73055-09-21 20:53 G	28404114.25	28404114.37	28404114.48	0.0279	0.0189
Venus	73057-03-30 06:58 G	28404669.64	28404669.79	28404669.95	0.0277	0.0186
Venus	73057-11-14 16:34 G	28404898.97	28404899.19	28404899.40	0.0276	0.0004
Venus	73058-07-02 01:41 G	28405128.41	28405128.57	28405128.73	0.0276	0.0185
Earth	73067-01-22 03:51 G	28408254.42	28408254.66	28408254.91	0.0275	0.0050
Moon	73067-01-22 04:34 G	28408254.46	28408254.69	28408254.93	0.0275	0.0065 *
Mercury	73070-04-04 20:39 G	28409423.25	28409423.36	28409423.48	0.0279	0.0180
Mercury	73070-07-02 11:17 G	28409511.82	28409511.97	28409512.12	0.0279	0.0044
Mercury	73070-09-29 01:55 G	28409600.44	28409600.58	28409600.73	0.0279	0.0096
Mercury	73070-12-26 17:03 G	28409689.14	28409689.21	28409689.29	0.0280	0.0239
Venus	73072-04-26 04:48 G	28410175.58	28410175.70	28410175.85	0.0281	0.0215

Venus	73072-12-11 19:12 G	28410405.09	28410405.30	28410405.52	0.0282	0.0017
Venus	73073-07-29 09:51 G	28410634.75	28410634.91	28410635.07	0.0283	0.0182
Moon	73081-07-25 20:39 G	28413553.11	28413553.36	28413553.61	0.0284	0.0014
Earth	73081-07-25 22:19 G	28413553.19	28413553.43	28413553.68	0.0284	0.0013 *
Mercury	73084-08-14 12:58 G	28414668.91	28414669.04	28414669.18	0.0281	0.0148
Mercury	73084-11-11 05:31 G	28414757.57	28414757.73	28414757.89	0.0281	0.0004
Mercury	73085-02-07 21:36 G	28414846.27	28414846.40	28414846.53	0.0280	0.0149
Venus	73086-10-10 12:29 G	28415455.84	28415456.02	28415456.19	0.0278	0.0160
Venus	73087-05-27 22:05 G	28415685.22	28415685.42	28415685.64	0.0277	0.0030
Venus	73088-01-12 07:27 G	28415914.69	28415914.81	28415914.96	0.0277	0.0215
Earth	73096-01-17 03:36 G	28418841.58	28418841.65	28418841.73	0.0274	0.0260
Moon	73096-01-17 03:22 G	28418841.63	28418841.64	28418841.66	0.0274	0.0273 *
Moon	73097-01-28 23:46 G	28419219.35	28419219.49	28419219.63	0.0275	0.0223
Earth	73097-01-29 03:07 G	28419219.52	28419219.63	28419219.76	0.0275	0.0238 *
Mercury	73099-08-22 23:46 G	28420155.40	28420155.49	28420155.60	0.0278	0.0203
Mercury	73099-11-19 14:10 G	28420243.95	28420244.09	28420244.24	0.0278	0.0069
Mercury	73100-02-16 05:03 G	28420332.56	28420332.71	28420332.86	0.0279	0.0071
Mercury	73100-05-15 19:55 G	28420421.24	28420421.33	28420421.43	0.0279	0.0214
Venus	73101-11-07 15:07 G	28420961.97	28420962.13	28420962.30	0.0281	0.0176
Venus	73102-06-25 05:17 G	28421191.51	28421191.72	28421191.93	0.0282	0.0021
Venus	73103-02-09 19:41 G	28421421.20	28421421.32	28421421.46	0.0283	0.0220
Earth	73110-07-21 14:10 G	28424139.98	28424140.09	28424140.22	0.0285	0.0247
Moon	73110-07-21 16:19 G	28424140.07	28424140.18	28424140.30	0.0285	0.0246 *
Mercury	73114-01-02 13:55 G	28425400.97	28425401.08	28425401.20	0.0280	0.0189
Mercury	73114-04-01 06:29 G	28425489.62	28425489.77	28425489.93	0.0280	0.0039
Mercury	73114-06-28 22:48 G	28425578.30	28425578.45	28425578.59	0.0280	0.0108
Mercury	73114-09-25 14:24 G	28425667.04	28425667.10	28425667.17	0.0279	0.0250
Venus	73116-04-22 17:03 G	28426242.02	28426242.21	28426242.39	0.0277	0.0131
Venus	73116-12-08 02:24 G	28426471.40	28426471.60	28426471.81	0.0276	0.0056
Venus	73117-07-25 11:46 G	28426700.89	28426700.99	28426701.10	0.0276	0.0240

Earth	73126-01-24 12:15 G	28429805.76	28429806.01	28429806.26	0.0275	0.0008
Moon	73126-01-24 15:51 G	28429805.91	28429806.16	28429806.41	0.0275	0.0008 *
Mercury	73129-01-10 00:00 G	28430887.44	28430887.50	28430887.56	0.0278	0.0253
Mercury	73129-04-08 14:10 G	28430975.96	28430976.09	28430976.23	0.0279	0.0119
Mercury	73129-07-06 04:48 G	28431064.55	28431064.70	28431064.85	0.0279	0.0018
Mercury	73129-10-02 19:41 G	28431153.19	28431153.32	28431153.44	0.0279	0.0159
Venus	73131-05-20 15:51 G	28431747.99	28431748.16	28431748.34	0.0281	0.0156
Venus	73132-01-05 06:15 G	28431977.55	28431977.76	28431977.97	0.0282	0.0042
Venus	73132-08-21 20:24 G	28432207.25	28432207.35	28432207.47	0.0283	0.0240
Mars	73135-01-27 15:36 G	28433095.91	28433096.15	28433096.41	0.0285	0.0102
Moon	73140-07-28 00:29 G	28435104.28	28435104.52	28435104.76	0.0284	0.0037
Earth	73140-07-28 04:05 G	28435104.43	28435104.67	28435104.91	0.0284	0.0043 *
Mercury	73143-05-22 14:10 G	28436133.01	28436133.09	28436133.18	0.0281	0.0236
Mercury	73143-08-19 06:58 G	28436221.64	28436221.79	28436221.95	0.0281	0.0084
Mercury	73143-11-15 23:31 G	28436310.32	28436310.48	28436310.63	0.0281	0.0065
Mercury	73144-02-12 15:22 G	28436399.04	28436399.14	28436399.24	0.0280	0.0209
Venus	73145-11-02 22:05 G	28437028.23	28437028.42	28437028.62	0.0278	0.0104
Venus	73146-06-20 08:10 G	28437257.64	28437257.84	28437258.04	0.0277	0.0084
Venus	73147-02-04 17:46 G	28437487.19	28437487.24	28437487.28	0.0277	0.0269
Moon	73155-01-19 08:39 G	28440392.71	28440392.86	28440393.01	0.0274	0.0220
Earth	73155-01-19 12:15 G	28440392.85	28440393.01	28440393.18	0.0274	0.0203 *
Mercury	73158-05-30 03:22 G	28441619.62	28441619.64	28441619.66	0.0278	0.0274
Mercury	73158-08-26 17:31 G	28441708.11	28441708.23	28441708.36	0.0278	0.0142
Mercury	73158-11-23 08:10 G	28441796.69	28441796.84	28441796.99	0.0279	0.0008
Mercury	73159-02-19 22:48 G	28441885.32	28441885.45	28441885.59	0.0279	0.0135
Mercury	73159-05-19 13:55 G	28441974.08	28441974.08	28441974.09	0.0279	0.0279
Venus	73160-11-30 03:07 G	28442534.44	28442534.63	28442534.83	0.0281	0.0116
Venus	73161-07-17 17:17 G	28442764.02	28442764.22	28442764.42	0.0282	0.0081
Venus	73162-03-04 07:27 G	28442993.79	28442993.81	28442993.85	0.0283	0.0279
Earth	73169-07-22 22:19 G	28445691.25	28445691.43	28445691.62	0.0285	0.0187

Moon	73169-07-23 01:55 G	28445691.40	28445691.58	28445691.77	0.0285	0.0189	*
Mercury	73172-10-08 15:36 G	28446865.12	28446865.15	28446865.18	0.0281	0.0274	
Mercury	73173-01-05 08:24 G	28446953.71	28446953.85	28446954.00	0.0280	0.0121	
Mercury	73173-04-04 00:58 G	28447042.38	28447042.54	28447042.70	0.0280	0.0028	
Mercury	73173-07-01 16:48 G	28447131.09	28447131.20	28447131.33	0.0280	0.0173	
Venus	73174-09-28 17:46 G	28447585.17	28447585.24	28447585.32	0.0278	0.0260	
Venus	73175-05-16 03:51 G	28447814.46	28447814.66	28447814.86	0.0277	0.0073	
Venus	73175-12-31 13:12 G	28448043.87	28448044.05	28448044.25	0.0276	0.0114	
Earth	73185-01-25 22:34 G	28451357.20	28451357.44	28451357.68	0.0275	0.0068	
Moon	73185-01-26 00:29 G	28451357.27	28451357.52	28451357.77	0.0275	0.0053	*
Mercury	73188-01-13 18:00 G	28452440.14	28452440.25	28452440.36	0.0278	0.0189	
Mercury	73188-04-11 08:24 G	28452528.70	28452528.85	28452528.99	0.0279	0.0054	
Mercury	73188-07-08 23:03 G	28452617.31	28452617.46	28452617.60	0.0279	0.0085	
Mercury	73188-10-05 13:55 G	28452706.00	28452706.08	28452706.17	0.0279	0.0227	
Venus	73190-06-12 04:19 G	28453320.49	28453320.68	28453320.89	0.0281	0.0096	
Venus	73191-01-27 18:43 G	28453550.08	28453550.28	28453550.48	0.0282	0.0102	
Earth	73199-07-30 11:31 G	28456655.76	28456655.98	28456656.21	0.0284	0.0102	
Moon	73199-07-30 11:46 G	28456655.77	28456655.99	28456656.21	0.0284	0.0093	*
Mercury	73202-05-25 08:39 G	28457685.74	28457685.86	28457685.99	0.0281	0.0169	
Mercury	73202-08-22 01:12 G	28457774.40	28457774.55	28457774.71	0.0281	0.0020	
Mercury	73202-11-18 17:31 G	28457863.09	28457863.23	28457863.37	0.0281	0.0129	
Mercury	73203-02-15 09:22 G	28457951.86	28457951.89	28457951.92	0.0280	0.0272	
Venus	73204-04-09 22:05 G	28458371.32	28458371.42	28458371.55	0.0279	0.0235	
Venus	73204-11-25 08:39 G	28458600.65	28458600.86	28458601.07	0.0278	0.0046	
Venus	73205-07-12 18:29 G	28458830.10	28458830.27	28458830.46	0.0277	0.0141	
Moon	73214-01-20 20:10 G	28461944.15	28461944.34	28461944.54	0.0274	0.0161	
Earth	73214-01-20 22:05 G	28461944.21	28461944.42	28461944.63	0.0274	0.0144	*
Mercury	73217-06-01 21:07 G	28463172.29	28463172.38	28463172.49	0.0278	0.0211	
Mercury	73217-08-29 11:31 G	28463260.84	28463260.98	28463261.13	0.0278	0.0077	
Mercury	73217-11-26 02:10 G	28463349.45	28463349.59	28463349.74	0.0279	0.0062	

Mercury	73218-02-22 17:17 G	28463438.12	28463438.22	28463438.32	0.0279	0.0203
Venus	73219-05-08 02:10 G	28463877.50	28463877.59	28463877.69	0.0281	0.0249
Venus	73219-12-23 16:05 G	28464106.96	28464107.17	28464107.38	0.0282	0.0054
Venus	73220-08-09 06:00 G	28464336.58	28464336.75	28464336.94	0.0282	0.0143
Mars	73223-06-24 08:24 G	28465385.67	28465385.85	28465386.06	0.0285	0.0199
Moon	73228-07-24 08:24 G	28467242.62	28467242.85	28467243.07	0.0285	0.0128
Earth	73228-07-24 08:39 G	28467242.64	28467242.86	28467243.08	0.0285	0.0123 *
Mercury	73231-10-12 10:34 G	28468417.83	28468417.94	28468418.06	0.0281	0.0201
Mercury	73232-01-09 03:22 G	28468506.48	28468506.64	28468506.80	0.0280	0.0050
Mercury	73232-04-06 19:41 G	28468595.17	28468595.32	28468595.47	0.0280	0.0097
Mercury	73232-07-04 11:17 G	28468683.90	28468683.97	28468684.06	0.0280	0.0241
Venus	73233-10-21 05:46 G	28469157.60	28469157.74	28469157.89	0.0278	0.0201
Venus	73234-06-07 15:51 G	28469386.95	28469387.16	28469387.37	0.0277	0.0014
Venus	73235-01-23 01:27 G	28469616.39	28469616.56	28469616.72	0.0276	0.0172
Mars	73237-08-02 04:05 G	28470538.47	28470538.67	28470538.89	0.0274	0.0203
Moon	73244-01-28 06:58 G	28472908.56	28472908.79	28472909.03	0.0275	0.0115
Earth	73244-01-28 09:51 G	28472908.69	28472908.91	28472909.13	0.0275	0.0130 *
Mercury	73246-10-19 21:51 G	28473904.36	28473904.41	28473904.48	0.0278	0.0255
Mercury	73247-01-16 12:15 G	28473992.88	28473993.01	28473993.14	0.0278	0.0122
Mercury	73247-04-15 02:39 G	28474081.46	28474081.61	28474081.76	0.0279	0.0015
Mercury	73247-07-12 17:31 G	28474170.10	28474170.23	28474170.36	0.0279	0.0155
Venus	73248-11-17 04:05 G	28474663.56	28474663.67	28474663.81	0.0281	0.0228
Venus	73249-07-04 18:00 G	28474893.04	28474893.25	28474893.46	0.0282	0.0033
Venus	73250-02-19 07:55 G	28475122.67	28475122.83	28475123.01	0.0282	0.0166
Earth	73258-07-31 21:07 G	28478207.20	28478207.38	28478207.59	0.0284	0.0165
Moon	73258-08-01 00:58 G	28478207.34	28478207.54	28478207.75	0.0284	0.0152 *
Mercury	73261-02-28 10:34 G	28479149.87	28479149.94	28479150.01	0.0281	0.0251
Mercury	73261-05-28 03:22 G	28479238.50	28479238.64	28479238.79	0.0281	0.0098
Mercury	73261-08-24 19:55 G	28479327.18	28479327.33	28479327.49	0.0281	0.0051
Mercury	73261-11-21 12:00 G	28479415.89	28479416.00	28479416.11	0.0280	0.0196

Venus	73263-05-03 09:51 G	28479943.74	28479943.91	28479944.07	0.0278	0.0176
Venus	73263-12-18 19:55 G	28480173.12	28480173.33	28480173.54	0.0278	0.0012
Venus	73264-08-04 05:46 G	28480402.60	28480402.74	28480402.89	0.0277	0.0198
Earth	73273-01-22 08:10 G	28483495.60	28483495.84	28483496.08	0.0275	0.0083
Moon	73273-01-22 11:03 G	28483495.73	28483495.96	28483496.18	0.0275	0.0099 *
Mercury	73276-03-08 01:12 G	28484636.55	28484636.55	28484636.57	0.0278	0.0277
Mercury	73276-06-04 15:22 G	28484725.02	28484725.14	28484725.27	0.0278	0.0145
Mercury	73276-09-01 06:00 G	28484813.60	28484813.75	28484813.90	0.0278	0.0010
Mercury	73276-11-28 20:39 G	28484902.23	28484902.36	28484902.50	0.0279	0.0131
Mercury	73277-02-25 11:46 G	28484990.97	28484990.99	28484991.02	0.0279	0.0274
Venus	73278-05-30 15:36 G	28485450.00	28485450.15	28485450.31	0.0281	0.0187
Venus	73279-01-15 05:46 G	28485679.53	28485679.74	28485679.95	0.0282	0.0008
Venus	73279-09-01 19:55 G	28485909.19	28485909.33	28485909.48	0.0283	0.0206
Moon	73287-07-26 16:48 G	28488793.96	28488794.20	28488794.44	0.0284	0.0065
Earth	73287-07-26 20:10 G	28488794.10	28488794.34	28488794.58	0.0284	0.0056 *
Mercury	73290-07-18 12:58 G	28489882.03	28489882.04	28489882.05	0.0281	0.0279
Mercury	73290-10-15 05:46 G	28489970.60	28489970.74	28489970.89	0.0281	0.0127
Mercury	73291-01-11 22:19 G	28490059.28	28490059.43	28490059.59	0.0280	0.0024
Mercury	73291-04-10 14:24 G	28490147.98	28490148.10	28490148.23	0.0280	0.0168
Venus	73292-11-12 18:15 G	28490730.08	28490730.26	28490730.44	0.0278	0.0141
Venus	73293-06-30 04:05 G	28490959.46	28490959.67	28490959.88	0.0277	0.0046
Venus	73294-02-14 13:41 G	28491188.96	28491189.07	28491189.19	0.0276	0.0230
Moon	73303-01-30 18:00 G	28494460.08	28494460.25	28494460.45	0.0275	0.0180
Earth	73303-01-30 21:22 G	28494460.23	28494460.39	28494460.58	0.0275	0.0193 *
Mercury	73305-10-23 16:19 G	28495457.07	28495457.18	28495457.29	0.0278	0.0188
Mercury	73306-01-20 06:43 G	28495545.63	28495545.78	28495545.92	0.0279	0.0054
Mercury	73306-04-18 21:07 G	28495634.24	28495634.38	28495634.53	0.0279	0.0085
Mercury	73306-07-16 12:15 G	28495722.92	28495723.01	28495723.10	0.0279	0.0227
Venus	73307-12-11 18:15 G	28496236.10	28496236.26	28496236.44	0.0281	0.0165
Venus	73308-07-28 08:10 G	28496465.63	28496465.84	28496466.05	0.0282	0.0031

Venus	73309-03-14 22:19 G	28496695.30	28496695.43	28496695.55	0.0283	0.0228
Mars	73311-11-19 06:43 G	28497674.69	28497674.78	28497674.90	0.0285	0.0262
Earth	73317-08-03 08:24 G	28499758.71	28499758.85	28499759.00	0.0284	0.0229
Moon	73317-08-03 10:05 G	28499758.77	28499758.92	28499759.09	0.0284	0.0217 *
Mercury	73320-03-04 05:46 G	28500702.62	28500702.74	28500702.86	0.0281	0.0177
Mercury	73320-05-31 22:34 G	28500791.28	28500791.44	28500791.60	0.0281	0.0026
Mercury	73320-08-28 14:39 G	28500879.97	28500880.11	28500880.26	0.0280	0.0122
Mercury	73320-11-25 06:29 G	28500968.73	28500968.77	28500968.83	0.0280	0.0264
Venus	73322-05-26 21:51 G	28501516.22	28501516.41	28501516.60	0.0278	0.0116
Venus	73323-01-11 07:55 G	28501745.62	28501745.83	28501746.03	0.0277	0.0071
Venus	73323-08-28 17:46 G	28501975.16	28501975.24	28501975.32	0.0277	0.0256
Mars	73325-12-28 11:03 G	28502827.68	28502827.96	28502828.25	0.0275	0.0117
Earth	73332-01-25 18:15 G	28505047.01	28505047.26	28505047.51	0.0275	0.0022
Moon	73332-01-25 21:22 G	28505047.14	28505047.39	28505047.64	0.0275	0.0037 *
Mercury	73335-03-12 19:27 G	28506189.22	28506189.31	28506189.40	0.0278	0.0212
Mercury	73335-06-09 09:36 G	28506277.76	28506277.90	28506278.05	0.0278	0.0079
Mercury	73335-09-06 00:15 G	28506366.36	28506366.51	28506366.66	0.0279	0.0059
Mercury	73335-12-03 15:07 G	28506455.03	28506455.13	28506455.24	0.0279	0.0200
Venus	73337-06-23 05:03 G	28507022.52	28507022.71	28507022.90	0.0281	0.0125
Venus	73338-02-07 19:12 G	28507252.10	28507252.30	28507252.51	0.0282	0.0071
Venus	73338-09-25 09:22 G	28507481.84	28507481.89	28507481.97	0.0283	0.0268
Moon	73346-07-29 06:15 G	28510345.52	28510345.76	28510345.99	0.0284	0.0007
Earth	73346-07-29 08:24 G	28510345.61	28510345.85	28510346.09	0.0284	0.0012 *
Mercury	73349-07-22 08:24 G	28511434.74	28511434.85	28511434.96	0.0281	0.0202
Mercury	73349-10-19 01:12 G	28511523.39	28511523.55	28511523.71	0.0280	0.0051
Mercury	73350-01-15 17:31 G	28511612.08	28511612.23	28511612.38	0.0280	0.0096
Mercury	73350-04-14 09:22 G	28511700.82	28511700.89	28511700.97	0.0280	0.0239
Venus	73351-04-21 20:39 G	28512073.31	28512073.36	28512073.42	0.0278	0.0268
Venus	73351-12-07 06:58 G	28512302.59	28512302.79	28512302.99	0.0278	0.0081
Venus	73352-07-23 16:34 G	28512532.00	28512532.19	28512532.39	0.0277	0.0106

Moon	73361-01-19 06:29 G	28515633.69	28515633.77	28515633.86	0.0274	0.0256
Earth	73361-01-19 09:36 G	28515633.79	28515633.90	28515634.03	0.0274	0.0241 *
Earth	73362-02-01 08:53 G	28516011.79	28516011.87	28516011.97	0.0275	0.0255
Moon	73362-02-01 09:36 G	28516011.81	28516011.90	28516012.02	0.0275	0.0247 *
Mercury	73364-07-29 20:24 G	28516921.30	28516921.35	28516921.42	0.0278	0.0253
Mercury	73364-10-26 10:34 G	28517009.81	28517009.94	28517010.08	0.0278	0.0120
Mercury	73365-01-23 01:12 G	28517098.40	28517098.55	28517098.70	0.0279	0.0017
Mercury	73365-04-21 15:51 G	28517187.04	28517187.16	28517187.29	0.0279	0.0156
Venus	73367-01-03 08:39 G	28517808.66	28517808.86	28517809.05	0.0281	0.0102
Venus	73367-08-20 22:19 G	28518038.23	28518038.43	28518038.63	0.0282	0.0095
Earth	73375-07-23 15:36 G	28520932.04	28520932.15	28520932.29	0.0284	0.0240
Moon	73375-07-23 18:00 G	28520932.14	28520932.25	28520932.40	0.0284	0.0243 *
Moon	73376-08-04 17:46 G	28521310.22	28521310.24	28521310.29	0.0283	0.0281
Mercury	73378-12-09 07:55 G	28522166.77	28522166.83	28522166.90	0.0281	0.0256
Mercury	73379-03-08 00:58 G	28522255.39	28522255.54	28522255.69	0.0281	0.0103
Mercury	73379-06-04 17:31 G	28522344.07	28522344.23	28522344.38	0.0280	0.0046
Mercury	73379-09-01 09:22 G	28522432.79	28522432.89	28522433.01	0.0280	0.0191
Venus	73380-10-31 23:17 G	28522859.38	28522859.47	28522859.58	0.0279	0.0245
Venus	73381-06-18 09:51 G	28523088.70	28523088.91	28523089.12	0.0278	0.0057
Venus	73382-02-02 19:41 G	28523318.14	28523318.32	28523318.51	0.0277	0.0130
Moon	73391-01-27 02:24 G	28526598.35	28526598.60	28526598.86	0.0275	0.0026
Earth	73391-01-27 03:22 G	28526598.39	28526598.64	28526598.89	0.0275	0.0038 *
Mercury	73394-03-15 13:27 G	28527741.93	28527742.06	28527742.18	0.0278	0.0149
Mercury	73394-06-12 03:36 G	28527830.50	28527830.65	28527830.81	0.0278	0.0015
Mercury	73394-09-08 18:15 G	28527919.13	28527919.26	28527919.40	0.0279	0.0127
Mercury	73394-12-06 09:22 G	28528007.86	28528007.89	28528007.93	0.0279	0.0269
Venus	73395-11-29 04:19 G	28528365.60	28528365.68	28528365.76	0.0280	0.0258
Venus	73396-07-15 18:00 G	28528595.05	28528595.25	28528595.46	0.0281	0.0065
Venus	73397-03-02 08:24 G	28528824.66	28528824.85	28528825.03	0.0282	0.0132
Earth	73405-07-31 20:10 G	28531897.11	28531897.34	28531897.57	0.0284	0.0080

Moon	73405-07-31 21:51 G	28531897.18	28531897.41	28531897.63	0.0284	0.0071	*
Mercury	73408-04-28 10:48 G	28532898.94	28532898.95	28532898.97	0.0281	0.0279	
Mercury	73408-07-26 03:51 G	28532987.52	28532987.66	28532987.80	0.0281	0.0126	
Mercury	73408-10-22 20:24 G	28533076.19	28533076.35	28533076.51	0.0280	0.0023	
Mercury	73409-01-19 12:29 G	28533164.90	28533165.02	28533165.15	0.0280	0.0168	
Venus	73410-05-15 09:22 G	28533645.76	28533645.89	28533646.03	0.0278	0.0208	
Venus	73410-12-30 19:27 G	28533875.10	28533875.31	28533875.52	0.0277	0.0021	
Venus	73411-08-17 05:03 G	28534104.55	28534104.71	28534104.88	0.0276	0.0165	
Mars	73414-05-26 02:24 G	28535117.28	28535117.60	28535117.92	0.0274	0.0015	
Earth	73420-01-22 19:12 G	28537185.13	28537185.30	28537185.50	0.0274	0.0181	
Moon	73420-01-22 19:41 G	28537185.16	28537185.32	28537185.50	0.0274	0.0195	*
Mercury	73423-08-03 14:24 G	28538474.00	28538474.10	28538474.21	0.0278	0.0189	
Mercury	73423-10-31 04:48 G	28538562.55	28538562.70	28538562.84	0.0279	0.0055	
Mercury	73424-01-27 19:12 G	28538651.16	28538651.30	28538651.45	0.0279	0.0084	
Mercury	73424-04-25 10:05 G	28538739.84	28538739.92	28538740.02	0.0279	0.0225	
Venus	73425-06-11 07:55 G	28539151.72	28539151.83	28539151.95	0.0281	0.0234	
Venus	73426-01-26 21:36 G	28539381.19	28539381.40	28539381.62	0.0282	0.0041	
Venus	73426-09-13 11:31 G	28539610.81	28539610.98	28539611.16	0.0282	0.0157	
Moon	73434-07-26 01:12 G	28542483.37	28542483.55	28542483.76	0.0284	0.0181	
Earth	73434-07-26 03:51 G	28542483.47	28542483.66	28542483.85	0.0284	0.0172	*
Mercury	73437-12-13 03:07 G	28543719.52	28543719.63	28543719.76	0.0281	0.0181	
Mercury	73438-03-11 20:10 G	28543808.18	28543808.34	28543808.49	0.0280	0.0030	
Mercury	73438-06-08 12:29 G	28543896.87	28543897.02	28543897.16	0.0280	0.0117	
Mercury	73438-09-05 04:05 G	28543985.62	28543985.67	28543985.73	0.0280	0.0260	
Venus	73439-11-25 11:31 G	28544431.83	28544431.98	28544432.14	0.0278	0.0185	
Venus	73440-07-11 21:51 G	28544661.19	28544661.41	28544661.62	0.0278	0.0006	
Venus	73441-02-26 07:27 G	28544890.65	28544890.81	28544890.96	0.0277	0.0187	
Moon	73450-01-29 07:12 G	28548149.57	28548149.80	28548150.04	0.0275	0.0083	
Earth	73450-01-29 10:48 G	28548149.72	28548149.95	28548150.19	0.0275	0.0095	*
Mercury	73452-12-20 16:34 G	28549206.11	28549206.19	28549206.28	0.0278	0.0221	

Mercury	73453-03-19 06:58 G	28549294.64	28549294.79	28549294.93	0.0278	0.0087
Mercury	73453-06-15 21:22 G	28549383.24	28549383.39	28549383.54	0.0279	0.0050
Mercury	73453-09-12 12:15 G	28549471.90	28549472.01	28549472.12	0.0279	0.0191
Venus	73454-12-22 16:05 G	28549938.03	28549938.17	28549938.33	0.0281	0.0200
Venus	73455-08-09 06:15 G	28550167.55	28550167.76	28550167.97	0.0282	0.0006
Venus	73456-03-25 20:24 G	28550397.20	28550397.35	28550397.51	0.0282	0.0192
Mars	73458-07-24 18:58 G	28551248.11	28551248.29	28551248.48	0.0285	0.0210
Earth	73464-08-02 07:12 G	28553448.59	28553448.80	28553449.01	0.0284	0.0146
Moon	73464-08-02 10:48 G	28553448.74	28553448.95	28553449.17	0.0284	0.0134 *
Mercury	73467-05-02 06:15 G	28554451.65	28554451.76	28554451.87	0.0281	0.0204
Mercury	73467-07-29 23:03 G	28554540.30	28554540.46	28554540.61	0.0281	0.0053
Mercury	73467-10-26 15:22 G	28554628.99	28554629.14	28554629.29	0.0280	0.0094
Mercury	73468-01-23 07:12 G	28554717.73	28554717.80	28554717.89	0.0280	0.0238
Venus	73469-06-06 21:22 G	28555218.22	28555218.39	28555218.58	0.0278	0.0150
Venus	73470-01-22 07:27 G	28555447.60	28555447.81	28555448.02	0.0277	0.0038
Venus	73470-09-08 16:48 G	28555677.08	28555677.20	28555677.33	0.0276	0.0222
Earth	73479-01-24 03:22 G	28558736.43	28558736.64	28558736.87	0.0274	0.0122
Moon	73479-01-24 06:58 G	28558736.59	28558736.79	28558737.01	0.0274	0.0138 *
Mercury	73482-05-09 18:00 G	28559938.20	28559938.25	28559938.30	0.0278	0.0259
Mercury	73482-08-06 07:55 G	28560026.71	28560026.83	28560026.97	0.0278	0.0128
Mercury	73482-11-02 22:34 G	28560115.29	28560115.44	28560115.59	0.0279	0.0010
Mercury	73483-01-30 13:12 G	28560203.92	28560204.05	28560204.18	0.0279	0.0148
Venus	73484-07-03 19:55 G	28560724.17	28560724.33	28560724.50	0.0281	0.0176
Venus	73485-02-18 09:51 G	28560953.70	28560953.91	28560954.12	0.0282	0.0020
Venus	73485-10-06 00:00 G	28561183.36	28561183.50	28561183.63	0.0283	0.0216
Moon	73493-07-27 10:19 G	28564034.72	28564034.93	28564035.15	0.0284	0.0119
Earth	73493-07-27 13:55 G	28564034.86	28564035.08	28564035.31	0.0284	0.0107 *
Mercury	73496-09-18 05:17 G	28565183.66	28565183.72	28565183.78	0.0281	0.0261
Mercury	73496-12-15 22:19 G	28565272.28	28565272.43	28565272.57	0.0280	0.0109
Mercury	73497-03-14 14:53 G	28565360.96	28565361.12	28565361.27	0.0280	0.0041

Mercury	73497-06-11 06:58 G	28565449.67	28565449.79	28565449.90	0.0280	0.0185
Venus	73498-12-17 22:48 G	28566004.27	28566004.45	28566004.64	0.0278	0.0128
Venus	73499-08-04 08:53 G	28566233.66	28566233.87	28566234.08	0.0277	0.0059
Venus	73500-03-21 18:29 G	28566463.17	28566463.27	28566463.37	0.0276	0.0243
Mars	73502-10-20 17:46 G	28567405.94	28567406.24	28567406.56	0.0274	0.0049
Moon	73509-01-31 14:53 G	28569700.92	28569701.12	28569701.33	0.0275	0.0139
Earth	73509-01-31 16:34 G	28569700.99	28569701.19	28569701.41	0.0275	0.0150 *
Mercury	73511-12-25 09:36 G	28570758.79	28570758.90	28570759.03	0.0278	0.0165
Mercury	73512-03-23 00:00 G	28570847.35	28570847.50	28570847.65	0.0279	0.0030
Mercury	73512-06-19 14:39 G	28570935.98	28570936.11	28570936.25	0.0279	0.0110
Mercury	73512-09-16 05:46 G	28571024.68	28571024.74	28571024.80	0.0279	0.0251
Venus	73514-01-15 02:39 G	28571510.43	28571510.61	28571510.80	0.0281	0.0144
Venus	73514-09-01 16:48 G	28571739.99	28571740.20	28571740.41	0.0282	0.0052
Venus	73515-04-19 06:58 G	28571969.70	28571969.79	28571969.90	0.0283	0.0248
Moon	73523-08-05 16:19 G	28575000.00	28575000.18	28575000.36	0.0284	0.0193
Earth	73523-08-05 16:05 G	28575000.01	28575000.17	28575000.34	0.0284	0.0207 *
Mercury	73526-05-06 00:58 G	28576004.40	28576004.54	28576004.68	0.0281	0.0133
Mercury	73526-08-02 17:31 G	28576093.08	28576093.23	28576093.39	0.0280	0.0018
Mercury	73526-10-30 09:51 G	28576181.78	28576181.91	28576182.04	0.0280	0.0162
Venus	73528-06-30 08:39 G	28576790.67	28576790.86	28576791.07	0.0278	0.0093
Venus	73529-02-14 18:15 G	28577020.07	28577020.26	28577020.47	0.0277	0.0094
Earth	73538-01-26 09:36 G	28580287.66	28580287.90	28580288.14	0.0274	0.0068
Moon	73538-01-26 11:17 G	28580287.73	28580287.97	28580288.22	0.0274	0.0082 *
Mercury	73541-05-13 11:03 G	28581490.86	28581490.96	28581491.06	0.0278	0.0203
Mercury	73541-08-10 01:12 G	28581579.41	28581579.55	28581579.70	0.0278	0.0070
Mercury	73541-11-06 15:51 G	28581668.01	28581668.16	28581668.30	0.0279	0.0068
Mercury	73542-02-03 06:43 G	28581756.68	28581756.78	28581756.88	0.0279	0.0209
Venus	73543-07-28 06:29 G	28582296.59	28582296.77	28582296.97	0.0281	0.0120
Venus	73544-03-13 20:24 G	28582526.15	28582526.35	28582526.56	0.0282	0.0077
Venus	73544-10-29 10:34 G	28582755.89	28582755.94	28582756.00	0.0283	0.0273

Mars	73546-12-19 11:17 G	28583536.75	28583536.97	28583537.20	0.0285	0.0159
Earth	73552-07-29 22:48 G	28585586.21	28585586.45	28585586.69	0.0284	0.0045
Moon	73552-07-29 23:03 G	28585586.24	28585586.46	28585586.69	0.0284	0.0058 *
Mercury	73555-09-23 00:00 G	28586736.38	28586736.50	28586736.62	0.0280	0.0190
Mercury	73555-12-20 16:48 G	28586825.04	28586825.20	28586825.36	0.0280	0.0040
Mercury	73556-03-18 09:07 G	28586913.74	28586913.88	28586914.03	0.0280	0.0107
Mercury	73556-06-15 00:58 G	28587002.48	28587002.54	28587002.62	0.0280	0.0250
Venus	73557-05-25 23:31 G	28587347.40	28587347.48	28587347.56	0.0278	0.0258
Venus	73558-01-10 09:36 G	28587576.69	28587576.90	28587577.10	0.0278	0.0072
Venus	73558-08-27 19:12 G	28587806.11	28587806.30	28587806.50	0.0277	0.0114
Earth	73568-02-02 20:10 G	28591252.18	28591252.34	28591252.52	0.0275	0.0201
Moon	73568-02-02 23:03 G	28591252.29	28591252.46	28591252.64	0.0275	0.0192 *
Mercury	73570-09-30 12:15 G	28592222.94	28592223.01	28592223.08	0.0278	0.0244
Mercury	73570-12-28 02:24 G	28592311.46	28592311.60	28592311.73	0.0278	0.0111
Mercury	73571-03-26 16:48 G	28592400.05	28592400.20	28592400.35	0.0279	0.0025
Mercury	73571-06-23 07:27 G	28592488.69	28592488.81	28592488.94	0.0279	0.0165
Venus	73573-02-06 11:46 G	28593082.79	28593082.99	28593083.19	0.0281	0.0090
Venus	73573-09-24 01:41 G	28593312.38	28593312.57	28593312.78	0.0282	0.0106
Earth	73581-07-24 16:48 G	28596173.13	28596173.20	28596173.27	0.0285	0.0272
Moon	73581-07-24 16:19 G	28596173.15	28596173.18	28596173.24	0.0285	0.0280 *
Moon	73582-08-06 18:58 G	28596551.17	28596551.29	28596551.41	0.0284	0.0248
Earth	73582-08-06 22:19 G	28596551.36	28596551.43	28596551.53	0.0284	0.0266 *
Mercury	73585-02-09 02:24 G	28597468.50	28597468.60	28597468.70	0.0281	0.0219
Mercury	73585-05-08 19:12 G	28597557.15	28597557.30	28597557.46	0.0281	0.0067
Mercury	73585-08-05 11:46 G	28597645.84	28597645.99	28597646.14	0.0280	0.0081
Mercury	73585-11-02 03:36 G	28597734.57	28597734.65	28597734.75	0.0280	0.0225
Venus	73586-12-06 08:39 G	28598133.74	28598133.86	28598133.99	0.0278	0.0224
Venus	73587-07-23 18:43 G	28598363.07	28598363.28	28598363.49	0.0277	0.0038
Venus	73588-03-09 04:19 G	28598592.50	28598592.68	28598592.86	0.0277	0.0148
Mars	73591-03-17 04:05 G	28599695.40	28599695.67	28599695.94	0.0273	0.0144

Moon	73597-01-27 10:48 G	28601838.70	28601838.95	28601839.20	0.0274	0.0027
Earth	73597-01-27 13:55 G	28601838.84	28601839.08	28601839.33	0.0274	0.0017 *
Mercury	73600-05-16 03:36 G	28603043.53	28603043.65	28603043.78	0.0278	0.0150
Mercury	73600-08-12 18:00 G	28603132.10	28603132.25	28603132.40	0.0279	0.0015
Mercury	73600-11-09 08:39 G	28603220.73	28603220.86	28603221.00	0.0279	0.0123
Mercury	73601-02-05 23:31 G	28603309.44	28603309.48	28603309.53	0.0279	0.0265
Venus	73602-01-02 02:10 G	28603639.51	28603639.59	28603639.68	0.0281	0.0258
Venus	73602-08-19 15:51 G	28603868.95	28603869.16	28603869.37	0.0281	0.0065
Venus	73603-04-06 05:31 G	28604098.55	28604098.73	28604098.93	0.0282	0.0131
Earth	73611-08-01 04:48 G	28607137.46	28607137.70	28607137.95	0.0284	0.0013
Moon	73611-08-01 08:24 G	28607137.61	28607137.85	28607138.09	0.0284	0.0002 *
Mercury	73614-06-29 01:12 G	28608200.53	28608200.55	28608200.57	0.0281	0.0278
Mercury	73614-09-25 18:15 G	28608289.12	28608289.26	28608289.40	0.0280	0.0125
Mercury	73614-12-23 10:48 G	28608377.80	28608377.95	28608378.11	0.0280	0.0025
Mercury	73615-03-22 02:53 G	28608466.50	28608466.62	28608466.75	0.0280	0.0170
Venus	73616-06-17 09:07 G	28608919.74	28608919.88	28608920.03	0.0278	0.0204
Venus	73617-02-01 19:12 G	28609149.09	28609149.30	28609149.51	0.0277	0.0018
Venus	73617-09-19 04:34 G	28609378.53	28609378.69	28609378.86	0.0276	0.0167
Earth	73626-01-21 23:17 G	28612425.36	28612425.47	28612425.58	0.0274	0.0243
Moon	73626-01-22 02:24 G	28612425.52	28612425.60	28612425.69	0.0274	0.0255 *
Earth	73627-02-03 22:05 G	28612803.32	28612803.42	28612803.53	0.0275	0.0248
Moon	73627-02-04 01:12 G	28612803.44	28612803.55	28612803.68	0.0275	0.0243 *
Mercury	73629-10-03 04:19 G	28613775.58	28613775.68	28613775.78	0.0278	0.0196
Mercury	73629-12-30 18:29 G	28613864.13	28613864.27	28613864.42	0.0278	0.0063
Mercury	73630-03-29 09:07 G	28613952.73	28613952.88	28613953.02	0.0279	0.0075
Mercury	73630-06-25 23:46 G	28614041.40	28614041.49	28614041.59	0.0279	0.0216
Venus	73631-07-15 05:03 G	28614425.60	28614425.71	28614425.84	0.0281	0.0234
Venus	73632-02-29 19:12 G	28614655.09	28614655.30	28614655.51	0.0281	0.0039
Venus	73632-10-16 09:22 G	28614884.72	28614884.89	28614885.07	0.0282	0.0157
Mars	73635-05-15 03:51 G	28615825.42	28615825.66	28615825.92	0.0285	0.0106

Moon	73640-07-25 17:46 G	28617724.10	28617724.24	28617724.39	0.0285	0.0230
Earth	73640-07-25 21:07 G	28617724.23	28617724.38	28617724.54	0.0285	0.0218 *
Mercury	73644-02-12 20:10 G	28619021.21	28619021.34	28619021.48	0.0281	0.0155
Mercury	73644-05-11 13:12 G	28619109.89	28619110.05	28619110.20	0.0281	0.0008
Mercury	73644-08-08 05:17 G	28619198.59	28619198.72	28619198.86	0.0280	0.0143
Venus	73645-12-28 17:46 G	28619706.08	28619706.24	28619706.42	0.0278	0.0172
Venus	73646-08-15 03:51 G	28619935.45	28619935.66	28619935.87	0.0277	0.0016
Venus	73647-04-01 13:12 G	28620164.91	28620165.05	28620165.20	0.0276	0.0200
Moon	73656-01-29 13:41 G	28623389.83	28623390.07	28623390.31	0.0274	0.0025
Earth	73656-01-29 16:19 G	28623389.94	28623390.18	28623390.43	0.0274	0.0032 *
Mercury	73659-02-20 06:00 G	28624507.67	28624507.75	28624507.83	0.0278	0.0232
Mercury	73659-05-19 19:55 G	28624596.20	28624596.33	28624596.48	0.0278	0.0100
Mercury	73659-08-16 10:34 G	28624684.79	28624684.94	28624685.09	0.0279	0.0037
Mercury	73659-11-13 01:12 G	28624773.43	28624773.55	28624773.67	0.0279	0.0175
Venus	73661-01-24 10:05 G	28625211.78	28625211.92	28625212.06	0.0281	0.0207
Venus	73661-09-10 23:46 G	28625441.27	28625441.49	28625441.70	0.0282	0.0014
Venus	73662-04-28 13:41 G	28625670.91	28625671.07	28625671.23	0.0282	0.0183
Earth	73670-08-02 09:07 G	28628688.64	28628688.88	28628689.11	0.0284	0.0066
Moon	73670-08-02 10:48 G	28628688.71	28628688.95	28628689.20	0.0284	0.0052 *
Mercury	73673-07-01 18:58 G	28629753.19	28629753.29	28629753.40	0.0281	0.0215
Mercury	73673-09-28 12:00 G	28629841.84	28629842.00	28629842.15	0.0280	0.0064
Mercury	73673-12-26 04:19 G	28629930.53	28629930.68	28629930.84	0.0280	0.0085
Mercury	73674-03-24 20:24 G	28630019.27	28630019.35	28630019.44	0.0280	0.0228
Venus	73675-07-10 18:00 G	28630492.07	28630492.25	28630492.42	0.0278	0.0151
Venus	73676-02-25 03:36 G	28630721.44	28630721.65	28630721.86	0.0277	0.0035
Venus	73676-10-11 12:43 G	28630950.91	28630951.03	28630951.17	0.0276	0.0219
Mars	73679-08-10 00:29 G	28631983.28	28631983.52	28631983.76	0.0274	0.0180
Earth	73685-01-23 00:15 G	28633976.35	28633976.51	28633976.69	0.0274	0.0197
Moon	73685-01-23 02:53 G	28633976.46	28633976.62	28633976.80	0.0274	0.0206 *
Mercury	73688-10-05 20:10 G	28635328.22	28635328.34	28635328.47	0.0278	0.0150

Mercury	73689-01-02 10:34 G	28635416.79	28635416.94	28635417.09	0.0278	0.0017
Mercury	73689-04-01 00:58 G	28635505.41	28635505.54	28635505.68	0.0279	0.0123
Mercury	73689-06-28 16:05 G	28635594.12	28635594.17	28635594.21	0.0279	0.0264
Venus	73690-08-06 11:31 G	28635997.83	28635997.98	28635998.15	0.0281	0.0185
Venus	73691-03-24 01:41 G	28636227.36	28636227.57	28636227.78	0.0282	0.0010
Venus	73691-11-08 16:05 G	28636457.02	28636457.17	28636457.31	0.0282	0.0206
Moon	73699-07-27 21:07 G	28639275.20	28639275.38	28639275.56	0.0286	0.0182
Earth	73699-07-27 23:03 G	28639275.27	28639275.46	28639275.65	0.0286	0.0169 *
Mercury	73702-11-19 20:39 G	28640485.29	28640485.36	28640485.43	0.0282	0.0250
Mercury	73703-02-16 13:41 G	28640573.92	28640574.07	28640574.22	0.0281	0.0096
Mercury	73703-05-16 06:15 G	28640662.61	28640662.76	28640662.92	0.0281	0.0053
Mercury	73703-08-12 22:34 G	28640751.33	28640751.44	28640751.55	0.0280	0.0198
Venus	73705-01-21 01:55 G	28641278.39	28641278.58	28641278.77	0.0278	0.0120
Venus	73705-09-07 11:46 G	28641507.79	28641507.99	28641508.20	0.0277	0.0067
Venus	73706-04-24 20:53 G	28641737.29	28641737.37	28641737.47	0.0276	0.0250
Earth	73715-01-31 17:31 G	28644941.00	28644941.23	28644941.47	0.0274	0.0078
Moon	73715-01-31 19:12 G	28644941.08	28644941.30	28644941.54	0.0274	0.0076 *
Mercury	73718-02-23 21:51 G	28646060.30	28646060.41	28646060.52	0.0278	0.0186
Mercury	73718-05-23 12:00 G	28646148.86	28646149.00	28646149.15	0.0278	0.0053
Mercury	73718-08-20 02:24 G	28646237.46	28646237.60	28646237.75	0.0278	0.0085
Mercury	73718-11-16 17:17 G	28646326.13	28646326.22	28646326.31	0.0279	0.0224
Venus	73720-02-17 16:34 G	28646784.02	28646784.19	28646784.37	0.0281	0.0158
Venus	73720-10-04 06:29 G	28647013.56	28647013.77	28647013.98	0.0282	0.0037
Venus	73721-05-21 20:24 G	28647243.24	28647243.35	28647243.47	0.0283	0.0232
Mars	73723-10-09 10:34 G	28648113.68	28648113.94	28648114.21	0.0285	0.0072
Moon	73729-08-04 09:22 G	28650239.66	28650239.89	28650240.12	0.0285	0.0101
Earth	73729-08-04 11:46 G	28650239.78	28650239.99	28650240.22	0.0285	0.0117 *
Mercury	73732-07-05 12:43 G	28651305.89	28651306.03	28651306.16	0.0281	0.0155
Mercury	73732-10-02 05:31 G	28651394.57	28651394.73	28651394.89	0.0280	0.0008
Mercury	73732-12-29 21:36 G	28651483.27	28651483.40	28651483.54	0.0280	0.0142

Venus	73734-08-03 02:10 G	28652064.39	28652064.59	28652064.79	0.0278	0.0099
Venus	73735-03-20 11:46 G	28652293.79	28652293.99	28652294.19	0.0277	0.0086
Venus	73735-11-04 20:53 G	28652523.33	28652523.37	28652523.42	0.0276	0.0268
Moon	73744-01-25 23:03 G	28655527.25	28655527.46	28655527.67	0.0274	0.0157
Earth	73744-01-26 00:58 G	28655527.33	28655527.54	28655527.75	0.0274	0.0152 *
Mercury	73747-07-13 21:51 G	28656792.34	28656792.41	28656792.48	0.0278	0.0238
Mercury	73747-10-10 11:46 G	28656880.86	28656880.99	28656881.13	0.0278	0.0106
Mercury	73748-01-07 02:10 G	28656969.44	28656969.59	28656969.74	0.0278	0.0029
Mercury	73748-04-04 16:48 G	28657058.08	28657058.20	28657058.32	0.0279	0.0169
Venus	73749-08-29 17:31 G	28657570.05	28657570.23	28657570.42	0.0281	0.0137
Venus	73750-04-16 07:27 G	28657799.60	28657799.81	28657800.02	0.0282	0.0058
Venus	73750-12-01 21:36 G	28658029.32	28658029.40	28658029.50	0.0283	0.0254
Earth	73758-07-29 23:31 G	28660826.26	28660826.48	28660826.70	0.0286	0.0122
Moon	73758-07-30 01:55 G	28660826.38	28660826.58	28660826.79	0.0286	0.0139 *
Mercury	73761-11-22 13:41 G	28662037.96	28662038.07	28662038.19	0.0282	0.0194
Mercury	73762-02-19 06:43 G	28662126.63	28662126.78	28662126.94	0.0281	0.0041
Mercury	73762-05-18 23:17 G	28662215.33	28662215.47	28662215.62	0.0281	0.0107
Mercury	73762-08-15 15:22 G	28662304.08	28662304.14	28662304.21	0.0280	0.0251
Venus	73763-06-28 23:03 G	28662621.38	28662621.46	28662621.54	0.0279	0.0256
Venus	73764-02-13 09:22 G	28662850.69	28662850.89	28662851.09	0.0278	0.0069
Venus	73764-09-29 19:12 G	28663080.10	28663080.30	28663080.49	0.0277	0.0117
Mars	73768-01-05 00:43 G	28664272.45	28664272.53	28664272.63	0.0273	0.0261
Earth	73774-02-01 18:29 G	28666492.05	28666492.27	28666492.50	0.0274	0.0122
Moon	73774-02-01 22:05 G	28666492.20	28666492.42	28666492.65	0.0274	0.0122 *
Mercury	73776-11-29 23:46 G	28667524.47	28667524.49	28667524.53	0.0277	0.0270
Mercury	73777-02-26 13:41 G	28667612.95	28667613.07	28667613.20	0.0278	0.0140
Mercury	73777-05-26 04:05 G	28667701.52	28667701.67	28667701.82	0.0278	0.0007
Mercury	73777-08-22 18:29 G	28667790.14	28667790.27	28667790.41	0.0278	0.0132
Mercury	73777-11-19 09:22 G	28667878.87	28667878.89	28667878.92	0.0279	0.0273
Venus	73779-03-11 23:03 G	28668356.27	28668356.46	28668356.66	0.0281	0.0108

Venus	73779-10-27 12:43 G	28668585.84	28668586.03	28668586.24	0.0282	0.0087
Venus	73780-06-13 02:39 G	28668815.61	28668815.61	28668815.65	0.0283	0.0282
Moon	73788-08-05 09:51 G	28671790.72	28671790.91	28671791.12	0.0285	0.0149
Earth	73788-08-05 13:12 G	28671790.86	28671791.05	28671791.25	0.0285	0.0165 *
Mercury	73791-04-11 12:43 G	28672769.96	28672770.03	28672770.10	0.0281	0.0251
Mercury	73791-07-09 05:46 G	28672858.60	28672858.74	28672858.90	0.0281	0.0098
Mercury	73791-10-05 22:34 G	28672947.28	28672947.44	28672947.60	0.0280	0.0051
Mercury	73792-01-02 14:53 G	28673036.01	28673036.12	28673036.23	0.0280	0.0196
Venus	73793-01-07 23:31 G	28673407.37	28673407.48	28673407.59	0.0278	0.0234
Venus	73793-08-25 09:51 G	28673636.70	28673636.91	28673637.11	0.0277	0.0049
Venus	73794-04-11 19:12 G	28673866.12	28673866.30	28673866.49	0.0277	0.0136
Moon	73803-01-27 22:05 G	28677078.19	28677078.42	28677078.64	0.0274	0.0112
Earth	73803-01-28 01:27 G	28677078.34	28677078.56	28677078.80	0.0274	0.0108 *
Mercury	73806-07-17 13:27 G	28678344.96	28678345.06	28678345.17	0.0278	0.0194
Mercury	73806-10-14 03:36 G	28678433.50	28678433.65	28678433.79	0.0278	0.0062
Mercury	73807-01-10 18:00 G	28678522.10	28678522.25	28678522.39	0.0278	0.0075
Mercury	73807-04-09 08:39 G	28678610.77	28678610.86	28678610.96	0.0279	0.0214
Venus	73808-09-21 23:03 G	28679142.26	28679142.46	28679142.66	0.0281	0.0089
Venus	73809-05-09 12:58 G	28679371.85	28679372.04	28679372.24	0.0282	0.0106
Mars	73812-03-04 08:53 G	28680401.61	28680401.87	28680402.14	0.0285	0.0050
Earth	73817-07-31 23:03 G	28682377.24	28682377.46	28682377.70	0.0286	0.0078
Moon	73817-08-01 02:24 G	28682377.37	28682377.60	28682377.83	0.0286	0.0095 *
Mercury	73820-11-26 06:43 G	28683590.65	28683590.78	28683590.92	0.0282	0.0138
Mercury	73821-02-22 23:46 G	28683679.33	28683679.49	28683679.65	0.0281	0.0014
Mercury	73821-05-22 16:05 G	28683768.04	28683768.17	28683768.30	0.0281	0.0160
Venus	73822-07-22 06:15 G	28684193.62	28684193.76	28684193.90	0.0279	0.0206
Venus	73823-03-08 16:34 G	28684422.98	28684423.19	28684423.40	0.0278	0.0019
Venus	73823-10-24 02:10 G	28684652.43	28684652.59	28684652.77	0.0277	0.0166
Earth	73833-02-03 19:41 G	28688043.13	28688043.32	28688043.53	0.0274	0.0167
Moon	73833-02-03 19:55 G	28688043.14	28688043.33	28688043.55	0.0274	0.0170 *

Mercury	73835-12-04 15:51 G	28689077.07	28689077.16	28689077.24	0.0277	0.0225
Mercury	73836-03-02 05:46 G	28689165.60	28689165.74	28689165.88	0.0278	0.0094
Mercury	73836-05-29 20:10 G	28689254.19	28689254.34	28689254.48	0.0278	0.0042
Mercury	73836-08-26 10:34 G	28689342.83	28689342.94	28689343.06	0.0278	0.0180
Venus	73837-08-17 16:05 G	28689699.09	28689699.17	28689699.27	0.0280	0.0250
Venus	73838-04-04 05:31 G	28689928.53	28689928.73	28689928.94	0.0281	0.0059
Venus	73838-11-19 19:12 G	28690158.12	28690158.30	28690158.49	0.0282	0.0136
Earth	73847-08-08 14:24 G	28693341.95	28693342.10	28693342.27	0.0285	0.0213
Moon	73847-08-08 15:36 G	28693341.99	28693342.15	28693342.32	0.0285	0.0198 *
Mercury	73850-04-15 06:00 G	28694322.64	28694322.75	28694322.87	0.0281	0.0194
Mercury	73850-07-12 23:03 G	28694411.30	28694411.46	28694411.62	0.0281	0.0042
Mercury	73850-10-09 15:36 G	28694500.01	28694500.15	28694500.30	0.0280	0.0107
Mercury	73851-01-06 07:41 G	28694588.76	28694588.82	28694588.89	0.0280	0.0250
Venus	73852-02-01 07:12 G	28694979.65	28694979.80	28694979.96	0.0278	0.0184
Venus	73852-09-17 17:31 G	28695209.01	28695209.23	28695209.44	0.0277	0.0006
Venus	73853-05-05 02:53 G	28695438.47	28695438.62	28695438.78	0.0276	0.0186
Earth	73862-01-29 03:07 G	28698629.39	28698629.63	28698629.87	0.0273	0.0062
Moon	73862-01-29 02:53 G	28698629.39	28698629.62	28698629.86	0.0273	0.0063 *
Mercury	73865-07-20 05:17 G	28699897.60	28699897.72	28699897.85	0.0278	0.0148
Mercury	73865-10-16 19:27 G	28699986.16	28699986.31	28699986.46	0.0278	0.0015
Mercury	73866-01-13 09:51 G	28700074.78	28700074.91	28700075.05	0.0278	0.0122
Mercury	73866-04-12 00:43 G	28700163.49	28700163.53	28700163.58	0.0279	0.0263
Venus	73867-02-27 15:36 G	28700485.04	28700485.15	28700485.28	0.0280	0.0232
Venus	73867-10-15 05:17 G	28700714.51	28700714.72	28700714.93	0.0281	0.0040
Venus	73868-05-31 18:58 G	28700944.13	28700944.29	28700944.48	0.0282	0.0155
Moon	73876-08-01 21:22 G	28703928.15	28703928.39	28703928.64	0.0286	0.0049
Earth	73876-08-01 23:03 G	28703928.22	28703928.46	28703928.70	0.0286	0.0033 *
Mercury	73879-09-02 06:29 G	28705054.69	28705054.77	28705054.86	0.0282	0.0239
Mercury	73879-11-29 23:46 G	28705143.34	28705143.49	28705143.64	0.0282	0.0084
Mercury	73880-02-26 16:34 G	28705232.03	28705232.19	28705232.34	0.0281	0.0066

Mercury	73880-05-25 08:39 G	28705320.77	28705320.86	28705320.97	0.0281	0.0213
Venus	73881-08-13 13:12 G	28705765.88	28705766.05	28705766.23	0.0279	0.0156
Venus	73882-03-30 23:31 G	28705995.27	28705995.48	28705995.69	0.0278	0.0032
Venus	73882-11-15 09:22 G	28706224.76	28706224.89	28706225.03	0.0277	0.0216
Earth	73891-01-24 02:24 G	28709216.57	28709216.60	28709216.64	0.0273	0.0269
Moon	73891-01-24 02:24 G	28709216.60	28709216.60	28709216.61	0.0273	0.0272 *
Moon	73892-02-05 18:43 G	28709594.14	28709594.28	28709594.44	0.0273	0.0219
Earth	73892-02-05 22:05 G	28709594.28	28709594.42	28709594.59	0.0273	0.0214 *
Mercury	73894-12-07 07:55 G	28710629.72	28710629.83	28710629.94	0.0277	0.0177
Mercury	73895-03-05 21:51 G	28710718.27	28710718.41	28710718.56	0.0278	0.0046
Mercury	73895-06-02 12:15 G	28710806.87	28710807.01	28710807.16	0.0278	0.0091
Mercury	73895-08-30 02:53 G	28710895.54	28710895.62	28710895.71	0.0278	0.0230
Venus	73896-09-08 23:31 G	28711271.33	28711271.48	28711271.63	0.0280	0.0199
Venus	73897-04-26 12:43 G	28711500.82	28711501.03	28711501.24	0.0281	0.0008
Venus	73897-12-12 02:24 G	28711730.45	28711730.60	28711730.76	0.0282	0.0186
Mars	73900-07-29 20:10 G	28712690.07	28712690.34	28712690.61	0.0285	0.0007
Earth	73905-07-28 08:10 G	28714514.80	28714514.84	28714514.91	0.0286	0.0279
Earth	73906-08-10 16:19 G	28714893.09	28714893.18	28714893.28	0.0285	0.0261
Moon	73906-08-10 19:55 G	28714893.23	28714893.33	28714893.47	0.0285	0.0248 *
Mercury	73909-04-18 23:31 G	28715875.34	28715875.48	28715875.62	0.0281	0.0136
Mercury	73909-07-16 16:19 G	28715964.03	28715964.18	28715964.34	0.0281	0.0017
Mercury	73909-10-13 08:53 G	28716052.74	28716052.87	28716053.00	0.0281	0.0162
Venus	73911-02-24 15:36 G	28716551.96	28716552.15	28716552.33	0.0278	0.0132
Venus	73911-10-12 01:41 G	28716781.36	28716781.57	28716781.77	0.0277	0.0054
Venus	73912-05-28 11:03 G	28717010.86	28717010.96	28717011.07	0.0276	0.0237
Earth	73921-01-31 06:15 G	28720180.51	28720180.76	28720181.01	0.0273	0.0014
Moon	73921-01-31 10:05 G	28720180.67	28720180.92	28720181.16	0.0273	0.0011 *
Mercury	73924-04-26 07:27 G	28721361.74	28721361.81	28721361.90	0.0277	0.0231
Mercury	73924-07-23 21:36 G	28721450.26	28721450.40	28721450.54	0.0278	0.0100
Mercury	73924-10-20 11:46 G	28721538.84	28721538.99	28721539.14	0.0278	0.0035

Mercury	73925-01-17 02:24 G	28721627.48	28721627.60	28721627.72	0.0278	0.0172
Venus	73926-03-22 22:34 G	28722057.29	28722057.44	28722057.61	0.0280	0.0182
Venus	73926-11-07 12:15 G	28722286.80	28722287.01	28722287.22	0.0281	0.0011
Venus	73927-06-25 01:55 G	28722516.45	28722516.58	28722516.74	0.0282	0.0205
Moon	73935-08-04 20:39 G	28725479.12	28725479.36	28725479.60	0.0286	0.0001
Earth	73935-08-05 00:15 G	28725479.27	28725479.51	28725479.75	0.0286	0.0013 *
Mercury	73938-09-05 23:46 G	28726607.37	28726607.49	28726607.62	0.0282	0.0182
Mercury	73938-12-03 16:48 G	28726696.05	28726696.20	28726696.36	0.0282	0.0030
Mercury	73939-03-02 09:36 G	28726784.76	28726784.90	28726785.04	0.0282	0.0121
Mercury	73939-05-30 01:41 G	28726873.53	28726873.57	28726873.62	0.0281	0.0265
Venus	73940-09-05 20:53 G	28727338.18	28727338.37	28727338.57	0.0279	0.0104
Venus	73941-04-23 07:12 G	28727567.60	28727567.80	28727568.01	0.0278	0.0083
Venus	73941-12-08 17:03 G	28727797.16	28727797.21	28727797.27	0.0277	0.0266
Moon	73950-01-26 02:24 G	28730767.46	28730767.60	28730767.76	0.0273	0.0219
Earth	73950-01-26 06:15 G	28730767.63	28730767.76	28730767.91	0.0273	0.0221 *
Moon	73951-02-07 23:46 G	28731145.48	28731145.49	28731145.53	0.0273	0.0272
Earth	73951-02-08 02:10 G	28731145.53	28731145.59	28731145.67	0.0273	0.0262 *
Mercury	73953-09-13 10:34 G	28732093.89	28732093.94	28732094.00	0.0277	0.0255
Mercury	73953-12-11 00:29 G	28732182.39	28732182.52	28732182.65	0.0277	0.0126
Mercury	73954-03-09 14:39 G	28732270.96	28732271.11	28732271.26	0.0277	0.0008
Mercury	73954-06-06 05:03 G	28732359.58	28732359.71	28732359.84	0.0278	0.0144
Venus	73955-10-03 07:55 G	28732843.65	28732843.83	28732844.01	0.0280	0.0147
Venus	73956-05-19 21:07 G	28733073.17	28733073.38	28733073.59	0.0281	0.0045
Venus	73957-01-04 10:48 G	28733302.85	28733302.95	28733303.07	0.0282	0.0239
Earth	73964-07-29 11:31 G	28736065.85	28736065.98	28736066.14	0.0286	0.0228
Moon	73964-07-29 14:53 G	28736066.01	28736066.12	28736066.26	0.0286	0.0243 *
Mercury	73968-01-23 23:46 G	28737339.41	28737339.49	28737339.59	0.0282	0.0230
Mercury	73968-04-21 17:03 G	28737428.06	28737428.21	28737428.37	0.0281	0.0076
Mercury	73968-07-19 09:51 G	28737516.76	28737516.91	28737517.07	0.0281	0.0074
Mercury	73968-10-16 02:10 G	28737605.50	28737605.59	28737605.69	0.0281	0.0220

Venus	73969-08-01 13:27 G	28737895.00	28737895.06	28737895.13	0.0279	0.0265
Venus	73970-03-19 00:15 G	28738124.31	28738124.51	28738124.71	0.0278	0.0078
Venus	73970-11-03 10:19 G	28738353.74	28738353.93	28738354.13	0.0277	0.0107
Earth	73980-02-02 11:46 G	28741731.74	28741731.99	28741732.23	0.0273	0.0037
Moon	73980-02-02 13:27 G	28741731.81	28741732.06	28741732.32	0.0273	0.0045 *
Mercury	73983-04-30 00:15 G	28742914.40	28742914.51	28742914.63	0.0277	0.0178
Mercury	73983-07-27 14:24 G	28743002.95	28743003.10	28743003.24	0.0277	0.0046
Mercury	73983-10-24 04:34 G	28743091.55	28743091.69	28743091.84	0.0278	0.0089
Mercury	73984-01-20 19:12 G	28743180.22	28743180.30	28743180.39	0.0278	0.0228
Venus	73985-04-14 07:41 G	28743629.63	28743629.82	28743630.01	0.0280	0.0129
Venus	73985-11-29 20:53 G	28743859.17	28743859.37	28743859.58	0.0281	0.0064
Venus	73986-07-17 10:34 G	28744088.87	28744088.94	28744089.04	0.0282	0.0257
Mars	73988-12-22 22:19 G	28744978.16	28744978.43	28744978.70	0.0285	0.0022
Earth	73994-08-06 02:39 G	28747030.37	28747030.61	28747030.85	0.0286	0.0062
Moon	73994-08-06 02:39 G	28747030.38	28747030.61	28747030.84	0.0286	0.0051 *
Mercury	73997-06-11 23:46 G	28748071.48	28748071.49	28748071.52	0.0283	0.0280
Mercury	73997-09-08 17:17 G	28748160.08	28748160.22	28748160.37	0.0282	0.0123
Mercury	73997-12-06 10:19 G	28748248.77	28748248.93	28748249.09	0.0282	0.0029
Mercury	73998-03-05 02:53 G	28748337.50	28748337.62	28748337.74	0.0282	0.0177
Venus	73999-02-11 18:00 G	28748681.16	28748681.25	28748681.37	0.0280	0.0240
Venus	73999-09-29 05:17 G	28748910.51	28748910.72	28748910.93	0.0279	0.0051
Venus	74000-05-15 15:51 G	28749139.97	28749140.16	28749140.34	0.0278	0.0136

75TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 75th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mars	74003-01-28 17:46 G		28750128.18	28750128.24	28750128.31	0.0275	0.0269	
Moon	74009-01-27 10:34 G		28752318.76	28752318.94	28752319.14	0.0273	0.0166	
Earth	74009-01-27 12:15 G		28752318.82	28752319.01	28752319.21	0.0273	0.0169	*
Mercury	74012-09-16 03:22 G		28753646.55	28753646.64	28753646.75	0.0277	0.0202	
Mercury	74012-12-13 17:17 G		28753735.08	28753735.22	28753735.37	0.0277	0.0071	
Mercury	74013-03-12 07:41 G		28753823.67	28753823.82	28753823.96	0.0277	0.0064	
Mercury	74013-06-08 22:19 G		28753912.32	28753912.43	28753912.53	0.0278	0.0201	
Venus	74014-10-25 17:17 G		28754416.02	28754416.22	28754416.43	0.0280	0.0092	
Venus	74015-06-12 06:43 G		28754645.58	28754645.78	28754645.98	0.0281	0.0101	
Earth	74023-07-31 16:48 G		28757617.02	28757617.20	28757617.40	0.0286	0.0173	
Moon	74023-07-31 17:03 G		28757617.03	28757617.21	28757617.41	0.0286	0.0186	*
Mercury	74027-01-26 18:00 G		28758892.12	28758892.25	28758892.38	0.0282	0.0166	
Mercury	74027-04-25 11:03 G		28758980.81	28758980.96	28758981.12	0.0281	0.0016	
Mercury	74027-07-23 03:36 G		28759069.52	28759069.65	28759069.80	0.0281	0.0137	
Mercury	74027-10-19 19:55 G		28759158.33	28759158.33	28759158.34	0.0281	0.0280	
Venus	74028-08-23 23:17 G		28759467.33	28759467.47	28759467.61	0.0279	0.0210	
Venus	74029-04-10 10:05 G		28759696.71	28759696.92	28759697.13	0.0278	0.0023	
Venus	74029-11-25 19:55 G		28759926.17	28759926.33	28759926.51	0.0277	0.0163	
Moon	74039-02-03 16:05 G		28763282.94	28763283.17	28763283.41	0.0273	0.0103	
Earth	74039-02-03 18:58 G		28763283.07	28763283.29	28763283.53	0.0273	0.0092	*
Mercury	74042-02-03 03:36 G		28764378.60	28764378.65	28764378.72	0.0277	0.0250	
Mercury	74042-05-02 17:31 G		28764467.10	28764467.23	28764467.36	0.0277	0.0120	
Mercury	74042-07-30 07:41 G		28764555.67	28764555.82	28764555.97	0.0278	0.0013	
Mercury	74042-10-26 22:05 G		28764644.29	28764644.42	28764644.55	0.0278	0.0149	
Venus	74043-09-20 05:17 G		28764972.64	28764972.72	28764972.79	0.0279	0.0261	
Venus	74044-05-06 18:00 G		28765202.05	28765202.25	28765202.46	0.0280	0.0072	
Venus	74044-12-22 07:12 G		28765431.62	28765431.80	28765432.00	0.0281	0.0121	

Earth	74053-08-07 07:41 G	28768581.60	28768581.82	28768582.04	0.0286	0.0115
Moon	74053-08-07 11:03 G	28768581.74	28768581.96	28768582.18	0.0286	0.0106 *
Mercury	74056-06-14 18:00 G	28769624.15	28769624.25	28769624.35	0.0283	0.0216
Mercury	74056-09-11 11:17 G	28769712.81	28769712.97	28769713.13	0.0282	0.0061
Mercury	74056-12-09 04:05 G	28769801.52	28769801.67	28769801.82	0.0282	0.0090
Mercury	74057-03-07 20:24 G	28769890.27	28769890.35	28769890.44	0.0282	0.0236
Venus	74058-03-06 03:36 G	28770253.50	28770253.65	28770253.81	0.0280	0.0184
Venus	74058-10-21 14:39 G	28770482.90	28770483.11	28770483.32	0.0279	0.0006
Venus	74059-06-08 00:58 G	28770712.40	28770712.54	28770712.70	0.0278	0.0190
Earth	74068-01-29 19:55 G	28773870.11	28773870.33	28773870.56	0.0273	0.0114
Moon	74068-01-29 22:34 G	28773870.22	28773870.44	28773870.66	0.0273	0.0108 *
Mercury	74071-06-23 06:58 G	28775110.77	28775110.79	28775110.82	0.0276	0.0271
Mercury	74071-09-19 20:53 G	28775199.24	28775199.37	28775199.50	0.0277	0.0143
Mercury	74071-12-17 10:48 G	28775287.81	28775287.95	28775288.10	0.0277	0.0014
Mercury	74072-03-15 01:12 G	28775376.42	28775376.55	28775376.69	0.0277	0.0125
Mercury	74072-06-11 15:51 G	28775465.12	28775465.16	28775465.21	0.0278	0.0264
Venus	74073-04-01 15:36 G	28775759.03	28775759.15	28775759.28	0.0279	0.0223
Venus	74073-11-17 04:34 G	28775988.48	28775988.69	28775988.90	0.0280	0.0034
Venus	74074-07-04 18:00 G	28776218.08	28776218.25	28776218.42	0.0281	0.0158
Mars	74077-05-19 06:29 G	28777267.52	28777267.77	28777268.02	0.0285	0.0104
Moon	74082-08-01 20:53 G	28779168.16	28779168.37	28779168.60	0.0286	0.0129
Earth	74082-08-02 00:15 G	28779168.29	28779168.51	28779168.74	0.0286	0.0115 *
Mercury	74085-11-01 18:58 G	28780356.23	28780356.29	28780356.37	0.0282	0.0254
Mercury	74086-01-29 12:29 G	28780444.87	28780445.02	28780445.17	0.0282	0.0099
Mercury	74086-04-28 05:31 G	28780533.57	28780533.73	28780533.89	0.0282	0.0053
Mercury	74086-07-25 21:51 G	28780622.31	28780622.41	28780622.53	0.0281	0.0200
Venus	74087-09-16 09:51 G	28781039.74	28781039.91	28781040.09	0.0279	0.0153
Venus	74088-05-02 20:39 G	28781269.15	28781269.36	28781269.57	0.0278	0.0034
Venus	74088-12-18 06:43 G	28781498.66	28781498.78	28781498.92	0.0277	0.0218
Jupiter	74090-02-28 01:55 G	28781935.14	28781935.58	28781936.01	0.0275	0.0024

Mars	74091-06-24 13:12 G	28782416.84	28782417.05	28782417.28	0.0274	0.0196
Moon	74098-02-05 01:41 G	28784834.38	28784834.57	28784834.77	0.0273	0.0161
Earth	74098-02-05 04:48 G	28784834.49	28784834.70	28784834.91	0.0273	0.0149 *
Mercury	74101-02-06 21:22 G	28785931.29	28785931.39	28785931.50	0.0277	0.0189
Mercury	74101-05-06 11:17 G	28786019.83	28786019.97	28786020.12	0.0277	0.0058
Mercury	74101-08-03 01:27 G	28786108.42	28786108.56	28786108.71	0.0278	0.0076
Mercury	74101-10-30 16:05 G	28786197.07	28786197.17	28786197.27	0.0278	0.0213
Venus	74102-10-13 17:03 G	28786545.07	28786545.21	28786545.36	0.0279	0.0202
Venus	74103-05-31 06:00 G	28786774.53	28786774.75	28786774.96	0.0280	0.0014
Venus	74104-01-15 19:12 G	28787004.14	28787004.30	28787004.47	0.0281	0.0179
Earth	74112-08-09 14:53 G	28790132.94	28790133.12	28790133.32	0.0286	0.0173
Moon	74112-08-09 17:31 G	28790133.02	28790133.23	28790133.43	0.0286	0.0163 *
Mercury	74115-06-19 12:29 G	28791176.88	28791177.02	28791177.16	0.0283	0.0148
Mercury	74115-09-16 05:31 G	28791265.57	28791265.73	28791265.89	0.0282	0.0006
Mercury	74115-12-13 22:19 G	28791354.30	28791354.43	28791354.56	0.0282	0.0154
Venus	74117-03-29 14:10 G	28791825.90	28791826.09	28791826.28	0.0280	0.0127
Venus	74117-11-14 01:12 G	28792055.34	28792055.55	28792055.76	0.0279	0.0061
Venus	74118-07-01 11:31 G	28792284.89	28792284.98	28792285.09	0.0278	0.0245
Earth	74127-02-01 05:03 G	28795421.47	28795421.71	28795421.96	0.0273	0.0057
Moon	74127-02-01 08:24 G	28795421.61	28795421.85	28795422.10	0.0273	0.0051 *
Mercury	74130-06-27 00:43 G	28796663.44	28796663.53	28796663.63	0.0276	0.0211
Mercury	74130-09-23 14:39 G	28796751.97	28796752.11	28796752.25	0.0277	0.0081
Mercury	74130-12-21 04:48 G	28796840.55	28796840.70	28796840.85	0.0277	0.0053
Mercury	74131-03-19 19:12 G	28796929.20	28796929.30	28796929.41	0.0278	0.0190
Venus	74132-04-25 04:05 G	28797331.50	28797331.67	28797331.84	0.0279	0.0164
Venus	74132-12-10 17:03 G	28797561.00	28797561.21	28797561.42	0.0280	0.0027
Venus	74133-07-28 06:15 G	28797790.64	28797790.76	28797790.91	0.0281	0.0219
Moon	74141-08-04 07:55 G	28800719.60	28800719.83	28800720.06	0.0286	0.0065
Earth	74141-08-04 10:19 G	28800719.70	28800719.93	28800720.17	0.0286	0.0052 *
Mercury	74144-11-05 14:10 G	28801908.97	28801909.09	28801909.22	0.0282	0.0181

Mercury	74145-02-02 07:27 G	28801997.65	28801997.81	28801997.97	0.0282	0.0028
Mercury	74145-05-02 00:15 G	28802086.37	28802086.51	28802086.65	0.0281	0.0122
Mercury	74145-07-29 16:34 G	28802175.15	28802175.19	28802175.24	0.0281	0.0267
Venus	74146-10-09 21:51 G	28802612.21	28802612.41	28802612.61	0.0279	0.0094
Venus	74147-05-27 08:24 G	28802841.65	28802841.85	28802842.05	0.0278	0.0092
Venus	74148-01-11 18:29 G	28803071.25	28803071.27	28803071.30	0.0277	0.0275
Moon	74156-01-26 17:03 G	28806008.18	28806008.21	28806008.26	0.0273	0.0269
Earth	74156-01-26 20:39 G	28806008.34	28806008.36	28806008.40	0.0273	0.0271
Earth	74157-02-07 15:36 G	28806385.99	28806386.15	28806386.31	0.0273	0.0209
Moon	74157-02-07 16:05 G	28806386.04	28806386.17	28806386.32	0.0273	0.0222 *
Mercury	74159-11-14 01:41 G	28807395.52	28807395.57	28807395.63	0.0277	0.0252
Mercury	74160-02-10 15:22 G	28807484.01	28807484.14	28807484.28	0.0277	0.0124
Mercury	74160-05-09 05:31 G	28807572.58	28807572.73	28807572.88	0.0277	0.0008
Mercury	74160-08-05 19:41 G	28807661.20	28807661.32	28807661.46	0.0278	0.0144
Venus	74161-11-05 06:15 G	28808117.58	28808117.76	28808117.95	0.0280	0.0142
Venus	74162-06-22 19:12 G	28808347.09	28808347.30	28808347.51	0.0281	0.0048
Venus	74163-02-07 08:39 G	28808576.76	28808576.86	28808576.97	0.0281	0.0240
Mars	74165-10-14 00:00 G	28809556.28	28809556.50	28809556.73	0.0285	0.0159
Moon	74171-08-11 22:19 G	28811684.30	28811684.43	28811684.59	0.0286	0.0228
Earth	74171-08-12 00:29 G	28811684.39	28811684.52	28811684.66	0.0286	0.0234 *
Mercury	74174-03-25 13:55 G	28812640.99	28812641.08	28812641.17	0.0283	0.0234
Mercury	74174-06-22 07:12 G	28812729.65	28812729.80	28812729.96	0.0282	0.0079
Mercury	74174-09-19 00:15 G	28812818.36	28812818.51	28812818.66	0.0282	0.0073
Mercury	74174-12-16 16:34 G	28812907.10	28812907.19	28812907.30	0.0282	0.0221
Venus	74175-09-04 13:55 G	28813169.00	28813169.08	28813169.17	0.0281	0.0257
Venus	74176-04-21 01:27 G	28813398.36	28813398.56	28813398.76	0.0280	0.0069
Venus	74176-12-06 12:15 G	28813627.82	28813628.01	28813628.21	0.0279	0.0118
Mars	74179-11-19 19:12 G	28814706.02	28814706.30	28814706.60	0.0275	0.0110
Moon	74186-02-02 15:22 G	28816972.88	28816973.14	28816973.40	0.0273	0.0011
Earth	74186-02-02 15:22 G	28816972.89	28816973.14	28816973.39	0.0273	0.0003 *

Mercury	74189-04-02 05:03 G	28818127.70	28818127.71	28818127.73	0.0276	0.0274
Mercury	74189-06-29 18:43 G	28818216.16	28818216.28	28818216.41	0.0277	0.0147
Mercury	74189-09-26 08:53 G	28818304.72	28818304.87	28818305.02	0.0277	0.0017
Mercury	74189-12-23 23:03 G	28818393.33	28818393.46	28818393.60	0.0277	0.0120
Mercury	74190-03-22 13:41 G	28818482.02	28818482.07	28818482.12	0.0278	0.0258
Venus	74191-05-18 17:17 G	28818904.03	28818904.22	28818904.42	0.0280	0.0103
Venus	74192-01-03 06:29 G	28819133.57	28819133.77	28819133.97	0.0281	0.0088
Venus	74192-08-19 19:55 G	28819363.31	28819363.33	28819363.36	0.0282	0.0279
Earth	74200-08-06 21:51 G	28822271.16	28822271.41	28822271.65	0.0286	0.0014
Moon	74200-08-06 23:46 G	28822271.26	28822271.49	28822271.73	0.0286	0.0004 *
Mercury	74203-08-13 16:05 G	28823373.12	28823373.17	28823373.23	0.0283	0.0262
Mercury	74203-11-10 09:36 G	28823461.76	28823461.90	28823462.05	0.0282	0.0107
Mercury	74204-02-07 02:39 G	28823550.46	28823550.61	28823550.77	0.0282	0.0046
Mercury	74204-05-05 19:12 G	28823639.19	28823639.30	28823639.42	0.0281	0.0193
Venus	74205-03-17 23:03 G	28823955.34	28823955.46	28823955.59	0.0280	0.0222
Venus	74205-11-02 10:05 G	28824184.72	28824184.92	28824185.14	0.0279	0.0035
Venus	74206-06-19 20:53 G	28824414.19	28824414.37	28824414.55	0.0278	0.0151
Earth	74215-01-29 07:55 G	28827559.68	28827559.83	28827560.00	0.0273	0.0210
Moon	74215-01-29 08:10 G	28827559.69	28827559.84	28827560.00	0.0273	0.0205 *
Earth	74216-02-11 03:07 G	28827937.60	28827937.63	28827937.67	0.0273	0.0270
Mercury	74218-11-17 19:55 G	28828948.22	28828948.33	28828948.44	0.0277	0.0187
Mercury	74219-02-14 09:51 G	28829036.76	28829036.91	28829037.05	0.0277	0.0057
Mercury	74219-05-14 00:00 G	28829125.35	28829125.50	28829125.64	0.0277	0.0077
Mercury	74219-08-10 14:24 G	28829214.01	28829214.10	28829214.20	0.0278	0.0213
Venus	74220-04-13 07:41 G	28829460.77	28829460.82	28829460.89	0.0279	0.0267
Venus	74220-11-28 20:10 G	28829690.14	28829690.34	28829690.55	0.0280	0.0080
Venus	74221-07-16 09:07 G	28829919.69	28829919.88	28829920.08	0.0281	0.0111
Moon	74229-08-01 00:43 G	28832857.42	28832857.53	28832857.66	0.0286	0.0248
Earth	74229-08-01 03:22 G	28832857.52	28832857.64	28832857.78	0.0286	0.0239 *
Mercury	74233-03-29 09:22 G	28834193.76	28834193.89	28834194.02	0.0282	0.0159

Mercury	74233-06-26 02:24 G	28834282.44	28834282.60	28834282.76	0.0282	0.0009
Mercury	74233-09-22 19:12 G	28834371.17	28834371.30	28834371.44	0.0282	0.0144
Venus	74234-09-28 02:10 G	28834741.45	28834741.59	28834741.75	0.0280	0.0198
Venus	74235-05-15 13:41 G	28834970.86	28834971.07	28834971.28	0.0279	0.0009
Venus	74235-12-31 00:29 G	28835200.36	28835200.52	28835200.68	0.0278	0.0177
Moon	74245-02-04 21:36 G	28838524.16	28838524.40	28838524.64	0.0273	0.0073
Earth	74245-02-05 01:12 G	28838524.31	28838524.55	28838524.80	0.0273	0.0062 *
Mercury	74248-04-05 23:03 G	28839680.37	28839680.46	28839680.56	0.0277	0.0211
Mercury	74248-07-03 12:58 G	28839768.90	28839769.04	28839769.18	0.0277	0.0081
Mercury	74248-09-30 03:07 G	28839857.48	28839857.63	28839857.77	0.0277	0.0052
Mercury	74248-12-27 17:17 G	28839946.12	28839946.22	28839946.34	0.0278	0.0189
Venus	74249-10-24 18:15 G	28840247.14	28840247.26	28840247.38	0.0279	0.0229
Venus	74250-06-11 06:58 G	28840476.58	28840476.79	28840477.00	0.0280	0.0042
Venus	74251-01-26 20:10 G	28840706.17	28840706.34	28840706.53	0.0281	0.0150
Mars	74254-03-12 00:15 G	28841846.43	28841846.51	28841846.60	0.0285	0.0269
Earth	74259-08-09 10:19 G	28843822.70	28843822.93	28843823.16	0.0286	0.0081
Moon	74259-08-09 13:55 G	28843822.84	28843823.08	28843823.31	0.0286	0.0074 *
Mercury	74262-08-16 11:46 G	28844925.87	28844925.99	28844926.12	0.0282	0.0185
Mercury	74262-11-13 05:03 G	28845014.56	28845014.71	28845014.87	0.0282	0.0032
Mercury	74263-02-09 21:51 G	28845103.27	28845103.41	28845103.56	0.0282	0.0119
Mercury	74263-05-09 14:10 G	28845192.05	28845192.09	28845192.15	0.0281	0.0264
Venus	74264-04-09 12:00 G	28845527.83	28845528.00	28845528.17	0.0280	0.0162
Venus	74264-11-24 23:03 G	28845757.25	28845757.46	28845757.67	0.0279	0.0026
Venus	74265-07-12 09:22 G	28845986.76	28845986.89	28845987.03	0.0278	0.0210
Mars	74268-04-16 10:05 G	28846995.60	28846995.92	28846996.24	0.0274	0.0008
Earth	74274-01-30 19:12 G	28849111.10	28849111.30	28849111.51	0.0273	0.0149
Moon	74274-01-30 23:03 G	28849111.25	28849111.46	28849111.68	0.0273	0.0140 *
Mercury	74277-08-24 00:29 G	28850412.46	28850412.52	28850412.58	0.0277	0.0249
Mercury	74277-11-20 14:10 G	28850500.96	28850501.09	28850501.22	0.0277	0.0121
Mercury	74278-02-17 04:05 G	28850589.52	28850589.67	28850589.82	0.0277	0.0013

Mercury	74278-05-16 18:29 G	28850678.14	28850678.27	28850678.40	0.0278	0.0146
Venus	74279-05-06 21:51 G	28851033.28	28851033.41	28851033.56	0.0279	0.0206
Venus	74279-12-22 10:34 G	28851262.73	28851262.94	28851263.15	0.0280	0.0018
Venus	74280-08-07 23:31 G	28851492.32	28851492.48	28851492.65	0.0281	0.0173
Moon	74288-08-02 12:58 G	28854408.86	28854409.04	28854409.23	0.0286	0.0179
Earth	74288-08-02 16:05 G	28854408.99	28854409.17	28854409.37	0.0286	0.0171 *
Mercury	74292-01-03 11:17 G	28855657.89	28855657.97	28855658.05	0.0282	0.0239
Mercury	74292-04-01 04:48 G	28855746.54	28855746.70	28855746.85	0.0282	0.0083
Mercury	74292-06-28 21:36 G	28855835.25	28855835.40	28855835.56	0.0282	0.0069
Mercury	74292-09-25 14:10 G	28855924.00	28855924.09	28855924.20	0.0281	0.0216
Venus	74293-10-20 14:39 G	28856313.94	28856314.11	28856314.30	0.0280	0.0138
Venus	74294-06-07 01:55 G	28856543.37	28856543.58	28856543.79	0.0279	0.0050
Venus	74295-01-22 12:29 G	28856772.91	28856773.02	28856773.14	0.0278	0.0234
Moon	74304-02-08 08:39 G	28860075.65	28860075.86	28860076.07	0.0274	0.0135
Earth	74304-02-08 10:19 G	28860075.72	28860075.93	28860076.17	0.0274	0.0122 *
Mercury	74307-01-12 03:22 G	28861144.63	28861144.64	28861144.64	0.0276	0.0276
Mercury	74307-04-10 16:48 G	28861233.08	28861233.20	28861233.33	0.0277	0.0149
Mercury	74307-07-08 06:43 G	28861321.64	28861321.78	28861321.93	0.0277	0.0019
Mercury	74307-10-04 21:07 G	28861410.24	28861410.38	28861410.52	0.0277	0.0118
Mercury	74308-01-01 11:31 G	28861498.93	28861498.98	28861499.05	0.0278	0.0256
Venus	74308-11-17 07:12 G	28861819.63	28861819.80	28861819.97	0.0279	0.0170
Venus	74309-07-04 19:55 G	28862049.12	28862049.33	28862049.55	0.0280	0.0019
Venus	74310-02-19 09:36 G	28862278.76	28862278.90	28862279.04	0.0281	0.0210
Moon	74318-08-11 23:03 G	28865374.25	28865374.46	28865374.68	0.0286	0.0145
Earth	74318-08-11 23:03 G	28865374.26	28865374.46	28865374.67	0.0286	0.0149 *
Mercury	74321-05-23 14:10 G	28866390.03	28866390.09	28866390.15	0.0283	0.0262
Mercury	74321-08-20 07:41 G	28866478.67	28866478.82	28866478.97	0.0282	0.0106
Mercury	74321-11-17 00:43 G	28866567.37	28866567.53	28866567.69	0.0282	0.0046
Mercury	74322-02-13 17:17 G	28866656.11	28866656.22	28866656.33	0.0281	0.0193
Venus	74323-05-04 01:12 G	28867100.35	28867100.55	28867100.75	0.0279	0.0101

Venus	74323-12-19 12:00 G	28867329.80	28867330.00	28867330.20	0.0278	0.0085
Venus	74324-08-04 22:05 G	28867559.38	28867559.42	28867559.48	0.0277	0.0269
Earth	74333-02-02 05:17 G	28870662.49	28870662.72	28870662.96	0.0273	0.0089
Moon	74333-02-02 06:58 G	28870662.55	28870662.79	28870663.04	0.0273	0.0078 *
Mercury	74336-08-27 18:15 G	28871965.16	28871965.26	28871965.37	0.0277	0.0186
Mercury	74336-11-24 08:10 G	28872053.70	28872053.84	28872053.99	0.0277	0.0056
Mercury	74337-02-20 22:19 G	28872142.29	28872142.43	28872142.58	0.0277	0.0078
Mercury	74337-05-20 12:43 G	28872230.94	28872231.03	28872231.13	0.0278	0.0214
Venus	74338-05-30 11:17 G	28872605.79	28872605.97	28872606.15	0.0279	0.0146
Venus	74339-01-15 00:15 G	28872835.30	28872835.51	28872835.72	0.0280	0.0044
Venus	74339-09-01 13:12 G	28873064.94	28873065.05	28873065.17	0.0281	0.0234
Earth	74347-08-06 05:03 G	28875960.49	28875960.71	28875960.94	0.0286	0.0102
Moon	74347-08-06 05:17 G	28875960.50	28875960.72	28875960.93	0.0286	0.0109 *
Mercury	74351-01-07 06:43 G	28877210.65	28877210.78	28877210.92	0.0282	0.0162
Mercury	74351-04-06 00:00 G	28877299.34	28877299.50	28877299.66	0.0282	0.0012
Mercury	74351-07-03 16:48 G	28877388.07	28877388.20	28877388.34	0.0281	0.0141
Venus	74352-03-28 15:51 G	28877657.10	28877657.16	28877657.23	0.0280	0.0266
Venus	74352-11-13 03:22 G	28877886.43	28877886.64	28877886.84	0.0279	0.0078
Venus	74353-06-30 14:10 G	28878115.90	28878116.09	28878116.29	0.0279	0.0108
Mars	74356-09-11 08:10 G	28879284.53	28879284.84	28879285.15	0.0275	0.0067
Earth	74363-02-09 18:43 G	28881627.09	28881627.28	28881627.46	0.0274	0.0178
Moon	74363-02-09 21:22 G	28881627.22	28881627.39	28881627.56	0.0274	0.0194 *
Mercury	74366-01-14 20:39 G	28882697.28	28882697.36	28882697.45	0.0277	0.0217
Mercury	74366-04-13 10:34 G	28882785.80	28882785.94	28882786.08	0.0277	0.0087
Mercury	74366-07-11 00:29 G	28882874.38	28882874.52	28882874.67	0.0277	0.0046
Mercury	74366-10-07 14:53 G	28882963.01	28882963.12	28882963.24	0.0278	0.0182
Venus	74367-12-10 19:27 G	28883392.12	28883392.31	28883392.51	0.0279	0.0112
Venus	74368-07-27 08:24 G	28883621.65	28883621.85	28883622.06	0.0280	0.0078
Venus	74369-03-13 21:51 G	28883851.36	28883851.41	28883851.48	0.0281	0.0269
Moon	74377-08-13 07:27 G	28886925.65	28886925.81	28886925.97	0.0286	0.0214

Earth	74377-08-13 10:34 G	28886925.79	28886925.94	28886926.11	0.0286	0.0216	*
Mercury	74380-05-26 09:36 G	28887942.78	28887942.90	28887943.03	0.0282	0.0185	
Mercury	74380-08-23 03:07 G	28888031.47	28888031.63	28888031.79	0.0282	0.0032	
Mercury	74380-11-19 19:55 G	28888120.18	28888120.33	28888120.47	0.0282	0.0119	
Mercury	74381-02-16 12:15 G	28888208.96	28888209.01	28888209.06	0.0281	0.0264	
Venus	74381-10-09 02:39 G	28888443.49	28888443.61	28888443.73	0.0280	0.0230	
Venus	74382-05-26 13:41 G	28888672.86	28888673.07	28888673.28	0.0279	0.0042	
Venus	74383-01-11 00:15 G	28888902.33	28888902.51	28888902.69	0.0278	0.0143	
Moon	74392-02-04 11:03 G	28892213.70	28892213.96	28892214.21	0.0273	0.0019	
Earth	74392-02-04 13:41 G	28892213.83	28892214.07	28892214.32	0.0273	0.0032	*
Mercury	74395-06-03 22:19 G	28893429.38	28893429.43	28893429.49	0.0277	0.0253	
Mercury	74395-08-31 12:00 G	28893517.87	28893518.00	28893518.13	0.0277	0.0125	
Mercury	74395-11-28 01:55 G	28893606.43	28893606.58	28893606.73	0.0277	0.0007	
Mercury	74396-02-24 16:05 G	28893695.05	28893695.17	28893695.31	0.0278	0.0142	
Venus	74396-11-04 11:03 G	28893948.93	28893948.96	28893949.00	0.0279	0.0274	
Venus	74397-06-21 23:31 G	28894178.28	28894178.48	28894178.68	0.0280	0.0088	
Venus	74398-02-06 12:29 G	28894407.83	28894408.02	28894408.22	0.0281	0.0102	
Mars	74400-11-13 17:17 G	28895419.08	28895419.22	28895419.36	0.0285	0.0242	
Earth	74406-08-07 16:34 G	28897511.95	28897512.19	28897512.43	0.0286	0.0036	
Moon	74406-08-07 19:55 G	28897512.09	28897512.33	28897512.57	0.0286	0.0043	*
Mercury	74409-10-13 08:39 G	28898674.78	28898674.86	28898674.95	0.0282	0.0242	
Mercury	74410-01-10 02:10 G	28898763.44	28898763.59	28898763.75	0.0282	0.0087	
Mercury	74410-04-08 19:12 G	28898852.15	28898852.30	28898852.46	0.0281	0.0065	
Mercury	74410-07-06 11:46 G	28898940.89	28898940.99	28898941.10	0.0281	0.0212	
Venus	74411-04-21 04:05 G	28899229.54	28899229.67	28899229.82	0.0280	0.0207	
Venus	74411-12-06 15:22 G	28899458.93	28899459.14	28899459.35	0.0279	0.0020	
Venus	74412-07-23 02:10 G	28899688.42	28899688.59	28899688.76	0.0278	0.0165	
Earth	74421-01-29 05:03 G	28902800.61	28902800.71	28902800.82	0.0273	0.0246	
Moon	74421-01-29 07:27 G	28902800.70	28902800.81	28902800.93	0.0273	0.0237	*
Earth	74422-02-11 00:29 G	28903178.40	28903178.52	28903178.66	0.0274	0.0232	

Moon	74422-02-11 03:36 G	28903178.56	28903178.65	28903178.77	0.0274	0.0248	*
Mercury	74425-01-17 13:41 G	28904249.96	28904250.07	28904250.19	0.0277	0.0161	
Mercury	74425-04-16 03:36 G	28904338.50	28904338.65	28904338.80	0.0277	0.0030	
Mercury	74425-07-13 17:46 G	28904427.11	28904427.24	28904427.38	0.0278	0.0104	
Mercury	74425-10-10 08:24 G	28904515.78	28904515.85	28904515.92	0.0278	0.0242	
Venus	74426-05-17 17:31 G	28904735.13	28904735.23	28904735.33	0.0279	0.0244	
Venus	74427-01-02 06:15 G	28904964.55	28904964.76	28904964.97	0.0280	0.0057	
Venus	74427-08-19 19:12 G	28905194.12	28905194.30	28905194.50	0.0281	0.0134	
Moon	74435-08-02 07:55 G	28908098.76	28908098.83	28908098.92	0.0287	0.0270	
Earth	74435-08-02 11:31 G	28908098.89	28908098.98	28908099.09	0.0287	0.0259	*
Moon	74436-08-14 18:29 G	28908477.22	28908477.27	28908477.33	0.0286	0.0277	
Earth	74436-08-14 20:39 G	28908477.33	28908477.36	28908477.43	0.0286	0.0279	*
Mercury	74439-03-02 11:17 G	28909406.92	28909406.97	28909407.03	0.0283	0.0267	
Mercury	74439-05-30 04:48 G	28909495.56	28909495.70	28909495.85	0.0282	0.0112	
Mercury	74439-08-26 22:05 G	28909584.26	28909584.42	28909584.58	0.0282	0.0041	
Mercury	74439-11-23 14:39 G	28909673.00	28909673.11	28909673.23	0.0281	0.0189	
Venus	74440-10-31 14:39 G	28910015.94	28910016.11	28910016.28	0.0280	0.0172	
Venus	74441-06-18 01:27 G	28910245.35	28910245.56	28910245.77	0.0279	0.0016	
Venus	74442-02-02 11:46 G	28910474.85	28910474.99	28910475.14	0.0278	0.0200	
Mars	74445-02-06 00:00 G	28911574.26	28911574.50	28911574.76	0.0274	0.0174	
Moon	74451-02-05 17:03 G	28913764.97	28913765.21	28913765.46	0.0273	0.0035	
Earth	74451-02-05 20:24 G	28913765.10	28913765.35	28913765.59	0.0273	0.0022	*
Mercury	74454-06-06 15:22 G	28914982.04	28914982.14	28914982.25	0.0277	0.0197	
Mercury	74454-09-03 05:17 G	28915070.57	28915070.72	28915070.86	0.0277	0.0067	
Mercury	74454-11-30 19:12 G	28915159.16	28915159.30	28915159.45	0.0277	0.0066	
Mercury	74455-02-27 09:36 G	28915247.80	28915247.90	28915248.01	0.0278	0.0202	
Venus	74455-11-27 21:51 G	28915521.29	28915521.41	28915521.55	0.0279	0.0219	
Venus	74456-07-14 10:34 G	28915750.73	28915750.94	28915751.15	0.0280	0.0032	
Venus	74457-02-28 23:31 G	28915980.32	28915980.48	28915980.66	0.0281	0.0159	
Earth	74465-08-09 02:10 G	28919063.35	28919063.59	28919063.84	0.0286	0.0028	

Moon	74465-08-09 04:48 G	28919063.45	28919063.70	28919063.95	0.0286	0.0022	*
Mercury	74468-10-16 03:51 G	28920227.53	28920227.66	28920227.79	0.0282	0.0169	
Mercury	74469-01-12 21:07 G	28920316.22	28920316.38	28920316.54	0.0282	0.0016	
Mercury	74469-04-11 13:55 G	28920404.94	28920405.08	28920405.22	0.0281	0.0134	
Mercury	74469-07-09 06:29 G	28920493.75	28920493.77	28920493.79	0.0281	0.0278	
Venus	74470-05-13 15:36 G	28920801.98	28920802.15	28920802.33	0.0280	0.0150	
Venus	74470-12-29 02:39 G	28921031.40	28921031.61	28921031.82	0.0279	0.0036	
Venus	74471-08-15 12:58 G	28921260.92	28921261.04	28921261.17	0.0278	0.0220	
Earth	74480-01-31 09:22 G	28924351.72	28924351.89	28924352.07	0.0273	0.0195	
Moon	74480-01-31 12:43 G	28924351.86	28924352.03	28924352.23	0.0273	0.0185	*
Mercury	74483-10-24 16:34 G	28925714.12	28925714.19	28925714.27	0.0277	0.0237	
Mercury	74484-01-21 06:15 G	28925802.63	28925802.76	28925802.90	0.0277	0.0109	
Mercury	74484-04-18 20:24 G	28925891.20	28925891.35	28925891.50	0.0277	0.0024	
Mercury	74484-07-16 10:34 G	28925979.82	28925979.94	28925980.07	0.0278	0.0159	
Venus	74485-06-09 02:24 G	28926307.45	28926307.60	28926307.75	0.0279	0.0193	
Venus	74486-01-24 15:22 G	28926536.93	28926537.14	28926537.36	0.0280	0.0007	
Venus	74486-09-11 04:48 G	28926766.54	28926766.70	28926766.86	0.0281	0.0186	
Mars	74489-04-09 19:27 G	28927708.10	28927708.31	28927708.54	0.0285	0.0170	
Moon	74494-08-03 16:34 G	28929650.04	28929650.19	28929650.37	0.0287	0.0209	
Earth	74494-08-03 19:12 G	28929650.13	28929650.30	28929650.47	0.0287	0.0200	*
Mercury	74498-03-05 06:15 G	28930959.65	28930959.76	28930959.88	0.0283	0.0196	
Mercury	74498-06-01 23:46 G	28931048.33	28931048.49	28931048.64	0.0282	0.0043	
Mercury	74498-08-29 16:34 G	28931137.04	28931137.19	28931137.34	0.0282	0.0108	
Mercury	74498-11-26 08:53 G	28931225.81	28931225.87	28931225.94	0.0281	0.0254	
Venus	74499-11-24 01:27 G	28931588.37	28931588.56	28931588.76	0.0280	0.0116	
Venus	74500-07-11 12:15 G	28931817.81	28931818.01	28931818.22	0.0279	0.0071	
Venus	74501-02-25 22:19 G	28932047.36	28932047.43	28932047.53	0.0278	0.0254	
Earth	74510-02-08 00:43 G	28935316.30	28935316.53	28935316.78	0.0273	0.0073	
Moon	74510-02-08 01:12 G	28935316.33	28935316.55	28935316.78	0.0273	0.0086	*
Mercury	74513-03-13 18:29 G	28936446.25	28936446.27	28936446.30	0.0276	0.0271	

Mercury	74513-06-10 07:55 G	28936534.71	28936534.83	28936534.96	0.0277	0.0145
Mercury	74513-09-06 21:51 G	28936623.27	28936623.41	28936623.56	0.0277	0.0015
Mercury	74513-12-04 12:00 G	28936711.87	28936712.00	28936712.14	0.0277	0.0120
Mercury	74514-03-03 02:39 G	28936800.56	28936800.61	28936800.66	0.0278	0.0257
Venus	74514-12-21 06:58 G	28937093.63	28937093.79	28937093.97	0.0279	0.0167
Venus	74515-08-07 19:55 G	28937323.11	28937323.33	28937323.54	0.0280	0.0022
Venus	74516-03-24 08:53 G	28937552.74	28937552.87	28937553.02	0.0281	0.0212
Moon	74524-08-11 07:27 G	28940614.58	28940614.81	28940615.06	0.0286	0.0086
Earth	74524-08-11 09:51 G	28940614.68	28940614.91	28940615.14	0.0286	0.0086 *
Mercury	74527-07-24 05:03 G	28941691.64	28941691.71	28941691.77	0.0282	0.0256
Mercury	74527-10-20 22:34 G	28941780.29	28941780.44	28941780.59	0.0282	0.0100
Mercury	74528-01-17 15:36 G	28941869.00	28941869.15	28941869.31	0.0281	0.0052
Mercury	74528-04-15 08:10 G	28941957.74	28941957.84	28941957.96	0.0281	0.0199
Venus	74529-06-06 02:10 G	28942374.39	28942374.59	28942374.79	0.0279	0.0095
Venus	74530-01-21 12:58 G	28942603.84	28942604.04	28942604.24	0.0278	0.0091
Venus	74530-09-07 22:48 G	28942833.43	28942833.45	28942833.50	0.0277	0.0274
Mars	74533-07-03 04:34 G	28943862.51	28943862.69	28943862.88	0.0274	0.0223
Moon	74539-02-02 11:31 G	28945902.76	28945902.98	28945903.20	0.0273	0.0133
Earth	74539-02-02 12:00 G	28945902.80	28945903.00	28945903.21	0.0273	0.0147 *
Mercury	74542-10-28 08:53 G	28947266.76	28947266.87	28947266.97	0.0277	0.0189
Mercury	74543-01-24 22:34 G	28947355.30	28947355.44	28947355.59	0.0277	0.0060
Mercury	74543-04-23 12:43 G	28947443.88	28947444.03	28947444.17	0.0277	0.0073
Mercury	74543-07-21 03:07 G	28947532.53	28947532.63	28947532.73	0.0278	0.0210
Venus	74544-07-02 10:05 G	28947879.74	28947879.92	28947880.10	0.0279	0.0143
Venus	74545-02-16 23:17 G	28948109.26	28948109.47	28948109.68	0.0280	0.0046
Venus	74545-10-04 12:58 G	28948338.92	28948339.04	28948339.15	0.0281	0.0237
Jupiter	74546-11-01 21:51 G	28948731.91	28948732.41	28948732.91	0.0283	0.0002
Earth	74553-08-06 00:15 G	28951201.30	28951201.51	28951201.72	0.0287	0.0146
Moon	74553-08-06 02:39 G	28951201.41	28951201.61	28951201.82	0.0287	0.0149 *
Mercury	74557-03-09 00:29 G	28952512.38	28952512.52	28952512.66	0.0283	0.0131

Mercury	74557-06-05 17:46 G	28952601.08	28952601.24	28952601.40	0.0282	0.0022
Mercury	74557-09-02 10:34 G	28952689.81	28952689.94	28952690.06	0.0282	0.0171
Venus	74558-05-01 23:46 G	28952931.41	28952931.49	28952931.59	0.0281	0.0250
Venus	74558-12-17 11:03 G	28953160.76	28953160.96	28953161.17	0.0280	0.0063
Venus	74559-08-03 21:51 G	28953390.22	28953390.41	28953390.60	0.0278	0.0124
Earth	74569-02-09 03:36 G	28956867.43	28956867.65	28956867.88	0.0273	0.0120
Moon	74569-02-09 07:12 G	28956867.59	28956867.80	28956868.02	0.0273	0.0136 *
Mercury	74572-03-16 10:34 G	28957998.86	28957998.94	28957999.03	0.0276	0.0224
Mercury	74572-06-13 00:15 G	28958087.38	28958087.51	28958087.65	0.0277	0.0096
Mercury	74572-09-09 14:10 G	28958175.95	28958176.09	28958176.24	0.0277	0.0037
Mercury	74572-12-07 04:34 G	28958264.57	28958264.69	28958264.81	0.0278	0.0171
Venus	74574-01-12 14:53 G	28958665.93	28958666.12	28958666.32	0.0279	0.0116
Venus	74574-08-30 03:51 G	28958895.45	28958895.66	28958895.86	0.0280	0.0073
Venus	74575-04-16 17:03 G	28959125.14	28959125.21	28959125.29	0.0281	0.0262
Mars	74577-09-04 06:15 G	28959996.52	28959996.76	28959997.01	0.0285	0.0127
Moon	74583-08-13 11:03 G	28962165.77	28962165.96	28962166.18	0.0286	0.0146
Earth	74583-08-13 14:39 G	28962165.91	28962166.11	28962166.33	0.0286	0.0140 *
Mercury	74586-07-26 23:17 G	28963244.35	28963244.47	28963244.59	0.0282	0.0190
Mercury	74586-10-23 16:34 G	28963333.03	28963333.19	28963333.35	0.0282	0.0037
Mercury	74587-01-20 09:36 G	28963421.75	28963421.90	28963422.04	0.0281	0.0114
Mercury	74587-04-19 01:55 G	28963510.53	28963510.58	28963510.65	0.0281	0.0259
Venus	74587-11-12 00:29 G	28963717.40	28963717.52	28963717.64	0.0280	0.0228
Venus	74588-06-28 11:46 G	28963946.78	28963946.99	28963947.20	0.0279	0.0042
Venus	74589-02-12 22:19 G	28964176.25	28964176.43	28964176.61	0.0278	0.0143
Moon	74598-02-03 09:51 G	28967453.67	28967453.91	28967454.14	0.0273	0.0085
Earth	74598-02-03 13:27 G	28967453.84	28967454.06	28967454.30	0.0273	0.0102 *
Mercury	74601-08-04 10:48 G	28968730.94	28968730.95	28968730.99	0.0276	0.0272
Mercury	74601-11-01 00:29 G	28968819.40	28968819.52	28968819.65	0.0277	0.0145
Mercury	74602-01-28 14:24 G	28968907.95	28968908.10	28968908.25	0.0277	0.0014
Mercury	74602-04-27 04:34 G	28968996.56	28968996.69	28968996.83	0.0277	0.0120

Mercury	74602-07-24 19:12 G	28969085.24	28969085.30	28969085.35	0.0278	0.0257
Venus	74603-07-26 16:19 G	28969451.99	28969452.18	28969452.39	0.0279	0.0095
Venus	74604-03-12 05:31 G	28969681.54	28969681.73	28969681.94	0.0280	0.0095
Earth	74612-08-08 02:39 G	28972752.39	28972752.61	28972752.85	0.0287	0.0097
Moon	74612-08-08 06:00 G	28972752.52	28972752.75	28972752.98	0.0287	0.0095 *
Mercury	74615-12-15 00:43 G	28973976.43	28973976.53	28973976.62	0.0283	0.0226
Mercury	74616-03-12 18:15 G	28974065.10	28974065.26	28974065.42	0.0283	0.0070
Mercury	74616-06-09 11:17 G	28974153.82	28974153.97	28974154.13	0.0282	0.0082
Mercury	74616-09-06 03:51 G	28974242.58	28974242.66	28974242.76	0.0282	0.0229
Venus	74617-05-25 08:24 G	28974503.71	28974503.85	28974504.01	0.0281	0.0198
Venus	74618-01-09 19:55 G	28974733.12	28974733.33	28974733.54	0.0279	0.0011
Venus	74618-08-27 06:15 G	28974962.61	28974962.76	28974962.94	0.0278	0.0176
Earth	74628-02-12 05:17 G	28978418.53	28978418.72	28978418.92	0.0272	0.0164
Moon	74628-02-12 06:43 G	28978418.59	28978418.78	28978418.97	0.0272	0.0180 *
Mercury	74631-03-21 02:24 G	28979551.50	28979551.60	28979551.72	0.0276	0.0178
Mercury	74631-06-17 16:19 G	28979640.03	28979640.18	28979640.32	0.0277	0.0049
Mercury	74631-09-14 06:15 G	28979728.62	28979728.76	28979728.91	0.0277	0.0084
Mercury	74631-12-11 20:39 G	28979817.27	28979817.36	28979817.45	0.0278	0.0219
Venus	74632-06-20 09:07 G	28980008.80	28980008.88	28980008.98	0.0278	0.0253
Venus	74633-02-04 21:51 G	28980238.20	28980238.41	28980238.62	0.0279	0.0067
Venus	74633-09-22 10:48 G	28980467.76	28980467.95	28980468.14	0.0281	0.0122
Earth	74642-08-15 18:15 G	28983717.08	28983717.26	28983717.44	0.0286	0.0191
Moon	74642-08-15 18:58 G	28983717.12	28983717.29	28983717.46	0.0286	0.0200 *
Mercury	74645-07-30 17:03 G	28984797.07	28984797.21	28984797.36	0.0282	0.0129
Mercury	74645-10-27 10:19 G	28984885.77	28984885.93	28984886.09	0.0282	0.0024
Mercury	74646-01-24 03:07 G	28984974.51	28984974.63	28984974.76	0.0281	0.0172
Venus	74646-12-05 09:07 G	28985289.72	28985289.88	28985290.05	0.0280	0.0176
Venus	74647-07-22 20:24 G	28985519.14	28985519.35	28985519.56	0.0279	0.0011
Venus	74648-03-08 06:43 G	28985748.63	28985748.78	28985748.93	0.0278	0.0194
Moon	74657-02-05 13:55 G	28989004.84	28989005.08	28989005.32	0.0272	0.0042

Earth	74657-02-05 14:24 G	28989004.86	28989005.10	28989005.35	0.0272	0.0058	*
Mercury	74660-08-07 02:39 G	28990283.53	28990283.61	28990283.69	0.0276	0.0228	
Mercury	74660-11-03 16:19 G	28990372.04	28990372.18	28990372.31	0.0277	0.0101	
Mercury	74661-01-31 06:15 G	28990460.61	28990460.76	28990460.90	0.0277	0.0031	
Mercury	74661-04-29 20:24 G	28990549.23	28990549.35	28990549.47	0.0277	0.0165	
Venus	74661-12-31 09:36 G	28990794.79	28990794.90	28990795.02	0.0279	0.0234	
Venus	74662-08-17 22:19 G	28991024.22	28991024.43	28991024.64	0.0280	0.0048	
Venus	74663-04-04 11:17 G	28991253.79	28991253.97	28991254.16	0.0281	0.0142	
Mars	74666-01-29 08:24 G	28992284.60	28992284.85	28992285.11	0.0285	0.0098	
Moon	74671-08-10 02:24 G	28994303.35	28994303.60	28994303.85	0.0287	0.0046	
Earth	74671-08-10 03:22 G	28994303.40	28994303.64	28994303.88	0.0287	0.0052	*
Mercury	74674-12-17 18:00 G	28995529.12	28995529.25	28995529.38	0.0283	0.0169	
Mercury	74675-03-16 11:31 G	28995617.82	28995617.98	28995618.14	0.0283	0.0015	
Mercury	74675-06-13 04:19 G	28995706.55	28995706.68	28995706.82	0.0282	0.0137	
Venus	74676-06-16 16:05 G	28996076.00	28996076.17	28996076.36	0.0281	0.0147	
Venus	74677-02-01 03:22 G	28996305.44	28996305.64	28996305.85	0.0279	0.0041	
Venus	74677-09-18 13:55 G	28996534.97	28996535.08	28996535.21	0.0278	0.0225	
Moon	74686-01-31 14:24 G	28999592.00	28999592.10	28999592.22	0.0271	0.0246	
Earth	74686-01-31 13:41 G	28999592.01	28999592.07	28999592.14	0.0271	0.0261	*
Moon	74687-02-13 02:53 G	28999969.49	28999969.62	28999969.78	0.0272	0.0222	
Earth	74687-02-13 06:15 G	28999969.62	28999969.76	28999969.94	0.0272	0.0209	*
Mercury	74689-12-25 04:48 G	29001015.66	29001015.70	29001015.75	0.0276	0.0260	
Mercury	74690-03-23 18:29 G	29001104.14	29001104.27	29001104.40	0.0276	0.0133	
Mercury	74690-06-20 08:10 G	29001192.69	29001192.84	29001192.99	0.0277	0.0004	
Mercury	74690-09-16 22:19 G	29001281.30	29001281.43	29001281.56	0.0277	0.0130	
Mercury	74690-12-14 12:43 G	29001369.99	29001370.03	29001370.07	0.0277	0.0266	
Venus	74691-07-13 15:36 G	29001581.01	29001581.15	29001581.29	0.0278	0.0205	
Venus	74692-02-28 04:05 G	29001810.46	29001810.67	29001810.88	0.0280	0.0019	
Venus	74692-10-14 17:03 G	29002040.04	29002040.21	29002040.38	0.0281	0.0170	
Earth	74701-08-17 19:12 G	29005268.19	29005268.30	29005268.45	0.0286	0.0239	

Moon	74701-08-17 23:03 G	29005268.35	29005268.46	29005268.58	0.0286	0.0250 *
Mercury	74704-05-06 16:48 G	29006261.11	29006261.20	29006261.30	0.0283	0.0227
Mercury	74704-08-03 10:34 G	29006349.78	29006349.94	29006350.09	0.0282	0.0072
Mercury	74704-10-31 03:36 G	29006438.50	29006438.65	29006438.80	0.0282	0.0080
Mercury	74705-01-27 20:10 G	29006527.26	29006527.34	29006527.44	0.0281	0.0228
Venus	74705-12-28 17:03 G	29006862.03	29006862.21	29006862.40	0.0280	0.0125
Venus	74706-08-15 04:19 G	29007091.47	29007091.68	29007091.88	0.0279	0.0062
Venus	74707-04-01 14:39 G	29007321.01	29007321.11	29007321.21	0.0278	0.0244
Earth	74716-02-08 15:07 G	29010555.89	29010556.13	29010556.38	0.0272	0.0015
Moon	74716-02-08 18:43 G	29010556.04	29010556.28	29010556.53	0.0272	0.0002 *
Mercury	74719-08-11 18:00 G	29011836.15	29011836.25	29011836.37	0.0276	0.0187
Mercury	74719-11-08 07:55 G	29011924.68	29011924.83	29011924.97	0.0277	0.0058
Mercury	74720-02-04 21:51 G	29012013.27	29012013.41	29012013.55	0.0277	0.0074
Mercury	74720-05-03 12:00 G	29012101.91	29012102.00	29012102.10	0.0277	0.0210
Venus	74721-01-23 14:53 G	29012366.98	29012367.12	29012367.29	0.0279	0.0188
Venus	74721-09-10 03:51 G	29012596.45	29012596.66	29012596.87	0.0280	0.0002
Venus	74722-04-27 16:48 G	29012826.05	29012826.20	29012826.36	0.0281	0.0188
Moon	74730-08-11 23:46 G	29015854.25	29015854.49	29015854.73	0.0287	0.0001
Earth	74730-08-12 03:22 G	29015854.40	29015854.64	29015854.88	0.0287	0.0008 *
Mercury	74733-09-23 17:03 G	29016993.18	29016993.21	29016993.26	0.0284	0.0273
Mercury	74733-12-21 11:03 G	29017081.81	29017081.96	29017082.11	0.0283	0.0114
Mercury	74734-03-20 04:19 G	29017170.53	29017170.68	29017170.84	0.0283	0.0041
Mercury	74734-06-16 21:22 G	29017259.27	29017259.39	29017259.51	0.0282	0.0189
Venus	74735-07-10 23:31 G	29017648.28	29017648.48	29017648.68	0.0281	0.0096
Venus	74736-02-25 10:34 G	29017877.75	29017877.94	29017878.15	0.0279	0.0092
Venus	74736-10-11 21:22 G	29018107.36	29018107.39	29018107.42	0.0278	0.0274
Moon	74745-02-02 11:31 G	29021142.83	29021142.98	29021143.16	0.0271	0.0203
Earth	74745-02-02 14:53 G	29021142.99	29021143.12	29021143.28	0.0271	0.0218 *
Moon	74746-02-15 05:03 G	29021520.66	29021520.71	29021520.78	0.0272	0.0263
Earth	74746-02-15 07:27 G	29021520.73	29021520.81	29021520.91	0.0272	0.0251 *

Mercury	74748-12-28 20:39 G	29022568.27	29022568.36	29022568.45	0.0276	0.0216
Mercury	74749-03-27 10:05 G	29022656.79	29022656.92	29022657.06	0.0276	0.0089
Mercury	74749-06-24 00:00 G	29022745.36	29022745.50	29022745.65	0.0277	0.0042
Mercury	74749-09-20 14:10 G	29022833.98	29022834.09	29022834.21	0.0277	0.0176
Venus	74750-08-05 21:51 G	29023153.24	29023153.41	29023153.59	0.0278	0.0156
Venus	74751-03-23 10:19 G	29023382.72	29023382.93	29023383.14	0.0280	0.0030
Venus	74751-11-07 23:03 G	29023612.34	29023612.46	29023612.60	0.0281	0.0219
Mars	74754-06-25 16:05 G	29024572.91	29024573.17	29024573.44	0.0285	0.0061
Earth	74759-08-06 08:39 G	29026440.76	29026440.86	29026440.98	0.0287	0.0256
Moon	74759-08-06 12:29 G	29026440.91	29026441.02	29026441.13	0.0287	0.0253 *
Earth	74760-08-18 20:24 G	29026819.32	29026819.35	29026819.39	0.0287	0.0284
Mercury	74763-05-10 10:05 G	29027813.79	29027813.92	29027814.05	0.0283	0.0171
Mercury	74763-08-07 03:36 G	29027902.49	29027902.65	29027902.81	0.0282	0.0017
Mercury	74763-11-03 20:39 G	29027991.22	29027991.36	29027991.50	0.0282	0.0135
Mercury	74764-01-31 13:12 G	29028080.05	29028080.05	29028080.06	0.0281	0.0281
Venus	74764-06-04 12:58 G	29028204.97	29028205.04	29028205.12	0.0281	0.0260
Venus	74765-01-20 00:43 G	29028434.33	29028434.53	29028434.74	0.0280	0.0073
Venus	74765-09-06 11:46 G	29028663.80	29028663.99	29028664.19	0.0279	0.0112
Earth	74775-02-09 16:48 G	29032106.95	29032107.20	29032107.45	0.0272	0.0030
Moon	74775-02-09 18:58 G	29032107.04	29032107.29	29032107.55	0.0272	0.0043 *
Mercury	74778-05-17 20:24 G	29033300.32	29033300.35	29033300.39	0.0276	0.0267
Mercury	74778-08-14 09:51 G	29033388.79	29033388.91	29033389.04	0.0276	0.0142
Mercury	74778-11-10 23:46 G	29033477.34	29033477.49	29033477.63	0.0277	0.0014
Mercury	74779-02-07 13:41 G	29033565.94	29033566.07	29033566.21	0.0277	0.0120
Mercury	74779-05-07 04:05 G	29033654.61	29033654.67	29033654.73	0.0277	0.0256
Venus	74780-02-15 21:07 G	29033939.20	29033939.38	29033939.57	0.0279	0.0140
Venus	74780-10-02 09:36 G	29034168.70	29034168.90	29034169.11	0.0280	0.0048
Venus	74781-05-19 22:34 G	29034398.34	29034398.44	29034398.56	0.0281	0.0236
Moon	74789-08-13 01:12 G	29037405.32	29037405.55	29037405.78	0.0288	0.0045
Earth	74789-08-13 02:24 G	29037405.36	29037405.60	29037405.84	0.0288	0.0035 *

Mercury	74792-09-26 10:19 G	29038545.83	29038545.93	29038546.03	0.0284	0.0218
Mercury	74792-12-24 04:05 G	29038634.51	29038634.67	29038634.83	0.0283	0.0061
Mercury	74793-03-22 21:22 G	29038723.24	29038723.39	29038723.54	0.0283	0.0092
Mercury	74793-06-19 13:55 G	29038812.01	29038812.08	29038812.17	0.0283	0.0241
Venus	74793-12-15 18:15 G	29038991.15	29038991.26	29038991.38	0.0282	0.0234
Venus	74794-08-02 06:29 G	29039220.56	29039220.77	29039220.98	0.0281	0.0046
Venus	74795-03-19 17:46 G	29039450.06	29039450.24	29039450.42	0.0279	0.0141
Moon	74804-02-04 14:24 G	29042693.91	29042694.10	29042694.31	0.0271	0.0159
Earth	74804-02-04 17:03 G	29042694.03	29042694.21	29042694.41	0.0271	0.0173 *
Mercury	74808-01-01 12:29 G	29044120.91	29044121.02	29044121.14	0.0276	0.0170
Mercury	74808-03-30 02:10 G	29044209.45	29044209.59	29044209.74	0.0276	0.0043
Mercury	74808-06-26 16:05 G	29044298.03	29044298.17	29044298.31	0.0276	0.0089
Mercury	74808-09-23 06:15 G	29044386.68	29044386.76	29044386.86	0.0277	0.0224
Venus	74809-08-28 04:34 G	29044725.50	29044725.69	29044725.89	0.0279	0.0107
Venus	74810-04-14 17:03 G	29044955.01	29044955.21	29044955.42	0.0280	0.0079
Venus	74810-11-30 05:46 G	29045184.69	29045184.74	29045184.81	0.0281	0.0267
Earth	74818-08-07 10:05 G	29047991.77	29047991.92	29047992.10	0.0288	0.0210
Moon	74818-08-07 11:03 G	29047991.79	29047991.96	29047992.15	0.0288	0.0201 *
Mercury	74822-02-13 09:36 G	29049277.86	29049277.90	29049277.95	0.0283	0.0271
Mercury	74822-05-13 03:36 G	29049366.50	29049366.65	29049366.80	0.0283	0.0113
Mercury	74822-08-09 20:53 G	29049455.22	29049455.37	29049455.53	0.0282	0.0041
Mercury	74822-11-06 13:55 G	29049543.96	29049544.08	29049544.20	0.0282	0.0190
Venus	74823-06-27 20:53 G	29049777.24	29049777.37	29049777.52	0.0281	0.0209
Venus	74824-02-12 08:39 G	29050006.65	29050006.86	29050007.08	0.0280	0.0023
Venus	74824-09-28 19:41 G	29050236.15	29050236.32	29050236.50	0.0279	0.0163
Moon	74834-02-10 17:03 G	29053657.97	29053658.21	29053658.46	0.0272	0.0085
Earth	74834-02-10 19:27 G	29053658.07	29053658.31	29053658.55	0.0272	0.0075 *
Mercury	74837-05-20 12:29 G	29054852.94	29054853.02	29054853.11	0.0276	0.0222
Mercury	74837-08-17 01:55 G	29054941.45	29054941.58	29054941.72	0.0276	0.0095
Mercury	74837-11-13 15:51 G	29055030.01	29055030.16	29055030.31	0.0276	0.0035

Mercury	74838-02-10 06:00 G	29055118.63	29055118.75	29055118.87	0.0277	0.0168
Venus	74838-07-23 15:51 G	29055282.14	29055282.16	29055282.21	0.0278	0.0273
Venus	74839-03-10 04:05 G	29055511.47	29055511.67	29055511.87	0.0279	0.0090
Venus	74839-10-25 16:19 G	29055740.99	29055741.18	29055741.39	0.0280	0.0097
Mars	74842-11-18 13:41 G	29056860.80	29056861.07	29056861.33	0.0285	0.0043
Earth	74848-08-14 02:24 G	29058956.37	29058956.60	29058956.84	0.0288	0.0080
Moon	74848-08-14 05:31 G	29058956.51	29058956.73	29058956.96	0.0288	0.0093 *
Mercury	74851-09-30 03:22 G	29060098.51	29060098.64	29060098.77	0.0284	0.0163
Mercury	74851-12-27 20:53 G	29060187.21	29060187.37	29060187.54	0.0283	0.0011
Mercury	74852-03-25 13:55 G	29060275.95	29060276.08	29060276.23	0.0283	0.0146
Venus	74853-01-07 01:12 G	29060563.40	29060563.55	29060563.72	0.0282	0.0184
Venus	74853-08-24 13:27 G	29060792.85	29060793.06	29060793.27	0.0281	0.0006
Venus	74854-04-11 00:29 G	29061022.38	29061022.52	29061022.69	0.0279	0.0192
Mars	74856-12-20 15:51 G	29062007.00	29062007.16	29062007.31	0.0275	0.0238
Earth	74863-02-05 20:24 G	29064245.13	29064245.35	29064245.57	0.0271	0.0126
Moon	74863-02-05 22:05 G	29064245.20	29064245.42	29064245.64	0.0271	0.0112 *
Mercury	74866-10-07 15:22 G	29065585.09	29065585.14	29065585.21	0.0275	0.0247
Mercury	74867-01-04 04:48 G	29065673.57	29065673.70	29065673.84	0.0276	0.0122
Mercury	74867-04-02 18:43 G	29065762.13	29065762.28	29065762.42	0.0276	0.0011
Mercury	74867-06-30 08:39 G	29065850.73	29065850.86	29065850.99	0.0276	0.0140
Mercury	74867-09-26 23:03 G	29065939.45	29065939.46	29065939.47	0.0277	0.0275
Venus	74868-02-03 00:43 G	29066068.43	29066068.53	29066068.64	0.0277	0.0238
Venus	74868-09-19 12:43 G	29066297.82	29066298.03	29066298.23	0.0279	0.0056
Venus	74869-05-07 00:43 G	29066527.35	29066527.53	29066527.73	0.0280	0.0131
Moon	74877-08-08 08:53 G	29069542.67	29069542.87	29069543.09	0.0288	0.0148
Earth	74877-08-08 12:29 G	29069542.83	29069543.02	29069543.23	0.0288	0.0161 *
Mercury	74881-02-16 03:07 G	29070830.53	29070830.63	29070830.75	0.0283	0.0213
Mercury	74881-05-15 21:07 G	29070919.22	29070919.38	29070919.54	0.0283	0.0055
Mercury	74881-08-12 14:24 G	29071007.95	29071008.10	29071008.25	0.0283	0.0097
Mercury	74881-11-09 07:12 G	29071096.72	29071096.80	29071096.88	0.0282	0.0245

Venus	74882-07-20 05:17 G	29071349.54	29071349.72	29071349.89	0.0281	0.0156
Venus	74883-03-06 17:03 G	29071579.00	29071579.21	29071579.42	0.0280	0.0031
Venus	74883-10-22 03:51 G	29071808.53	29071808.66	29071808.80	0.0279	0.0215
Moon	74893-02-11 20:10 G	29075209.13	29075209.34	29075209.56	0.0272	0.0133
Earth	74893-02-11 23:46 G	29075209.27	29075209.49	29075209.71	0.0272	0.0123 *
Mercury	74896-05-23 04:48 G	29076405.59	29076405.70	29076405.82	0.0276	0.0172
Mercury	74896-08-19 18:29 G	29076494.12	29076494.27	29076494.42	0.0276	0.0045
Mercury	74896-11-16 08:24 G	29076582.71	29076582.85	29076582.99	0.0276	0.0086
Mercury	74897-02-12 22:34 G	29076671.35	29076671.44	29076671.53	0.0277	0.0220
Venus	74897-08-15 00:00 G	29076854.39	29076854.50	29076854.64	0.0278	0.0222
Venus	74898-04-01 12:00 G	29077083.79	29077084.00	29077084.21	0.0279	0.0038
Venus	74898-11-17 00:29 G	29077313.34	29077313.52	29077313.70	0.0280	0.0148
Earth	74907-08-17 04:19 G	29080507.47	29080507.68	29080507.91	0.0288	0.0127
Moon	74907-08-17 06:58 G	29080507.59	29080507.79	29080508.02	0.0288	0.0143 *
Mercury	74910-07-07 02:39 G	29081562.56	29081562.61	29081562.68	0.0284	0.0266
Mercury	74910-10-03 20:53 G	29081651.22	29081651.37	29081651.52	0.0284	0.0106
Mercury	74910-12-31 14:24 G	29081739.94	29081740.10	29081740.26	0.0283	0.0050
Mercury	74911-03-30 07:12 G	29081828.70	29081828.80	29081828.92	0.0283	0.0200
Venus	74912-01-31 09:22 G	29082135.71	29082135.89	29082136.08	0.0282	0.0131
Venus	74912-09-16 21:36 G	29082365.19	29082365.40	29082365.60	0.0280	0.0058
Venus	74913-05-04 08:39 G	29082594.77	29082594.86	29082594.97	0.0279	0.0243
Earth	74922-02-08 00:58 G	29085796.31	29085796.54	29085796.78	0.0271	0.0078
Moon	74922-02-08 04:48 G	29085796.46	29085796.70	29085796.95	0.0271	0.0063 *
Mercury	74925-10-11 07:55 G	29087137.74	29087137.83	29087137.94	0.0275	0.0196
Mercury	74926-01-07 21:36 G	29087226.26	29087226.40	29087226.54	0.0276	0.0070
Mercury	74926-04-06 11:17 G	29087314.83	29087314.97	29087315.12	0.0276	0.0061
Mercury	74926-07-04 01:27 G	29087403.46	29087403.56	29087403.67	0.0276	0.0193
Venus	74927-02-26 09:36 G	29087640.75	29087640.90	29087641.06	0.0278	0.0186
Venus	74927-10-13 21:36 G	29087870.18	29087870.40	29087870.61	0.0279	0.0005
Venus	74928-05-30 09:51 G	29088099.76	29088099.91	29088100.07	0.0280	0.0184

Mars	74931-04-15 12:43 G	29089149.76	29089150.03	29089150.31	0.0285	0.0021
Moon	74936-08-10 14:53 G	29091093.90	29091094.12	29091094.35	0.0288	0.0093
Earth	74936-08-10 16:48 G	29091093.99	29091094.20	29091094.44	0.0288	0.0109 *
Mercury	74940-02-20 21:22 G	29092383.25	29092383.39	29092383.53	0.0283	0.0150
Mercury	74940-05-19 14:53 G	29092471.96	29092472.12	29092472.28	0.0283	0.0008
Mercury	74940-08-16 07:55 G	29092560.71	29092560.83	29092560.97	0.0283	0.0158
Venus	74941-08-12 14:24 G	29092921.90	29092922.10	29092922.30	0.0281	0.0102
Venus	74942-03-30 02:10 G	29093151.39	29093151.59	29093151.79	0.0280	0.0085
Venus	74942-11-14 12:58 G	29093380.99	29093381.04	29093381.10	0.0278	0.0268
Mars	74945-05-17 00:43 G	29094295.30	29094295.53	29094295.78	0.0274	0.0182
Earth	74952-02-15 05:46 G	29096760.56	29096760.74	29096760.94	0.0272	0.0175
Moon	74952-02-15 06:00 G	29096760.57	29096760.75	29096760.93	0.0272	0.0182 *
Mercury	74955-02-28 08:24 G	29097869.79	29097869.85	29097869.92	0.0275	0.0243
Mercury	74955-05-27 21:51 G	29097958.28	29097958.41	29097958.54	0.0276	0.0118
Mercury	74955-08-24 11:31 G	29098046.83	29098046.98	29098047.13	0.0276	0.0011
Mercury	74955-11-21 01:27 G	29098135.43	29098135.56	29098135.69	0.0276	0.0142
Venus	74956-09-07 10:05 G	29098426.75	29098426.92	29098427.09	0.0278	0.0168
Venus	74957-04-24 21:51 G	29098656.20	29098656.41	29098656.62	0.0279	0.0016
Venus	74957-12-10 10:05 G	29098885.78	29098885.92	29098886.07	0.0280	0.0202
Moon	74966-08-18 06:15 G	29102058.58	29102058.76	29102058.95	0.0287	0.0194
Earth	74966-08-18 08:39 G	29102058.67	29102058.86	29102059.05	0.0287	0.0177 *
Mercury	74969-07-09 20:39 G	29103115.25	29103115.36	29103115.48	0.0284	0.0204
Mercury	74969-10-06 14:39 G	29103203.95	29103204.11	29103204.27	0.0284	0.0045
Mercury	74970-01-03 07:55 G	29103292.69	29103292.83	29103292.98	0.0283	0.0108
Mercury	74970-04-02 00:43 G	29103381.47	29103381.53	29103381.60	0.0283	0.0257
Venus	74970-07-08 05:17 G	29103478.67	29103478.72	29103478.80	0.0283	0.0266
Venus	74971-02-22 18:15 G	29103708.06	29103708.26	29103708.47	0.0282	0.0077
Venus	74971-10-10 06:15 G	29103937.57	29103937.76	29103937.96	0.0280	0.0111
Moon	74981-02-09 07:27 G	29107347.55	29107347.81	29107348.07	0.0272	0.0015
Earth	74981-02-09 07:27 G	29107347.56	29107347.81	29107348.06	0.0272	0.0026 *

Mercury	74984-07-17 11:46 G	29108601.96	29108601.99	29108602.03	0.0275	0.0265
Mercury	74984-10-14 01:12 G	29108690.42	29108690.55	29108690.67	0.0275	0.0141
Mercury	74985-01-10 14:39 G	29108778.97	29108779.11	29108779.26	0.0276	0.0015
Mercury	74985-04-09 04:34 G	29108867.56	29108867.69	29108867.83	0.0276	0.0118
Mercury	74985-07-06 18:58 G	29108956.23	29108956.29	29108956.35	0.0276	0.0252
Venus	74986-03-20 19:55 G	29109213.14	29109213.33	29109213.52	0.0278	0.0131
Venus	74986-11-05 07:41 G	29109442.62	29109442.82	29109443.03	0.0279	0.0054
Venus	74987-06-22 20:10 G	29109672.24	29109672.34	29109672.46	0.0280	0.0239
Earth	74995-08-12 23:31 G	29112645.25	29112645.48	29112645.72	0.0288	0.0052
Moon	74995-08-13 01:55 G	29112645.35	29112645.58	29112645.82	0.0288	0.0036 *
Mercury	74998-11-26 21:51 G	29113847.33	29113847.41	29113847.50	0.0284	0.0242
Mercury	74999-02-23 15:51 G	29113936.00	29113936.16	29113936.31	0.0283	0.0083
Mercury	74999-05-23 09:07 G	29114024.73	29114024.88	29114025.04	0.0283	0.0072
Mercury	74999-08-20 02:10 G	29114113.50	29114113.59	29114113.69	0.0283	0.0220
Venus	75000-01-18 12:15 G	29114264.90	29114265.01	29114265.13	0.0282	0.0234
Venus	75000-09-05 00:43 G	29114494.33	29114494.53	29114494.74	0.0281	0.0046

76TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 76th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	75001-04-22 12:29 G	29114723.84	29114724.02	29114724.20	0.0280	0.0141		
Earth	75010-02-04 22:48 G	29117934.34	29117934.45	29117934.58	0.0271	0.0236		
Moon	75010-02-04 23:31 G	29117934.34	29117934.48	29117934.61	0.0271	0.0224 *		

Earth	75011-02-17 13:55 G	29118311.96	29118312.08	29118312.23	0.0272	0.0229
Moon	75011-02-17 18:00 G	29118312.13	29118312.25	29118312.37	0.0272	0.0234 *
Mercury	75014-03-04 01:55 G	29119422.47	29119422.58	29119422.68	0.0275	0.0186
Mercury	75014-05-31 15:22 G	29119510.99	29119511.14	29119511.28	0.0276	0.0060
Mercury	75014-08-28 05:03 G	29119599.57	29119599.71	29119599.85	0.0276	0.0070
Mercury	75014-11-24 18:58 G	29119688.20	29119688.29	29119688.40	0.0276	0.0203
Venus	75015-10-01 21:07 G	29119999.19	29119999.38	29119999.58	0.0278	0.0112
Venus	75016-05-18 08:53 G	29120228.67	29120228.87	29120229.08	0.0279	0.0073
Venus	75017-01-02 21:22 G	29120458.32	29120458.39	29120458.47	0.0280	0.0259
Mars	75019-09-09 22:48 G	29121438.19	29121438.45	29121438.72	0.0285	0.0062
Moon	75025-08-20 12:00 G	29123609.90	29123610.00	29123610.13	0.0287	0.0251
Earth	75025-08-20 15:22 G	29123610.02	29123610.14	29123610.29	0.0287	0.0234 *
Mercury	75028-07-13 15:07 G	29124667.99	29124668.13	29124668.28	0.0284	0.0137
Mercury	75028-10-10 08:53 G	29124756.71	29124756.87	29124757.03	0.0284	0.0020
Mercury	75029-01-07 02:10 G	29124845.46	29124845.59	29124845.72	0.0283	0.0171
Venus	75029-07-31 15:51 G	29125051.02	29125051.16	29125051.30	0.0282	0.0210
Venus	75030-03-18 04:19 G	29125280.47	29125280.68	29125280.90	0.0281	0.0022
Venus	75030-11-02 16:19 G	29125510.01	29125510.18	29125510.35	0.0280	0.0166
Mars	75033-10-12 01:55 G	29126584.28	29126584.58	29126584.88	0.0275	0.0104
Moon	75040-02-12 11:31 G	29128898.73	29128898.98	29128899.23	0.0272	0.0036
Earth	75040-02-12 15:22 G	29128898.89	29128899.14	29128899.39	0.0272	0.0029 *
Mercury	75043-07-22 05:03 G	29130154.62	29130154.71	29130154.81	0.0275	0.0208
Mercury	75043-10-18 18:29 G	29130243.14	29130243.27	29130243.42	0.0275	0.0083
Mercury	75044-01-15 08:24 G	29130331.70	29130331.85	29130331.99	0.0276	0.0047
Mercury	75044-04-12 22:19 G	29130420.32	29130420.43	29130420.54	0.0276	0.0179
Venus	75044-08-26 20:10 G	29130556.27	29130556.34	29130556.43	0.0277	0.0255
Venus	75045-04-13 07:41 G	29130785.62	29130785.82	29130786.03	0.0278	0.0074
Venus	75045-11-28 19:27 G	29131015.12	29131015.31	29131015.51	0.0279	0.0111
Earth	75054-08-15 08:53 G	29134196.63	29134196.87	29134197.12	0.0288	0.0011
Moon	75054-08-15 12:15 G	29134196.77	29134197.01	29134197.26	0.0288	0.0026 *

Mercury	75057-11-30 17:03 G	29135400.08	29135400.21	29135400.34	0.0284	0.0170
Mercury	75058-02-27 10:48 G	29135488.79	29135488.95	29135489.11	0.0283	0.0014
Mercury	75058-05-27 03:51 G	29135577.53	29135577.66	29135577.81	0.0283	0.0139
Venus	75059-02-10 23:46 G	29135837.33	29135837.49	29135837.66	0.0282	0.0177
Venus	75059-09-28 12:15 G	29136066.80	29136067.01	29136067.22	0.0281	0.0013
Venus	75060-05-14 23:31 G	29136296.34	29136296.48	29136296.64	0.0279	0.0198
Earth	75069-02-06 08:10 G	29139485.67	29139485.84	29139486.04	0.0271	0.0180
Moon	75069-02-06 12:00 G	29139485.81	29139486.00	29139486.20	0.0271	0.0168 *
Mercury	75072-12-08 06:00 G	29140886.70	29140886.75	29140886.82	0.0275	0.0250
Mercury	75073-03-06 19:27 G	29140975.18	29140975.31	29140975.44	0.0275	0.0125
Mercury	75073-06-03 09:07 G	29141063.73	29141063.88	29141064.03	0.0276	0.0003
Mercury	75073-08-30 23:03 G	29141152.33	29141152.46	29141152.59	0.0276	0.0134
Mercury	75073-11-27 13:12 G	29141241.02	29141241.05	29141241.08	0.0277	0.0268
Venus	75074-03-08 22:19 G	29141342.33	29141342.43	29141342.55	0.0277	0.0234
Venus	75074-10-24 09:36 G	29141571.70	29141571.90	29141572.12	0.0278	0.0053
Venus	75075-06-10 21:22 G	29141801.21	29141801.39	29141801.59	0.0279	0.0133
Moon	75083-08-09 08:39 G	29144782.72	29144782.86	29144783.01	0.0288	0.0231
Earth	75083-08-09 11:46 G	29144782.88	29144782.99	29144783.13	0.0288	0.0246 *
Mercury	75087-04-19 16:05 G	29146132.08	29146132.17	29146132.28	0.0284	0.0225
Mercury	75087-07-17 10:19 G	29146220.77	29146220.93	29146221.09	0.0284	0.0066
Mercury	75087-10-14 03:36 G	29146309.50	29146309.65	29146309.81	0.0284	0.0089
Mercury	75088-01-10 20:39 G	29146398.28	29146398.36	29146398.45	0.0283	0.0238
Venus	75088-08-23 03:22 G	29146623.46	29146623.64	29146623.81	0.0282	0.0152
Venus	75089-04-09 15:36 G	29146852.95	29146853.15	29146853.37	0.0281	0.0038
Venus	75089-11-25 03:22 G	29147082.52	29147082.64	29147082.77	0.0280	0.0223
Moon	75099-02-13 22:34 G	29150450.22	29150450.44	29150450.67	0.0272	0.0091
Earth	75099-02-14 00:15 G	29150450.29	29150450.51	29150450.76	0.0272	0.0086 *
Mercury	75102-04-28 09:36 G	29151618.88	29151618.90	29151618.92	0.0275	0.0271
Mercury	75102-07-25 22:48 G	29151707.33	29151707.45	29151707.58	0.0275	0.0147
Mercury	75102-10-22 12:29 G	29151795.87	29151796.02	29151796.16	0.0276	0.0021

Mercury	75103-01-19 02:10 G	29151884.46	29151884.59	29151884.73	0.0276	0.0111
Mercury	75103-04-17 16:19 G	29151973.12	29151973.18	29151973.25	0.0276	0.0244
Venus	75103-09-20 08:39 G	29152128.72	29152128.86	29152129.02	0.0277	0.0197
Venus	75104-05-06 20:24 G	29152358.13	29152358.35	29152358.56	0.0278	0.0017
Venus	75104-12-22 08:24 G	29152587.68	29152587.85	29152588.02	0.0279	0.0169
Mars	75108-02-05 18:29 G	29153728.06	29153728.27	29153728.51	0.0285	0.0163
Earth	75113-08-17 20:24 G	29155748.12	29155748.35	29155748.59	0.0288	0.0074
Moon	75113-08-17 20:39 G	29155748.12	29155748.36	29155748.60	0.0288	0.0089 *
Mercury	75116-09-06 18:29 G	29156864.20	29156864.27	29156864.34	0.0284	0.0253
Mercury	75116-12-04 12:29 G	29156952.87	29156953.02	29156953.17	0.0284	0.0094
Mercury	75117-03-03 06:00 G	29157041.60	29157041.75	29157041.91	0.0283	0.0060
Mercury	75117-05-30 23:03 G	29157130.36	29157130.46	29157130.57	0.0283	0.0210
Venus	75118-03-06 12:43 G	29157409.83	29157410.03	29157410.22	0.0282	0.0117
Venus	75118-10-22 00:43 G	29157639.32	29157639.53	29157639.73	0.0280	0.0071
Venus	75119-06-08 12:00 G	29157868.92	29157869.00	29157869.09	0.0279	0.0255
Mars	75122-03-09 12:15 G	29158873.69	29158874.01	29158874.33	0.0275	0.0008
Earth	75128-02-09 18:58 G	29161037.07	29161037.29	29161037.52	0.0271	0.0121
Moon	75128-02-09 21:22 G	29161037.15	29161037.39	29161037.62	0.0271	0.0110 *
Mercury	75131-12-13 00:00 G	29162439.40	29162439.50	29162439.62	0.0275	0.0187
Mercury	75132-03-10 13:41 G	29162527.92	29162528.07	29162528.21	0.0276	0.0060
Mercury	75132-06-07 03:22 G	29162616.50	29162616.64	29162616.78	0.0276	0.0069
Mercury	75132-09-03 17:17 G	29162705.12	29162705.22	29162705.33	0.0276	0.0202
Venus	75133-04-01 12:00 G	29162914.84	29162915.00	29162915.17	0.0277	0.0175
Venus	75133-11-16 23:17 G	29163144.26	29163144.47	29163144.69	0.0278	0.0008
Venus	75134-07-04 11:03 G	29163373.82	29163373.96	29163374.12	0.0279	0.0193
Earth	75142-08-12 00:00 G	29166334.32	29166334.50	29166334.70	0.0287	0.0180
Moon	75142-08-12 00:00 G	29166334.32	29166334.50	29166334.70	0.0287	0.0165 *
Mercury	75146-04-23 11:46 G	29167684.85	29167684.99	29167685.13	0.0284	0.0149
Mercury	75146-07-21 05:31 G	29167773.57	29167773.73	29167773.89	0.0284	0.0008
Mercury	75146-10-17 22:48 G	29167862.32	29167862.45	29167862.58	0.0283	0.0160

Venus	75147-01-30 02:39 G	29167966.59	29167966.61	29167966.63	0.0283	0.0281
Venus	75147-09-16 15:36 G	29168195.95	29168196.15	29168196.35	0.0282	0.0092
Venus	75148-05-03 03:51 G	29168425.46	29168425.66	29168425.86	0.0281	0.0096
Earth	75158-02-16 10:05 G	29172001.71	29172001.92	29172002.13	0.0272	0.0143
Moon	75158-02-16 12:15 G	29172001.82	29172002.01	29172002.22	0.0272	0.0146 *
Mercury	75161-05-01 03:22 G	29173171.55	29173171.64	29173171.73	0.0275	0.0210
Mercury	75161-07-28 16:48 G	29173260.06	29173260.20	29173260.34	0.0275	0.0084
Mercury	75161-10-25 06:29 G	29173348.62	29173348.77	29173348.91	0.0276	0.0045
Mercury	75162-01-21 20:24 G	29173437.24	29173437.35	29173437.46	0.0276	0.0176
Venus	75162-10-12 21:36 G	29173701.23	29173701.40	29173701.60	0.0277	0.0140
Venus	75163-05-30 09:22 G	29173930.69	29173930.89	29173931.11	0.0278	0.0045
Venus	75164-01-14 21:51 G	29174160.29	29174160.41	29174160.53	0.0280	0.0229
Moon	75172-08-19 05:31 G	29177299.53	29177299.73	29177299.94	0.0288	0.0158
Earth	75172-08-19 09:07 G	29177299.67	29177299.88	29177300.09	0.0288	0.0141 *
Mercury	75175-09-10 14:10 G	29178416.97	29178417.09	29178417.23	0.0284	0.0175
Mercury	75175-12-08 08:10 G	29178505.68	29178505.84	29178506.00	0.0284	0.0018
Mercury	75176-03-06 01:27 G	29178594.42	29178594.56	29178594.70	0.0283	0.0135
Mercury	75176-06-02 18:29 G	29178683.27	29178683.27	29178683.27	0.0283	0.0283
Venus	75176-08-11 12:58 G	29178752.95	29178753.04	29178753.16	0.0282	0.0246
Venus	75177-03-29 01:55 G	29178982.37	29178982.58	29178982.78	0.0281	0.0057
Venus	75177-11-13 13:41 G	29179211.89	29179212.07	29179212.26	0.0280	0.0131
Moon	75187-02-11 04:19 G	29182588.43	29182588.68	29182588.93	0.0271	0.0053
Earth	75187-02-11 06:15 G	29182588.52	29182588.76	29182589.00	0.0271	0.0061 *
Mercury	75190-09-18 04:48 G	29183903.65	29183903.70	29183903.77	0.0275	0.0246
Mercury	75190-12-15 18:15 G	29183992.13	29183992.26	29183992.39	0.0275	0.0122
Mercury	75191-03-14 07:41 G	29184080.68	29184080.82	29184080.97	0.0276	0.0009
Mercury	75191-06-10 21:36 G	29184169.27	29184169.40	29184169.53	0.0276	0.0136
Mercury	75191-09-07 11:46 G	29184257.96	29184257.99	29184258.02	0.0277	0.0270
Venus	75192-04-24 01:41 G	29184487.38	29184487.57	29184487.77	0.0278	0.0115
Venus	75192-12-09 13:12 G	29184716.84	29184717.05	29184717.26	0.0279	0.0068

Venus	75193-07-27 00:58 G	29184946.47	29184946.54	29184946.64	0.0280	0.0253
Mars	75196-07-01 18:58 G	29186017.13	29186017.29	29186017.45	0.0285	0.0230
Earth	75201-08-13 13:27 G	29187885.84	29187886.06	29187886.29	0.0287	0.0111
Moon	75201-08-13 17:03 G	29187885.98	29187886.21	29187886.44	0.0287	0.0093 *
Mercury	75205-01-27 13:27 G	29189148.97	29189149.06	29189149.16	0.0284	0.0230
Mercury	75205-04-26 07:41 G	29189237.66	29189237.82	29189237.97	0.0284	0.0072
Mercury	75205-07-24 01:12 G	29189326.39	29189326.55	29189326.70	0.0283	0.0083
Mercury	75205-10-20 18:00 G	29189415.17	29189415.25	29189415.35	0.0283	0.0233
Venus	75206-02-21 16:05 G	29189539.04	29189539.17	29189539.30	0.0282	0.0221
Venus	75206-10-09 04:34 G	29189768.49	29189768.69	29189768.91	0.0281	0.0033
Venus	75207-05-26 16:34 G	29189998.02	29189998.19	29189998.37	0.0280	0.0155
Mars	75210-08-03 14:53 G	29191162.82	29191163.12	29191163.44	0.0275	0.0075
Earth	75216-02-06 03:22 G	29193175.58	29193175.64	29193175.70	0.0272	0.0262
Moon	75216-02-06 05:03 G	29193175.62	29193175.71	29193175.81	0.0272	0.0250 *
Earth	75217-02-17 19:27 G	29193553.14	29193553.31	29193553.48	0.0272	0.0201
Moon	75217-02-17 22:34 G	29193553.29	29193553.44	29193553.62	0.0272	0.0204 *
Mercury	75220-02-05 07:41 G	29194635.81	29194635.82	29194635.84	0.0275	0.0272
Mercury	75220-05-03 21:07 G	29194724.26	29194724.38	29194724.50	0.0275	0.0148
Mercury	75220-07-31 10:34 G	29194812.79	29194812.94	29194813.09	0.0276	0.0022
Mercury	75220-10-28 00:29 G	29194901.38	29194901.52	29194901.65	0.0276	0.0109
Mercury	75221-01-24 14:24 G	29194990.04	29194990.10	29194990.18	0.0276	0.0243
Venus	75221-03-19 23:17 G	29195044.41	29195044.47	29195044.55	0.0277	0.0261
Venus	75221-11-04 10:48 G	29195273.75	29195273.95	29195274.15	0.0278	0.0081
Venus	75222-06-21 22:34 G	29195503.25	29195503.44	29195503.64	0.0279	0.0103
Moon	75231-08-21 19:41 G	29198851.19	29198851.32	29198851.48	0.0288	0.0227
Earth	75231-08-21 22:19 G	29198851.27	29198851.43	29198851.60	0.0288	0.0209 *
Mercury	75234-06-16 16:19 G	29199881.11	29199881.18	29199881.26	0.0284	0.0254
Mercury	75234-09-13 10:19 G	29199969.78	29199969.93	29199970.09	0.0284	0.0095
Mercury	75234-12-11 04:05 G	29200058.51	29200058.67	29200058.83	0.0283	0.0060
Mercury	75235-03-09 21:07 G	29200147.28	29200147.38	29200147.49	0.0283	0.0211

Venus	75235-09-04 02:53 G	29200325.47	29200325.62	29200325.79	0.0282	0.0184
Venus	75236-04-20 15:22 G	29200554.93	29200555.14	29200555.35	0.0281	0.0004
Venus	75236-12-06 03:07 G	29200784.47	29200784.63	29200784.78	0.0280	0.0190
Moon	75246-02-12 12:58 G	29204139.79	29204140.04	29204140.28	0.0271	0.0006
Earth	75246-02-12 16:34 G	29204139.94	29204140.19	29204140.44	0.0271	0.0003 *
Mercury	75249-09-20 22:48 G	29205456.34	29205456.45	29205456.56	0.0275	0.0183
Mercury	75249-12-18 12:15 G	29205544.87	29205545.01	29205545.15	0.0276	0.0058
Mercury	75250-03-17 01:55 G	29205633.44	29205633.58	29205633.72	0.0276	0.0071
Mercury	75250-06-13 15:51 G	29205722.06	29205722.16	29205722.26	0.0276	0.0204
Venus	75250-09-30 04:05 G	29205830.57	29205830.67	29205830.78	0.0277	0.0236
Venus	75251-05-17 15:07 G	29206059.93	29206060.13	29206060.34	0.0278	0.0056
Venus	75252-01-02 02:53 G	29206289.44	29206289.62	29206289.81	0.0279	0.0128
Earth	75260-08-15 02:53 G	29209437.38	29209437.62	29209437.86	0.0287	0.0043
Moon	75260-08-15 04:48 G	29209437.46	29209437.70	29209437.95	0.0287	0.0025 *
Mercury	75264-01-31 09:36 G	29210701.76	29210701.90	29210702.03	0.0284	0.0151
Mercury	75264-04-29 03:22 G	29210790.48	29210790.64	29210790.80	0.0283	0.0008
Mercury	75264-07-26 20:24 G	29210879.23	29210879.35	29210879.49	0.0283	0.0158
Venus	75265-03-16 05:17 G	29211111.55	29211111.72	29211111.89	0.0282	0.0161
Venus	75265-10-31 17:46 G	29211341.03	29211341.24	29211341.45	0.0281	0.0028
Venus	75266-06-18 05:17 G	29211570.59	29211570.72	29211570.86	0.0280	0.0213
Earth	75275-02-07 11:31 G	29214726.83	29214726.98	29214727.15	0.0272	0.0206
Moon	75275-02-07 15:22 G	29214726.98	29214727.14	29214727.33	0.0272	0.0195 *
Earth	75276-02-20 03:51 G	29215104.59	29215104.66	29215104.75	0.0272	0.0257
Moon	75276-02-20 04:05 G	29215104.59	29215104.67	29215104.76	0.0272	0.0257 *
Mercury	75279-02-08 01:12 G	29216188.46	29216188.55	29216188.64	0.0275	0.0214
Mercury	75279-05-07 14:39 G	29216276.97	29216277.11	29216277.25	0.0276	0.0088
Mercury	75279-08-04 04:19 G	29216365.53	29216365.68	29216365.83	0.0276	0.0040
Mercury	75279-10-31 18:15 G	29216454.14	29216454.26	29216454.38	0.0276	0.0172
Venus	75280-04-11 11:31 G	29216616.85	29216616.98	29216617.13	0.0277	0.0205
Venus	75280-11-26 23:03 G	29216846.25	29216846.46	29216846.67	0.0278	0.0024

Venus	75281-07-14 11:03 G	29217075.79	29217075.96	29217076.14	0.0279	0.0160
Moon	75289-08-09 19:41 G	29220024.21	29220024.32	29220024.45	0.0288	0.0248
Earth	75289-08-09 21:36 G	29220024.31	29220024.40	29220024.50	0.0288	0.0263 *
Earth	75290-08-23 10:34 G	29220402.89	29220402.94	29220403.02	0.0288	0.0276
Mercury	75293-06-19 12:15 G	29221433.89	29221434.01	29221434.14	0.0284	0.0174
Mercury	75293-09-16 06:15 G	29221522.60	29221522.76	29221522.92	0.0284	0.0017
Mercury	75293-12-13 23:31 G	29221611.34	29221611.48	29221611.62	0.0283	0.0136
Venus	75294-09-26 16:34 G	29221898.00	29221898.19	29221898.38	0.0282	0.0124
Venus	75295-05-14 04:34 G	29222127.49	29222127.69	29222127.90	0.0281	0.0064
Venus	75295-12-29 15:51 G	29222357.08	29222357.16	29222357.27	0.0280	0.0249
Mars	75298-12-29 12:15 G	29223452.80	29223453.01	29223453.26	0.0274	0.0192
Earth	75305-02-15 01:27 G	29225691.32	29225691.56	29225691.81	0.0271	0.0055
Moon	75305-02-15 01:27 G	29225691.33	29225691.56	29225691.80	0.0271	0.0059 *
Mercury	75308-06-28 03:07 G	29226920.57	29226920.63	29226920.70	0.0275	0.0247
Mercury	75308-09-24 16:19 G	29227009.06	29227009.18	29227009.32	0.0275	0.0123
Mercury	75308-12-22 06:00 G	29227097.60	29227097.75	29227097.90	0.0276	0.0005
Mercury	75309-03-20 19:41 G	29227186.20	29227186.32	29227186.45	0.0276	0.0135
Mercury	75309-06-17 09:51 G	29227274.88	29227274.91	29227274.95	0.0277	0.0268
Venus	75309-10-23 16:34 G	29227403.03	29227403.19	29227403.35	0.0277	0.0180
Venus	75310-06-10 03:51 G	29227632.44	29227632.66	29227632.87	0.0278	0.0004
Venus	75311-01-25 15:36 G	29227862.00	29227862.15	29227862.32	0.0279	0.0186
Moon	75319-08-18 13:12 G	29230988.80	29230989.05	29230989.29	0.0287	0.0040
Earth	75319-08-18 15:36 G	29230988.91	29230989.15	29230989.39	0.0287	0.0025 *
Mercury	75322-11-07 11:17 G	29232165.88	29232165.97	29232166.06	0.0284	0.0231
Mercury	75323-02-04 05:17 G	29232254.56	29232254.72	29232254.88	0.0283	0.0073
Mercury	75323-05-03 22:48 G	29232343.30	29232343.45	29232343.61	0.0283	0.0081
Mercury	75323-07-31 16:05 G	29232432.08	29232432.17	29232432.26	0.0283	0.0231
Venus	75324-04-08 18:15 G	29232684.07	29232684.26	29232684.46	0.0281	0.0102
Venus	75324-11-24 06:29 G	29232913.57	29232913.77	29232913.97	0.0280	0.0086
Venus	75325-07-11 17:46 G	29233143.20	29233143.24	29233143.31	0.0279	0.0271

Moon	75334-02-09 18:29 G	29236278.06	29236278.27	29236278.49	0.0272	0.0145
Earth	75334-02-09 18:43 G	29236278.08	29236278.28	29236278.49	0.0272	0.0152 *
Mercury	75338-02-11 18:15 G	29237741.15	29237741.26	29237741.39	0.0275	0.0158
Mercury	75338-05-11 07:55 G	29237829.68	29237829.83	29237829.97	0.0276	0.0031
Mercury	75338-08-07 21:36 G	29237918.26	29237918.40	29237918.54	0.0276	0.0099
Mercury	75338-11-04 11:31 G	29238006.91	29238006.98	29238007.07	0.0276	0.0233
Venus	75339-05-05 22:34 G	29238189.27	29238189.44	29238189.62	0.0277	0.0151
Venus	75339-12-21 10:19 G	29238418.72	29238418.93	29238419.14	0.0278	0.0032
Venus	75340-08-06 22:19 G	29238648.31	29238648.43	29238648.57	0.0279	0.0216
Mars	75343-03-07 06:43 G	29239590.66	29239590.78	29239590.91	0.0284	0.0248
Earth	75348-08-12 08:39 G	29241575.69	29241575.86	29241576.03	0.0288	0.0199
Moon	75348-08-12 10:48 G	29241575.77	29241575.95	29241576.13	0.0288	0.0184 *
Mercury	75352-03-26 13:41 G	29242898.01	29242898.07	29242898.14	0.0284	0.0258
Mercury	75352-06-23 07:55 G	29242986.68	29242986.83	29242986.98	0.0284	0.0098
Mercury	75352-09-20 01:27 G	29243075.41	29243075.56	29243075.72	0.0283	0.0058
Mercury	75352-12-17 18:43 G	29243164.18	29243164.28	29243164.39	0.0283	0.0207
Venus	75353-03-04 16:05 G	29243241.10	29243241.17	29243241.27	0.0283	0.0255
Venus	75353-10-20 05:03 G	29243470.50	29243470.71	29243470.91	0.0282	0.0066
Venus	75354-06-06 16:48 G	29243700.01	29243700.20	29243700.39	0.0280	0.0122
Earth	75364-02-17 08:53 G	29247242.65	29247242.87	29247243.10	0.0271	0.0109
Moon	75364-02-17 12:43 G	29247242.81	29247243.03	29247243.26	0.0271	0.0109 *
Mercury	75367-07-01 20:10 G	29248473.24	29248473.34	29248473.45	0.0275	0.0191
Mercury	75367-09-28 09:36 G	29248561.76	29248561.90	29248562.05	0.0275	0.0066
Mercury	75367-12-25 23:17 G	29248650.33	29248650.47	29248650.62	0.0276	0.0063
Mercury	75368-03-23 13:12 G	29248738.95	29248739.05	29248739.16	0.0276	0.0195
Venus	75368-11-15 03:36 G	29248975.46	29248975.65	29248975.84	0.0277	0.0125
Venus	75369-07-02 15:07 G	29249204.92	29249205.13	29249205.34	0.0278	0.0058
Venus	75370-02-17 03:07 G	29249434.53	29249434.63	29249434.74	0.0280	0.0242
Moon	75378-08-19 22:48 G	29252540.23	29252540.45	29252540.68	0.0287	0.0103
Earth	75378-08-20 01:55 G	29252540.36	29252540.58	29252540.82	0.0287	0.0089 *

Mercury	75381-11-10 06:43 G	29253718.65	29253718.78	29253718.92	0.0284	0.0156
Mercury	75382-02-07 00:43 G	29253807.36	29253807.53	29253807.69	0.0283	0.0007
Mercury	75382-05-06 18:00 G	29253896.12	29253896.25	29253896.38	0.0283	0.0153
Venus	75382-09-14 17:46 G	29254027.13	29254027.24	29254027.37	0.0282	0.0231
Venus	75383-05-02 06:29 G	29254256.56	29254256.77	29254256.98	0.0281	0.0043
Venus	75383-12-17 18:15 G	29254486.09	29254486.26	29254486.45	0.0280	0.0143
Mars	75387-05-26 01:55 G	29255741.47	29255741.58	29255741.70	0.0275	0.0255
Moon	75393-02-10 20:10 G	29257829.11	29257829.34	29257829.58	0.0272	0.0100
Earth	75393-02-11 00:00 G	29257829.27	29257829.50	29257829.73	0.0272	0.0101 *
Mercury	75396-11-17 21:36 G	29259205.33	29259205.40	29259205.48	0.0275	0.0230
Mercury	75397-02-14 11:03 G	29259293.83	29259293.96	29259294.10	0.0276	0.0105
Mercury	75397-05-14 00:43 G	29259382.38	29259382.53	29259382.67	0.0276	0.0024
Mercury	75397-08-10 14:24 G	29259470.98	29259471.10	29259471.23	0.0276	0.0154
Venus	75398-05-28 07:55 G	29259761.64	29259761.83	29259762.03	0.0278	0.0099
Venus	75399-01-12 19:55 G	29259991.13	29259991.33	29259991.53	0.0279	0.0084
Venus	75399-08-30 08:10 G	29260220.79	29260220.84	29260220.91	0.0280	0.0269
Earth	75407-08-15 17:31 G	29263127.02	29263127.23	29263127.44	0.0288	0.0140
Moon	75407-08-15 20:39 G	29263127.15	29263127.36	29263127.59	0.0288	0.0123 *
Mercury	75411-03-31 09:07 G	29264450.76	29264450.88	29264451.00	0.0284	0.0184
Mercury	75411-06-28 03:07 G	29264539.47	29264539.63	29264539.79	0.0284	0.0027
Mercury	75411-09-24 20:24 G	29264628.21	29264628.35	29264628.50	0.0283	0.0127
Mercury	75411-12-22 13:12 G	29264717.03	29264717.05	29264717.10	0.0283	0.0276
Venus	75412-03-28 04:05 G	29264813.53	29264813.67	29264813.83	0.0282	0.0197
Venus	75412-11-12 16:34 G	29265042.98	29265043.19	29265043.40	0.0281	0.0010
Venus	75413-06-30 04:19 G	29265272.52	29265272.68	29265272.85	0.0280	0.0178
Earth	75423-02-19 13:55 G	29268793.89	29268794.08	29268794.29	0.0271	0.0158
Moon	75423-02-19 15:51 G	29268793.95	29268794.16	29268794.37	0.0271	0.0154 *
Mercury	75426-04-07 23:46 G	29269937.46	29269937.49	29269937.54	0.0275	0.0262
Mercury	75426-07-05 12:58 G	29270025.92	29270026.04	29270026.17	0.0275	0.0139
Mercury	75426-10-02 02:24 G	29270114.46	29270114.60	29270114.75	0.0276	0.0015

Mercury	75426-12-29 16:19 G	29270203.04	29270203.18	29270203.31	0.0276	0.0118
Mercury	75427-03-28 06:15 G	29270291.70	29270291.76	29270291.82	0.0276	0.0251
Venus	75427-04-24 01:55 G	29270318.50	29270318.58	29270318.68	0.0277	0.0252
Venus	75427-12-09 13:12 G	29270547.84	29270548.05	29270548.25	0.0278	0.0072
Venus	75428-07-26 00:43 G	29270777.34	29270777.53	29270777.73	0.0279	0.0111
Mars	75431-08-02 00:58 G	29271879.34	29271879.54	29271879.74	0.0284	0.0192
Earth	75437-08-22 10:34 G	29274091.73	29274091.94	29274092.15	0.0287	0.0148
Moon	75437-08-22 10:34 G	29274091.75	29274091.94	29274092.14	0.0287	0.0161 *
Mercury	75440-08-17 07:27 G	29275182.74	29275182.81	29275182.90	0.0284	0.0244
Mercury	75440-11-14 01:41 G	29275271.42	29275271.57	29275271.73	0.0283	0.0085
Mercury	75441-02-10 19:27 G	29275360.15	29275360.31	29275360.46	0.0283	0.0070
Mercury	75441-05-10 12:29 G	29275448.93	29275449.02	29275449.12	0.0283	0.0220
Venus	75441-10-08 05:17 G	29275599.56	29275599.72	29275599.88	0.0282	0.0175
Venus	75442-05-25 17:31 G	29275829.02	29275829.23	29275829.44	0.0281	0.0013
Venus	75443-01-10 05:03 G	29276058.57	29276058.71	29276058.86	0.0280	0.0198
Moon	75452-02-14 01:41 G	29279380.34	29279380.57	29279380.81	0.0272	0.0053
Earth	75452-02-14 03:22 G	29279380.40	29279380.64	29279380.89	0.0272	0.0053 *
Mercury	75455-11-22 13:55 G	29280757.97	29280758.08	29280758.19	0.0275	0.0182
Mercury	75456-02-19 03:22 G	29280846.50	29280846.64	29280846.78	0.0276	0.0056
Mercury	75456-05-17 17:03 G	29280935.07	29280935.21	29280935.35	0.0276	0.0073
Mercury	75456-08-14 06:58 G	29281023.69	29281023.79	29281023.89	0.0276	0.0205
Venus	75456-11-03 04:19 G	29281104.58	29281104.68	29281104.81	0.0277	0.0230
Venus	75457-06-20 16:05 G	29281333.96	29281334.17	29281334.38	0.0278	0.0049
Venus	75458-02-05 04:05 G	29281563.49	29281563.67	29281563.86	0.0279	0.0134
Moon	75466-08-16 23:03 G	29284678.22	29284678.46	29284678.71	0.0288	0.0071
Earth	75466-08-16 23:03 G	29284678.23	29284678.46	29284678.70	0.0288	0.0086 *
Mercury	75470-01-04 09:07 G	29285914.86	29285914.88	29285914.92	0.0285	0.0278
Mercury	75470-04-03 03:36 G	29286003.50	29286003.65	29286003.80	0.0284	0.0117
Mercury	75470-06-30 21:22 G	29286092.23	29286092.39	29286092.55	0.0284	0.0039
Mercury	75470-09-27 14:39 G	29286181.00	29286181.11	29286181.23	0.0283	0.0191

Venus	75471-04-20 14:10 G	29286385.92	29286386.09	29286386.28	0.0282	0.0143
Venus	75471-12-06 02:39 G	29286615.40	29286615.61	29286615.82	0.0281	0.0046
Venus	75472-07-22 14:10 G	29286844.98	29286845.09	29286845.22	0.0280	0.0231
Earth	75481-02-08 03:07 G	29289967.55	29289967.63	29289967.73	0.0271	0.0252
Moon	75481-02-08 05:31 G	29289967.63	29289967.73	29289967.85	0.0271	0.0244 *
Moon	75482-02-20 14:10 G	29290344.93	29290345.09	29290345.28	0.0271	0.0197
Earth	75482-02-20 17:03 G	29290345.06	29290345.21	29290345.39	0.0271	0.0205 *
Mercury	75485-04-10 16:05 G	29291490.08	29291490.17	29291490.26	0.0275	0.0214
Mercury	75485-07-08 05:17 G	29291578.58	29291578.72	29291578.86	0.0275	0.0090
Mercury	75485-10-04 18:43 G	29291667.14	29291667.28	29291667.43	0.0276	0.0039
Mercury	75486-01-01 08:39 G	29291755.74	29291755.86	29291755.98	0.0276	0.0168
Venus	75486-05-16 09:51 G	29291890.77	29291890.91	29291891.06	0.0277	0.0203
Venus	75486-12-31 21:07 G	29292120.17	29292120.38	29292120.60	0.0278	0.0023
Venus	75487-08-18 08:53 G	29292349.70	29292349.87	29292350.05	0.0279	0.0161
Earth	75496-08-23 16:19 G	29295643.02	29295643.18	29295643.36	0.0288	0.0203
Moon	75496-08-23 19:41 G	29295643.17	29295643.32	29295643.48	0.0288	0.0216 *
Mercury	75499-08-21 02:24 G	29296735.47	29296735.60	29296735.72	0.0284	0.0176
Mercury	75499-11-17 20:10 G	29296824.18	29296824.34	29296824.51	0.0283	0.0020
Mercury	75500-02-14 13:41 G	29296912.93	29296913.07	29296913.21	0.0283	0.0134
Mercury	75500-05-14 06:43 G	29297001.78	29297001.78	29297001.79	0.0282	0.0282
Venus	75500-10-31 15:22 G	29297171.95	29297172.14	29297172.33	0.0282	0.0120
Venus	75501-06-18 03:36 G	29297401.44	29297401.65	29297401.85	0.0280	0.0067
Venus	75502-02-02 14:53 G	29297631.04	29297631.12	29297631.22	0.0279	0.0250
Earth	75511-02-16 05:03 G	29300931.46	29300931.71	29300931.96	0.0271	0.0009
Moon	75511-02-16 07:41 G	29300931.58	29300931.82	29300932.06	0.0271	0.0011 *
Mercury	75514-08-29 16:34 G	29302222.15	29302222.19	29302222.24	0.0275	0.0260
Mercury	75514-11-26 05:46 G	29302310.61	29302310.74	29302310.87	0.0275	0.0137
Mercury	75515-02-22 19:12 G	29302399.15	29302399.30	29302399.45	0.0276	0.0011
Mercury	75515-05-22 08:53 G	29302487.74	29302487.87	29302488.01	0.0276	0.0119
Mercury	75515-08-18 22:48 G	29302576.40	29302576.45	29302576.52	0.0276	0.0252

Venus	75515-11-27 10:48 G	29302676.80	29302676.95	29302677.12	0.0277	0.0183
Venus	75516-07-13 22:34 G	29302906.23	29302906.44	29302906.65	0.0278	0.0002
Venus	75517-02-28 10:34 G	29303135.79	29303135.94	29303136.11	0.0279	0.0183
Mars	75519-12-27 10:34 G	29304167.72	29304167.94	29304168.19	0.0284	0.0148
Moon	75525-08-18 22:48 G	29306229.21	29306229.45	29306229.70	0.0288	0.0021
Earth	75525-08-19 02:39 G	29306229.37	29306229.61	29306229.85	0.0288	0.0036 *
Mercury	75529-01-08 03:22 G	29307467.54	29307467.64	29307467.75	0.0285	0.0214
Mercury	75529-04-06 21:36 G	29307556.24	29307556.40	29307556.56	0.0284	0.0055
Mercury	75529-07-04 15:07 G	29307644.98	29307645.13	29307645.29	0.0284	0.0100
Venus	75529-09-26 10:05 G	29307728.90	29307728.92	29307728.97	0.0283	0.0279
Mercury	75529-10-01 08:10 G	29307733.78	29307733.84	29307733.92	0.0283	0.0251
Venus	75530-05-13 23:17 G	29307958.27	29307958.47	29307958.67	0.0282	0.0089
Venus	75530-12-29 11:31 G	29308187.79	29308187.98	29308188.18	0.0281	0.0098
Moon	75540-02-11 02:53 G	29311518.46	29311518.62	29311518.79	0.0270	0.0204
Earth	75540-02-11 05:17 G	29311518.57	29311518.72	29311518.88	0.0270	0.0208 *
Moon	75541-02-22 16:05 G	29311896.06	29311896.17	29311896.29	0.0271	0.0239
Earth	75541-02-22 19:12 G	29311896.21	29311896.30	29311896.40	0.0271	0.0248 *
Mercury	75544-04-14 07:55 G	29313042.72	29313042.83	29313042.95	0.0275	0.0169
Mercury	75544-07-11 21:22 G	29313131.24	29313131.39	29313131.53	0.0275	0.0044
Mercury	75544-10-08 10:48 G	29313219.81	29313219.95	29313220.10	0.0276	0.0085
Mercury	75545-01-05 00:43 G	29313308.44	29313308.53	29313308.63	0.0276	0.0216
Venus	75545-06-08 16:34 G	29313463.03	29313463.19	29313463.38	0.0277	0.0155
Venus	75546-01-24 04:19 G	29313692.46	29313692.68	29313692.89	0.0278	0.0027
Venus	75546-09-10 16:05 G	29313922.03	29313922.17	29313922.31	0.0279	0.0209
Earth	75554-08-13 05:17 G	29316815.71	29316815.72	29316815.75	0.0288	0.0287
Moon	75554-08-13 09:07 G	29316815.81	29316815.88	29316815.97	0.0288	0.0270
Earth	75555-08-26 19:55 G	29317194.22	29317194.33	29317194.45	0.0288	0.0253
Moon	75555-08-26 22:05 G	29317194.33	29317194.42	29317194.53	0.0288	0.0263 *
Mercury	75558-05-28 01:55 G	29318199.54	29318199.58	29318199.62	0.0284	0.0274
Mercury	75558-08-24 20:10 G	29318288.19	29318288.34	29318288.49	0.0284	0.0114

Mercury	75558-11-21 14:10 G	29318376.93	29318377.09	29318377.25	0.0283	0.0042
Mercury	75559-02-18 07:27 G	29318465.69	29318465.81	29318465.93	0.0283	0.0193
Venus	75559-04-08 11:17 G	29318514.90	29318514.97	29318515.07	0.0283	0.0256
Venus	75559-11-24 00:15 G	29318744.31	29318744.51	29318744.72	0.0281	0.0068
Venus	75560-07-10 12:15 G	29318973.83	29318974.01	29318974.21	0.0280	0.0119
Earth	75570-02-17 05:46 G	29322482.50	29322482.74	29322482.99	0.0271	0.0034
Moon	75570-02-17 09:07 G	29322482.63	29322482.88	29322483.14	0.0271	0.0031 *
Mercury	75573-09-01 08:10 G	29323774.75	29323774.84	29323774.93	0.0275	0.0219
Mercury	75573-11-28 21:22 G	29323863.25	29323863.39	29323863.53	0.0275	0.0095
Mercury	75574-02-25 10:48 G	29323951.80	29323951.95	29323952.10	0.0276	0.0032
Mercury	75574-05-25 00:29 G	29324040.41	29324040.52	29324040.65	0.0276	0.0163
Venus	75574-12-19 16:34 G	29324249.01	29324249.19	29324249.38	0.0277	0.0137
Venus	75575-08-06 04:05 G	29324478.46	29324478.67	29324478.88	0.0278	0.0045
Venus	75576-03-22 16:05 G	29324708.06	29324708.17	29324708.31	0.0279	0.0228
Moon	75584-08-20 01:41 G	29327780.34	29327780.57	29327780.81	0.0289	0.0023
Earth	75584-08-20 03:22 G	29327780.40	29327780.64	29327780.89	0.0289	0.0010 *
Mercury	75588-01-11 20:53 G	29329020.24	29329020.37	29329020.51	0.0285	0.0156
Mercury	75588-04-09 15:07 G	29329108.96	29329109.13	29329109.29	0.0284	0.0007
Mercury	75588-07-07 08:39 G	29329197.72	29329197.86	29329197.99	0.0284	0.0156
Venus	75588-10-18 18:29 G	29329301.14	29329301.27	29329301.39	0.0283	0.0227
Venus	75589-06-05 07:27 G	29329530.60	29329530.81	29329531.02	0.0282	0.0038
Venus	75590-01-20 19:41 G	29329760.14	29329760.32	29329760.50	0.0281	0.0149
Moon	75599-02-12 02:53 G	29333069.44	29333069.62	29333069.82	0.0270	0.0166
Earth	75599-02-12 06:29 G	29333069.58	29333069.77	29333069.97	0.0270	0.0165 *
Mercury	75603-01-19 10:19 G	29334506.88	29334506.93	29334507.00	0.0274	0.0249
Mercury	75603-04-17 23:31 G	29334595.36	29334595.48	29334595.61	0.0275	0.0127
Mercury	75603-07-15 12:58 G	29334683.89	29334684.04	29334684.19	0.0275	0.0003
Mercury	75603-10-12 02:39 G	29334772.48	29334772.61	29334772.74	0.0276	0.0129
Mercury	75604-01-08 16:34 G	29334861.15	29334861.19	29334861.24	0.0276	0.0261
Venus	75604-06-30 22:34 G	29335035.25	29335035.44	29335035.64	0.0277	0.0108

Venus	75605-02-15 10:05 G	29335264.72	29335264.92	29335265.13	0.0278	0.0074
Venus	75605-10-02 22:05 G	29335494.34	29335494.42	29335494.51	0.0279	0.0256
Mars	75608-05-21 18:15 G	29336456.01	29336456.26	29336456.51	0.0284	0.0112
Earth	75613-08-14 06:58 G	29338366.67	29338366.79	29338366.93	0.0289	0.0240
Moon	75613-08-14 07:55 G	29338366.69	29338366.83	29338366.99	0.0289	0.0227 *
Mercury	75617-05-30 19:41 G	29339752.22	29339752.32	29339752.43	0.0284	0.0214
Mercury	75617-08-27 13:55 G	29339840.92	29339841.08	29339841.24	0.0284	0.0055
Mercury	75617-11-24 07:27 G	29339929.67	29339929.81	29339929.97	0.0283	0.0100
Mercury	75618-02-21 00:43 G	29340018.46	29340018.53	29340018.61	0.0283	0.0250
Venus	75618-04-30 19:41 G	29340087.18	29340087.32	29340087.47	0.0283	0.0204
Venus	75618-12-16 08:39 G	29340316.65	29340316.86	29340317.07	0.0281	0.0017
Venus	75619-08-02 20:24 G	29340546.19	29340546.35	29340546.53	0.0280	0.0170
Mars	75622-06-18 23:46 G	29341597.48	29341597.49	29341597.54	0.0275	0.0273
Moon	75629-02-18 05:17 G	29344033.47	29344033.72	29344033.97	0.0271	0.0066
Earth	75629-02-18 06:29 G	29344033.53	29344033.77	29344034.01	0.0271	0.0075 *
Mercury	75632-09-03 23:31 G	29345327.37	29345327.48	29345327.59	0.0275	0.0178
Mercury	75632-12-01 12:43 G	29345415.89	29345416.03	29345416.18	0.0275	0.0054
Mercury	75633-02-28 02:24 G	29345504.46	29345504.60	29345504.74	0.0276	0.0075
Venus	75633-05-26 11:03 G	29345591.92	29345591.96	29345592.02	0.0276	0.0268
Mercury	75633-05-27 16:05 G	29345593.08	29345593.17	29345593.28	0.0276	0.0206
Venus	75634-01-10 22:05 G	29345821.22	29345821.42	29345821.62	0.0277	0.0091
Venus	75634-08-28 09:36 G	29346050.70	29346050.90	29346051.10	0.0278	0.0091
Venus	75635-04-14 21:36 G	29346280.37	29346280.40	29346280.45	0.0279	0.0273
Earth	75643-08-22 02:53 G	29349331.39	29349331.62	29349331.87	0.0289	0.0053
Moon	75643-08-22 06:00 G	29349331.52	29349331.75	29349331.99	0.0289	0.0061 *
Mercury	75646-10-17 19:41 G	29350484.26	29350484.32	29350484.39	0.0285	0.0262
Mercury	75647-01-14 14:10 G	29350572.94	29350573.09	29350573.24	0.0285	0.0101
Mercury	75647-04-13 08:10 G	29350661.68	29350661.84	29350662.00	0.0284	0.0057
Mercury	75647-07-11 01:27 G	29350750.46	29350750.56	29350750.67	0.0284	0.0209
Venus	75647-11-11 01:27 G	29350873.40	29350873.56	29350873.72	0.0283	0.0176

Venus	75648-06-27 14:24 G	29351102.89	29351103.10	29351103.31	0.0282	0.0014
Venus	75649-02-12 02:39 G	29351332.47	29351332.61	29351332.76	0.0281	0.0199
Earth	75658-02-13 07:12 G	29354620.59	29354620.80	29354621.03	0.0270	0.0123
Moon	75658-02-13 08:24 G	29354620.64	29354620.85	29354621.06	0.0270	0.0129 *
Mercury	75662-01-22 01:55 G	29356059.49	29356059.58	29356059.68	0.0274	0.0208
Mercury	75662-04-20 15:07 G	29356148.00	29356148.13	29356148.27	0.0275	0.0084
Mercury	75662-07-18 04:34 G	29356236.55	29356236.69	29356236.84	0.0275	0.0044
Mercury	75662-10-14 18:29 G	29356325.15	29356325.27	29356325.38	0.0275	0.0173
Venus	75662-12-06 17:46 G	29356378.14	29356378.24	29356378.35	0.0276	0.0238
Venus	75663-07-24 04:34 G	29356607.48	29356607.69	29356607.90	0.0277	0.0061
Venus	75664-03-09 16:05 G	29356836.97	29356837.17	29356837.36	0.0278	0.0120
Moon	75672-08-15 04:05 G	29359917.49	29359917.67	29359917.87	0.0289	0.0188
Earth	75672-08-15 07:27 G	29359917.64	29359917.81	29359918.00	0.0289	0.0195 *
Mercury	75676-06-02 12:58 G	29361304.91	29361305.04	29361305.19	0.0284	0.0158
Mercury	75676-08-30 07:12 G	29361393.64	29361393.80	29361393.96	0.0284	0.0003
Mercury	75676-11-27 00:43 G	29361482.40	29361482.53	29361482.67	0.0283	0.0155
Venus	75677-05-23 03:22 G	29361659.47	29361659.64	29361659.82	0.0283	0.0153
Venus	75678-01-07 16:19 G	29361888.97	29361889.18	29361889.39	0.0281	0.0036
Venus	75678-08-25 04:05 G	29362118.56	29362118.67	29362118.81	0.0280	0.0220
Moon	75688-02-20 03:22 G	29365584.42	29365584.64	29365584.88	0.0271	0.0104
Earth	75688-02-20 07:12 G	29365584.59	29365584.80	29365585.04	0.0271	0.0118 *
Mercury	75691-06-11 02:10 G	29366791.54	29366791.59	29366791.64	0.0274	0.0258
Mercury	75691-09-07 15:07 G	29366880.01	29366880.13	29366880.26	0.0275	0.0136
Mercury	75691-12-05 04:34 G	29366968.54	29366968.69	29366968.83	0.0275	0.0013
Mercury	75692-03-02 18:00 G	29367057.12	29367057.25	29367057.39	0.0275	0.0118
Mercury	75692-05-30 07:55 G	29367145.77	29367145.83	29367145.89	0.0276	0.0249
Venus	75692-06-17 16:34 G	29367164.07	29367164.19	29367164.32	0.0276	0.0222
Venus	75693-02-02 03:36 G	29367393.44	29367393.65	29367393.86	0.0277	0.0044
Venus	75693-09-19 14:53 G	29367622.94	29367623.12	29367623.31	0.0278	0.0137
Mars	75696-10-14 13:12 G	29368743.79	29368744.05	29368744.30	0.0284	0.0097

Earth	75702-08-24 02:10 G	29370882.37	29370882.59	29370882.83	0.0289	0.0095
Moon	75702-08-24 05:03 G	29370882.47	29370882.71	29370882.94	0.0289	0.0097 *
Mercury	75705-10-21 12:58 G	29372036.93	29372037.04	29372037.15	0.0285	0.0207
Mercury	75706-01-18 07:12 G	29372125.64	29372125.80	29372125.96	0.0285	0.0047
Mercury	75706-04-17 00:58 G	29372214.39	29372214.54	29372214.69	0.0285	0.0109
Mercury	75706-07-14 18:15 G	29372303.20	29372303.26	29372303.33	0.0284	0.0260
Venus	75706-12-04 08:10 G	29372445.66	29372445.84	29372446.04	0.0283	0.0126
Venus	75707-07-21 21:36 G	29372675.19	29372675.40	29372675.60	0.0282	0.0063
Venus	75708-03-07 09:51 G	29372904.82	29372904.91	29372905.01	0.0281	0.0248
Mars	75710-11-13 18:43 G	29373886.07	29373886.28	29373886.51	0.0276	0.0202
Earth	75717-02-15 08:39 G	29376171.62	29376171.86	29376172.10	0.0270	0.0080
Moon	75717-02-15 12:29 G	29376171.79	29376172.02	29376172.25	0.0270	0.0090 *
Mercury	75721-01-25 17:46 G	29377612.13	29377612.24	29377612.36	0.0274	0.0164
Mercury	75721-04-24 06:58 G	29377700.65	29377700.79	29377700.94	0.0275	0.0041
Mercury	75721-07-21 20:39 G	29377789.22	29377789.36	29377789.50	0.0275	0.0088
Mercury	75721-10-18 10:19 G	29377877.84	29377877.93	29377878.02	0.0275	0.0218
Venus	75721-12-30 00:15 G	29377950.36	29377950.51	29377950.66	0.0276	0.0190
Venus	75722-08-16 10:48 G	29378179.74	29378179.95	29378180.17	0.0277	0.0014
Venus	75723-04-02 22:05 G	29378409.26	29378409.42	29378409.60	0.0278	0.0169
Moon	75731-08-18 06:15 G	29381468.56	29381468.76	29381468.97	0.0289	0.0144
Earth	75731-08-18 08:39 G	29381468.66	29381468.86	29381469.07	0.0289	0.0149 *
Mercury	75735-03-10 12:00 G	29382768.94	29382769.00	29382769.07	0.0285	0.0262
Mercury	75735-06-07 06:29 G	29382857.62	29382857.77	29382857.93	0.0285	0.0100
Mercury	75735-09-04 00:29 G	29382946.36	29382946.52	29382946.68	0.0284	0.0057
Mercury	75735-12-01 18:00 G	29383035.14	29383035.25	29383035.36	0.0284	0.0209
Venus	75736-06-15 11:03 G	29383231.77	29383231.96	29383232.16	0.0283	0.0101
Venus	75737-01-31 00:00 G	29383461.30	29383461.50	29383461.70	0.0281	0.0087
Venus	75737-09-17 12:00 G	29383690.95	29383691.00	29383691.06	0.0280	0.0270
Jupiter	75738-09-07 09:07 G	29384045.45	29384045.88	29384046.32	0.0278	0.0026
Moon	75747-02-22 09:07 G	29387135.68	29387135.88	29387136.08	0.0271	0.0146

Earth	75747-02-22 09:07 G	29387135.70	29387135.88	29387136.09	0.0271	0.0161	*
Mercury	75750-06-14 17:46 G	29388344.16	29388344.24	29388344.34	0.0274	0.0214	
Mercury	75750-09-11 06:58 G	29388432.65	29388432.79	29388432.93	0.0275	0.0092	
Mercury	75750-12-08 20:24 G	29388521.20	29388521.35	29388521.49	0.0275	0.0034	
Mercury	75751-03-07 10:05 G	29388609.80	29388609.92	29388610.04	0.0275	0.0163	
Venus	75751-07-11 22:48 G	29388736.30	29388736.45	29388736.63	0.0276	0.0175	
Venus	75752-02-26 09:51 G	29388965.70	29388965.91	29388966.12	0.0277	0.0004	
Venus	75752-10-12 21:07 G	29389195.23	29389195.38	29389195.54	0.0278	0.0184	
Moon	75761-08-24 23:46 G	29392433.27	29392433.49	29392433.71	0.0289	0.0133	
Earth	75761-08-25 01:41 G	29392433.36	29392433.57	29392433.79	0.0289	0.0137	*
Mercury	75764-10-24 06:00 G	29393589.61	29393589.75	29393589.89	0.0285	0.0153	
Mercury	75765-01-21 00:15 G	29393678.35	29393678.51	29393678.67	0.0285	0.0007	
Mercury	75765-04-19 17:46 G	29393767.11	29393767.24	29393767.38	0.0285	0.0162	
Venus	75765-05-11 01:12 G	29393788.49	29393788.55	29393788.63	0.0285	0.0265	
Venus	75765-12-26 15:07 G	29394017.93	29394018.13	29394018.34	0.0283	0.0076	
Venus	75766-08-13 04:34 G	29394247.50	29394247.69	29394247.88	0.0282	0.0114	
Earth	75776-02-17 11:31 G	29397722.73	29397722.98	29397723.22	0.0270	0.0036	
Moon	75776-02-17 11:46 G	29397722.74	29397722.99	29397723.25	0.0270	0.0048	*
Mercury	75779-11-01 20:53 G	29399076.30	29399076.37	29399076.44	0.0274	0.0240	
Mercury	75780-01-29 09:51 G	29399164.78	29399164.91	29399165.04	0.0274	0.0118	
Mercury	75780-04-26 23:03 G	29399253.32	29399253.46	29399253.61	0.0274	0.0011	
Mercury	75780-07-24 12:43 G	29399341.90	29399342.03	29399342.16	0.0275	0.0135	
Mercury	75780-10-21 02:24 G	29399430.58	29399430.60	29399430.65	0.0275	0.0267	
Venus	75781-01-21 07:27 G	29399522.63	29399522.81	29399522.99	0.0276	0.0141	
Venus	75781-09-07 18:00 G	29399752.04	29399752.25	29399752.46	0.0277	0.0037	
Venus	75782-04-25 05:03 G	29399981.59	29399981.71	29399981.85	0.0278	0.0217	
Mars	75785-03-11 03:36 G	29401032.38	29401032.65	29401032.92	0.0284	0.0050	
Earth	75790-08-19 10:05 G	29403019.70	29403019.92	29403020.15	0.0289	0.0103	
Moon	75790-08-19 12:00 G	29403019.78	29403020.00	29403020.22	0.0289	0.0101	*
Mercury	75794-03-13 05:46 G	29404321.63	29404321.74	29404321.86	0.0285	0.0203	

Mercury	75794-06-10 00:15 G	29404410.34	29404410.51	29404410.67	0.0285	0.0043
Mercury	75794-09-06 18:00 G	29404499.10	29404499.25	29404499.40	0.0284	0.0113
Venus	75794-11-21 05:31 G	29404574.62	29404574.73	29404574.85	0.0284	0.0238
Mercury	75794-12-04 11:03 G	29404587.92	29404587.96	29404588.03	0.0284	0.0265
Venus	75795-07-08 19:12 G	29404804.10	29404804.30	29404804.51	0.0283	0.0049
Venus	75796-02-23 07:55 G	29405033.66	29405033.83	29405034.03	0.0281	0.0140
Mars	75799-04-08 20:24 G	29406174.10	29406174.35	29406174.62	0.0275	0.0156
Moon	75805-02-12 00:15 G	29408309.45	29408309.51	29408309.61	0.0270	0.0254
Earth	75805-02-12 01:12 G	29408309.45	29408309.55	29408309.66	0.0270	0.0244 *
Earth	75806-02-24 12:43 G	29408686.88	29408687.03	29408687.20	0.0270	0.0206
Moon	75806-02-24 16:34 G	29408687.02	29408687.19	29408687.37	0.0270	0.0190 *
Mercury	75809-06-18 10:05 G	29409896.81	29409896.92	29409897.03	0.0274	0.0167
Mercury	75809-09-14 23:17 G	29409985.32	29409985.47	29409985.61	0.0274	0.0044
Mercury	75809-12-12 12:43 G	29410073.89	29410074.03	29410074.17	0.0275	0.0083
Mercury	75810-03-11 02:24 G	29410162.51	29410162.60	29410162.69	0.0275	0.0213
Venus	75810-08-04 06:29 G	29410308.59	29410308.77	29410308.97	0.0276	0.0125
Venus	75811-03-21 17:17 G	29410538.02	29410538.22	29410538.43	0.0277	0.0054
Venus	75811-11-06 04:19 G	29410767.58	29410767.68	29410767.81	0.0278	0.0235
Moon	75820-08-26 23:31 G	29413984.31	29413984.48	29413984.68	0.0289	0.0178
Earth	75820-08-27 03:07 G	29413984.45	29413984.63	29413984.82	0.0289	0.0183 *
Mercury	75823-08-01 05:03 G	29415053.64	29415053.71	29415053.77	0.0286	0.0259
Mercury	75823-10-28 23:31 G	29415142.32	29415142.48	29415142.63	0.0285	0.0096
Mercury	75824-01-25 17:31 G	29415231.07	29415231.23	29415231.39	0.0285	0.0062
Mercury	75824-04-23 11:03 G	29415319.86	29415319.96	29415320.07	0.0285	0.0216
Venus	75824-06-03 08:53 G	29415360.74	29415360.87	29415361.02	0.0284	0.0214
Venus	75825-01-18 23:03 G	29415590.25	29415590.46	29415590.67	0.0283	0.0023
Venus	75825-09-05 12:15 G	29415819.84	29415820.01	29415820.18	0.0282	0.0165
Moon	75835-02-19 12:15 G	29419273.75	29419274.01	29419274.26	0.0270	0.0006
Earth	75835-02-19 15:36 G	29419273.90	29419274.15	29419274.39	0.0270	0.0012 *
Mercury	75838-11-05 13:12 G	29420628.95	29420629.05	29420629.16	0.0274	0.0191

Mercury	75839-02-02 02:24 G	29420717.46	29420717.60	29420717.74	0.0274	0.0069
Mercury	75839-05-01 15:36 G	29420806.01	29420806.15	29420806.30	0.0274	0.0058
Venus	75839-06-30 05:31 G	29420865.68	29420865.73	29420865.79	0.0275	0.0264
Mercury	75839-07-29 05:17 G	29420894.62	29420894.72	29420894.83	0.0275	0.0186
Venus	75840-02-14 15:51 G	29421094.96	29421095.16	29421095.36	0.0276	0.0090
Venus	75840-10-01 02:24 G	29421324.40	29421324.60	29421324.80	0.0277	0.0088
Venus	75841-05-18 13:27 G	29421554.02	29421554.06	29421554.13	0.0278	0.0268
Earth	75849-08-21 13:41 G	29424570.83	29424571.07	29424571.31	0.0289	0.0053
Moon	75849-08-21 17:17 G	29424570.98	29424571.22	29424571.46	0.0289	0.0051 *
Mercury	75853-03-16 23:46 G	29425874.35	29425874.49	29425874.63	0.0285	0.0142
Mercury	75853-06-13 18:00 G	29425963.08	29425963.25	29425963.41	0.0285	0.0019
Mercury	75853-09-10 11:31 G	29426051.86	29426051.98	29426052.11	0.0284	0.0172
Venus	75853-12-14 14:10 G	29426146.94	29426147.09	29426147.26	0.0284	0.0185
Venus	75854-08-01 04:05 G	29426376.46	29426376.67	29426376.88	0.0283	0.0006
Venus	75855-03-18 17:03 G	29426606.06	29426606.21	29426606.36	0.0281	0.0192
Earth	75864-02-14 06:58 G	29429860.62	29429860.79	29429860.97	0.0270	0.0195
Moon	75864-02-14 10:05 G	29429860.77	29429860.92	29429861.08	0.0270	0.0206 *
Earth	75865-02-25 18:58 G	29430238.21	29430238.29	29430238.37	0.0270	0.0254
Moon	75865-02-25 20:53 G	29430238.26	29430238.37	29430238.50	0.0270	0.0238 *
Mercury	75868-03-24 13:41 G	29431361.01	29431361.07	29431361.15	0.0274	0.0237
Mercury	75868-06-21 02:53 G	29431449.49	29431449.62	29431449.75	0.0274	0.0115
Mercury	75868-09-17 16:05 G	29431538.02	29431538.17	29431538.32	0.0274	0.0009
Mercury	75868-12-15 05:31 G	29431626.60	29431626.73	29431626.86	0.0275	0.0137
Venus	75869-01-09 06:15 G	29431651.67	29431651.76	29431651.85	0.0275	0.0246
Mercury	75869-03-13 19:27 G	29431715.28	29431715.31	29431715.34	0.0275	0.0267
Venus	75869-08-26 16:05 G	29431880.96	29431881.17	29431881.37	0.0276	0.0072
Venus	75870-04-13 02:39 G	29432110.41	29432110.61	29432110.80	0.0277	0.0107
Mars	75873-08-05 05:46 G	29433320.47	29433320.74	29433321.01	0.0284	0.0024
Moon	75879-08-29 06:15 G	29435535.62	29435535.76	29435535.91	0.0289	0.0225
Earth	75879-08-29 06:29 G	29435535.63	29435535.77	29435535.92	0.0289	0.0231 *

Mercury	75882-08-03 22:34 G	29436606.33	29436606.44	29436606.57	0.0286	0.0199
Mercury	75882-10-31 17:17 G	29436695.05	29436695.22	29436695.38	0.0285	0.0037
Mercury	75883-01-28 11:03 G	29436783.82	29436783.96	29436784.11	0.0285	0.0120
Mercury	75883-04-27 04:19 G	29436872.65	29436872.68	29436872.73	0.0285	0.0273
Venus	75883-06-26 17:46 G	29436933.06	29436933.24	29436933.41	0.0284	0.0160
Venus	75884-02-11 07:41 G	29437162.61	29437162.82	29437163.03	0.0283	0.0031
Venus	75884-09-27 20:39 G	29437392.24	29437392.36	29437392.50	0.0282	0.0218
Mars	75887-09-03 15:36 G	29438462.85	29438463.15	29438463.46	0.0276	0.0087
Moon	75894-02-20 18:29 G	29440825.03	29440825.27	29440825.51	0.0270	0.0046
Earth	75894-02-20 20:53 G	29440825.14	29440825.37	29440825.62	0.0270	0.0061 *
Mercury	75897-08-11 17:03 G	29442093.17	29442093.21	29442093.26	0.0273	0.0259
Mercury	75897-11-08 06:00 G	29442181.63	29442181.75	29442181.88	0.0274	0.0139
Mercury	75898-02-04 19:12 G	29442270.15	29442270.30	29442270.45	0.0274	0.0015
Mercury	75898-05-04 08:39 G	29442358.73	29442358.86	29442359.00	0.0274	0.0112
Venus	75898-07-22 15:07 G	29442438.01	29442438.13	29442438.28	0.0275	0.0212
Mercury	75898-07-31 22:19 G	29442447.37	29442447.43	29442447.51	0.0275	0.0242
Venus	75899-03-09 01:27 G	29442667.35	29442667.56	29442667.78	0.0276	0.0037
Venus	75899-10-24 12:00 G	29442896.83	29442897.00	29442897.19	0.0277	0.0142
Earth	75908-08-23 20:10 G	29446122.09	29446122.34	29446122.58	0.0289	0.0006
Moon	75908-08-23 20:24 G	29446122.09	29446122.35	29446122.60	0.0289	0.0005 *
Mercury	75911-12-22 23:46 G	29447338.40	29447338.49	29447338.58	0.0286	0.0238
Mercury	75912-03-20 18:15 G	29447427.10	29447427.26	29447427.42	0.0285	0.0076
Mercury	75912-06-17 12:15 G	29447515.86	29447516.01	29447516.17	0.0285	0.0082
Mercury	75912-09-14 05:46 G	29447604.65	29447604.74	29447604.83	0.0284	0.0234
Venus	75913-01-07 00:29 G	29447719.34	29447719.52	29447719.71	0.0284	0.0129
Venus	75913-08-24 14:24 G	29447948.89	29447949.10	29447949.30	0.0282	0.0061
Venus	75914-04-11 02:53 G	29448178.53	29448178.62	29448178.73	0.0281	0.0246
Earth	75923-02-16 14:24 G	29451411.89	29451412.10	29451412.31	0.0270	0.0143
Moon	75923-02-16 17:17 G	29451412.02	29451412.22	29451412.43	0.0270	0.0155 *
Mercury	75927-03-29 06:58 G	29452913.68	29452913.79	29452913.90	0.0274	0.0181

Mercury	75927-06-25 19:55 G	29453002.19	29453002.33	29453002.48	0.0274	0.0060
Mercury	75927-09-22 09:22 G	29453090.75	29453090.89	29453091.03	0.0274	0.0066
Mercury	75927-12-19 22:48 G	29453179.35	29453179.45	29453179.56	0.0275	0.0195
Venus	75928-02-02 16:48 G	29453224.06	29453224.20	29453224.36	0.0275	0.0193
Venus	75928-09-19 02:53 G	29453453.41	29453453.62	29453453.83	0.0276	0.0017
Venus	75929-05-06 13:12 G	29453682.89	29453683.05	29453683.23	0.0277	0.0162
Earth	75937-08-17 20:10 G	29456708.22	29456708.34	29456708.45	0.0289	0.0254
Moon	75937-08-17 20:39 G	29456708.26	29456708.36	29456708.46	0.0289	0.0258 *
Earth	75938-08-31 12:29 G	29457087.00	29457087.02	29457087.07	0.0289	0.0286
Moon	75938-08-31 15:51 G	29457087.11	29457087.16	29457087.24	0.0289	0.0277
Mercury	75941-08-07 17:17 G	29458159.07	29458159.22	29458159.36	0.0286	0.0133
Mercury	75941-11-04 11:31 G	29458247.82	29458247.98	29458248.14	0.0285	0.0027
Mercury	75942-02-01 05:17 G	29458336.60	29458336.72	29458336.84	0.0285	0.0182
Venus	75942-07-20 03:36 G	29458505.45	29458505.65	29458505.84	0.0284	0.0104
Venus	75943-03-06 17:17 G	29458735.02	29458735.22	29458735.43	0.0283	0.0086
Venus	75943-10-22 06:15 G	29458964.72	29458964.76	29458964.82	0.0282	0.0272
Earth	75953-02-23 04:19 G	29462376.46	29462376.68	29462376.91	0.0270	0.0112
Moon	75953-02-23 06:00 G	29462376.53	29462376.75	29462376.97	0.0270	0.0098 *
Mercury	75956-08-15 10:19 G	29463645.84	29463645.93	29463646.03	0.0273	0.0203
Mercury	75956-11-11 23:17 G	29463734.33	29463734.47	29463734.61	0.0274	0.0082
Mercury	75957-02-08 12:29 G	29463822.88	29463823.02	29463823.17	0.0274	0.0044
Mercury	75957-05-08 02:10 G	29463911.48	29463911.59	29463911.71	0.0275	0.0171
Venus	75957-08-15 02:24 G	29464010.44	29464010.60	29464010.79	0.0275	0.0157
Venus	75958-04-01 12:43 G	29464239.82	29464240.03	29464240.24	0.0276	0.0019
Venus	75958-11-16 23:31 G	29464469.33	29464469.48	29464469.63	0.0277	0.0198
Mars	75961-12-31 18:15 G	29465610.00	29465610.26	29465610.53	0.0284	0.0063
Moon	75967-08-26 00:44 G	29467673.29	29467673.53	29467673.77	0.0289	0.0053
Earth	75967-08-26 04:20 G	29467673.45	29467673.68	29467673.92	0.0289	0.0061 *
Mercury	75970-12-25 18:44 G	29468891.15	29468891.28	29468891.42	0.0286	0.0167
Mercury	75971-03-24 13:12 G	29468979.88	29468980.05	29468980.21	0.0285	0.0010

Venus	75971-06-14 21:36 G	29469062.32	29469062.40	29469062.48	0.0285	0.0262
Mercury	75971-06-21 06:58 G	29469068.65	29469068.79	29469068.93	0.0285	0.0149
Venus	75972-01-30 11:46 G	29469291.79	29469291.99	29469292.20	0.0284	0.0071
Venus	75972-09-16 01:27 G	29469521.37	29469521.56	29469521.75	0.0282	0.0118
Mars	75976-01-29 16:20 G	29470751.86	29470752.18	29470752.50	0.0275	0.0005
Moon	75982-02-17 21:36 G	29472963.17	29472963.40	29472963.64	0.0270	0.0103
Earth	75982-02-17 23:17 G	29472963.25	29472963.47	29472963.72	0.0270	0.0089 *
Mercury	75986-01-02 11:32 G	29474377.92	29474377.98	29474378.05	0.0273	0.0243
Mercury	75986-04-01 00:29 G	29474466.39	29474466.52	29474466.65	0.0274	0.0123
Mercury	75986-06-28 13:41 G	29474554.92	29474555.07	29474555.22	0.0274	0.0003
Mercury	75986-09-25 03:08 G	29474643.50	29474643.63	29474643.76	0.0275	0.0128
Mercury	75986-12-22 16:48 G	29474732.15	29474732.20	29474732.25	0.0275	0.0258
Venus	75987-02-25 04:48 G	29474796.52	29474796.70	29474796.89	0.0275	0.0136
Venus	75987-10-12 14:53 G	29475025.91	29475026.12	29475026.33	0.0276	0.0040
Venus	75988-05-29 01:27 G	29475255.44	29475255.56	29475255.70	0.0278	0.0218
Earth	75996-08-19 05:32 G	29478259.56	29478259.73	29478259.92	0.0289	0.0193
Moon	75996-08-19 09:22 G	29478259.72	29478259.89	29478260.07	0.0289	0.0200 *
Mercury	76000-05-13 17:32 G	29479623.14	29479623.23	29479623.34	0.0286	0.0225
Mercury	76000-08-10 12:15 G	29479711.85	29479712.01	29479712.17	0.0286	0.0062
Mercury	76000-11-07 06:15 G	29479800.61	29479800.76	29479800.92	0.0285	0.0096
Venus	76000-12-25 00:15 G	29479848.40	29479848.51	29479848.63	0.0285	0.0238

77TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 77th millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Mercury	76001-02-03 23:46 G	29479889.42	29479889.49	29479889.57	0.0285	0.0249
Venus	76001-08-11 14:53 G	29480077.92	29480078.12	29480078.33	0.0284	0.0047
Venus	76002-03-29 04:34 G	29480307.51	29480307.69	29480307.88	0.0283	0.0143
Earth	76012-02-25 12:58 G	29483927.85	29483928.04	29483928.24	0.0271	0.0167
Moon	76012-02-25 16:34 G	29483927.99	29483928.19	29483928.41	0.0271	0.0151 *
Mercury	76015-05-22 14:53 G	29485110.09	29485110.12	29485110.16	0.0273	0.0265
Mercury	76015-08-19 03:51 G	29485198.54	29485198.66	29485198.78	0.0274	0.0145
Mercury	76015-11-15 17:03 G	29485287.06	29485287.21	29485287.35	0.0274	0.0022
Venus	76016-01-21 05:03 G	29485353.71	29485353.71	29485353.73	0.0274	0.0274
Mercury	76016-02-12 06:29 G	29485375.63	29485375.77	29485375.90	0.0274	0.0105
Mercury	76016-05-10 20:10 G	29485464.26	29485464.34	29485464.41	0.0275	0.0234
Venus	76016-09-06 14:53 G	29485582.92	29485583.12	29485583.32	0.0275	0.0101
Venus	76017-04-24 00:58 G	29485812.34	29485812.54	29485812.75	0.0276	0.0076
Venus	76017-12-09 11:46 G	29486041.92	29486041.99	29486042.08	0.0278	0.0254
Moon	76026-08-27 13:41 G	29489224.85	29489225.07	29489225.29	0.0289	0.0114
Earth	76026-08-27 15:36 G	29489224.93	29489225.15	29489225.37	0.0289	0.0125 *
Mercury	76029-09-30 19:41 G	29490355.25	29490355.32	29490355.39	0.0286	0.0255
Mercury	76029-12-28 14:10 G	29490443.94	29490444.09	29490444.25	0.0285	0.0093
Mercury	76030-03-27 08:24 G	29490532.69	29490532.85	29490533.01	0.0285	0.0066
Mercury	76030-06-24 02:10 G	29490621.49	29490621.59	29490621.69	0.0285	0.0220
Venus	76030-07-07 10:05 G	29490634.78	29490634.92	29490635.07	0.0285	0.0203
Venus	76031-02-22 00:15 G	29490864.30	29490864.51	29490864.72	0.0283	0.0013
Venus	76031-10-09 13:27 G	29491093.90	29491094.06	29491094.23	0.0282	0.0176
Moon	76041-02-19 05:46 G	29494514.50	29494514.74	29494514.99	0.0270	0.0049
Earth	76041-02-19 09:36 G	29494514.66	29494514.90	29494515.15	0.0270	0.0032 *
Mercury	76045-01-05 05:17 G	29495930.62	29495930.72	29495930.83	0.0274	0.0182
Mercury	76045-04-03 18:29 G	29496019.12	29496019.27	29496019.41	0.0274	0.0060
Mercury	76045-07-01 07:41 G	29496107.68	29496107.82	29496107.96	0.0274	0.0065

Venus	76045-08-02 08:24 G	29496139.78	29496139.85	29496139.94	0.0275	0.0252
Mercury	76045-09-27 21:08 G	29496196.28	29496196.38	29496196.49	0.0275	0.0193
Venus	76046-03-19 18:00 G	29496369.05	29496369.25	29496369.46	0.0276	0.0079
Venus	76046-11-04 04:20 G	29496598.48	29496598.68	29496598.88	0.0277	0.0099
Venus	76047-06-21 14:53 G	29496828.11	29496828.12	29496828.14	0.0278	0.0277
Mars	76050-05-27 15:22 G	29497898.90	29497899.14	29497899.39	0.0284	0.0125
Earth	76055-08-21 17:32 G	29499811.02	29499811.23	29499811.45	0.0289	0.0128
Moon	76055-08-21 18:58 G	29499811.08	29499811.29	29499811.52	0.0289	0.0136 *
Mercury	76059-05-17 13:12 G	29501175.91	29501176.05	29501176.19	0.0286	0.0149
Mercury	76059-08-14 07:41 G	29501264.66	29501264.82	29501264.98	0.0285	0.0012
Mercury	76059-11-11 01:27 G	29501353.43	29501353.56	29501353.69	0.0285	0.0167
Venus	76060-01-17 12:44 G	29501420.88	29501421.03	29501421.20	0.0285	0.0179
Venus	76060-09-03 03:08 G	29501650.42	29501650.63	29501650.85	0.0283	0.0014
Venus	76061-04-20 16:34 G	29501880.05	29501880.19	29501880.34	0.0282	0.0200
Mars	76064-06-24 16:34 G	29503040.88	29503041.19	29503041.50	0.0276	0.0074
Earth	76070-02-14 09:08 G	29505101.75	29505101.88	29505102.02	0.0271	0.0226
Moon	76070-02-14 12:58 G	29505101.93	29505102.04	29505102.15	0.0271	0.0239 *
Moon	76071-02-26 22:20 G	29505479.27	29505479.43	29505479.60	0.0271	0.0207
Earth	76071-02-26 22:05 G	29505479.29	29505479.42	29505479.57	0.0271	0.0223 *
Mercury	76074-05-25 08:24 G	29506662.76	29506662.85	29506662.95	0.0273	0.0206
Mercury	76074-08-21 21:22 G	29506751.26	29506751.39	29506751.53	0.0274	0.0085
Mercury	76074-11-18 10:48 G	29506839.80	29506839.95	29506840.09	0.0274	0.0041
Venus	76075-02-12 17:32 G	29506926.11	29506926.23	29506926.37	0.0275	0.0218
Mercury	76075-02-15 00:15 G	29506928.40	29506928.51	29506928.63	0.0275	0.0168
Venus	76075-09-30 03:36 G	29507155.44	29507155.65	29507155.86	0.0276	0.0044
Venus	76076-05-16 13:41 G	29507384.89	29507385.07	29507385.27	0.0277	0.0134
Earth	76085-08-29 04:34 G	29510776.51	29510776.69	29510776.87	0.0289	0.0191
Moon	76085-08-29 06:58 G	29510776.60	29510776.79	29510776.97	0.0289	0.0180 *
Mercury	76088-10-03 15:51 G	29511908.03	29511908.16	29511908.29	0.0286	0.0174
Mercury	76088-12-31 10:20 G	29511996.76	29511996.93	29511997.09	0.0285	0.0014

Mercury	76089-03-30 04:05 G	29512085.54	29512085.67	29512085.81	0.0285	0.0143
Venus	76089-07-29 23:46 G	29512207.32	29512207.49	29512207.68	0.0284	0.0143
Venus	76090-03-16 13:56 G	29512436.87	29512437.08	29512437.28	0.0283	0.0048
Venus	76090-11-01 02:39 G	29512666.51	29512666.61	29512666.74	0.0282	0.0235
Moon	76100-02-21 19:56 G	29516066.09	29516066.33	29516066.57	0.0270	0.0011
Earth	76100-02-21 20:10 G	29516066.09	29516066.34	29516066.59	0.0270	0.0026 *
Mercury	76103-10-13 10:20 G	29517394.87	29517394.93	29517395.00	0.0273	0.0240
Mercury	76104-01-09 23:17 G	29517483.34	29517483.47	29517483.60	0.0274	0.0120
Mercury	76104-04-07 12:29 G	29517571.87	29517572.02	29517572.16	0.0274	0.0009
Mercury	76104-07-05 01:41 G	29517660.44	29517660.57	29517660.70	0.0275	0.0130
Venus	76104-08-25 21:36 G	29517712.26	29517712.40	29517712.56	0.0275	0.0195
Mercury	76104-10-01 15:22 G	29517749.10	29517749.14	29517749.19	0.0275	0.0260
Venus	76105-04-12 07:27 G	29517941.60	29517941.81	29517942.03	0.0276	0.0021
Venus	76105-11-27 17:46 G	29518171.07	29518171.24	29518171.42	0.0277	0.0158
Moon	76114-08-24 04:48 G	29521362.46	29521362.70	29521362.95	0.0289	0.0071
Earth	76114-08-24 07:27 G	29521362.58	29521362.81	29521363.05	0.0289	0.0060 *
Mercury	76118-02-21 14:39 G	29522640.02	29522640.11	29522640.21	0.0286	0.0232
Mercury	76118-05-21 09:22 G	29522728.73	29522728.89	29522729.05	0.0285	0.0069
Mercury	76118-08-18 03:22 G	29522817.49	29522817.64	29522817.80	0.0285	0.0089
Mercury	76118-11-14 21:08 G	29522906.30	29522906.38	29522906.46	0.0284	0.0242
Venus	76119-02-10 02:24 G	29522993.42	29522993.60	29522993.80	0.0284	0.0118
Venus	76119-09-27 16:34 G	29523222.98	29523223.19	29523223.39	0.0283	0.0072
Venus	76120-05-14 05:32 G	29523452.66	29523452.73	29523452.82	0.0282	0.0259
Earth	76129-02-16 18:00 G	29526653.07	29526653.25	29526653.45	0.0271	0.0170
Moon	76129-02-16 18:29 G	29526653.09	29526653.27	29526653.47	0.0271	0.0183 *
Moon	76130-03-01 03:36 G	29527030.61	29527030.65	29527030.71	0.0271	0.0264
Mercury	76133-03-01 13:12 G	29528127.03	29528127.05	29528127.08	0.0273	0.0266
Mercury	76133-05-29 02:10 G	29528215.47	29528215.59	29528215.71	0.0274	0.0146
Mercury	76133-08-25 15:22 G	29528303.99	29528304.14	29528304.28	0.0274	0.0025
Mercury	76133-11-22 04:34 G	29528392.56	29528392.69	29528392.83	0.0274	0.0104

Mercury	76134-02-18 18:15 G	29528481.19	29528481.26	29528481.34	0.0275	0.0233
Venus	76134-03-08 06:15 G	29528498.59	29528498.76	29528498.94	0.0275	0.0162
Venus	76134-10-23 16:20 G	29528727.97	29528728.18	29528728.40	0.0276	0.0014
Venus	76135-06-10 02:53 G	29528957.47	29528957.62	29528957.78	0.0277	0.0191
Mars	76138-10-23 13:12 G	29530188.90	29530189.05	29530189.20	0.0284	0.0234
Earth	76143-08-19 01:12 G	29531949.50	29531949.55	29531949.62	0.0289	0.0279
Moon	76143-08-19 03:22 G	29531949.61	29531949.64	29531949.70	0.0289	0.0284 *
Earth	76144-08-31 18:00 G	29532328.15	29532328.25	29532328.36	0.0289	0.0259
Moon	76144-08-31 21:22 G	29532328.27	29532328.39	29532328.53	0.0289	0.0246 *
Mercury	76147-07-11 17:17 G	29533372.16	29533372.22	29533372.30	0.0286	0.0256
Mercury	76147-10-08 12:00 G	29533460.85	29533461.00	29533461.16	0.0286	0.0093
Mercury	76148-01-05 06:15 G	29533549.60	29533549.76	29533549.92	0.0285	0.0065
Venus	76148-01-05 23:17 G	29533550.42	29533550.47	29533550.55	0.0285	0.0272
Mercury	76148-04-03 00:00 G	29533638.40	29533638.50	29533638.60	0.0285	0.0219
Venus	76148-08-22 13:56 G	29533779.88	29533780.08	29533780.28	0.0284	0.0081
Venus	76149-04-09 03:22 G	29534009.45	29534009.64	29534009.84	0.0283	0.0109
Mars	76152-11-20 12:29 G	29535330.81	29535331.02	29535331.27	0.0276	0.0191
Earth	76159-02-24 06:15 G	29537617.53	29537617.76	29537618.00	0.0270	0.0083
Moon	76159-02-24 09:36 G	29537617.67	29537617.90	29537618.14	0.0270	0.0068 *
Mercury	76162-10-16 04:05 G	29538947.56	29538947.67	29538947.78	0.0274	0.0179
Mercury	76163-01-12 17:03 G	29539036.07	29539036.21	29539036.36	0.0274	0.0058
Mercury	76163-04-11 06:15 G	29539124.62	29539124.76	29539124.91	0.0274	0.0068
Mercury	76163-07-08 19:56 G	29539213.23	29539213.33	29539213.43	0.0275	0.0196
Venus	76163-09-18 10:48 G	29539284.78	29539284.95	29539285.15	0.0275	0.0138
Venus	76164-05-04 20:53 G	29539514.16	29539514.37	29539514.58	0.0276	0.0038
Venus	76164-12-20 07:12 G	29539743.68	29539743.80	29539743.94	0.0277	0.0216
Moon	76173-08-25 18:15 G	29542914.03	29542914.26	29542914.50	0.0289	0.0005
Earth	76173-08-25 21:36 G	29542914.16	29542914.40	29542914.65	0.0289	0.0010 *
Mercury	76177-02-24 11:03 G	29544192.82	29544192.96	29544193.10	0.0285	0.0150
Mercury	76177-05-24 05:32 G	29544281.56	29544281.73	29544281.89	0.0285	0.0012

Venus	76177-07-18 02:24 G	29544336.50	29544336.60	29544336.70	0.0285	0.0247
Mercury	76177-08-20 23:17 G	29544370.34	29544370.47	29544370.60	0.0285	0.0166
Venus	76178-03-04 16:34 G	29544565.99	29544566.19	29544566.40	0.0284	0.0057
Venus	76178-10-20 06:00 G	29544795.57	29544795.75	29544795.95	0.0283	0.0133
Moon	76188-02-18 23:32 G	29548204.26	29548204.48	29548204.70	0.0271	0.0130
Earth	76188-02-19 02:39 G	29548204.39	29548204.61	29548204.84	0.0271	0.0115 *
Mercury	76192-03-04 06:29 G	29549679.68	29549679.77	29549679.87	0.0274	0.0209
Mercury	76192-05-31 19:27 G	29549768.18	29549768.31	29549768.45	0.0274	0.0088
Mercury	76192-08-28 08:53 G	29549856.72	29549856.87	29549857.01	0.0274	0.0038
Mercury	76192-11-24 22:20 G	29549945.31	29549945.43	29549945.55	0.0275	0.0165
Venus	76193-03-30 18:15 G	29550071.06	29550071.26	29550071.46	0.0275	0.0108
Venus	76193-11-15 04:34 G	29550300.48	29550300.69	29550300.90	0.0276	0.0069
Venus	76194-07-02 15:22 G	29550530.05	29550530.14	29550530.24	0.0277	0.0247
Earth	76202-08-21 14:53 G	29553500.97	29553501.12	29553501.29	0.0289	0.0212
Moon	76202-08-21 18:44 G	29553501.12	29553501.28	29553501.44	0.0289	0.0216 *
Mercury	76206-07-15 13:56 G	29554924.95	29554925.08	29554925.21	0.0286	0.0173
Mercury	76206-10-12 08:24 G	29555013.68	29555013.85	29555014.01	0.0285	0.0014
Mercury	76207-01-09 02:10 G	29555102.46	29555102.59	29555102.73	0.0285	0.0144
Venus	76207-01-29 13:56 G	29555122.95	29555123.08	29555123.23	0.0285	0.0211
Venus	76207-09-16 04:05 G	29555352.46	29555352.67	29555352.88	0.0284	0.0020
Venus	76208-05-02 17:17 G	29555582.06	29555582.22	29555582.39	0.0282	0.0169
Earth	76218-02-26 15:36 G	29559168.93	29559169.15	29559169.36	0.0270	0.0138
Moon	76218-02-26 18:00 G	29559169.03	29559169.25	29559169.48	0.0270	0.0123 *
Mercury	76221-07-23 08:39 G	29560411.80	29560411.86	29560411.93	0.0273	0.0240
Mercury	76221-10-19 21:36 G	29560500.27	29560500.40	29560500.53	0.0274	0.0120
Mercury	76222-01-16 10:48 G	29560588.80	29560588.95	29560589.09	0.0274	0.0005
Venus	76222-02-24 13:56 G	29560628.01	29560628.08	29560628.16	0.0274	0.0255
Mercury	76222-04-15 00:00 G	29560677.38	29560677.50	29560677.64	0.0275	0.0131
Mercury	76222-07-12 13:41 G	29560766.03	29560766.07	29560766.12	0.0275	0.0260
Venus	76222-10-11 23:32 G	29560857.28	29560857.48	29560857.68	0.0275	0.0082

Venus	76223-05-29 09:36 G	29561086.70	29561086.90	29561087.10	0.0277	0.0095
Venus	76224-01-13 20:10 G	29561316.31	29561316.34	29561316.39	0.0278	0.0273
Earth	76232-08-28 11:17 G	29564465.74	29564465.97	29564466.21	0.0289	0.0077
Moon	76232-08-28 11:17 G	29564465.74	29564465.97	29564466.20	0.0289	0.0066 *
Mercury	76235-12-02 12:44 G	29565656.93	29565657.03	29565657.12	0.0285	0.0231
Mercury	76236-02-29 07:12 G	29565745.64	29565745.80	29565745.96	0.0285	0.0069
Mercury	76236-05-28 01:27 G	29565834.40	29565834.56	29565834.71	0.0285	0.0089
Venus	76236-08-10 16:20 G	29565909.03	29565909.18	29565909.34	0.0284	0.0186
Mercury	76236-08-24 18:58 G	29565923.21	29565923.29	29565923.38	0.0284	0.0242
Venus	76237-03-28 06:29 G	29566138.55	29566138.77	29566138.98	0.0283	0.0007
Venus	76237-11-12 19:27 G	29566368.16	29566368.31	29566368.47	0.0282	0.0191
Mars	76241-04-17 09:08 G	29567619.81	29567619.88	29567619.97	0.0276	0.0267
Moon	76247-02-21 07:27 G	29569755.58	29569755.81	29569756.04	0.0271	0.0077
Earth	76247-02-21 10:05 G	29569755.68	29569755.92	29569756.17	0.0271	0.0062 *
Mercury	76250-12-10 10:48 G	29571143.95	29571143.95	29571143.95	0.0274	0.0273
Mercury	76251-03-08 23:32 G	29571232.37	29571232.48	29571232.60	0.0274	0.0154
Mercury	76251-06-05 12:44 G	29571320.88	29571321.03	29571321.17	0.0274	0.0031
Mercury	76251-09-02 01:56 G	29571409.45	29571409.58	29571409.72	0.0275	0.0096
Venus	76251-09-06 18:58 G	29571414.19	29571414.29	29571414.42	0.0275	0.0229
Mercury	76251-11-29 15:36 G	29571498.07	29571498.15	29571498.24	0.0275	0.0224
Venus	76252-04-23 05:03 G	29571643.51	29571643.71	29571643.93	0.0276	0.0055
Venus	76252-12-08 15:36 G	29571872.96	29571873.15	29571873.34	0.0277	0.0123
Moon	76261-08-23 02:53 G	29575052.41	29575052.62	29575052.83	0.0289	0.0156
Earth	76261-08-23 02:53 G	29575052.42	29575052.62	29575052.83	0.0289	0.0147 *
Mercury	76265-04-20 15:08 G	29576389.06	29576389.13	29576389.20	0.0286	0.0257
Mercury	76265-07-18 09:51 G	29576477.76	29576477.91	29576478.07	0.0286	0.0094
Mercury	76265-10-15 04:05 G	29576566.51	29576566.67	29576566.83	0.0285	0.0065
Mercury	76266-01-11 21:51 G	29576655.31	29576655.41	29576655.51	0.0285	0.0219
Venus	76266-02-21 03:36 G	29576695.48	29576695.65	29576695.83	0.0285	0.0150
Venus	76266-10-08 17:32 G	29576925.02	29576925.23	29576925.44	0.0283	0.0040

Venus	76267-05-26 06:44 G	29577154.65	29577154.78	29577154.90	0.0282	0.0227
Earth	76276-02-16 11:17 G	29580342.90	29580342.97	29580343.06	0.0270	0.0254
Moon	76276-02-16 14:24 G	29580343.08	29580343.10	29580343.14	0.0270	0.0268
Moon	76277-02-27 21:22 G	29580720.21	29580720.39	29580720.60	0.0270	0.0177
Earth	76277-02-27 23:17 G	29580720.30	29580720.47	29580720.65	0.0270	0.0190 *
Mercury	76280-07-26 01:56 G	29581964.47	29581964.58	29581964.68	0.0274	0.0185
Mercury	76280-10-22 14:53 G	29582052.98	29582053.12	29582053.26	0.0274	0.0063
Mercury	76281-01-19 04:05 G	29582141.53	29582141.67	29582141.81	0.0274	0.0061
Venus	76281-03-19 00:44 G	29582200.39	29582200.53	29582200.68	0.0275	0.0202
Mercury	76281-04-17 17:32 G	29582230.13	29582230.23	29582230.34	0.0275	0.0189
Venus	76281-11-03 10:34 G	29582429.73	29582429.94	29582430.15	0.0276	0.0028
Venus	76282-06-20 20:53 G	29582659.19	29582659.37	29582659.55	0.0277	0.0149
Mars	76285-06-27 10:05 G	29583761.85	29583761.92	29583762.01	0.0283	0.0270
Earth	76291-08-30 23:03 G	29586017.26	29586017.46	29586017.68	0.0289	0.0142
Moon	76291-08-31 02:39 G	29586017.40	29586017.61	29586017.83	0.0289	0.0128 *
Mercury	76294-12-05 08:39 G	29587209.72	29587209.86	29587210.00	0.0285	0.0151
Mercury	76295-03-04 03:08 G	29587298.47	29587298.63	29587298.79	0.0285	0.0009
Mercury	76295-05-31 20:53 G	29587387.25	29587387.37	29587387.51	0.0284	0.0164
Venus	76295-09-03 05:46 G	29587481.56	29587481.74	29587481.93	0.0284	0.0127
Venus	76296-04-19 19:27 G	29587711.11	29587711.31	29587711.52	0.0283	0.0063
Venus	76296-12-05 08:24 G	29587940.76	29587940.85	29587940.95	0.0282	0.0248
Earth	76306-02-23 15:51 G	29591306.92	29591307.16	29591307.41	0.0271	0.0012
Moon	76306-02-23 17:46 G	29591307.00	29591307.24	29591307.48	0.0271	0.0027 *
Mercury	76309-12-14 03:22 G	29592696.56	29592696.64	29592696.73	0.0274	0.0223
Mercury	76310-03-12 16:20 G	29592785.05	29592785.18	29592785.32	0.0274	0.0102
Mercury	76310-06-09 05:32 G	29592873.58	29592873.73	29592873.88	0.0274	0.0023
Mercury	76310-09-05 18:58 G	29592962.17	29592962.29	29592962.41	0.0275	0.0150
Venus	76310-09-30 04:48 G	29592986.54	29592986.70	29592986.86	0.0275	0.0178
Venus	76311-05-17 14:53 G	29593215.91	29593216.12	29593216.33	0.0276	0.0003
Venus	76312-01-02 01:27 G	29593445.40	29593445.56	29593445.73	0.0277	0.0175

Moon	76320-08-25 09:22 G	29596603.66	29596603.89	29596604.12	0.0289	0.0101
Earth	76320-08-25 12:58 G	29596603.81	29596604.04	29596604.28	0.0289	0.0087 *
Mercury	76324-04-24 10:48 G	29597941.83	29597941.95	29597942.08	0.0286	0.0180
Mercury	76324-07-22 05:17 G	29598030.56	29598030.72	29598030.89	0.0285	0.0021
Venus	76324-07-30 01:41 G	29598038.55	29598038.57	29598038.61	0.0285	0.0282
Mercury	76324-10-18 23:17 G	29598119.34	29598119.47	29598119.62	0.0285	0.0138
Venus	76325-03-16 16:20 G	29598267.98	29598268.18	29598268.38	0.0284	0.0092
Venus	76325-11-01 05:46 G	29598497.55	29598497.74	29598497.94	0.0283	0.0098
Moon	76335-02-18 15:22 G	29601894.01	29601894.14	29601894.30	0.0270	0.0220
Earth	76335-02-18 17:32 G	29601894.08	29601894.23	29601894.40	0.0270	0.0204 *
Moon	76336-03-02 01:27 G	29602271.43	29602271.56	29602271.70	0.0270	0.0225
Earth	76336-03-02 04:48 G	29602271.61	29602271.70	29602271.83	0.0270	0.0240 *
Mercury	76339-05-03 05:46 G	29603428.69	29603428.74	29603428.80	0.0273	0.0252
Mercury	76339-07-30 18:44 G	29603517.15	29603517.28	29603517.40	0.0274	0.0133
Mercury	76339-10-27 07:41 G	29603605.67	29603605.82	29603605.97	0.0274	0.0010
Mercury	76340-01-23 20:53 G	29603694.24	29603694.37	29603694.51	0.0274	0.0116
Venus	76340-04-11 10:20 G	29603772.76	29603772.93	29603773.11	0.0275	0.0151
Mercury	76340-04-21 10:34 G	29603782.88	29603782.94	29603783.01	0.0275	0.0245
Venus	76340-11-26 20:10 G	29604002.13	29604002.34	29604002.56	0.0276	0.0025
Venus	76341-07-14 06:44 G	29604231.64	29604231.78	29604231.93	0.0277	0.0201
Earth	76350-09-02 08:24 G	29607568.69	29607568.85	29607569.03	0.0289	0.0201
Moon	76350-09-02 10:34 G	29607568.76	29607568.94	29607569.14	0.0289	0.0185 *
Mercury	76353-09-11 09:22 G	29608673.81	29608673.89	29608673.98	0.0285	0.0240
Mercury	76353-12-09 04:05 G	29608762.51	29608762.67	29608762.83	0.0285	0.0077
Venus	76354-02-09 03:22 G	29608824.57	29608824.64	29608824.74	0.0285	0.0259
Mercury	76354-03-07 22:20 G	29608851.28	29608851.43	29608851.59	0.0285	0.0081
Mercury	76354-06-04 15:51 G	29608940.08	29608940.16	29608940.26	0.0284	0.0234
Venus	76354-09-26 18:00 G	29609054.04	29609054.25	29609054.45	0.0284	0.0069
Venus	76355-05-14 07:27 G	29609283.62	29609283.81	29609284.00	0.0282	0.0119
Earth	76365-02-24 20:10 G	29612858.10	29612858.34	29612858.59	0.0270	0.0037

Moon	76365-02-25 00:00 G	29612858.25	29612858.50	29612858.75	0.0270	0.0021	*
Mercury	76368-12-16 19:41 G	29614249.21	29614249.32	29614249.43	0.0274	0.0175	
Mercury	76369-03-15 08:39 G	29614337.72	29614337.86	29614338.00	0.0274	0.0053	
Mercury	76369-06-11 21:51 G	29614426.27	29614426.41	29614426.55	0.0274	0.0073	
Mercury	76369-09-08 11:17 G	29614514.88	29614514.97	29614515.08	0.0275	0.0201	
Venus	76369-10-22 12:44 G	29614558.85	29614559.03	29614559.23	0.0275	0.0129	
Venus	76370-06-08 23:03 G	29614788.25	29614788.46	29614788.67	0.0276	0.0047	
Venus	76371-01-24 09:36 G	29615017.79	29615017.90	29615018.04	0.0277	0.0225	
Mars	76373-11-22 05:46 G	29616050.56	29616050.74	29616050.93	0.0283	0.0205	
Moon	76379-08-27 18:15 G	29618155.03	29618155.26	29618155.49	0.0290	0.0047	
Earth	76379-08-27 19:41 G	29618155.08	29618155.32	29618155.57	0.0290	0.0033	*
Mercury	76383-01-29 10:48 G	29619405.92	29619405.95	29619406.00	0.0286	0.0275	
Mercury	76383-04-28 05:46 G	29619494.59	29619494.74	29619494.90	0.0286	0.0110	
Mercury	76383-07-26 00:15 G	29619583.35	29619583.51	29619583.67	0.0285	0.0050	
Venus	76383-08-22 12:58 G	29619610.92	29619611.04	29619611.17	0.0285	0.0226	
Mercury	76383-10-22 18:00 G	29619672.15	29619672.25	29619672.37	0.0285	0.0205	
Venus	76384-04-08 03:22 G	29619840.43	29619840.64	29619840.85	0.0284	0.0035	
Venus	76384-11-23 17:03 G	29620070.03	29620070.21	29620070.38	0.0283	0.0153	
Moon	76394-02-19 18:15 G	29623445.09	29623445.26	29623445.46	0.0270	0.0174	
Earth	76394-02-19 22:05 G	29623445.22	29623445.42	29623445.62	0.0270	0.0157	*
Mercury	76398-05-05 21:51 G	29624981.33	29624981.41	29624981.51	0.0273	0.0206	
Mercury	76398-08-02 10:48 G	29625069.82	29625069.95	29625070.09	0.0274	0.0085	
Venus	76398-09-17 09:08 G	29625115.87	29625115.88	29625115.91	0.0274	0.0273	
Mercury	76398-10-30 00:00 G	29625158.36	29625158.50	29625158.65	0.0274	0.0040	
Mercury	76399-01-26 13:27 G	29625246.95	29625247.06	29625247.18	0.0274	0.0166	
Venus	76399-05-04 18:44 G	29625345.08	29625345.28	29625345.48	0.0275	0.0101	
Venus	76399-12-20 04:34 G	29625574.49	29625574.69	29625574.90	0.0276	0.0074	
Venus	76400-08-05 15:08 G	29625804.05	29625804.13	29625804.22	0.0277	0.0251	
Earth	76408-08-20 22:05 G	29628741.37	29628741.42	29628741.48	0.0289	0.0281	
Moon	76409-09-03 12:58 G	29629119.91	29629120.04	29629120.19	0.0289	0.0239	

Earth	76409-09-03 15:36 G	29629120.05	29629120.15	29629120.27	0.0289	0.0257	*
Mercury	76412-09-14 04:20 G	29630226.56	29630226.68	29630226.82	0.0285	0.0170	
Mercury	76412-12-11 23:03 G	29630315.30	29630315.46	29630315.62	0.0285	0.0008	
Venus	76413-03-03 14:39 G	29630396.98	29630397.11	29630397.27	0.0285	0.0203	
Mercury	76413-03-10 17:03 G	29630404.07	29630404.21	29630404.35	0.0285	0.0148	
Venus	76413-10-19 05:03 G	29630626.50	29630626.71	29630626.92	0.0283	0.0013	
Venus	76414-06-05 18:15 G	29630856.10	29630856.26	29630856.43	0.0282	0.0174	
Moon	76424-02-26 22:34 G	29634409.19	29634409.44	29634409.69	0.0270	0.0068	
Earth	76424-02-26 22:48 G	29634409.22	29634409.45	29634409.69	0.0270	0.0081	*
Mercury	76427-09-22 22:48 G	29635713.39	29635713.45	29635713.51	0.0273	0.0249	
Mercury	76427-12-20 11:32 G	29635801.86	29635801.98	29635802.11	0.0274	0.0130	
Mercury	76428-03-18 00:44 G	29635890.38	29635890.53	29635890.67	0.0274	0.0010	
Venus	76428-03-29 09:51 G	29635901.84	29635901.91	29635902.00	0.0274	0.0254	
Mercury	76428-06-14 13:56 G	29635978.95	29635979.08	29635979.21	0.0274	0.0119	
Mercury	76428-09-11 03:22 G	29636067.59	29636067.64	29636067.71	0.0275	0.0248	
Venus	76428-11-13 19:41 G	29636131.12	29636131.32	29636131.52	0.0275	0.0082	
Venus	76429-07-01 05:46 G	29636360.55	29636360.74	29636360.95	0.0276	0.0094	
Venus	76430-02-15 17:03 G	29636590.17	29636590.21	29636590.25	0.0277	0.0271	
Earth	76438-08-28 23:32 G	29639706.24	29639706.48	29639706.72	0.0290	0.0017	
Moon	76438-08-29 02:10 G	29639706.35	29639706.59	29639706.83	0.0290	0.0002	*
Mercury	76442-02-01 05:17 G	29640958.61	29640958.72	29640958.84	0.0286	0.0209	
Mercury	76442-05-01 00:00 G	29641047.34	29641047.50	29641047.67	0.0286	0.0047	
Mercury	76442-07-28 18:15 G	29641136.12	29641136.26	29641136.41	0.0286	0.0112	
Venus	76442-09-13 22:20 G	29641183.28	29641183.43	29641183.61	0.0285	0.0173	
Mercury	76442-10-25 12:00 G	29641224.95	29641225.00	29641225.06	0.0285	0.0265	
Venus	76443-05-01 12:58 G	29641412.83	29641413.04	29641413.25	0.0284	0.0019	
Venus	76443-12-17 02:24 G	29641642.46	29641642.60	29641642.74	0.0283	0.0206	
Earth	76453-02-21 00:58 G	29644996.32	29644996.54	29644996.77	0.0269	0.0113	
Moon	76453-02-21 00:58 G	29644996.33	29644996.54	29644996.76	0.0269	0.0127	*
Mercury	76457-05-08 13:56 G	29646533.97	29646534.08	29646534.20	0.0273	0.0160	

Mercury	76457-08-05 02:53 G	29646622.48	29646622.62	29646622.77	0.0274	0.0039
Venus	76457-10-09 16:20 G	29646688.06	29646688.18	29646688.30	0.0274	0.0225
Mercury	76457-11-01 16:05 G	29646711.03	29646711.17	29646711.31	0.0274	0.0086
Mercury	76458-01-29 05:32 G	29646799.64	29646799.73	29646799.83	0.0274	0.0214
Venus	76458-05-27 01:41 G	29646917.36	29646917.57	29646917.78	0.0275	0.0053
Venus	76459-01-11 11:32 G	29647146.80	29647146.98	29647147.18	0.0276	0.0123
Mars	76462-04-17 17:32 G	29648339.01	29648339.23	29648339.46	0.0283	0.0160
Moon	76467-08-22 22:48 G	29650292.33	29650292.45	29650292.59	0.0290	0.0246
Earth	76467-08-23 01:27 G	29650292.43	29650292.56	29650292.72	0.0290	0.0232 *
Mercury	76471-06-21 03:36 G	29651690.61	29651690.65	29651690.71	0.0286	0.0270
Mercury	76471-09-17 22:48 G	29651779.30	29651779.45	29651779.60	0.0285	0.0105
Mercury	76471-12-15 17:03 G	29651868.05	29651868.21	29651868.37	0.0285	0.0055
Mercury	76472-03-13 10:48 G	29651956.85	29651956.95	29651957.07	0.0285	0.0210
Venus	76472-03-26 00:15 G	29651969.34	29651969.51	29651969.69	0.0284	0.0149
Venus	76472-11-10 14:24 G	29652198.89	29652199.10	29652199.31	0.0283	0.0041
Venus	76473-06-28 03:36 G	29652428.53	29652428.65	29652428.78	0.0282	0.0227
Mars	76476-05-11 01:56 G	29653476.44	29653476.58	29653476.76	0.0276	0.0237
Moon	76483-02-27 20:39 G	29655960.14	29655960.36	29655960.59	0.0270	0.0113
Earth	76483-02-28 00:15 G	29655960.30	29655960.51	29655960.74	0.0270	0.0122 *
Mercury	76486-09-25 14:10 G	29657266.01	29657266.09	29657266.19	0.0273	0.0209
Mercury	76486-12-23 03:08 G	29657354.50	29657354.63	29657354.77	0.0274	0.0088
Mercury	76487-03-21 16:20 G	29657443.03	29657443.18	29657443.32	0.0274	0.0036
Venus	76487-04-21 15:36 G	29657474.03	29657474.15	29657474.30	0.0274	0.0209
Mercury	76487-06-18 05:32 G	29657531.62	29657531.73	29657531.85	0.0274	0.0163
Venus	76487-12-07 01:27 G	29657703.35	29657703.56	29657703.77	0.0275	0.0036
Venus	76488-07-23 11:46 G	29657932.80	29657932.99	29657933.17	0.0276	0.0140
Earth	76497-08-30 01:12 G	29661257.31	29661257.55	29661257.79	0.0290	0.0063
Moon	76497-08-30 04:20 G	29661257.44	29661257.68	29661257.92	0.0290	0.0047 *
Mercury	76501-02-04 23:17 G	29662511.33	29662511.47	29662511.61	0.0286	0.0149
Mercury	76501-05-04 17:46 G	29662600.08	29662600.24	29662600.41	0.0286	0.0015

Mercury	76501-08-01 12:00 G	29662688.87	29662689.00	29662689.13	0.0286	0.0170
Venus	76501-10-07 06:58 G	29662755.60	29662755.79	29662755.99	0.0285	0.0119
Venus	76502-05-24 21:22 G	29662985.18	29662985.39	29662985.59	0.0284	0.0071
Venus	76503-01-09 10:34 G	29663214.87	29663214.94	29663215.03	0.0283	0.0258
Earth	76512-02-24 02:10 G	29666547.36	29666547.59	29666547.84	0.0269	0.0072
Moon	76512-02-24 05:46 G	29666547.51	29666547.74	29666547.97	0.0269	0.0084 *
Mercury	76516-02-13 16:48 G	29667998.14	29667998.20	29667998.27	0.0273	0.0237
Mercury	76516-05-12 05:32 G	29668086.60	29668086.73	29668086.87	0.0273	0.0118
Mercury	76516-08-08 18:44 G	29668175.13	29668175.28	29668175.42	0.0273	0.0008
Venus	76516-11-01 22:20 G	29668260.27	29668260.43	29668260.59	0.0274	0.0179
Mercury	76516-11-05 07:56 G	29668263.70	29668263.83	29668263.96	0.0274	0.0130
Mercury	76517-02-01 21:22 G	29668352.35	29668352.39	29668352.44	0.0274	0.0258
Venus	76517-06-19 07:41 G	29668489.61	29668489.82	29668490.04	0.0275	0.0008
Venus	76518-02-03 18:00 G	29668719.08	29668719.25	29668719.42	0.0276	0.0169
Moon	76526-08-25 00:29 G	29671843.36	29671843.52	29671843.70	0.0290	0.0201
Earth	76526-08-25 03:36 G	29671843.47	29671843.65	29671843.84	0.0290	0.0185 *
Mercury	76530-06-24 21:36 G	29673243.29	29673243.40	29673243.52	0.0286	0.0209
Mercury	76530-09-21 16:34 G	29673332.03	29673332.19	29673332.35	0.0286	0.0046
Mercury	76530-12-19 10:48 G	29673420.80	29673420.95	29673421.10	0.0285	0.0112
Mercury	76531-03-18 04:20 G	29673509.64	29673509.68	29673509.75	0.0285	0.0266
Venus	76531-04-19 08:39 G	29673541.66	29673541.86	29673542.06	0.0284	0.0096
Venus	76531-12-04 22:34 G	29673771.25	29673771.44	29673771.64	0.0283	0.0093
Venus	76532-07-21 12:00 G	29674000.97	29674001.00	29674001.03	0.0282	0.0277
Moon	76542-03-01 23:32 G	29677511.30	29677511.48	29677511.69	0.0270	0.0157
Earth	76542-03-02 01:12 G	29677511.35	29677511.55	29677511.75	0.0270	0.0162 *
Mercury	76545-09-29 05:46 G	29678818.63	29678818.74	29678818.86	0.0273	0.0167
Mercury	76545-12-26 18:44 G	29678907.14	29678907.28	29678907.42	0.0274	0.0046
Mercury	76546-03-25 07:56 G	29678995.69	29678995.83	29678995.97	0.0274	0.0078
Venus	76546-05-14 21:22 G	29679046.22	29679046.39	29679046.56	0.0274	0.0163
Mercury	76546-06-21 21:22 G	29679084.29	29679084.39	29679084.48	0.0274	0.0205

Venus	76546-12-30 06:58 G	29679275.57	29679275.79	29679276.00	0.0275	0.0010
Venus	76547-08-16 16:48 G	29679505.06	29679505.20	29679505.37	0.0276	0.0186
Mars	76550-09-11 15:08 G	29680626.90	29680627.13	29680627.37	0.0283	0.0140
Moon	76556-08-31 23:32 G	29682808.25	29682808.48	29682808.72	0.0290	0.0088
Earth	76556-09-01 00:29 G	29682808.30	29682808.52	29682808.75	0.0290	0.0104 *
Mercury	76559-11-11 21:22 G	29683975.33	29683975.39	29683975.46	0.0287	0.0260
Mercury	76560-02-08 16:20 G	29684064.03	29684064.18	29684064.34	0.0287	0.0095
Venus	76560-03-13 22:48 G	29684098.37	29684098.45	29684098.54	0.0286	0.0260
Mercury	76560-05-07 11:03 G	29684152.80	29684152.96	29684153.12	0.0286	0.0067
Mercury	76560-08-04 04:48 G	29684241.61	29684241.70	29684241.81	0.0286	0.0223
Venus	76560-10-29 14:10 G	29684327.88	29684328.09	29684328.29	0.0285	0.0068
Venus	76561-06-16 04:20 G	29684557.49	29684557.68	29684557.87	0.0284	0.0122
Mars	76564-10-05 22:34 G	29685765.20	29685765.44	29685765.71	0.0277	0.0163
Earth	76571-02-25 02:53 G	29688098.38	29688098.62	29688098.87	0.0269	0.0032
Moon	76571-02-25 05:03 G	29688098.46	29688098.71	29688098.97	0.0269	0.0043 *
Mercury	76575-02-16 08:24 G	29689550.75	29689550.85	29689550.95	0.0273	0.0196
Mercury	76575-05-15 21:08 G	29689639.24	29689639.38	29689639.52	0.0273	0.0077
Mercury	76575-08-12 10:20 G	29689727.78	29689727.93	29689728.07	0.0273	0.0047
Mercury	76575-11-08 23:32 G	29689816.37	29689816.48	29689816.60	0.0274	0.0172
Venus	76575-11-25 03:51 G	29689832.48	29689832.66	29689832.85	0.0274	0.0133
Venus	76576-07-11 13:12 G	29690061.84	29690062.05	29690062.26	0.0275	0.0040
Venus	76577-02-25 23:17 G	29690291.35	29690291.47	29690291.61	0.0276	0.0215
Earth	76585-08-26 04:05 G	29693394.47	29693394.67	29693394.89	0.0290	0.0141
Moon	76585-08-26 05:32 G	29693394.54	29693394.73	29693394.93	0.0290	0.0158 *
Mercury	76589-06-27 15:22 G	29694796.00	29694796.14	29694796.28	0.0286	0.0151
Venus	76589-09-24 01:27 G	29694884.45	29694884.56	29694884.68	0.0286	0.0235
Mercury	76589-09-24 09:51 G	29694884.75	29694884.91	29694885.08	0.0286	0.0013
Mercury	76589-12-22 04:05 G	29694973.54	29694973.67	29694973.80	0.0285	0.0168
Venus	76590-05-11 16:20 G	29695113.98	29695114.18	29695114.39	0.0284	0.0045
Venus	76590-12-27 06:29 G	29695343.59	29695343.77	29695343.95	0.0283	0.0144

Moon	76600-02-19 14:39 G	29698685.02	29698685.11	29698685.19	0.0269	0.0251
Earth	76600-02-19 16:05 G	29698685.07	29698685.17	29698685.31	0.0269	0.0237 *
Earth	76601-03-04 01:27 G	29699062.41	29699062.56	29699062.73	0.0270	0.0202
Moon	76601-03-04 04:20 G	29699062.52	29699062.68	29699062.85	0.0270	0.0199 *
Mercury	76604-07-06 08:24 G	29700282.80	29700282.85	29700282.92	0.0273	0.0246
Mercury	76604-10-02 21:22 G	29700371.26	29700371.39	29700371.51	0.0273	0.0127
Mercury	76604-12-30 10:05 G	29700459.78	29700459.92	29700460.07	0.0273	0.0010
Mercury	76605-03-28 23:17 G	29700548.34	29700548.47	29700548.61	0.0274	0.0120
Venus	76605-06-07 02:39 G	29700618.42	29700618.61	29700618.80	0.0274	0.0118
Mercury	76605-06-25 12:44 G	29700636.98	29700637.03	29700637.10	0.0274	0.0247
Venus	76606-01-22 12:15 G	29700847.80	29700848.01	29700848.22	0.0275	0.0055
Venus	76606-09-08 22:20 G	29701077.31	29701077.43	29701077.55	0.0277	0.0230
Moon	76615-09-03 19:41 G	29704359.11	29704359.32	29704359.54	0.0290	0.0128
Earth	76615-09-03 23:17 G	29704359.27	29704359.47	29704359.69	0.0290	0.0145 *
Mercury	76618-11-15 14:24 G	29705527.99	29705528.10	29705528.22	0.0287	0.0206
Mercury	76619-02-12 09:22 G	29705616.73	29705616.89	29705617.06	0.0287	0.0042
Venus	76619-04-07 05:17 G	29705670.59	29705670.72	29705670.87	0.0286	0.0211
Mercury	76619-05-12 03:51 G	29705705.51	29705705.66	29705705.81	0.0286	0.0118
Mercury	76619-08-08 21:36 G	29705794.36	29705794.40	29705794.45	0.0286	0.0273
Venus	76619-11-22 20:39 G	29705900.15	29705900.36	29705900.57	0.0285	0.0018
Venus	76620-07-09 11:03 G	29706129.79	29706129.96	29706130.13	0.0284	0.0171
Moon	76630-02-27 01:12 G	29709649.30	29709649.55	29709649.81	0.0269	0.0004
Earth	76630-02-27 03:51 G	29709649.41	29709649.66	29709649.91	0.0269	0.0010 *
Mercury	76633-11-23 11:32 G	29711014.98	29711014.98	29711014.98	0.0272	0.0272
Mercury	76634-02-20 00:00 G	29711103.38	29711103.50	29711103.62	0.0272	0.0155
Venus	76634-05-03 00:44 G	29711175.48	29711175.53	29711175.62	0.0273	0.0256
Mercury	76634-05-19 12:58 G	29711191.89	29711192.04	29711192.18	0.0273	0.0035
Mercury	76634-08-16 01:56 G	29711280.44	29711280.58	29711280.72	0.0273	0.0089
Mercury	76634-11-12 15:22 G	29711369.05	29711369.14	29711369.23	0.0274	0.0216
Venus	76634-12-18 09:36 G	29711404.71	29711404.90	29711405.11	0.0274	0.0087

Venus	76635-08-04 19:12 G	29711634.10	29711634.30	29711634.50	0.0275	0.0086
Venus	76636-03-21 05:17 G	29711863.66	29711863.72	29711863.79	0.0276	0.0260
Mars	76639-02-06 00:58 G	29712915.29	29712915.54	29712915.79	0.0283	0.0102
Earth	76644-08-28 04:20 G	29714945.45	29714945.68	29714945.91	0.0290	0.0097
Moon	76644-08-28 07:56 G	29714945.61	29714945.83	29714946.06	0.0290	0.0115 *
Mercury	76648-04-03 13:27 G	29716260.00	29716260.06	29716260.13	0.0287	0.0262
Mercury	76648-07-01 08:39 G	29716348.70	29716348.86	29716349.01	0.0286	0.0096
Mercury	76648-09-28 03:08 G	29716437.47	29716437.63	29716437.79	0.0286	0.0065
Venus	76648-10-17 08:39 G	29716456.70	29716456.86	29716457.02	0.0286	0.0185
Mercury	76648-12-25 21:08 G	29716526.28	29716526.38	29716526.48	0.0285	0.0221
Venus	76649-06-03 23:32 G	29716686.27	29716686.48	29716686.69	0.0284	0.0007
Venus	76650-01-19 13:41 G	29716915.92	29716916.07	29716916.22	0.0283	0.0194
Mars	76653-03-01 18:00 G	29718052.98	29718053.25	29718053.55	0.0276	0.0127
Earth	76659-02-21 17:46 G	29720236.07	29720236.24	29720236.41	0.0269	0.0195
Moon	76659-02-21 20:24 G	29720236.21	29720236.35	29720236.51	0.0269	0.0207 *
Earth	76660-03-05 02:39 G	29720613.52	29720613.61	29720613.73	0.0269	0.0243
Moon	76660-03-05 06:00 G	29720613.64	29720613.75	29720613.87	0.0269	0.0240 *
Mercury	76663-07-10 00:15 G	29721835.41	29721835.51	29721835.60	0.0273	0.0204
Mercury	76663-10-06 12:58 G	29721923.90	29721924.04	29721924.17	0.0273	0.0085
Venus	76663-11-12 23:32 G	29721961.39	29721961.48	29721961.59	0.0273	0.0241
Mercury	76664-01-03 01:56 G	29722012.43	29722012.58	29722012.72	0.0273	0.0038
Mercury	76664-03-31 14:53 G	29722101.01	29722101.12	29722101.25	0.0274	0.0163
Venus	76664-06-29 08:24 G	29722190.64	29722190.85	29722191.06	0.0274	0.0071
Venus	76665-02-13 18:00 G	29722420.05	29722420.25	29722420.45	0.0275	0.0102
Venus	76665-10-01 03:51 G	29722649.65	29722649.66	29722649.68	0.0277	0.0276
Moon	76674-09-04 21:51 G	29725910.23	29725910.41	29725910.60	0.0290	0.0172
Earth	76674-09-04 22:34 G	29725910.25	29725910.44	29725910.62	0.0290	0.0186 *
Mercury	76677-11-18 07:41 G	29727080.68	29727080.82	29727080.96	0.0287	0.0152
Mercury	76678-02-15 02:24 G	29727169.44	29727169.60	29727169.77	0.0287	0.0012
Venus	76678-04-29 12:00 G	29727242.83	29727243.00	29727243.18	0.0286	0.0160

Mercury	76678-05-14 20:39 G	29727258.23	29727258.36	29727258.49	0.0286	0.0170
Venus	76678-12-15 03:22 G	29727472.43	29727472.64	29727472.85	0.0285	0.0032
Venus	76679-08-01 17:46 G	29727702.12	29727702.24	29727702.38	0.0284	0.0221
Moon	76689-02-28 01:56 G	29731200.34	29731200.58	29731200.82	0.0269	0.0045
Earth	76689-02-28 05:17 G	29731200.48	29731200.72	29731200.96	0.0269	0.0051 *
Mercury	76692-11-26 03:08 G	29732567.56	29732567.63	29732567.70	0.0272	0.0230
Mercury	76693-02-22 15:36 G	29732656.03	29732656.15	29732656.29	0.0272	0.0113
Mercury	76693-05-22 04:34 G	29732744.55	29732744.69	29732744.84	0.0273	0.0012
Venus	76693-05-25 07:12 G	29732747.68	29732747.80	29732747.95	0.0273	0.0209
Mercury	76693-08-18 17:46 G	29732833.12	29732833.24	29732833.37	0.0273	0.0134
Mercury	76693-11-15 07:12 G	29732921.76	29732921.80	29732921.85	0.0274	0.0261
Venus	76694-01-09 16:05 G	29732976.96	29732977.17	29732977.39	0.0274	0.0040
Venus	76694-08-27 01:27 G	29733206.38	29733206.56	29733206.75	0.0275	0.0134
Moon	76703-08-31 05:17 G	29736496.48	29736496.72	29736496.96	0.0290	0.0067
Earth	76703-08-31 05:17 G	29736496.49	29736496.72	29736496.96	0.0290	0.0052 *
Mercury	76707-04-08 06:58 G	29737812.68	29737812.79	29737812.91	0.0287	0.0204
Mercury	76707-07-06 01:56 G	29737901.42	29737901.58	29737901.75	0.0286	0.0041
Mercury	76707-10-02 20:24 G	29737990.21	29737990.35	29737990.50	0.0286	0.0120
Venus	76707-11-10 16:20 G	29738029.00	29738029.18	29738029.37	0.0286	0.0133
Mercury	76707-12-30 14:24 G	29738079.06	29738079.10	29738079.14	0.0285	0.0275
Venus	76708-06-27 07:12 G	29738258.60	29738258.80	29738259.01	0.0284	0.0058
Venus	76709-02-11 21:08 G	29738488.29	29738488.38	29738488.50	0.0283	0.0246
Earth	76718-02-23 20:10 G	29741787.14	29741787.34	29741787.55	0.0269	0.0152
Moon	76718-02-23 23:03 G	29741787.27	29741787.46	29741787.68	0.0269	0.0161 *
Mercury	76722-07-13 16:05 G	29743388.06	29743388.17	29743388.29	0.0272	0.0160
Mercury	76722-10-10 04:48 G	29743476.56	29743476.70	29743476.85	0.0273	0.0040
Venus	76722-12-06 06:29 G	29743533.63	29743533.77	29743533.93	0.0273	0.0194
Mercury	76723-01-06 18:00 G	29743565.11	29743565.25	29743565.39	0.0273	0.0083
Mercury	76723-04-05 07:12 G	29743653.71	29743653.80	29743653.90	0.0274	0.0209
Venus	76723-07-23 15:22 G	29743762.93	29743763.14	29743763.35	0.0274	0.0023

Venus	76724-03-09 00:44 G	29743992.36	29743992.53	29743992.71	0.0275	0.0150
Mars	76727-07-02 20:24 G	29745203.10	29745203.35	29745203.61	0.0283	0.0088
Earth	76733-09-06 22:34 G	29747461.31	29747461.44	29747461.60	0.0290	0.0229
Moon	76733-09-07 02:24 G	29747461.45	29747461.60	29747461.76	0.0290	0.0218 *
Mercury	76736-08-25 05:32 G	29748544.68	29748544.73	29748544.80	0.0288	0.0265
Mercury	76736-11-22 00:58 G	29748633.38	29748633.54	29748633.69	0.0287	0.0098
Mercury	76737-02-18 19:27 G	29748722.15	29748722.31	29748722.47	0.0287	0.0065
Mercury	76737-05-18 13:41 G	29748810.97	29748811.07	29748811.17	0.0286	0.0222
Venus	76737-05-22 19:12 G	29748815.10	29748815.30	29748815.49	0.0286	0.0109
Venus	76738-01-07 10:20 G	29749044.73	29749044.93	29749045.13	0.0285	0.0083
Venus	76738-08-25 00:44 G	29749274.48	29749274.53	29749274.60	0.0284	0.0271
Mars	76741-07-27 06:44 G	29750341.47	29750341.78	29750342.09	0.0277	0.0068
Earth	76748-03-02 07:41 G	29752751.60	29752751.82	29752752.06	0.0269	0.0095
Moon	76748-03-02 09:08 G	29752751.66	29752751.88	29752752.11	0.0269	0.0094 *
Mercury	76751-11-30 19:12 G	29754120.20	29754120.30	29754120.40	0.0272	0.0185
Mercury	76752-02-27 07:56 G	29754208.69	29754208.83	29754208.97	0.0272	0.0066
Mercury	76752-05-25 20:53 G	29754297.23	29754297.37	29754297.51	0.0273	0.0056
Venus	76752-06-17 14:53 G	29754319.95	29754320.12	29754320.29	0.0273	0.0160
Mercury	76752-08-22 10:05 G	29754385.81	29754385.92	29754386.03	0.0273	0.0181
Venus	76753-02-01 23:32 G	29754549.27	29754549.48	29754549.70	0.0274	0.0012
Venus	76753-09-19 08:53 G	29754778.72	29754778.87	29754779.03	0.0275	0.0182
Moon	76762-09-01 04:05 G	29758047.43	29758047.67	29758047.92	0.0290	0.0016
Earth	76762-09-01 07:56 G	29758047.58	29758047.83	29758048.07	0.0290	0.0006 *
Mercury	76766-04-11 00:58 G	29759365.40	29759365.54	29759365.68	0.0287	0.0144
Venus	76766-04-17 09:08 G	29759371.82	29759371.88	29759371.94	0.0287	0.0272
Mercury	76766-07-08 19:41 G	29759454.16	29759454.32	29759454.49	0.0287	0.0021
Mercury	76766-10-05 13:56 G	29759542.96	29759543.08	29759543.21	0.0286	0.0178
Venus	76766-12-03 00:44 G	29759601.33	29759601.53	29759601.73	0.0286	0.0080
Venus	76767-07-20 15:36 G	29759830.96	29759831.15	29759831.35	0.0284	0.0111
Moon	76777-02-24 22:48 G	29763338.22	29763338.45	29763338.69	0.0269	0.0109

Earth	76777-02-25 00:29 G	29763338.30	29763338.52	29763338.75	0.0269	0.0106	*
Mercury	76781-04-18 19:56 G	29764852.25	29764852.33	29764852.40	0.0272	0.0229	
Mercury	76781-07-16 08:24 G	29764940.72	29764940.85	29764940.98	0.0272	0.0112	
Mercury	76781-10-12 21:22 G	29765029.24	29765029.39	29765029.53	0.0273	0.0010	
Venus	76781-12-28 14:53 G	29765105.94	29765106.12	29765106.31	0.0273	0.0143	
Mercury	76782-01-09 10:20 G	29765117.81	29765117.93	29765118.06	0.0273	0.0133	
Mercury	76782-04-07 23:46 G	29765206.45	29765206.49	29765206.54	0.0274	0.0259	
Venus	76782-08-14 23:32 G	29765335.27	29765335.48	29765335.69	0.0274	0.0027	
Venus	76783-04-01 08:53 G	29765564.73	29765564.87	29765565.02	0.0276	0.0200	
Earth	76791-08-26 05:03 G	29768633.62	29768633.71	29768633.82	0.0290	0.0262	
Moon	76791-08-26 08:24 G	29768633.79	29768633.85	29768633.94	0.0290	0.0275	*
Earth	76792-09-08 01:12 G	29769012.49	29769012.55	29769012.64	0.0290	0.0276	
Moon	76792-09-08 03:08 G	29769012.55	29769012.63	29769012.73	0.0290	0.0269	*
Mercury	76795-08-28 23:32 G	29770097.37	29770097.48	29770097.60	0.0288	0.0204	
Venus	76795-10-28 11:32 G	29770157.88	29770157.98	29770158.08	0.0287	0.0249	
Mercury	76795-11-25 18:29 G	29770186.11	29770186.27	29770186.44	0.0287	0.0039	
Mercury	76796-02-22 12:58 G	29770274.90	29770275.04	29770275.19	0.0287	0.0123	
Mercury	76796-05-21 06:58 G	29770363.76	29770363.79	29770363.83	0.0286	0.0278	
Venus	76796-06-14 03:22 G	29770387.43	29770387.64	29770387.85	0.0286	0.0056	
Venus	76797-01-29 18:29 G	29770617.09	29770617.27	29770617.46	0.0285	0.0136	
Earth	76807-03-04 12:00 G	29774302.80	29774303.00	29774303.22	0.0269	0.0141	
Moon	76807-03-04 15:51 G	29774302.96	29774303.16	29774303.38	0.0269	0.0144	*
Mercury	76810-09-05 23:03 G	29775584.41	29775584.46	29775584.51	0.0272	0.0252	
Mercury	76810-12-03 11:32 G	29775672.86	29775672.98	29775673.11	0.0272	0.0136	
Mercury	76811-03-02 00:29 G	29775761.37	29775761.52	29775761.66	0.0272	0.0016	
Mercury	76811-05-29 13:27 G	29775849.93	29775850.06	29775850.20	0.0273	0.0107	
Venus	76811-07-10 23:32 G	29775892.29	29775892.48	29775892.68	0.0273	0.0110	
Mercury	76811-08-26 02:39 G	29775938.54	29775938.61	29775938.69	0.0273	0.0234	
Venus	76812-02-25 08:24 G	29776121.65	29776121.85	29776122.06	0.0274	0.0061	
Venus	76812-10-11 17:46 G	29776351.14	29776351.24	29776351.36	0.0275	0.0233	

Mars	76815-11-26 22:48 G	29777492.18	29777492.45	29777492.72	0.0282	0.0021
Moon	76821-09-02 11:17 G	29779598.74	29779598.97	29779599.21	0.0290	0.0040
Earth	76821-09-02 12:58 G	29779598.80	29779599.04	29779599.28	0.0290	0.0048 *
Mercury	76825-01-15 00:15 G	29780829.42	29780829.51	29780829.59	0.0287	0.0246
Mercury	76825-04-13 19:12 G	29780918.15	29780918.30	29780918.46	0.0287	0.0080
Venus	76825-05-09 18:29 G	29780944.14	29780944.27	29780944.41	0.0287	0.0218
Mercury	76825-07-11 13:56 G	29781006.93	29781007.08	29781007.24	0.0287	0.0082
Mercury	76825-10-08 07:56 G	29781095.75	29781095.83	29781095.92	0.0286	0.0239
Venus	76825-12-25 10:20 G	29781173.72	29781173.93	29781174.14	0.0286	0.0025
Venus	76826-08-12 01:12 G	29781403.38	29781403.55	29781403.72	0.0284	0.0165
Mars	76829-12-20 20:24 G	29782630.03	29782630.35	29782630.67	0.0277	0.0003
Moon	76836-02-27 03:08 G	29784889.39	29784889.63	29784889.88	0.0269	0.0058
Earth	76836-02-27 06:44 G	29784889.54	29784889.78	29784890.03	0.0269	0.0057 *
Mercury	76840-04-21 12:29 G	29786404.92	29786405.02	29786405.13	0.0272	0.0178
Venus	76840-06-04 16:34 G	29786449.14	29786449.19	29786449.27	0.0272	0.0258
Mercury	76840-07-19 01:12 G	29786493.41	29786493.55	29786493.69	0.0272	0.0059
Mercury	76840-10-15 14:10 G	29786581.95	29786582.09	29786582.23	0.0273	0.0063
Mercury	76841-01-12 03:22 G	29786670.54	29786670.64	29786670.75	0.0273	0.0187
Venus	76841-01-20 00:44 G	29786678.33	29786678.53	29786678.74	0.0273	0.0091
Venus	76841-09-06 09:22 G	29786907.69	29786907.89	29786908.10	0.0274	0.0080
Venus	76842-04-23 18:29 G	29787137.20	29787137.27	29787137.36	0.0276	0.0252
Earth	76850-08-27 10:48 G	29790184.79	29790184.95	29790185.12	0.0290	0.0209
Moon	76850-08-27 12:00 G	29790184.85	29790185.00	29790185.18	0.0290	0.0220 *
Mercury	76854-08-31 18:00 G	29791650.10	29791650.25	29791650.39	0.0287	0.0140
Venus	76854-11-19 20:53 G	29791730.22	29791730.37	29791730.53	0.0287	0.0194
Mercury	76854-11-28 12:44 G	29791738.87	29791739.03	29791739.20	0.0287	0.0025
Mercury	76855-02-25 07:12 G	29791827.67	29791827.80	29791827.92	0.0287	0.0184
Venus	76855-07-07 12:58 G	29791959.83	29791960.04	29791960.25	0.0286	0.0003
Venus	76856-02-22 04:05 G	29792189.52	29792189.67	29792189.83	0.0285	0.0190
Earth	76865-02-21 08:39 G	29795476.76	29795476.86	29795476.97	0.0270	0.0244

Moon	76865-02-21 12:15 G	29795476.93	29795477.01	29795477.10	0.0270	0.0253 *
Earth	76866-03-05 18:15 G	29795854.09	29795854.26	29795854.44	0.0269	0.0190
Moon	76866-03-05 18:44 G	29795854.11	29795854.28	29795854.46	0.0269	0.0195 *
Mercury	76869-09-08 15:51 G	29797137.07	29797137.16	29797137.26	0.0272	0.0201
Mercury	76869-12-06 04:34 G	29797225.55	29797225.69	29797225.83	0.0272	0.0082
Venus	76869-12-16 01:27 G	29797235.45	29797235.56	29797235.69	0.0272	0.0225
Mercury	76870-03-04 17:32 G	29797314.08	29797314.23	29797314.37	0.0273	0.0039
Mercury	76870-06-01 06:29 G	29797402.66	29797402.77	29797402.89	0.0273	0.0163
Venus	76870-08-02 09:51 G	29797464.70	29797464.91	29797465.12	0.0273	0.0057
Venus	76871-03-19 18:44 G	29797694.09	29797694.28	29797694.48	0.0274	0.0114
Earth	76880-09-03 20:39 G	29801150.13	29801150.36	29801150.59	0.0290	0.0104
Moon	76880-09-03 22:48 G	29801150.24	29801150.45	29801150.68	0.0290	0.0099 *
Mercury	76884-01-18 19:12 G	29802382.17	29802382.30	29802382.43	0.0287	0.0175
Mercury	76884-04-16 14:10 G	29802470.93	29802471.09	29802471.26	0.0287	0.0012
Venus	76884-06-01 05:46 G	29802516.57	29802516.74	29802516.92	0.0287	0.0161
Mercury	76884-07-14 08:39 G	29802559.72	29802559.86	29802560.00	0.0286	0.0149
Venus	76885-01-16 21:22 G	29802746.18	29802746.39	29802746.60	0.0286	0.0032
Venus	76885-09-03 12:00 G	29802975.88	29802976.00	29802976.14	0.0284	0.0222
Moon	76895-02-28 13:56 G	29806440.84	29806441.08	29806441.32	0.0269	0.0005
Earth	76895-02-28 14:39 G	29806440.87	29806441.11	29806441.36	0.0269	0.0007 *
Mercury	76899-01-26 17:17 G	29807869.16	29807869.22	29807869.29	0.0272	0.0239
Mercury	76899-04-25 05:46 G	29807957.62	29807957.74	29807957.87	0.0272	0.0122
Venus	76899-06-28 03:51 G	29808021.53	29808021.66	29808021.81	0.0272	0.0205
Mercury	76899-07-22 18:44 G	29808046.13	29808046.28	29808046.42	0.0273	0.0006
Mercury	76899-10-19 07:41 G	29808134.69	29808134.82	29808134.95	0.0273	0.0121
Mercury	76900-01-15 20:53 G	29808223.31	29808223.37	29808223.44	0.0273	0.0247
Venus	76900-02-12 12:15 G	29808250.80	29808251.01	29808251.22	0.0274	0.0037
Venus	76900-09-29 20:53 G	29808480.19	29808480.37	29808480.56	0.0275	0.0134
Mars	76904-04-22 12:29 G	29809780.75	29809781.02	29809781.29	0.0282	0.0025
Moon	76909-08-29 17:17 G	29811736.02	29811736.22	29811736.43	0.0290	0.0159

Earth	76909-08-29 19:56 G	29811736.13	29811736.33	29811736.55	0.0290	0.0150	*
Mercury	76913-06-07 17:46 G	29813114.15	29813114.24	29813114.33	0.0288	0.0236	
Mercury	76913-09-04 12:58 G	29813202.88	29813203.04	29813203.20	0.0287	0.0069	
Mercury	76913-12-02 07:41 G	29813291.66	29813291.82	29813291.97	0.0287	0.0093	
Venus	76913-12-13 08:10 G	29813302.66	29813302.84	29813303.03	0.0287	0.0137	
Mercury	76914-03-01 01:41 G	29813380.50	29813380.57	29813380.65	0.0286	0.0250	
Venus	76914-07-31 00:00 G	29813532.30	29813532.50	29813532.71	0.0286	0.0057	
Venus	76915-03-17 14:53 G	29813762.03	29813762.12	29813762.23	0.0284	0.0246	
Mars	76918-05-17 15:36 G	29814918.85	29814919.15	29814919.47	0.0278	0.0068	
Earth	76924-02-24 16:05 G	29817028.00	29817028.17	29817028.35	0.0270	0.0192	
Moon	76924-02-24 17:17 G	29817028.06	29817028.22	29817028.41	0.0270	0.0199	*
Moon	76925-03-07 22:34 G	29817405.36	29817405.44	29817405.54	0.0270	0.0251	
Earth	76925-03-08 02:10 G	29817405.48	29817405.59	29817405.70	0.0270	0.0242	*
Mercury	76928-06-15 20:39 G	29818601.33	29818601.36	29818601.40	0.0272	0.0261	
Mercury	76928-09-12 09:08 G	29818689.76	29818689.88	29818690.00	0.0272	0.0144	
Mercury	76928-12-09 21:51 G	29818778.27	29818778.41	29818778.56	0.0272	0.0026	
Venus	76929-01-08 12:58 G	29818807.88	29818808.04	29818808.21	0.0272	0.0172	
Mercury	76929-03-08 10:48 G	29818866.82	29818866.95	29818867.09	0.0273	0.0098	
Mercury	76929-06-05 00:00 G	29818955.42	29818955.50	29818955.59	0.0273	0.0223	
Venus	76929-08-25 21:22 G	29819037.18	29819037.39	29819037.61	0.0273	0.0004	
Venus	76930-04-12 06:15 G	29819266.60	29819266.76	29819266.93	0.0275	0.0168	
Earth	76939-09-07 06:29 G	29822701.58	29822701.77	29822701.98	0.0290	0.0166	
Moon	76939-09-07 10:05 G	29822701.72	29822701.92	29822702.13	0.0290	0.0158	*
Mercury	76942-10-25 19:27 G	29823846.26	29823846.31	29823846.38	0.0288	0.0267	
Mercury	76943-01-22 14:53 G	29823934.96	29823935.12	29823935.27	0.0287	0.0100	
Mercury	76943-04-21 09:36 G	29824023.74	29824023.90	29824024.06	0.0287	0.0063	
Venus	76943-06-25 18:15 G	29824089.06	29824089.26	29824089.46	0.0287	0.0102	
Mercury	76943-07-19 03:51 G	29824112.56	29824112.66	29824112.76	0.0286	0.0220	
Venus	76944-02-10 09:36 G	29824318.70	29824318.90	29824319.10	0.0285	0.0090	
Venus	76944-09-27 00:15 G	29824548.48	29824548.51	29824548.56	0.0284	0.0278	

Earth	76954-03-03 00:29 G	29827992.27	29827992.52	29827992.76	0.0269	0.0050
Moon	76954-03-03 03:22 G	29827992.40	29827992.64	29827992.88	0.0269	0.0052 *
Mercury	76958-01-30 10:48 G	29829421.85	29829421.95	29829422.06	0.0272	0.0180
Mercury	76958-04-28 23:32 G	29829510.34	29829510.48	29829510.62	0.0272	0.0062
Venus	76958-07-21 16:20 G	29829594.01	29829594.18	29829594.36	0.0273	0.0150
Mercury	76958-07-26 12:29 G	29829598.87	29829599.02	29829599.16	0.0273	0.0060
Mercury	76958-10-23 01:27 G	29829687.46	29829687.56	29829687.67	0.0273	0.0184
Venus	76959-03-08 00:44 G	29829823.32	29829823.53	29829823.75	0.0274	0.0020
Venus	76959-10-23 09:22 G	29830052.75	29830052.89	29830053.05	0.0275	0.0191
Moon	76968-08-31 04:05 G	29833287.45	29833287.67	29833287.90	0.0290	0.0095
Earth	76968-08-31 07:27 G	29833287.58	29833287.81	29833288.05	0.0290	0.0086 *
Venus	76972-05-20 04:34 G	29834645.63	29834645.69	29834645.77	0.0287	0.0271
Mercury	76972-06-10 13:27 G	29834666.93	29834667.06	29834667.20	0.0287	0.0159
Mercury	76972-09-07 08:39 G	29834755.69	29834755.86	29834756.02	0.0287	0.0010
Mercury	76972-12-05 02:53 G	29834844.49	29834844.62	29834844.76	0.0287	0.0166
Venus	76973-01-04 20:53 G	29834875.17	29834875.37	29834875.57	0.0286	0.0077
Venus	76973-08-22 12:29 G	29835104.83	29835105.02	29835105.22	0.0285	0.0115
Moon	76983-02-25 21:36 G	29838579.19	29838579.40	29838579.62	0.0270	0.0141
Earth	76983-02-26 00:44 G	29838579.32	29838579.53	29838579.75	0.0270	0.0138 *
Mercury	76987-06-19 13:56 G	29840153.99	29840154.08	29840154.18	0.0272	0.0204
Mercury	76987-09-16 02:39 G	29840242.47	29840242.61	29840242.75	0.0272	0.0086
Mercury	76987-12-13 15:36 G	29840331.00	29840331.15	29840331.29	0.0273	0.0036
Venus	76988-02-01 01:12 G	29840380.36	29840380.55	29840380.75	0.0273	0.0117
Mercury	76988-03-11 04:34 G	29840419.57	29840419.69	29840419.81	0.0273	0.0159
Venus	76988-09-17 09:51 G	29840609.70	29840609.91	29840610.12	0.0274	0.0052
Venus	76989-05-04 18:44 G	29840839.17	29840839.28	29840839.41	0.0275	0.0224
Mars	76992-09-17 07:56 G	29842070.59	29842070.83	29842071.07	0.0282	0.0130
Moon	76998-09-08 19:56 G	29844253.18	29844253.33	29844253.49	0.0290	0.0226
Earth	76998-09-08 19:56 G	29844253.19	29844253.33	29844253.48	0.0290	0.0231 *

78TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 78th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	77001-10-29 15:51	G	29845399.04	29845399.16	29845399.29	0.0288	0.0186	
Venus	77001-12-01 16:05	G	29845432.06	29845432.17	29845432.30	0.0287	0.0234	
Mercury	77002-01-26 11:03	G	29845487.79	29845487.96	29845488.12	0.0287	0.0020	
Mercury	77002-04-25 05:32	G	29845576.59	29845576.73	29845576.87	0.0287	0.0140	
Venus	77002-07-19 08:10	G	29845661.63	29845661.84	29845662.05	0.0286	0.0041	
Venus	77003-03-05 23:17	G	29845891.30	29845891.47	29845891.65	0.0285	0.0151	
Mars	77006-10-13 08:10	G	29847208.61	29847208.84	29847209.10	0.0277	0.0178	
Earth	77013-03-05 10:34	G	29849543.72	29849543.94	29849544.17	0.0269	0.0106	
Moon	77013-03-05 13:56	G	29849543.85	29849544.08	29849544.31	0.0269	0.0108	*
Mercury	77016-11-06 16:05	G	29850886.11	29850886.17	29850886.24	0.0272	0.0236	
Venus	77016-12-27 21:51	G	29850937.35	29850937.41	29850937.47	0.0272	0.0259	
Mercury	77017-02-03 04:34	G	29850974.57	29850974.69	29850974.82	0.0272	0.0120	
Mercury	77017-05-02 17:32	G	29851063.08	29851063.23	29851063.37	0.0273	0.0008	
Mercury	77017-07-30 06:29	G	29851151.64	29851151.77	29851151.90	0.0273	0.0123	
Venus	77017-08-14 05:46	G	29851166.53	29851166.74	29851166.94	0.0273	0.0093	
Mercury	77017-10-26 19:41	G	29851240.26	29851240.32	29851240.38	0.0273	0.0249	
Venus	77018-03-31 13:56	G	29851395.88	29851396.08	29851396.29	0.0274	0.0077	
Venus	77018-11-15 22:48	G	29851625.37	29851625.45	29851625.55	0.0275	0.0248	
Earth	77027-09-03 21:08	G	29854839.14	29854839.38	29854839.62	0.0290	0.0019	
Moon	77027-09-03 21:51	G	29854839.18	29854839.41	29854839.65	0.0290	0.0024	*

Mercury	77031-03-18 14:24 G	29856131.02	29856131.10	29856131.19	0.0287	0.0245
Venus	77031-06-13 18:44 G	29856218.14	29856218.28	29856218.42	0.0287	0.0209
Mercury	77031-06-15 09:36 G	29856219.75	29856219.90	29856220.06	0.0287	0.0079
Mercury	77031-09-12 04:34 G	29856308.53	29856308.69	29856308.84	0.0287	0.0084
Mercury	77031-12-09 22:34 G	29856397.36	29856397.44	29856397.53	0.0286	0.0241
Venus	77032-01-29 10:34 G	29856447.73	29856447.94	29856448.15	0.0286	0.0018
Venus	77032-09-15 01:56 G	29856677.42	29856677.58	29856677.75	0.0285	0.0175
Moon	77042-02-28 06:58 G	29860130.57	29860130.79	29860131.03	0.0270	0.0083
Earth	77042-02-28 10:05 G	29860130.69	29860130.92	29860131.16	0.0270	0.0083 *
Mercury	77046-03-26 19:12 G	29861618.26	29861618.30	29861618.34	0.0272	0.0261
Mercury	77046-06-23 07:27 G	29861706.70	29861706.81	29861706.94	0.0272	0.0146
Venus	77046-07-10 05:17 G	29861723.61	29861723.72	29861723.84	0.0272	0.0230
Mercury	77046-09-19 20:24 G	29861795.20	29861795.35	29861795.49	0.0272	0.0026
Mercury	77046-12-17 09:22 G	29861883.75	29861883.89	29861884.02	0.0273	0.0097
Venus	77047-02-24 13:56 G	29861952.87	29861953.08	29861953.28	0.0273	0.0063
Mercury	77047-03-15 22:34 G	29861972.36	29861972.44	29861972.53	0.0273	0.0222
Venus	77047-10-11 22:34 G	29862182.25	29862182.44	29862182.64	0.0274	0.0108
Moon	77056-08-28 12:29 G	29865425.90	29865426.02	29865426.16	0.0290	0.0244
Earth	77056-08-28 13:41 G	29865425.94	29865426.07	29865426.22	0.0290	0.0238 *
Mercury	77060-08-04 17:03 G	29866863.16	29866863.21	29866863.27	0.0288	0.0270
Mercury	77060-11-01 12:29 G	29866951.86	29866952.02	29866952.17	0.0287	0.0103
Venus	77060-12-24 06:44 G	29867004.62	29867004.78	29867004.95	0.0287	0.0172
Mercury	77061-01-29 07:12 G	29867040.64	29867040.80	29867040.96	0.0287	0.0060
Mercury	77061-04-28 01:27 G	29867129.46	29867129.56	29867129.67	0.0287	0.0218
Venus	77061-08-10 22:34 G	29867234.23	29867234.44	29867234.65	0.0286	0.0021
Venus	77062-03-28 13:27 G	29867463.93	29867464.06	29867464.21	0.0285	0.0211
Moon	77072-03-06 19:41 G	29871095.13	29871095.32	29871095.53	0.0269	0.0169
Earth	77072-03-06 21:08 G	29871095.19	29871095.38	29871095.58	0.0269	0.0162 *
Mercury	77075-11-10 09:51 G	29872438.80	29872438.91	29872439.02	0.0272	0.0176
Venus	77076-01-20 10:48 G	29872509.81	29872509.95	29872510.09	0.0272	0.0205

Mercury	77076-02-06 22:20 G	29872527.29	29872527.43	29872527.58	0.0272	0.0059
Mercury	77076-05-05 11:17 G	29872615.83	29872615.97	29872616.11	0.0273	0.0063
Mercury	77076-08-02 00:29 G	29872704.41	29872704.52	29872704.62	0.0273	0.0187
Venus	77076-09-05 18:44 G	29872739.07	29872739.28	29872739.50	0.0273	0.0037
Venus	77077-04-23 03:22 G	29872968.45	29872968.64	29872968.83	0.0274	0.0133
Mars	77081-02-12 12:58 G	29874359.87	29874360.04	29874360.24	0.0282	0.0206
Earth	77086-09-05 12:00 G	29876390.77	29876391.00	29876391.24	0.0290	0.0050
Moon	77086-09-05 15:51 G	29876390.92	29876391.16	29876391.40	0.0290	0.0048 *
Mercury	77090-03-21 11:17 G	29877683.83	29877683.97	29877684.11	0.0287	0.0160
Mercury	77090-06-18 06:15 G	29877772.60	29877772.76	29877772.93	0.0287	0.0005
Venus	77090-07-06 09:51 G	29877790.73	29877790.91	29877791.09	0.0287	0.0147
Mercury	77090-09-15 00:44 G	29877861.40	29877861.53	29877861.67	0.0286	0.0164
Venus	77091-02-21 01:27 G	29878020.35	29878020.56	29878020.77	0.0286	0.0045
Venus	77091-10-08 16:20 G	29878250.07	29878250.18	29878250.30	0.0284	0.0235
Mars	77095-03-09 08:39 G	29879497.77	29879497.86	29879497.98	0.0277	0.0261
Earth	77101-03-02 18:58 G	29881682.04	29881682.29	29881682.54	0.0270	0.0029
Moon	77101-03-02 20:39 G	29881682.12	29881682.36	29881682.60	0.0270	0.0025 *
Mercury	77105-03-30 12:29 G	29883170.93	29883171.02	29883171.11	0.0272	0.0204
Mercury	77105-06-27 00:58 G	29883259.41	29883259.54	29883259.68	0.0272	0.0087
Venus	77105-08-02 17:17 G	29883296.06	29883296.22	29883296.39	0.0273	0.0177
Mercury	77105-09-23 13:56 G	29883347.93	29883348.08	29883348.22	0.0273	0.0035
Mercury	77105-12-21 02:53 G	29883436.51	29883436.62	29883436.74	0.0273	0.0158
Venus	77106-03-20 01:56 G	29883525.37	29883525.58	29883525.79	0.0274	0.0008
Venus	77106-11-04 10:48 G	29883754.79	29883754.95	29883755.13	0.0275	0.0163
Moon	77115-09-01 00:29 G	29886977.33	29886977.52	29886977.71	0.0290	0.0175
Earth	77115-09-01 04:05 G	29886977.48	29886977.67	29886977.87	0.0290	0.0171 *
Mercury	77119-08-09 13:56 G	29888415.95	29888416.08	29888416.21	0.0288	0.0185
Mercury	77119-11-06 08:53 G	29888504.71	29888504.87	29888505.04	0.0287	0.0021
Venus	77120-01-17 21:36 G	29888577.20	29888577.40	29888577.59	0.0287	0.0110
Mercury	77120-02-03 03:36 G	29888593.51	29888593.65	29888593.79	0.0287	0.0141

Venus	77120-09-03 12:58 G	29888806.84	29888807.04	29888807.25	0.0286	0.0083
Venus	77121-04-21 03:36 G	29889036.60	29889036.65	29889036.72	0.0284	0.0271
Moon	77130-02-25 20:10 G	29892269.20	29892269.34	29892269.51	0.0269	0.0217
Earth	77130-02-25 21:36 G	29892269.26	29892269.40	29892269.55	0.0269	0.0216 *
Moon	77131-03-10 03:08 G	29892646.51	29892646.63	29892646.77	0.0269	0.0228
Earth	77131-03-10 06:58 G	29892646.65	29892646.79	29892646.95	0.0269	0.0216 *
Mercury	77134-08-17 14:53 G	29893903.05	29893903.12	29893903.19	0.0272	0.0234
Mercury	77134-11-14 03:22 G	29893991.51	29893991.64	29893991.77	0.0272	0.0117
Mercury	77135-02-10 16:05 G	29894080.03	29894080.17	29894080.32	0.0273	0.0006
Venus	77135-02-12 23:03 G	29894082.29	29894082.46	29894082.65	0.0273	0.0151
Mercury	77135-05-10 05:03 G	29894168.58	29894168.71	29894168.84	0.0273	0.0126
Mercury	77135-08-06 18:15 G	29894257.21	29894257.26	29894257.32	0.0273	0.0251
Venus	77135-09-30 07:27 G	29894311.60	29894311.81	29894312.03	0.0274	0.0020
Venus	77136-05-16 16:20 G	29894541.03	29894541.18	29894541.34	0.0275	0.0189
Earth	77145-09-08 02:24 G	29897942.38	29897942.60	29897942.82	0.0290	0.0117
Moon	77145-09-08 03:51 G	29897942.44	29897942.66	29897942.89	0.0290	0.0117 *
Venus	77148-12-12 08:24 G	29899133.80	29899133.85	29899133.90	0.0287	0.0277
Mercury	77148-12-26 12:29 G	29899147.94	29899148.02	29899148.11	0.0287	0.0243
Mercury	77149-03-25 07:56 G	29899236.67	29899236.83	29899236.99	0.0287	0.0077
Mercury	77149-06-22 02:39 G	29899325.45	29899325.61	29899325.77	0.0286	0.0085
Venus	77149-07-30 00:29 G	29899363.32	29899363.52	29899363.72	0.0286	0.0085
Mercury	77149-09-18 20:53 G	29899414.29	29899414.37	29899414.45	0.0286	0.0242
Venus	77150-03-16 15:51 G	29899592.96	29899593.16	29899593.35	0.0285	0.0106
Earth	77160-03-04 02:53 G	29903233.38	29903233.62	29903233.87	0.0270	0.0024
Moon	77160-03-04 06:44 G	29903233.53	29903233.78	29903234.02	0.0270	0.0031 *
Mercury	77164-01-04 17:03 G	29904635.19	29904635.21	29904635.24	0.0272	0.0266
Mercury	77164-04-02 05:32 G	29904723.61	29904723.73	29904723.85	0.0272	0.0149
Mercury	77164-06-29 18:15 G	29904812.12	29904812.26	29904812.40	0.0273	0.0030
Venus	77164-08-25 04:20 G	29904868.50	29904868.68	29904868.88	0.0273	0.0125
Mercury	77164-09-26 07:12 G	29904900.66	29904900.80	29904900.94	0.0273	0.0092

Mercury	77164-12-23 20:24 G	29904989.26	29904989.35	29904989.44	0.0273	0.0217
Venus	77165-04-11 12:58 G	29905097.83	29905098.04	29905098.26	0.0274	0.0046
Venus	77165-11-26 22:20 G	29905327.30	29905327.43	29905327.56	0.0275	0.0216
Moon	77174-09-02 15:22 G	29908528.93	29908529.14	29908529.37	0.0290	0.0112
Earth	77174-09-02 17:17 G	29908528.99	29908529.22	29908529.44	0.0290	0.0106 *
Mercury	77178-05-15 14:53 G	29909880.07	29909880.12	29909880.18	0.0288	0.0270
Venus	77178-06-24 19:56 G	29909920.23	29909920.33	29909920.45	0.0288	0.0242
Mercury	77178-08-12 10:20 G	29909968.78	29909968.93	29909969.09	0.0287	0.0102
Mercury	77178-11-09 05:17 G	29910057.56	29910057.72	29910057.88	0.0287	0.0061
Mercury	77179-02-05 23:32 G	29910146.38	29910146.48	29910146.59	0.0287	0.0219
Venus	77179-02-09 12:00 G	29910149.80	29910150.00	29910150.21	0.0287	0.0049
Venus	77179-09-27 03:22 G	29910379.46	29910379.64	29910379.82	0.0285	0.0143
Moon	77189-02-27 02:24 G	29913820.41	29913820.60	29913820.80	0.0269	0.0163
Earth	77189-02-27 06:00 G	29913820.56	29913820.75	29913820.95	0.0269	0.0163 *
Earth	77190-03-11 15:08 G	29914198.12	29914198.13	29914198.17	0.0269	0.0268
Venus	77193-07-21 02:24 G	29915425.56	29915425.60	29915425.66	0.0272	0.0263
Mercury	77193-08-20 08:10 G	29915455.73	29915455.84	29915455.94	0.0272	0.0178
Mercury	77193-11-16 20:39 G	29915544.22	29915544.36	29915544.50	0.0272	0.0060
Mercury	77194-02-13 09:22 G	29915632.75	29915632.89	29915633.04	0.0273	0.0062
Venus	77194-03-07 10:20 G	29915654.74	29915654.93	29915655.14	0.0273	0.0098
Mercury	77194-05-12 22:34 G	29915721.34	29915721.44	29915721.55	0.0273	0.0185
Venus	77194-10-22 18:58 G	29915884.09	29915884.29	29915884.50	0.0274	0.0072
Venus	77195-06-09 03:51 G	29916113.57	29916113.66	29916113.77	0.0275	0.0243
Moon	77204-09-09 12:58 G	29919493.86	29919494.04	29919494.24	0.0290	0.0186
Earth	77204-09-09 15:36 G	29919493.97	29919494.15	29919494.35	0.0290	0.0183 *
Mercury	77207-12-30 09:08 G	29920700.74	29920700.88	29920701.02	0.0287	0.0160
Venus	77208-01-04 22:34 G	29920706.32	29920706.44	29920706.59	0.0287	0.0217
Mercury	77208-03-28 04:05 G	29920789.51	29920789.67	29920789.84	0.0286	0.0006
Mercury	77208-06-24 22:34 G	29920878.31	29920878.44	29920878.58	0.0286	0.0164
Venus	77208-08-21 14:39 G	29920935.90	29920936.11	29920936.32	0.0286	0.0024

Venus	77209-04-08 05:46 G	29921165.57	29921165.74	29921165.91	0.0285	0.0166
Earth	77219-03-06 09:22 G	29924784.66	29924784.89	29924785.13	0.0270	0.0074
Moon	77219-03-06 10:20 G	29924784.68	29924784.93	29924785.17	0.0270	0.0081 *
Mercury	77223-01-07 09:51 G	29926187.82	29926187.91	29926188.00	0.0272	0.0214
Venus	77223-01-31 06:00 G	29926211.66	29926211.75	29926211.85	0.0272	0.0241
Mercury	77223-04-05 22:20 G	29926276.30	29926276.43	29926276.56	0.0272	0.0097
Mercury	77223-07-03 11:03 G	29926364.82	29926364.96	29926365.11	0.0273	0.0024
Venus	77223-09-17 14:24 G	29926440.89	29926441.10	29926441.31	0.0273	0.0074
Mercury	77223-09-30 00:00 G	29926453.38	29926453.50	29926453.63	0.0273	0.0147
Mercury	77223-12-27 13:27 G	29926542.06	29926542.06	29926542.07	0.0274	0.0273
Venus	77224-05-03 23:03 G	29926670.27	29926670.46	29926670.67	0.0274	0.0096
Venus	77224-12-19 08:24 G	29926899.81	29926899.85	29926899.91	0.0275	0.0267
Mars	77227-10-18 20:24 G	29927933.29	29927933.35	29927933.44	0.0281	0.0271
Earth	77233-09-04 04:05 G	29930080.43	29930080.67	29930080.91	0.0290	0.0045
Moon	77233-09-04 06:15 G	29930080.53	29930080.76	29930081.00	0.0290	0.0049 *
Mercury	77237-05-18 11:03 G	29931432.84	29931432.96	29931433.09	0.0288	0.0190
Venus	77237-07-17 09:22 G	29931492.74	29931492.89	29931493.06	0.0287	0.0182
Mercury	77237-08-15 06:15 G	29931521.60	29931521.76	29931521.93	0.0287	0.0025
Mercury	77237-11-12 00:58 G	29931610.40	29931610.54	29931610.68	0.0287	0.0137
Venus	77238-03-04 01:27 G	29931722.35	29931722.56	29931722.77	0.0286	0.0012
Venus	77238-10-19 16:20 G	29931952.04	29931952.18	29931952.33	0.0285	0.0202
Moon	77248-02-29 11:17 G	29935371.75	29935371.97	29935372.19	0.0269	0.0113
Earth	77248-02-29 12:29 G	29935371.81	29935372.02	29935372.26	0.0269	0.0114 *
Mercury	77252-05-26 12:15 G	29936919.96	29936920.01	29936920.08	0.0272	0.0243
Venus	77252-08-12 12:15 G	29936997.88	29936998.01	29936998.14	0.0272	0.0213
Mercury	77252-08-23 00:44 G	29937008.41	29937008.53	29937008.66	0.0272	0.0127
Mercury	77252-11-19 13:27 G	29937096.92	29937097.06	29937097.21	0.0272	0.0008
Mercury	77253-02-16 02:24 G	29937185.47	29937185.60	29937185.73	0.0273	0.0115
Venus	77253-03-29 20:24 G	29937227.14	29937227.35	29937227.56	0.0273	0.0046
Mercury	77253-05-15 15:36 G	29937274.08	29937274.15	29937274.22	0.0273	0.0240

Venus	77253-11-14 04:48 G	29937456.51	29937456.70	29937456.90	0.0274	0.0124
Earth	77262-08-29 06:00 G	29940666.75	29940666.75	29940666.76	0.0290	0.0290
Moon	77263-09-11 23:03 G	29941045.35	29941045.46	29941045.60	0.0290	0.0246
Earth	77263-09-12 02:24 G	29941045.48	29941045.60	29941045.74	0.0290	0.0243 *
Mercury	77266-10-05 09:36 G	29942164.83	29942164.90	29942164.99	0.0287	0.0249
Mercury	77267-01-02 05:03 G	29942253.55	29942253.71	29942253.87	0.0287	0.0082
Venus	77267-01-27 12:15 G	29942278.83	29942279.01	29942279.18	0.0287	0.0157
Mercury	77267-04-01 00:00 G	29942342.34	29942342.50	29942342.66	0.0286	0.0080
Mercury	77267-06-28 18:15 G	29942431.17	29942431.26	29942431.35	0.0286	0.0238
Venus	77267-09-14 03:51 G	29942508.45	29942508.66	29942508.87	0.0286	0.0035
Venus	77268-04-30 18:44 G	29942738.15	29942738.28	29942738.41	0.0284	0.0224
Moon	77278-03-07 11:17 G	29946335.75	29946335.97	29946336.19	0.0269	0.0130
Earth	77278-03-07 14:24 G	29946335.88	29946336.10	29946336.33	0.0269	0.0120 *
Mercury	77282-01-10 01:56 G	29947740.47	29947740.58	29947740.70	0.0272	0.0167
Venus	77282-02-22 14:10 G	29947783.95	29947784.09	29947784.25	0.0272	0.0194
Mercury	77282-04-08 14:39 G	29947828.97	29947829.11	29947829.25	0.0273	0.0048
Mercury	77282-07-06 03:36 G	29947917.51	29947917.65	29947917.79	0.0273	0.0073
Mercury	77282-10-02 16:34 G	29948006.09	29948006.19	29948006.29	0.0273	0.0198
Venus	77282-10-09 22:34 G	29948013.23	29948013.44	29948013.66	0.0273	0.0027
Venus	77283-05-27 07:27 G	29948242.64	29948242.81	29948243.00	0.0274	0.0145
Earth	77292-09-05 12:15 G	29951631.77	29951632.01	29951632.25	0.0291	0.0011
Moon	77292-09-05 15:51 G	29951631.91	29951632.16	29951632.40	0.0291	0.0009 *
Mercury	77296-02-22 11:03 G	29952896.95	29952896.96	29952896.99	0.0288	0.0285
Mercury	77296-05-21 06:29 G	29952985.63	29952985.77	29952985.93	0.0288	0.0117
Venus	77296-08-08 21:36 G	29953065.21	29953065.40	29953065.59	0.0287	0.0123
Mercury	77296-08-18 01:41 G	29953074.41	29953074.57	29953074.73	0.0287	0.0048
Mercury	77296-11-14 20:10 G	29953163.23	29953163.34	29953163.45	0.0287	0.0207
Venus	77297-03-26 13:27 G	29953294.85	29953295.06	29953295.26	0.0286	0.0070
Venus	77297-11-11 04:05 G	29953524.59	29953524.67	29953524.76	0.0285	0.0258
Earth	77307-03-03 17:17 G	29956922.99	29956923.22	29956923.47	0.0269	0.0068

Moon	77307-03-03 20:24 G	29956923.11	29956923.35	29956923.59	0.0269	0.0063 *
Mercury	77311-05-31 04:34 G	29958472.60	29958472.69	29958472.79	0.0272	0.0196
Mercury	77311-08-27 17:17 G	29958561.08	29958561.22	29958561.35	0.0272	0.0078
Venus	77311-09-05 20:39 G	29958570.19	29958570.36	29958570.53	0.0272	0.0165
Mercury	77311-11-24 06:00 G	29958649.60	29958649.75	29958649.89	0.0272	0.0043
Mercury	77312-02-20 18:58 G	29958738.17	29958738.29	29958738.41	0.0273	0.0165
Venus	77312-04-22 04:48 G	29958799.48	29958799.70	29958799.91	0.0273	0.0003
Venus	77312-12-07 13:27 G	29959028.90	29959029.06	29959029.23	0.0274	0.0173
Mars	77316-03-14 15:08 G	29960221.96	29960222.13	29960222.32	0.0281	0.0212
Moon	77321-08-31 10:48 G	29962217.82	29962217.95	29962218.09	0.0290	0.0237
Earth	77321-08-31 13:56 G	29962217.95	29962218.08	29962218.23	0.0290	0.0235 *
Mercury	77325-10-09 05:03 G	29963717.58	29963717.71	29963717.85	0.0287	0.0176
Mercury	77326-01-06 00:15 G	29963806.35	29963806.51	29963806.68	0.0287	0.0013
Venus	77326-02-19 23:46 G	29963851.30	29963851.49	29963851.70	0.0286	0.0100
Mercury	77326-04-04 18:58 G	29963895.15	29963895.29	29963895.43	0.0286	0.0150
Venus	77326-10-07 15:22 G	29964080.95	29964081.14	29964081.34	0.0285	0.0093
Venus	77327-05-25 06:00 G	29964310.72	29964310.75	29964310.79	0.0284	0.0279
Mars	77330-04-03 20:39 G	29965355.19	29965355.36	29965355.57	0.0278	0.0223
Moon	77336-02-26 05:46 G	29967509.69	29967509.74	29967509.80	0.0269	0.0262
Earth	77336-02-26 09:08 G	29967509.85	29967509.88	29967509.93	0.0269	0.0266
Moon	77337-03-09 14:39 G	29967886.94	29967887.11	29967887.31	0.0269	0.0176
Earth	77337-03-09 17:32 G	29967887.04	29967887.23	29967887.43	0.0269	0.0163 *
Mercury	77340-10-17 05:32 G	29969204.67	29969204.73	29969204.80	0.0272	0.0239
Mercury	77341-01-13 18:00 G	29969293.12	29969293.25	29969293.38	0.0272	0.0122
Venus	77341-03-17 21:22 G	29969356.21	29969356.39	29969356.57	0.0272	0.0147
Mercury	77341-04-12 06:44 G	29969381.63	29969381.78	29969381.92	0.0273	0.0007
Mercury	77341-07-09 19:27 G	29969470.18	29969470.31	29969470.45	0.0273	0.0120
Mercury	77341-10-06 08:39 G	29969558.80	29969558.86	29969558.93	0.0273	0.0245
Venus	77341-11-02 05:32 G	29969585.52	29969585.73	29969585.95	0.0273	0.0022
Venus	77342-06-19 14:24 G	29969814.96	29969815.10	29969815.26	0.0275	0.0192

Moon	77351-09-08 16:20 G	29973182.94	29973183.18	29973183.43	0.0291	0.0064
Earth	77351-09-08 17:03 G	29973182.97	29973183.21	29973183.45	0.0291	0.0060 *
Venus	77355-01-15 15:36 G	29974408.06	29974408.15	29974408.24	0.0288	0.0261
Mercury	77355-02-26 06:00 G	29974449.64	29974449.75	29974449.86	0.0288	0.0216
Mercury	77355-05-26 01:12 G	29974538.39	29974538.55	29974538.72	0.0288	0.0050
Mercury	77355-08-22 20:10 G	29974627.19	29974627.34	29974627.49	0.0287	0.0113
Venus	77355-09-02 08:10 G	29974637.63	29974637.84	29974638.04	0.0287	0.0067
Mercury	77355-11-19 14:24 G	29974716.05	29974716.10	29974716.15	0.0287	0.0271
Venus	77356-04-18 23:32 G	29974867.30	29974867.48	29974867.68	0.0286	0.0125
Earth	77366-03-04 20:39 G	29978474.12	29978474.36	29978474.61	0.0269	0.0025
Moon	77366-03-04 23:46 G	29978474.24	29978474.49	29978474.74	0.0269	0.0015 *
Mercury	77370-03-06 08:10 G	29979936.82	29979936.84	29979936.87	0.0271	0.0267
Mercury	77370-06-02 20:24 G	29980025.24	29980025.35	29980025.47	0.0272	0.0152
Mercury	77370-08-30 09:08 G	29980113.74	29980113.88	29980114.02	0.0272	0.0033
Venus	77370-09-28 03:36 G	29980142.46	29980142.65	29980142.85	0.0272	0.0118
Mercury	77370-11-26 21:51 G	29980202.28	29980202.41	29980202.55	0.0272	0.0088
Mercury	77371-02-23 11:03 G	29980290.87	29980290.96	29980291.05	0.0273	0.0212
Venus	77371-05-15 11:46 G	29980371.78	29980371.99	29980372.20	0.0273	0.0050
Venus	77371-12-30 20:24 G	29980601.23	29980601.35	29980601.48	0.0274	0.0219
Earth	77380-09-01 18:44 G	29983769.11	29983769.28	29983769.48	0.0290	0.0185
Moon	77380-09-01 20:10 G	29983769.17	29983769.34	29983769.54	0.0290	0.0182 *
Mercury	77384-07-15 04:20 G	29985181.64	29985181.68	29985181.73	0.0288	0.0277
Venus	77384-07-27 18:00 G	29985194.14	29985194.25	29985194.38	0.0288	0.0237
Mercury	77384-10-12 00:00 G	29985270.34	29985270.50	29985270.65	0.0287	0.0108
Mercury	77385-01-08 18:58 G	29985359.13	29985359.29	29985359.45	0.0287	0.0056
Venus	77385-03-14 10:20 G	29985423.73	29985423.93	29985424.14	0.0286	0.0044
Mercury	77385-04-07 13:27 G	29985447.95	29985448.06	29985448.17	0.0286	0.0214
Venus	77385-10-30 01:41 G	29985653.40	29985653.57	29985653.75	0.0285	0.0147
Jupiter	77387-03-15 22:05 G	29986155.01	29986155.42	29986155.86	0.0282	0.0074
Moon	77395-02-27 08:53 G	29989060.73	29989060.87	29989061.02	0.0269	0.0217

Earth	77395-02-27 11:17 G	29989060.85	29989060.97	29989061.12	0.0269	0.0224	*
Earth	77396-03-10 18:58 G	29989438.14	29989438.29	29989438.47	0.0269	0.0204	
Moon	77396-03-10 20:53 G	29989438.24	29989438.37	29989438.52	0.0269	0.0219	*
Venus	77399-08-23 19:27 G	29990699.28	29990699.31	29990699.36	0.0272	0.0266	
Mercury	77399-10-20 21:08 G	29990757.28	29990757.38	29990757.48	0.0272	0.0198	
Mercury	77400-01-17 09:36 G	29990845.76	29990845.90	29990846.04	0.0272	0.0081	
Venus	77400-04-10 03:08 G	29990928.44	29990928.63	29990928.83	0.0272	0.0101	
Mercury	77400-04-15 22:20 G	29990934.28	29990934.43	29990934.57	0.0273	0.0040	
Mercury	77400-07-13 11:17 G	29991022.85	29991022.97	29991023.09	0.0273	0.0162	
Venus	77400-11-25 11:32 G	29991157.77	29991157.98	29991158.19	0.0274	0.0067	
Venus	77401-07-12 20:24 G	29991387.25	29991387.35	29991387.46	0.0275	0.0237	
Mars	77404-08-08 19:12 G	29992510.10	29992510.30	29992510.52	0.0281	0.0178	
Moon	77410-09-10 15:36 G	29994733.93	29994734.15	29994734.37	0.0291	0.0115	
Earth	77410-09-10 19:12 G	29994734.08	29994734.30	29994734.54	0.0291	0.0106	*
Venus	77414-02-08 00:15 G	29995980.38	29995980.51	29995980.66	0.0288	0.0208	
Mercury	77414-03-02 00:00 G	29996002.37	29996002.50	29996002.65	0.0288	0.0155	
Mercury	77414-05-29 19:27 G	29996091.14	29996091.31	29996091.47	0.0288	0.0013	
Mercury	77414-08-26 13:56 G	29996179.96	29996180.08	29996180.22	0.0287	0.0173	
Venus	77414-09-25 17:03 G	29996210.00	29996210.21	29996210.42	0.0287	0.0014	
Venus	77415-05-13 08:24 G	29996439.69	29996439.85	29996440.02	0.0286	0.0178	
Mars	77418-08-30 01:12 G	29997644.28	29997644.55	29997644.84	0.0278	0.0133	
Moon	77425-03-06 20:24 G	30000025.10	30000025.35	30000025.61	0.0268	0.0029	
Earth	77425-03-06 22:34 G	30000025.19	30000025.44	30000025.69	0.0268	0.0017	*
Venus	77429-03-06 01:56 G	30001485.49	30001485.58	30001485.69	0.0271	0.0236	
Mercury	77429-03-09 23:46 G	30001489.42	30001489.49	30001489.57	0.0271	0.0226	
Mercury	77429-06-06 12:00 G	30001577.88	30001578.00	30001578.14	0.0272	0.0110	
Mercury	77429-09-03 00:44 G	30001666.39	30001666.53	30001666.68	0.0272	0.0009	
Venus	77429-10-21 09:36 G	30001714.70	30001714.90	30001715.11	0.0272	0.0072	
Mercury	77429-11-30 13:41 G	30001754.94	30001755.07	30001755.20	0.0272	0.0131	
Mercury	77430-02-27 02:53 G	30001843.57	30001843.62	30001843.67	0.0273	0.0255	

Venus	77430-06-07 17:32 G	30001944.04	30001944.23	30001944.44	0.0273	0.0097
Venus	77431-01-23 02:24 G	30002173.56	30002173.60	30002173.66	0.0275	0.0265
Earth	77439-09-04 20:53 G	30005320.17	30005320.37	30005320.59	0.0291	0.0139
Moon	77439-09-05 00:29 G	30005320.31	30005320.52	30005320.75	0.0291	0.0131 *
Mercury	77443-07-19 22:20 G	30006734.33	30006734.43	30006734.55	0.0288	0.0215
Venus	77443-08-21 02:53 G	30006766.46	30006766.62	30006766.79	0.0288	0.0183
Mercury	77443-10-16 18:00 G	30006823.09	30006823.25	30006823.41	0.0287	0.0047
Mercury	77444-01-13 12:44 G	30006911.89	30006912.03	30006912.19	0.0287	0.0116
Venus	77444-04-06 19:12 G	30006996.09	30006996.30	30006996.51	0.0286	0.0010
Mercury	77444-04-11 07:12 G	30007000.75	30007000.80	30007000.85	0.0286	0.0273
Venus	77444-11-22 10:20 G	30007225.80	30007225.93	30007226.09	0.0285	0.0200
Earth	77454-03-01 12:58 G	30010611.87	30010612.04	30010612.23	0.0269	0.0183
Moon	77454-03-01 15:08 G	30010611.95	30010612.13	30010612.31	0.0269	0.0173 *
Earth	77455-03-13 20:10 G	30010989.24	30010989.34	30010989.45	0.0269	0.0243
Moon	77455-03-13 23:46 G	30010989.44	30010989.49	30010989.57	0.0269	0.0260 *
Venus	77458-09-16 00:58 G	30012271.43	30012271.54	30012271.67	0.0271	0.0221
Mercury	77458-10-24 12:29 G	30012309.91	30012310.02	30012310.14	0.0272	0.0158
Mercury	77459-01-21 00:58 G	30012398.40	30012398.54	30012398.69	0.0272	0.0041
Mercury	77459-04-19 13:41 G	30012486.94	30012487.07	30012487.21	0.0272	0.0081
Venus	77459-05-03 08:39 G	30012500.65	30012500.86	30012501.07	0.0272	0.0056
Mercury	77459-07-17 02:39 G	30012575.52	30012575.61	30012575.71	0.0273	0.0204
Venus	77459-12-18 16:48 G	30012730.00	30012730.20	30012730.39	0.0274	0.0112
Moon	77469-09-11 18:29 G	30016285.08	30016285.27	30016285.47	0.0291	0.0160
Earth	77469-09-11 19:12 G	30016285.09	30016285.30	30016285.51	0.0291	0.0147 *
Mercury	77472-12-05 22:05 G	30017466.36	30017466.42	30017466.48	0.0289	0.0267
Venus	77473-03-02 07:56 G	30017552.66	30017552.83	30017553.01	0.0288	0.0156
Mercury	77473-03-04 17:32 G	30017555.08	30017555.23	30017555.39	0.0288	0.0098
Mercury	77473-06-01 12:44 G	30017643.87	30017644.03	30017644.19	0.0288	0.0068
Mercury	77473-08-29 07:27 G	30017732.71	30017732.81	30017732.90	0.0287	0.0228
Venus	77473-10-18 00:29 G	30017782.32	30017782.52	30017782.73	0.0287	0.0039

Venus	77474-06-04 16:05 G	30018012.05	30018012.17	30018012.30	0.0286	0.0229
Moon	77484-03-07 19:41 G	30021576.09	30021576.32	30021576.57	0.0268	0.0072
Earth	77484-03-07 23:17 G	30021576.23	30021576.47	30021576.72	0.0268	0.0056 *
Mercury	77488-03-12 15:08 G	30023042.03	30023042.13	30023042.24	0.0271	0.0186
Venus	77488-03-28 07:27 G	30023057.67	30023057.81	30023057.97	0.0271	0.0191
Mercury	77488-06-09 03:36 G	30023130.51	30023130.65	30023130.79	0.0271	0.0070
Mercury	77488-09-05 16:20 G	30023219.04	30023219.18	30023219.32	0.0272	0.0050
Venus	77488-11-12 15:08 G	30023286.92	30023287.13	30023287.34	0.0272	0.0026
Mercury	77488-12-03 05:17 G	30023307.61	30023307.72	30023307.83	0.0272	0.0172
Venus	77489-06-29 23:03 G	30023516.29	30023516.46	30023516.65	0.0273	0.0142
Mars	77493-01-02 04:05 G	30024798.44	30024798.67	30024798.91	0.0281	0.0141
Earth	77498-09-05 22:05 G	30026871.19	30026871.42	30026871.65	0.0291	0.0095
Moon	77498-09-05 22:20 G	30026871.19	30026871.43	30026871.68	0.0291	0.0085 *
Mercury	77502-07-23 16:20 G	30028287.04	30028287.18	30028287.32	0.0288	0.0155
Venus	77502-09-13 11:03 G	30028338.77	30028338.96	30028339.14	0.0288	0.0131
Mercury	77502-10-20 11:32 G	30028375.82	30028375.98	30028376.15	0.0287	0.0012
Mercury	77503-01-17 06:15 G	30028464.63	30028464.76	30028464.89	0.0287	0.0172
Venus	77503-05-01 03:08 G	30028568.43	30028568.63	30028568.84	0.0286	0.0062
Venus	77503-12-16 18:29 G	30028798.18	30028798.27	30028798.38	0.0285	0.0251
Mars	77507-01-23 22:48 G	30029932.15	30029932.45	30029932.75	0.0278	0.0093
Earth	77513-03-03 13:56 G	30032162.88	30032163.08	30032163.30	0.0269	0.0144
Moon	77513-03-03 17:32 G	30032163.02	30032163.23	30032163.45	0.0269	0.0132 *
Mercury	77517-07-31 15:36 G	30033774.08	30033774.15	30033774.22	0.0271	0.0233
Venus	77517-10-09 06:29 G	30033843.61	30033843.77	30033843.93	0.0271	0.0176
Mercury	77517-10-28 03:51 G	30033862.54	30033862.66	30033862.79	0.0271	0.0119
Mercury	77518-01-24 16:34 G	30033951.04	30033951.19	30033951.33	0.0272	0.0007
Mercury	77518-04-23 05:17 G	30034039.59	30034039.72	30034039.85	0.0272	0.0121
Venus	77518-05-26 13:56 G	30034072.86	30034073.08	30034073.29	0.0272	0.0012
Mercury	77518-07-20 18:15 G	30034128.20	30034128.26	30034128.33	0.0273	0.0245
Venus	77519-01-10 21:51 G	30034302.24	30034302.41	30034302.59	0.0274	0.0157

Earth	77528-09-13 17:32 G	30037836.05	30037836.23	30037836.42	0.0291	0.0186
Moon	77528-09-13 20:39 G	30037836.20	30037836.36	30037836.55	0.0291	0.0203 *
Mercury	77531-12-10 15:08 G	30039019.02	30039019.13	30039019.24	0.0289	0.0213
Mercury	77532-03-08 10:48 G	30039107.78	30039107.95	30039108.11	0.0288	0.0045
Venus	77532-03-25 14:39 G	30039124.91	30039125.11	30039125.31	0.0288	0.0105
Mercury	77532-06-05 05:46 G	30039196.59	30039196.74	30039196.89	0.0288	0.0120
Mercury	77532-09-02 00:15 G	30039285.47	30039285.51	30039285.55	0.0288	0.0279
Venus	77532-11-10 07:12 G	30039354.60	30039354.80	30039355.00	0.0287	0.0089
Venus	77533-06-27 22:48 G	30039584.41	30039584.45	30039584.50	0.0286	0.0278
Earth	77543-03-11 00:00 G	30043127.28	30043127.50	30043127.74	0.0268	0.0096
Moon	77543-03-11 00:15 G	30043127.30	30043127.51	30043127.74	0.0268	0.0111 *
Mercury	77546-12-18 18:29 G	30044506.24	30044506.27	30044506.31	0.0271	0.0260
Mercury	77547-03-17 06:44 G	30044594.66	30044594.78	30044594.90	0.0271	0.0146
Venus	77547-04-21 13:12 G	30044629.87	30044630.05	30044630.23	0.0271	0.0146
Mercury	77547-06-13 19:12 G	30044683.15	30044683.30	30044683.44	0.0271	0.0029
Mercury	77547-09-10 07:56 G	30044771.69	30044771.83	30044771.97	0.0272	0.0091
Venus	77547-12-06 20:39 G	30044859.15	30044859.36	30044859.57	0.0272	0.0019
Mercury	77547-12-07 20:53 G	30044860.28	30044860.37	30044860.46	0.0272	0.0214
Venus	77548-07-23 04:34 G	30045088.54	30045088.69	30045088.85	0.0273	0.0187
Moon	77557-09-07 18:15 G	30048422.02	30048422.26	30048422.51	0.0291	0.0041
Earth	77557-09-07 21:51 G	30048422.17	30048422.41	30048422.64	0.0291	0.0053 *
Venus	77561-02-18 00:58 G	30049681.49	30049681.54	30049681.61	0.0289	0.0274
Mercury	77561-04-28 13:56 G	30049751.03	30049751.08	30049751.14	0.0289	0.0270
Mercury	77561-07-26 09:36 G	30049839.75	30049839.90	30049840.06	0.0288	0.0100
Venus	77561-10-05 18:15 G	30049911.06	30049911.26	30049911.46	0.0288	0.0079
Mercury	77561-10-23 04:48 G	30049928.54	30049928.70	30049928.87	0.0288	0.0066
Mercury	77562-01-19 23:17 G	30050017.38	30050017.47	30050017.58	0.0287	0.0227
Venus	77562-05-23 10:34 G	30050140.75	30050140.94	30050141.13	0.0286	0.0114
Moon	77572-03-04 15:36 G	30053713.91	30053714.15	30053714.39	0.0268	0.0091
Earth	77572-03-04 15:22 G	30053713.92	30053714.14	30053714.38	0.0268	0.0104 *

Mercury	77576-08-03 06:58 G	30055326.70	30055326.79	30055326.89	0.0271	0.0194
Mercury	77576-10-30 19:27 G	30055415.17	30055415.31	30055415.45	0.0271	0.0078
Venus	77576-10-31 12:00 G	30055415.82	30055416.00	30055416.19	0.0271	0.0131
Mercury	77577-01-27 07:56 G	30055503.69	30055503.83	30055503.98	0.0272	0.0042
Mercury	77577-04-25 20:53 G	30055592.25	30055592.37	30055592.49	0.0272	0.0162
Venus	77577-06-17 19:27 G	30055645.10	30055645.31	30055645.52	0.0272	0.0034
Venus	77578-02-02 03:22 G	30055874.50	30055874.64	30055874.79	0.0274	0.0202
Mars	77581-05-28 20:53 G	30057086.12	30057086.37	30057086.61	0.0281	0.0132
Earth	77587-09-15 16:20 G	30059387.04	30059387.18	30059387.35	0.0291	0.0227
Moon	77587-09-15 18:58 G	30059387.15	30059387.29	30059387.43	0.0291	0.0241 *
Venus	77590-08-31 03:51 G	30060467.56	30060467.66	30060467.77	0.0289	0.0249
Mercury	77590-12-13 08:24 G	30060571.71	30060571.85	30060571.99	0.0289	0.0159
Mercury	77591-03-12 03:51 G	30060660.49	30060660.66	30060660.82	0.0288	0.0009
Venus	77591-04-17 21:22 G	30060697.18	30060697.39	30060697.59	0.0288	0.0054
Mercury	77591-06-08 22:34 G	30060749.31	30060749.44	30060749.58	0.0288	0.0172
Venus	77591-12-03 13:56 G	30060926.90	30060927.08	30060927.26	0.0287	0.0139
Mars	77595-06-19 09:51 G	30062220.60	30062220.91	30062221.23	0.0279	0.0037
Earth	77602-03-12 00:58 G	30064678.34	30064678.54	30064678.76	0.0268	0.0135
Moon	77602-03-12 04:34 G	30064678.49	30064678.69	30064678.90	0.0268	0.0151 *
Venus	77605-09-26 12:29 G	30065972.98	30065973.02	30065973.08	0.0270	0.0262
Mercury	77605-12-21 10:05 G	30066058.84	30066058.92	30066059.00	0.0270	0.0219
Mercury	77606-03-19 22:20 G	30066147.30	30066147.43	30066147.56	0.0271	0.0104
Venus	77606-05-13 19:12 G	30066202.11	30066202.30	30066202.51	0.0271	0.0100
Mercury	77606-06-16 10:48 G	30066235.81	30066235.95	30066236.10	0.0271	0.0015
Mercury	77606-09-12 23:32 G	30066324.36	30066324.48	30066324.61	0.0272	0.0135
Mercury	77606-12-10 12:29 G	30066412.99	30066413.02	30066413.08	0.0272	0.0258
Venus	77606-12-29 02:39 G	30066431.41	30066431.61	30066431.82	0.0272	0.0066
Venus	77607-08-15 10:34 G	30066660.84	30066660.94	30066661.06	0.0273	0.0233
Moon	77616-09-08 19:41 G	30069973.08	30069973.32	30069973.55	0.0291	0.0005
Earth	77616-09-08 21:51 G	30069973.16	30069973.41	30069973.65	0.0291	0.0011 *

Venus	77620-03-12 08:24 G	30071253.72	30071253.85	30071253.98	0.0289	0.0223
Mercury	77620-05-01 07:27 G	30071303.70	30071303.81	30071303.93	0.0289	0.0213
Mercury	77620-07-29 03:08 G	30071392.46	30071392.63	30071392.79	0.0288	0.0044
Mercury	77620-10-25 22:05 G	30071481.27	30071481.42	30071481.57	0.0288	0.0120
Venus	77620-10-28 01:27 G	30071483.35	30071483.56	30071483.77	0.0288	0.0028
Mercury	77621-01-22 16:34 G	30071570.16	30071570.19	30071570.23	0.0287	0.0279
Venus	77621-06-14 17:46 G	30071713.07	30071713.24	30071713.41	0.0286	0.0164
Moon	77631-03-06 14:24 G	30075264.85	30075265.10	30075265.35	0.0268	0.0046
Earth	77631-03-06 18:00 G	30075265.01	30075265.25	30075265.49	0.0268	0.0061 *
Venus	77635-04-08 12:00 G	30076758.92	30076759.00	30076759.09	0.0270	0.0246
Mercury	77635-05-10 10:34 G	30076790.92	30076790.94	30076790.98	0.0271	0.0265
Mercury	77635-08-06 22:48 G	30076879.34	30076879.45	30076879.57	0.0271	0.0151
Mercury	77635-11-03 11:17 G	30076967.83	30076967.97	30076968.11	0.0271	0.0034
Venus	77635-11-23 18:29 G	30076988.07	30076988.27	30076988.48	0.0271	0.0085
Mercury	77636-01-31 00:00 G	30077056.36	30077056.50	30077056.64	0.0272	0.0085
Mercury	77636-04-28 12:58 G	30077144.94	30077145.04	30077145.13	0.0272	0.0207
Venus	77636-07-10 01:56 G	30077217.38	30077217.58	30077217.78	0.0272	0.0082
Venus	77637-02-24 09:51 G	30077446.83	30077446.91	30077447.01	0.0274	0.0248
Earth	77645-09-02 16:48 G	30080559.12	30080559.20	30080559.31	0.0291	0.0268
Moon	77645-09-02 18:44 G	30080559.17	30080559.28	30080559.41	0.0291	0.0253 *
Moon	77646-09-16 13:41 G	30080938.03	30080938.07	30080938.14	0.0291	0.0283
Earth	77646-09-16 15:51 G	30080938.08	30080938.16	30080938.27	0.0291	0.0268 *
Mercury	77649-09-18 05:32 G	30082035.69	30082035.73	30082035.78	0.0289	0.0277
Venus	77649-09-22 10:20 G	30082039.79	30082039.93	30082040.09	0.0289	0.0199
Mercury	77649-12-16 01:27 G	30082124.41	30082124.56	30082124.72	0.0289	0.0106
Mercury	77650-03-14 20:39 G	30082213.20	30082213.36	30082213.53	0.0289	0.0062
Venus	77650-05-10 03:51 G	30082269.45	30082269.66	30082269.87	0.0288	0.0005
Mercury	77650-06-11 15:22 G	30082302.05	30082302.14	30082302.25	0.0288	0.0223
Venus	77650-12-25 20:24 G	30082499.20	30082499.35	30082499.52	0.0287	0.0190
Earth	77660-02-29 20:10 G	30085852.25	30085852.34	30085852.45	0.0269	0.0246

Moon	77660-03-01 00:00 G	30085852.38	30085852.50	30085852.62	0.0269	0.0232	*
Earth	77661-03-13 03:22 G	30086229.45	30086229.64	30086229.82	0.0268	0.0177	
Moon	77661-03-13 05:03 G	30086229.54	30086229.71	30086229.90	0.0268	0.0191	*
Venus	77664-10-18 19:27 G	30087545.19	30087545.31	30087545.45	0.0270	0.0215	
Mercury	77664-12-24 01:56 G	30087611.47	30087611.58	30087611.69	0.0270	0.0176	
Mercury	77665-03-22 14:10 G	30087699.96	30087700.09	30087700.24	0.0271	0.0061	
Venus	77665-06-05 02:24 G	30087774.39	30087774.60	30087774.81	0.0271	0.0053	
Mercury	77665-06-19 02:53 G	30087788.48	30087788.62	30087788.76	0.0271	0.0058	
Mercury	77665-09-15 15:36 G	30087877.05	30087877.15	30087877.26	0.0272	0.0180	
Venus	77666-01-20 09:36 G	30088003.71	30088003.90	30088004.10	0.0272	0.0113	
Mars	77669-10-22 14:10 G	30089374.83	30089375.09	30089375.35	0.0281	0.0081	
Earth	77675-09-10 23:46 G	30091524.25	30091524.49	30091524.73	0.0291	0.0036	
Moon	77675-09-11 01:56 G	30091524.35	30091524.58	30091524.81	0.0291	0.0052	*
Venus	77679-04-04 16:34 G	30092826.03	30092826.19	30092826.36	0.0289	0.0170	
Mercury	77679-05-05 01:12 G	30092856.42	30092856.55	30092856.70	0.0289	0.0154	
Mercury	77679-08-01 20:53 G	30092945.20	30092945.37	30092945.53	0.0288	0.0015	
Mercury	77679-10-29 15:51 G	30093034.03	30093034.16	30093034.28	0.0288	0.0177	
Venus	77679-11-20 09:36 G	30093055.69	30093055.90	30093056.11	0.0288	0.0025	
Venus	77680-07-07 01:56 G	30093285.45	30093285.58	30093285.72	0.0286	0.0217	
Mars	77683-11-12 13:27 G	30094508.74	30094509.06	30094509.37	0.0278	0.0013	
Moon	77690-03-07 19:27 G	30096816.07	30096816.31	30096816.55	0.0268	0.0003	
Earth	77690-03-07 21:22 G	30096816.14	30096816.39	30096816.64	0.0268	0.0018	*
Venus	77694-04-30 19:41 G	30098331.18	30098331.32	30098331.47	0.0270	0.0198	
Mercury	77694-05-13 02:53 G	30098343.54	30098343.62	30098343.70	0.0270	0.0219	
Mercury	77694-08-09 14:53 G	30098431.99	30098432.12	30098432.26	0.0271	0.0105	
Mercury	77694-11-06 03:36 G	30098520.50	30098520.65	30098520.79	0.0271	0.0015	
Venus	77694-12-16 02:24 G	30098560.39	30098560.60	30098560.81	0.0271	0.0035	
Mercury	77695-02-02 16:05 G	30098609.05	30098609.17	30098609.30	0.0272	0.0133	
Mercury	77695-05-02 05:03 G	30098697.67	30098697.71	30098697.77	0.0272	0.0256	
Venus	77695-08-02 09:36 G	30098789.72	30098789.90	30098790.09	0.0272	0.0130	

Moon	77704-09-04 16:05 G	30102110.00	30102110.17	30102110.35	0.0291	0.0203
Earth	77704-09-04 19:12 G	30102110.15	30102110.30	30102110.46	0.0291	0.0221 *
Mercury	77708-09-21 23:17 G	30103588.36	30103588.47	30103588.58	0.0289	0.0219
Venus	77708-10-15 18:00 G	30103612.08	30103612.25	30103612.44	0.0289	0.0148
Mercury	77708-12-19 18:58 G	30103677.13	30103677.29	30103677.46	0.0289	0.0049
Mercury	77709-03-18 14:10 G	30103765.94	30103766.09	30103766.24	0.0288	0.0117
Venus	77709-06-02 11:32 G	30103841.77	30103841.98	30103842.19	0.0288	0.0049
Mercury	77709-06-15 08:53 G	30103854.83	30103854.87	30103854.91	0.0288	0.0277
Venus	77710-01-18 03:51 G	30104071.56	30104071.66	30104071.79	0.0287	0.0241
Earth	77719-03-03 23:32 G	30107403.33	30107403.48	30107403.65	0.0269	0.0201
Moon	77719-03-04 01:41 G	30107403.39	30107403.57	30107403.75	0.0269	0.0185 *
Moon	77720-03-15 03:51 G	30107780.56	30107780.66	30107780.80	0.0268	0.0235
Earth	77720-03-15 06:58 G	30107780.65	30107780.79	30107780.93	0.0268	0.0221 *
Mercury	77723-10-01 06:00 G	30109075.69	30109075.75	30109075.81	0.0270	0.0242
Venus	77723-11-12 03:36 G	30109117.49	30109117.65	30109117.82	0.0270	0.0167
Mercury	77723-12-28 18:15 G	30109164.13	30109164.26	30109164.38	0.0270	0.0129
Mercury	77724-03-26 06:44 G	30109252.63	30109252.78	30109252.92	0.0271	0.0014
Mercury	77724-06-22 19:12 G	30109341.17	30109341.30	30109341.44	0.0271	0.0108
Venus	77724-06-28 10:34 G	30109346.73	30109346.94	30109347.15	0.0271	0.0003
Mercury	77724-09-19 08:10 G	30109429.77	30109429.84	30109429.92	0.0272	0.0229
Venus	77725-02-12 18:00 G	30109576.08	30109576.25	30109576.42	0.0272	0.0162
Earth	77734-09-13 03:22 G	30113075.42	30113075.64	30113075.88	0.0291	0.0086
Moon	77734-09-13 06:58 G	30113075.56	30113075.79	30113076.02	0.0291	0.0103 *
Mercury	77738-02-08 23:32 G	30114320.42	30114320.48	30114320.56	0.0289	0.0262
Venus	77738-04-28 01:27 G	30114398.37	30114398.56	30114398.76	0.0289	0.0117
Mercury	77738-05-08 19:27 G	30114409.16	30114409.31	30114409.47	0.0289	0.0091
Mercury	77738-08-05 14:53 G	30114497.96	30114498.12	30114498.28	0.0288	0.0075
Mercury	77738-11-02 09:22 G	30114586.81	30114586.89	30114586.99	0.0288	0.0237
Venus	77738-12-13 18:29 G	30114628.07	30114628.27	30114628.48	0.0288	0.0079
Venus	77739-07-31 10:48 G	30114857.89	30114857.95	30114858.03	0.0286	0.0270

Earth	77749-03-10 02:24 G	30118367.36	30118367.60	30118367.85	0.0268	0.0029
Moon	77749-03-10 05:17 G	30118367.48	30118367.72	30118367.96	0.0268	0.0045 *
Mercury	77753-05-16 19:12 G	30119896.20	30119896.30	30119896.42	0.0270	0.0170
Venus	77753-05-24 04:48 G	30119903.52	30119903.70	30119903.88	0.0271	0.0149
Mercury	77753-08-13 07:41 G	30119984.68	30119984.82	30119984.96	0.0271	0.0055
Mercury	77753-11-09 20:10 G	30120073.20	30120073.34	30120073.48	0.0271	0.0064
Venus	77754-01-08 11:32 G	30120132.77	30120132.98	30120133.19	0.0271	0.0015
Mercury	77754-02-06 08:53 G	30120161.77	30120161.87	30120161.98	0.0272	0.0185
Venus	77754-08-25 18:44 G	30120362.12	30120362.28	30120362.44	0.0273	0.0181
Mars	77758-03-18 18:44 G	30121663.02	30121663.28	30121663.56	0.0281	0.0052
Moon	77763-09-06 21:22 G	30123661.19	30123661.39	30123661.59	0.0291	0.0152
Earth	77763-09-07 00:00 G	30123661.31	30123661.50	30123661.70	0.0291	0.0169 *
Venus	77767-03-23 09:22 G	30124954.89	30124954.89	30124954.92	0.0290	0.0289
Mercury	77767-09-25 17:46 G	30125141.10	30125141.24	30125141.38	0.0289	0.0155
Venus	77767-11-08 03:22 G	30125184.45	30125184.64	30125184.84	0.0289	0.0093
Mercury	77767-12-23 13:12 G	30125229.88	30125230.05	30125230.22	0.0289	0.0014
Mercury	77768-03-21 08:10 G	30125318.71	30125318.84	30125318.97	0.0288	0.0178
Venus	77768-06-24 20:39 G	30125414.17	30125414.36	30125414.56	0.0288	0.0103
Mars	77772-04-07 23:32 G	30126797.18	30126797.48	30126797.79	0.0279	0.0068
Moon	77778-03-05 01:27 G	30128954.35	30128954.56	30128954.79	0.0269	0.0138
Earth	77778-03-05 04:20 G	30128954.49	30128954.68	30128954.89	0.0269	0.0154 *
Earth	77779-03-17 11:46 G	30129331.98	30129331.99	30129332.02	0.0268	0.0268
Mercury	77782-10-03 22:34 G	30130628.34	30130628.44	30130628.54	0.0270	0.0193
Venus	77782-12-04 12:58 G	30130689.85	30130690.04	30130690.24	0.0270	0.0117
Mercury	77782-12-31 10:48 G	30130716.82	30130716.95	30130717.09	0.0271	0.0078
Mercury	77783-03-29 23:17 G	30130805.33	30130805.47	30130805.62	0.0271	0.0040
Mercury	77783-06-26 12:00 G	30130893.89	30130894.00	30130894.12	0.0271	0.0160
Venus	77783-07-21 19:56 G	30130919.12	30130919.33	30130919.54	0.0271	0.0047
Venus	77784-03-07 03:36 G	30131148.52	30131148.65	30131148.78	0.0272	0.0213
Moon	77793-09-14 09:36 G	30134626.69	30134626.90	30134627.12	0.0291	0.0156

Earth	77793-09-14 10:20 G	30134626.73	30134626.93	30134627.15	0.0291	0.0141	*
Venus	77796-10-02 18:29 G	30135741.18	30135741.27	30135741.37	0.0290	0.0256	
Mercury	77797-02-11 18:44 G	30135873.15	30135873.28	30135873.40	0.0289	0.0192	
Mercury	77797-05-11 14:24 G	30135961.93	30135962.10	30135962.26	0.0289	0.0024	
Venus	77797-05-20 12:15 G	30135970.80	30135971.01	30135971.21	0.0289	0.0060	
Mercury	77797-08-08 09:22 G	30136050.75	30136050.89	30136051.04	0.0288	0.0142	
Venus	77798-01-05 05:03 G	30136200.53	30136200.71	30136200.90	0.0288	0.0135	
Earth	77808-03-12 09:22 G	30139918.65	30139918.89	30139919.13	0.0268	0.0078	
Moon	77808-03-12 12:29 G	30139918.79	30139919.02	30139919.26	0.0268	0.0093	*
Venus	77811-10-31 09:08 G	30141246.82	30141246.88	30141246.94	0.0270	0.0257	
Mercury	77812-02-22 00:00 G	30141360.44	30141360.50	30141360.58	0.0270	0.0231	
Mercury	77812-05-20 12:15 G	30141448.88	30141449.01	30141449.14	0.0271	0.0117	
Venus	77812-06-16 15:22 G	30141475.94	30141476.14	30141476.34	0.0271	0.0097	
Mercury	77812-08-17 00:44 G	30141537.38	30141537.53	30141537.67	0.0271	0.0003	
Mercury	77812-11-13 13:12 G	30141625.93	30141626.05	30141626.19	0.0271	0.0120	
Venus	77813-01-31 22:20 G	30141705.22	30141705.43	30141705.63	0.0272	0.0068	
Mercury	77813-02-10 02:10 G	30141714.53	30141714.59	30141714.66	0.0272	0.0241	
Venus	77813-09-18 05:32 G	30141934.63	30141934.73	30141934.84	0.0273	0.0233	
Earth	77822-09-09 08:10 G	30145212.62	30145212.84	30145213.07	0.0291	0.0113	
Moon	77822-09-09 09:51 G	30145212.69	30145212.91	30145213.13	0.0291	0.0097	*
Venus	77826-04-15 20:24 G	30146527.23	30146527.35	30146527.48	0.0290	0.0232	
Mercury	77826-07-02 16:48 G	30146605.12	30146605.20	30146605.27	0.0289	0.0257	
Mercury	77826-09-29 12:29 G	30146693.86	30146694.02	30146694.18	0.0289	0.0086	
Venus	77826-12-01 14:10 G	30146756.88	30146757.09	30146757.30	0.0289	0.0036	
Mercury	77826-12-27 07:56 G	30146782.67	30146782.83	30146782.99	0.0289	0.0081	
Mercury	77827-03-26 02:39 G	30146871.53	30146871.61	30146871.70	0.0288	0.0243	
Venus	77827-07-19 07:12 G	30146986.63	30146986.80	30146986.98	0.0288	0.0159	
Moon	77837-03-07 07:56 G	30150505.60	30150505.83	30150506.06	0.0269	0.0090	
Earth	77837-03-07 10:48 G	30150505.72	30150505.95	30150506.18	0.0269	0.0105	*
Venus	77841-05-12 17:03 G	30152033.10	30152033.21	30152033.32	0.0270	0.0227	

Mercury	77841-07-11 03:22 G	30152092.60	30152092.64	30152092.69	0.0270	0.0253
Mercury	77841-10-07 15:22 G	30152181.03	30152181.14	30152181.27	0.0270	0.0141
Venus	77841-12-27 23:32 G	30152262.27	30152262.48	30152262.69	0.0271	0.0065
Mercury	77842-01-04 03:51 G	30152269.52	30152269.66	30152269.81	0.0271	0.0024
Mercury	77842-04-02 16:34 G	30152358.05	30152358.19	30152358.32	0.0271	0.0095
Mercury	77842-06-30 05:17 G	30152446.64	30152446.72	30152446.81	0.0271	0.0217
Venus	77842-08-14 06:44 G	30152491.58	30152491.78	30152491.98	0.0272	0.0099
Venus	77843-03-31 14:10 G	30152721.05	30152721.09	30152721.15	0.0273	0.0265
Mars	77846-08-14 07:12 G	30153952.53	30153952.80	30153953.07	0.0280	0.0041
Moon	77852-09-16 16:20 G	30156178.03	30156178.18	30156178.35	0.0291	0.0214
Earth	77852-09-16 20:24 G	30156178.17	30156178.35	30156178.52	0.0291	0.0199 *
Venus	77855-10-27 06:58 G	30157313.64	30157313.79	30157313.95	0.0290	0.0198
Mercury	77855-11-19 18:15 G	30157337.26	30157337.26	30157337.27	0.0289	0.0289
Mercury	77856-02-16 14:24 G	30157425.95	30157426.10	30157426.25	0.0289	0.0117
Mercury	77856-05-15 09:51 G	30157514.75	30157514.91	30157515.07	0.0289	0.0050
Venus	77856-06-13 00:29 G	30157543.31	30157543.52	30157543.73	0.0289	0.0001
Mercury	77856-08-12 04:34 G	30157603.59	30157603.69	30157603.81	0.0288	0.0213
Venus	77857-01-28 17:03 G	30157773.06	30157773.21	30157773.37	0.0287	0.0193
Mars	77860-09-03 04:34 G	30159086.44	30159086.69	30159086.95	0.0279	0.0160
Moon	77867-03-14 16:20 G	30161469.97	30161470.18	30161470.41	0.0268	0.0141
Earth	77867-03-14 17:46 G	30161470.03	30161470.24	30161470.46	0.0268	0.0130 *
Venus	77870-11-22 20:24 G	30162819.22	30162819.35	30162819.49	0.0270	0.0205
Mercury	77871-02-24 17:17 G	30162913.12	30162913.22	30162913.33	0.0270	0.0175
Mercury	77871-05-24 05:32 G	30163001.59	30163001.73	30163001.87	0.0271	0.0060
Venus	77871-07-10 02:53 G	30163048.41	30163048.62	30163048.83	0.0271	0.0043
Mercury	77871-08-20 18:00 G	30163090.11	30163090.25	30163090.40	0.0271	0.0058
Mercury	77871-11-17 06:44 G	30163178.68	30163178.78	30163178.90	0.0271	0.0179
Venus	77872-02-24 10:05 G	30163277.73	30163277.92	30163278.11	0.0272	0.0121
Earth	77881-09-10 19:27 G	30166764.08	30166764.31	30166764.55	0.0291	0.0051
Moon	77881-09-10 23:03 G	30166764.22	30166764.46	30166764.70	0.0291	0.0034 *

Venus	77885-05-08 09:08 G	30168099.72	30168099.88	30168100.06	0.0289	0.0174
Mercury	77885-07-05 12:29 G	30168157.90	30168158.02	30168158.16	0.0289	0.0179
Mercury	77885-10-02 08:10 G	30168246.68	30168246.84	30168247.01	0.0289	0.0013
Venus	77885-12-24 02:53 G	30168329.41	30168329.62	30168329.83	0.0288	0.0023
Mercury	77885-12-30 03:22 G	30168335.50	30168335.64	30168335.78	0.0288	0.0155
Venus	77886-08-10 19:41 G	30168559.19	30168559.32	30168559.46	0.0287	0.0216
Earth	77896-03-08 18:29 G	30172057.03	30172057.27	30172057.51	0.0269	0.0053
Moon	77896-03-08 19:12 G	30172057.06	30172057.30	30172057.54	0.0269	0.0040 *
Venus	77900-06-05 04:20 G	30173605.52	30173605.68	30173605.84	0.0270	0.0176
Mercury	77900-07-14 20:39 G	30173645.26	30173645.36	30173645.45	0.0270	0.0199
Mercury	77900-10-11 08:39 G	30173733.73	30173733.86	30173734.00	0.0271	0.0085
Mercury	77901-01-07 21:08 G	30173822.24	30173822.38	30173822.53	0.0271	0.0035
Venus	77901-01-20 11:03 G	30173834.75	30173834.96	30173835.18	0.0271	0.0013
Mercury	77901-04-06 09:51 G	30173910.80	30173910.91	30173911.04	0.0271	0.0154
Venus	77901-09-06 18:15 G	30174064.09	30174064.26	30174064.44	0.0272	0.0153
Moon	77910-09-06 06:29 G	30177350.66	30177350.77	30177350.90	0.0291	0.0252
Earth	77910-09-06 10:20 G	30177350.84	30177350.93	30177351.02	0.0291	0.0268 *
Moon	77911-09-20 07:27 G	30177729.74	30177729.81	30177729.88	0.0291	0.0276
Earth	77911-09-20 08:39 G	30177729.76	30177729.86	30177729.97	0.0291	0.0262 *
Venus	77914-11-19 20:53 G	30178886.19	30178886.37	30178886.55	0.0289	0.0137
Mercury	77914-11-23 14:39 G	30178890.00	30178890.11	30178890.23	0.0289	0.0208
Mercury	77915-02-20 10:34 G	30178978.77	30178978.94	30178979.10	0.0289	0.0038
Mercury	77915-05-20 05:46 G	30179067.59	30179067.74	30179067.89	0.0289	0.0128
Venus	77915-07-07 14:10 G	30179115.88	30179116.09	30179116.29	0.0288	0.0059
Mercury	77915-08-17 00:29 G	30179156.51	30179156.52	30179156.52	0.0288	0.0287
Venus	77916-02-22 06:29 G	30179345.68	30179345.77	30179345.88	0.0287	0.0252
Moon	77925-03-04 19:56 G	30182644.19	30182644.33	30182644.48	0.0269	0.0222
Earth	77925-03-04 20:10 G	30182644.23	30182644.34	30182644.46	0.0269	0.0237 *
Moon	77926-03-16 23:32 G	30183021.33	30183021.48	30183021.67	0.0268	0.0194
Earth	77926-03-17 03:22 G	30183021.47	30183021.64	30183021.83	0.0268	0.0183 *

Mercury	77929-12-01 22:34 G	30184377.38	30184377.44	30184377.52	0.0270	0.0231
Venus	77929-12-16 08:39 G	30184391.69	30184391.86	30184392.04	0.0270	0.0152
Mercury	77930-02-28 10:48 G	30184465.82	30184465.95	30184466.08	0.0271	0.0117
Mercury	77930-05-27 23:17 G	30184554.32	30184554.47	30184554.61	0.0271	0.0003
Venus	77930-08-02 15:22 G	30184620.93	30184621.14	30184621.36	0.0271	0.0011
Mercury	77930-08-24 11:46 G	30184642.86	30184642.99	30184643.12	0.0271	0.0119
Mercury	77930-11-21 00:44 G	30184731.47	30184731.53	30184731.60	0.0272	0.0241
Venus	77931-03-19 22:34 G	30184850.28	30184850.44	30184850.61	0.0272	0.0176
Mars	77935-01-09 08:10 G	30186241.59	30186241.84	30186242.10	0.0281	0.0110
Earth	77940-09-13 08:53 G	30188315.63	30188315.87	30188316.12	0.0291	0.0015
Moon	77940-09-13 10:05 G	30188315.67	30188315.92	30188316.17	0.0291	0.0029 *
Mercury	77944-04-11 13:12 G	30189621.99	30189622.05	30189622.11	0.0289	0.0268
Venus	77944-05-31 23:32 G	30189672.29	30189672.48	30189672.68	0.0289	0.0112
Mercury	77944-07-09 09:08 G	30189710.72	30189710.88	30189711.03	0.0289	0.0097
Mercury	77944-10-06 04:20 G	30189799.53	30189799.68	30189799.85	0.0288	0.0071
Mercury	77945-01-02 23:17 G	30189888.38	30189888.47	30189888.57	0.0288	0.0232
Venus	77945-01-16 16:48 G	30189902.00	30189902.20	30189902.40	0.0288	0.0084
Venus	77945-09-03 09:22 G	30190131.85	30190131.89	30190131.96	0.0287	0.0275
Mars	77949-01-29 01:41 G	30191375.42	30191375.57	30191375.74	0.0279	0.0239
Earth	77955-03-12 03:22 G	30193608.39	30193608.64	30193608.89	0.0269	0.0002
Moon	77955-03-12 06:58 G	30193608.54	30193608.79	30193609.03	0.0269	0.0016 *
Mercury	77959-04-21 01:41 G	30195109.53	30195109.57	30195109.61	0.0270	0.0256
Venus	77959-06-28 15:51 G	30195177.97	30195178.16	30195178.35	0.0271	0.0123
Mercury	77959-07-18 13:41 G	30195197.96	30195198.07	30195198.20	0.0271	0.0143
Mercury	77959-10-15 02:10 G	30195286.45	30195286.59	30195286.73	0.0271	0.0026
Mercury	77960-01-11 14:39 G	30195374.98	30195375.11	30195375.25	0.0271	0.0093
Venus	77960-02-12 23:03 G	30195407.25	30195407.46	30195407.67	0.0271	0.0041
Mercury	77960-04-09 03:22 G	30195463.56	30195463.64	30195463.74	0.0272	0.0215
Venus	77960-09-29 06:15 G	30195636.64	30195636.76	30195636.91	0.0272	0.0207
Moon	77969-09-07 23:03 G	30198902.29	30198902.46	30198902.65	0.0291	0.0187

Earth	77969-09-08 00:29 G	30198902.35	30198902.52	30198902.69	0.0291	0.0202	*
Venus	77973-04-26 18:00 G	30200229.19	30200229.25	30200229.34	0.0290	0.0270	
Mercury	77973-11-26 11:32 G	30200442.83	30200442.98	30200443.14	0.0289	0.0122	
Venus	77973-12-12 11:46 G	30200458.79	30200458.99	30200459.20	0.0289	0.0074	
Mercury	77974-02-23 07:12 G	30200531.63	30200531.80	30200531.96	0.0289	0.0046	
Mercury	77974-05-23 01:56 G	30200620.48	30200620.58	30200620.70	0.0288	0.0209	
Venus	77974-07-30 04:48 G	30200688.52	30200688.70	30200688.90	0.0288	0.0122	
Moon	77984-03-06 02:24 G	30204195.41	30204195.60	30204195.80	0.0269	0.0167	
Earth	77984-03-06 06:15 G	30204195.58	30204195.76	30204195.94	0.0269	0.0183	*
Moon	77985-03-18 12:00 G	30204572.92	30204573.00	30204573.10	0.0268	0.0247	
Earth	77985-03-18 13:27 G	30204572.95	30204573.06	30204573.18	0.0268	0.0237	*
Venus	77988-05-23 14:53 G	30205735.07	30205735.12	30205735.19	0.0270	0.0259	
Mercury	77988-12-04 16:20 G	30205930.07	30205930.18	30205930.29	0.0270	0.0172	
Venus	77989-01-07 21:22 G	30205964.19	30205964.39	30205964.59	0.0271	0.0098	
Mercury	77989-03-03 04:34 G	30206018.55	30206018.69	30206018.83	0.0271	0.0057	
Mercury	77989-05-30 17:03 G	30206107.07	30206107.21	30206107.35	0.0271	0.0061	
Venus	77989-08-25 04:05 G	30206193.47	30206193.67	30206193.89	0.0272	0.0067	
Mercury	77989-08-27 05:46 G	30206195.63	30206195.74	30206195.85	0.0272	0.0182	
Venus	77990-04-11 11:32 G	30206422.88	30206422.98	30206423.10	0.0273	0.0231	
Moon	77999-09-15 21:22 G	30209867.16	30209867.39	30209867.63	0.0291	0.0098	
Earth	77999-09-16 00:15 G	30209867.28	30209867.51	30209867.74	0.0291	0.0083	*

79TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 79th millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Venus	78002-11-06 21:08 G	30211015.28	30211015.38	30211015.50	0.0289	0.0245
Mercury	78003-04-15 10:05 G	30211174.80	30211174.92	30211175.06	0.0289	0.0181
Venus	78003-06-24 14:53 G	30211244.91	30211245.12	30211245.33	0.0288	0.0049
Mercury	78003-07-13 06:00 G	30211263.58	30211263.75	30211263.91	0.0288	0.0014
Mercury	78003-10-10 00:58 G	30211352.40	30211352.54	30211352.68	0.0288	0.0152
Venus	78004-02-09 07:41 G	30211474.65	30211474.82	30211475.01	0.0287	0.0146
Earth	78014-03-13 12:15 G	30215159.77	30215160.01	30215160.25	0.0269	0.0053
Moon	78014-03-13 14:10 G	30215159.84	30215160.09	30215160.34	0.0269	0.0066 *
Venus	78017-12-03 20:39 G	30216521.26	30216521.36	30216521.48	0.0270	0.0233
Mercury	78018-04-23 18:58 G	30216662.19	30216662.29	30216662.38	0.0271	0.0200
Venus	78018-07-21 03:36 G	30216750.44	30216750.65	30216750.86	0.0271	0.0071
Mercury	78018-07-21 06:58 G	30216750.66	30216750.79	30216750.93	0.0271	0.0086 *
Mercury	78018-10-17 19:41 G	30216839.17	30216839.32	30216839.46	0.0271	0.0033
Mercury	78019-01-14 08:10 G	30216927.73	30216927.84	30216927.97	0.0272	0.0153
Venus	78019-03-07 11:03 G	30216979.76	30216979.96	30216980.16	0.0272	0.0094
Venus	78019-10-22 18:44 G	30217209.22	30217209.28	30217209.35	0.0273	0.0259
Mars	78023-06-06 03:08 G	30218531.47	30218531.63	30218531.81	0.0281	0.0220
Earth	78028-09-09 14:39 G	30220453.90	30220454.11	30220454.33	0.0291	0.0137
Moon	78028-09-09 17:46 G	30220454.02	30220454.24	30220454.45	0.0291	0.0119 *
Venus	78032-05-19 09:22 G	30221801.76	30221801.89	30221802.05	0.0290	0.0207
Mercury	78032-09-01 12:44 G	30221906.92	30221907.03	30221907.15	0.0289	0.0207
Mercury	78032-11-29 08:39 G	30221995.69	30221995.86	30221996.02	0.0289	0.0037
Venus	78033-01-04 03:08 G	30222031.42	30222031.63	30222031.84	0.0289	0.0011
Mercury	78033-02-26 03:51 G	30222084.51	30222084.66	30222084.80	0.0289	0.0129
Venus	78033-08-21 19:56 G	30222261.18	30222261.33	30222261.50	0.0288	0.0184
Moon	78043-03-08 14:24 G	30225746.89	30225747.10	30225747.32	0.0269	0.0114
Earth	78043-03-08 16:05 G	30225746.96	30225747.17	30225747.40	0.0269	0.0130 *
Venus	78047-06-16 02:53 G	30227307.49	30227307.62	30227307.77	0.0270	0.0206

Mercury	78047-09-10 21:36 G	30227394.33	30227394.40	30227394.47	0.0270	0.0227
Mercury	78047-12-08 09:36 G	30227482.78	30227482.90	30227483.03	0.0271	0.0114
Venus	78048-01-31 09:51 G	30227536.70	30227536.91	30227537.12	0.0271	0.0044
Mercury	78048-03-05 22:05 G	30227571.28	30227571.42	30227571.56	0.0271	0.0003
Mercury	78048-06-02 10:34 G	30227659.82	30227659.94	30227660.08	0.0271	0.0122
Mercury	78048-08-29 23:32 G	30227748.42	30227748.48	30227748.54	0.0272	0.0244
Venus	78048-09-16 16:34 G	30227766.01	30227766.19	30227766.39	0.0272	0.0121
Moon	78058-09-17 12:00 G	30231418.81	30231419.00	30231419.20	0.0291	0.0165
Earth	78058-09-17 15:22 G	30231418.94	30231419.14	30231419.35	0.0291	0.0150 *
Venus	78061-11-29 13:12 G	30232587.89	30232588.05	30232588.21	0.0289	0.0180
Mercury	78062-01-19 11:17 G	30232638.91	30232638.97	30232639.04	0.0289	0.0265
Mercury	78062-04-18 07:12 G	30232727.65	30232727.80	30232727.96	0.0289	0.0094
Mercury	78062-07-16 02:39 G	30232816.45	30232816.61	30232816.77	0.0288	0.0074
Venus	78062-07-17 06:29 G	30232817.56	30232817.77	30232817.98	0.0288	0.0016
Mercury	78062-10-12 21:36 G	30232905.31	30232905.40	30232905.50	0.0288	0.0235
Venus	78063-03-03 23:17 G	30233047.33	30233047.47	30233047.61	0.0287	0.0207
Moon	78073-03-14 17:46 G	30236711.02	30236711.24	30236711.48	0.0269	0.0116
Earth	78073-03-14 20:39 G	30236711.14	30236711.36	30236711.60	0.0269	0.0104 *
Venus	78076-12-26 07:41 G	30238093.67	30238093.82	30238093.99	0.0270	0.0182
Mercury	78077-01-27 23:46 G	30238126.46	30238126.49	30238126.53	0.0271	0.0259
Mercury	78077-04-26 12:00 G	30238214.88	30238215.00	30238215.12	0.0271	0.0145
Mercury	78077-07-24 00:15 G	30238303.37	30238303.51	30238303.66	0.0271	0.0030
Venus	78077-08-12 14:39 G	30238322.90	30238323.11	30238323.33	0.0271	0.0020
Mercury	78077-10-20 12:58 G	30238391.90	30238392.04	30238392.17	0.0271	0.0090
Mercury	78078-01-17 01:41 G	30238480.48	30238480.57	30238480.66	0.0272	0.0211
Venus	78078-03-29 22:05 G	30238552.25	30238552.42	30238552.61	0.0272	0.0147
Earth	78087-09-12 05:03 G	30242005.47	30242005.71	30242005.95	0.0291	0.0071
Moon	78087-09-12 08:10 G	30242005.60	30242005.84	30242006.09	0.0291	0.0055 *
Venus	78091-06-12 00:58 G	30243374.36	30243374.54	30243374.73	0.0290	0.0143
Mercury	78091-09-05 09:36 G	30243459.75	30243459.90	30243460.06	0.0289	0.0121

Mercury	78091-12-03 05:17 G	30243548.56	30243548.72	30243548.88	0.0289	0.0048
Venus	78092-01-27 18:29 G	30243604.06	30243604.27	30243604.47	0.0289	0.0053
Mercury	78092-03-01 00:15 G	30243637.40	30243637.51	30243637.62	0.0288	0.0211
Venus	78092-09-13 10:48 G	30243833.86	30243833.95	30243834.07	0.0287	0.0246
Earth	78102-03-11 01:12 G	30247298.32	30247298.55	30247298.79	0.0269	0.0078
Moon	78102-03-11 04:05 G	30247298.44	30247298.67	30247298.91	0.0269	0.0063 *
Venus	78106-07-09 14:24 G	30248879.93	30248880.10	30248880.28	0.0270	0.0154
Mercury	78106-09-14 14:39 G	30248947.01	30248947.11	30248947.22	0.0270	0.0173
Mercury	78106-12-12 02:53 G	30249035.48	30249035.62	30249035.76	0.0271	0.0058
Venus	78107-02-23 21:22 G	30249109.18	30249109.39	30249109.60	0.0271	0.0009
Mercury	78107-03-10 15:22 G	30249124.00	30249124.14	30249124.28	0.0271	0.0061
Mercury	78107-06-07 04:05 G	30249212.57	30249212.67	30249212.78	0.0271	0.0181
Venus	78107-10-11 04:34 G	30249338.53	30249338.69	30249338.85	0.0272	0.0173
Earth	78117-09-20 05:03 G	30252970.56	30252970.71	30252970.89	0.0291	0.0215
Moon	78117-09-20 06:00 G	30252970.61	30252970.75	30252970.90	0.0291	0.0228 *
Venus	78120-12-23 04:05 G	30254160.49	30254160.67	30254160.87	0.0289	0.0118
Mercury	78121-01-23 08:24 G	30254191.72	30254191.85	30254191.98	0.0289	0.0179
Mercury	78121-04-22 04:05 G	30254280.50	30254280.67	30254280.84	0.0288	0.0010
Mercury	78121-07-19 23:17 G	30254369.33	30254369.47	30254369.61	0.0288	0.0155
Venus	78121-08-09 21:22 G	30254390.20	30254390.39	30254390.60	0.0288	0.0078
Venus	78122-03-27 13:56 G	30254620.01	30254620.08	30254620.16	0.0287	0.0268
Moon	78131-03-05 18:00 G	30257885.18	30257885.25	30257885.35	0.0270	0.0252
Earth	78131-03-05 20:39 G	30257885.34	30257885.36	30257885.41	0.0270	0.0267 *
Moon	78132-03-17 00:58 G	30258262.36	30258262.54	30258262.75	0.0269	0.0163
Earth	78132-03-17 04:20 G	30258262.48	30258262.68	30258262.89	0.0269	0.0154 *
Venus	78136-01-19 18:00 G	30259666.07	30259666.25	30259666.44	0.0271	0.0132
Mercury	78136-02-01 16:34 G	30259679.10	30259679.19	30259679.28	0.0271	0.0207
Mercury	78136-04-30 04:48 G	30259767.57	30259767.70	30259767.83	0.0271	0.0093
Mercury	78136-07-27 17:17 G	30259856.07	30259856.22	30259856.36	0.0271	0.0025
Venus	78136-09-05 00:58 G	30259895.33	30259895.54	30259895.76	0.0271	0.0032

Mercury	78136-10-24 05:46 G	30259944.62	30259944.74	30259944.87	0.0272	0.0145
Mercury	78137-01-20 18:44 G	30260033.26	30260033.28	30260033.31	0.0272	0.0267
Venus	78137-04-22 08:24 G	30260124.71	30260124.85	30260125.00	0.0272	0.0197
Moon	78146-09-14 15:22 G	30263556.89	30263557.14	30263557.40	0.0291	0.0006
Earth	78146-09-14 16:48 G	30263556.96	30263557.20	30263557.44	0.0291	0.0011 *
Venus	78149-11-17 21:22 G	30264717.34	30264717.39	30264717.46	0.0290	0.0277
Mercury	78150-06-12 10:20 G	30264923.82	30264923.93	30264924.05	0.0289	0.0209
Venus	78150-07-05 15:22 G	30264946.94	30264947.14	30264947.34	0.0289	0.0081
Mercury	78150-09-09 06:15 G	30265012.59	30265012.76	30265012.92	0.0289	0.0039
Mercury	78150-12-07 01:27 G	30265101.42	30265101.56	30265101.71	0.0289	0.0127
Venus	78151-02-20 08:24 G	30265176.66	30265176.85	30265177.05	0.0288	0.0114
Mercury	78151-03-05 20:24 G	30265190.34	30265190.35	30265190.35	0.0288	0.0288
Earth	78161-03-12 09:08 G	30268849.63	30268849.88	30268850.12	0.0268	0.0028
Moon	78161-03-12 12:15 G	30268849.76	30268850.01	30268850.26	0.0268	0.0015 *
Venus	78164-12-14 18:15 G	30270223.22	30270223.26	30270223.31	0.0270	0.0263
Mercury	78165-06-20 19:27 G	30270411.24	30270411.31	30270411.38	0.0270	0.0233
Venus	78165-08-01 00:29 G	30270452.33	30270452.52	30270452.72	0.0270	0.0104
Mercury	78165-09-17 07:27 G	30270499.69	30270499.81	30270499.94	0.0270	0.0120
Mercury	78165-12-14 19:56 G	30270588.18	30270588.33	30270588.47	0.0271	0.0005
Mercury	78166-03-13 08:24 G	30270676.72	30270676.85	30270676.98	0.0271	0.0115
Venus	78166-03-18 07:27 G	30270681.61	30270681.81	30270682.02	0.0271	0.0060
Mercury	78166-06-09 21:08 G	30270765.32	30270765.38	30270765.46	0.0272	0.0236
Venus	78166-11-02 14:39 G	30270911.00	30270911.11	30270911.24	0.0272	0.0225
Mars	78170-02-08 01:56 G	30272104.53	30272104.58	30272104.67	0.0280	0.0270
Earth	78175-09-08 18:44 G	30274143.17	30274143.28	30274143.41	0.0291	0.0251
Moon	78175-09-08 20:24 G	30274143.22	30274143.35	30274143.49	0.0291	0.0238 *
Earth	78176-09-21 17:46 G	30274522.17	30274522.24	30274522.31	0.0291	0.0277
Moon	78176-09-21 21:22 G	30274522.36	30274522.39	30274522.44	0.0291	0.0287
Venus	78179-05-31 00:58 G	30275503.44	30275503.54	30275503.65	0.0290	0.0251
Mercury	78179-10-30 08:53 G	30275655.81	30275655.87	30275655.93	0.0289	0.0268

Venus	78180-01-15 18:44 G	30275733.07	30275733.28	30275733.48	0.0289	0.0056
Mercury	78180-01-27 04:48 G	30275744.55	30275744.70	30275744.86	0.0289	0.0097
Mercury	78180-04-25 00:29 G	30275833.36	30275833.52	30275833.68	0.0288	0.0071
Mercury	78180-07-22 19:27 G	30275922.22	30275922.31	30275922.40	0.0288	0.0233
Venus	78180-09-01 11:46 G	30275962.81	30275962.99	30275963.17	0.0288	0.0138
Mars	78184-02-24 05:46 G	30277233.58	30277233.74	30277233.94	0.0280	0.0228
Moon	78190-03-07 00:00 G	30279436.35	30279436.50	30279436.67	0.0269	0.0205
Earth	78190-03-07 03:08 G	30279436.50	30279436.63	30279436.78	0.0269	0.0219 *
Earth	78191-03-19 10:05 G	30279813.76	30279813.92	30279814.09	0.0269	0.0200
Moon	78191-03-19 11:17 G	30279813.83	30279813.97	30279814.14	0.0269	0.0206 *
Venus	78194-06-26 20:10 G	30281009.26	30281009.34	30281009.44	0.0270	0.0244
Mercury	78195-02-04 09:08 G	30281231.76	30281231.88	30281231.99	0.0271	0.0159
Venus	78195-02-11 02:53 G	30281238.42	30281238.62	30281238.83	0.0271	0.0083
Mercury	78195-05-03 21:22 G	30281320.25	30281320.39	30281320.53	0.0271	0.0044
Mercury	78195-07-31 09:51 G	30281408.77	30281408.91	30281409.05	0.0271	0.0075
Venus	78195-09-28 10:05 G	30281467.71	30281467.92	30281468.12	0.0272	0.0081
Mercury	78195-10-27 22:34 G	30281497.34	30281497.44	30281497.54	0.0272	0.0196
Venus	78196-05-14 17:17 G	30281697.14	30281697.22	30281697.32	0.0273	0.0246
Moon	78205-09-16 22:20 G	30285108.19	30285108.43	30285108.67	0.0291	0.0056
Earth	78205-09-17 01:56 G	30285108.34	30285108.58	30285108.82	0.0291	0.0045 *
Venus	78208-12-11 10:05 G	30286289.79	30286289.92	30286290.06	0.0290	0.0218
Mercury	78209-06-16 06:15 G	30286476.61	30286476.76	30286476.91	0.0289	0.0133
Venus	78209-07-29 04:05 G	30286519.46	30286519.67	30286519.88	0.0289	0.0021
Mercury	78209-09-13 01:56 G	30286565.41	30286565.58	30286565.74	0.0289	0.0036
Mercury	78209-12-10 20:53 G	30286654.26	30286654.37	30286654.49	0.0289	0.0200
Venus	78210-03-15 21:08 G	30286749.22	30286749.38	30286749.55	0.0288	0.0173
Moon	78220-03-14 14:10 G	30290400.83	30290401.09	30290401.34	0.0268	0.0027
Earth	78220-03-14 14:53 G	30290400.88	30290401.12	30290401.37	0.0268	0.0019 *
Venus	78224-01-08 02:53 G	30291795.50	30291795.62	30291795.76	0.0270	0.0215
Mercury	78224-06-24 11:46 G	30291963.89	30291963.99	30291964.10	0.0270	0.0186

Venus	78224-08-24 09:22 G	30292024.69	30292024.89	30292025.11	0.0270	0.0054
Mercury	78224-09-21 00:00 G	30292052.36	30292052.50	30292052.64	0.0270	0.0071
Mercury	78224-12-18 12:29 G	30292140.88	30292141.02	30292141.16	0.0271	0.0046
Mercury	78225-03-17 00:58 G	30292229.43	30292229.54	30292229.66	0.0271	0.0166
Venus	78225-04-10 16:20 G	30292253.99	30292254.18	30292254.38	0.0271	0.0109
Earth	78234-09-11 03:22 G	30295694.47	30295694.64	30295694.83	0.0291	0.0196
Moon	78234-09-11 06:58 G	30295694.61	30295694.79	30295694.99	0.0291	0.0181 *
Venus	78238-06-23 13:27 G	30297075.91	30297076.06	30297076.22	0.0290	0.0192
Mercury	78238-11-03 04:34 G	30297208.57	30297208.69	30297208.82	0.0289	0.0192
Mercury	78239-01-31 00:29 G	30297297.36	30297297.52	30297297.69	0.0289	0.0023
Venus	78239-02-08 07:12 G	30297305.59	30297305.80	30297306.01	0.0289	0.0005
Mercury	78239-04-29 19:41 G	30297386.19	30297386.32	30297386.47	0.0288	0.0145
Venus	78239-09-26 00:00 G	30297535.36	30297535.50	30297535.66	0.0287	0.0197
Earth	78249-03-09 07:56 G	30300987.65	30300987.83	30300988.02	0.0269	0.0174
Moon	78249-03-09 08:24 G	30300987.66	30300987.85	30300988.04	0.0269	0.0162 *
Earth	78250-03-21 14:24 G	30301365.00	30301365.10	30301365.21	0.0268	0.0243
Moon	78250-03-21 18:15 G	30301365.16	30301365.26	30301365.36	0.0268	0.0245 *
Venus	78253-07-20 03:51 G	30302581.51	30302581.66	30302581.80	0.0270	0.0197
Mercury	78253-11-11 12:58 G	30302695.97	30302696.04	30302696.12	0.0270	0.0227
Mercury	78254-02-08 00:58 G	30302784.41	30302784.54	30302784.67	0.0271	0.0114
Venus	78254-03-06 10:20 G	30302810.72	30302810.93	30302811.14	0.0271	0.0036
Mercury	78254-05-07 13:12 G	30302872.91	30302873.05	30302873.20	0.0271	0.0009
Mercury	78254-08-04 01:56 G	30302961.45	30302961.58	30302961.71	0.0271	0.0121
Venus	78254-10-21 17:17 G	30303040.04	30303040.22	30303040.41	0.0272	0.0128
Mercury	78254-10-31 14:39 G	30303050.05	30303050.11	30303050.18	0.0272	0.0243
Mars	78258-07-05 16:34 G	30304393.03	30304393.19	30304393.38	0.0279	0.0215
Moon	78264-09-18 06:58 G	30306659.57	30306659.79	30306660.01	0.0292	0.0105
Earth	78264-09-18 07:56 G	30306659.60	30306659.83	30306660.06	0.0292	0.0095 *
Venus	78268-01-03 21:22 G	30307862.22	30307862.39	30307862.57	0.0290	0.0160
Mercury	78268-03-22 05:17 G	30307940.63	30307940.72	30307940.82	0.0290	0.0234

Mercury	78268-06-19 01:27 G	30308029.40	30308029.56	30308029.72	0.0289	0.0062
Venus	78268-08-20 15:22 G	30308091.93	30308092.14	30308092.35	0.0289	0.0037
Mercury	78268-09-15 20:53 G	30308118.22	30308118.37	30308118.53	0.0289	0.0106
Mercury	78268-12-13 15:51 G	30308207.10	30308207.16	30308207.22	0.0289	0.0267
Venus	78269-04-07 08:24 G	30308321.73	30308321.85	30308321.98	0.0288	0.0230
Mars	78272-07-21 19:41 G	30309523.05	30309523.32	30309523.62	0.0280	0.0121
Moon	78279-03-16 15:08 G	30311951.89	30311952.13	30311952.37	0.0268	0.0069
Earth	78279-03-16 18:44 G	30311952.04	30311952.28	30311952.53	0.0268	0.0061 *
Venus	78283-01-30 10:20 G	30313367.77	30313367.93	30313368.11	0.0270	0.0168
Mercury	78283-03-31 15:36 G	30313428.11	30313428.15	30313428.20	0.0270	0.0254
Mercury	78283-06-28 03:51 G	30313516.54	30313516.66	30313516.78	0.0270	0.0141
Venus	78283-09-16 16:48 G	30313596.99	30313597.20	30313597.42	0.0270	0.0007
Mercury	78283-09-24 16:05 G	30313605.02	30313605.17	30313605.31	0.0270	0.0027
Mercury	78283-12-22 04:34 G	30313693.55	30313693.69	30313693.82	0.0271	0.0092
Mercury	78284-03-19 17:03 G	30313782.13	30313782.21	30313782.31	0.0271	0.0212
Venus	78284-05-02 23:32 G	30313826.31	30313826.48	30313826.66	0.0271	0.0157
Earth	78293-09-12 09:22 G	30317245.68	30317245.89	30317246.10	0.0291	0.0145
Moon	78293-09-12 10:20 G	30317245.71	30317245.93	30317246.16	0.0291	0.0132 *
Venus	78297-07-16 00:15 G	30318648.33	30318648.51	30318648.70	0.0290	0.0135
Mercury	78297-11-05 23:46 G	30318761.34	30318761.49	30318761.65	0.0289	0.0122
Mercury	78298-02-02 19:27 G	30318850.15	30318850.31	30318850.48	0.0289	0.0047
Venus	78298-03-02 18:00 G	30318878.04	30318878.25	30318878.45	0.0288	0.0060
Mercury	78298-05-02 14:39 G	30318939.00	30318939.11	30318939.22	0.0288	0.0210
Venus	78298-10-18 10:34 G	30319107.86	30319107.94	30319108.05	0.0287	0.0252
Earth	78308-03-11 10:48 G	30322538.74	30322538.95	30322539.17	0.0269	0.0133
Moon	78308-03-11 14:24 G	30322538.89	30322539.10	30322539.33	0.0269	0.0119 *
Venus	78312-08-12 10:05 G	30324153.75	30324153.92	30324154.10	0.0270	0.0152
Mercury	78312-11-15 04:34 G	30324248.59	30324248.69	30324248.79	0.0270	0.0186
Mercury	78313-02-11 16:48 G	30324337.06	30324337.20	30324337.33	0.0271	0.0072
Venus	78313-03-29 16:34 G	30324382.98	30324383.19	30324383.41	0.0271	0.0012

Mercury	78313-05-11 05:03 G	30324425.57	30324425.71	30324425.85	0.0271	0.0045
Mercury	78313-08-07 17:32 G	30324514.12	30324514.23	30324514.35	0.0271	0.0165
Venus	78313-11-13 23:32 G	30324612.32	30324612.48	30324612.65	0.0272	0.0173
Earth	78323-09-21 10:34 G	30328210.73	30328210.94	30328211.16	0.0292	0.0140
Moon	78323-09-21 13:12 G	30328210.86	30328211.05	30328211.27	0.0292	0.0149 *
Venus	78327-01-27 06:29 G	30329434.58	30329434.77	30329434.97	0.0290	0.0105
Mercury	78327-03-26 23:32 G	30329493.36	30329493.48	30329493.63	0.0290	0.0171
Mercury	78327-06-23 19:41 G	30329582.15	30329582.32	30329582.49	0.0290	0.0002
Venus	78327-09-14 00:29 G	30329664.32	30329664.52	30329664.72	0.0289	0.0091
Mercury	78327-09-20 14:53 G	30329670.99	30329671.12	30329671.26	0.0289	0.0167
Venus	78328-04-30 17:32 G	30329894.20	30329894.23	30329894.27	0.0288	0.0283
Moon	78338-03-18 19:12 G	30333503.09	30333503.30	30333503.53	0.0268	0.0108
Earth	78338-03-18 20:39 G	30333503.14	30333503.36	30333503.60	0.0268	0.0101 *
Venus	78342-02-22 16:34 G	30334940.00	30334940.19	30334940.39	0.0269	0.0122
Mercury	78342-04-04 07:12 G	30334980.72	30334980.80	30334980.89	0.0270	0.0214
Mercury	78342-07-01 19:27 G	30335069.18	30335069.31	30335069.44	0.0270	0.0100
Mercury	78342-09-28 07:41 G	30335157.68	30335157.82	30335157.96	0.0270	0.0016
Venus	78342-10-09 22:48 G	30335169.24	30335169.45	30335169.67	0.0270	0.0039
Mercury	78342-12-25 20:10 G	30335246.22	30335246.34	30335246.47	0.0271	0.0134
Mercury	78343-03-24 08:53 G	30335334.83	30335334.87	30335334.92	0.0271	0.0255
Venus	78343-05-27 05:32 G	30335398.60	30335398.73	30335398.88	0.0271	0.0202
Mars	78346-11-30 04:48 G	30336681.49	30336681.70	30336681.93	0.0279	0.0170
Moon	78352-09-14 09:08 G	30338796.65	30338796.88	30338797.12	0.0291	0.0089
Earth	78352-09-14 12:15 G	30338796.79	30338797.01	30338797.25	0.0291	0.0099 *
Venus	78355-12-22 15:22 G	30339991.08	30339991.14	30339991.20	0.0290	0.0277
Venus	78356-08-08 09:51 G	30340220.71	30340220.91	30340221.11	0.0290	0.0080
Mercury	78356-08-12 22:05 G	30340225.32	30340225.42	30340225.52	0.0290	0.0231
Mercury	78356-11-09 18:15 G	30340314.09	30340314.26	30340314.42	0.0289	0.0058
Mercury	78357-02-06 13:41 G	30340402.92	30340403.07	30340403.23	0.0289	0.0109
Venus	78357-03-26 03:22 G	30340450.45	30340450.64	30340450.84	0.0288	0.0115

Mercury	78357-05-06 08:39 G	30340491.81	30340491.86	30340491.92	0.0288	0.0271
Mars	78360-12-15 21:08 G	30341811.08	30341811.38	30341811.69	0.0279	0.0073
Earth	78367-03-13 12:15 G	30344089.79	30344090.01	30344090.25	0.0268	0.0094
Moon	78367-03-13 13:41 G	30344089.83	30344090.07	30344090.32	0.0268	0.0084 *
Venus	78371-01-18 09:51 G	30345496.88	30345496.91	30345496.94	0.0269	0.0265
Mercury	78371-08-22 07:56 G	30345712.80	30345712.83	30345712.87	0.0270	0.0259
Venus	78371-09-04 15:36 G	30345725.96	30345726.15	30345726.35	0.0270	0.0107
Mercury	78371-11-18 19:56 G	30345801.21	30345801.33	30345801.45	0.0270	0.0147
Mercury	78372-02-15 08:10 G	30345889.70	30345889.84	30345889.98	0.0270	0.0032
Venus	78372-04-20 21:51 G	30345955.20	30345955.41	30345955.62	0.0271	0.0055
Mercury	78372-05-13 20:24 G	30345978.22	30345978.35	30345978.49	0.0271	0.0086
Mercury	78372-08-10 09:08 G	30346066.79	30346066.88	30346066.98	0.0271	0.0205
Venus	78372-12-06 04:48 G	30346184.57	30346184.70	30346184.83	0.0272	0.0217
Earth	78382-09-22 11:03 G	30349761.77	30349761.96	30349762.15	0.0292	0.0182
Moon	78382-09-22 13:56 G	30349761.90	30349762.08	30349762.28	0.0292	0.0188 *
Venus	78385-07-03 19:41 G	30350777.22	30350777.32	30350777.43	0.0291	0.0250
Mercury	78385-12-30 21:08 G	30350957.36	30350957.38	30350957.41	0.0290	0.0287
Venus	78386-02-18 14:24 G	30351006.90	30351007.10	30351007.31	0.0290	0.0053
Mercury	78386-03-29 17:32 G	30351046.07	30351046.23	30351046.38	0.0290	0.0112
Mercury	78386-06-26 13:12 G	30351134.89	30351135.05	30351135.21	0.0290	0.0058
Mercury	78386-09-23 08:24 G	30351223.75	30351223.85	30351223.96	0.0289	0.0222
Venus	78386-10-06 08:24 G	30351236.67	30351236.85	30351237.03	0.0289	0.0143
Moon	78396-03-07 14:39 G	30354677.06	30354677.11	30354677.16	0.0269	0.0263
Earth	78397-03-19 21:22 G	30355054.18	30355054.39	30355054.61	0.0268	0.0139
Moon	78397-03-20 00:15 G	30355054.31	30355054.51	30355054.72	0.0268	0.0143 *
Venus	78400-07-30 16:05 G	30356283.08	30356283.17	30356283.28	0.0269	0.0236
Venus	78401-03-16 22:05 G	30356512.22	30356512.42	30356512.63	0.0269	0.0078
Mercury	78401-04-06 22:48 G	30356533.34	30356533.45	30356533.56	0.0269	0.0174
Mercury	78401-07-04 10:48 G	30356621.81	30356621.95	30356622.09	0.0270	0.0061
Mercury	78401-09-30 23:03 G	30356710.32	30356710.46	30356710.61	0.0270	0.0056

Venus	78401-11-01 04:20 G	30356741.48	30356741.68	30356741.88	0.0270	0.0083
Mercury	78401-12-28 11:46 G	30356798.88	30356798.99	30356799.10	0.0271	0.0175
Venus	78402-06-18 11:03 G	30356970.88	30356970.96	30356971.05	0.0271	0.0245
Moon	78411-09-16 10:34 G	30360347.71	30360347.94	30360348.18	0.0292	0.0051
Earth	78411-09-16 12:58 G	30360347.81	30360348.04	30360348.28	0.0292	0.0057 *
Venus	78415-01-13 23:17 G	30361563.34	30361563.47	30361563.60	0.0291	0.0225
Mercury	78415-08-16 15:51 G	30361778.03	30361778.16	30361778.30	0.0290	0.0172
Venus	78415-08-31 17:46 G	30361793.03	30361793.24	30361793.44	0.0290	0.0028
Mercury	78415-11-13 11:46 G	30361866.83	30361866.99	30361867.16	0.0289	0.0008
Mercury	78416-02-10 07:12 G	30361955.67	30361955.80	30361955.94	0.0289	0.0166
Venus	78416-04-17 11:17 G	30362022.80	30362022.97	30362023.14	0.0288	0.0167
Moon	78426-03-14 09:51 G	30365640.66	30365640.91	30365641.16	0.0268	0.0050
Earth	78426-03-14 13:12 G	30365640.81	30365641.05	30365641.30	0.0268	0.0055 *
Venus	78430-02-09 14:53 G	30367069.01	30367069.12	30367069.25	0.0269	0.0222
Mercury	78430-08-24 23:17 G	30367265.39	30367265.47	30367265.55	0.0270	0.0221
Venus	78430-09-26 20:39 G	30367298.15	30367298.36	30367298.57	0.0270	0.0063
Mercury	78430-11-21 11:03 G	30367353.84	30367353.96	30367354.10	0.0270	0.0109
Mercury	78431-02-17 23:32 G	30367442.33	30367442.48	30367442.62	0.0270	0.0010
Venus	78431-05-14 02:39 G	30367527.42	30367527.61	30367527.82	0.0271	0.0099
Mercury	78431-05-17 11:46 G	30367530.87	30367530.99	30367531.12	0.0271	0.0125
Mercury	78431-08-14 00:29 G	30367619.46	30367619.52	30367619.58	0.0271	0.0245
Venus	78431-12-29 09:08 G	30367756.84	30367756.88	30367756.96	0.0272	0.0261
Mars	78435-04-24 22:05 G	30368969.21	30368969.42	30368969.66	0.0279	0.0159
Moon	78441-09-23 07:41 G	30371312.66	30371312.82	30371312.99	0.0292	0.0218
Earth	78441-09-23 09:22 G	30371312.74	30371312.89	30371313.06	0.0292	0.0220 *
Venus	78444-07-26 02:24 G	30372349.45	30372349.60	30372349.76	0.0291	0.0199
Mercury	78445-01-02 14:24 G	30372510.00	30372510.10	30372510.20	0.0291	0.0232
Venus	78445-03-12 21:08 G	30372579.17	30372579.38	30372579.59	0.0290	0.0005
Mercury	78445-04-01 10:34 G	30372598.78	30372598.94	30372599.11	0.0290	0.0059
Mercury	78445-06-29 06:15 G	30372687.61	30372687.76	30372687.92	0.0290	0.0111

Mercury	78445-09-26 01:27 G	30372776.51	30372776.56	30372776.61	0.0289	0.0274
Venus	78445-10-28 15:08 G	30372808.98	30372809.13	30372809.29	0.0289	0.0194
Mars	78449-05-11 09:36 G	30374099.59	30374099.90	30374100.22	0.0280	0.0015
Earth	78455-03-09 16:05 G	30376228.06	30376228.17	30376228.29	0.0268	0.0236
Moon	78455-03-09 19:12 G	30376228.18	30376228.30	30376228.44	0.0268	0.0228 *
Earth	78456-03-20 21:22 G	30376605.22	30376605.39	30376605.59	0.0268	0.0177
Moon	78456-03-21 00:15 G	30376605.33	30376605.51	30376605.71	0.0268	0.0175 *
Venus	78459-08-22 21:08 G	30377855.25	30377855.38	30377855.54	0.0269	0.0193
Mercury	78460-01-12 02:10 G	30377997.54	30377997.59	30377997.64	0.0269	0.0247
Venus	78460-04-08 03:08 G	30378084.42	30378084.63	30378084.84	0.0269	0.0033
Mercury	78460-04-09 13:56 G	30378085.96	30378086.08	30378086.21	0.0269	0.0136
Mercury	78460-07-07 02:10 G	30378174.45	30378174.59	30378174.73	0.0270	0.0022
Mercury	78460-10-03 14:24 G	30378262.97	30378263.10	30378263.24	0.0270	0.0095
Venus	78460-11-23 09:08 G	30378313.70	30378313.88	30378314.07	0.0270	0.0128
Mercury	78460-12-31 03:08 G	30378351.54	30378351.63	30378351.72	0.0270	0.0214
Earth	78470-09-17 12:29 G	30381898.78	30381899.02	30381899.27	0.0292	0.0016
Moon	78470-09-17 15:08 G	30381898.89	30381899.13	30381899.36	0.0292	0.0016 *
Venus	78474-02-05 06:29 G	30383135.61	30383135.77	30383135.94	0.0291	0.0174
Mercury	78474-05-22 12:58 G	30383242.04	30383242.04	30383242.05	0.0290	0.0290
Mercury	78474-08-19 09:22 G	30383330.74	30383330.89	30383331.05	0.0290	0.0115
Venus	78474-09-23 00:58 G	30383365.33	30383365.54	30383365.75	0.0290	0.0024
Mercury	78474-11-16 05:17 G	30383419.56	30383419.72	30383419.88	0.0289	0.0055
Mercury	78475-02-13 00:29 G	30383508.42	30383508.52	30383508.63	0.0289	0.0220
Venus	78475-05-10 18:44 G	30383595.14	30383595.28	30383595.41	0.0288	0.0218
Moon	78485-03-15 11:32 G	30387191.74	30387191.98	30387192.22	0.0268	0.0017
Earth	78485-03-15 13:56 G	30387191.83	30387192.08	30387192.33	0.0268	0.0017 *
Venus	78489-03-03 20:10 G	30388641.19	30388641.34	30388641.51	0.0269	0.0178
Mercury	78489-08-27 14:39 G	30388818.01	30388818.11	30388818.21	0.0269	0.0183
Venus	78489-10-19 01:56 G	30388870.36	30388870.58	30388870.79	0.0270	0.0019
Mercury	78489-11-24 02:39 G	30388906.47	30388906.61	30388906.75	0.0270	0.0070

Mercury	78490-02-20 14:53 G	30388994.98	30388995.12	30388995.26	0.0270	0.0046
Mercury	78490-05-20 03:08 G	30389083.53	30389083.63	30389083.75	0.0271	0.0165
Venus	78490-06-05 07:41 G	30389099.65	30389099.82	30389100.01	0.0271	0.0143
Moon	78499-09-11 03:22 G	30392484.57	30392484.64	30392484.74	0.0291	0.0271
Earth	78499-09-11 06:44 G	30392484.70	30392484.78	30392484.88	0.0291	0.0269 *
Moon	78500-09-25 03:51 G	30392863.55	30392863.66	30392863.79	0.0292	0.0252
Earth	78500-09-25 07:41 G	30392863.71	30392863.82	30392863.93	0.0292	0.0258 *
Venus	78503-08-19 08:39 G	30393921.68	30393921.86	30393922.04	0.0291	0.0150
Mercury	78504-01-07 07:27 G	30394062.68	30394062.81	30394062.95	0.0291	0.0179
Venus	78504-04-05 03:22 G	30394151.44	30394151.64	30394151.85	0.0290	0.0049
Mercury	78504-04-05 03:36 G	30394151.48	30394151.65	30394151.82	0.0290	0.0007 *
Mercury	78504-07-02 23:03 G	30394240.33	30394240.46	30394240.60	0.0290	0.0161
Venus	78504-11-20 21:22 G	30394381.28	30394381.39	30394381.51	0.0289	0.0243
Earth	78514-03-11 16:20 G	30397779.02	30397779.18	30397779.35	0.0268	0.0197
Moon	78514-03-11 18:58 G	30397779.12	30397779.29	30397779.47	0.0268	0.0191 *
Moon	78515-03-23 19:12 G	30398156.15	30398156.30	30398156.48	0.0268	0.0206
Earth	78515-03-23 21:36 G	30398156.26	30398156.40	30398156.56	0.0268	0.0214 *
Venus	78518-09-15 02:39 G	30399427.44	30399427.61	30399427.80	0.0269	0.0149
Mercury	78519-01-15 17:32 G	30399550.14	30399550.23	30399550.32	0.0269	0.0209
Mercury	78519-04-14 05:32 G	30399638.59	30399638.73	30399638.86	0.0269	0.0097
Venus	78519-05-02 08:24 G	30399656.64	30399656.85	30399657.07	0.0269	0.0011
Mercury	78519-07-11 17:32 G	30399727.09	30399727.23	30399727.38	0.0270	0.0019
Mercury	78519-10-08 06:00 G	30399815.63	30399815.75	30399815.88	0.0270	0.0135
Venus	78519-12-17 14:24 G	30399885.94	30399886.10	30399886.27	0.0270	0.0172
Mercury	78520-01-04 18:29 G	30399904.24	30399904.27	30399904.33	0.0270	0.0256
Mars	78523-09-19 08:53 G	30401257.62	30401257.87	30401258.12	0.0279	0.0119
Earth	78529-09-19 11:46 G	30403449.75	30403449.99	30403450.23	0.0292	0.0025
Moon	78529-09-19 14:53 G	30403449.88	30403450.12	30403450.37	0.0292	0.0021 *
Venus	78533-02-28 13:27 G	30404707.87	30404708.06	30404708.25	0.0291	0.0123
Mercury	78533-05-26 06:15 G	30404794.67	30404794.76	30404794.87	0.0290	0.0235

Mercury	78533-08-23 02:39 G	30404883.45	30404883.61	30404883.78	0.0290	0.0061
Venus	78533-10-16 07:56 G	30404937.63	30404937.83	30404938.04	0.0290	0.0075
Mercury	78533-11-19 22:34 G	30404972.28	30404972.44	30404972.59	0.0290	0.0109
Mercury	78534-02-16 17:32 G	30405061.18	30405061.23	30405061.29	0.0289	0.0273
Venus	78534-06-03 01:27 G	30405167.50	30405167.56	30405167.65	0.0289	0.0269
Mars	78537-10-05 07:12 G	30406387.49	30406387.80	30406388.11	0.0280	0.0025
Earth	78544-03-17 15:08 G	30408742.89	30408743.13	30408743.38	0.0268	0.0024
Moon	78544-03-17 17:32 G	30408742.99	30408743.23	30408743.47	0.0268	0.0019 *
Venus	78548-03-27 01:56 G	30410213.40	30410213.58	30410213.78	0.0269	0.0133
Mercury	78548-06-03 18:15 G	30410282.22	30410282.26	30410282.31	0.0269	0.0253
Mercury	78548-08-31 06:00 G	30410370.63	30410370.75	30410370.87	0.0269	0.0143
Venus	78548-11-11 07:41 G	30410442.60	30410442.82	30410443.03	0.0270	0.0027
Mercury	78548-11-27 18:15 G	30410459.11	30410459.26	30410459.40	0.0270	0.0030
Mercury	78549-02-24 06:29 G	30410547.63	30410547.77	30410547.90	0.0270	0.0087
Mercury	78549-05-23 18:58 G	30410636.20	30410636.29	30410636.38	0.0270	0.0206
Venus	78549-06-28 13:27 G	30410671.91	30410672.06	30410672.22	0.0271	0.0187
Moon	78558-09-13 02:53 G	30414035.50	30414035.62	30414035.77	0.0291	0.0234
Earth	78558-09-13 05:32 G	30414035.60	30414035.73	30414035.89	0.0291	0.0229 *
Moon	78559-09-27 06:58 G	30414414.77	30414414.79	30414414.84	0.0292	0.0289
Venus	78562-09-10 15:08 G	30415493.94	30415494.13	30415494.33	0.0291	0.0099
Mercury	78563-01-10 00:44 G	30415615.38	30415615.53	30415615.68	0.0291	0.0126
Mercury	78563-04-08 20:39 G	30415704.20	30415704.36	30415704.53	0.0290	0.0046
Venus	78563-04-28 09:51 G	30415723.72	30415723.91	30415724.11	0.0290	0.0099
Mercury	78563-07-06 16:05 G	30415793.06	30415793.17	30415793.28	0.0290	0.0213
Moon	78573-03-12 15:36 G	30419329.95	30419330.15	30419330.37	0.0268	0.0155
Earth	78573-03-12 17:17 G	30419330.03	30419330.22	30419330.43	0.0268	0.0158 *
Moon	78574-03-24 19:12 G	30419707.21	30419707.30	30419707.41	0.0268	0.0242
Earth	78574-03-24 22:48 G	30419707.37	30419707.45	30419707.53	0.0268	0.0253 *
Venus	78577-02-20 03:51 G	30420770.62	30420770.66	30420770.72	0.0268	0.0259
Venus	78577-10-07 09:08 G	30420999.68	30420999.88	30421000.08	0.0269	0.0103

Mercury	78578-01-18 09:08 G	30421102.77	30421102.88	30421102.99	0.0269	0.0168
Mercury	78578-04-16 21:08 G	30421191.24	30421191.38	30421191.52	0.0269	0.0055
Venus	78578-05-24 14:39 G	30421228.90	30421229.11	30421229.32	0.0269	0.0056
Mercury	78578-07-14 09:22 G	30421279.75	30421279.89	30421280.03	0.0270	0.0060
Mercury	78578-10-10 21:51 G	30421368.30	30421368.41	30421368.52	0.0270	0.0178
Venus	78579-01-08 20:39 G	30421458.24	30421458.36	30421458.49	0.0270	0.0217
Moon	78588-09-20 11:32 G	30425000.73	30425000.98	30425001.22	0.0292	0.0059
Earth	78588-09-20 12:29 G	30425000.79	30425001.02	30425001.26	0.0292	0.0069 *
Venus	78591-08-06 02:10 G	30426050.51	30426050.59	30426050.67	0.0292	0.0269
Venus	78592-03-22 21:08 G	30426280.18	30426280.38	30426280.59	0.0291	0.0071
Mercury	78592-05-29 00:15 G	30426347.38	30426347.51	30426347.64	0.0291	0.0176
Mercury	78592-08-25 20:24 G	30426436.18	30426436.35	30426436.52	0.0290	0.0004
Venus	78592-11-07 15:36 G	30426509.96	30426510.15	30426510.34	0.0290	0.0127
Mercury	78592-11-22 15:51 G	30426525.03	30426525.16	30426525.30	0.0290	0.0165
Earth	78603-03-20 17:32 G	30430294.00	30430294.23	30430294.48	0.0268	0.0065
Moon	78603-03-20 21:08 G	30430294.14	30430294.38	30430294.63	0.0268	0.0059 *
Venus	78606-09-03 03:51 G	30431556.59	30431556.66	30431556.76	0.0268	0.0243
Venus	78607-04-20 09:08 G	30431785.68	30431785.88	30431786.08	0.0269	0.0086
Mercury	78607-06-08 09:51 G	30431834.83	30431834.91	30431835.01	0.0269	0.0211
Mercury	78607-09-04 21:51 G	30431923.28	30431923.41	30431923.55	0.0269	0.0100
Mercury	78607-12-02 10:05 G	30432011.78	30432011.92	30432012.06	0.0270	0.0015
Venus	78607-12-05 14:24 G	30432014.90	30432015.10	30432015.31	0.0270	0.0074
Mercury	78608-02-28 22:20 G	30432100.31	30432100.43	30432100.56	0.0270	0.0132
Mercury	78608-05-27 10:48 G	30432188.91	30432188.95	30432189.01	0.0270	0.0252
Venus	78608-07-21 20:24 G	30432244.25	30432244.35	30432244.46	0.0271	0.0234
Mars	78612-02-13 05:03 G	30433545.46	30433545.71	30433545.97	0.0279	0.0106
Earth	78617-09-15 06:00 G	30435586.58	30435586.75	30435586.95	0.0291	0.0186
Moon	78617-09-15 07:41 G	30435586.65	30435586.82	30435587.00	0.0291	0.0193 *
Venus	78621-02-16 02:53 G	30436836.51	30436836.62	30436836.73	0.0292	0.0247
Venus	78621-10-03 22:20 G	30437066.22	30437066.43	30437066.64	0.0291	0.0048

Mercury	78621-10-16 21:36 G	30437079.31	30437079.40	30437079.49	0.0291	0.0245
Mercury	78622-01-13 18:00 G	30437168.09	30437168.25	30437168.42	0.0291	0.0070
Mercury	78622-04-12 13:56 G	30437256.92	30437257.08	30437257.24	0.0290	0.0101
Venus	78622-05-21 17:03 G	30437296.03	30437296.21	30437296.39	0.0290	0.0150
Mercury	78622-07-10 09:08 G	30437345.82	30437345.88	30437345.95	0.0290	0.0266
Mars	78626-03-01 11:17 G	30438675.67	30438675.97	30438676.28	0.0281	0.0068
Moon	78632-03-14 16:20 G	30440880.97	30440881.18	30440881.42	0.0269	0.0115
Earth	78632-03-14 20:10 G	30440881.12	30440881.34	30440881.57	0.0269	0.0115 *
Venus	78636-03-15 11:17 G	30442342.85	30442342.97	30442343.10	0.0268	0.0213
Mercury	78636-10-25 13:12 G	30442566.99	30442567.05	30442567.12	0.0269	0.0235
Venus	78636-10-30 16:34 G	30442571.98	30442572.19	30442572.40	0.0269	0.0056
Mercury	78637-01-22 00:58 G	30442655.42	30442655.54	30442655.67	0.0269	0.0124
Mercury	78637-04-20 13:12 G	30442743.91	30442744.05	30442744.19	0.0269	0.0011
Venus	78637-06-16 22:05 G	30442801.22	30442801.42	30442801.62	0.0269	0.0103
Mercury	78637-07-18 01:27 G	30442832.43	30442832.56	30442832.69	0.0270	0.0106
Mercury	78637-10-14 13:56 G	30442921.01	30442921.08	30442921.16	0.0270	0.0225
Venus	78638-02-01 04:05 G	30443030.63	30443030.67	30443030.72	0.0270	0.0263
Moon	78647-09-23 11:32 G	30446551.76	30446551.98	30446552.21	0.0292	0.0104
Earth	78647-09-23 15:08 G	30446551.91	30446552.13	30446552.36	0.0292	0.0116 *
Venus	78650-08-29 10:48 G	30447622.81	30447622.95	30447623.09	0.0292	0.0216
Mercury	78651-03-05 21:51 G	30447811.40	30447811.41	30447811.42	0.0291	0.0290
Venus	78651-04-16 06:00 G	30447852.54	30447852.75	30447852.95	0.0291	0.0018
Mercury	78651-06-02 18:15 G	30447900.11	30447900.26	30447900.42	0.0291	0.0114
Mercury	78651-08-30 14:10 G	30447988.93	30447989.09	30447989.26	0.0290	0.0058
Mercury	78651-11-27 09:36 G	30448077.80	30448077.90	30448078.01	0.0290	0.0224
Venus	78651-12-02 00:15 G	30448082.35	30448082.51	30448082.68	0.0290	0.0180
Moon	78662-03-21 21:51 G	30451845.18	30451845.41	30451845.65	0.0268	0.0101
Earth	78662-03-21 21:51 G	30451845.19	30451845.41	30451845.64	0.0268	0.0109 *
Venus	78665-09-25 12:29 G	30453128.88	30453129.02	30453129.17	0.0268	0.0195
Venus	78666-05-12 17:32 G	30453358.02	30453358.23	30453358.44	0.0269	0.0038

Mercury	78666-06-11 02:24 G	30453387.49	30453387.60	30453387.71	0.0269	0.0164
Mercury	78666-09-07 14:10 G	30453475.96	30453476.09	30453476.24	0.0269	0.0053
Mercury	78666-12-05 02:24 G	30453564.46	30453564.60	30453564.74	0.0270	0.0064
Venus	78666-12-27 22:48 G	30453587.26	30453587.45	30453587.64	0.0270	0.0122
Mercury	78667-03-03 14:53 G	30453653.01	30453653.12	30453653.23	0.0270	0.0181
Earth	78676-09-16 10:20 G	30457137.72	30457137.93	30457138.15	0.0291	0.0136
Moon	78676-09-16 13:56 G	30457137.87	30457138.08	30457138.29	0.0291	0.0145 *
Venus	78680-03-10 12:00 G	30458408.85	30458409.00	30458409.16	0.0292	0.0193
Mercury	78680-10-19 15:51 G	30458632.03	30458632.16	30458632.29	0.0291	0.0182
Venus	78680-10-26 07:12 G	30458638.59	30458638.80	30458639.01	0.0291	0.0007
Mercury	78681-01-16 12:15 G	30458720.84	30458721.01	30458721.17	0.0291	0.0010
Mercury	78681-04-15 07:41 G	30458809.69	30458809.82	30458809.96	0.0290	0.0162
Venus	78681-06-13 01:56 G	30458868.43	30458868.58	30458868.73	0.0290	0.0203
Moon	78691-03-16 23:46 G	30462432.26	30462432.49	30462432.72	0.0269	0.0073
Earth	78691-03-17 00:00 G	30462432.27	30462432.50	30462432.75	0.0269	0.0070 *
Venus	78695-04-07 19:56 G	30463915.16	30463915.33	30463915.50	0.0268	0.0166
Mercury	78695-10-29 05:32 G	30464119.63	30464119.73	30464119.83	0.0269	0.0187
Venus	78695-11-23 01:12 G	30464144.33	30464144.55	30464144.76	0.0269	0.0008
Mercury	78696-01-25 17:32 G	30464208.09	30464208.23	30464208.37	0.0269	0.0076
Mercury	78696-04-23 05:32 G	30464296.59	30464296.73	30464296.88	0.0269	0.0040
Venus	78696-07-09 06:44 G	30464373.61	30464373.78	30464373.96	0.0270	0.0152
Mercury	78696-07-20 18:00 G	30464385.13	30464385.25	30464385.37	0.0270	0.0156
Mars	78700-07-10 09:08 G	30465834.61	30465834.88	30465835.16	0.0278	0.0031
Moon	78706-09-25 19:27 G	30468103.12	30468103.31	30468103.51	0.0292	0.0155
Earth	78706-09-25 20:39 G	30468103.17	30468103.36	30468103.56	0.0292	0.0167 *
Venus	78709-09-21 20:53 G	30469195.20	30469195.37	30469195.55	0.0292	0.0161
Mercury	78710-03-09 16:34 G	30469364.09	30469364.19	30469364.30	0.0291	0.0222
Venus	78710-05-09 15:51 G	30469424.95	30469425.16	30469425.37	0.0291	0.0039
Mercury	78710-06-06 12:58 G	30469452.88	30469453.04	30469453.21	0.0291	0.0048
Mercury	78710-09-03 08:53 G	30469541.72	30469541.87	30469542.02	0.0290	0.0122

Mercury	78710-12-01 03:51 G	30469630.65	30469630.66	30469630.69	0.0290	0.0287
Venus	78710-12-25 10:05 G	30469654.81	30469654.92	30469655.05	0.0290	0.0235
Mars	78714-07-27 04:34 G	30470964.43	30470964.69	30470964.97	0.0281	0.0142
Earth	78720-03-11 23:03 G	30473019.38	30473019.46	30473019.54	0.0269	0.0254
Moon	78720-03-11 23:17 G	30473019.39	30473019.47	30473019.56	0.0269	0.0252 *
Moon	78721-03-24 00:44 G	30473396.33	30473396.53	30473396.75	0.0268	0.0145
Earth	78721-03-24 04:20 G	30473396.48	30473396.68	30473396.88	0.0268	0.0156 *
Venus	78724-10-18 22:20 G	30474701.25	30474701.43	30474701.61	0.0268	0.0146
Mercury	78725-03-18 07:12 G	30474851.73	30474851.80	30474851.88	0.0269	0.0224
Venus	78725-06-05 03:22 G	30474930.43	30474930.64	30474930.86	0.0269	0.0013
Mercury	78725-06-14 18:58 G	30474940.17	30474940.29	30474940.42	0.0269	0.0113
Mercury	78725-09-11 07:12 G	30475028.65	30475028.80	30475028.94	0.0269	0.0008
Mercury	78725-12-08 19:27 G	30475117.18	30475117.31	30475117.44	0.0270	0.0117
Venus	78726-01-20 08:53 G	30475159.71	30475159.87	30475160.04	0.0270	0.0172
Mercury	78726-03-07 07:41 G	30475205.76	30475205.82	30475205.90	0.0270	0.0236
Earth	78735-09-19 17:03 G	30478688.98	30478689.21	30478689.45	0.0291	0.0083
Moon	78735-09-19 18:00 G	30478689.01	30478689.25	30478689.49	0.0291	0.0094 *
Venus	78739-04-03 22:34 G	30479981.26	30479981.44	30479981.63	0.0291	0.0137
Mercury	78739-07-27 14:10 G	30480096.08	30480096.09	30480096.11	0.0291	0.0289
Mercury	78739-10-24 10:48 G	30480184.80	30480184.95	30480185.11	0.0291	0.0113
Venus	78739-11-19 17:46 G	30480211.03	30480211.24	30480211.44	0.0291	0.0062
Mercury	78740-01-21 06:58 G	30480273.62	30480273.79	30480273.95	0.0290	0.0059
Mercury	78740-04-19 02:24 G	30480362.50	30480362.60	30480362.70	0.0290	0.0226
Venus	78740-07-06 12:00 G	30480440.92	30480441.00	30480441.10	0.0290	0.0258
Earth	78750-03-19 05:46 G	30483983.50	30483983.74	30483983.99	0.0269	0.0023
Moon	78750-03-19 09:22 G	30483983.65	30483983.89	30483984.14	0.0269	0.0029 *
Venus	78754-05-01 05:32 G	30485487.54	30485487.73	30485487.93	0.0268	0.0117
Mercury	78754-08-05 10:34 G	30485583.88	30485583.94	30485583.99	0.0269	0.0247
Mercury	78754-11-01 22:05 G	30485672.31	30485672.42	30485672.55	0.0269	0.0137
Venus	78754-12-16 11:03 G	30485716.75	30485716.96	30485717.17	0.0269	0.0042

Mercury	78755-01-29 10:20 G	30485760.79	30485760.93	30485761.07	0.0269	0.0024
Mercury	78755-04-27 22:34 G	30485849.30	30485849.44	30485849.57	0.0269	0.0092
Mercury	78755-07-25 10:48 G	30485937.87	30485937.95	30485938.05	0.0270	0.0211
Venus	78755-08-02 16:48 G	30485946.06	30485946.20	30485946.34	0.0270	0.0202
Earth	78765-09-27 06:00 G	30489654.60	30489654.75	30489654.91	0.0292	0.0223
Moon	78765-09-27 08:24 G	30489654.70	30489654.85	30489655.03	0.0292	0.0211 *
Venus	78768-10-14 09:08 G	30490767.69	30490767.88	30490768.08	0.0291	0.0102
Mercury	78769-03-12 12:15 G	30490916.87	30490917.01	30490917.16	0.0291	0.0147
Venus	78769-06-01 03:51 G	30490997.47	30490997.66	30490997.86	0.0291	0.0098
Mercury	78769-06-09 08:24 G	30491005.69	30491005.85	30491006.02	0.0291	0.0027
Mercury	78769-09-06 04:05 G	30491094.55	30491094.67	30491094.79	0.0290	0.0194
Moon	78779-03-14 02:53 G	30494570.47	30494570.62	30494570.79	0.0269	0.0208
Earth	78779-03-14 06:29 G	30494570.62	30494570.77	30494570.94	0.0269	0.0205 *
Moon	78780-03-25 09:51 G	30494947.76	30494947.91	30494948.09	0.0268	0.0194
Earth	78780-03-25 12:15 G	30494947.86	30494948.01	30494948.17	0.0268	0.0205 *
Venus	78783-03-27 04:20 G	30496044.62	30496044.68	30496044.76	0.0268	0.0250
Venus	78783-11-11 09:22 G	30496273.69	30496273.89	30496274.09	0.0268	0.0094
Mercury	78784-03-21 00:15 G	30496404.41	30496404.51	30496404.62	0.0269	0.0170
Mercury	78784-06-17 12:15 G	30496492.87	30496493.01	30496493.15	0.0269	0.0058
Venus	78784-06-27 14:39 G	30496502.90	30496503.11	30496503.32	0.0269	0.0065
Mercury	78784-09-14 00:15 G	30496581.38	30496581.51	30496581.66	0.0269	0.0058
Mercury	78784-12-11 12:44 G	30496669.92	30496670.03	30496670.14	0.0270	0.0174
Venus	78785-02-11 20:24 G	30496732.23	30496732.35	30496732.47	0.0270	0.0224
Mars	78788-12-04 03:51 G	30498123.39	30498123.66	30498123.94	0.0278	0.0027
Moon	78794-09-21 00:15 G	30500240.27	30500240.51	30500240.76	0.0291	0.0039
Earth	78794-09-21 03:51 G	30500240.42	30500240.66	30500240.90	0.0291	0.0023 *
Venus	78797-09-08 15:36 G	30501324.10	30501324.15	30501324.23	0.0292	0.0277
Venus	78798-04-26 11:03 G	30501553.76	30501553.96	30501554.17	0.0291	0.0079
Mercury	78798-07-30 10:05 G	30501648.81	30501648.92	30501649.04	0.0291	0.0212
Mercury	78798-10-27 06:29 G	30501737.60	30501737.77	30501737.94	0.0290	0.0038

Venus	78798-12-12 06:00 G	30501783.56	30501783.75	30501783.94	0.0290	0.0120
Mercury	78799-01-24 02:24 G	30501826.45	30501826.60	30501826.74	0.0290	0.0132
Mars	78802-12-20 19:12 G	30503253.09	30503253.30	30503253.51	0.0281	0.0207
Earth	78809-03-20 13:12 G	30505534.81	30505535.05	30505535.30	0.0269	0.0029
Moon	78809-03-20 15:22 G	30505534.89	30505535.14	30505535.40	0.0269	0.0019 *
Venus	78812-10-06 11:17 G	30506830.86	30506830.97	30506831.09	0.0268	0.0223
Venus	78813-05-23 16:34 G	30507059.99	30507060.19	30507060.40	0.0269	0.0066
Mercury	78813-08-08 03:22 G	30507136.55	30507136.64	30507136.74	0.0269	0.0194
Mercury	78813-11-04 15:22 G	30507225.01	30507225.14	30507225.28	0.0269	0.0082
Venus	78814-01-07 22:05 G	30507289.23	30507289.42	30507289.63	0.0269	0.0094
Mercury	78814-02-01 03:36 G	30507313.50	30507313.65	30507313.79	0.0269	0.0033
Mercury	78814-04-30 15:51 G	30507402.04	30507402.16	30507402.28	0.0270	0.0150
Mercury	78814-07-28 04:20 G	30507490.68	30507490.68	30507490.70	0.0270	0.0269
Venus	78814-08-25 04:20 G	30507518.61	30507518.68	30507518.75	0.0270	0.0254
Earth	78823-09-15 17:17 G	30510827.08	30510827.22	30510827.36	0.0291	0.0238
Moon	78823-09-15 20:39 G	30510827.25	30510827.36	30510827.49	0.0291	0.0252 *
Earth	78824-09-28 17:17 G	30511206.18	30511206.22	30511206.29	0.0292	0.0284
Moon	78824-09-28 20:39 G	30511206.27	30511206.36	30511206.47	0.0292	0.0268 *
Venus	78827-03-22 03:36 G	30512110.54	30512110.65	30512110.77	0.0292	0.0240
Venus	78827-11-06 22:48 G	30512340.24	30512340.45	30512340.66	0.0291	0.0041
Mercury	78827-12-17 12:00 G	30512380.91	30512381.00	30512381.10	0.0291	0.0242
Mercury	78828-03-15 08:39 G	30512469.69	30512469.86	30512470.02	0.0291	0.0067
Mercury	78828-06-12 04:20 G	30512558.53	30512558.68	30512558.84	0.0290	0.0105
Venus	78828-06-23 17:17 G	30512570.05	30512570.22	30512570.40	0.0290	0.0157
Mercury	78828-09-08 23:46 G	30512647.44	30512647.49	30512647.55	0.0290	0.0269
Moon	78838-03-15 13:41 G	30516121.88	30516122.07	30516122.27	0.0269	0.0158
Earth	78838-03-15 15:36 G	30516121.96	30516122.15	30516122.36	0.0269	0.0153 *
Earth	78839-03-27 21:22 G	30516499.33	30516499.39	30516499.47	0.0268	0.0257
Moon	78839-03-27 23:46 G	30516499.40	30516499.49	30516499.60	0.0268	0.0243 *
Venus	78842-04-18 16:05 G	30517617.04	30517617.17	30517617.32	0.0268	0.0199

Venus	78842-12-03 21:22 G	30517846.18	30517846.39	30517846.60	0.0269	0.0041
Mercury	78842-12-26 05:46 G	30517868.67	30517868.74	30517868.82	0.0269	0.0224
Mercury	78843-03-24 17:46 G	30517957.11	30517957.24	30517957.36	0.0269	0.0113
Mercury	78843-06-21 05:46 G	30518045.59	30518045.74	30518045.88	0.0269	0.0006
Venus	78843-07-21 02:39 G	30518075.42	30518075.61	30518075.81	0.0269	0.0118
Mercury	78843-09-17 17:46 G	30518134.12	30518134.24	30518134.38	0.0270	0.0117
Mercury	78843-12-15 06:15 G	30518222.70	30518222.76	30518222.84	0.0270	0.0235
Moon	78853-09-22 14:53 G	30521791.88	30521792.12	30521792.36	0.0291	0.0025
Earth	78853-09-22 17:17 G	30521791.98	30521792.22	30521792.47	0.0291	0.0041 *
Venus	78856-10-01 06:29 G	30522896.64	30522896.77	30522896.92	0.0291	0.0215
Venus	78857-05-19 01:41 G	30523126.36	30523126.57	30523126.78	0.0291	0.0016
Mercury	78857-08-02 06:58 G	30523201.64	30523201.79	30523201.94	0.0290	0.0128
Mercury	78857-10-30 02:53 G	30523290.46	30523290.62	30523290.79	0.0290	0.0045
Venus	78858-01-03 20:24 G	30523356.18	30523356.35	30523356.51	0.0290	0.0181
Mercury	78858-01-26 22:34 G	30523379.33	30523379.44	30523379.55	0.0290	0.0211
Moon	78868-03-21 19:12 G	30527086.05	30527086.30	30527086.55	0.0269	0.0066
Earth	78868-03-21 21:51 G	30527086.18	30527086.41	30527086.65	0.0269	0.0079 *
Venus	78871-10-29 22:34 G	30528403.28	30528403.44	30528403.61	0.0268	0.0173
Mercury	78872-05-14 08:53 G	30528600.82	30528600.87	30528600.92	0.0269	0.0249
Venus	78872-06-15 04:05 G	30528632.46	30528632.67	30528632.89	0.0269	0.0014
Mercury	78872-08-10 20:39 G	30528689.24	30528689.36	30528689.48	0.0269	0.0138
Mercury	78872-11-07 08:39 G	30528777.72	30528777.86	30528778.00	0.0269	0.0025
Venus	78873-01-30 09:51 G	30528861.74	30528861.91	30528862.10	0.0270	0.0146
Mercury	78873-02-03 20:53 G	30528866.23	30528866.37	30528866.51	0.0270	0.0091
Mercury	78873-05-03 09:08 G	30528954.80	30528954.88	30528954.98	0.0270	0.0209
Mars	78877-05-01 00:00 G	30530413.26	30530413.50	30530413.74	0.0278	0.0137
Earth	78882-09-17 07:27 G	30532378.62	30532378.81	30532379.01	0.0291	0.0174
Moon	78882-09-17 09:51 G	30532378.72	30532378.91	30532379.10	0.0291	0.0187 *
Venus	78886-04-13 18:58 G	30533683.12	30533683.29	30533683.45	0.0292	0.0177
Venus	78886-11-29 13:56 G	30533912.87	30533913.08	30533913.29	0.0291	0.0023

Mercury	78886-12-20 09:08 G	30533933.74	30533933.88	30533934.03	0.0291	0.0156
Mercury	78887-03-19 05:17 G	30534022.56	30534022.72	30534022.89	0.0291	0.0019
Mercury	78887-06-16 00:58 G	30534111.42	30534111.54	30534111.67	0.0290	0.0186
Venus	78887-07-17 08:10 G	30534142.71	30534142.84	30534142.98	0.0290	0.0219
Earth	78897-03-17 01:27 G	30537673.34	30537673.56	30537673.80	0.0269	0.0100
Moon	78897-03-17 03:22 G	30537673.43	30537673.64	30537673.87	0.0269	0.0108 *
Venus	78901-05-12 04:34 G	30539189.51	30539189.69	30539189.87	0.0268	0.0146
Venus	78901-12-27 09:51 G	30539418.69	30539418.91	30539419.12	0.0269	0.0012
Mercury	78901-12-29 23:17 G	30539421.36	30539421.47	30539421.58	0.0269	0.0166
Mercury	78902-03-28 11:17 G	30539509.83	30539509.97	30539510.11	0.0269	0.0054
Mercury	78902-06-24 23:17 G	30539598.33	30539598.47	30539598.61	0.0270	0.0061
Venus	78902-08-13 15:08 G	30539647.98	30539648.13	30539648.31	0.0270	0.0172
Mercury	78902-09-21 11:32 G	30539686.88	30539686.98	30539687.10	0.0270	0.0178
Earth	78912-09-25 08:24 G	30543343.63	30543343.85	30543344.08	0.0291	0.0108
Moon	78912-09-25 10:20 G	30543343.71	30543343.93	30543344.15	0.0291	0.0092 *
Venus	78915-10-25 22:20 G	30544469.26	30544469.43	30544469.61	0.0291	0.0151
Mercury	78916-05-09 07:27 G	30544665.70	30544665.81	30544665.93	0.0290	0.0216
Venus	78916-06-11 17:17 G	30544699.01	30544699.22	30544699.42	0.0290	0.0048
Mercury	78916-08-06 03:51 G	30544754.50	30544754.66	30544754.83	0.0290	0.0042
Mercury	78916-11-02 23:46 G	30544843.34	30544843.49	30544843.64	0.0290	0.0129
Venus	78917-01-27 11:32 G	30544928.87	30544928.98	30544929.09	0.0289	0.0243
Moon	78927-03-25 03:36 G	30548637.43	30548637.65	30548637.87	0.0269	0.0117
Earth	78927-03-25 06:44 G	30548637.57	30548637.78	30548638.00	0.0269	0.0131 *
Venus	78930-11-22 09:51 G	30549975.73	30549975.91	30549976.11	0.0269	0.0122
Mercury	78931-05-19 01:56 G	30550153.49	30550153.58	30550153.68	0.0269	0.0194
Venus	78931-07-09 15:36 G	30550204.94	30550205.15	30550205.37	0.0269	0.0038
Mercury	78931-08-15 13:56 G	30550241.94	30550242.08	30550242.21	0.0269	0.0082
Mercury	78931-11-12 01:56 G	30550330.44	30550330.58	30550330.73	0.0270	0.0033
Mercury	78932-02-08 14:24 G	30550418.98	30550419.10	30550419.22	0.0270	0.0149
Venus	78932-02-23 21:36 G	30550434.26	30550434.40	30550434.55	0.0270	0.0198

Mercury	78932-05-07 02:53 G	30550507.61	30550507.62	30550507.64	0.0270	0.0269
Moon	78941-09-19 20:39 G	30553930.14	30553930.36	30553930.60	0.0291	0.0124
Earth	78941-09-19 22:34 G	30553930.22	30553930.44	30553930.67	0.0291	0.0109 *
Venus	78945-05-07 10:48 G	30555255.76	30555255.95	30555256.15	0.0292	0.0112
Mercury	78945-09-26 09:51 G	30555397.82	30555397.91	30555398.01	0.0291	0.0242
Venus	78945-12-23 05:32 G	30555485.54	30555485.73	30555485.94	0.0291	0.0087
Mercury	78945-12-24 06:29 G	30555486.61	30555486.77	30555486.93	0.0291	0.0067
Mercury	78946-03-23 02:24 G	30555575.45	30555575.60	30555575.76	0.0290	0.0104
Mercury	78946-06-19 21:51 G	30555664.35	30555664.41	30555664.47	0.0290	0.0269
Venus	78946-08-09 23:46 G	30555715.46	30555715.49	30555715.55	0.0290	0.0282
Earth	78956-03-19 11:32 G	30559224.74	30559224.98	30559225.23	0.0268	0.0048
Moon	78956-03-19 15:08 G	30559224.89	30559225.13	30559225.38	0.0268	0.0054 *
Venus	78959-10-18 11:32 G	30560532.91	30560532.98	30560533.06	0.0268	0.0250
Venus	78960-06-03 16:34 G	30560761.99	30560762.19	30560762.39	0.0268	0.0094
Mercury	78960-10-05 04:48 G	30560885.63	30560885.70	30560885.78	0.0269	0.0220
Mercury	78961-01-01 16:48 G	30560974.07	30560974.20	30560974.33	0.0269	0.0109
Venus	78961-01-18 22:05 G	30560991.21	30560991.42	30560991.63	0.0269	0.0065
Mercury	78961-03-31 04:48 G	30561062.55	30561062.70	30561062.84	0.0269	0.0008
Mercury	78961-06-27 16:48 G	30561151.08	30561151.20	30561151.34	0.0270	0.0121
Venus	78961-09-05 03:36 G	30561220.55	30561220.65	30561220.78	0.0270	0.0225
Mercury	78961-09-24 05:17 G	30561239.66	30561239.72	30561239.79	0.0270	0.0239
Mars	78965-09-26 07:41 G	30562702.66	30562702.82	30562702.99	0.0279	0.0223
Earth	78971-09-28 00:29 G	30564895.34	30564895.52	30564895.72	0.0291	0.0175
Moon	78971-09-28 04:05 G	30564895.47	30564895.67	30564895.88	0.0291	0.0159 *
Venus	78974-04-01 19:41 G	30565812.28	30565812.32	30565812.37	0.0291	0.0283
Venus	78974-11-17 14:53 G	30566041.92	30566042.12	30566042.32	0.0291	0.0086
Mercury	78975-05-13 05:03 G	30566218.56	30566218.71	30566218.87	0.0290	0.0125
Venus	78975-07-05 09:22 G	30566271.70	30566271.89	30566272.09	0.0290	0.0112
Mercury	78975-08-10 01:12 G	30566307.39	30566307.55	30566307.72	0.0290	0.0047
Mercury	78975-11-06 20:39 G	30566396.26	30566396.36	30566396.48	0.0289	0.0215

Moon	78985-03-14 05:03 G	30569811.60	30569811.71	30569811.84	0.0270	0.0234
Earth	78985-03-14 08:53 G	30569811.75	30569811.87	30569812.00	0.0270	0.0230 *
Earth	78986-03-26 15:22 G	30570188.97	30570189.14	30570189.33	0.0269	0.0181
Moon	78986-03-26 15:36 G	30570188.98	30570189.15	30570189.35	0.0269	0.0169 *
Venus	78989-04-29 15:51 G	30571319.05	30571319.16	30571319.27	0.0268	0.0228
Venus	78989-12-14 21:08 G	30571548.18	30571548.38	30571548.59	0.0269	0.0070
Mercury	78990-02-22 07:12 G	30571617.76	30571617.80	30571617.85	0.0269	0.0251
Mercury	78990-05-21 18:58 G	30571706.17	30571706.29	30571706.41	0.0269	0.0140
Venus	78990-08-01 02:53 G	30571777.42	30571777.62	30571777.82	0.0270	0.0090
Mercury	78990-08-18 06:58 G	30571794.65	30571794.79	30571794.94	0.0270	0.0028
Mercury	78990-11-14 19:12 G	30571883.17	30571883.30	30571883.44	0.0270	0.0089
Mercury	78991-02-11 07:41 G	30571971.73	30571971.82	30571971.91	0.0270	0.0207
Venus	78991-03-18 09:08 G	30572006.81	30572006.88	30572006.97	0.0270	0.0250
Moon	79000-09-22 10:05 G	30575481.68	30575481.92	30575482.16	0.0291	0.0060
Earth	79000-09-22 13:27 G	30575481.83	30575482.06	30575482.31	0.0291	0.0045 *

80TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 80th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	79003-10-14 07:27 G	30576598.71	30576598.81	30576598.93	0.0292	0.0246		
Venus	79004-05-31 02:53 G	30576828.41	30576828.62	30576828.82	0.0291	0.0048		
Mercury	79004-09-30 07:12 G	30576950.66	30576950.80	30576950.95	0.0291	0.0153		
Mercury	79004-12-28 03:36 G	30577039.48	30577039.65	30577039.82	0.0291	0.0021		

Venus	79005-01-15 21:22 G	30577058.21	30577058.39	30577058.57	0.0291	0.0151
Mercury	79005-03-26 23:17 G	30577128.35	30577128.47	30577128.60	0.0290	0.0189
Earth	79015-03-22 21:08 G	30580776.13	30580776.38	30580776.62	0.0268	0.0005
Moon	79015-03-22 21:36 G	30580776.14	30580776.40	30580776.65	0.0268	0.0006 *
Venus	79018-11-10 22:34 G	30582105.31	30582105.44	30582105.59	0.0268	0.0199
Venus	79019-06-28 03:51 G	30582334.45	30582334.66	30582334.88	0.0269	0.0043
Mercury	79019-10-09 21:51 G	30582438.31	30582438.41	30582438.53	0.0269	0.0166
Mercury	79020-01-06 09:51 G	30582526.77	30582526.91	30582527.05	0.0269	0.0054
Venus	79020-02-12 09:36 G	30582563.71	30582563.90	30582564.09	0.0269	0.0117
Mercury	79020-04-03 22:05 G	30582615.28	30582615.42	30582615.56	0.0270	0.0062
Mercury	79020-07-01 10:20 G	30582703.83	30582703.93	30582704.04	0.0270	0.0178
Earth	79029-09-16 15:36 G	30586068.09	30586068.15	30586068.22	0.0290	0.0279
Earth	79030-09-30 15:51 G	30586447.03	30586447.16	30586447.30	0.0292	0.0240
Moon	79030-09-30 17:03 G	30586447.05	30586447.21	30586447.37	0.0292	0.0224 *
Venus	79033-04-25 11:46 G	30587384.86	30587384.99	30587385.13	0.0291	0.0219
Venus	79033-12-11 06:58 G	30587614.58	30587614.79	30587615.00	0.0291	0.0021
Mercury	79034-02-17 06:00 G	30587682.64	30587682.75	30587682.87	0.0290	0.0210
Mercury	79034-05-17 02:24 G	30587771.44	30587771.60	30587771.77	0.0290	0.0036
Venus	79034-07-29 01:27 G	30587844.40	30587844.56	30587844.73	0.0290	0.0176
Mercury	79034-08-13 22:20 G	30587860.29	30587860.43	30587860.58	0.0290	0.0134
Mars	79038-01-16 03:51 G	30589111.57	30589111.66	30589111.76	0.0282	0.0268
Moon	79044-03-16 16:48 G	30591363.04	30591363.20	30591363.38	0.0269	0.0188
Earth	79044-03-16 17:17 G	30591363.04	30591363.22	30591363.41	0.0269	0.0181 *
Earth	79045-03-28 23:32 G	30591740.36	30591740.48	30591740.61	0.0268	0.0229
Moon	79045-03-29 02:53 G	30591740.48	30591740.62	30591740.77	0.0268	0.0215 *
Venus	79048-05-23 01:56 G	30592891.42	30592891.58	30592891.74	0.0269	0.0178
Venus	79049-01-07 07:27 G	30593120.59	30593120.81	30593121.02	0.0269	0.0020
Mercury	79049-02-26 00:00 G	30593170.41	30593170.50	30593170.59	0.0269	0.0199
Mercury	79049-05-25 11:46 G	30593258.86	30593258.99	30593259.13	0.0269	0.0088
Mercury	79049-08-22 00:00 G	30593347.35	30593347.50	30593347.64	0.0270	0.0027

Venus	79049-08-24 13:12 G	30593349.87	30593350.05	30593350.23	0.0270	0.0140
Mercury	79049-11-18 12:15 G	30593435.89	30593436.01	30593436.13	0.0270	0.0143
Mercury	79050-02-15 00:44 G	30593524.50	30593524.53	30593524.57	0.0270	0.0263
Moon	79059-09-25 01:27 G	30597033.33	30597033.56	30597033.80	0.0292	0.0006
Earth	79059-09-25 02:39 G	30597033.37	30597033.61	30597033.86	0.0292	0.0017 *
Venus	79062-11-05 23:03 G	30598171.30	30598171.46	30598171.62	0.0292	0.0182
Venus	79063-06-23 18:00 G	30598401.05	30598401.25	30598401.46	0.0291	0.0018
Mercury	79063-07-07 07:56 G	30598414.74	30598414.83	30598414.92	0.0291	0.0242
Mercury	79063-10-04 04:20 G	30598503.52	30598503.68	30598503.85	0.0291	0.0067
Mercury	79064-01-01 00:29 G	30598592.37	30598592.52	30598592.68	0.0290	0.0105
Venus	79064-02-08 12:29 G	30598630.89	30598631.02	30598631.17	0.0290	0.0214
Mercury	79064-03-29 19:56 G	30598681.28	30598681.33	30598681.39	0.0290	0.0271
Moon	79074-03-24 01:41 G	30602327.32	30602327.57	30602327.82	0.0268	0.0039
Earth	79074-03-24 05:17 G	30602327.48	30602327.72	30602327.96	0.0268	0.0052 *
Venus	79077-12-03 08:53 G	30603677.70	30603677.87	30603678.05	0.0268	0.0149
Mercury	79078-07-16 02:53 G	30603902.55	30603902.62	30603902.70	0.0269	0.0225
Venus	79078-07-20 14:10 G	30603906.88	30603907.09	30603907.31	0.0269	0.0011
Mercury	79078-10-12 14:53 G	30603990.99	30603991.12	30603991.25	0.0269	0.0114
Mercury	79079-01-09 02:53 G	30604079.47	30604079.62	30604079.76	0.0269	0.0004
Venus	79079-03-06 20:10 G	30604136.17	30604136.34	30604136.50	0.0270	0.0168
Mercury	79079-04-07 15:08 G	30604168.00	30604168.13	30604168.26	0.0270	0.0116
Mercury	79079-07-05 03:22 G	30604256.58	30604256.64	30604256.72	0.0270	0.0234
Earth	79088-09-18 04:48 G	30607619.55	30607619.70	30607619.87	0.0291	0.0218
Moon	79088-09-18 05:32 G	30607619.59	30607619.73	30607619.89	0.0291	0.0232 *
Moon	79089-10-02 02:24 G	30607998.56	30607998.60	30607998.67	0.0292	0.0284
Venus	79092-05-18 03:08 G	30608957.45	30608957.63	30608957.81	0.0291	0.0156
Venus	79093-01-02 22:05 G	30609187.21	30609187.42	30609187.62	0.0291	0.0043
Mercury	79093-02-20 03:08 G	30609235.48	30609235.63	30609235.78	0.0290	0.0124
Mercury	79093-05-19 23:17 G	30609324.31	30609324.47	30609324.64	0.0290	0.0048
Mercury	79093-08-16 18:44 G	30609413.18	30609413.28	30609413.40	0.0290	0.0216

Venus	79093-08-20 16:34 G	30609417.07	30609417.19	30609417.31	0.0290	0.0238
Earth	79103-03-20 00:29 G	30612914.30	30612914.52	30612914.73	0.0269	0.0134
Moon	79103-03-20 04:05 G	30612914.46	30612914.67	30612914.88	0.0269	0.0144 *
Moon	79104-03-31 08:10 G	30613291.79	30613291.84	30613291.92	0.0268	0.0259
Venus	79107-06-16 11:03 G	30614463.77	30614463.96	30614464.15	0.0269	0.0130
Mercury	79107-12-04 04:48 G	30614634.67	30614634.70	30614634.73	0.0269	0.0261
Venus	79108-01-31 16:34 G	30614692.98	30614693.19	30614693.40	0.0269	0.0029
Mercury	79108-03-01 16:20 G	30614723.07	30614723.18	30614723.30	0.0269	0.0151
Mercury	79108-05-29 04:20 G	30614811.54	30614811.68	30614811.82	0.0270	0.0039
Mercury	79108-08-25 16:34 G	30614900.05	30614900.19	30614900.33	0.0270	0.0077
Venus	79108-09-16 22:05 G	30614922.28	30614922.42	30614922.58	0.0270	0.0189
Mercury	79108-11-22 04:48 G	30614988.61	30614988.70	30614988.80	0.0270	0.0195
Mars	79112-06-01 08:24 G	30616275.76	30616275.85	30616275.98	0.0277	0.0254
Earth	79118-09-27 12:29 G	30618584.79	30618585.02	30618585.26	0.0292	0.0073
Moon	79118-09-27 15:36 G	30618584.92	30618585.15	30618585.39	0.0292	0.0055 *
Venus	79121-11-29 12:44 G	30619743.84	30619744.03	30619744.22	0.0292	0.0121
Mercury	79122-07-11 04:20 G	30619967.54	30619967.68	30619967.82	0.0291	0.0161
Venus	79122-07-17 07:56 G	30619973.63	30619973.83	30619974.03	0.0291	0.0079
Mercury	79122-10-08 00:44 G	30620056.36	30620056.53	30620056.70	0.0291	0.0013
Mercury	79123-01-04 20:24 G	30620145.23	30620145.35	30620145.48	0.0290	0.0183
Venus	79123-03-04 02:24 G	30620203.53	30620203.60	30620203.67	0.0290	0.0274
Mars	79126-06-14 04:48 G	30621401.44	30621401.70	30621401.98	0.0282	0.0139
Moon	79133-03-26 09:36 G	30623878.68	30623878.90	30623879.14	0.0268	0.0084
Earth	79133-03-26 12:00 G	30623878.77	30623879.00	30623879.23	0.0268	0.0098 *
Venus	79136-05-11 12:44 G	30625020.98	30625021.03	30625021.11	0.0268	0.0256
Venus	79136-12-26 18:00 G	30625250.05	30625250.25	30625250.45	0.0268	0.0100
Mercury	79137-07-19 19:27 G	30625455.21	30625455.31	30625455.42	0.0269	0.0176
Venus	79137-08-12 23:17 G	30625479.26	30625479.47	30625479.68	0.0269	0.0058
Mercury	79137-10-16 07:12 G	30625543.67	30625543.80	30625543.94	0.0269	0.0065
Mercury	79138-01-12 19:12 G	30625632.17	30625632.30	30625632.45	0.0269	0.0050

Venus	79138-03-30 04:48 G	30625708.59	30625708.70	30625708.84	0.0270	0.0217
Mercury	79138-04-11 07:41 G	30625720.71	30625720.82	30625720.93	0.0270	0.0166
Moon	79147-09-21 11:17 G	30629170.79	30629170.97	30629171.17	0.0291	0.0179
Earth	79147-09-21 15:08 G	30629170.93	30629171.13	30629171.33	0.0291	0.0161 *
Venus	79150-10-24 21:22 G	30630300.39	30630300.39	30630300.40	0.0292	0.0292
Venus	79151-06-11 16:34 G	30630530.00	30630530.19	30630530.40	0.0291	0.0095
Mercury	79151-11-28 02:53 G	30630699.51	30630699.62	30630699.73	0.0291	0.0220
Venus	79152-01-27 11:32 G	30630759.79	30630759.98	30630760.18	0.0290	0.0104
Mercury	79152-02-24 23:32 G	30630788.31	30630788.48	30630788.64	0.0290	0.0044
Mercury	79152-05-23 19:27 G	30630877.16	30630877.31	30630877.46	0.0290	0.0126
Earth	79162-03-21 06:00 G	30634465.52	30634465.75	30634465.98	0.0269	0.0089
Moon	79162-03-21 07:41 G	30634465.60	30634465.82	30634466.07	0.0269	0.0102 *
Venus	79165-11-21 13:56 G	30635806.98	30635807.08	30635807.18	0.0268	0.0238
Venus	79166-07-08 18:44 G	30636036.08	30636036.28	30636036.49	0.0268	0.0083
Mercury	79166-12-06 20:39 G	30636187.28	30636187.36	30636187.45	0.0269	0.0217
Venus	79167-02-23 00:29 G	30636265.31	30636265.52	30636265.72	0.0269	0.0076
Mercury	79167-03-05 08:24 G	30636275.72	30636275.85	30636275.98	0.0269	0.0106
Mercury	79167-06-01 20:24 G	30636364.21	30636364.35	30636364.50	0.0270	0.0010
Mercury	79167-08-29 08:39 G	30636452.73	30636452.86	30636452.99	0.0270	0.0124
Venus	79167-10-10 06:00 G	30636494.66	30636494.75	30636494.86	0.0270	0.0235
Mercury	79167-11-25 21:08 G	30636541.32	30636541.38	30636541.44	0.0270	0.0242
Earth	79177-09-28 19:56 G	30640136.12	30640136.33	30640136.56	0.0292	0.0124
Moon	79177-09-28 22:48 G	30640136.22	30640136.45	30640136.69	0.0292	0.0106 *
Venus	79180-05-06 05:03 G	30641086.62	30641086.71	30641086.81	0.0293	0.0260
Venus	79180-12-22 00:44 G	30641316.33	30641316.53	30641316.74	0.0292	0.0061
Mercury	79181-04-16 03:22 G	30641431.57	30641431.64	30641431.71	0.0292	0.0264
Mercury	79181-07-14 00:00 G	30641520.34	30641520.50	30641520.67	0.0291	0.0087
Venus	79181-08-08 19:56 G	30641546.15	30641546.33	30641546.52	0.0291	0.0138
Mercury	79181-10-10 20:10 G	30641609.18	30641609.34	30641609.50	0.0291	0.0086
Mercury	79182-01-07 15:51 G	30641698.08	30641698.16	30641698.24	0.0290	0.0253

Earth	79191-03-16 10:48 G	30645052.93	30645052.95	30645053.00	0.0269	0.0266
Earth	79192-03-27 16:20 G	30645429.97	30645430.18	30645430.40	0.0268	0.0140
Moon	79192-03-27 18:58 G	30645430.08	30645430.29	30645430.50	0.0268	0.0125 *
Venus	79195-06-03 20:39 G	30646593.24	30646593.36	30646593.50	0.0267	0.0209
Venus	79196-01-19 01:41 G	30646822.36	30646822.57	30646822.78	0.0268	0.0053
Mercury	79196-04-24 23:32 G	30646919.43	30646919.48	30646919.55	0.0268	0.0243
Mercury	79196-07-22 11:17 G	30647007.85	30647007.97	30647008.10	0.0269	0.0133
Venus	79196-09-04 06:58 G	30647051.59	30647051.79	30647051.99	0.0269	0.0105
Mercury	79196-10-18 23:17 G	30647096.33	30647096.47	30647096.61	0.0269	0.0020
Mercury	79197-01-15 11:32 G	30647184.84	30647184.98	30647185.11	0.0269	0.0095
Mercury	79197-04-13 23:46 G	30647273.41	30647273.49	30647273.58	0.0270	0.0213
Venus	79197-04-21 12:15 G	30647280.98	30647281.01	30647281.07	0.0270	0.0264
Mars	79200-10-26 03:22 G	30648564.45	30648564.64	30648564.84	0.0277	0.0195
Moon	79206-09-22 19:27 G	30650722.10	30650722.31	30650722.52	0.0291	0.0129
Earth	79206-09-22 21:22 G	30650722.17	30650722.39	30650722.62	0.0291	0.0111 *
Venus	79209-11-16 08:53 G	30651872.75	30651872.87	30651873.00	0.0292	0.0234
Venus	79210-07-04 04:20 G	30652102.47	30652102.68	30652102.89	0.0291	0.0036
Mercury	79210-11-30 22:20 G	30652252.29	30652252.43	30652252.58	0.0291	0.0147
Venus	79211-02-18 23:03 G	30652332.30	30652332.46	30652332.64	0.0290	0.0163
Mercury	79211-02-27 18:44 G	30652341.12	30652341.28	30652341.45	0.0290	0.0029
Mercury	79211-05-27 14:39 G	30652429.99	30652430.11	30652430.23	0.0290	0.0196
Mars	79214-11-07 17:17 G	30653689.92	30653690.22	30653690.52	0.0282	0.0072
Moon	79221-03-22 07:27 G	30656016.57	30656016.81	30656017.06	0.0268	0.0061
Earth	79221-03-22 10:05 G	30656016.68	30656016.92	30656017.17	0.0268	0.0047 *
Venus	79224-12-13 20:39 G	30657379.22	30657379.36	30657379.52	0.0268	0.0193
Venus	79225-07-31 01:41 G	30657608.36	30657608.57	30657608.78	0.0268	0.0036
Mercury	79225-12-09 12:29 G	30657739.91	30657740.02	30657740.13	0.0269	0.0175
Mercury	79226-03-08 00:15 G	30657828.37	30657828.51	30657828.65	0.0269	0.0063
Venus	79226-03-17 06:58 G	30657837.60	30657837.79	30657837.98	0.0269	0.0122
Mercury	79226-06-04 12:15 G	30657916.87	30657917.01	30657917.15	0.0269	0.0051

Mercury	79226-09-01 00:29 G	30658005.41	30658005.52	30658005.64	0.0270	0.0167
Moon	79236-09-29 21:36 G	30661687.19	30661687.40	30661687.62	0.0292	0.0152
Earth	79236-09-29 23:32 G	30661687.29	30661687.48	30661687.69	0.0292	0.0169 *
Venus	79239-05-29 14:53 G	30662658.98	30662659.12	30662659.28	0.0293	0.0204
Venus	79240-01-14 10:48 G	30662888.74	30662888.95	30662889.16	0.0292	0.0004
Mercury	79240-04-18 22:05 G	30662984.30	30662984.42	30662984.55	0.0292	0.0197
Mercury	79240-07-16 18:44 G	30663073.12	30663073.28	30663073.45	0.0291	0.0021
Venus	79240-08-31 06:00 G	30663118.60	30663118.75	30663118.91	0.0291	0.0194
Mercury	79240-10-13 14:53 G	30663161.98	30663162.12	30663162.26	0.0291	0.0151
Earth	79250-03-17 14:24 G	30666603.97	30666604.10	30666604.24	0.0269	0.0224
Moon	79250-03-17 16:05 G	30666604.07	30666604.17	30666604.30	0.0269	0.0234 *
Earth	79251-03-29 18:58 G	30666981.12	30666981.29	30666981.49	0.0267	0.0181
Moon	79251-03-29 22:20 G	30666981.24	30666981.43	30666981.64	0.0267	0.0165 *
Venus	79254-06-26 03:22 G	30668165.47	30668165.64	30668165.81	0.0267	0.0163
Venus	79255-02-10 08:10 G	30668394.63	30668394.84	30668395.06	0.0268	0.0008
Mercury	79255-04-28 15:22 G	30668472.05	30668472.14	30668472.23	0.0268	0.0201
Mercury	79255-07-26 03:08 G	30668560.50	30668560.63	30668560.76	0.0268	0.0091
Venus	79255-09-27 13:12 G	30668623.88	30668624.05	30668624.23	0.0269	0.0151
Mercury	79255-10-22 15:08 G	30668648.99	30668649.13	30668649.27	0.0269	0.0023
Mercury	79256-01-19 03:08 G	30668737.51	30668737.63	30668737.76	0.0269	0.0139
Mercury	79256-04-16 15:36 G	30668826.11	30668826.15	30668826.20	0.0270	0.0256
Earth	79265-09-24 01:27 G	30672273.32	30672273.56	30672273.80	0.0292	0.0065
Moon	79265-09-24 03:36 G	30672273.43	30672273.65	30672273.88	0.0292	0.0080 *
Venus	79268-12-08 18:58 G	30673445.12	30673445.29	30673445.45	0.0292	0.0179
Venus	79269-07-26 14:24 G	30673674.90	30673675.10	30673675.31	0.0291	0.0022
Mercury	79269-09-05 20:24 G	30673716.28	30673716.35	30673716.43	0.0291	0.0257
Mercury	79269-12-03 17:17 G	30673805.06	30673805.22	30673805.38	0.0291	0.0080
Mercury	79270-03-02 13:27 G	30673893.90	30673894.06	30673894.22	0.0291	0.0093
Venus	79270-03-13 09:36 G	30673904.76	30673904.90	30673905.03	0.0290	0.0218
Mercury	79270-05-30 09:08 G	30673982.81	30673982.88	30673982.95	0.0290	0.0260

Moon	79280-03-23 09:22 G	30677567.65	30677567.89	30677568.13	0.0268	0.0022
Earth	79280-03-23 12:29 G	30677567.78	30677568.02	30677568.27	0.0268	0.0008 *
Venus	79284-01-06 02:39 G	30678951.44	30678951.61	30678951.80	0.0268	0.0148
Venus	79284-08-22 07:27 G	30679180.60	30679180.81	30679181.03	0.0268	0.0010
Mercury	79284-09-14 16:20 G	30679204.13	30679204.18	30679204.24	0.0268	0.0244
Mercury	79284-12-12 03:51 G	30679292.54	30679292.66	30679292.79	0.0269	0.0135
Mercury	79285-03-10 15:51 G	30679381.02	30679381.16	30679381.30	0.0269	0.0024
Venus	79285-04-08 12:29 G	30679409.86	30679410.02	30679410.20	0.0269	0.0167
Mercury	79285-06-07 03:51 G	30679469.52	30679469.66	30679469.79	0.0269	0.0091
Mercury	79285-09-03 16:05 G	30679558.08	30679558.17	30679558.26	0.0270	0.0208
Mars	79289-03-21 02:53 G	30680852.41	30680852.62	30680852.85	0.0277	0.0171
Moon	79295-10-01 20:53 G	30683238.20	30683238.37	30683238.55	0.0292	0.0196
Earth	79295-10-02 00:15 G	30683238.35	30683238.51	30683238.68	0.0292	0.0210 *
Venus	79298-06-20 22:48 G	30684231.28	30684231.45	30684231.64	0.0293	0.0152
Venus	79299-02-05 18:44 G	30684461.08	30684461.28	30684461.49	0.0292	0.0050
Mercury	79299-04-22 16:05 G	30684537.02	30684537.17	30684537.32	0.0292	0.0137
Mercury	79299-07-20 12:29 G	30684625.86	30684626.02	30684626.19	0.0291	0.0040
Venus	79299-09-23 13:56 G	30684690.99	30684691.08	30684691.21	0.0291	0.0248
Mercury	79299-10-17 08:24 G	30684714.74	30684714.85	30684714.97	0.0291	0.0209
Mars	79303-04-04 14:39 G	30685978.80	30685979.11	30685979.42	0.0283	0.0004
Earth	79309-03-19 16:05 G	30688155.00	30688155.17	30688155.36	0.0268	0.0185
Moon	79309-03-19 19:41 G	30688155.16	30688155.32	30688155.50	0.0268	0.0196 *
Moon	79310-03-31 19:56 G	30688532.17	30688532.33	30688532.50	0.0267	0.0204
Earth	79310-03-31 20:39 G	30688532.23	30688532.36	30688532.52	0.0267	0.0219 *
Venus	79313-07-19 09:08 G	30689737.69	30689737.88	30689738.08	0.0267	0.0118
Venus	79314-03-05 13:56 G	30689966.87	30689967.08	30689967.30	0.0268	0.0038
Mercury	79314-05-02 06:44 G	30690024.67	30690024.78	30690024.90	0.0268	0.0162
Mercury	79314-07-29 18:29 G	30690113.14	30690113.27	30690113.41	0.0268	0.0052
Venus	79314-10-20 18:58 G	30690196.15	30690196.29	30690196.44	0.0269	0.0195
Mercury	79314-10-26 06:29 G	30690201.64	30690201.77	30690201.91	0.0269	0.0063

Mercury	79315-01-22 18:44 G	30690290.18	30690290.28	30690290.39	0.0269	0.0179
Earth	79324-09-26 01:56 G	30693824.34	30693824.58	30693824.83	0.0292	0.0024
Moon	79324-09-26 05:17 G	30693824.48	30693824.72	30693824.97	0.0292	0.0039 *
Venus	79328-01-02 02:53 G	30695017.44	30695017.62	30695017.81	0.0292	0.0126
Venus	79328-08-18 22:48 G	30695247.25	30695247.45	30695247.65	0.0292	0.0074
Mercury	79328-09-09 14:24 G	30695268.98	30695269.10	30695269.23	0.0291	0.0197
Mercury	79328-12-07 11:17 G	30695357.80	30695357.97	30695358.14	0.0291	0.0021
Mercury	79329-03-06 07:12 G	30695446.66	30695446.80	30695446.95	0.0291	0.0152
Venus	79329-04-05 17:46 G	30695477.17	30695477.24	30695477.32	0.0291	0.0271
Earth	79339-03-26 13:41 G	30699118.83	30699119.07	30699119.32	0.0268	0.0031
Moon	79339-03-26 14:24 G	30699118.86	30699119.10	30699119.33	0.0268	0.0017 *
Venus	79342-06-14 03:51 G	30700294.61	30700294.66	30700294.72	0.0267	0.0257
Venus	79343-01-29 08:10 G	30700523.65	30700523.84	30700524.04	0.0267	0.0103
Venus	79343-09-15 12:44 G	30700752.82	30700753.03	30700753.24	0.0268	0.0053
Mercury	79343-09-19 07:27 G	30700756.73	30700756.81	30700756.90	0.0268	0.0207
Mercury	79343-12-16 19:12 G	30700845.17	30700845.30	30700845.43	0.0268	0.0097
Mercury	79344-03-14 07:12 G	30700933.65	30700933.80	30700933.94	0.0269	0.0017
Venus	79344-05-01 17:32 G	30700982.11	30700982.23	30700982.37	0.0269	0.0210
Mercury	79344-06-10 19:12 G	30701022.18	30701022.30	30701022.43	0.0269	0.0130
Mercury	79344-09-07 07:27 G	30701110.76	30701110.81	30701110.87	0.0269	0.0248
Moon	79353-09-19 17:46 G	30704410.21	30704410.24	30704410.28	0.0291	0.0287
Earth	79353-09-19 21:08 G	30704410.29	30704410.38	30704410.47	0.0291	0.0270
Earth	79354-10-03 23:03 G	30704789.35	30704789.46	30704789.60	0.0292	0.0249
Moon	79354-10-03 23:32 G	30704789.35	30704789.48	30704789.62	0.0292	0.0239 *
Venus	79357-07-14 06:00 G	30705803.55	30705803.75	30705803.95	0.0293	0.0100
Mercury	79358-01-27 12:29 G	30706000.96	30706001.02	30706001.11	0.0292	0.0260
Venus	79358-03-01 01:56 G	30706033.39	30706033.58	30706033.78	0.0292	0.0101
Mercury	79358-04-26 09:36 G	30706089.74	30706089.90	30706090.06	0.0292	0.0081
Mercury	79358-07-24 06:00 G	30706178.59	30706178.75	30706178.91	0.0291	0.0093
Mercury	79358-10-21 01:41 G	30706267.50	30706267.57	30706267.64	0.0291	0.0262

Earth	79368-03-20 16:48 G	30709706.00	30709706.20	30709706.41	0.0268	0.0146
Moon	79368-03-20 16:34 G	30709706.00	30709706.19	30709706.41	0.0268	0.0160 *
Moon	79369-04-01 17:32 G	30710083.14	30710083.23	30710083.35	0.0267	0.0241
Earth	79369-04-01 21:08 G	30710083.32	30710083.38	30710083.46	0.0267	0.0255 *
Venus	79371-12-25 10:20 G	30711080.82	30711080.93	30711081.04	0.0267	0.0228
Venus	79372-08-10 14:24 G	30711309.90	30711310.10	30711310.31	0.0267	0.0074
Mercury	79373-02-05 10:34 G	30711488.87	30711488.94	30711489.01	0.0268	0.0233
Venus	79373-03-27 18:58 G	30711539.09	30711539.29	30711539.50	0.0268	0.0082
Mercury	79373-05-04 22:05 G	30711577.30	30711577.42	30711577.55	0.0268	0.0124
Mercury	79373-08-01 09:51 G	30711665.77	30711665.91	30711666.06	0.0268	0.0015
Mercury	79373-10-28 22:05 G	30711754.28	30711754.42	30711754.55	0.0268	0.0102
Venus	79373-11-12 00:00 G	30711768.41	30711768.50	30711768.60	0.0269	0.0238
Mercury	79374-01-25 10:05 G	30711842.84	30711842.92	30711843.01	0.0269	0.0218
Mars	79377-08-15 12:44 G	30713140.79	30713141.03	30713141.28	0.0277	0.0131
Moon	79383-09-28 00:58 G	30715375.29	30715375.54	30715375.80	0.0292	0.0005
Earth	79383-09-28 01:27 G	30715375.32	30715375.56	30715375.80	0.0292	0.0016 *
Venus	79386-06-08 13:56 G	30716360.01	30716360.08	30716360.16	0.0293	0.0274
Venus	79387-01-24 10:05 G	30716589.72	30716589.92	30716590.12	0.0292	0.0074
Venus	79387-09-11 06:00 G	30716819.56	30716819.75	30716819.93	0.0292	0.0126
Mercury	79387-09-13 08:10 G	30716821.69	30716821.84	30716821.98	0.0292	0.0140
Mercury	79387-12-11 04:34 G	30716910.52	30716910.69	30716910.86	0.0291	0.0035
Mercury	79388-03-09 00:29 G	30716999.41	30716999.52	30716999.64	0.0291	0.0206
Mars	79391-08-28 11:17 G	30718266.67	30718266.97	30718267.28	0.0282	0.0041
Earth	79398-03-27 14:24 G	30720669.87	30720670.10	30720670.35	0.0268	0.0068
Moon	79398-03-27 18:00 G	30720670.02	30720670.25	30720670.50	0.0268	0.0053 *
Venus	79401-07-07 09:22 G	30721866.76	30721866.89	30721867.02	0.0267	0.0213
Venus	79402-02-21 13:27 G	30722095.86	30722096.06	30722096.28	0.0267	0.0060
Mercury	79402-09-22 22:48 G	30722309.35	30722309.45	30722309.56	0.0268	0.0169
Venus	79402-10-08 18:00 G	30722325.05	30722325.25	30722325.45	0.0268	0.0097
Mercury	79402-12-20 10:34 G	30722397.80	30722397.94	30722398.08	0.0268	0.0059

Mercury	79403-03-18 22:34 G	30722486.30	30722486.44	30722486.58	0.0269	0.0055
Venus	79403-05-25 22:34 G	30722554.38	30722554.44	30722554.52	0.0269	0.0253
Mercury	79403-06-15 10:34 G	30722574.83	30722574.94	30722575.05	0.0269	0.0169
Earth	79412-09-21 18:44 G	30725961.14	30725961.28	30725961.42	0.0291	0.0233
Moon	79412-09-21 19:27 G	30725961.20	30725961.31	30725961.44	0.0291	0.0249 *
Earth	79413-10-05 20:39 G	30726340.32	30726340.36	30726340.42	0.0293	0.0285
Moon	79413-10-06 00:00 G	30726340.44	30726340.50	30726340.59	0.0293	0.0277
Venus	79415-12-20 15:08 G	30727146.03	30727146.13	30727146.25	0.0293	0.0251
Venus	79416-08-06 12:00 G	30727375.79	30727376.00	30727376.20	0.0293	0.0050
Mercury	79417-01-31 05:32 G	30727553.62	30727553.73	30727553.86	0.0292	0.0208
Venus	79417-03-24 07:56 G	30727605.65	30727605.83	30727606.01	0.0292	0.0151
Mercury	79417-04-30 02:24 G	30727642.44	30727642.60	30727642.77	0.0292	0.0030
Mercury	79417-07-27 22:34 G	30727731.30	30727731.44	30727731.59	0.0292	0.0144
Moon	79427-03-23 12:58 G	30731256.83	30731257.04	30731257.27	0.0268	0.0126
Earth	79427-03-23 17:03 G	30731256.99	30731257.21	30731257.44	0.0268	0.0109 *
Venus	79431-01-17 15:36 G	30732652.99	30732653.15	30732653.30	0.0267	0.0185
Venus	79431-09-03 19:41 G	30732882.11	30732882.32	30732882.53	0.0267	0.0031
Mercury	79432-02-10 01:41 G	30733041.48	30733041.57	30733041.67	0.0267	0.0196
Venus	79432-04-20 00:00 G	30733111.32	30733111.50	30733111.70	0.0268	0.0126
Mercury	79432-05-08 13:27 G	30733129.93	30733130.06	30733130.19	0.0268	0.0086
Mercury	79432-08-05 01:12 G	30733218.41	30733218.55	30733218.69	0.0268	0.0026
Mercury	79432-11-01 13:12 G	30733306.93	30733307.05	30733307.18	0.0268	0.0141
Mercury	79433-01-29 01:41 G	30733395.53	30733395.57	30733395.61	0.0269	0.0257
Moon	79442-09-29 20:39 G	30736926.12	30736926.36	30736926.61	0.0292	0.0044
Earth	79442-09-30 00:15 G	30736926.28	30736926.51	30736926.76	0.0292	0.0056 *
Venus	79445-07-01 20:39 G	30737932.23	30737932.36	30737932.50	0.0293	0.0224
Venus	79446-02-16 17:03 G	30738162.00	30738162.21	30738162.42	0.0293	0.0023
Mercury	79446-06-20 04:20 G	30738285.62	30738285.68	30738285.76	0.0292	0.0264
Mercury	79446-09-17 01:27 G	30738374.40	30738374.56	30738374.72	0.0292	0.0085
Venus	79446-10-04 12:44 G	30738391.87	30738392.03	30738392.20	0.0292	0.0177

Mercury	79446-12-14 21:51 G	30738463.25	30738463.41	30738463.57	0.0291	0.0090
Mercury	79447-03-13 17:32 G	30738552.17	30738552.23	30738552.31	0.0291	0.0259
Earth	79457-03-29 15:22 G	30742220.91	30742221.14	30742221.37	0.0267	0.0105
Moon	79457-03-29 16:34 G	30742220.95	30742221.19	30742221.44	0.0267	0.0091 *
Venus	79460-07-29 14:39 G	30743438.96	30743439.11	30743439.29	0.0267	0.0170
Venus	79461-03-15 18:58 G	30743668.08	30743668.29	30743668.51	0.0267	0.0016
Mercury	79461-06-29 02:39 G	30743773.55	30743773.61	30743773.67	0.0268	0.0239
Mercury	79461-09-25 14:10 G	30743861.97	30743862.09	30743862.21	0.0268	0.0130
Venus	79461-10-30 23:17 G	30743897.29	30743897.47	30743897.66	0.0268	0.0141
Mercury	79461-12-23 01:56 G	30743950.44	30743950.58	30743950.72	0.0268	0.0020
Mercury	79462-03-21 13:56 G	30744038.95	30744039.08	30744039.21	0.0268	0.0094
Mercury	79462-06-18 01:56 G	30744127.50	30744127.58	30744127.68	0.0269	0.0210
Mars	79466-01-09 04:05 G	30745428.43	30745428.67	30745428.92	0.0277	0.0126
Earth	79471-09-23 17:03 G	30747512.04	30747512.21	30747512.40	0.0291	0.0194
Moon	79471-09-23 20:39 G	30747512.21	30747512.36	30747512.55	0.0291	0.0208 *
Venus	79475-01-11 21:08 G	30748718.24	30748718.38	30748718.54	0.0293	0.0202
Venus	79475-08-29 18:00 G	30748948.04	30748948.25	30748948.46	0.0293	0.0004
Mercury	79476-02-03 22:34 G	30749106.30	30749106.44	30749106.59	0.0292	0.0156
Venus	79476-04-15 13:56 G	30749177.93	30749178.08	30749178.24	0.0292	0.0200
Mercury	79476-05-02 19:27 G	30749195.14	30749195.31	30749195.48	0.0292	0.0022
Mercury	79476-07-30 15:36 G	30749284.02	30749284.15	30749284.27	0.0292	0.0194
Mars	79480-01-22 10:48 G	30750554.65	30750554.95	30750555.25	0.0283	0.0076
Moon	79486-03-24 16:05 G	30752807.95	30752808.17	30752808.40	0.0268	0.0086
Earth	79486-03-24 17:17 G	30752807.98	30752808.22	30752808.46	0.0268	0.0071 *
Venus	79490-02-08 21:08 G	30754225.20	30754225.38	30754225.57	0.0267	0.0142
Venus	79490-09-26 01:27 G	30754454.34	30754454.56	30754454.77	0.0267	0.0014
Mercury	79490-11-16 05:32 G	30754505.72	30754505.73	30754505.76	0.0267	0.0264
Mercury	79491-02-12 17:03 G	30754594.10	30754594.21	30754594.33	0.0267	0.0157
Mercury	79491-05-12 04:48 G	30754682.56	30754682.70	30754682.84	0.0268	0.0047
Venus	79491-05-13 05:46 G	30754683.58	30754683.74	30754683.91	0.0268	0.0169

Mercury	79491-08-08 16:48 G	30754771.06	30754771.20	30754771.34	0.0268	0.0066
Mercury	79491-11-05 04:48 G	30754859.60	30754859.70	30754859.81	0.0268	0.0182
Moon	79501-10-01 22:34 G	30758477.22	30758477.44	30758477.67	0.0292	0.0089
Earth	79501-10-01 23:46 G	30758477.26	30758477.49	30758477.72	0.0292	0.0096 *
Venus	79504-07-25 03:36 G	30759504.49	30759504.65	30759504.82	0.0293	0.0173
Venus	79505-03-12 00:00 G	30759734.29	30759734.50	30759734.70	0.0293	0.0029
Mercury	79505-06-23 21:51 G	30759838.30	30759838.41	30759838.53	0.0292	0.0208
Mercury	79505-09-20 18:44 G	30759927.11	30759927.28	30759927.45	0.0292	0.0030
Venus	79505-10-27 19:27 G	30759964.19	30759964.31	30759964.45	0.0292	0.0228
Mercury	79505-12-18 15:08 G	30760015.98	30760016.13	30760016.27	0.0292	0.0144
Earth	79515-03-20 12:29 G	30763394.95	30763395.02	30763395.09	0.0269	0.0256
Moon	79516-03-31 13:12 G	30763771.84	30763772.05	30763772.28	0.0267	0.0133
Earth	79516-03-31 16:48 G	30763772.00	30763772.20	30763772.41	0.0267	0.0144 *
Venus	79519-08-22 21:08 G	30765011.19	30765011.38	30765011.57	0.0267	0.0125
Venus	79520-04-08 01:12 G	30765240.34	30765240.55	30765240.76	0.0267	0.0030
Mercury	79520-07-02 18:15 G	30765326.17	30765326.26	30765326.35	0.0267	0.0198
Mercury	79520-09-29 05:46 G	30765414.61	30765414.74	30765414.88	0.0268	0.0090
Venus	79520-11-23 05:17 G	30765469.57	30765469.72	30765469.88	0.0268	0.0186
Mercury	79520-12-26 17:32 G	30765503.09	30765503.23	30765503.38	0.0268	0.0023
Mercury	79521-03-25 05:32 G	30765591.61	30765591.73	30765591.86	0.0268	0.0136
Mercury	79521-06-21 18:00 G	30765680.20	30765680.25	30765680.29	0.0269	0.0252
Earth	79530-09-25 16:48 G	30769063.00	30769063.20	30769063.41	0.0291	0.0153
Moon	79530-09-25 17:03 G	30769063.00	30769063.21	30769063.42	0.0291	0.0160 *
Venus	79534-02-04 04:05 G	30770290.49	30770290.67	30770290.85	0.0293	0.0152
Venus	79534-09-22 00:44 G	30770520.32	30770520.53	30770520.74	0.0293	0.0050
Mercury	79534-11-10 18:44 G	30770570.24	30770570.28	30770570.33	0.0293	0.0281
Mercury	79535-02-07 15:51 G	30770659.01	30770659.16	30770659.33	0.0292	0.0101
Mercury	79535-05-07 12:29 G	30770747.86	30770748.02	30770748.19	0.0292	0.0076
Venus	79535-05-09 20:39 G	30770750.26	30770750.36	30770750.47	0.0292	0.0250
Mercury	79535-08-04 08:24 G	30770836.77	30770836.85	30770836.94	0.0292	0.0247

Earth	79545-03-26 18:29 G	30774359.02	30774359.27	30774359.51	0.0268	0.0031
Moon	79545-03-26 21:36 G	30774359.16	30774359.40	30774359.64	0.0268	0.0044 *
Venus	79548-07-17 23:17 G	30775568.41	30775568.47	30775568.55	0.0266	0.0250
Venus	79549-03-04 03:36 G	30775797.45	30775797.65	30775797.85	0.0267	0.0097
Venus	79549-10-19 07:41 G	30776026.62	30776026.82	30776027.04	0.0267	0.0058
Mercury	79549-11-19 21:22 G	30776058.31	30776058.39	30776058.46	0.0267	0.0223
Mercury	79550-02-16 08:53 G	30776146.74	30776146.87	30776147.00	0.0267	0.0115
Mercury	79550-05-15 20:39 G	30776235.22	30776235.36	30776235.50	0.0268	0.0004
Venus	79550-06-05 12:00 G	30776255.88	30776256.00	30776256.14	0.0268	0.0214
Mercury	79550-08-12 08:39 G	30776323.73	30776323.86	30776323.99	0.0268	0.0109
Mercury	79550-11-08 20:39 G	30776412.29	30776412.36	30776412.44	0.0268	0.0225
Mars	79554-06-05 22:20 G	30777717.16	30777717.43	30777717.70	0.0276	0.0069
Earth	79560-10-03 01:12 G	30780028.35	30780028.55	30780028.77	0.0292	0.0141
Moon	79560-10-03 04:48 G	30780028.49	30780028.70	30780028.91	0.0292	0.0138 *
Venus	79563-08-17 11:46 G	30781076.80	30781076.99	30781077.18	0.0293	0.0121
Venus	79564-04-03 08:10 G	30781306.63	30781306.84	30781307.04	0.0293	0.0081
Mercury	79564-06-26 15:51 G	30781391.02	30781391.16	30781391.31	0.0292	0.0147
Mercury	79564-09-23 12:29 G	30781479.86	30781480.02	30781480.19	0.0292	0.0030
Venus	79564-11-19 03:51 G	30781536.60	30781536.66	30781536.72	0.0292	0.0279
Mercury	79564-12-21 08:39 G	30781568.74	30781568.86	30781568.98	0.0292	0.0201
Mars	79568-06-17 15:22 G	30782842.87	30782843.14	30782843.42	0.0283	0.0127
Moon	79574-03-21 12:00 G	30784945.87	30784946.00	30784946.13	0.0269	0.0229
Earth	79574-03-21 14:53 G	30784945.98	30784946.12	30784946.28	0.0269	0.0215 *
Moon	79575-04-02 17:03 G	30785323.04	30785323.21	30785323.40	0.0267	0.0178
Earth	79575-04-02 19:27 G	30785323.14	30785323.31	30785323.49	0.0267	0.0185 *
Venus	79578-01-28 00:29 G	30786354.43	30786354.52	30786354.64	0.0266	0.0233
Venus	79578-09-14 04:34 G	30786583.49	30786583.69	30786583.90	0.0267	0.0079
Mercury	79579-04-08 22:34 G	30786790.43	30786790.44	30786790.47	0.0267	0.0262
Venus	79579-05-01 08:39 G	30786812.65	30786812.86	30786813.06	0.0267	0.0076
Mercury	79579-07-06 10:05 G	30786878.81	30786878.92	30786879.04	0.0267	0.0155

Mercury	79579-10-02 21:51 G	30786967.27	30786967.41	30786967.55	0.0268	0.0045
Venus	79579-12-16 12:29 G	30787041.93	30787042.02	30787042.14	0.0268	0.0233
Mercury	79579-12-30 09:36 G	30787055.77	30787055.90	30787056.04	0.0268	0.0068
Mercury	79580-03-27 21:36 G	30787144.30	30787144.40	30787144.51	0.0268	0.0182
Moon	79589-09-26 15:36 G	30790613.92	30790614.15	30790614.38	0.0291	0.0109
Earth	79589-09-26 19:12 G	30790614.08	30790614.30	30790614.53	0.0291	0.0108 *
Venus	79593-02-26 12:15 G	30791862.82	30791863.01	30791863.21	0.0293	0.0099
Venus	79593-10-14 08:39 G	30792092.67	30792092.86	30792093.06	0.0293	0.0103
Mercury	79593-11-13 12:44 G	30792122.92	30792123.03	30792123.15	0.0292	0.0220
Mercury	79594-02-10 09:51 G	30792211.74	30792211.91	30792212.08	0.0292	0.0041
Mercury	79594-05-10 06:15 G	30792300.61	30792300.76	30792300.91	0.0292	0.0134
Earth	79604-03-27 20:53 G	30795910.13	30795910.37	30795910.62	0.0268	0.0012
Moon	79604-03-27 23:32 G	30795910.23	30795910.48	30795910.73	0.0268	0.0001 *
Venus	79607-08-10 06:44 G	30797140.65	30797140.78	30797140.92	0.0267	0.0206
Venus	79608-03-26 11:03 G	30797369.75	30797369.96	30797370.17	0.0267	0.0051
Venus	79608-11-10 15:22 G	30797598.94	30797599.14	30797599.34	0.0267	0.0104
Mercury	79608-11-22 13:12 G	30797610.95	30797611.05	30797611.16	0.0267	0.0180
Mercury	79609-02-19 00:44 G	30797699.40	30797699.53	30797699.67	0.0268	0.0071
Mercury	79609-05-18 12:44 G	30797787.89	30797788.03	30797788.17	0.0268	0.0042
Venus	79609-06-27 19:56 G	30797828.28	30797828.33	30797828.38	0.0268	0.0259
Mercury	79609-08-15 00:44 G	30797876.41	30797876.53	30797876.65	0.0268	0.0156
Jupiter	79610-08-08 13:27 G	30798234.64	30798235.06	30798235.52	0.0270	0.0110
Earth	79619-10-05 05:17 G	30801579.54	30801579.72	30801579.91	0.0292	0.0188
Moon	79619-10-05 07:56 G	30801579.65	30801579.83	30801580.02	0.0292	0.0190 *
Venus	79622-01-22 00:44 G	30802419.45	30802419.53	30802419.61	0.0294	0.0268
Venus	79622-09-08 21:22 G	30802649.18	30802649.39	30802649.59	0.0293	0.0067
Mercury	79623-04-02 13:12 G	30802854.98	30802855.05	30802855.13	0.0293	0.0262
Venus	79623-04-26 17:17 G	30802879.04	30802879.22	30802879.41	0.0293	0.0136
Mercury	79623-06-30 10:20 G	30802943.77	30802943.93	30802944.10	0.0292	0.0082
Mercury	79623-09-27 06:58 G	30803032.63	30803032.79	30803032.95	0.0292	0.0093

Mercury	79623-12-25 02:39 G	30803121.55	30803121.61	30803121.69	0.0292	0.0264
Moon	79633-03-22 16:48 G	30806497.03	30806497.20	30806497.38	0.0269	0.0185
Earth	79633-03-22 19:41 G	30806497.13	30806497.32	30806497.51	0.0269	0.0170 *
Earth	79634-04-04 00:15 G	30806874.38	30806874.51	30806874.64	0.0267	0.0229
Moon	79634-04-04 02:10 G	30806874.47	30806874.59	30806874.73	0.0267	0.0226 *
Venus	79637-02-19 09:22 G	30807926.74	30807926.89	30807927.05	0.0266	0.0185
Venus	79637-10-06 13:12 G	30808155.84	30808156.05	30808156.27	0.0267	0.0032
Mercury	79638-04-11 14:53 G	30808343.04	30808343.12	30808343.21	0.0267	0.0216
Venus	79638-05-23 17:17 G	30808385.03	30808385.22	30808385.41	0.0267	0.0124
Mercury	79638-07-09 02:24 G	30808431.48	30808431.60	30808431.73	0.0268	0.0107
Mercury	79638-10-05 14:10 G	30808519.95	30808520.09	30808520.24	0.0268	0.0008
Mercury	79639-01-02 02:10 G	30808608.46	30808608.59	30808608.72	0.0268	0.0117
Mercury	79639-03-31 14:10 G	30808697.03	30808697.09	30808697.17	0.0268	0.0233
Mars	79642-10-30 05:03 G	30810005.43	30810005.71	30810005.99	0.0276	0.0034
Moon	79648-09-27 23:17 G	30812165.24	30812165.47	30812165.71	0.0291	0.0056
Earth	79648-09-28 00:58 G	30812165.31	30812165.54	30812165.78	0.0291	0.0057 *
Venus	79651-08-04 01:56 G	30813205.48	30813205.58	30813205.70	0.0293	0.0245
Venus	79652-03-20 22:34 G	30813435.24	30813435.44	30813435.65	0.0293	0.0044
Venus	79652-11-05 18:58 G	30813665.11	30813665.29	30813665.46	0.0292	0.0158
Mercury	79652-11-16 07:41 G	30813675.68	30813675.82	30813675.97	0.0292	0.0151
Mercury	79653-02-13 04:34 G	30813764.52	30813764.69	30813764.86	0.0292	0.0026
Mercury	79653-05-13 00:44 G	30813853.41	30813853.53	30813853.65	0.0292	0.0198
Mars	79656-11-10 18:58 G	30815131.05	30815131.29	30815131.54	0.0284	0.0173
Moon	79663-03-29 23:32 G	30817461.23	30817461.48	30817461.74	0.0269	0.0047
Earth	79663-03-30 01:12 G	30817461.31	30817461.55	30817461.80	0.0269	0.0056 *
Venus	79666-09-01 15:36 G	30818712.98	30818713.15	30818713.32	0.0267	0.0159
Venus	79667-04-18 19:56 G	30818942.11	30818942.33	30818942.54	0.0267	0.0005
Mercury	79667-08-29 18:15 G	30819075.20	30819075.26	30819075.32	0.0267	0.0240
Mercury	79667-11-26 05:46 G	30819163.61	30819163.74	30819163.86	0.0268	0.0132
Venus	79667-12-04 00:00 G	30819171.33	30819171.50	30819171.68	0.0268	0.0153

Mercury	79668-02-22 17:17 G	30819252.08	30819252.22	30819252.36	0.0268	0.0022
Mercury	79668-05-21 05:17 G	30819340.59	30819340.72	30819340.85	0.0268	0.0092
Mercury	79668-08-17 17:17 G	30819429.14	30819429.22	30819429.32	0.0268	0.0207
Earth	79677-09-22 12:00 G	30822751.92	30822752.00	30822752.09	0.0291	0.0271
Moon	79677-09-22 13:41 G	30822752.00	30822752.07	30822752.16	0.0291	0.0275 *
Moon	79678-10-06 11:03 G	30823130.84	30823130.96	30823131.10	0.0292	0.0248
Earth	79678-10-06 13:12 G	30823130.93	30823131.05	30823131.20	0.0292	0.0241 *
Venus	79681-02-13 12:15 G	30823991.87	30823992.01	30823992.16	0.0294	0.0211
Venus	79681-10-01 08:53 G	30824221.66	30824221.87	30824222.08	0.0293	0.0010
Mercury	79682-04-05 08:53 G	30824407.74	30824407.87	30824408.00	0.0293	0.0189
Venus	79682-05-19 04:48 G	30824451.55	30824451.70	30824451.86	0.0292	0.0192
Mercury	79682-07-03 05:46 G	30824496.57	30824496.74	30824496.91	0.0292	0.0011
Mercury	79682-09-30 01:56 G	30824585.45	30824585.58	30824585.72	0.0292	0.0163
Earth	79692-03-24 01:56 G	30828048.37	30828048.58	30828048.81	0.0269	0.0124
Moon	79692-03-24 03:08 G	30828048.43	30828048.63	30828048.84	0.0269	0.0137 *
Venus	79696-03-13 19:12 G	30829499.13	30829499.30	30829499.49	0.0267	0.0137
Venus	79696-10-28 23:17 G	30829728.26	30829728.47	30829728.69	0.0267	0.0019
Mercury	79697-04-14 07:41 G	30829895.71	30829895.82	30829895.93	0.0267	0.0165
Venus	79697-06-15 03:22 G	30829957.48	30829957.64	30829957.81	0.0268	0.0174
Mercury	79697-07-11 19:27 G	30829984.17	30829984.31	30829984.44	0.0268	0.0056
Mercury	79697-10-08 07:12 G	30830072.66	30830072.80	30830072.94	0.0268	0.0057
Mercury	79698-01-04 18:58 G	30830161.19	30830161.29	30830161.41	0.0268	0.0172
Earth	79707-10-01 10:05 G	30833716.68	30833716.92	30833717.16	0.0291	0.0001
Moon	79707-10-01 12:29 G	30833716.78	30833717.02	30833717.25	0.0291	0.0006 *
Venus	79710-08-27 14:24 G	30834777.94	30834778.10	30834778.26	0.0293	0.0187
Venus	79711-04-14 10:48 G	30835007.74	30835007.95	30835008.16	0.0293	0.0015
Mercury	79711-08-24 06:15 G	30835139.68	30835139.76	30835139.84	0.0292	0.0257
Mercury	79711-11-21 03:22 G	30835228.48	30835228.64	30835228.80	0.0292	0.0076
Venus	79711-11-30 06:44 G	30835237.65	30835237.78	30835237.93	0.0292	0.0215
Mercury	79712-02-18 00:00 G	30835317.34	30835317.50	30835317.65	0.0292	0.0099

Mercury	79712-05-16 19:41 G	30835406.27	30835406.32	30835406.39	0.0291	0.0270
Moon	79722-04-01 04:05 G	30839012.45	30839012.67	30839012.91	0.0269	0.0094
Earth	79722-04-01 07:41 G	30839012.60	30839012.82	30839013.06	0.0269	0.0103 *
Venus	79725-02-07 21:22 G	30840056.37	30840056.39	30840056.42	0.0267	0.0264
Venus	79725-09-25 01:41 G	30840285.37	30840285.57	30840285.76	0.0267	0.0110
Venus	79726-05-12 05:46 G	30840514.53	30840514.74	30840514.96	0.0267	0.0046
Mercury	79726-09-02 10:48 G	30840627.85	30840627.95	30840628.05	0.0267	0.0189
Mercury	79726-11-29 22:20 G	30840716.30	30840716.43	30840716.57	0.0268	0.0080
Venus	79726-12-27 10:05 G	30840743.79	30840743.92	30840744.07	0.0268	0.0202
Mercury	79727-02-26 10:05 G	30840804.78	30840804.92	30840805.07	0.0268	0.0033
Mercury	79727-05-25 22:05 G	30840893.31	30840893.42	30840893.55	0.0268	0.0146
Mercury	79727-08-22 10:20 G	30840981.91	30840981.93	30840981.96	0.0269	0.0262
Mars	79731-03-27 17:46 G	30842294.97	30842295.24	30842295.51	0.0276	0.0064
Moon	79736-09-24 20:24 G	30844303.19	30844303.35	30844303.53	0.0291	0.0214
Earth	79736-09-24 22:34 G	30844303.29	30844303.44	30844303.62	0.0291	0.0214 *
Venus	79740-03-09 01:41 G	30845564.40	30845564.57	30845564.76	0.0294	0.0151
Venus	79740-10-24 22:20 G	30845794.22	30845794.43	30845794.63	0.0293	0.0052
Mercury	79741-01-10 07:56 G	30845871.81	30845871.83	30845871.86	0.0293	0.0289
Mercury	79741-04-09 05:03 G	30845960.56	30845960.71	30845960.87	0.0293	0.0108
Venus	79741-06-11 18:00 G	30846024.15	30846024.25	30846024.36	0.0292	0.0252
Mercury	79741-07-07 01:56 G	30846049.41	30846049.58	30846049.74	0.0292	0.0069
Mercury	79741-10-03 21:51 G	30846138.32	30846138.41	30846138.51	0.0292	0.0240
Mars	79745-04-08 06:00 G	30847420.70	30847420.75	30847420.79	0.0283	0.0280
Earth	79751-03-27 10:20 G	30849599.70	30849599.93	30849600.17	0.0269	0.0074
Moon	79751-03-27 14:10 G	30849599.86	30849600.09	30849600.33	0.0269	0.0088 *
Venus	79754-08-21 02:10 G	30850842.51	30850842.59	30850842.70	0.0266	0.0240
Venus	79755-04-07 06:29 G	30851071.57	30851071.77	30851071.98	0.0267	0.0086
Venus	79755-11-22 10:34 G	30851300.73	30851300.94	30851301.15	0.0267	0.0070
Mercury	79756-01-20 13:12 G	30851359.98	30851360.05	30851360.13	0.0267	0.0219
Mercury	79756-04-18 00:44 G	30851448.41	30851448.53	30851448.66	0.0268	0.0110

Venus	79756-07-08 14:53 G	30851530.01	30851530.12	30851530.24	0.0268	0.0225
Mercury	79756-07-15 12:29 G	30851536.88	30851537.02	30851537.16	0.0268	0.0003
Mercury	79756-10-12 00:29 G	30851625.39	30851625.52	30851625.65	0.0268	0.0114
Mercury	79757-01-08 12:29 G	30851713.95	30851714.02	30851714.10	0.0268	0.0229
Earth	79766-10-02 23:03 G	30855268.22	30855268.46	30855268.70	0.0291	0.0060
Moon	79766-10-03 02:39 G	30855268.37	30855268.61	30855268.85	0.0291	0.0064 *
Venus	79769-09-19 04:48 G	30856350.52	30856350.70	30856350.90	0.0293	0.0125
Venus	79770-05-07 01:12 G	30856580.35	30856580.55	30856580.75	0.0292	0.0077
Mercury	79770-08-27 02:53 G	30856692.49	30856692.62	30856692.77	0.0292	0.0173
Mercury	79770-11-24 00:00 G	30856781.33	30856781.50	30856781.67	0.0292	0.0006
Venus	79770-12-22 20:39 G	30856810.31	30856810.36	30856810.44	0.0292	0.0276
Mercury	79771-02-20 20:10 G	30856870.21	30856870.34	30856870.48	0.0292	0.0179
Moon	79780-03-21 05:32 G	30860186.70	30860186.73	30860186.78	0.0270	0.0266
Earth	79780-03-21 09:36 G	30860186.81	30860186.90	30860186.99	0.0270	0.0250
Moon	79781-04-02 14:53 G	30860563.93	30860564.12	30860564.33	0.0269	0.0146
Earth	79781-04-02 15:36 G	30860563.95	30860564.15	30860564.36	0.0269	0.0152 *
Venus	79784-03-02 07:56 G	30861628.72	30861628.83	30861628.97	0.0267	0.0215
Venus	79784-10-17 12:29 G	30861857.81	30861858.02	30861858.23	0.0267	0.0060
Venus	79785-06-03 16:48 G	30862087.00	30862087.20	30862087.40	0.0268	0.0096
Mercury	79785-06-08 16:20 G	30862092.13	30862092.18	30862092.24	0.0268	0.0244
Mercury	79785-09-05 03:51 G	30862180.54	30862180.66	30862180.78	0.0268	0.0136
Mercury	79785-12-02 15:22 G	30862269.00	30862269.14	30862269.29	0.0268	0.0027
Venus	79786-01-18 21:08 G	30862316.33	30862316.38	30862316.47	0.0268	0.0252
Mercury	79786-03-01 03:22 G	30862357.51	30862357.64	30862357.78	0.0268	0.0088
Mercury	79786-05-28 15:36 G	30862446.05	30862446.15	30862446.24	0.0268	0.0203
Moon	79795-09-27 08:24 G	30865854.65	30865854.85	30865855.06	0.0291	0.0153
Earth	79795-09-27 12:15 G	30865854.80	30865855.01	30865855.21	0.0291	0.0152 *
Venus	79798-08-14 20:24 G	30866907.32	30866907.35	30866907.40	0.0294	0.0288
Venus	79799-04-01 17:03 G	30867137.01	30867137.21	30867137.41	0.0293	0.0087
Venus	79799-11-17 13:12 G	30867366.86	30867367.05	30867367.24	0.0293	0.0115

Mercury	79800-01-14 05:03 G	30867424.59	30867424.71	30867424.84	0.0293	0.0202
Mercury	79800-04-13 02:10 G	30867513.42	30867513.59	30867513.76	0.0292	0.0024
Mercury	79800-07-10 22:34 G	30867602.29	30867602.44	30867602.58	0.0292	0.0151
Earth	79810-03-29 20:10 G	30871151.10	30871151.34	30871151.59	0.0268	0.0024
Moon	79810-03-29 21:08 G	30871151.12	30871151.38	30871151.63	0.0268	0.0033 *
Venus	79813-09-13 14:24 G	30872414.95	30872415.10	30872415.25	0.0267	0.0188
Venus	79814-04-30 18:29 G	30872644.06	30872644.27	30872644.48	0.0267	0.0033
Venus	79814-12-15 22:34 G	30872873.25	30872873.44	30872873.63	0.0267	0.0122
Mercury	79815-01-24 06:44 G	30872912.67	30872912.78	30872912.89	0.0267	0.0163
Mercury	79815-04-22 18:15 G	30873001.12	30873001.26	30873001.40	0.0268	0.0053
Mercury	79815-07-20 06:00 G	30873089.61	30873089.75	30873089.89	0.0268	0.0059
Mercury	79815-10-16 18:00 G	30873178.14	30873178.25	30873178.36	0.0268	0.0173
Mars	79819-08-22 22:20 G	30874584.20	30874584.43	30874584.67	0.0276	0.0146
Earth	79825-10-05 13:56 G	30876819.87	30876820.08	30876820.31	0.0292	0.0125
Moon	79825-10-05 14:24 G	30876819.88	30876820.10	30876820.33	0.0292	0.0130 *
Venus	79828-02-26 00:15 G	30877693.43	30877693.51	30877693.62	0.0293	0.0262
Venus	79828-10-12 20:53 G	30877923.17	30877923.37	30877923.58	0.0293	0.0060
Venus	79829-05-30 16:48 G	30878153.02	30878153.20	30878153.39	0.0292	0.0141
Mercury	79829-06-03 03:22 G	30878156.57	30878156.64	30878156.71	0.0292	0.0262
Mercury	79829-08-31 00:29 G	30878245.36	30878245.52	30878245.68	0.0292	0.0082
Mercury	79829-11-27 21:08 G	30878334.22	30878334.38	30878334.54	0.0292	0.0093
Mercury	79830-02-24 17:03 G	30878423.15	30878423.21	30878423.28	0.0291	0.0263
Moon	79839-03-24 18:15 G	30881738.12	30881738.26	30881738.41	0.0270	0.0213
Earth	79839-03-24 18:58 G	30881738.13	30881738.29	30881738.45	0.0270	0.0200 *
Earth	79840-04-05 00:58 G	30882115.37	30882115.54	30882115.70	0.0268	0.0201
Moon	79840-04-05 04:05 G	30882115.52	30882115.67	30882115.85	0.0268	0.0198 *
Venus	79843-03-26 19:27 G	30883201.14	30883201.31	30883201.48	0.0267	0.0164
Venus	79843-11-10 23:46 G	30883430.28	30883430.49	30883430.71	0.0267	0.0010
Mercury	79844-06-12 09:22 G	30883644.80	30883644.89	30883644.99	0.0268	0.0190
Venus	79844-06-27 04:05 G	30883659.50	30883659.67	30883659.86	0.0268	0.0148

Mercury	79844-09-08 20:53 G	30883733.24	30883733.37	30883733.51	0.0268	0.0081
Mercury	79844-12-06 08:39 G	30883821.72	30883821.86	30883822.01	0.0268	0.0032
Mercury	79845-03-04 20:39 G	30883910.25	30883910.36	30883910.48	0.0268	0.0145
Mercury	79845-06-01 08:53 G	30883998.85	30883998.87	30883998.90	0.0269	0.0262
Earth	79854-09-30 03:36 G	30887406.42	30887406.65	30887406.89	0.0291	0.0089
Moon	79854-09-30 03:36 G	30887406.43	30887406.65	30887406.88	0.0291	0.0086 *
Venus	79857-09-07 12:58 G	30888479.91	30888480.04	30888480.18	0.0294	0.0223
Venus	79858-04-25 09:22 G	30888709.69	30888709.89	30888710.10	0.0293	0.0022
Mercury	79858-10-21 05:32 G	30888888.72	30888888.73	30888888.75	0.0293	0.0291
Venus	79858-12-11 05:17 G	30888939.57	30888939.72	30888939.89	0.0293	0.0181
Mercury	79859-01-18 02:39 G	30888977.46	30888977.61	30888977.78	0.0293	0.0111
Mercury	79859-04-16 23:32 G	30889066.32	30889066.48	30889066.64	0.0292	0.0067
Mercury	79859-07-14 19:41 G	30889155.23	30889155.32	30889155.42	0.0292	0.0238
Moon	79869-03-31 03:08 G	30892702.38	30892702.63	30892702.88	0.0268	0.0022
Earth	79869-03-31 06:44 G	30892702.53	30892702.78	30892703.02	0.0268	0.0029 *
Venus	79872-10-06 02:24 G	30893987.42	30893987.60	30893987.79	0.0267	0.0136
Venus	79873-05-23 06:29 G	30894216.56	30894216.77	30894216.99	0.0267	0.0020
Mercury	79873-10-30 12:29 G	30894376.94	30894377.02	30894377.10	0.0267	0.0214
Venus	79874-01-07 10:48 G	30894445.79	30894445.95	30894446.12	0.0268	0.0175
Mercury	79874-01-27 00:00 G	30894465.37	30894465.50	30894465.63	0.0268	0.0106
Mercury	79874-04-25 11:46 G	30894553.84	30894553.99	30894554.13	0.0268	0.0008
Mercury	79874-07-22 23:32 G	30894642.35	30894642.48	30894642.61	0.0268	0.0118
Mercury	79874-10-19 11:32 G	30894730.92	30894730.98	30894731.06	0.0268	0.0234
Moon	79884-10-07 02:53 G	30898371.45	30898371.62	30898371.81	0.0292	0.0199
Earth	79884-10-07 06:15 G	30898371.59	30898371.76	30898371.96	0.0292	0.0191 *
Venus	79887-03-20 17:17 G	30899266.07	30899266.22	30899266.38	0.0293	0.0195
Venus	79887-11-05 13:41 G	30899495.86	30899496.07	30899496.28	0.0293	0.0007
Mercury	79888-06-06 01:12 G	30899709.41	30899709.55	30899709.69	0.0292	0.0169
Venus	79888-06-22 09:22 G	30899725.75	30899725.89	30899726.04	0.0292	0.0206
Mercury	79888-09-02 22:05 G	30899798.25	30899798.42	30899798.59	0.0292	0.0010

Mercury	79888-11-30 18:29 G	30899887.14	30899887.27	30899887.40	0.0291	0.0181
Earth	79898-03-26 04:34 G	30903289.49	30903289.69	30903289.90	0.0270	0.0150
Moon	79898-03-26 07:41 G	30903289.63	30903289.82	30903290.02	0.0270	0.0161 *
Earth	79899-04-07 10:20 G	30903666.85	30903666.93	30903667.03	0.0268	0.0251
Moon	79899-04-07 12:58 G	30903666.95	30903667.04	30903667.13	0.0268	0.0250 *
Venus	79901-09-02 02:24 G	30904544.60	30904544.60	30904544.61	0.0267	0.0267
Venus	79902-04-19 06:44 G	30904773.59	30904773.78	30904773.98	0.0267	0.0113
Venus	79902-12-04 11:17 G	30905002.76	30905002.97	30905003.18	0.0268	0.0043
Mercury	79903-03-20 14:53 G	30905109.07	30905109.12	30905109.18	0.0268	0.0244
Mercury	79903-06-17 02:24 G	30905197.48	30905197.60	30905197.72	0.0268	0.0136
Venus	79903-07-21 15:36 G	30905232.02	30905232.15	30905232.30	0.0268	0.0199
Mercury	79903-09-13 14:10 G	30905285.95	30905286.09	30905286.23	0.0268	0.0025
Mercury	79903-12-11 01:56 G	30905374.45	30905374.58	30905374.72	0.0268	0.0088
Mercury	79904-03-08 14:10 G	30905463.00	30905463.09	30905463.18	0.0269	0.0203
Mars	79908-01-18 16:05 G	30906874.08	30906874.17	30906874.28	0.0276	0.0257
Earth	79913-10-02 18:44 G	30908958.04	30908958.28	30908958.53	0.0291	0.0026
Moon	79913-10-02 22:34 G	30908958.20	30908958.44	30908958.68	0.0291	0.0020 *
Venus	79916-10-01 05:32 G	30910052.56	30910052.73	30910052.91	0.0294	0.0156
Venus	79917-05-19 01:41 G	30910282.37	30910282.57	30910282.78	0.0293	0.0046
Mercury	79917-10-25 03:22 G	30910441.52	30910441.64	30910441.77	0.0293	0.0199
Venus	79918-01-03 21:36 G	30910512.30	30910512.40	30910512.52	0.0292	0.0246
Mercury	79918-01-22 00:29 G	30910530.35	30910530.52	30910530.69	0.0292	0.0020
Mercury	79918-04-20 20:53 G	30910619.23	30910619.37	30910619.51	0.0292	0.0155
Moon	79928-04-02 14:24 G	30914253.87	30914254.10	30914254.34	0.0268	0.0074
Earth	79928-04-02 16:48 G	30914253.97	30914254.20	30914254.44	0.0268	0.0079 *
Venus	79931-03-15 09:51 G	30915330.82	30915330.91	30915331.01	0.0266	0.0237
Venus	79931-10-30 14:10 G	30915559.88	30915560.09	30915560.29	0.0267	0.0084
Venus	79932-06-15 18:15 G	30915789.06	30915789.26	30915789.47	0.0267	0.0071
Mercury	79932-08-06 18:15 G	30915841.26	30915841.26	30915841.26	0.0267	0.0267
Mercury	79932-11-03 05:32 G	30915929.62	30915929.73	30915929.85	0.0267	0.0160

Mercury	79933-01-30 17:17 G	30916018.08	30916018.22	30916018.36	0.0268	0.0050
Venus	79933-01-30 22:34 G	30916018.34	30916018.44	30916018.56	0.0268	0.0227 *
Mercury	79933-04-29 05:03 G	30916106.57	30916106.71	30916106.85	0.0268	0.0062
Mercury	79933-07-26 17:03 G	30916195.10	30916195.21	30916195.32	0.0268	0.0176
Moon	79942-09-26 18:15 G	30919544.14	30919544.26	30919544.40	0.0290	0.0246
Earth	79942-09-26 21:51 G	30919544.31	30919544.41	30919544.54	0.0290	0.0253 *
Moon	79943-10-10 20:24 G	30919923.27	30919923.35	30919923.45	0.0292	0.0267
Earth	79943-10-10 23:03 G	30919923.35	30919923.46	30919923.58	0.0292	0.0255 *
Venus	79946-04-13 10:34 G	30920838.75	30920838.94	30920839.13	0.0293	0.0128
Venus	79946-11-29 06:44 G	30921068.58	30921068.78	30921068.98	0.0292	0.0073
Mercury	79947-03-14 01:56 G	30921173.51	30921173.58	30921173.67	0.0292	0.0256
Mercury	79947-06-10 23:17 G	30921262.30	30921262.47	30921262.63	0.0292	0.0076
Venus	79947-07-17 02:24 G	30921298.53	30921298.60	30921298.68	0.0292	0.0271
Mercury	79947-09-07 19:56 G	30921351.17	30921351.33	30921351.49	0.0292	0.0100
Mercury	79947-12-05 15:51 G	30921440.11	30921440.16	30921440.22	0.0291	0.0270
Earth	79957-03-28 13:56 G	30924840.85	30924841.08	30924841.31	0.0269	0.0100
Moon	79957-03-28 16:34 G	30924840.97	30924841.19	30924841.43	0.0269	0.0111 *
Venus	79960-09-24 12:58 G	30926116.93	30926117.04	30926117.18	0.0267	0.0217
Venus	79961-05-11 17:32 G	30926346.02	30926346.23	30926346.44	0.0267	0.0062
Venus	79961-12-26 21:51 G	30926575.21	30926575.41	30926575.61	0.0268	0.0093
Mercury	79962-03-23 07:56 G	30926661.73	30926661.83	30926661.92	0.0268	0.0192
Mercury	79962-06-19 19:27 G	30926750.17	30926750.31	30926750.44	0.0268	0.0083
Venus	79962-08-13 02:24 G	30926804.53	30926804.60	30926804.69	0.0268	0.0249
Mercury	79962-09-16 07:12 G	30926838.66	30926838.80	30926838.94	0.0268	0.0029
Mercury	79962-12-13 19:12 G	30926927.18	30926927.30	30926927.42	0.0269	0.0143
Mercury	79963-03-12 07:27 G	30927015.77	30927015.81	30927015.84	0.0269	0.0259
Earth	79972-10-04 09:08 G	30930509.64	30930509.88	30930510.12	0.0292	0.0035
Moon	79972-10-04 11:17 G	30930509.72	30930509.97	30930510.22	0.0292	0.0043 *
Venus	79975-03-09 00:44 G	30931395.52	30931395.53	30931395.57	0.0294	0.0292
Venus	79975-10-24 21:36 G	30931625.20	30931625.40	30931625.60	0.0293	0.0091

Venus	79976-06-10 17:46 G	30931855.05	30931855.24	30931855.43	0.0293	0.0111
Mercury	79976-07-31 03:36 G	30931905.63	30931905.65	30931905.67	0.0293	0.0290
Mercury	79976-10-28 00:58 G	30931994.38	30931994.54	30931994.70	0.0293	0.0109
Mercury	79977-01-24 21:36 G	30932083.24	30932083.40	30932083.57	0.0292	0.0069
Mercury	79977-04-23 18:00 G	30932172.15	30932172.25	30932172.34	0.0292	0.0240
Mars	79980-05-04 23:46 G	30933279.28	30933279.49	30933279.73	0.0285	0.0194
Earth	79987-04-05 01:56 G	30935805.37	30935805.58	30935805.80	0.0268	0.0127
Moon	79987-04-05 03:22 G	30935805.44	30935805.64	30935805.86	0.0268	0.0125 *
Venus	79990-04-06 20:39 G	30936903.21	30936903.36	30936903.52	0.0266	0.0187
Venus	79990-11-22 00:58 G	30937132.32	30937132.54	30937132.75	0.0267	0.0033
Venus	79991-07-09 05:03 G	30937361.53	30937361.71	30937361.91	0.0267	0.0123
Mercury	79991-08-10 11:03 G	30937393.88	30937393.96	30937394.05	0.0267	0.0215
Mercury	79991-11-06 22:34 G	30937482.31	30937482.44	30937482.57	0.0268	0.0107
Mercury	79992-02-03 10:20 G	30937570.79	30937570.93	30937571.07	0.0268	0.0005
Mercury	79992-05-01 22:05 G	30937659.30	30937659.42	30937659.55	0.0268	0.0117
Mercury	79992-07-29 10:05 G	30937747.86	30937747.92	30937748.00	0.0268	0.0233

81ST MILLENNIUM CE

This is a list of transits visible from Saturn in the 81st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	80001-09-28 10:05 G	30941095.75	30941095.92	30941096.11	0.0291	0.0188		
Earth	80001-09-28 12:00 G	30941095.83	30941096.00	30941096.19	0.0291	0.0192 *		
Venus	80004-09-18 06:00 G	30942181.66	30942181.75	30942181.84	0.0293	0.0263		

Venus	80005-05-06 02:24 G	30942411.39	30942411.60	30942411.80	0.0293	0.0063
Venus	80005-12-21 22:20 G	30942641.25	30942641.43	30942641.62	0.0292	0.0138
Mercury	80006-03-16 23:32 G	30942726.34	30942726.48	30942726.63	0.0292	0.0166
Mercury	80006-06-13 20:39 G	30942815.19	30942815.36	30942815.53	0.0292	0.0013
Mercury	80006-09-10 16:48 G	30942904.08	30942904.20	30942904.34	0.0291	0.0186
Moon	80016-03-29 20:53 G	30946392.12	30946392.37	30946392.62	0.0269	0.0061
Earth	80016-03-29 22:05 G	30946392.18	30946392.42	30946392.66	0.0269	0.0053 *
Venus	80019-10-17 22:48 G	30947689.29	30947689.45	30947689.62	0.0267	0.0168
Venus	80020-06-03 03:08 G	30947918.42	30947918.63	30947918.85	0.0267	0.0013
Mercury	80020-12-27 12:58 G	30948126.00	30948126.04	30948126.09	0.0268	0.0251
Venus	80021-01-18 07:27 G	30948147.63	30948147.81	30948147.99	0.0268	0.0143
Mercury	80021-03-26 00:15 G	30948214.40	30948214.51	30948214.63	0.0268	0.0143
Mercury	80021-06-22 12:00 G	30948302.86	30948303.00	30948303.14	0.0268	0.0033
Mercury	80021-09-18 23:46 G	30948391.36	30948391.49	30948391.63	0.0268	0.0080
Mercury	80021-12-16 11:46 G	30948479.90	30948479.99	30948480.09	0.0269	0.0195
Moon	80031-10-06 18:44 G	30952061.05	30952061.28	30952061.52	0.0292	0.0102
Earth	80031-10-06 20:53 G	30952061.14	30952061.37	30952061.60	0.0292	0.0092 *
Venus	80034-03-31 15:51 G	30952968.03	30952968.16	30952968.29	0.0294	0.0228
Venus	80034-11-16 12:15 G	30953197.81	30953198.01	30953198.22	0.0293	0.0027
Venus	80035-07-04 08:39 G	30953427.69	30953427.86	30953428.03	0.0293	0.0175
Mercury	80035-08-04 00:44 G	30953458.41	30953458.53	30953458.66	0.0293	0.0204
Mercury	80035-10-31 21:51 G	30953547.24	30953547.41	30953547.58	0.0293	0.0025
Mercury	80036-01-28 18:29 G	30953636.13	30953636.27	30953636.41	0.0292	0.0151
Earth	80045-03-25 04:05 G	30956979.54	30956979.67	30956979.80	0.0269	0.0226
Moon	80045-03-25 04:48 G	30956979.60	30956979.70	30956979.81	0.0269	0.0239 *
Earth	80046-04-06 09:08 G	30957356.71	30957356.88	30957357.08	0.0268	0.0173
Moon	80046-04-06 12:58 G	30957356.86	30957357.04	30957357.24	0.0268	0.0170 *
Venus	80049-04-29 06:00 G	30958475.58	30958475.75	30958475.94	0.0266	0.0138
Venus	80049-12-14 10:20 G	30958704.71	30958704.93	30958705.14	0.0267	0.0017
Venus	80050-07-31 14:24 G	30958933.94	30958934.10	30958934.27	0.0267	0.0172

Mercury	80050-08-13 03:22 G	30958946.54	30958946.64	30958946.76	0.0267	0.0168
Mercury	80050-11-09 15:08 G	30959034.99	30959035.13	30959035.27	0.0268	0.0058
Mercury	80051-02-06 02:53 G	30959123.48	30959123.62	30959123.76	0.0268	0.0054
Mercury	80051-05-05 14:39 G	30959212.01	30959212.11	30959212.23	0.0268	0.0169
Mars	80054-09-21 15:08 G	30960446.97	30960447.13	30960447.31	0.0275	0.0221
Earth	80060-09-29 23:32 G	30962647.28	30962647.48	30962647.71	0.0291	0.0135
Moon	80060-09-30 01:41 G	30962647.37	30962647.57	30962647.79	0.0291	0.0128 *
Venus	80063-10-11 20:39 G	30963754.21	30963754.36	30963754.51	0.0293	0.0201
Venus	80064-05-28 16:48 G	30963983.99	30963984.20	30963984.41	0.0293	0.0004
Mercury	80064-12-20 23:17 G	30964190.40	30964190.47	30964190.55	0.0292	0.0262
Venus	80065-01-13 12:44 G	30964213.89	30964214.03	30964214.19	0.0292	0.0201
Mercury	80065-03-19 20:24 G	30964279.19	30964279.35	30964279.52	0.0292	0.0082
Mercury	80065-06-16 17:17 G	30964368.06	30964368.22	30964368.38	0.0292	0.0095
Mercury	80065-09-13 13:27 G	30964456.99	30964457.06	30964457.13	0.0291	0.0265
Mars	80068-09-28 22:20 G	30965568.15	30965568.43	30965568.72	0.0284	0.0107
Moon	80075-04-01 00:44 G	30967943.28	30967943.53	30967943.77	0.0269	0.0016
Earth	80075-04-01 04:34 G	30967943.44	30967943.69	30967943.93	0.0269	0.0010 *
Venus	80078-11-09 07:12 G	30969261.62	30969261.80	30969262.00	0.0267	0.0120
Venus	80079-06-26 11:32 G	30969490.77	30969490.98	30969491.19	0.0267	0.0035
Mercury	80079-12-31 05:03 G	30969678.63	30969678.71	30969678.80	0.0268	0.0205
Venus	80080-02-10 15:36 G	30969720.01	30969720.15	30969720.31	0.0268	0.0191
Mercury	80080-03-28 16:34 G	30969767.06	30969767.19	30969767.32	0.0268	0.0097
Mercury	80080-06-25 04:20 G	30969855.54	30969855.68	30969855.82	0.0268	0.0015
Mercury	80080-09-21 16:05 G	30969944.05	30969944.17	30969944.30	0.0268	0.0128
Mercury	80080-12-19 04:05 G	30970032.62	30970032.67	30970032.74	0.0269	0.0244
Moon	80090-10-08 01:41 G	30973612.36	30973612.57	30973612.77	0.0292	0.0154
Earth	80090-10-08 05:03 G	30973612.50	30973612.71	30973612.92	0.0292	0.0143 *
Venus	80093-04-23 04:20 G	30974540.51	30974540.68	30974540.85	0.0294	0.0168
Venus	80093-12-09 00:58 G	30974770.33	30974770.54	30974770.75	0.0293	0.0035
Venus	80094-07-26 21:22 G	30975000.27	30975000.39	30975000.51	0.0293	0.0235

Mercury	80094-08-06 20:53 G	30975011.22	30975011.37	30975011.53	0.0293	0.0126
Mercury	80094-11-03 17:46 G	30975100.08	30975100.24	30975100.41	0.0293	0.0053
Mercury	80095-01-31 14:10 G	30975188.99	30975189.09	30975189.20	0.0292	0.0226
Earth	80104-03-27 09:36 G	30978530.73	30978530.90	30978531.09	0.0269	0.0182
Moon	80104-03-27 13:41 G	30978530.90	30978531.07	30978531.24	0.0269	0.0192 *
Earth	80105-04-08 14:39 G	30978907.97	30978908.11	30978908.26	0.0268	0.0214
Moon	80105-04-08 15:22 G	30978908.00	30978908.14	30978908.31	0.0268	0.0215 *
Venus	80107-10-06 10:20 G	30979818.85	30979818.93	30979819.03	0.0266	0.0242
Venus	80108-05-22 14:10 G	30980047.89	30980048.09	30980048.30	0.0266	0.0090
Venus	80109-01-06 18:15 G	30980277.05	30980277.26	30980277.47	0.0267	0.0064
Mercury	80109-05-20 08:10 G	30980410.78	30980410.84	30980410.91	0.0267	0.0230
Mercury	80109-08-16 19:41 G	30980499.19	30980499.32	30980499.44	0.0267	0.0122
Venus	80109-08-23 22:20 G	30980506.31	30980506.43	30980506.56	0.0267	0.0218
Mercury	80109-11-13 07:12 G	30980587.66	30980587.80	30980587.94	0.0267	0.0013
Mercury	80110-02-09 18:58 G	30980676.16	30980676.29	30980676.43	0.0268	0.0101
Mercury	80110-05-09 06:58 G	30980764.71	30980764.79	30980764.88	0.0268	0.0215
Earth	80119-10-03 07:27 G	30984198.58	30984198.81	30984199.05	0.0291	0.0084
Moon	80119-10-03 11:17 G	30984198.73	30984198.97	30984199.20	0.0291	0.0076 *
Venus	80122-11-04 08:53 G	30985326.69	30985326.87	30985327.06	0.0293	0.0141
Venus	80123-06-22 05:32 G	30985556.52	30985556.73	30985556.93	0.0293	0.0062
Mercury	80123-12-25 19:27 G	30985743.18	30985743.31	30985743.44	0.0292	0.0185
Venus	80124-02-07 01:27 G	30985786.47	30985786.56	30985786.66	0.0292	0.0261
Mercury	80124-03-23 16:34 G	30985832.02	30985832.19	30985832.36	0.0292	0.0007
Mercury	80124-06-20 12:58 G	30985920.91	30985921.04	30985921.18	0.0292	0.0169
Moon	80134-04-03 08:24 G	30989494.62	30989494.85	30989495.09	0.0268	0.0030
Earth	80134-04-03 09:08 G	30989494.64	30989494.88	30989495.13	0.0268	0.0032 *
Venus	80137-04-17 10:48 G	30990604.84	30990604.95	30990605.06	0.0266	0.0226
Venus	80137-12-02 14:39 G	30990833.90	30990834.11	30990834.31	0.0267	0.0073
Venus	80138-07-19 18:29 G	30991063.07	30991063.27	30991063.47	0.0267	0.0081
Mercury	80139-01-03 20:53 G	30991231.26	30991231.37	30991231.48	0.0267	0.0163

Venus	80139-03-05 22:48 G	30991292.35	30991292.45	30991292.55	0.0268	0.0236
Mercury	80139-04-02 08:24 G	30991319.71	30991319.85	30991319.99	0.0268	0.0054
Mercury	80139-06-29 20:10 G	30991408.20	30991408.34	30991408.48	0.0268	0.0058
Mercury	80139-09-26 07:56 G	30991496.73	30991496.83	30991496.94	0.0268	0.0172
Mars	80143-02-15 23:32 G	30992735.28	30992735.48	30992735.71	0.0275	0.0178
Moon	80149-10-10 09:36 G	30995163.74	30995163.90	30995164.07	0.0292	0.0203
Earth	80149-10-10 10:05 G	30995163.74	30995163.92	30995164.10	0.0292	0.0190 *
Venus	80152-05-16 14:53 G	30996112.93	30996113.12	30996113.32	0.0294	0.0110
Venus	80153-01-01 11:46 G	30996342.79	30996342.99	30996343.19	0.0294	0.0093
Mercury	80153-05-13 18:44 G	30996475.19	30996475.28	30996475.39	0.0293	0.0238
Mercury	80153-08-10 16:05 G	30996564.01	30996564.17	30996564.34	0.0293	0.0056
Venus	80153-08-19 08:10 G	30996572.84	30996572.84	30996572.85	0.0293	0.0293
Mercury	80153-11-07 12:44 G	30996652.88	30996653.03	30996653.19	0.0293	0.0122
Mars	80157-02-24 07:12 G	30997857.50	30997857.80	30997858.11	0.0285	0.0010
Earth	80163-03-29 13:12 G	31000081.85	31000082.05	31000082.27	0.0269	0.0141
Moon	80163-03-29 13:56 G	31000081.87	31000082.08	31000082.30	0.0269	0.0147 *
Moon	80164-04-09 14:10 G	31000459.04	31000459.09	31000459.17	0.0267	0.0258
Earth	80164-04-09 17:46 G	31000459.18	31000459.24	31000459.33	0.0267	0.0253
Venus	80166-10-28 17:17 G	31001391.08	31001391.22	31001391.37	0.0266	0.0197
Venus	80167-06-14 21:08 G	31001620.17	31001620.38	31001620.59	0.0266	0.0044
Venus	80168-01-30 00:44 G	31001849.34	31001849.53	31001849.73	0.0267	0.0111
Mercury	80168-05-22 23:46 G	31001963.40	31001963.49	31001963.59	0.0267	0.0189
Mercury	80168-08-19 11:17 G	31002051.84	31002051.97	31002052.11	0.0267	0.0081
Venus	80168-09-15 05:03 G	31002078.68	31002078.71	31002078.74	0.0267	0.0263
Mercury	80168-11-15 23:03 G	31002140.32	31002140.46	31002140.60	0.0267	0.0030
Mercury	80169-02-12 10:48 G	31002228.83	31002228.95	31002229.07	0.0268	0.0143
Mercury	80169-05-11 22:48 G	31002317.42	31002317.45	31002317.49	0.0268	0.0258
Moon	80178-10-04 11:46 G	31005749.74	31005749.99	31005750.24	0.0292	0.0025
Earth	80178-10-04 12:00 G	31005749.76	31005750.00	31005750.24	0.0292	0.0038 *
Venus	80181-04-10 22:34 G	31006669.40	31006669.44	31006669.49	0.0294	0.0285

Venus	80181-11-26 19:27 G	31006899.11	31006899.31	31006899.51	0.0294	0.0084
Venus	80182-07-14 15:51 G	31007128.97	31007129.16	31007129.35	0.0293	0.0119
Mercury	80182-12-28 14:24 G	31007295.95	31007296.10	31007296.26	0.0293	0.0116
Mercury	80183-03-27 11:17 G	31007384.81	31007384.97	31007385.14	0.0292	0.0063
Mercury	80183-06-24 07:41 G	31007473.73	31007473.82	31007473.92	0.0292	0.0236
Earth	80193-04-04 11:46 G	31011045.76	31011045.99	31011046.23	0.0268	0.0071
Moon	80193-04-04 15:22 G	31011045.91	31011046.14	31011046.38	0.0268	0.0074 *
Venus	80196-05-09 16:48 G	31012177.05	31012177.20	31012177.36	0.0266	0.0181
Venus	80196-12-24 20:24 G	31012406.14	31012406.35	31012406.57	0.0266	0.0029
Venus	80197-08-11 00:15 G	31012635.32	31012635.51	31012635.70	0.0267	0.0126
Mercury	80197-10-10 00:58 G	31012695.47	31012695.54	31012695.61	0.0267	0.0231
Mercury	80198-01-06 12:15 G	31012783.89	31012784.01	31012784.14	0.0267	0.0124
Mercury	80198-04-04 23:46 G	31012872.35	31012872.49	31012872.63	0.0268	0.0015
Mercury	80198-07-02 11:32 G	31012960.85	31012960.98	31012961.12	0.0268	0.0098
Mercury	80198-09-28 23:32 G	31013049.40	31013049.48	31013049.57	0.0268	0.0212
Earth	80207-09-29 08:53 G	31016335.80	31016335.87	31016335.94	0.0291	0.0276
Moon	80207-09-29 09:36 G	31016335.82	31016335.90	31016336.01	0.0291	0.0265 *
Earth	80208-10-12 11:17 G	31016714.82	31016714.97	31016715.12	0.0292	0.0231
Moon	80208-10-12 14:24 G	31016714.99	31016715.10	31016715.24	0.0292	0.0248 *
Venus	80210-10-23 02:10 G	31017455.50	31017455.59	31017455.70	0.0294	0.0258
Venus	80211-06-09 23:32 G	31017685.27	31017685.48	31017685.68	0.0294	0.0055
Venus	80212-01-25 20:24 G	31017915.17	31017915.35	31017915.53	0.0294	0.0148
Mercury	80212-05-17 13:12 G	31018027.91	31018028.05	31018028.19	0.0293	0.0174
Mercury	80212-08-14 10:20 G	31018116.76	31018116.93	31018117.10	0.0293	0.0009
Mercury	80212-11-11 06:58 G	31018205.66	31018205.79	31018205.92	0.0293	0.0182
Moon	80222-03-31 12:00 G	31021632.77	31021633.00	31021633.24	0.0269	0.0103
Earth	80222-03-31 15:36 G	31021632.92	31021633.15	31021633.38	0.0269	0.0102 *
Venus	80225-11-20 23:17 G	31022963.29	31022963.47	31022963.64	0.0266	0.0152
Venus	80226-07-08 02:53 G	31023192.40	31023192.62	31023192.83	0.0266	0.0005
Venus	80227-02-22 06:15 G	31023421.60	31023421.76	31023421.95	0.0266	0.0155

Mercury	80227-02-28 03:51 G	31023427.63	31023427.66	31023427.70	0.0266	0.0257
Mercury	80227-05-27 15:08 G	31023516.02	31023516.13	31023516.25	0.0267	0.0151
Mercury	80227-08-24 02:39 G	31023604.47	31023604.61	31023604.75	0.0267	0.0042
Mercury	80227-11-20 14:24 G	31023692.96	31023693.10	31023693.24	0.0267	0.0069
Mercury	80228-02-17 02:24 G	31023781.49	31023781.60	31023781.70	0.0268	0.0183
Mars	80231-07-13 11:32 G	31025023.74	31025023.98	31025024.23	0.0275	0.0133
Moon	80237-10-06 09:22 G	31027300.65	31027300.89	31027301.13	0.0292	0.0020
Earth	80237-10-06 13:12 G	31027300.81	31027301.05	31027301.29	0.0292	0.0004 *
Venus	80240-05-04 06:58 G	31028241.67	31028241.79	31028241.93	0.0294	0.0232
Venus	80240-12-20 04:05 G	31028471.46	31028471.67	31028471.88	0.0294	0.0029
Venus	80241-08-07 00:44 G	31028701.36	31028701.53	31028701.70	0.0293	0.0173
Mercury	80241-10-04 11:17 G	31028759.88	31028759.97	31028760.08	0.0293	0.0235
Mercury	80242-01-01 08:53 G	31028848.70	31028848.87	31028849.04	0.0293	0.0053
Mercury	80242-03-31 05:32 G	31028937.58	31028937.73	31028937.89	0.0292	0.0124
Mars	80245-07-21 10:05 G	31030145.62	31030145.92	31030146.23	0.0284	0.0039
Earth	80252-04-06 13:12 G	31032596.83	31032597.05	31032597.28	0.0268	0.0108
Moon	80252-04-06 15:08 G	31032596.90	31032597.13	31032597.37	0.0268	0.0114 *
Venus	80255-06-02 22:20 G	31033749.25	31033749.43	31033749.62	0.0266	0.0137
Venus	80256-01-18 01:56 G	31033978.36	31033978.58	31033978.79	0.0266	0.0016
Venus	80256-09-03 05:17 G	31034207.56	31034207.72	31034207.89	0.0267	0.0170
Mercury	80256-10-13 16:05 G	31034248.08	31034248.17	31034248.27	0.0267	0.0194
Mercury	80257-01-10 03:36 G	31034336.52	31034336.65	31034336.78	0.0267	0.0086
Mercury	80257-04-08 15:08 G	31034424.99	31034425.13	31034425.27	0.0267	0.0024
Mercury	80257-07-06 02:53 G	31034513.50	31034513.62	31034513.74	0.0268	0.0136
Mercury	80257-10-02 14:53 G	31034602.08	31034602.12	31034602.17	0.0268	0.0250
Earth	80266-09-30 07:41 G	31037886.69	31037886.82	31037886.96	0.0291	0.0238
Moon	80266-09-30 11:17 G	31037886.82	31037886.97	31037887.14	0.0291	0.0222 *
Earth	80267-10-14 10:20 G	31038265.84	31038265.93	31038266.03	0.0293	0.0269
Moon	80267-10-14 12:00 G	31038265.97	31038266.00	31038266.07	0.0293	0.0286 *
Venus	80269-11-14 09:08 G	31039027.74	31039027.88	31039028.04	0.0294	0.0207

Venus	80270-07-02 06:29 G	31039257.56	31039257.77	31039257.98	0.0294	0.0005
Venus	80271-02-17 03:22 G	31039487.50	31039487.64	31039487.80	0.0294	0.0200
Mercury	80271-05-21 06:44 G	31039580.63	31039580.78	31039580.94	0.0293	0.0118
Mercury	80271-08-18 03:51 G	31039669.49	31039669.66	31039669.83	0.0293	0.0062
Mercury	80271-11-15 00:15 G	31039758.42	31039758.51	31039758.61	0.0293	0.0237
Moon	80281-04-01 13:56 G	31043183.85	31043184.08	31043184.31	0.0269	0.0065
Earth	80281-04-01 16:05 G	31043183.93	31043184.17	31043184.41	0.0269	0.0065 *
Venus	80284-04-28 00:44 G	31044306.50	31044306.53	31044306.58	0.0266	0.0261
Venus	80284-12-13 04:20 G	31044535.49	31044535.68	31044535.88	0.0266	0.0109
Venus	80285-07-30 07:41 G	31044764.61	31044764.82	31044765.04	0.0266	0.0044
Mercury	80286-03-02 19:12 G	31044980.22	31044980.30	31044980.37	0.0266	0.0220
Venus	80286-03-16 11:32 G	31044993.84	31044993.98	31044994.12	0.0266	0.0197
Mercury	80286-05-30 06:29 G	31045068.64	31045068.77	31045068.90	0.0266	0.0114
Mercury	80286-08-26 18:00 G	31045157.11	31045157.25	31045157.39	0.0267	0.0005
Mercury	80286-11-23 05:46 G	31045245.61	31045245.74	31045245.87	0.0267	0.0107
Mercury	80287-02-19 17:46 G	31045334.16	31045334.24	31045334.31	0.0267	0.0221
Moon	80296-10-07 11:03 G	31048851.73	31048851.96	31048852.19	0.0292	0.0059
Earth	80296-10-07 12:00 G	31048851.76	31048852.00	31048852.25	0.0292	0.0042 *
Venus	80299-05-27 14:10 G	31049813.92	31049814.09	31049814.25	0.0294	0.0181
Venus	80300-01-12 11:03 G	31050043.75	31050043.96	31050044.17	0.0294	0.0023
Venus	80300-08-30 07:56 G	31050273.70	31050273.83	31050273.97	0.0293	0.0225
Mercury	80300-10-08 05:03 G	31050312.58	31050312.71	31050312.85	0.0293	0.0178
Mercury	80301-01-05 02:24 G	31050401.43	31050401.60	31050401.77	0.0293	0.0005
Mercury	80301-04-03 23:03 G	31050490.33	31050490.46	31050490.59	0.0293	0.0180
Earth	80310-03-28 09:22 G	31053770.82	31053770.89	31053771.00	0.0269	0.0250
Moon	80310-03-28 12:00 G	31053770.94	31053771.00	31053771.10	0.0269	0.0256 *
Moon	80311-04-09 11:03 G	31054147.77	31054147.96	31054148.18	0.0267	0.0155
Earth	80311-04-09 13:56 G	31054147.88	31054148.08	31054148.29	0.0267	0.0144 *
Venus	80313-11-09 00:15 G	31055092.44	31055092.51	31055092.60	0.0266	0.0245
Venus	80314-06-26 03:36 G	31055321.45	31055321.65	31055321.85	0.0266	0.0094

Venus	80315-02-10 06:58 G	31055550.58	31055550.79	31055551.00	0.0266	0.0059
Mercury	80315-07-21 19:56 G	31055712.32	31055712.33	31055712.36	0.0266	0.0264
Venus	80315-09-27 10:20 G	31055779.80	31055779.93	31055780.06	0.0267	0.0212
Mercury	80315-10-18 07:12 G	31055800.69	31055800.80	31055800.92	0.0267	0.0158
Mercury	80316-01-14 18:44 G	31055889.14	31055889.28	31055889.42	0.0267	0.0049
Mercury	80316-04-12 06:15 G	31055977.63	31055977.76	31055977.90	0.0267	0.0061
Mercury	80316-07-09 18:15 G	31056066.15	31056066.26	31056066.36	0.0267	0.0174
Mars	80319-12-07 01:41 G	31057311.33	31057311.57	31057311.83	0.0275	0.0128
Moon	80325-10-02 05:17 G	31059437.53	31059437.72	31059437.92	0.0291	0.0186
Earth	80325-10-02 05:03 G	31059437.54	31059437.71	31059437.89	0.0291	0.0202 *
Venus	80328-12-07 15:08 G	31060599.96	31060600.13	31060600.31	0.0294	0.0158
Venus	80329-07-25 12:29 G	31060829.82	31060830.02	31060830.23	0.0294	0.0048
Mercury	80330-02-25 02:10 G	31061044.51	31061044.59	31061044.69	0.0294	0.0249
Venus	80330-03-12 09:36 G	31061059.80	31061059.90	31061060.02	0.0294	0.0250
Mercury	80330-05-24 23:46 G	31061133.33	31061133.49	31061133.66	0.0294	0.0065
Mercury	80330-08-21 20:53 G	31061222.21	31061222.37	31061222.52	0.0293	0.0114
Mercury	80330-11-18 17:03 G	31061311.19	31061311.21	31061311.25	0.0293	0.0288
Mars	80333-12-15 12:44 G	31062433.75	31062434.03	31062434.34	0.0286	0.0080
Earth	80340-04-03 16:05 G	31064734.93	31064735.17	31064735.42	0.0268	0.0028
Moon	80340-04-03 18:00 G	31064735.02	31064735.25	31064735.49	0.0268	0.0025 *
Venus	80343-05-22 05:46 G	31065878.63	31065878.74	31065878.87	0.0265	0.0219
Venus	80344-01-06 09:22 G	31066107.68	31066107.89	31066108.10	0.0265	0.0066
Venus	80344-08-22 12:29 G	31066336.83	31066337.02	31066337.23	0.0266	0.0087
Mercury	80345-03-06 10:05 G	31066532.83	31066532.92	31066533.03	0.0266	0.0184
Venus	80345-04-08 16:05 G	31066566.09	31066566.17	31066566.27	0.0266	0.0239
Mercury	80345-06-02 21:36 G	31066621.26	31066621.40	31066621.53	0.0266	0.0077
Mercury	80345-08-30 09:08 G	31066709.74	31066709.88	31066710.02	0.0267	0.0033
Mercury	80345-11-26 20:53 G	31066798.25	31066798.37	31066798.49	0.0267	0.0145
Mercury	80346-02-23 08:53 G	31066886.84	31066886.87	31066886.90	0.0267	0.0259
Earth	80355-10-10 10:34 G	31070402.71	31070402.94	31070403.18	0.0292	0.0080

Moon	80355-10-10 13:56 G	31070402.86	31070403.08	31070403.31	0.0292	0.0097 *
Venus	80358-06-19 20:39 G	31071386.18	31071386.36	31071386.55	0.0295	0.0130
Venus	80359-02-04 17:46 G	31071616.04	31071616.24	31071616.45	0.0294	0.0074
Venus	80359-09-22 14:53 G	31071846.05	31071846.12	31071846.19	0.0294	0.0276
Mercury	80359-10-11 22:34 G	31071865.29	31071865.44	31071865.60	0.0294	0.0122
Mercury	80360-01-08 19:41 G	31071954.15	31071954.32	31071954.49	0.0293	0.0058
Mercury	80360-04-06 16:20 G	31072043.08	31072043.18	31072043.28	0.0293	0.0233
Moon	80369-03-29 08:24 G	31075321.70	31075321.85	31075322.01	0.0269	0.0212
Earth	80369-03-29 10:20 G	31075321.79	31075321.93	31075322.09	0.0269	0.0211 *
Moon	80370-04-10 11:32 G	31075698.81	31075698.98	31075699.15	0.0267	0.0192
Earth	80370-04-10 14:24 G	31075698.93	31075699.10	31075699.29	0.0267	0.0181 *
Venus	80372-12-01 05:46 G	31076664.60	31076664.74	31076664.88	0.0265	0.0202
Venus	80373-07-18 08:53 G	31076893.66	31076893.87	31076894.08	0.0266	0.0050
Venus	80374-03-04 12:00 G	31077122.81	31077123.00	31077123.21	0.0266	0.0103
Mercury	80374-07-24 11:17 G	31077264.90	31077264.97	31077265.04	0.0266	0.0226
Venus	80374-10-19 15:22 G	31077352.09	31077352.14	31077352.21	0.0266	0.0255
Mercury	80374-10-20 22:34 G	31077353.32	31077353.44	31077353.57	0.0266	0.0120
Mercury	80375-01-17 10:05 G	31077441.78	31077441.92	31077442.06	0.0267	0.0012
Mercury	80375-04-15 21:36 G	31077530.27	31077530.40	31077530.53	0.0267	0.0100
Mercury	80375-07-13 09:36 G	31077618.81	31077618.90	31077618.98	0.0267	0.0212
Moon	80384-10-02 23:03 G	31080988.25	31080988.46	31080988.67	0.0291	0.0149
Earth	80384-10-03 02:24 G	31080988.41	31080988.60	31080988.81	0.0291	0.0166 *
Venus	80387-12-30 20:39 G	31082172.17	31082172.36	31082172.56	0.0295	0.0109
Venus	80388-08-16 18:15 G	31082402.07	31082402.26	31082402.46	0.0294	0.0096
Mercury	80389-02-27 19:12 G	31082597.18	31082597.30	31082597.43	0.0294	0.0197
Mercury	80389-05-27 16:48 G	31082686.03	31082686.20	31082686.37	0.0294	0.0015
Mercury	80389-08-24 13:27 G	31082774.93	31082775.06	31082775.20	0.0293	0.0164
Earth	80399-04-05 16:20 G	31086285.93	31086286.18	31086286.43	0.0268	0.0010
Moon	80399-04-05 19:56 G	31086286.08	31086286.33	31086286.58	0.0268	0.0015 *
Venus	80402-06-13 11:32 G	31087450.82	31087450.98	31087451.14	0.0265	0.0175

Venus	80403-01-28 14:53 G	31087679.90	31087680.12	31087680.33	0.0265	0.0023
Venus	80403-09-14 18:00 G	31087909.07	31087909.25	31087909.44	0.0266	0.0130
Mercury	80403-12-11 14:10 G	31087997.06	31087997.09	31087997.14	0.0266	0.0252
Mercury	80404-03-09 01:27 G	31088085.45	31088085.56	31088085.68	0.0266	0.0146
Mercury	80404-06-05 12:58 G	31088173.90	31088174.04	31088174.18	0.0266	0.0038
Mercury	80404-09-02 00:29 G	31088262.39	31088262.52	31088262.66	0.0267	0.0072
Mercury	80404-11-29 12:15 G	31088350.91	31088351.01	31088351.12	0.0267	0.0185
Mars	80408-05-01 13:56 G	31089599.82	31089600.08	31089600.36	0.0274	0.0082
Earth	80414-10-11 09:08 G	31091953.66	31091953.88	31091954.10	0.0292	0.0118
Moon	80414-10-11 11:17 G	31091953.76	31091953.97	31091954.20	0.0292	0.0133 *
Venus	80416-11-24 05:32 G	31092728.69	31092728.73	31092728.80	0.0295	0.0284
Venus	80417-07-12 03:08 G	31092958.43	31092958.63	31092958.83	0.0295	0.0080
Venus	80418-02-27 00:29 G	31093188.33	31093188.52	31093188.71	0.0294	0.0125
Mercury	80418-07-17 18:15 G	31093329.18	31093329.26	31093329.35	0.0294	0.0251
Mercury	80418-10-14 15:51 G	31093417.99	31093418.16	31093418.33	0.0294	0.0067
Mercury	80419-01-11 12:44 G	31093506.88	31093507.03	31093507.19	0.0293	0.0113
Mercury	80419-04-10 09:08 G	31093595.86	31093595.88	31093595.92	0.0293	0.0286
Mars	80422-05-10 11:03 G	31094721.68	31094721.96	31094722.24	0.0285	0.0118
Moon	80428-03-30 08:10 G	31096872.65	31096872.84	31096873.03	0.0269	0.0170
Earth	80428-03-30 11:32 G	31096872.80	31096872.98	31096873.18	0.0269	0.0173 *
Earth	80429-04-11 15:36 G	31097250.02	31097250.15	31097250.30	0.0267	0.0218
Moon	80429-04-11 16:05 G	31097250.07	31097250.17	31097250.31	0.0267	0.0232 *
Venus	80431-12-24 11:46 G	31098236.82	31098236.99	31098237.17	0.0265	0.0158
Venus	80432-08-09 14:53 G	31098465.90	31098466.12	31098466.33	0.0266	0.0006
Venus	80433-03-26 18:00 G	31098695.07	31098695.25	31098695.43	0.0266	0.0146
Mercury	80433-07-27 02:39 G	31098817.52	31098817.61	31098817.71	0.0266	0.0187
Mercury	80433-10-23 14:10 G	31098905.95	31098906.09	31098906.22	0.0266	0.0080
Mercury	80434-01-20 01:27 G	31098994.42	31098994.56	31098994.71	0.0267	0.0030
Mercury	80434-04-18 13:12 G	31099082.93	31099083.05	31099083.17	0.0267	0.0140
Mercury	80434-07-16 01:12 G	31099171.51	31099171.55	31099171.59	0.0267	0.0254

Moon	80443-10-04 23:46 G	31102539.27	31102539.49	31102539.71	0.0291	0.0111
Earth	80443-10-05 01:41 G	31102539.35	31102539.57	31102539.79	0.0291	0.0126 *
Venus	80446-06-06 05:32 G	31103514.65	31103514.73	31103514.84	0.0294	0.0263
Venus	80447-01-22 03:22 G	31103744.43	31103744.64	31103744.84	0.0295	0.0059
Venus	80447-09-09 00:44 G	31103974.36	31103974.53	31103974.72	0.0294	0.0147
Mercury	80448-03-02 12:29 G	31104149.87	31104150.02	31104150.17	0.0294	0.0142
Mercury	80448-05-30 09:51 G	31104238.74	31104238.91	31104239.08	0.0294	0.0040
Mercury	80448-08-27 06:44 G	31104327.66	31104327.78	31104327.89	0.0293	0.0217
Moon	80458-04-06 16:34 G	31107836.94	31107837.19	31107837.44	0.0268	0.0057
Earth	80458-04-06 17:03 G	31107836.97	31107837.21	31107837.45	0.0268	0.0048 *
Venus	80461-07-05 17:17 G	31109023.04	31109023.22	31109023.42	0.0265	0.0133
Venus	80462-02-19 20:53 G	31109252.15	31109252.37	31109252.58	0.0265	0.0021
Venus	80462-10-07 00:00 G	31109481.34	31109481.50	31109481.67	0.0266	0.0173
Mercury	80462-12-14 05:46 G	31109549.66	31109549.74	31109549.82	0.0266	0.0212
Mercury	80463-03-12 17:03 G	31109638.08	31109638.21	31109638.34	0.0266	0.0106
Mercury	80463-06-09 04:34 G	31109726.55	31109726.69	31109726.83	0.0266	0.0004
Mercury	80463-09-05 16:05 G	31109815.05	31109815.17	31109815.30	0.0267	0.0114
Mercury	80463-12-03 04:05 G	31109903.60	31109903.67	31109903.74	0.0267	0.0226
Moon	80473-10-12 07:27 G	31113504.61	31113504.81	31113505.01	0.0292	0.0171
Earth	80473-10-12 09:22 G	31113504.69	31113504.89	31113505.10	0.0292	0.0159 *
Venus	80475-12-17 12:58 G	31114300.92	31114301.04	31114301.17	0.0295	0.0233
Venus	80476-08-03 10:34 G	31114530.73	31114530.94	31114531.15	0.0295	0.0028
Venus	80477-03-21 07:41 G	31114760.66	31114760.82	31114760.99	0.0294	0.0176
Mercury	80477-07-20 11:46 G	31114881.87	31114881.99	31114882.13	0.0294	0.0193
Mercury	80477-10-17 09:22 G	31114970.72	31114970.89	31114971.06	0.0294	0.0012
Mercury	80478-01-14 06:15 G	31115059.63	31115059.76	31115059.90	0.0293	0.0168
Earth	80487-04-01 13:41 G	31118423.87	31118424.07	31118424.30	0.0269	0.0133
Moon	80487-04-01 14:24 G	31118423.90	31118424.10	31118424.32	0.0269	0.0126 *
Earth	80488-04-12 17:46 G	31118801.19	31118801.24	31118801.32	0.0267	0.0258
Venus	80490-05-31 15:36 G	31119580.15	31119580.15	31119580.18	0.0265	0.0265

Venus	80491-01-15 18:44 G	31119809.10	31119809.28	31119809.48	0.0265	0.0114
Venus	80491-09-01 21:51 G	31120038.20	31120038.41	31120038.63	0.0265	0.0040
Venus	80492-04-18 00:58 G	31120267.40	31120267.54	31120267.69	0.0266	0.0192
Mercury	80492-05-02 07:12 G	31120281.76	31120281.80	31120281.85	0.0266	0.0250
Mercury	80492-07-29 18:29 G	31120370.16	31120370.27	31120370.39	0.0266	0.0145
Mercury	80492-10-26 05:46 G	31120458.61	31120458.74	31120458.88	0.0266	0.0038
Mercury	80493-01-22 17:32 G	31120547.09	31120547.23	31120547.36	0.0267	0.0073
Mercury	80493-04-21 05:03 G	31120635.62	31120635.71	31120635.82	0.0267	0.0185
Mars	80496-09-24 12:29 G	31121887.75	31121888.02	31121888.30	0.0274	0.0061
Earth	80502-10-07 02:39 G	31124090.38	31124090.61	31124090.85	0.0291	0.0084
Moon	80502-10-07 05:03 G	31124090.48	31124090.71	31124090.94	0.0291	0.0069 *
Venus	80505-06-29 13:12 G	31125086.92	31125087.05	31125087.20	0.0294	0.0212
Venus	80506-02-14 10:48 G	31125316.74	31125316.95	31125317.16	0.0294	0.0008
Venus	80506-10-02 08:24 G	31125546.70	31125546.85	31125547.00	0.0294	0.0197
Mercury	80506-12-08 08:24 G	31125613.79	31125613.85	31125613.93	0.0294	0.0269
Mercury	80507-03-07 06:15 G	31125702.60	31125702.76	31125702.93	0.0294	0.0083
Mercury	80507-06-04 03:22 G	31125791.48	31125791.64	31125791.80	0.0294	0.0097
Mercury	80507-08-31 23:46 G	31125880.44	31125880.49	31125880.56	0.0293	0.0273
Mars	80510-10-04 06:00 G	31127009.50	31127009.75	31127010.03	0.0286	0.0148
Moon	80517-04-08 15:08 G	31129387.91	31129388.13	31129388.36	0.0269	0.0102
Earth	80517-04-08 19:12 G	31129388.06	31129388.30	31129388.53	0.0269	0.0088 *
Venus	80519-12-12 20:53 G	31130366.29	31130366.37	31130366.47	0.0266	0.0240
Venus	80520-07-29 00:29 G	31130595.32	31130595.52	31130595.72	0.0266	0.0088
Venus	80521-03-15 03:51 G	31130824.45	31130824.66	31130824.87	0.0266	0.0066
Venus	80521-10-30 06:58 G	31131053.68	31131053.79	31131053.92	0.0266	0.0218
Mercury	80521-12-17 21:36 G	31131102.29	31131102.40	31131102.51	0.0266	0.0170
Mercury	80522-03-16 08:53 G	31131190.74	31131190.87	31131191.01	0.0266	0.0063
Mercury	80522-06-12 20:24 G	31131279.21	31131279.35	31131279.49	0.0266	0.0047
Mercury	80522-09-09 08:10 G	31131367.73	31131367.84	31131367.96	0.0267	0.0158
Moon	80531-10-01 08:24 G	31134676.79	31134676.85	31134676.92	0.0290	0.0279

Moon	80532-10-14 09:08 G	31135055.73	31135055.88	31135056.05	0.0292	0.0218
Earth	80532-10-14 12:44 G	31135055.86	31135056.03	31135056.21	0.0292	0.0205 *
Venus	80535-01-09 22:20 G	31135873.26	31135873.43	31135873.59	0.0295	0.0179
Venus	80535-08-27 19:41 G	31136103.12	31136103.32	31136103.53	0.0295	0.0027
Venus	80536-04-13 16:48 G	31136333.08	31136333.20	31136333.34	0.0294	0.0231
Mercury	80536-07-24 06:29 G	31136434.62	31136434.77	31136434.93	0.0294	0.0127
Mercury	80536-10-21 03:51 G	31136523.49	31136523.66	31136523.83	0.0294	0.0054
Mercury	80537-01-18 00:29 G	31136612.42	31136612.52	31136612.62	0.0293	0.0230
Earth	80546-04-03 17:46 G	31139975.01	31139975.24	31139975.47	0.0269	0.0090
Moon	80546-04-03 21:22 G	31139975.16	31139975.39	31139975.63	0.0269	0.0079 *
Venus	80549-06-23 23:46 G	31141152.38	31141152.49	31141152.62	0.0265	0.0219
Venus	80550-02-08 03:08 G	31141381.42	31141381.63	31141381.84	0.0265	0.0067
Venus	80550-09-25 06:15 G	31141610.55	31141610.76	31141610.96	0.0266	0.0086
Mercury	80551-05-06 23:32 G	31141834.39	31141834.48	31141834.57	0.0266	0.0205
Venus	80551-05-12 09:08 G	31141839.79	31141839.88	31141839.98	0.0266	0.0238
Mercury	80551-08-03 10:48 G	31141922.82	31141922.95	31141923.08	0.0266	0.0099
Mercury	80551-10-30 22:05 G	31142011.28	31142011.42	31142011.56	0.0266	0.0012
Mercury	80552-01-27 09:51 G	31142099.78	31142099.91	31142100.03	0.0267	0.0121
Mercury	80552-04-24 21:36 G	31142188.34	31142188.40	31142188.47	0.0267	0.0233
Earth	80561-10-08 07:27 G	31145641.57	31145641.81	31145642.05	0.0291	0.0036
Moon	80561-10-08 11:03 G	31145641.71	31145641.96	31145642.20	0.0291	0.0021 *
Venus	80564-07-21 23:03 G	31146659.29	31146659.46	31146659.64	0.0294	0.0157
Venus	80565-03-08 20:24 G	31146889.15	31146889.35	31146889.56	0.0294	0.0048
Venus	80565-10-24 17:46 G	31147119.14	31147119.24	31147119.35	0.0294	0.0251
Mercury	80565-12-11 03:08 G	31147166.51	31147166.63	31147166.76	0.0294	0.0201
Mercury	80566-03-10 00:44 G	31147255.36	31147255.53	31147255.70	0.0294	0.0018
Mercury	80566-06-06 21:36 G	31147344.26	31147344.40	31147344.54	0.0293	0.0161
Moon	80575-03-29 12:44 G	31150561.96	31150562.03	31150562.11	0.0271	0.0257
Earth	80575-03-29 16:34 G	31150562.14	31150562.19	31150562.24	0.0271	0.0264
Moon	80576-04-09 21:36 G	31150939.21	31150939.40	31150939.61	0.0269	0.0146

Earth	80576-04-09 22:48 G	31150939.23	31150939.45	31150939.67	0.0269	0.0130	*
Venus	80579-01-04 05:17 G	31151938.58	31151938.72	31151938.87	0.0266	0.0194	
Venus	80579-08-21 08:39 G	31152167.65	31152167.86	31152168.08	0.0266	0.0042	
Venus	80580-04-06 12:15 G	31152396.81	31152397.01	31152397.20	0.0266	0.0112	
Mercury	80580-09-23 02:24 G	31152566.54	31152566.60	31152566.68	0.0266	0.0230	
Venus	80580-11-21 15:22 G	31152626.13	31152626.14	31152626.17	0.0266	0.0264	
Mercury	80580-12-20 13:41 G	31152654.95	31152655.07	31152655.20	0.0266	0.0124	
Mercury	80581-03-19 01:12 G	31152743.41	31152743.55	31152743.69	0.0266	0.0015	
Mercury	80581-06-15 12:44 G	31152831.90	31152832.03	31152832.17	0.0267	0.0095	
Mercury	80581-09-12 00:29 G	31152920.44	31152920.52	31152920.61	0.0267	0.0208	
Mars	80585-02-19 18:00 G	31154176.97	31154177.25	31154177.53	0.0273	0.0023	
Moon	80590-10-02 14:39 G	31156227.97	31156228.11	31156228.25	0.0290	0.0232	
Earth	80590-10-02 17:46 G	31156228.11	31156228.24	31156228.37	0.0290	0.0246	*
Earth	80591-10-16 19:12 G	31156607.18	31156607.30	31156607.42	0.0293	0.0254	
Moon	80591-10-16 18:58 G	31156607.19	31156607.29	31156607.39	0.0293	0.0265	*
Venus	80594-02-01 08:53 G	31157445.69	31157445.87	31157446.07	0.0295	0.0123	
Venus	80594-09-19 06:29 G	31157675.57	31157675.77	31157675.97	0.0295	0.0083	
Mercury	80595-04-30 03:51 G	31157898.57	31157898.66	31157898.76	0.0294	0.0242	
Venus	80595-05-07 03:36 G	31157905.61	31157905.65	31157905.70	0.0294	0.0286	
Mercury	80595-07-28 01:41 G	31157987.40	31157987.57	31157987.74	0.0294	0.0057	
Mercury	80595-10-24 22:34 G	31158076.29	31158076.44	31158076.60	0.0294	0.0123	
Mars	80599-02-28 02:39 G	31159298.44	31159298.61	31159298.81	0.0286	0.0228	
Earth	80605-04-05 23:17 G	31161526.23	31161526.47	31161526.72	0.0269	0.0045	
Moon	80605-04-06 00:29 G	31161526.27	31161526.52	31161526.78	0.0269	0.0033	*
Venus	80608-07-17 09:08 G	31162724.72	31162724.88	31162725.05	0.0265	0.0171	
Venus	80609-03-03 12:29 G	31162953.81	31162954.02	31162954.24	0.0265	0.0019	
Venus	80609-10-18 15:36 G	31163182.97	31163183.15	31163183.34	0.0266	0.0134	
Mercury	80610-02-11 04:48 G	31163298.68	31163298.70	31163298.73	0.0266	0.0261	
Mercury	80610-05-10 15:51 G	31163387.05	31163387.16	31163387.28	0.0266	0.0156	
Mercury	80610-08-07 03:22 G	31163475.50	31163475.64	31163475.78	0.0266	0.0049	

Mercury	80610-11-03 14:53 G	31163563.98	31163564.12	31163564.25	0.0266	0.0061
Mercury	80611-01-31 02:24 G	31163652.50	31163652.60	31163652.71	0.0267	0.0173
Moon	80620-10-10 15:08 G	31167192.88	31167193.13	31167193.38	0.0291	0.0028
Earth	80620-10-10 15:51 G	31167192.92	31167193.16	31167193.41	0.0291	0.0018 *
Venus	80623-08-15 11:17 G	31168231.77	31168231.97	31168232.17	0.0294	0.0099
Venus	80624-04-01 08:24 G	31168461.66	31168461.85	31168462.05	0.0294	0.0106
Mercury	80624-12-14 23:03 G	31168719.30	31168719.46	31168719.61	0.0294	0.0126
Mercury	80625-03-13 20:10 G	31168808.18	31168808.34	31168808.51	0.0293	0.0056
Mercury	80625-06-10 17:03 G	31168897.11	31168897.21	31168897.31	0.0293	0.0232
Moon	80634-03-31 20:24 G	31172113.20	31172113.35	31172113.49	0.0271	0.0213
Earth	80634-03-31 21:36 G	31172113.27	31172113.40	31172113.56	0.0271	0.0220 *
Earth	80635-04-13 04:05 G	31172490.49	31172490.67	31172490.87	0.0269	0.0175
Moon	80635-04-13 07:12 G	31172490.64	31172490.80	31172490.98	0.0269	0.0191 *
Venus	80638-01-27 14:39 G	31173510.93	31173511.11	31173511.29	0.0266	0.0147
Venus	80638-09-13 18:00 G	31173740.04	31173740.25	31173740.47	0.0266	0.0009
Venus	80639-04-30 21:22 G	31173969.23	31173969.39	31173969.57	0.0266	0.0160
Mercury	80639-09-27 18:58 G	31174119.19	31174119.29	31174119.39	0.0266	0.0181
Mercury	80639-12-25 06:15 G	31174207.63	31174207.76	31174207.90	0.0266	0.0074
Mercury	80640-03-22 17:46 G	31174296.10	31174296.24	31174296.38	0.0267	0.0036
Mercury	80640-06-19 05:32 G	31174384.61	31174384.73	31174384.85	0.0267	0.0147
Mercury	80640-09-15 17:17 G	31174473.20	31174473.22	31174473.26	0.0267	0.0260
Earth	80649-10-05 03:51 G	31177779.48	31177779.66	31177779.85	0.0290	0.0191
Moon	80649-10-05 05:03 G	31177779.53	31177779.71	31177779.90	0.0290	0.0180 *
Venus	80652-07-10 00:58 G	31178788.46	31178788.54	31178788.63	0.0295	0.0265
Venus	80653-02-24 22:20 G	31179018.22	31179018.43	31179018.63	0.0295	0.0062
Venus	80653-10-12 19:27 G	31179248.13	31179248.31	31179248.50	0.0295	0.0143
Mercury	80654-05-04 00:15 G	31179451.37	31179451.51	31179451.66	0.0294	0.0161
Mercury	80654-07-31 21:51 G	31179540.24	31179540.41	31179540.58	0.0294	0.0022
Mercury	80654-10-28 18:29 G	31179629.15	31179629.27	31179629.40	0.0294	0.0199
Moon	80664-04-07 03:51 G	31183077.41	31183077.66	31183077.91	0.0269	0.0015

Earth	80664-04-07 06:44 G	31183077.53	31183077.78	31183078.03	0.0269	0.0001	*
Venus	80667-08-09 19:41 G	31184297.13	31184297.32	31184297.51	0.0266	0.0122	
Venus	80668-03-25 23:03 G	31184526.25	31184526.46	31184526.68	0.0266	0.0031	
Venus	80668-11-10 02:10 G	31184755.44	31184755.59	31184755.75	0.0266	0.0184	
Mercury	80669-02-13 21:36 G	31184851.32	31184851.40	31184851.49	0.0266	0.0210	
Mercury	80669-05-13 08:53 G	31184939.74	31184939.87	31184940.00	0.0266	0.0103	
Mercury	80669-08-09 20:10 G	31185028.20	31185028.34	31185028.49	0.0266	0.0010	
Mercury	80669-11-06 07:56 G	31185116.70	31185116.83	31185116.96	0.0267	0.0116	
Mercury	80670-02-02 19:41 G	31185205.25	31185205.32	31185205.39	0.0267	0.0228	
Mars	80673-07-17 16:20 G	31186465.92	31186466.18	31186466.45	0.0274	0.0092	
Moon	80679-10-13 00:00 G	31188744.27	31188744.50	31188744.74	0.0291	0.0083	
Earth	80679-10-13 03:51 G	31188744.43	31188744.66	31188744.90	0.0291	0.0076	*
Venus	80682-01-20 03:51 G	31189574.55	31189574.66	31189574.79	0.0294	0.0240	
Venus	80682-09-07 01:12 G	31189804.35	31189804.55	31189804.76	0.0294	0.0037	
Venus	80683-04-24 22:20 G	31190034.26	31190034.43	31190034.61	0.0294	0.0167	
Mercury	80683-09-20 21:51 G	31190183.31	31190183.41	31190183.52	0.0294	0.0227	
Mercury	80683-12-18 19:27 G	31190272.14	31190272.31	31190272.48	0.0293	0.0044	
Mercury	80684-03-16 16:34 G	31190361.04	31190361.19	31190361.34	0.0293	0.0136	
Earth	80693-04-02 05:03 G	31193664.52	31193664.71	31193664.90	0.0271	0.0173	
Moon	80693-04-02 07:27 G	31193664.62	31193664.81	31193665.00	0.0271	0.0163	*
Earth	80694-04-14 11:17 G	31194041.84	31194041.97	31194042.12	0.0269	0.0221	
Moon	80694-04-14 13:56 G	31194041.97	31194042.08	31194042.21	0.0269	0.0236	*
Venus	80696-07-04 20:53 G	31194854.31	31194854.37	31194854.45	0.0266	0.0251	
Venus	80697-02-19 00:44 G	31195083.34	31195083.53	31195083.74	0.0266	0.0098	
Venus	80697-10-06 04:20 G	31195312.47	31195312.68	31195312.89	0.0266	0.0056	
Venus	80698-05-23 07:41 G	31195541.70	31195541.82	31195541.96	0.0266	0.0209	
Mercury	80698-07-04 00:29 G	31195583.46	31195583.52	31195583.59	0.0266	0.0236	
Mercury	80698-09-30 11:46 G	31195671.87	31195671.99	31195672.11	0.0266	0.0130	
Mercury	80698-12-27 23:17 G	31195760.33	31195760.47	31195760.61	0.0267	0.0022	
Mercury	80699-03-26 10:48 G	31195848.82	31195848.95	31195849.08	0.0267	0.0089	

Mercury	80699-06-22 22:34 G	31195937.35	31195937.44	31195937.53	0.0267	0.0202
Earth	80708-10-07 16:34 G	31199330.98	31199331.19	31199331.42	0.0291	0.0133
Moon	80708-10-07 20:24 G	31199331.13	31199331.35	31199331.57	0.0291	0.0122 *
Venus	80711-08-03 15:51 G	31200361.02	31200361.16	31200361.32	0.0295	0.0203
Venus	80712-03-20 13:12 G	31200590.85	31200591.05	31200591.26	0.0295	0.0006
Venus	80712-11-05 10:20 G	31200820.79	31200820.93	31200821.09	0.0294	0.0207
Mercury	80713-02-07 23:32 G	31200915.41	31200915.48	31200915.57	0.0294	0.0259
Mercury	80713-05-07 21:22 G	31201004.23	31201004.39	31201004.56	0.0294	0.0074
Mercury	80713-08-04 18:29 G	31201093.12	31201093.27	31201093.43	0.0294	0.0107
Mercury	80713-11-01 15:08 G	31201182.09	31201182.13	31201182.18	0.0293	0.0281
Moon	80723-04-10 12:44 G	31204628.80	31204629.03	31204629.27	0.0269	0.0063
Earth	80723-04-10 15:51 G	31204628.92	31204629.16	31204629.40	0.0269	0.0050 *
Venus	80726-01-16 03:08 G	31205640.53	31205640.63	31205640.76	0.0266	0.0224
Venus	80726-09-02 06:58 G	31205869.58	31205869.79	31205870.00	0.0266	0.0071
Venus	80727-04-19 10:20 G	31206098.73	31206098.93	31206099.14	0.0266	0.0082
Mercury	80727-11-22 03:36 G	31206315.63	31206315.65	31206315.67	0.0266	0.0261
Venus	80727-12-04 13:41 G	31206327.97	31206328.07	31206328.17	0.0266	0.0234
Mercury	80728-02-18 14:39 G	31206404.00	31206404.11	31206404.23	0.0266	0.0156
Mercury	80728-05-17 01:56 G	31206492.45	31206492.58	31206492.72	0.0266	0.0049
Mercury	80728-08-13 13:27 G	31206580.93	31206581.06	31206581.20	0.0267	0.0062
Mercury	80728-11-10 01:12 G	31206669.44	31206669.55	31206669.66	0.0267	0.0173
Moon	80738-10-15 17:32 G	31210296.03	31210296.23	31210296.44	0.0291	0.0144
Earth	80738-10-15 18:58 G	31210296.08	31210296.29	31210296.50	0.0291	0.0139 *
Venus	80741-02-12 20:10 G	31211147.18	31211147.34	31211147.51	0.0294	0.0175
Venus	80741-09-30 17:17 G	31211377.02	31211377.22	31211377.43	0.0294	0.0029
Venus	80742-05-18 14:10 G	31211606.98	31211607.09	31211607.23	0.0294	0.0232
Mercury	80742-09-24 19:41 G	31211736.16	31211736.32	31211736.47	0.0293	0.0136
Mercury	80742-12-22 17:03 G	31211825.04	31211825.21	31211825.37	0.0293	0.0046
Mercury	80743-03-21 13:41 G	31211913.97	31211914.07	31211914.18	0.0293	0.0222
Earth	80752-04-04 13:41 G	31215215.86	31215216.07	31215216.29	0.0270	0.0125

Moon	80752-04-04 17:03 G	31215215.99	31215216.21	31215216.45	0.0270	0.0113 *
Earth	80753-04-16 19:41 G	31215593.32	31215593.32	31215593.35	0.0269	0.0268
Venus	80755-07-29 07:41 G	31216426.69	31216426.82	31216426.97	0.0266	0.0202
Venus	80756-03-14 11:46 G	31216655.78	31216655.99	31216656.20	0.0266	0.0048
Venus	80756-10-29 15:22 G	31216884.95	31216885.14	31216885.34	0.0266	0.0106
Venus	80757-06-15 18:58 G	31217114.25	31217114.29	31217114.34	0.0266	0.0259
Mercury	80757-07-07 17:32 G	31217136.13	31217136.23	31217136.33	0.0267	0.0183
Mercury	80757-10-04 04:48 G	31217224.57	31217224.70	31217224.83	0.0267	0.0076
Mercury	80757-12-31 16:20 G	31217313.04	31217313.18	31217313.32	0.0267	0.0034
Mercury	80758-03-30 03:51 G	31217401.55	31217401.66	31217401.78	0.0267	0.0145
Mercury	80758-06-26 15:51 G	31217490.13	31217490.16	31217490.19	0.0267	0.0259
Mars	80761-12-13 10:48 G	31218755.76	31218755.95	31218756.14	0.0274	0.0203
Earth	80767-10-10 07:56 G	31220882.59	31220882.83	31220883.07	0.0291	0.0071
Moon	80767-10-10 09:36 G	31220882.65	31220882.90	31220883.14	0.0291	0.0061 *
Venus	80770-08-26 08:24 G	31221933.67	31221933.85	31221934.04	0.0295	0.0136
Venus	80771-04-13 05:46 G	31222163.53	31222163.74	31222163.94	0.0295	0.0068
Venus	80771-11-29 02:39 G	31222393.54	31222393.61	31222393.69	0.0294	0.0271
Mercury	80772-02-11 21:36 G	31222468.26	31222468.40	31222468.54	0.0294	0.0166
Mercury	80772-05-10 18:58 G	31222557.12	31222557.29	31222557.46	0.0294	0.0018
Mercury	80772-08-07 15:51 G	31222646.04	31222646.16	31222646.29	0.0294	0.0195
Earth	80782-04-12 01:41 G	31226180.34	31226180.57	31226180.80	0.0269	0.0099
Moon	80782-04-12 02:24 G	31226180.38	31226180.60	31226180.82	0.0269	0.0114 *
Venus	80785-02-07 15:08 G	31227212.97	31227213.13	31227213.30	0.0266	0.0172
Venus	80785-09-24 18:44 G	31227442.06	31227442.28	31227442.49	0.0266	0.0019
Venus	80786-05-11 22:05 G	31227671.24	31227671.42	31227671.61	0.0266	0.0134
Mercury	80786-11-24 20:39 G	31227868.28	31227868.36	31227868.45	0.0266	0.0207
Mercury	80787-02-21 07:56 G	31227956.70	31227956.83	31227956.96	0.0266	0.0101
Mercury	80787-05-20 19:12 G	31228045.16	31228045.30	31228045.44	0.0267	0.0011
Mercury	80787-08-17 06:58 G	31228133.66	31228133.79	31228133.91	0.0267	0.0119
Mercury	80787-11-13 18:44 G	31228222.21	31228222.28	31228222.35	0.0267	0.0231

Moon	80796-10-03 09:22 G	31231468.85	31231468.89	31231468.96	0.0289	0.0281
Earth	80797-10-17 11:17 G	31231847.80	31231847.97	31231848.15	0.0292	0.0203
Moon	80797-10-17 13:56 G	31231847.91	31231848.08	31231848.25	0.0292	0.0206 *
Venus	80800-03-07 13:27 G	31232719.86	31232720.06	31232720.25	0.0294	0.0108
Venus	80800-10-23 10:20 G	31232949.74	31232949.93	31232950.13	0.0294	0.0096
Mercury	80801-06-30 19:56 G	31233200.23	31233200.33	31233200.44	0.0294	0.0225
Mercury	80801-09-27 17:46 G	31233289.07	31233289.24	31233289.41	0.0293	0.0042
Mercury	80801-12-25 14:39 G	31233377.97	31233378.11	31233378.26	0.0293	0.0138
Moon	80811-04-06 22:48 G	31236767.21	31236767.45	31236767.70	0.0270	0.0062
Earth	80811-04-06 23:32 G	31236767.25	31236767.48	31236767.73	0.0270	0.0076 *
Venus	80814-08-20 19:12 G	31237999.12	31237999.30	31237999.48	0.0266	0.0150
Venus	80815-04-06 23:03 G	31238228.24	31238228.46	31238228.67	0.0266	0.0006
Venus	80815-11-22 02:24 G	31238457.43	31238457.60	31238457.78	0.0266	0.0157
Mercury	80816-04-12 23:17 G	31238600.41	31238600.47	31238600.53	0.0267	0.0236
Mercury	80816-07-10 10:20 G	31238688.81	31238688.93	31238689.06	0.0267	0.0131
Mercury	80816-10-06 21:51 G	31238777.27	31238777.41	31238777.55	0.0267	0.0022
Mercury	80817-01-03 09:22 G	31238865.76	31238865.89	31238866.03	0.0267	0.0089
Mercury	80817-04-01 21:08 G	31238954.29	31238954.38	31238954.48	0.0267	0.0202
Moon	80826-10-11 21:22 G	31242434.14	31242434.39	31242434.64	0.0291	0.0004
Earth	80826-10-11 23:46 G	31242434.24	31242434.49	31242434.73	0.0291	0.0010 *
Venus	80829-01-31 04:20 G	31243276.61	31243276.68	31243276.76	0.0294	0.0271
Venus	80829-09-18 01:41 G	31243506.37	31243506.57	31243506.77	0.0295	0.0068
Venus	80830-05-05 22:48 G	31243736.27	31243736.45	31243736.64	0.0295	0.0136
Mercury	80830-11-17 21:51 G	31243932.33	31243932.41	31243932.50	0.0294	0.0256
Mercury	80831-02-14 19:41 G	31244021.16	31244021.32	31244021.49	0.0294	0.0071
Mercury	80831-05-14 16:48 G	31244110.05	31244110.20	31244110.36	0.0294	0.0110
Mercury	80831-08-11 13:27 G	31244199.03	31244199.06	31244199.11	0.0293	0.0285
Mars	80834-03-26 14:10 G	31245157.03	31245157.09	31245157.17	0.0288	0.0279
Earth	80840-04-01 05:17 G	31247354.63	31247354.72	31247354.83	0.0270	0.0246
Moon	80840-04-01 06:00 G	31247354.64	31247354.75	31247354.87	0.0270	0.0235 *

Earth	80841-04-13 12:00 G	31247731.79	31247732.00	31247732.20	0.0268	0.0148
Moon	80841-04-13 15:36 G	31247731.96	31247732.15	31247732.35	0.0268	0.0165 *
Venus	80844-03-02 02:39 G	31248785.42	31248785.61	31248785.81	0.0266	0.0120
Venus	80844-10-17 06:15 G	31249014.55	31249014.76	31249014.98	0.0266	0.0033
Venus	80845-06-03 09:22 G	31249243.75	31249243.89	31249244.06	0.0266	0.0186
Mercury	80845-08-31 02:24 G	31249332.58	31249332.60	31249332.64	0.0266	0.0259
Mercury	80845-11-27 13:41 G	31249420.96	31249421.07	31249421.19	0.0266	0.0153
Mercury	80846-02-24 00:58 G	31249509.41	31249509.54	31249509.68	0.0266	0.0047
Mercury	80846-05-23 12:29 G	31249597.89	31249598.02	31249598.16	0.0267	0.0065
Mercury	80846-08-20 00:15 G	31249686.41	31249686.51	31249686.62	0.0267	0.0176
Earth	80855-10-06 03:36 G	31253020.51	31253020.65	31253020.81	0.0290	0.0228
Moon	80855-10-06 06:15 G	31253020.61	31253020.76	31253020.93	0.0290	0.0217 *
Earth	80856-10-19 04:20 G	31253399.60	31253399.68	31253399.79	0.0292	0.0267
Moon	80856-10-19 07:56 G	31253399.75	31253399.83	31253399.92	0.0292	0.0272 *
Venus	80858-08-13 10:05 G	31254062.80	31254062.92	31254063.03	0.0294	0.0242
Venus	80859-03-31 06:58 G	31254292.59	31254292.79	31254293.00	0.0294	0.0040
Venus	80859-11-16 03:51 G	31254522.50	31254522.66	31254522.84	0.0294	0.0164
Mercury	80860-07-03 18:29 G	31254753.11	31254753.27	31254753.42	0.0293	0.0128
Mercury	80860-09-30 15:51 G	31254841.99	31254842.16	31254842.33	0.0293	0.0054
Mercury	80860-12-28 12:29 G	31254930.92	31254931.02	31254931.13	0.0293	0.0230
Moon	80870-04-08 05:32 G	31258318.49	31258318.73	31258318.98	0.0270	0.0013
Earth	80870-04-08 09:22 G	31258318.65	31258318.89	31258319.14	0.0270	0.0028 *
Venus	80873-01-26 02:10 G	31259342.53	31259342.59	31259342.67	0.0266	0.0252
Venus	80873-09-12 06:00 G	31259571.55	31259571.75	31259571.95	0.0266	0.0099
Venus	80874-04-29 09:36 G	31259800.69	31259800.90	31259801.12	0.0266	0.0055
Venus	80874-12-14 13:12 G	31260029.92	31260030.05	31260030.19	0.0266	0.0208
Mercury	80875-04-16 16:05 G	31260153.07	31260153.17	31260153.27	0.0267	0.0185
Mercury	80875-07-14 03:22 G	31260241.51	31260241.64	31260241.77	0.0267	0.0077
Mercury	80875-10-10 14:53 G	31260329.98	31260330.12	31260330.26	0.0267	0.0032
Mercury	80876-01-07 02:24 G	31260418.48	31260418.60	31260418.72	0.0267	0.0144

Mercury	80876-04-04 14:24 G	31260507.06	31260507.10	31260507.14	0.0267	0.0257
Moon	80885-10-13 10:48 G	31263985.71	31263985.95	31263986.19	0.0291	0.0059
Earth	80885-10-13 14:10 G	31263985.86	31263986.09	31263986.34	0.0291	0.0051 *
Venus	80888-02-23 20:53 G	31264849.22	31264849.37	31264849.52	0.0295	0.0205
Venus	80888-10-10 18:15 G	31265079.05	31265079.26	31265079.47	0.0295	0.0003
Venus	80889-05-28 15:08 G	31265308.99	31265309.13	31265309.29	0.0295	0.0204
Mercury	80889-11-20 19:56 G	31265485.19	31265485.33	31265485.48	0.0294	0.0162
Mercury	80890-02-17 17:32 G	31265574.06	31265574.23	31265574.40	0.0294	0.0022
Mercury	80890-05-17 14:24 G	31265662.98	31265663.10	31265663.23	0.0294	0.0200
Earth	80899-04-03 15:36 G	31268906.00	31268906.15	31268906.33	0.0270	0.0197
Moon	80899-04-03 19:27 G	31268906.13	31268906.31	31268906.49	0.0270	0.0183 *
Earth	80900-04-15 21:51 G	31269283.25	31269283.41	31269283.58	0.0268	0.0195
Moon	80900-04-15 23:17 G	31269283.31	31269283.47	31269283.63	0.0268	0.0211 *
Venus	80902-08-09 10:05 G	31270128.81	31270128.92	31270129.04	0.0266	0.0221
Venus	80903-03-26 13:56 G	31270357.87	31270358.08	31270358.29	0.0266	0.0069
Venus	80903-11-10 17:17 G	31270587.02	31270587.22	31270587.43	0.0266	0.0084
Venus	80904-06-26 20:39 G	31270816.27	31270816.36	31270816.46	0.0266	0.0236
Mercury	80904-09-03 19:27 G	31270885.23	31270885.31	31270885.40	0.0266	0.0207
Mercury	80904-12-01 06:44 G	31270973.65	31270973.78	31270973.91	0.0266	0.0100
Mercury	80905-02-27 18:00 G	31271062.11	31271062.25	31271062.39	0.0266	0.0010
Mercury	80905-05-27 05:46 G	31271150.61	31271150.74	31271150.86	0.0267	0.0119
Mercury	80905-08-23 17:17 G	31271239.16	31271239.22	31271239.30	0.0267	0.0232
Mars	80908-08-17 17:17 G	31272329.11	31272329.22	31272329.33	0.0273	0.0250
Earth	80914-10-08 18:29 G	31274572.08	31274572.27	31274572.48	0.0290	0.0168
Moon	80914-10-08 22:05 G	31274572.21	31274572.42	31274572.63	0.0290	0.0157 *
Venus	80917-09-06 02:39 G	31275635.45	31275635.61	31275635.78	0.0294	0.0176
Venus	80918-04-23 23:46 G	31275865.29	31275865.49	31275865.70	0.0294	0.0028
Venus	80918-12-09 20:39 G	31276095.24	31276095.36	31276095.50	0.0294	0.0231
Mercury	80919-04-10 18:44 G	31276217.17	31276217.28	31276217.40	0.0294	0.0219
Mercury	80919-07-08 16:34 G	31276306.02	31276306.19	31276306.36	0.0293	0.0034

Mercury	80919-10-05 13:41 G	31276394.92	31276395.07	31276395.22	0.0293	0.0145
Mars	80922-08-21 21:22 G	31277446.16	31277446.39	31277446.64	0.0287	0.0175
Moon	80929-04-10 17:32 G	31279870.00	31279870.23	31279870.47	0.0269	0.0035
Earth	80929-04-10 18:44 G	31279870.03	31279870.28	31279870.52	0.0269	0.0020 *
Venus	80932-02-19 12:44 G	31280914.89	31280915.03	31280915.17	0.0266	0.0202
Venus	80932-10-05 16:20 G	31281143.97	31281144.18	31281144.39	0.0266	0.0049
Venus	80933-05-22 19:41 G	31281373.13	31281373.32	31281373.52	0.0266	0.0105
Venus	80934-01-06 23:17 G	31281602.42	31281602.47	31281602.52	0.0266	0.0257
Mercury	80934-01-21 21:22 G	31281617.34	31281617.39	31281617.45	0.0266	0.0241
Mercury	80934-04-20 08:39 G	31281705.74	31281705.86	31281705.98	0.0267	0.0135
Mercury	80934-07-17 19:56 G	31281794.19	31281794.33	31281794.47	0.0267	0.0028
Mercury	80934-10-14 07:27 G	31281882.68	31281882.81	31281882.95	0.0267	0.0084
Mercury	80935-01-10 19:12 G	31281971.21	31281971.30	31281971.40	0.0267	0.0196
Earth	80944-10-16 03:08 G	31285537.42	31285537.63	31285537.87	0.0292	0.0109
Moon	80944-10-16 03:22 G	31285537.43	31285537.64	31285537.87	0.0292	0.0114 *
Venus	80947-03-19 12:29 G	31286421.84	31286422.02	31286422.21	0.0295	0.0139
Venus	80947-11-04 09:51 G	31286651.71	31286651.91	31286652.12	0.0295	0.0066
Venus	80948-06-21 07:12 G	31286881.72	31286881.80	31286881.88	0.0294	0.0269
Mercury	80948-08-27 19:41 G	31286949.25	31286949.32	31286949.41	0.0294	0.0258
Mercury	80948-11-24 17:46 G	31287038.07	31287038.24	31287038.40	0.0294	0.0072
Mercury	80949-02-21 14:53 G	31287126.97	31287127.12	31287127.28	0.0294	0.0109
Mercury	80949-05-21 11:46 G	31287215.95	31287215.99	31287216.03	0.0294	0.0285
Earth	80958-04-06 00:44 G	31290457.33	31290457.53	31290457.74	0.0270	0.0149
Moon	80958-04-06 02:24 G	31290457.39	31290457.60	31290457.83	0.0270	0.0137 *
Moon	80959-04-18 02:53 G	31290834.56	31290834.62	31290834.71	0.0268	0.0254
Earth	80959-04-18 06:29 G	31290834.66	31290834.77	31290834.88	0.0268	0.0240 *
Venus	80961-08-31 20:24 G	31291701.19	31291701.35	31291701.52	0.0266	0.0171
Venus	80962-04-18 00:00 G	31291930.28	31291930.50	31291930.71	0.0265	0.0019
Venus	80962-12-03 03:08 G	31292159.45	31292159.63	31292159.82	0.0266	0.0134
Mercury	80963-06-11 00:58 G	31292349.52	31292349.54	31292349.56	0.0266	0.0263

Mercury	80963-09-07 12:00 G	31292437.89	31292438.00	31292438.11	0.0266	0.0158
Mercury	80963-12-04 23:17 G	31292526.33	31292526.47	31292526.61	0.0266	0.0051
Mercury	80964-03-02 10:48 G	31292614.81	31292614.95	31292615.09	0.0266	0.0059
Mercury	80964-05-29 22:20 G	31292703.33	31292703.43	31292703.54	0.0267	0.0171
Moon	80973-10-10 06:00 G	31296123.52	31296123.75	31296123.99	0.0291	0.0106
Earth	80973-10-10 06:58 G	31296123.57	31296123.79	31296124.02	0.0291	0.0112 *
Venus	80976-09-28 17:46 G	31297208.05	31297208.24	31297208.44	0.0294	0.0111
Venus	80977-05-16 14:53 G	31297437.93	31297438.12	31297438.32	0.0294	0.0094
Mercury	80978-04-13 16:20 G	31297770.02	31297770.18	31297770.33	0.0294	0.0130
Mercury	80978-07-11 13:41 G	31297858.90	31297859.07	31297859.24	0.0293	0.0052
Mercury	80978-10-08 10:34 G	31297947.84	31297947.94	31297948.05	0.0293	0.0230
Earth	80988-04-12 02:24 G	31301421.36	31301421.60	31301421.84	0.0269	0.0065
Moon	80988-04-12 05:17 G	31301421.49	31301421.72	31301421.96	0.0269	0.0080 *
Venus	80991-03-13 22:05 G	31302487.25	31302487.42	31302487.60	0.0266	0.0152
Venus	80991-10-29 01:41 G	31302716.35	31302716.57	31302716.78	0.0266	0.0004
Venus	80992-06-14 04:48 G	31302945.53	31302945.70	31302945.88	0.0266	0.0153
Mercury	80993-01-24 13:41 G	31303169.98	31303170.07	31303170.17	0.0266	0.0195
Mercury	80993-04-23 00:58 G	31303258.41	31303258.54	31303258.68	0.0267	0.0088
Mercury	80993-07-20 12:29 G	31303346.88	31303347.02	31303347.16	0.0267	0.0021
Mercury	80993-10-17 00:00 G	31303435.38	31303435.50	31303435.62	0.0267	0.0132
Mercury	80994-01-13 11:46 G	31303523.94	31303523.99	31303524.05	0.0267	0.0245
Mars	80997-01-11 13:56 G	31304617.88	31304618.08	31304618.29	0.0273	0.0183

82ND MILLENNIUM CE

This is a list of transits visible from Saturn in the 82nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	81003-10-19 12:29	G	31307088.82	31307089.02	31307089.23	0.0292	0.0160	
Moon	81003-10-19 16:20	G	31307088.98	31307089.18	31307089.38	0.0292	0.0161	*
Venus	81005-08-25 04:20	G	31307764.63	31307764.68	31307764.75	0.0295	0.0280	
Venus	81006-04-12 01:56	G	31307994.38	31307994.58	31307994.78	0.0295	0.0077	
Venus	81006-11-27 23:17	G	31308224.29	31308224.47	31308224.67	0.0295	0.0129	
Mercury	81007-09-01 16:34	G	31308502.05	31308502.19	31308502.33	0.0294	0.0175	
Mercury	81007-11-29 14:10	G	31308590.92	31308591.09	31308591.26	0.0294	0.0010	
Mercury	81008-02-26 11:17	G	31308679.84	31308679.97	31308680.10	0.0294	0.0189	
Mars	81011-01-17 19:56	G	31309736.04	31309736.33	31309736.63	0.0287	0.0052	
Moon	81017-04-08 05:46	G	31312008.50	31312008.74	31312008.98	0.0270	0.0090	
Earth	81017-04-08 08:10	G	31312008.61	31312008.84	31312009.07	0.0270	0.0104	*
Venus	81020-09-24 05:17	G	31313273.54	31313273.72	31313273.92	0.0265	0.0122	
Venus	81021-05-11 08:39	G	31313502.65	31313502.86	31313503.07	0.0265	0.0030	
Venus	81021-12-26 11:32	G	31313731.84	31313731.98	31313732.15	0.0265	0.0183	
Mercury	81022-06-14 17:03	G	31313902.14	31313902.21	31313902.29	0.0266	0.0218	
Mercury	81022-09-11 04:20	G	31313990.55	31313990.68	31313990.80	0.0266	0.0112	
Mercury	81022-12-08 15:36	G	31314079.01	31314079.15	31314079.29	0.0266	0.0004	
Mercury	81023-03-07 03:08	G	31314167.50	31314167.63	31314167.76	0.0266	0.0106	
Mercury	81023-06-03 14:39	G	31314256.04	31314256.11	31314256.20	0.0267	0.0219	
Moon	81032-10-12 12:44	G	31317674.79	31317675.03	31317675.27	0.0291	0.0059	
Earth	81032-10-12 16:20	G	31317674.95	31317675.18	31317675.42	0.0291	0.0060	*
Venus	81035-03-07 10:05	G	31318550.82	31318550.92	31318551.03	0.0294	0.0252	
Venus	81035-10-23 07:27	G	31318780.60	31318780.81	31318781.01	0.0295	0.0048	
Venus	81036-06-09 04:34	G	31319010.52	31319010.69	31319010.87	0.0295	0.0156	
Mercury	81037-01-18 14:53	G	31319234.02	31319234.12	31319234.23	0.0294	0.0234	
Mercury	81037-04-17 12:58	G	31319322.87	31319323.04	31319323.21	0.0294	0.0048	
Mercury	81037-07-15 10:05	G	31319411.77	31319411.92	31319412.07	0.0294	0.0133	

Earth	81047-04-15 08:24 G	31322972.62	31322972.85	31322973.08	0.0269	0.0107
Moon	81047-04-15 11:17 G	31322972.75	31322972.97	31322973.20	0.0269	0.0122 *
Venus	81049-08-20 02:39 G	31323830.56	31323830.61	31323830.67	0.0266	0.0256
Venus	81050-04-06 06:15 G	31324059.56	31324059.76	31324059.96	0.0266	0.0104
Venus	81050-11-21 09:22 G	31324288.68	31324288.89	31324289.10	0.0266	0.0048
Venus	81051-07-08 12:29 G	31324517.88	31324518.02	31324518.16	0.0266	0.0200
Mercury	81051-11-01 18:44 G	31324634.25	31324634.28	31324634.31	0.0266	0.0256
Mercury	81052-01-29 05:46 G	31324722.63	31324722.74	31324722.85	0.0266	0.0151
Mercury	81052-04-26 17:03 G	31324811.07	31324811.21	31324811.35	0.0266	0.0044
Mercury	81052-07-24 04:20 G	31324899.55	31324899.68	31324899.82	0.0267	0.0066
Mercury	81052-10-20 16:05 G	31324988.06	31324988.17	31324988.27	0.0267	0.0177
Earth	81061-10-06 16:20 G	31328261.16	31328261.18	31328261.23	0.0290	0.0287
Moon	81061-10-06 20:10 G	31328261.29	31328261.34	31328261.40	0.0290	0.0281
Earth	81062-10-20 18:15 G	31328640.10	31328640.26	31328640.44	0.0292	0.0206
Moon	81062-10-20 19:41 G	31328640.15	31328640.32	31328640.51	0.0292	0.0203 *
Venus	81064-09-16 15:22 G	31329337.01	31329337.14	31329337.28	0.0295	0.0222
Venus	81065-05-04 13:12 G	31329566.84	31329567.05	31329567.26	0.0295	0.0018
Venus	81065-12-20 10:48 G	31329796.79	31329796.95	31329797.11	0.0295	0.0188
Mercury	81066-06-07 13:56 G	31329966.06	31329966.08	31329966.12	0.0295	0.0290
Mercury	81066-09-04 12:15 G	31330054.85	31330055.01	31330055.17	0.0294	0.0102
Mercury	81066-12-02 09:36 G	31330143.74	31330143.90	31330144.07	0.0294	0.0082
Mercury	81067-03-01 06:44 G	31330232.70	31330232.78	31330232.86	0.0294	0.0259
Moon	81076-04-09 09:36 G	31333559.67	31333559.90	31333560.14	0.0269	0.0047
Earth	81076-04-09 13:12 G	31333559.81	31333560.05	31333560.29	0.0269	0.0062 *
Venus	81079-03-02 09:36 G	31334616.80	31334616.90	31334617.02	0.0265	0.0227
Venus	81079-10-17 12:58 G	31334845.84	31334846.04	31334846.25	0.0265	0.0075
Venus	81080-06-02 16:05 G	31335074.97	31335075.17	31335075.38	0.0265	0.0077
Venus	81081-01-17 18:58 G	31335304.19	31335304.29	31335304.40	0.0265	0.0228
Mercury	81081-06-17 08:53 G	31335454.77	31335454.87	31335454.97	0.0266	0.0176
Mercury	81081-09-13 20:10 G	31335543.20	31335543.34	31335543.47	0.0266	0.0069

Mercury	81081-12-11 07:27 G	31335631.67	31335631.81	31335631.95	0.0266	0.0039
Mercury	81082-03-09 18:58 G	31335720.18	31335720.29	31335720.41	0.0266	0.0150
Mercury	81082-06-06 06:44 G	31335808.76	31335808.78	31335808.80	0.0267	0.0263
Mars	81085-06-08 10:05 G	31336906.67	31336906.92	31336907.18	0.0273	0.0122
Moon	81091-10-14 20:10 G	31339226.10	31339226.34	31339226.57	0.0291	0.0015
Earth	81091-10-14 21:08 G	31339226.14	31339226.38	31339226.63	0.0291	0.0015 *
Venus	81094-03-29 20:39 G	31340123.21	31340123.36	31340123.52	0.0295	0.0195
Venus	81094-11-14 18:15 G	31340353.05	31340353.26	31340353.47	0.0295	0.0010
Venus	81095-07-02 15:36 G	31340583.01	31340583.15	31340583.29	0.0295	0.0215
Mercury	81096-01-22 10:34 G	31340786.80	31340786.94	31340787.09	0.0294	0.0161
Mercury	81096-04-20 08:10 G	31340875.67	31340875.84	31340876.01	0.0294	0.0024
Mercury	81096-07-18 05:17 G	31340964.60	31340964.72	31340964.84	0.0294	0.0202
Mars	81099-06-13 08:53 G	31342024.57	31342024.87	31342025.17	0.0287	0.0016
Earth	81105-04-05 06:44 G	31344146.69	31344146.78	31344146.90	0.0270	0.0243
Moon	81105-04-05 10:05 G	31344146.80	31344146.92	31344147.07	0.0270	0.0228 *
Moon	81106-04-17 11:03 G	31344523.77	31344523.96	31344524.18	0.0268	0.0159
Earth	81106-04-17 12:15 G	31344523.81	31344524.01	31344524.22	0.0268	0.0146 *
Venus	81108-09-12 09:36 G	31345402.79	31345402.90	31345403.05	0.0266	0.0211
Venus	81109-04-29 12:58 G	31345631.83	31345632.04	31345632.25	0.0265	0.0058
Venus	81109-12-14 15:51 G	31345860.96	31345861.16	31345861.37	0.0265	0.0094
Venus	81110-07-31 18:44 G	31346090.21	31346090.28	31346090.37	0.0266	0.0245
Mercury	81110-11-05 10:05 G	31346186.85	31346186.92	31346187.00	0.0266	0.0217
Mercury	81111-02-01 21:22 G	31346275.26	31346275.39	31346275.51	0.0266	0.0111
Mercury	81111-05-01 08:39 G	31346363.72	31346363.86	31346364.00	0.0266	0.0007
Mercury	81111-07-28 20:10 G	31346452.21	31346452.34	31346452.47	0.0266	0.0107
Mercury	81111-10-25 07:41 G	31346540.74	31346540.82	31346540.90	0.0267	0.0218
Earth	81120-10-08 18:44 G	31349812.16	31349812.28	31349812.42	0.0290	0.0245
Moon	81120-10-08 19:27 G	31349812.19	31349812.31	31349812.47	0.0290	0.0242 *
Moon	81121-10-22 17:46 G	31350191.11	31350191.24	31350191.39	0.0292	0.0239
Earth	81121-10-22 20:39 G	31350191.25	31350191.36	31350191.50	0.0292	0.0248 *

Venus	81123-10-11 00:29 G	31350909.36	31350909.52	31350909.70	0.0295	0.0167
Venus	81124-05-27 22:20 G	31351139.23	31351139.43	31351139.64	0.0295	0.0039
Venus	81125-01-12 20:10 G	31351369.23	31351369.34	31351369.46	0.0295	0.0244
Mercury	81125-06-11 09:08 G	31351518.76	31351518.88	31351518.99	0.0295	0.0222
Mercury	81125-09-08 06:58 G	31351607.62	31351607.79	31351607.96	0.0295	0.0036
Mercury	81125-12-06 04:20 G	31351696.53	31351696.68	31351696.83	0.0294	0.0146
Earth	81135-04-12 15:51 G	31355110.91	31355111.16	31355111.40	0.0269	0.0023
Moon	81135-04-12 16:34 G	31355110.95	31355111.19	31355111.43	0.0269	0.0007 *
Venus	81138-03-25 16:20 G	31356189.02	31356189.18	31356189.33	0.0265	0.0182
Venus	81138-11-09 19:12 G	31356418.09	31356418.30	31356418.52	0.0265	0.0031
Venus	81139-06-26 22:05 G	31356647.23	31356647.42	31356647.61	0.0265	0.0122
Mercury	81140-03-24 13:12 G	31356919.00	31356919.05	31356919.11	0.0265	0.0241
Mercury	81140-06-21 00:15 G	31357007.40	31357007.51	31357007.63	0.0265	0.0137
Mercury	81140-09-17 11:32 G	31357095.84	31357095.98	31357096.12	0.0266	0.0030
Mercury	81140-12-14 23:03 G	31357184.32	31357184.46	31357184.59	0.0266	0.0079
Mercury	81141-03-13 10:34 G	31357272.84	31357272.94	31357273.04	0.0266	0.0190
Earth	81150-10-16 23:03 G	31360777.22	31360777.46	31360777.70	0.0291	0.0028
Moon	81150-10-17 01:41 G	31360777.34	31360777.57	31360777.81	0.0291	0.0025 *
Venus	81153-04-22 05:32 G	31361695.55	31361695.73	31361695.92	0.0295	0.0141
Venus	81153-12-08 03:08 G	31361925.43	31361925.63	31361925.83	0.0295	0.0065
Venus	81154-07-26 00:29 G	31362155.45	31362155.52	31362155.61	0.0295	0.0270
Mercury	81154-10-29 06:58 G	31362250.75	31362250.79	31362250.84	0.0295	0.0284
Mercury	81155-01-26 05:03 G	31362339.55	31362339.71	31362339.88	0.0294	0.0097
Mercury	81155-04-25 02:39 G	31362428.45	31362428.61	31362428.77	0.0294	0.0086
Mercury	81155-07-22 23:32 G	31362517.41	31362517.48	31362517.55	0.0294	0.0264
Moon	81164-04-06 07:56 G	31365697.65	31365697.83	31365698.01	0.0270	0.0188
Earth	81164-04-06 09:08 G	31365697.72	31365697.88	31365698.04	0.0270	0.0204 *
Moon	81165-04-18 10:05 G	31366074.77	31366074.92	31366075.10	0.0268	0.0196
Earth	81165-04-18 13:56 G	31366074.91	31366075.08	31366075.27	0.0268	0.0183 *
Venus	81167-10-05 15:36 G	31366975.00	31366975.15	31366975.33	0.0265	0.0167

Venus	81168-05-21 18:44 G	31367204.07	31367204.28	31367204.50	0.0265	0.0014
Venus	81169-01-05 21:36 G	31367433.21	31367433.40	31367433.58	0.0265	0.0138
Mercury	81169-11-08 01:27 G	31367739.46	31367739.56	31367739.66	0.0266	0.0179
Mercury	81170-02-04 12:29 G	31367827.89	31367828.02	31367828.16	0.0266	0.0073
Mercury	81170-05-04 00:00 G	31367916.36	31367916.50	31367916.64	0.0266	0.0036
Mercury	81170-07-31 11:17 G	31368004.86	31368004.97	31368005.09	0.0266	0.0146
Mercury	81170-10-27 23:03 G	31368093.43	31368093.46	31368093.50	0.0267	0.0257
Mars	81173-11-02 05:03 G	31369194.46	31369194.71	31369194.98	0.0272	0.0106
Moon	81179-10-10 14:39 G	31371362.95	31371363.11	31371363.29	0.0290	0.0209
Earth	81179-10-10 18:00 G	31371363.08	31371363.25	31371363.42	0.0290	0.0207 *
Moon	81180-10-23 17:03 G	31371742.15	31371742.21	31371742.30	0.0292	0.0277
Earth	81180-10-23 19:56 G	31371742.29	31371742.33	31371742.39	0.0292	0.0286 *
Venus	81182-11-02 07:27 G	31372481.62	31372481.81	31372482.00	0.0295	0.0116
Venus	81183-06-20 05:17 G	31372711.53	31372711.72	31372711.92	0.0295	0.0091
Mercury	81184-06-14 02:39 G	31373071.47	31373071.61	31373071.76	0.0295	0.0165
Mercury	81184-09-11 00:29 G	31373160.35	31373160.52	31373160.69	0.0295	0.0021
Mercury	81184-12-08 21:36 G	31373249.28	31373249.40	31373249.53	0.0294	0.0202
Mars	81187-11-07 18:44 G	31374312.99	31374313.28	31374313.58	0.0288	0.0069
Earth	81194-04-13 16:34 G	31376661.94	31376662.19	31376662.43	0.0269	0.0014
Moon	81194-04-13 20:24 G	31376662.10	31376662.35	31376662.59	0.0269	0.0030 *
Venus	81197-04-16 21:22 G	31377761.22	31377761.39	31377761.58	0.0265	0.0139
Venus	81197-12-02 00:29 G	31377990.30	31377990.52	31377990.73	0.0265	0.0013
Venus	81198-07-19 02:53 G	31378219.46	31378219.62	31378219.80	0.0265	0.0165
Mercury	81199-03-28 04:20 G	31378471.60	31378471.68	31378471.77	0.0265	0.0205
Mercury	81199-06-24 15:22 G	31378560.02	31378560.14	31378560.27	0.0265	0.0100
Mercury	81199-09-21 02:39 G	31378648.47	31378648.61	31378648.75	0.0265	0.0010
Mercury	81199-12-18 14:10 G	31378736.96	31378737.09	31378737.22	0.0266	0.0117
Mercury	81200-03-16 01:41 G	31378825.51	31378825.57	31378825.65	0.0266	0.0228
Earth	81209-10-17 22:05 G	31382328.18	31382328.42	31382328.66	0.0292	0.0065
Moon	81209-10-18 00:58 G	31382328.30	31382328.54	31382328.79	0.0292	0.0060 *

Venus	81211-09-27 14:53 G	31383038.11	31383038.12	31383038.16	0.0295	0.0293
Venus	81212-05-14 12:44 G	31383267.83	31383268.03	31383268.23	0.0295	0.0089
Venus	81212-12-30 10:20 G	31383497.75	31383497.93	31383498.13	0.0295	0.0118
Mercury	81213-11-01 00:58 G	31383803.43	31383803.54	31383803.65	0.0295	0.0225
Mercury	81214-01-28 22:48 G	31383892.28	31383892.45	31383892.63	0.0295	0.0039
Mercury	81214-04-27 20:10 G	31383981.20	31383981.34	31383981.49	0.0294	0.0144
Moon	81223-04-08 06:15 G	31387248.57	31387248.76	31387248.97	0.0270	0.0152
Earth	81223-04-08 09:51 G	31387248.73	31387248.91	31387249.11	0.0270	0.0168 *
Moon	81224-04-19 13:56 G	31387625.97	31387626.08	31387626.21	0.0268	0.0228
Earth	81224-04-19 14:39 G	31387625.97	31387626.11	31387626.26	0.0268	0.0218 *
Venus	81226-10-27 21:08 G	31388547.19	31388547.38	31388547.57	0.0265	0.0123
Venus	81227-06-13 23:46 G	31388776.28	31388776.49	31388776.71	0.0265	0.0029
Venus	81228-01-29 02:10 G	31389005.44	31389005.59	31389005.75	0.0265	0.0180
Mercury	81228-08-14 05:32 G	31389203.68	31389203.73	31389203.78	0.0265	0.0247
Mercury	81228-11-10 16:20 G	31389292.07	31389292.18	31389292.30	0.0265	0.0144
Mercury	81229-02-07 03:36 G	31389380.51	31389380.65	31389380.79	0.0266	0.0037
Mercury	81229-05-06 15:08 G	31389468.99	31389469.13	31389469.26	0.0266	0.0072
Mercury	81229-08-03 02:39 G	31389557.51	31389557.61	31389557.71	0.0266	0.0182
Moon	81238-10-11 12:44 G	31392913.86	31392914.03	31392914.23	0.0290	0.0179
Earth	81238-10-11 15:08 G	31392913.95	31392914.13	31392914.34	0.0290	0.0172 *
Venus	81241-04-08 15:22 G	31393824.07	31393824.14	31393824.23	0.0295	0.0271
Venus	81241-11-24 13:27 G	31394053.85	31394054.06	31394054.26	0.0295	0.0066
Venus	81242-07-12 11:17 G	31394283.79	31394283.97	31394284.16	0.0295	0.0141
Mercury	81243-06-17 19:56 G	31394624.17	31394624.33	31394624.49	0.0295	0.0111
Mercury	81243-09-14 17:32 G	31394713.07	31394713.23	31394713.40	0.0295	0.0074
Mercury	81243-12-12 14:39 G	31394802.03	31394802.11	31394802.20	0.0295	0.0253
Earth	81253-04-14 15:51 G	31398212.92	31398213.16	31398213.41	0.0269	0.0050
Moon	81253-04-14 16:20 G	31398212.94	31398213.18	31398213.43	0.0269	0.0062 *
Venus	81255-09-22 23:03 G	31399104.40	31399104.46	31399104.54	0.0265	0.0248
Venus	81256-05-09 02:10 G	31399333.39	31399333.59	31399333.80	0.0265	0.0097

Venus	81256-12-24 05:03 G	31399562.50	31399562.71	31399562.92	0.0265	0.0055
Venus	81257-08-10 07:41 G	31399791.69	31399791.82	31399791.95	0.0265	0.0206
Mercury	81258-03-30 19:27 G	31400024.20	31400024.31	31400024.42	0.0265	0.0170
Mercury	81258-06-27 06:29 G	31400112.64	31400112.77	31400112.91	0.0265	0.0064
Mercury	81258-09-23 17:46 G	31400201.10	31400201.24	31400201.38	0.0265	0.0044
Mercury	81258-12-21 05:17 G	31400289.61	31400289.72	31400289.84	0.0266	0.0153
Jupiter	81259-01-07 10:34 G	31400306.65	31400306.94	31400307.27	0.0266	0.0199
Mercury	81259-03-19 17:03 G	31400378.20	31400378.21	31400378.22	0.0266	0.0265
Mars	81262-03-28 13:56 G	31401482.81	31401483.08	31401483.36	0.0272	0.0064
Moon	81268-10-18 18:00 G	31403879.02	31403879.25	31403879.50	0.0292	0.0089
Earth	81268-10-18 19:41 G	31403879.10	31403879.32	31403879.55	0.0292	0.0101 *
Venus	81270-10-19 20:53 G	31404610.26	31404610.37	31404610.49	0.0295	0.0244
Venus	81271-06-06 18:44 G	31404840.07	31404840.28	31404840.49	0.0295	0.0039
Venus	81272-01-22 16:20 G	31405070.02	31405070.18	31405070.36	0.0295	0.0169
Mercury	81272-11-03 18:00 G	31405356.12	31405356.25	31405356.40	0.0295	0.0172
Mercury	81273-01-31 16:05 G	31405445.00	31405445.17	31405445.34	0.0295	0.0015
Mercury	81273-04-30 13:12 G	31405533.93	31405534.05	31405534.18	0.0294	0.0196
Mars	81276-04-01 14:10 G	31406600.81	31406601.09	31406601.38	0.0288	0.0102
Moon	81282-04-09 09:22 G	31408799.68	31408799.89	31408800.11	0.0269	0.0118
Earth	81282-04-09 09:51 G	31408799.70	31408799.91	31408800.13	0.0269	0.0131 *
Earth	81283-04-21 14:10 G	31409177.02	31409177.09	31409177.18	0.0267	0.0252
Moon	81283-04-21 18:00 G	31409177.19	31409177.25	31409177.31	0.0267	0.0258
Venus	81285-04-03 23:03 G	31409890.37	31409890.46	31409890.57	0.0265	0.0231
Venus	81285-11-19 01:56 G	31410119.38	31410119.58	31410119.79	0.0265	0.0080
Venus	81286-07-06 04:34 G	31410348.48	31410348.69	31410348.90	0.0265	0.0071
Venus	81287-02-20 06:44 G	31410577.68	31410577.78	31410577.91	0.0265	0.0222
Mercury	81287-08-17 20:24 G	31410756.28	31410756.35	31410756.44	0.0265	0.0212
Mercury	81287-11-14 07:41 G	31410844.69	31410844.82	31410844.94	0.0265	0.0107
Mercury	81288-02-10 18:44 G	31410933.14	31410933.28	31410933.42	0.0265	0.0006
Mercury	81288-05-09 06:15 G	31411021.63	31411021.76	31411021.89	0.0266	0.0108

Mercury	81288-08-05 17:46 G	31411110.16	31411110.24	31411110.32	0.0266	0.0219
Earth	81297-10-12 11:46 G	31414464.78	31414464.99	31414465.21	0.0290	0.0137
Moon	81297-10-12 14:10 G	31414464.89	31414465.09	31414465.30	0.0290	0.0150 *
Venus	81300-05-01 20:39 G	31415396.23	31415396.36	31415396.50	0.0295	0.0224
Venus	81300-12-17 18:44 G	31415626.07	31415626.28	31415626.48	0.0295	0.0019
Venus	81301-08-04 16:48 G	31415856.04	31415856.20	31415856.36	0.0296	0.0189
Mercury	81302-03-24 14:24 G	31416088.01	31416088.10	31416088.20	0.0295	0.0249
Mercury	81302-06-21 12:44 G	31416176.86	31416177.03	31416177.20	0.0295	0.0061
Mercury	81302-09-18 10:05 G	31416265.77	31416265.92	31416266.08	0.0295	0.0124
Moon	81312-04-16 11:32 G	31419763.75	31419763.98	31419764.22	0.0269	0.0093
Earth	81312-04-16 15:08 G	31419763.90	31419764.13	31419764.37	0.0269	0.0085 *
Venus	81314-10-16 03:51 G	31420676.54	31420676.66	31420676.80	0.0265	0.0207
Venus	81315-06-02 06:58 G	31420905.58	31420905.79	31420906.00	0.0265	0.0055
Venus	81316-01-17 09:36 G	31421134.70	31421134.90	31421135.10	0.0265	0.0097
Venus	81316-09-02 12:00 G	31421363.93	31421364.00	31421364.08	0.0265	0.0247
Mercury	81317-01-04 23:32 G	31421488.42	31421488.48	31421488.54	0.0265	0.0238
Mercury	81317-04-03 10:34 G	31421576.82	31421576.94	31421577.06	0.0265	0.0134
Mercury	81317-06-30 21:36 G	31421665.26	31421665.40	31421665.54	0.0265	0.0028
Mercury	81317-09-27 08:53 G	31421753.74	31421753.87	31421754.01	0.0265	0.0080
Mercury	81317-12-24 20:24 G	31421842.26	31421842.35	31421842.45	0.0265	0.0190
Moon	81327-10-21 13:56 G	31425429.86	31425430.08	31425430.30	0.0292	0.0121
Earth	81327-10-21 17:17 G	31425430.02	31425430.22	31425430.45	0.0292	0.0137 *
Venus	81329-11-12 02:53 G	31426182.47	31426182.62	31426182.78	0.0295	0.0196
Venus	81330-06-30 00:44 G	31426412.32	31426412.53	31426412.74	0.0296	0.0011
Venus	81331-02-14 22:48 G	31426642.31	31426642.45	31426642.59	0.0296	0.0218
Mercury	81331-11-08 11:17 G	31426908.82	31426908.97	31426909.13	0.0295	0.0117
Mercury	81332-02-05 09:08 G	31426997.72	31426997.88	31426998.05	0.0295	0.0069
Mercury	81332-05-04 06:15 G	31427086.68	31427086.76	31427086.85	0.0295	0.0249
Earth	81341-04-11 09:36 G	31430350.68	31430350.90	31430351.14	0.0269	0.0095
Moon	81341-04-11 12:58 G	31430350.81	31430351.04	31430351.27	0.0269	0.0083 *

Venus	81344-04-27 04:20 G	31431462.54	31431462.68	31431462.84	0.0265	0.0189
Venus	81344-12-12 07:12 G	31431691.58	31431691.80	31431692.01	0.0265	0.0038
Venus	81345-07-29 09:36 G	31431920.71	31431920.90	31431921.09	0.0265	0.0114
Venus	81346-03-15 11:46 G	31432149.99	31432149.99	31432150.02	0.0265	0.0264
Mercury	81346-08-21 11:46 G	31432308.89	31432308.99	31432309.09	0.0265	0.0175
Mercury	81346-11-17 22:48 G	31432397.32	31432397.45	31432397.58	0.0265	0.0070
Mercury	81347-02-14 10:05 G	31432485.78	31432485.92	31432486.06	0.0265	0.0038
Mercury	81347-05-13 21:22 G	31432574.28	31432574.39	31432574.51	0.0266	0.0147
Mercury	81347-08-10 08:53 G	31432662.85	31432662.87	31432662.91	0.0266	0.0258
Mars	81350-08-22 04:05 G	31433770.39	31433770.67	31433770.95	0.0272	0.0057
Earth	81356-10-14 09:22 G	31436015.67	31436015.89	31436016.12	0.0290	0.0101
Moon	81356-10-14 12:29 G	31436015.80	31436016.02	31436016.26	0.0290	0.0117 *
Venus	81359-05-25 02:24 G	31436968.43	31436968.60	31436968.77	0.0295	0.0175
Venus	81360-01-10 00:15 G	31437198.30	31437198.51	31437198.72	0.0295	0.0031
Venus	81360-08-26 22:20 G	31437428.32	31437428.43	31437428.56	0.0296	0.0239
Mercury	81361-03-27 07:27 G	31437640.68	31437640.81	31437640.94	0.0295	0.0196
Mercury	81361-06-24 05:32 G	31437729.56	31437729.73	31437729.90	0.0295	0.0009
Mercury	81361-09-21 03:08 G	31437818.49	31437818.63	31437818.76	0.0295	0.0174
Mars	81364-08-26 03:08 G	31438888.36	31438888.63	31438888.91	0.0289	0.0118
Moon	81370-04-06 04:34 G	31440937.61	31440937.69	31440937.79	0.0271	0.0252
Earth	81370-04-06 07:41 G	31440937.79	31440937.82	31440937.87	0.0271	0.0267 *
Moon	81371-04-18 12:29 G	31441314.81	31441315.02	31441315.23	0.0269	0.0126
Earth	81371-04-18 14:24 G	31441314.88	31441315.10	31441315.32	0.0269	0.0120 *
Venus	81373-11-07 09:08 G	31442248.72	31442248.88	31442249.05	0.0265	0.0165
Venus	81374-06-24 12:00 G	31442477.79	31442478.00	31442478.22	0.0265	0.0013
Venus	81375-02-08 14:39 G	31442706.93	31442707.11	31442707.29	0.0265	0.0139
Mercury	81376-01-08 14:39 G	31443041.02	31443041.11	31443041.20	0.0265	0.0201
Mercury	81376-04-06 01:41 G	31443129.44	31443129.57	31443129.70	0.0265	0.0097
Mercury	81376-07-03 12:44 G	31443217.89	31443218.03	31443218.17	0.0265	0.0013
Mercury	81376-09-30 00:15 G	31443306.38	31443306.51	31443306.64	0.0265	0.0119

Mercury	81376-12-27 11:46 G	31443394.92	31443394.99	31443395.06	0.0265	0.0229
Earth	81386-10-22 15:51 G	31446980.98	31446981.16	31446981.36	0.0292	0.0174
Moon	81386-10-22 16:34 G	31446980.99	31446981.19	31446981.39	0.0292	0.0158 *
Venus	81388-12-04 09:08 G	31447754.71	31447754.88	31447755.07	0.0295	0.0147
Venus	81389-07-22 07:12 G	31447984.60	31447984.80	31447985.01	0.0296	0.0062
Venus	81390-03-09 05:17 G	31448214.64	31448214.72	31448214.81	0.0296	0.0268
Mercury	81390-08-14 06:29 G	31448372.69	31448372.77	31448372.87	0.0296	0.0250
Mercury	81390-11-11 04:48 G	31448461.53	31448461.70	31448461.87	0.0295	0.0061
Mercury	81391-02-08 02:24 G	31448550.45	31448550.60	31448550.76	0.0295	0.0123
Earth	81400-04-13 10:48 G	31451901.71	31451901.95	31451902.19	0.0269	0.0057
Moon	81400-04-13 13:27 G	31451901.81	31451902.06	31451902.31	0.0269	0.0045 *
Venus	81403-05-21 10:20 G	31453034.76	31453034.93	31453035.12	0.0265	0.0146
Venus	81404-01-05 13:12 G	31453263.83	31453264.05	31453264.26	0.0265	0.0006
Venus	81404-08-21 15:36 G	31453492.98	31453493.15	31453493.32	0.0264	0.0157
Mercury	81405-05-28 16:20 G	31453773.12	31453773.18	31453773.23	0.0265	0.0239
Mercury	81405-08-25 03:08 G	31453861.51	31453861.63	31453861.75	0.0265	0.0135
Mercury	81405-11-21 14:10 G	31453949.96	31453950.09	31453950.23	0.0265	0.0031
Mercury	81406-02-18 01:41 G	31454038.43	31454038.57	31454038.70	0.0265	0.0079
Mercury	81406-05-17 12:58 G	31454126.94	31454127.04	31454127.14	0.0265	0.0188
Moon	81415-10-17 07:27 G	31457566.57	31457566.81	31457567.06	0.0290	0.0079
Earth	81415-10-17 09:08 G	31457566.64	31457566.88	31457567.12	0.0290	0.0062 *
Venus	81418-06-17 09:22 G	31458540.70	31458540.89	31458541.08	0.0295	0.0125
Venus	81419-02-02 07:12 G	31458770.60	31458770.80	31458771.00	0.0295	0.0082
Venus	81419-09-20 05:17 G	31459000.69	31459000.72	31459000.78	0.0295	0.0289
Mercury	81420-03-31 00:58 G	31459193.39	31459193.54	31459193.70	0.0295	0.0139
Mercury	81420-06-27 22:48 G	31459282.29	31459282.45	31459282.62	0.0295	0.0048
Mercury	81420-09-24 20:10 G	31459371.24	31459371.34	31459371.45	0.0295	0.0229
Moon	81429-04-08 05:32 G	31462488.60	31462488.73	31462488.89	0.0271	0.0216
Earth	81429-04-08 08:24 G	31462488.72	31462488.85	31462488.98	0.0271	0.0230 *
Earth	81430-04-20 15:08 G	31462865.93	31462866.13	31462866.33	0.0269	0.0157

Moon	81430-04-20 17:17 G	31462866.03	31462866.22	31462866.41	0.0269	0.0160 *
Venus	81432-11-30 15:08 G	31463820.94	31463821.13	31463821.32	0.0265	0.0122
Venus	81433-07-17 18:00 G	31464050.04	31464050.25	31464050.47	0.0265	0.0030
Venus	81434-03-03 20:39 G	31464279.21	31464279.36	31464279.52	0.0265	0.0182
Mercury	81435-01-12 06:00 G	31464593.65	31464593.75	31464593.86	0.0265	0.0162
Mercury	81435-04-10 17:17 G	31464682.08	31464682.22	31464682.35	0.0265	0.0057
Mercury	81435-07-08 04:34 G	31464770.55	31464770.69	31464770.82	0.0265	0.0052
Mercury	81435-10-04 15:51 G	31464859.05	31464859.16	31464859.28	0.0265	0.0161
Mars	81439-01-16 22:05 G	31466059.14	31466059.42	31466059.71	0.0271	0.0006
Earth	81444-10-10 16:48 G	31468153.12	31468153.20	31468153.29	0.0289	0.0270
Moon	81444-10-10 18:15 G	31468153.23	31468153.26	31468153.31	0.0289	0.0285 *
Earth	81445-10-24 17:46 G	31468532.08	31468532.24	31468532.41	0.0292	0.0216
Moon	81445-10-24 21:22 G	31468532.22	31468532.39	31468532.58	0.0292	0.0198 *
Venus	81447-12-28 17:32 G	31469327.03	31469327.23	31469327.43	0.0296	0.0093
Venus	81448-08-14 15:22 G	31469556.95	31469557.14	31469557.34	0.0296	0.0115
Mercury	81449-08-18 00:44 G	31469925.40	31469925.53	31469925.67	0.0296	0.0187
Mercury	81449-11-14 22:48 G	31470014.28	31470014.45	31470014.62	0.0295	0.0000
Mercury	81450-02-11 20:10 G	31470103.21	31470103.34	31470103.48	0.0295	0.0183
Mars	81453-01-20 10:05 G	31471176.68	31471176.92	31471177.17	0.0289	0.0173
Moon	81459-04-15 11:03 G	31473452.71	31473452.96	31473453.22	0.0269	0.0011
Earth	81459-04-15 13:12 G	31473452.81	31473453.05	31473453.30	0.0269	0.0018 *
Venus	81461-10-26 14:39 G	31474378.05	31474378.11	31474378.18	0.0265	0.0252
Venus	81462-06-12 17:46 G	31474607.04	31474607.24	31474607.44	0.0265	0.0101
Venus	81463-01-27 20:24 G	31474836.14	31474836.35	31474836.56	0.0265	0.0051
Venus	81463-09-13 22:34 G	31475065.31	31475065.44	31475065.59	0.0264	0.0202
Mercury	81464-05-31 07:56 G	31475325.75	31475325.83	31475325.93	0.0265	0.0197
Mercury	81464-08-27 18:58 G	31475414.16	31475414.29	31475414.42	0.0265	0.0092
Mercury	81464-11-24 06:15 G	31475502.62	31475502.76	31475502.90	0.0265	0.0015
Mercury	81465-02-20 17:32 G	31475591.11	31475591.23	31475591.36	0.0265	0.0123
Mercury	81465-05-20 05:03 G	31475679.65	31475679.71	31475679.78	0.0265	0.0233

Moon	81474-10-18 08:24 G	31479117.61	31479117.85	31479118.09	0.0290	0.0036
Earth	81474-10-18 11:46 G	31479117.75	31479117.99	31479118.24	0.0290	0.0019 *
Venus	81476-11-21 20:10 G	31479883.28	31479883.34	31479883.42	0.0295	0.0277
Venus	81477-07-09 18:00 G	31480113.05	31480113.25	31480113.45	0.0295	0.0072
Venus	81478-02-24 15:51 G	31480342.98	31480343.16	31480343.35	0.0295	0.0135
Mercury	81479-01-04 20:53 G	31480657.30	31480657.37	31480657.45	0.0295	0.0265
Mercury	81479-04-03 19:12 G	31480746.14	31480746.30	31480746.47	0.0295	0.0076
Mercury	81479-07-01 17:03 G	31480835.05	31480835.21	31480835.37	0.0295	0.0109
Mercury	81479-09-28 14:10 G	31480924.06	31480924.09	31480924.12	0.0295	0.0289
Earth	81488-04-09 10:48 G	31484039.78	31484039.95	31484040.13	0.0271	0.0190
Moon	81488-04-09 12:58 G	31484039.87	31484040.04	31484040.23	0.0271	0.0178 *
Earth	81489-04-21 17:32 G	31484417.07	31484417.23	31484417.41	0.0269	0.0197
Moon	81489-04-21 21:08 G	31484417.22	31484417.38	31484417.55	0.0269	0.0199 *
Venus	81491-05-08 19:12 G	31485164.20	31485164.30	31485164.41	0.0266	0.0230
Venus	81491-12-23 22:34 G	31485393.23	31485393.44	31485393.64	0.0265	0.0077
Venus	81492-08-09 01:27 G	31485622.35	31485622.56	31485622.76	0.0265	0.0075
Venus	81493-03-26 03:51 G	31485851.57	31485851.66	31485851.79	0.0265	0.0227
Mercury	81493-10-18 10:48 G	31486057.89	31486057.95	31486058.03	0.0265	0.0223
Mercury	81494-01-14 22:05 G	31486146.29	31486146.42	31486146.54	0.0265	0.0118
Mercury	81494-04-13 09:08 G	31486234.74	31486234.88	31486235.02	0.0265	0.0012
Mercury	81494-07-10 20:24 G	31486323.22	31486323.35	31486323.48	0.0265	0.0097
Mercury	81494-10-07 07:56 G	31486411.74	31486411.83	31486411.92	0.0265	0.0206
Earth	81503-10-13 21:22 G	31489704.25	31489704.39	31489704.55	0.0289	0.0224
Moon	81503-10-14 00:58 G	31489704.41	31489704.54	31489704.68	0.0289	0.0240 *
Earth	81504-10-26 22:20 G	31490083.33	31490083.43	31490083.54	0.0292	0.0261
Moon	81504-10-26 23:32 G	31490083.35	31490083.48	31490083.62	0.0292	0.0245 *
Venus	81506-06-05 05:46 G	31490669.63	31490669.74	31490669.86	0.0295	0.0243
Venus	81507-01-21 03:22 G	31490899.44	31490899.64	31490899.85	0.0296	0.0038
Venus	81507-09-08 01:27 G	31491129.40	31491129.56	31491129.74	0.0296	0.0171
Mercury	81508-08-21 19:56 G	31491478.17	31491478.33	31491478.48	0.0296	0.0118

Mercury	81508-11-18 17:46 G	31491567.07	31491567.24	31491567.40	0.0295	0.0069
Mercury	81509-02-15 14:53 G	31491656.04	31491656.12	31491656.21	0.0295	0.0249
Moon	81518-04-17 14:10 G	31495003.85	31495004.09	31495004.34	0.0269	0.0030
Earth	81518-04-17 18:00 G	31495004.00	31495004.25	31495004.49	0.0269	0.0024 *
Venus	81520-11-18 23:03 G	31495950.34	31495950.46	31495950.60	0.0265	0.0206
Venus	81521-07-06 02:10 G	31496179.38	31496179.59	31496179.81	0.0265	0.0055
Venus	81522-02-20 05:03 G	31496408.51	31496408.71	31496408.91	0.0265	0.0098
Venus	81522-10-07 07:27 G	31496637.74	31496637.81	31496637.89	0.0265	0.0248
Mercury	81523-03-08 13:12 G	31496790.02	31496790.05	31496790.09	0.0265	0.0254
Mercury	81523-06-05 00:15 G	31496878.40	31496878.51	31496878.63	0.0265	0.0150
Mercury	81523-09-01 11:17 G	31496966.83	31496966.97	31496967.11	0.0265	0.0045
Mercury	81523-11-28 22:34 G	31497055.30	31497055.44	31497055.58	0.0265	0.0063
Mercury	81524-02-25 09:51 G	31497143.81	31497143.91	31497144.02	0.0265	0.0172
Mars	81527-06-13 09:22 G	31498347.62	31498347.89	31498348.18	0.0271	0.0056
Moon	81533-10-20 18:15 G	31500669.03	31500669.26	31500669.50	0.0291	0.0017
Earth	81533-10-20 18:58 G	31500669.05	31500669.29	31500669.54	0.0291	0.0032 *
Venus	81535-12-16 07:41 G	31501455.69	31501455.82	31501455.96	0.0295	0.0220
Venus	81536-08-02 05:32 G	31501685.52	31501685.73	31501685.93	0.0295	0.0016
Venus	81537-03-20 03:22 G	31501915.48	31501915.64	31501915.80	0.0295	0.0193
Mercury	81538-01-08 16:34 G	31502210.06	31502210.19	31502210.33	0.0295	0.0190
Mercury	81538-04-07 14:39 G	31502298.94	31502299.11	31502299.29	0.0295	0.0007
Mercury	81538-07-05 12:00 G	31502387.88	31502388.00	31502388.14	0.0295	0.0181
Mars	81541-06-16 10:34 G	31503464.75	31503464.94	31503465.15	0.0289	0.0217
Earth	81547-04-12 15:22 G	31505590.94	31505591.14	31505591.35	0.0271	0.0148
Moon	81547-04-12 18:58 G	31505591.08	31505591.29	31505591.51	0.0271	0.0138 *
Moon	81548-04-23 21:51 G	31505968.30	31505968.41	31505968.54	0.0269	0.0235
Earth	81548-04-23 22:34 G	31505968.33	31505968.44	31505968.55	0.0269	0.0238 *
Venus	81550-06-01 03:51 G	31506736.51	31506736.66	31506736.82	0.0266	0.0184
Venus	81551-01-16 07:12 G	31506965.58	31506965.80	31506966.01	0.0265	0.0030
Venus	81551-09-02 10:05 G	31507194.73	31507194.92	31507195.11	0.0265	0.0122

Mercury	81552-10-22 03:08 G	31507610.53	31507610.63	31507610.74	0.0265	0.0176
Mercury	81553-01-18 14:10 G	31507698.96	31507699.09	31507699.23	0.0265	0.0072
Mercury	81553-04-17 01:27 G	31507787.43	31507787.56	31507787.70	0.0265	0.0038
Mercury	81553-07-14 12:58 G	31507875.92	31507876.04	31507876.16	0.0265	0.0146
Mercury	81553-10-11 00:29 G	31507964.49	31507964.52	31507964.56	0.0266	0.0257
Earth	81562-10-15 06:00 G	31511255.56	31511255.75	31511255.95	0.0290	0.0173
Moon	81562-10-15 06:58 G	31511255.60	31511255.79	31511255.99	0.0290	0.0189 *
Venus	81565-06-27 18:00 G	31512242.09	31512242.25	31512242.41	0.0295	0.0184
Venus	81566-02-12 15:36 G	31512471.94	31512472.15	31512472.36	0.0296	0.0023
Venus	81566-09-30 13:41 G	31512701.95	31512702.07	31512702.21	0.0296	0.0230
Mercury	81567-05-28 17:32 G	31512942.12	31512942.23	31512942.34	0.0296	0.0230
Mercury	81567-08-25 15:36 G	31513030.98	31513031.15	31513031.33	0.0296	0.0042
Mercury	81567-11-22 13:27 G	31513119.91	31513120.06	31513120.21	0.0295	0.0143
Earth	81577-04-19 00:44 G	31516555.29	31516555.53	31516555.77	0.0269	0.0069
Moon	81577-04-19 01:12 G	31516555.32	31516555.55	31516555.78	0.0269	0.0071 *
Venus	81579-12-12 09:08 G	31517522.71	31517522.88	31517523.06	0.0265	0.0158
Venus	81580-07-28 12:15 G	31517751.80	31517752.01	31517752.23	0.0265	0.0006
Venus	81581-03-14 15:08 G	31517980.95	31517981.13	31517981.31	0.0265	0.0147
Mercury	81582-03-11 06:00 G	31518342.67	31518342.75	31518342.84	0.0265	0.0204
Mercury	81582-06-07 17:03 G	31518431.08	31518431.21	31518431.34	0.0265	0.0099
Mercury	81582-09-04 04:05 G	31518519.53	31518519.67	31518519.81	0.0265	0.0008
Mercury	81582-12-01 15:22 G	31518608.02	31518608.14	31518608.27	0.0265	0.0116
Mercury	81583-02-28 02:53 G	31518696.55	31518696.62	31518696.70	0.0265	0.0226
Earth	81592-10-22 05:32 G	31522220.50	31522220.73	31522220.97	0.0291	0.0086
Moon	81592-10-22 08:24 G	31522220.62	31522220.85	31522221.09	0.0291	0.0070 *
Venus	81595-01-07 21:08 G	31523028.21	31523028.38	31523028.56	0.0295	0.0159
Venus	81595-08-25 18:58 G	31523258.08	31523258.29	31523258.49	0.0295	0.0047
Venus	81596-04-11 16:48 G	31523488.10	31523488.20	31523488.31	0.0295	0.0254
Mercury	81597-01-11 13:12 G	31523762.89	31523763.05	31523763.21	0.0295	0.0108
Mercury	81597-04-10 11:03 G	31523851.79	31523851.96	31523852.13	0.0295	0.0078

Mercury	81597-07-08 08:10 G	31523940.77	31523940.84	31523940.93	0.0295	0.0259
Moon	81606-04-13 21:36 G	31527142.17	31527142.40	31527142.65	0.0271	0.0098
Earth	81606-04-13 22:34 G	31527142.21	31527142.44	31527142.66	0.0271	0.0103 *
Venus	81609-06-23 13:56 G	31528308.90	31528309.08	31528309.27	0.0266	0.0135
Venus	81610-02-07 17:17 G	31528538.00	31528538.22	31528538.43	0.0265	0.0019
Venus	81610-09-24 19:56 G	31528767.18	31528767.33	31528767.50	0.0265	0.0171
Mercury	81611-07-29 08:53 G	31529074.81	31529074.87	31529074.94	0.0265	0.0230
Mercury	81611-10-25 19:56 G	31529163.21	31529163.33	31529163.45	0.0265	0.0126
Mercury	81612-01-22 06:58 G	31529251.65	31529251.79	31529251.93	0.0265	0.0021
Mercury	81612-04-19 18:15 G	31529340.13	31529340.26	31529340.40	0.0266	0.0089
Mercury	81612-07-17 05:46 G	31529428.65	31529428.74	31529428.84	0.0266	0.0199
Mars	81615-11-07 22:48 G	31530637.24	31530637.45	31530637.70	0.0271	0.0160
Moon	81621-10-16 15:36 G	31532806.93	31532807.15	31532807.37	0.0290	0.0135
Earth	81621-10-16 18:29 G	31532807.06	31532807.27	31532807.50	0.0290	0.0118 *
Venus	81624-07-20 08:53 G	31533814.68	31533814.87	31533815.06	0.0295	0.0121
Venus	81625-03-07 06:29 G	31534044.58	31534044.77	31534044.98	0.0296	0.0087
Venus	81625-10-23 04:34 G	31534274.67	31534274.69	31534274.72	0.0296	0.0293
Mercury	81626-05-31 14:39 G	31534494.96	31534495.11	31534495.27	0.0296	0.0142
Mercury	81626-08-28 12:44 G	31534583.86	31534584.03	31534584.20	0.0295	0.0045
Mercury	81626-11-25 10:05 G	31534672.82	31534672.92	31534673.03	0.0295	0.0227
Moon	81635-04-09 01:27 G	31537729.51	31537729.56	31537729.61	0.0272	0.0264
Earth	81636-04-20 09:36 G	31538106.67	31538106.90	31538107.12	0.0269	0.0116
Moon	81636-04-20 13:12 G	31538106.83	31538107.05	31538107.28	0.0269	0.0113 *
Venus	81638-05-19 16:48 G	31538866.16	31538866.20	31538866.24	0.0266	0.0259
Venus	81639-01-03 20:10 G	31539095.15	31539095.34	31539095.54	0.0265	0.0107
Venus	81639-08-20 23:17 G	31539324.26	31539324.47	31539324.68	0.0265	0.0046
Venus	81640-04-06 02:24 G	31539553.45	31539553.60	31539553.74	0.0265	0.0197
Mercury	81640-12-15 12:00 G	31539806.97	31539807.00	31539807.04	0.0265	0.0255
Mercury	81641-03-13 22:48 G	31539895.34	31539895.45	31539895.57	0.0265	0.0151
Mercury	81641-06-10 10:05 G	31539983.78	31539983.92	31539984.05	0.0265	0.0046

Mercury	81641-09-06 21:08 G	31540072.25	31540072.38	31540072.52	0.0265	0.0063
Mercury	81641-12-04 08:39 G	31540160.75	31540160.86	31540160.97	0.0265	0.0172
Earth	81651-10-24 19:56 G	31543772.13	31543772.33	31543772.55	0.0291	0.0146
Moon	81651-10-24 23:17 G	31543772.25	31543772.47	31543772.69	0.0291	0.0129 *
Venus	81654-01-30 12:58 G	31544600.84	31544601.04	31544601.23	0.0295	0.0094
Venus	81654-09-17 10:34 G	31544830.75	31544830.94	31544831.14	0.0295	0.0113
Mercury	81655-10-18 12:29 G	31545226.90	31545227.02	31545227.15	0.0295	0.0206
Mercury	81656-01-15 10:48 G	31545315.77	31545315.95	31545316.12	0.0295	0.0019
Mercury	81656-04-13 08:10 G	31545404.71	31545404.84	31545404.99	0.0295	0.0166
Moon	81665-04-15 03:36 G	31548693.41	31548693.65	31548693.90	0.0271	0.0054
Earth	81665-04-15 07:12 G	31548693.56	31548693.80	31548694.04	0.0271	0.0056 *
Venus	81667-11-29 21:08 G	31549652.29	31549652.38	31549652.48	0.0266	0.0238
Venus	81668-07-16 00:44 G	31549881.33	31549881.53	31549881.74	0.0266	0.0084
Venus	81669-03-02 04:05 G	31550110.47	31550110.67	31550110.88	0.0265	0.0070
Venus	81669-10-17 06:58 G	31550339.68	31550339.79	31550339.92	0.0265	0.0222
Mercury	81670-08-01 01:41 G	31550627.47	31550627.57	31550627.68	0.0265	0.0178
Mercury	81670-10-28 12:58 G	31550715.90	31550716.04	31550716.17	0.0265	0.0073
Mercury	81671-01-25 00:00 G	31550804.36	31550804.50	31550804.64	0.0266	0.0035
Mercury	81671-04-23 11:17 G	31550892.86	31550892.97	31550893.10	0.0266	0.0145
Mercury	81671-07-20 22:48 G	31550981.42	31550981.45	31550981.50	0.0266	0.0256
Moon	81680-10-18 06:29 G	31554358.54	31554358.77	31554359.00	0.0290	0.0076
Earth	81680-10-18 09:22 G	31554358.65	31554358.89	31554359.13	0.0290	0.0059 *
Venus	81682-12-26 03:36 G	31555157.56	31555157.65	31555157.75	0.0295	0.0258
Venus	81683-08-13 01:12 G	31555387.34	31555387.55	31555387.75	0.0295	0.0054
Venus	81684-03-29 22:48 G	31555617.28	31555617.45	31555617.63	0.0296	0.0153
Mercury	81685-03-06 14:10 G	31555959.00	31555959.09	31555959.20	0.0296	0.0239
Mercury	81685-06-03 12:44 G	31556047.86	31556048.03	31556048.20	0.0295	0.0049
Mercury	81685-08-31 10:20 G	31556136.78	31556136.93	31556137.08	0.0295	0.0136
Earth	81694-04-10 11:32 G	31559280.85	31559280.98	31559281.13	0.0272	0.0225
Moon	81694-04-10 14:53 G	31559280.98	31559281.12	31559281.27	0.0272	0.0215 *

Earth	81695-04-22 19:41 G	31559658.13	31559658.32	31559658.52	0.0269	0.0163
Moon	81695-04-22 21:08 G	31559658.19	31559658.38	31559658.60	0.0269	0.0160 *
Venus	81697-06-11 04:20 G	31560438.56	31560438.68	31560438.82	0.0266	0.0208
Venus	81698-01-26 07:56 G	31560667.62	31560667.83	31560668.04	0.0265	0.0055
Venus	81698-09-12 11:03 G	31560896.76	31560896.96	31560897.16	0.0265	0.0098
Venus	81699-04-29 13:41 G	31561126.01	31561126.07	31561126.16	0.0265	0.0249
Mercury	81699-12-19 05:03 G	31561359.63	31561359.71	31561359.80	0.0265	0.0201
Mercury	81700-03-17 16:05 G	31561448.04	31561448.17	31561448.30	0.0265	0.0096
Mercury	81700-06-14 03:08 G	31561536.49	31561536.63	31561536.77	0.0265	0.0013
Mercury	81700-09-10 14:24 G	31561624.98	31561625.10	31561625.23	0.0265	0.0120
Mercury	81700-12-08 01:56 G	31561713.52	31561713.58	31561713.66	0.0266	0.0230
Mars	81704-04-04 09:51 G	31562926.82	31562926.91	31562927.02	0.0272	0.0254
Earth	81709-10-13 13:56 G	31564945.00	31564945.08	31564945.17	0.0288	0.0270
Moon	81709-10-13 16:05 G	31564945.15	31564945.17	31564945.21	0.0288	0.0286 *
Moon	81710-10-27 12:00 G	31565323.82	31565324.00	31565324.19	0.0291	0.0192
Earth	81710-10-27 12:58 G	31565323.88	31565324.04	31565324.22	0.0291	0.0208 *
Venus	81712-07-08 08:53 G	31565943.75	31565943.87	31565944.01	0.0294	0.0230
Venus	81713-02-23 06:29 G	31566173.56	31566173.77	31566173.98	0.0295	0.0026
Venus	81713-10-11 04:05 G	31566403.51	31566403.67	31566403.84	0.0295	0.0181
Mercury	81714-10-22 11:03 G	31566779.80	31566779.96	31566780.12	0.0295	0.0108
Mercury	81715-01-19 08:53 G	31566868.71	31566868.87	31566869.04	0.0295	0.0079
Mercury	81715-04-18 06:15 G	31566957.69	31566957.76	31566957.84	0.0294	0.0259
Moon	81724-04-17 15:36 G	31570244.91	31570245.15	31570245.39	0.0271	0.0007
Earth	81724-04-17 17:32 G	31570244.98	31570245.23	31570245.47	0.0271	0.0008 *
Venus	81726-12-23 08:24 G	31571224.70	31571224.85	31571225.01	0.0266	0.0186
Venus	81727-08-09 12:00 G	31571453.79	31571454.00	31571454.22	0.0266	0.0033
Venus	81728-03-25 15:36 G	31571682.95	31571683.15	31571683.34	0.0265	0.0121
Mercury	81729-05-08 07:41 G	31572091.76	31572091.82	31572091.89	0.0265	0.0230
Mercury	81729-08-04 18:44 G	31572180.16	31572180.28	31572180.41	0.0266	0.0125
Mercury	81729-11-01 06:00 G	31572268.61	31572268.75	31572268.89	0.0266	0.0019

Mercury	81730-01-28 17:17 G	31572357.09	31572357.22	31572357.35	0.0266	0.0090
Mercury	81730-04-27 04:34 G	31572445.60	31572445.69	31572445.79	0.0266	0.0201
Earth	81739-10-22 01:27 G	31575910.32	31575910.56	31575910.81	0.0290	0.0005
Moon	81739-10-22 03:08 G	31575910.39	31575910.63	31575910.86	0.0290	0.0014 *
Venus	81742-01-18 20:53 G	31576730.21	31576730.37	31576730.53	0.0295	0.0190
Venus	81742-09-05 18:29 G	31576960.06	31576960.27	31576960.48	0.0295	0.0015
Venus	81743-04-23 16:20 G	31577190.04	31577190.18	31577190.32	0.0296	0.0222
Mercury	81744-03-10 12:44 G	31577511.88	31577512.03	31577512.19	0.0295	0.0141
Mercury	81744-06-07 10:48 G	31577600.78	31577600.95	31577601.12	0.0295	0.0047
Mercury	81744-09-04 08:10 G	31577689.74	31577689.84	31577689.95	0.0295	0.0229
Earth	81753-04-12 22:34 G	31580832.26	31580832.44	31580832.63	0.0271	0.0175
Moon	81753-04-13 01:27 G	31580832.36	31580832.56	31580832.76	0.0271	0.0166 *
Moon	81754-04-25 03:36 G	31581209.50	31581209.65	31581209.83	0.0269	0.0204
Earth	81754-04-25 06:15 G	31581209.62	31581209.76	31581209.92	0.0269	0.0211 *
Venus	81756-07-04 16:20 G	31582011.01	31582011.18	31582011.36	0.0266	0.0155
Venus	81757-02-18 19:56 G	31582240.11	31582240.33	31582240.55	0.0265	0.0002
Venus	81757-10-05 23:03 G	31582469.28	31582469.46	31582469.64	0.0265	0.0150
Mercury	81758-09-25 11:17 G	31582823.93	31582823.97	31582824.02	0.0265	0.0251
Mercury	81758-12-22 22:05 G	31582912.31	31582912.42	31582912.54	0.0265	0.0147
Mercury	81759-03-21 09:22 G	31583000.75	31583000.89	31583001.03	0.0265	0.0041
Mercury	81759-06-17 20:24 G	31583089.22	31583089.35	31583089.49	0.0265	0.0068
Mercury	81759-09-14 07:56 G	31583177.73	31583177.83	31583177.94	0.0266	0.0177
Moon	81768-10-15 05:17 G	31586496.56	31586496.72	31586496.88	0.0289	0.0223
Earth	81768-10-15 06:58 G	31586496.63	31586496.79	31586496.97	0.0289	0.0209 *
Moon	81769-10-29 02:53 G	31586875.51	31586875.62	31586875.74	0.0291	0.0257
Earth	81769-10-29 06:44 G	31586875.70	31586875.78	31586875.87	0.0291	0.0271 *
Venus	81771-08-01 02:53 G	31587516.45	31587516.62	31587516.80	0.0294	0.0161
Venus	81772-03-18 00:15 G	31587746.31	31587746.51	31587746.72	0.0295	0.0045
Venus	81772-11-02 21:51 G	31587976.31	31587976.41	31587976.53	0.0295	0.0251
Mercury	81773-07-28 11:17 G	31588243.85	31588243.97	31588244.11	0.0295	0.0198

Mercury	81773-10-25 09:36 G	31588332.73	31588332.90	31588333.08	0.0295	0.0011
Mercury	81774-01-22 07:12 G	31588421.67	31588421.80	31588421.94	0.0295	0.0174
Mars	81776-07-12 06:44 G	31589323.77	31589323.78	31589323.80	0.0290	0.0289
Earth	81783-04-20 03:51 G	31591796.42	31591796.66	31591796.91	0.0270	0.0040
Moon	81783-04-20 06:00 G	31591796.51	31591796.75	31591796.98	0.0270	0.0040 *
Venus	81786-01-14 19:56 G	31592797.15	31592797.33	31592797.52	0.0266	0.0134
Venus	81786-08-31 23:17 G	31593026.26	31593026.47	31593026.69	0.0266	0.0020
Venus	81787-04-18 02:24 G	31593255.45	31593255.60	31593255.77	0.0265	0.0173
Mercury	81788-05-11 00:44 G	31593644.43	31593644.53	31593644.63	0.0266	0.0178
Mercury	81788-08-07 11:46 G	31593732.85	31593732.99	31593733.12	0.0266	0.0072
Mercury	81788-11-03 22:48 G	31593821.32	31593821.45	31593821.59	0.0266	0.0036
Mercury	81789-01-31 10:20 G	31593909.81	31593909.93	31593910.05	0.0266	0.0145
Mercury	81789-04-29 21:51 G	31593998.38	31593998.41	31593998.45	0.0266	0.0256
Earth	81798-10-23 17:17 G	31597461.98	31597462.22	31597462.46	0.0290	0.0061
Moon	81798-10-23 20:53 G	31597462.13	31597462.37	31597462.61	0.0290	0.0046 *
Venus	81801-02-11 14:10 G	31598302.90	31598303.09	31598303.28	0.0295	0.0122
Venus	81801-09-29 12:00 G	31598532.80	31598533.00	31598533.20	0.0296	0.0085
Venus	81802-05-17 09:36 G	31598762.88	31598762.90	31598762.95	0.0296	0.0291
Mercury	81802-12-16 12:58 G	31598975.94	31598976.04	31598976.15	0.0296	0.0232
Mercury	81803-03-15 11:17 G	31599064.80	31599064.97	31599065.15	0.0295	0.0044
Mercury	81803-06-12 09:08 G	31599153.73	31599153.88	31599154.03	0.0295	0.0142
Moon	81812-04-15 07:41 G	31602383.60	31602383.82	31602384.05	0.0271	0.0121
Earth	81812-04-15 09:51 G	31602383.69	31602383.91	31602384.13	0.0271	0.0126 *
Moon	81813-04-27 13:12 G	31602760.98	31602761.05	31602761.15	0.0269	0.0252
Earth	81813-04-27 16:48 G	31602761.14	31602761.20	31602761.27	0.0269	0.0258 *
Venus	81814-12-12 00:15 G	31603354.46	31603354.51	31603354.57	0.0266	0.0255
Venus	81815-07-29 04:05 G	31603583.47	31603583.67	31603583.86	0.0265	0.0103
Venus	81816-03-14 07:27 G	31603812.60	31603812.81	31603813.02	0.0265	0.0050
Venus	81816-10-29 10:05 G	31604041.79	31604041.92	31604042.07	0.0265	0.0202
Mercury	81817-09-29 04:05 G	31604376.59	31604376.67	31604376.77	0.0265	0.0199

Mercury	81817-12-26 15:08 G	31604465.00	31604465.13	31604465.26	0.0265	0.0094
Mercury	81818-03-25 02:24 G	31604553.46	31604553.60	31604553.74	0.0265	0.0015
Mercury	81818-06-21 13:41 G	31604641.94	31604642.07	31604642.19	0.0265	0.0122
Mercury	81818-09-18 00:58 G	31604730.48	31604730.54	31604730.61	0.0266	0.0233
Moon	81827-10-18 19:56 G	31608048.13	31608048.33	31608048.53	0.0289	0.0164
Earth	81827-10-18 23:17 G	31608048.27	31608048.47	31608048.69	0.0289	0.0149 *
Venus	81830-08-24 20:39 G	31609089.16	31609089.36	31609089.56	0.0295	0.0092
Venus	81831-04-11 18:00 G	31609319.06	31609319.25	31609319.45	0.0295	0.0114
Mercury	81832-05-04 11:32 G	31609707.96	31609707.98	31609708.02	0.0295	0.0289
Mercury	81832-08-01 10:05 G	31609796.76	31609796.92	31609797.09	0.0295	0.0099
Mercury	81832-10-29 08:10 G	31609885.68	31609885.84	31609886.00	0.0295	0.0087
Mercury	81833-01-26 05:17 G	31609974.66	31609974.72	31609974.80	0.0294	0.0269
Earth	81842-04-22 13:41 G	31613347.84	31613348.07	31613348.30	0.0270	0.0086
Moon	81842-04-22 17:17 G	31613347.99	31613348.22	31613348.46	0.0270	0.0085 *
Venus	81844-06-23 03:08 G	31614140.53	31614140.63	31614140.73	0.0266	0.0236
Venus	81845-02-07 06:44 G	31614369.58	31614369.78	31614369.99	0.0266	0.0082
Venus	81845-09-24 10:05 G	31614598.71	31614598.92	31614599.13	0.0265	0.0071
Venus	81846-05-11 12:58 G	31614827.93	31614828.04	31614828.16	0.0265	0.0223
Mercury	81847-02-16 06:29 G	31615108.70	31615108.77	31615108.83	0.0265	0.0232
Mercury	81847-05-15 17:17 G	31615197.10	31615197.22	31615197.35	0.0266	0.0127
Mercury	81847-08-12 04:34 G	31615285.55	31615285.69	31615285.83	0.0266	0.0022
Mercury	81847-11-08 15:36 G	31615374.02	31615374.15	31615374.29	0.0266	0.0088
Mercury	81848-02-05 03:08 G	31615462.54	31615462.63	31615462.73	0.0266	0.0198
Mars	81850-12-08 13:56 G	31616499.89	31616500.08	31616500.29	0.0270	0.0192
Earth	81857-10-26 07:27 G	31619013.58	31619013.81	31619014.03	0.0291	0.0118
Moon	81857-10-26 08:24 G	31619013.62	31619013.85	31619014.10	0.0291	0.0105 *
Venus	81859-07-20 08:53 G	31619645.78	31619645.87	31619645.97	0.0294	0.0259
Venus	81860-03-06 06:15 G	31619875.56	31619875.76	31619875.97	0.0295	0.0055
Venus	81860-10-22 04:05 G	31620105.50	31620105.67	31620105.85	0.0296	0.0153
Mercury	81861-12-19 11:17 G	31620528.82	31620528.97	31620529.12	0.0296	0.0138

Mercury	81862-03-18 09:22 G	31620617.72	31620617.89	31620618.06	0.0295	0.0050
Mercury	81862-06-15 06:44 G	31620706.68	31620706.78	31620706.89	0.0295	0.0232
Mars	81864-12-08 14:24 G	31621613.86	31621614.10	31621614.37	0.0290	0.0145
Moon	81871-04-17 16:05 G	31623934.94	31623935.17	31623935.40	0.0271	0.0078
Earth	81871-04-17 19:41 G	31623935.09	31623935.32	31623935.56	0.0271	0.0079 *
Venus	81874-01-03 11:03 G	31624926.83	31624926.96	31624927.10	0.0266	0.0204
Venus	81874-08-20 14:39 G	31625155.90	31625156.11	31625156.32	0.0265	0.0052
Venus	81875-04-06 17:46 G	31625385.04	31625385.24	31625385.44	0.0265	0.0101
Venus	81875-11-21 20:24 G	31625614.30	31625614.35	31625614.42	0.0265	0.0252
Mercury	81876-07-05 09:51 G	31625840.88	31625840.91	31625840.95	0.0265	0.0253
Mercury	81876-10-01 20:53 G	31625929.25	31625929.37	31625929.48	0.0265	0.0149
Mercury	81876-12-29 07:56 G	31626017.69	31626017.83	31626017.97	0.0265	0.0044
Mercury	81877-03-27 18:58 G	31626106.16	31626106.29	31626106.43	0.0265	0.0065
Mercury	81877-06-24 06:29 G	31626194.66	31626194.77	31626194.88	0.0265	0.0174
Moon	81886-10-20 11:32 G	31629599.77	31629599.98	31629600.21	0.0290	0.0108
Earth	81886-10-20 12:58 G	31629599.81	31629600.04	31629600.27	0.0290	0.0092 *
Venus	81889-01-29 15:22 G	31630432.01	31630432.14	31630432.27	0.0294	0.0230
Venus	81889-09-16 12:44 G	31630661.82	31630662.03	31630662.24	0.0295	0.0025
Venus	81890-05-04 10:20 G	31630891.77	31630891.93	31630892.10	0.0295	0.0182
Mercury	81891-05-08 09:51 G	31631260.79	31631260.91	31631261.05	0.0295	0.0194
Mercury	81891-08-05 08:10 G	31631349.67	31631349.84	31631350.01	0.0295	0.0006
Mercury	81891-11-02 05:46 G	31631438.61	31631438.74	31631438.88	0.0295	0.0178
Earth	81900-04-12 14:24 G	31634522.03	31634522.10	31634522.19	0.0272	0.0256
Moon	81900-04-12 17:46 G	31634522.16	31634522.24	31634522.35	0.0272	0.0250 *
Moon	81901-04-24 22:05 G	31634899.20	31634899.42	31634899.65	0.0270	0.0125
Earth	81901-04-24 22:20 G	31634899.23	31634899.43	31634899.66	0.0270	0.0132 *
Venus	81903-07-17 12:58 G	31635712.90	31635713.04	31635713.20	0.0266	0.0185
Venus	81904-03-02 16:34 G	31635941.98	31635942.19	31635942.41	0.0266	0.0032
Venus	81904-10-17 19:27 G	31636171.13	31636171.31	31636171.51	0.0265	0.0122
Mercury	81906-02-19 22:48 G	31636661.35	31636661.45	31636661.55	0.0265	0.0185

Mercury	81906-05-19 09:51 G	31636749.77	31636749.91	31636750.04	0.0265	0.0080
Mercury	81906-08-15 20:53 G	31636838.23	31636838.37	31636838.51	0.0266	0.0028
Mercury	81906-11-12 08:10 G	31636926.72	31636926.84	31636926.96	0.0266	0.0137
Mercury	81907-02-08 19:41 G	31637015.27	31637015.32	31637015.37	0.0266	0.0247
Moon	81916-10-28 15:22 G	31640564.94	31640565.14	31640565.36	0.0291	0.0158
Earth	81916-10-28 18:15 G	31640565.07	31640565.26	31640565.46	0.0291	0.0171 *
Venus	81918-08-12 23:03 G	31641218.32	31641218.46	31641218.63	0.0295	0.0196
Venus	81919-03-30 20:53 G	31641448.16	31641448.37	31641448.58	0.0295	0.0011
Venus	81919-11-15 18:44 G	31641678.15	31641678.28	31641678.43	0.0296	0.0218
Mercury	81920-09-25 10:05 G	31641992.82	31641992.92	31641993.02	0.0296	0.0241
Mercury	81920-12-23 08:39 G	31642081.69	31642081.86	31642082.03	0.0296	0.0051
Mercury	81921-03-22 06:29 G	31642170.62	31642170.77	31642170.92	0.0295	0.0135
Earth	81930-04-20 03:51 G	31645486.41	31645486.66	31645486.90	0.0270	0.0034
Moon	81930-04-20 04:05 G	31645486.43	31645486.67	31645486.90	0.0270	0.0036 *
Venus	81933-01-26 20:39 G	31646499.19	31646499.36	31646499.54	0.0265	0.0154
Venus	81933-09-13 00:00 G	31646728.28	31646728.50	31646728.71	0.0265	0.0002
Venus	81934-04-30 02:39 G	31646957.45	31646957.61	31646957.80	0.0265	0.0151
Mercury	81935-07-10 02:10 G	31647393.51	31647393.59	31647393.67	0.0265	0.0207
Mercury	81935-10-06 12:58 G	31647481.92	31647482.04	31647482.17	0.0265	0.0103
Mercury	81936-01-03 00:15 G	31647570.37	31647570.51	31647570.65	0.0265	0.0007
Mercury	81936-03-31 11:17 G	31647658.85	31647658.97	31647659.10	0.0265	0.0112
Mercury	81936-06-27 22:48 G	31647747.38	31647747.45	31647747.53	0.0265	0.0222
Mars	81939-05-05 18:15 G	31648789.01	31648789.26	31648789.53	0.0270	0.0113
Earth	81945-10-22 23:03 G	31651151.22	31651151.46	31651151.71	0.0290	0.0041
Moon	81945-10-23 01:56 G	31651151.35	31651151.58	31651151.82	0.0290	0.0056 *
Venus	81948-02-23 05:17 G	31652004.55	31652004.72	31652004.89	0.0295	0.0167
Venus	81948-10-10 02:53 G	31652234.41	31652234.62	31652234.83	0.0295	0.0039
Venus	81949-05-28 00:44 G	31652464.42	31652464.53	31652464.64	0.0296	0.0246
Mercury	81950-05-12 07:12 G	31652813.64	31652813.80	31652813.96	0.0295	0.0108
Mercury	81950-08-09 05:03 G	31652902.55	31652902.71	31652902.88	0.0295	0.0079

Mercury	81950-11-06 02:24 G	31652991.53	31652991.60	31652991.69	0.0295	0.0261
Mars	81953-05-05 16:20 G	31653902.88	31653903.18	31653903.47	0.0290	0.0051
Moon	81959-04-14 22:05 G	31656073.26	31656073.42	31656073.59	0.0271	0.0208
Earth	81959-04-14 22:05 G	31656073.28	31656073.42	31656073.58	0.0271	0.0211 *
Moon	81960-04-26 01:27 G	31656450.37	31656450.56	31656450.76	0.0269	0.0162
Earth	81960-04-26 05:17 G	31656450.54	31656450.72	31656450.91	0.0269	0.0173 *
Venus	81962-08-08 21:51 G	31657285.23	31657285.41	31657285.60	0.0266	0.0136
Venus	81963-03-26 01:12 G	31657514.34	31657514.55	31657514.77	0.0265	0.0017
Venus	81963-11-10 03:51 G	31657743.50	31657743.66	31657743.83	0.0265	0.0169
Mercury	81964-11-26 03:51 G	31658125.61	31658125.66	31658125.71	0.0265	0.0244
Mercury	81965-02-22 14:39 G	31658214.00	31658214.11	31658214.23	0.0265	0.0141
Mercury	81965-05-22 01:41 G	31658302.43	31658302.57	31658302.71	0.0265	0.0035
Mercury	81965-08-18 12:58 G	31658390.90	31658391.04	31658391.17	0.0265	0.0073
Mercury	81965-11-15 00:15 G	31658479.41	31658479.51	31658479.61	0.0266	0.0182
Moon	81974-10-16 20:53 G	31661737.31	31661737.37	31661737.46	0.0289	0.0275
Earth	81974-10-17 00:29 G	31661737.43	31661737.52	31661737.64	0.0289	0.0259 *
Moon	81975-10-30 21:51 G	31662116.25	31662116.41	31662116.58	0.0291	0.0205
Earth	81975-10-31 00:58 G	31662116.39	31662116.54	31662116.71	0.0291	0.0218 *
Venus	81977-09-04 10:48 G	31662790.78	31662790.95	31662791.14	0.0295	0.0137
Venus	81978-04-22 08:53 G	31663020.67	31663020.87	31663021.08	0.0296	0.0072
Venus	81978-12-08 07:12 G	31663250.73	31663250.80	31663250.87	0.0296	0.0278
Mercury	81979-09-29 06:29 G	31663545.62	31663545.77	31663545.91	0.0296	0.0162
Mercury	81979-12-27 04:34 G	31663634.52	31663634.69	31663634.87	0.0296	0.0028
Mercury	81980-03-25 02:10 G	31663723.48	31663723.59	31663723.72	0.0295	0.0212
Earth	81989-04-21 09:51 G	31667037.66	31667037.91	31667038.16	0.0270	0.0009
Moon	81989-04-21 13:27 G	31667037.81	31667038.06	31667038.30	0.0270	0.0005 *
Venus	81991-07-05 01:27 G	31667842.52	31667842.56	31667842.61	0.0266	0.0259
Venus	81992-02-19 05:03 G	31668071.51	31668071.71	31668071.91	0.0265	0.0106
Venus	81992-10-05 07:56 G	31668300.62	31668300.83	31668301.05	0.0265	0.0046
Venus	81993-05-22 10:34 G	31668529.80	31668529.94	31668530.09	0.0264	0.0197

Mercury	81994-07-12 18:00 G	31668946.14	31668946.25	31668946.36	0.0264	0.0165
Mercury	81994-10-09 05:03 G	31669034.57	31669034.71	31669034.84	0.0265	0.0060
Mercury	81995-01-05 16:05 G	31669123.03	31669123.17	31669123.31	0.0265	0.0047
Mercury	81995-04-04 03:22 G	31669211.53	31669211.64	31669211.76	0.0265	0.0156

83RD MILLENNIUM CE

This is a list of transits visible from Saturn in the 83rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	82004-10-24 05:17 G		31672702.47	31672702.72	31672702.96	0.0290	0.0007	
Moon	82004-10-24 08:10 G		31672702.59	31672702.84	31672703.09	0.0290	0.0009	*
Venus	82007-03-17 17:03 G		31673577.01	31673577.21	31673577.40	0.0295	0.0108	
Venus	82007-11-02 14:39 G		31673806.92	31673807.11	31673807.31	0.0296	0.0100	
Mercury	82009-02-15 04:34 G		31674277.59	31674277.69	31674277.82	0.0296	0.0222	
Mercury	82009-05-15 03:08 G		31674366.46	31674366.63	31674366.81	0.0295	0.0032	
Mercury	82009-08-12 00:58 G		31674455.40	31674455.54	31674455.69	0.0295	0.0155	
Moon	82018-04-16 00:15 G		31677624.33	31677624.51	31677624.71	0.0271	0.0169	
Earth	82018-04-16 03:51 G		31677624.47	31677624.66	31677624.85	0.0271	0.0169	*
Moon	82019-04-28 08:39 G		31678001.71	31678001.86	31678002.03	0.0269	0.0201	
Earth	82019-04-28 10:05 G		31678001.78	31678001.92	31678002.08	0.0269	0.0213	*
Venus	82021-01-14 01:56 G		31678628.51	31678628.58	31678628.68	0.0266	0.0242	
Venus	82021-08-31 05:32 G		31678857.53	31678857.73	31678857.93	0.0265	0.0089	
Venus	82022-04-17 08:24 G		31679086.64	31679086.85	31679087.06	0.0265	0.0064	
Venus	82022-12-02 10:48 G		31679315.83	31679315.95	31679316.08	0.0265	0.0215	

Mercury	82023-11-29 19:27 G	31679678.23	31679678.31	31679678.40	0.0265	0.0204
Mercury	82024-02-26 06:29 G	31679766.64	31679766.77	31679766.89	0.0265	0.0100
Mercury	82024-05-24 17:32 G	31679855.09	31679855.23	31679855.37	0.0265	0.0009
Mercury	82024-08-21 04:34 G	31679943.57	31679943.69	31679943.82	0.0265	0.0114
Mercury	82024-11-17 15:51 G	31680032.10	31680032.16	31680032.24	0.0265	0.0225
Mars	82027-09-28 21:36 G	31681077.13	31681077.40	31681077.69	0.0270	0.0080
Moon	82033-10-18 01:27 G	31683288.43	31683288.56	31683288.71	0.0289	0.0231
Earth	82033-10-18 03:36 G	31683288.50	31683288.65	31683288.82	0.0289	0.0217 *
Earth	82034-11-01 04:34 G	31683667.59	31683667.69	31683667.80	0.0292	0.0260
Moon	82034-11-01 05:32 G	31683667.62	31683667.73	31683667.85	0.0292	0.0252 *
Venus	82036-02-09 23:03 G	31684133.41	31684133.46	31684133.51	0.0294	0.0284
Venus	82036-09-26 20:39 G	31684363.16	31684363.36	31684363.56	0.0295	0.0080
Venus	82037-05-14 18:44 G	31684593.10	31684593.28	31684593.47	0.0296	0.0129
Mercury	82038-07-05 02:39 G	31685009.58	31685009.61	31685009.67	0.0296	0.0286
Mercury	82038-10-02 01:27 G	31685098.40	31685098.56	31685098.73	0.0296	0.0093
Mercury	82038-12-29 23:46 G	31685187.32	31685187.49	31685187.65	0.0296	0.0096
Mercury	82039-03-28 21:08 G	31685276.33	31685276.38	31685276.44	0.0296	0.0279
Mars	82041-09-29 17:03 G	31686191.91	31686192.21	31686192.51	0.0290	0.0029
Earth	82048-04-22 13:27 G	31688588.82	31688589.06	31688589.30	0.0270	0.0049
Moon	82048-04-22 15:22 G	31688588.89	31688589.14	31688589.39	0.0270	0.0043 *
Venus	82050-07-27 08:24 G	31689414.73	31689414.85	31689414.98	0.0266	0.0214
Venus	82051-03-13 12:00 G	31689643.79	31689644.00	31689644.21	0.0265	0.0061
Venus	82051-10-28 14:39 G	31689872.91	31689873.11	31689873.31	0.0264	0.0091
Venus	82052-06-13 17:03 G	31690102.13	31690102.21	31690102.30	0.0264	0.0241
Mercury	82053-04-17 22:34 G	31690410.38	31690410.44	31690410.51	0.0264	0.0229
Mercury	82053-07-15 09:22 G	31690498.77	31690498.89	31690499.02	0.0264	0.0126
Mercury	82053-10-11 20:24 G	31690587.21	31690587.35	31690587.49	0.0264	0.0021
Mercury	82054-01-08 07:41 G	31690675.69	31690675.82	31690675.95	0.0265	0.0088
Mercury	82054-04-06 18:58 G	31690764.20	31690764.29	31690764.38	0.0265	0.0196
Moon	82063-10-26 05:17 G	31694253.47	31694253.72	31694253.97	0.0291	0.0037

Earth	82063-10-26 07:12 G	31694253.56	31694253.80	31694254.05	0.0291	0.0047	*
Venus	82065-08-22 04:20 G	31694919.59	31694919.68	31694919.79	0.0295	0.0258	
Venus	82066-04-09 01:56 G	31695149.38	31695149.58	31695149.79	0.0296	0.0052	
Venus	82066-11-25 00:00 G	31695379.32	31695379.50	31695379.68	0.0296	0.0156	
Mercury	82068-02-18 23:46 G	31695830.34	31695830.49	31695830.64	0.0296	0.0154	
Mercury	82068-05-17 22:05 G	31695919.25	31695919.42	31695919.59	0.0296	0.0036	
Mercury	82068-08-14 19:41 G	31696008.21	31696008.32	31696008.43	0.0295	0.0220	
Moon	82077-04-17 05:03 G	31699175.51	31699175.71	31699175.93	0.0271	0.0131	
Earth	82077-04-17 07:12 G	31699175.59	31699175.80	31699176.02	0.0271	0.0130	*
Earth	82078-04-29 13:12 G	31699552.96	31699553.05	31699553.14	0.0268	0.0250	
Moon	82078-04-29 16:05 G	31699553.06	31699553.17	31699553.28	0.0268	0.0237	*
Venus	82080-02-06 08:53 G	31700200.74	31700200.87	31700201.02	0.0265	0.0196	
Venus	82080-09-22 12:00 G	31700429.79	31700430.00	31700430.22	0.0265	0.0044	
Venus	82081-05-09 14:39 G	31700658.92	31700659.11	31700659.31	0.0264	0.0108	
Venus	82081-12-24 16:48 G	31700888.16	31700888.20	31700888.25	0.0264	0.0258	
Mercury	82082-12-02 10:48 G	31701230.85	31701230.95	31701231.06	0.0265	0.0166	
Mercury	82083-02-28 21:36 G	31701319.27	31701319.40	31701319.54	0.0265	0.0062	
Mercury	82083-05-28 08:53 G	31701407.73	31701407.87	31701408.00	0.0265	0.0046	
Mercury	82083-08-24 19:56 G	31701496.22	31701496.33	31701496.45	0.0265	0.0154	
Mercury	82083-11-21 07:27 G	31701584.80	31701584.81	31701584.83	0.0265	0.0263	
Earth	82092-10-19 03:08 G	31704839.45	31704839.63	31704839.83	0.0289	0.0180	
Moon	82092-10-19 05:32 G	31704839.56	31704839.73	31704839.92	0.0289	0.0189	*
Venus	82095-03-04 06:00 G	31705705.63	31705705.75	31705705.89	0.0295	0.0234	
Venus	82095-10-20 04:05 G	31705935.46	31705935.67	31705935.88	0.0296	0.0027	
Venus	82096-06-06 02:10 G	31706165.44	31706165.59	31706165.76	0.0296	0.0182	
Mercury	82097-07-07 21:08 G	31706562.27	31706562.38	31706562.49	0.0296	0.0223	
Mercury	82097-10-04 19:41 G	31706651.15	31706651.32	31706651.49	0.0296	0.0032	
Mercury	82098-01-01 17:32 G	31706740.09	31706740.23	31706740.38	0.0296	0.0156	
Moon	82107-04-25 12:44 G	31710139.79	31710140.03	31710140.28	0.0270	0.0076	
Earth	82107-04-25 15:08 G	31710139.90	31710140.13	31710140.37	0.0270	0.0086	*

Venus	82109-08-19 14:39 G	31710986.94	31710987.11	31710987.27	0.0265	0.0170
Venus	82110-04-05 17:46 G	31711216.02	31711216.24	31711216.45	0.0265	0.0017
Venus	82110-11-20 20:10 G	31711445.16	31711445.34	31711445.53	0.0264	0.0135
Mercury	82112-04-21 13:41 G	31711962.98	31711963.07	31711963.17	0.0264	0.0192
Mercury	82112-07-19 00:44 G	31712051.40	31712051.53	31712051.66	0.0264	0.0088
Mercury	82112-10-15 11:46 G	31712139.85	31712139.99	31712140.13	0.0264	0.0018
Mercury	82113-01-11 22:48 G	31712228.33	31712228.45	31712228.58	0.0264	0.0126
Mercury	82113-04-10 10:20 G	31712316.87	31712316.93	31712316.99	0.0265	0.0235
Mars	82116-02-23 09:22 G	31713365.61	31713365.89	31713366.18	0.0270	0.0031
Moon	82122-10-28 03:22 G	31715804.42	31715804.64	31715804.88	0.0291	0.0080
Earth	82122-10-28 06:58 G	31715804.56	31715804.79	31715805.03	0.0291	0.0084 *
Venus	82124-09-14 11:46 G	31716491.85	31716491.99	31716492.14	0.0295	0.0206
Venus	82125-05-02 09:36 G	31716721.69	31716721.90	31716722.11	0.0296	0.0001
Venus	82125-12-18 07:41 G	31716951.68	31716951.82	31716951.97	0.0296	0.0210
Mercury	82126-11-25 18:58 G	31717294.26	31717294.29	31717294.35	0.0296	0.0286
Mercury	82127-02-22 18:00 G	31717383.08	31717383.25	31717383.41	0.0296	0.0092
Mercury	82127-05-22 16:05 G	31717472.01	31717472.17	31717472.33	0.0296	0.0096
Mercury	82127-08-19 13:27 G	31717561.02	31717561.06	31717561.12	0.0296	0.0279
Mars	82130-02-23 19:56 G	31718480.04	31718480.33	31718480.62	0.0290	0.0075
Earth	82136-04-19 08:39 G	31720726.63	31720726.86	31720727.10	0.0270	0.0092
Moon	82136-04-19 11:03 G	31720726.74	31720726.96	31720727.19	0.0270	0.0098 *
Venus	82139-03-01 14:53 G	31721772.95	31721773.12	31721773.30	0.0265	0.0152
Venus	82139-10-16 17:46 G	31722002.02	31722002.24	31722002.45	0.0265	0.0003
Venus	82140-06-01 19:56 G	31722231.16	31722231.33	31722231.51	0.0264	0.0151
Mercury	82141-09-08 15:08 G	31722695.07	31722695.13	31722695.20	0.0264	0.0232
Mercury	82141-12-06 01:56 G	31722783.46	31722783.58	31722783.70	0.0264	0.0129
Mercury	82142-03-04 12:58 G	31722871.90	31722872.04	31722872.18	0.0264	0.0025
Mercury	82142-06-01 00:00 G	31722960.37	31722960.50	31722960.63	0.0265	0.0082
Mercury	82142-08-28 11:17 G	31723048.87	31723048.97	31723049.07	0.0265	0.0191
Earth	82151-10-22 00:29 G	31726390.31	31726390.52	31726390.73	0.0289	0.0146

Moon	82151-10-22 03:36 G	31726390.44	31726390.65	31726390.86	0.0289	0.0151	*
Venus	82154-03-27 11:46 G	31727277.83	31727277.99	31727278.16	0.0295	0.0185	
Venus	82154-11-12 09:51 G	31727507.70	31727507.91	31727508.12	0.0296	0.0023	
Venus	82155-06-30 08:10 G	31727737.72	31727737.84	31727737.97	0.0296	0.0232	
Mercury	82156-07-11 14:10 G	31728114.95	31728115.09	31728115.24	0.0296	0.0169	
Mercury	82156-10-08 12:44 G	31728203.86	31728204.03	31728204.20	0.0296	0.0022	
Mercury	82157-01-05 10:34 G	31728292.82	31728292.94	31728293.06	0.0296	0.0208	
Moon	82165-04-14 04:48 G	31731313.65	31731313.70	31731313.77	0.0272	0.0264	
Earth	82165-04-14 07:27 G	31731313.76	31731313.81	31731313.89	0.0272	0.0261	*
Moon	82166-04-26 12:00 G	31731690.78	31731691.00	31731691.23	0.0270	0.0110	
Earth	82166-04-26 15:22 G	31731690.92	31731691.14	31731691.36	0.0270	0.0121	*
Venus	82168-09-10 19:56 G	31732559.14	31732559.33	31732559.52	0.0265	0.0127	
Venus	82169-04-27 22:48 G	31732788.24	31732788.45	31732788.66	0.0264	0.0026	
Venus	82169-12-13 00:58 G	31733017.39	31733017.54	31733017.71	0.0264	0.0177	
Mercury	82171-01-26 18:15 G	31733427.23	31733427.26	31733427.28	0.0264	0.0258	
Mercury	82171-04-25 04:48 G	31733515.59	31733515.70	31733515.82	0.0264	0.0156	
Mercury	82171-07-22 15:51 G	31733604.02	31733604.16	31733604.30	0.0264	0.0052	
Mercury	82171-10-19 02:53 G	31733692.48	31733692.62	31733692.76	0.0264	0.0055	
Mercury	82172-01-15 14:10 G	31733780.98	31733781.09	31733781.20	0.0264	0.0162	
Earth	82181-10-29 04:05 G	31737355.45	31737355.67	31737355.89	0.0291	0.0118	
Moon	82181-10-29 04:34 G	31737355.48	31737355.69	31737355.91	0.0291	0.0118	*
Venus	82183-10-07 17:32 G	31738064.06	31738064.23	31738064.41	0.0295	0.0157	
Venus	82184-05-24 15:22 G	31738293.94	31738294.14	31738294.35	0.0296	0.0051	
Venus	82185-01-09 13:41 G	31738523.98	31738524.07	31738524.18	0.0297	0.0260	
Mercury	82185-11-28 12:29 G	31738846.92	31738847.02	31738847.13	0.0296	0.0230	
Mercury	82186-02-25 11:03 G	31738935.79	31738935.96	31738936.14	0.0296	0.0039	
Mercury	82186-05-25 09:08 G	31739024.74	31739024.88	31739025.03	0.0296	0.0150	
Earth	82195-04-21 09:08 G	31742277.64	31742277.88	31742278.12	0.0270	0.0056	
Moon	82195-04-21 12:29 G	31742277.78	31742278.02	31742278.27	0.0270	0.0065	*
Venus	82197-08-06 16:48 G	31743116.18	31743116.20	31743116.24	0.0266	0.0262	

Venus	82198-03-23 20:10 G	31743345.15	31743345.34	31743345.54	0.0265	0.0110
Venus	82198-11-07 22:48 G	31743574.24	31743574.45	31743574.66	0.0264	0.0043
Venus	82199-06-25 00:58 G	31743803.40	31743803.54	31743803.69	0.0264	0.0193
Mercury	82200-09-12 06:15 G	31744247.67	31744247.76	31744247.85	0.0264	0.0196
Mercury	82200-12-09 17:03 G	31744336.08	31744336.21	31744336.34	0.0264	0.0093
Mercury	82201-03-08 04:05 G	31744424.53	31744424.67	31744424.81	0.0264	0.0014
Mercury	82201-06-04 15:08 G	31744513.01	31744513.13	31744513.26	0.0264	0.0119
Mercury	82201-09-01 02:24 G	31744601.53	31744601.60	31744601.67	0.0265	0.0228
Mars	82204-07-18 22:48 G	31745653.17	31745653.45	31745653.74	0.0269	0.0025
Moon	82210-10-23 20:10 G	31747941.10	31747941.34	31747941.57	0.0289	0.0112
Earth	82210-10-23 20:53 G	31747941.15	31747941.37	31747941.61	0.0289	0.0113 *
Venus	82213-04-19 17:03 G	31748850.03	31748850.21	31748850.40	0.0295	0.0138
Venus	82213-12-05 15:08 G	31749079.93	31749080.13	31749080.34	0.0296	0.0072
Venus	82214-07-23 13:41 G	31749310.01	31749310.07	31749310.14	0.0296	0.0281
Mercury	82215-07-16 07:12 G	31749667.65	31749667.80	31749667.96	0.0296	0.0117
Mercury	82215-10-13 05:32 G	31749756.57	31749756.73	31749756.90	0.0296	0.0074
Mercury	82216-01-10 03:22 G	31749845.56	31749845.64	31749845.73	0.0296	0.0259
Mars	82218-07-20 10:34 G	31750767.67	31750767.94	31750768.23	0.0291	0.0094
Moon	82224-04-16 03:51 G	31752864.54	31752864.66	31752864.78	0.0272	0.0234
Earth	82224-04-16 06:44 G	31752864.65	31752864.78	31752864.93	0.0272	0.0226 *
Earth	82225-04-28 14:39 G	31753241.91	31753242.11	31753242.31	0.0269	0.0156
Moon	82225-04-28 15:36 G	31753241.95	31753242.15	31753242.35	0.0269	0.0142 *
Venus	82227-02-17 21:22 G	31753902.31	31753902.39	31753902.49	0.0266	0.0239
Venus	82227-10-05 00:44 G	31754131.33	31754131.53	31754131.74	0.0265	0.0085
Venus	82228-05-21 03:22 G	31754360.44	31754360.64	31754360.85	0.0264	0.0068
Venus	82229-01-05 05:32 G	31754589.62	31754589.73	31754589.86	0.0264	0.0218
Mercury	82230-01-30 09:08 G	31754979.81	31754979.88	31754979.95	0.0264	0.0223
Mercury	82230-04-28 19:56 G	31755068.21	31755068.33	31755068.45	0.0264	0.0120
Mercury	82230-07-26 06:44 G	31755156.65	31755156.78	31755156.92	0.0264	0.0018
Mercury	82230-10-22 17:46 G	31755245.11	31755245.24	31755245.38	0.0264	0.0091

Mercury	82231-01-19 05:03 G	31755333.62	31755333.71	31755333.81	0.0264	0.0199
Earth	82240-10-31 01:12 G	31758906.34	31758906.55	31758906.75	0.0291	0.0152
Moon	82240-10-31 04:34 G	31758906.49	31758906.69	31758906.90	0.0291	0.0156 *
Venus	82242-10-30 22:48 G	31759636.26	31759636.45	31759636.65	0.0296	0.0109
Venus	82243-06-17 20:53 G	31759866.18	31759866.37	31759866.57	0.0296	0.0100
Mercury	82244-12-02 05:32 G	31760399.60	31760399.73	31760399.88	0.0297	0.0177
Mercury	82245-03-01 04:05 G	31760488.50	31760488.67	31760488.85	0.0296	0.0016
Mercury	82245-05-29 01:56 G	31760577.46	31760577.58	31760577.71	0.0296	0.0202
Moon	82254-04-23 07:27 G	31763828.56	31763828.81	31763829.07	0.0270	0.0034
Earth	82254-04-23 08:53 G	31763828.63	31763828.87	31763829.12	0.0270	0.0021 *
Venus	82256-08-29 22:20 G	31764688.31	31764688.43	31764688.55	0.0265	0.0220
Venus	82257-04-16 01:27 G	31764917.35	31764917.56	31764917.77	0.0265	0.0067
Venus	82257-12-01 03:51 G	31765146.46	31765146.66	31765146.87	0.0264	0.0085
Venus	82258-07-18 06:00 G	31765375.66	31765375.75	31765375.85	0.0264	0.0235
Mercury	82259-06-19 10:34 G	31765711.93	31765711.94	31765711.96	0.0264	0.0262
Mercury	82259-09-15 21:22 G	31765800.28	31765800.39	31765800.50	0.0264	0.0160
Mercury	82259-12-13 08:10 G	31765888.70	31765888.84	31765888.98	0.0264	0.0056
Mercury	82260-03-10 19:12 G	31765977.16	31765977.30	31765977.44	0.0264	0.0049
Mercury	82260-06-07 06:15 G	31766065.65	31766065.76	31766065.88	0.0264	0.0157
Moon	82269-10-24 13:56 G	31769491.85	31769492.08	31769492.32	0.0289	0.0077
Earth	82269-10-24 17:32 G	31769492.00	31769492.23	31769492.47	0.0289	0.0079 *
Venus	82271-09-25 00:44 G	31770192.53	31770192.53	31770192.54	0.0294	0.0294
Venus	82272-05-11 22:20 G	31770422.23	31770422.43	31770422.63	0.0295	0.0090
Venus	82272-12-27 20:24 G	31770652.16	31770652.35	31770652.54	0.0296	0.0119
Mercury	82274-04-21 01:12 G	31771131.47	31771131.55	31771131.64	0.0297	0.0260
Mercury	82274-07-19 00:00 G	31771220.33	31771220.50	31771220.67	0.0296	0.0066
Mercury	82274-10-15 22:20 G	31771309.27	31771309.43	31771309.59	0.0296	0.0123
Earth	82283-04-18 05:17 G	31774415.56	31774415.72	31774415.91	0.0272	0.0192
Moon	82283-04-18 06:44 G	31774415.63	31774415.78	31774415.95	0.0272	0.0202 *
Earth	82284-04-29 13:27 G	31774792.89	31774793.06	31774793.24	0.0270	0.0190

Moon	82284-04-29 17:17 G	31774793.04	31774793.22	31774793.42	0.0270	0.0174 *
Venus	82286-03-12 02:39 G	31775474.46	31775474.61	31775474.75	0.0266	0.0197
Venus	82286-10-27 05:46 G	31775703.53	31775703.74	31775703.95	0.0265	0.0044
Venus	82287-06-13 08:10 G	31775932.65	31775932.84	31775933.04	0.0264	0.0109
Venus	82288-01-28 10:20 G	31776161.90	31776161.93	31776161.98	0.0264	0.0259
Mercury	82289-02-02 00:15 G	31776532.41	31776532.51	31776532.60	0.0264	0.0187
Mercury	82289-05-01 11:03 G	31776620.83	31776620.96	31776621.09	0.0264	0.0084
Mercury	82289-07-28 22:05 G	31776709.28	31776709.42	31776709.55	0.0264	0.0023
Mercury	82289-10-25 09:08 G	31776797.76	31776797.88	31776798.00	0.0264	0.0128
Mercury	82290-01-21 20:10 G	31776886.29	31776886.34	31776886.41	0.0264	0.0238
Mars	82292-12-12 10:48 G	31777941.66	31777941.95	31777942.24	0.0269	0.0028
Earth	82298-10-18 23:46 G	31780078.45	31780078.49	31780078.55	0.0288	0.0281
Moon	82298-10-19 03:36 G	31780078.62	31780078.65	31780078.70	0.0288	0.0283
Earth	82299-11-01 23:03 G	31780457.28	31780457.46	31780457.66	0.0291	0.0187
Moon	82299-11-02 00:44 G	31780457.34	31780457.53	31780457.72	0.0291	0.0193 *
Venus	82301-04-07 07:27 G	31780978.73	31780978.81	31780978.90	0.0295	0.0266
Venus	82301-11-23 05:03 G	31781208.50	31781208.71	31781208.91	0.0296	0.0060
Venus	82302-07-11 02:53 G	31781438.45	31781438.62	31781438.81	0.0297	0.0151
Mercury	82303-12-06 23:03 G	31781952.30	31781952.46	31781952.62	0.0297	0.0121
Mercury	82304-03-04 21:22 G	31782041.22	31782041.39	31782041.56	0.0297	0.0070
Mercury	82304-06-01 19:12 G	31782130.22	31782130.30	31782130.39	0.0296	0.0255
Mars	82306-12-14 08:10 G	31783055.58	31783055.84	31783056.11	0.0291	0.0128
Moon	82313-04-25 05:32 G	31785379.49	31785379.73	31785379.98	0.0270	0.0003
Earth	82313-04-25 09:08 G	31785379.64	31785379.88	31785380.13	0.0270	0.0016 *
Venus	82315-09-23 03:51 G	31786260.51	31786260.66	31786260.83	0.0265	0.0177
Venus	82316-05-09 06:58 G	31786489.58	31786489.79	31786490.01	0.0265	0.0024
Venus	82316-12-24 09:22 G	31786718.71	31786718.89	31786719.08	0.0264	0.0128
Mercury	82318-06-23 01:56 G	31787264.51	31787264.58	31787264.65	0.0264	0.0224
Mercury	82318-09-19 12:44 G	31787352.91	31787353.03	31787353.15	0.0264	0.0122
Mercury	82318-12-16 23:32 G	31787441.34	31787441.48	31787441.62	0.0264	0.0018

Mercury	82319-03-15 10:34 G	31787529.81	31787529.94	31787530.07	0.0264	0.0089
Mercury	82319-06-11 21:51 G	31787618.32	31787618.41	31787618.50	0.0264	0.0196
Moon	82328-10-26 15:36 G	31791042.92	31791043.15	31791043.39	0.0289	0.0036
Earth	82328-10-26 16:34 G	31791042.95	31791043.19	31791043.43	0.0289	0.0042 *
Venus	82330-10-18 06:58 G	31791764.68	31791764.79	31791764.91	0.0294	0.0246
Venus	82331-06-05 04:34 G	31791994.48	31791994.69	31791994.89	0.0295	0.0040
Venus	82332-01-21 02:39 G	31792224.44	31792224.61	31792224.78	0.0296	0.0169
Mercury	82333-04-24 18:29 G	31792684.15	31792684.27	31792684.40	0.0296	0.0204
Mercury	82333-07-22 17:17 G	31792773.04	31792773.22	31792773.39	0.0296	0.0012
Mercury	82333-10-19 15:22 G	31792862.00	31792862.14	31792862.28	0.0296	0.0177
Earth	82342-04-20 05:03 G	31795966.51	31795966.71	31795966.91	0.0272	0.0156
Moon	82342-04-20 08:24 G	31795966.66	31795966.85	31795967.05	0.0272	0.0168 *
Moon	82343-05-02 12:58 G	31796343.89	31796344.04	31796344.22	0.0270	0.0209
Earth	82343-05-02 12:58 G	31796343.91	31796344.04	31796344.18	0.0270	0.0224 *
Venus	82345-04-04 07:56 G	31797046.66	31797046.83	31797047.01	0.0266	0.0155
Venus	82345-11-19 11:17 G	31797275.75	31797275.97	31797276.18	0.0265	0.0005
Venus	82346-07-06 13:41 G	31797504.90	31797505.07	31797505.25	0.0264	0.0151
Mercury	82347-11-10 04:34 G	31797996.66	31797996.69	31797996.74	0.0264	0.0252
Mercury	82348-02-06 15:36 G	31798085.03	31798085.15	31798085.26	0.0264	0.0149
Mercury	82348-05-05 02:24 G	31798173.46	31798173.60	31798173.74	0.0264	0.0045
Mercury	82348-08-01 13:27 G	31798261.92	31798262.06	31798262.19	0.0264	0.0061
Mercury	82348-10-29 00:29 G	31798350.42	31798350.52	31798350.63	0.0264	0.0168
Earth	82357-10-21 00:00 G	31801629.38	31801629.50	31801629.63	0.0288	0.0244
Moon	82357-10-21 00:15 G	31801629.38	31801629.51	31801629.66	0.0288	0.0238 *
Moon	82358-11-03 20:24 G	31802008.21	31802008.35	31802008.50	0.0291	0.0235
Earth	82358-11-03 23:32 G	31802008.32	31802008.48	31802008.63	0.0291	0.0225 *
Venus	82360-04-29 14:24 G	31802550.97	31802551.10	31802551.25	0.0295	0.0216
Venus	82360-12-15 12:00 G	31802780.79	31802781.00	31802781.21	0.0296	0.0009
Venus	82361-08-02 10:05 G	31803010.78	31803010.92	31803011.08	0.0297	0.0202
Mercury	82362-09-11 18:00 G	31803416.16	31803416.25	31803416.33	0.0297	0.0256

Mercury	82362-12-09 16:34 G	31803505.03	31803505.19	31803505.37	0.0297	0.0063
Mercury	82363-03-08 14:53 G	31803593.97	31803594.12	31803594.28	0.0297	0.0127
Earth	82372-04-26 10:20 G	31806930.69	31806930.93	31806931.17	0.0270	0.0052
Moon	82372-04-26 10:05 G	31806930.69	31806930.92	31806931.16	0.0270	0.0038 *
Venus	82374-10-15 10:34 G	31807832.76	31807832.94	31807833.13	0.0265	0.0133
Venus	82375-06-01 13:27 G	31808061.85	31808062.06	31808062.28	0.0264	0.0020
Venus	82376-01-16 15:51 G	31808291.00	31808291.16	31808291.32	0.0264	0.0171
Mercury	82377-06-25 17:32 G	31808817.13	31808817.23	31808817.32	0.0264	0.0184
Mercury	82377-09-22 04:20 G	31808905.54	31808905.68	31808905.81	0.0264	0.0081
Mercury	82377-12-19 15:08 G	31808993.99	31808994.13	31808994.27	0.0264	0.0024
Mercury	82378-03-18 02:10 G	31809082.47	31809082.59	31809082.71	0.0264	0.0131
Mercury	82378-06-14 13:27 G	31809171.01	31809171.06	31809171.12	0.0264	0.0239
Mars	82381-05-08 12:00 G	31810229.72	31810230.00	31810230.28	0.0269	0.0059
Earth	82387-10-28 18:00 G	31812594.00	31812594.25	31812594.49	0.0289	0.0005
Moon	82387-10-28 21:22 G	31812594.15	31812594.39	31812594.63	0.0289	0.0010 *
Venus	82389-11-09 14:53 G	31813336.97	31813337.12	31813337.28	0.0294	0.0194
Venus	82390-06-27 12:29 G	31813566.81	31813567.02	31813567.23	0.0295	0.0013
Venus	82391-02-12 10:34 G	31813796.81	31813796.94	31813797.08	0.0296	0.0222
Mercury	82392-04-27 12:44 G	31814236.88	31814237.03	31814237.19	0.0296	0.0141
Mercury	82392-07-25 11:17 G	31814325.80	31814325.97	31814326.14	0.0296	0.0050
Mercury	82392-10-22 09:08 G	31814414.78	31814414.88	31814414.98	0.0296	0.0236
Mars	82395-05-08 20:10 G	31815343.09	31815343.34	31815343.60	0.0292	0.0146
Earth	82401-04-21 06:15 G	31817517.54	31817517.76	31817517.98	0.0272	0.0119
Moon	82401-04-21 06:44 G	31817517.57	31817517.78	31817518.02	0.0272	0.0132 *
Moon	82402-05-03 10:34 G	31817894.86	31817894.94	31817895.05	0.0270	0.0248
Earth	82402-05-03 14:24 G	31817895.05	31817895.10	31817895.17	0.0270	0.0261 *
Venus	82403-09-10 10:34 G	31818389.94	31818389.94	31818389.96	0.0267	0.0266
Venus	82404-04-26 14:39 G	31818618.91	31818619.11	31818619.30	0.0266	0.0111
Venus	82404-12-11 17:46 G	31818848.02	31818848.24	31818848.45	0.0265	0.0043
Venus	82405-07-28 19:56 G	31819077.20	31819077.33	31819077.49	0.0264	0.0196

Mercury	82406-11-12 20:24 G	31819549.27	31819549.35	31819549.43	0.0264	0.0211
Mercury	82407-02-09 06:58 G	31819637.67	31819637.79	31819637.92	0.0264	0.0108
Mercury	82407-05-08 18:00 G	31819726.11	31819726.25	31819726.39	0.0264	0.0003
Mercury	82407-08-05 05:03 G	31819814.58	31819814.71	31819814.84	0.0264	0.0103
Mercury	82407-11-01 16:20 G	31819903.10	31819903.18	31819903.26	0.0264	0.0212
Moon	82416-10-21 23:46 G	31823180.31	31823180.49	31823180.68	0.0288	0.0191
Earth	82416-10-22 03:36 G	31823180.48	31823180.65	31823180.83	0.0288	0.0201 *
Moon	82417-11-04 23:46 G	31823559.44	31823559.49	31823559.56	0.0291	0.0281
Earth	82417-11-05 02:39 G	31823559.53	31823559.61	31823559.72	0.0291	0.0268 *
Venus	82419-05-22 23:46 G	31824123.31	31824123.49	31824123.66	0.0295	0.0161
Venus	82420-01-07 21:22 G	31824353.18	31824353.39	31824353.59	0.0296	0.0047
Venus	82420-08-24 19:27 G	31824583.22	31824583.31	31824583.42	0.0297	0.0256
Mercury	82421-09-14 12:29 G	31824968.90	31824969.02	31824969.16	0.0297	0.0189
Mercury	82421-12-12 11:17 G	31825057.80	31825057.97	31825058.15	0.0297	0.0005
Mercury	82422-03-11 09:22 G	31825146.76	31825146.89	31825147.02	0.0297	0.0192
Earth	82431-04-28 13:12 G	31828481.82	31828482.05	31828482.29	0.0270	0.0091
Moon	82431-04-28 16:20 G	31828481.96	31828482.18	31828482.42	0.0270	0.0077 *
Venus	82433-03-22 14:39 G	31829176.02	31829176.11	31829176.20	0.0266	0.0241
Venus	82433-11-06 18:15 G	31829405.06	31829405.26	31829405.46	0.0265	0.0088
Venus	82434-06-23 21:08 G	31829634.17	31829634.38	31829634.59	0.0264	0.0066
Venus	82435-02-07 23:17 G	31829863.36	31829863.47	31829863.60	0.0264	0.0217
Mercury	82436-03-31 22:34 G	31830281.40	31830281.44	31830281.50	0.0264	0.0243
Mercury	82436-06-28 09:22 G	31830369.78	31830369.89	31830370.01	0.0264	0.0140
Mercury	82436-09-24 20:10 G	31830458.21	31830458.34	31830458.48	0.0264	0.0036
Mercury	82436-12-22 07:12 G	31830546.67	31830546.80	31830546.94	0.0264	0.0070
Mercury	82437-03-20 18:29 G	31830635.16	31830635.27	31830635.37	0.0264	0.0177
Earth	82446-10-29 23:17 G	31834145.23	31834145.47	31834145.72	0.0290	0.0045
Moon	82446-10-30 01:41 G	31834145.33	31834145.57	31834145.82	0.0290	0.0058 *
Venus	82448-12-02 01:12 G	31834909.36	31834909.55	31834909.73	0.0295	0.0139
Venus	82449-07-19 22:34 G	31835139.24	31835139.44	31835139.65	0.0296	0.0070

Venus	82450-03-06 20:53 G	31835369.30	31835369.37	31835369.44	0.0296	0.0277
Mercury	82451-02-01 08:53 G	31835700.80	31835700.87	31835700.95	0.0296	0.0265
Jupiter	82451-03-16 23:17 G	31835744.26	31835744.47	31835744.74	0.0296	0.0252
Mercury	82451-05-01 07:56 G	31835789.66	31835789.83	31835790.00	0.0296	0.0071
Mercury	82451-07-29 06:00 G	31835878.60	31835878.75	31835878.91	0.0296	0.0119
Moon	82460-04-22 05:46 G	31839068.52	31839068.74	31839068.99	0.0272	0.0096
Earth	82460-04-22 09:22 G	31839068.65	31839068.89	31839069.12	0.0272	0.0080 *
Venus	82462-10-02 18:15 G	31839962.15	31839962.26	31839962.39	0.0267	0.0221
Venus	82463-05-19 22:05 G	31840191.22	31840191.42	31840191.63	0.0266	0.0065
Venus	82464-01-04 01:12 G	31840420.35	31840420.55	31840420.76	0.0265	0.0089
Venus	82464-08-20 03:36 G	31840649.58	31840649.65	31840649.75	0.0264	0.0241
Mercury	82465-11-15 12:15 G	31841101.91	31841102.01	31841102.12	0.0264	0.0167
Mercury	82466-02-11 23:03 G	31841190.33	31841190.46	31841190.60	0.0264	0.0063
Mercury	82466-05-11 10:05 G	31841278.78	31841278.92	31841279.06	0.0264	0.0043
Mercury	82466-08-07 21:08 G	31841367.27	31841367.38	31841367.50	0.0264	0.0150
Mercury	82466-11-04 08:24 G	31841455.83	31841455.85	31841455.88	0.0264	0.0259
Mars	82469-10-02 15:36 G	31842518.92	31842519.15	31842519.41	0.0269	0.0146
Moon	82475-10-24 08:39 G	31844731.66	31844731.86	31844732.07	0.0288	0.0144
Earth	82475-10-24 10:20 G	31844731.74	31844731.93	31844732.15	0.0288	0.0155 *
Venus	82478-06-14 10:48 G	31845695.76	31845695.95	31845696.15	0.0295	0.0104
Venus	82479-01-30 08:39 G	31845925.67	31845925.86	31845926.06	0.0296	0.0106
Mercury	82480-09-17 08:24 G	31846521.69	31846521.85	31846522.01	0.0297	0.0113
Mercury	82480-12-15 06:58 G	31846610.62	31846610.79	31846610.95	0.0297	0.0079
Mercury	82481-03-14 04:34 G	31846699.63	31846699.69	31846699.78	0.0297	0.0265
Mars	82483-10-02 20:53 G	31847632.19	31847632.37	31847632.55	0.0292	0.0234
Earth	82489-04-17 08:24 G	31849655.77	31849655.85	31849655.96	0.0273	0.0253
Moon	82489-04-17 12:00 G	31849655.95	31849656.00	31849656.05	0.0273	0.0266 *
Earth	82490-04-29 18:29 G	31850033.07	31850033.27	31850033.50	0.0270	0.0133
Moon	82490-04-29 21:08 G	31850033.16	31850033.38	31850033.61	0.0270	0.0117 *
Venus	82492-04-13 23:32 G	31850748.34	31850748.48	31850748.63	0.0266	0.0194

Venus	82492-11-29 03:08 G	31850977.42	31850977.63	31850977.85	0.0265	0.0040
Venus	82493-07-16 06:00 G	31851206.56	31851206.75	31851206.95	0.0264	0.0114
Venus	82494-03-02 08:39 G	31851435.86	31851435.86	31851435.86	0.0264	0.0264
Mercury	82495-04-04 14:53 G	31851834.03	31851834.12	31851834.22	0.0264	0.0196
Mercury	82495-07-02 01:41 G	31851922.44	31851922.57	31851922.70	0.0264	0.0092
Mercury	82495-09-28 12:44 G	31852010.89	31852011.03	31852011.17	0.0264	0.0014
Mercury	82495-12-25 23:46 G	31852099.36	31852099.49	31852099.61	0.0264	0.0119
Mercury	82496-03-23 11:03 G	31852187.89	31852187.96	31852188.03	0.0264	0.0228
Moon	82505-11-01 06:29 G	31855696.54	31855696.77	31855697.01	0.0290	0.0111
Earth	82505-11-01 08:53 G	31855696.65	31855696.87	31855697.11	0.0290	0.0096 *
Venus	82507-05-10 17:03 G	31856252.16	31856252.21	31856252.27	0.0294	0.0282
Venus	82507-12-26 13:56 G	31856481.88	31856482.08	31856482.28	0.0295	0.0078
Venus	82508-08-12 11:32 G	31856711.80	31856711.98	31856712.18	0.0296	0.0131
Mercury	82510-02-05 05:32 G	31857253.60	31857253.73	31857253.87	0.0296	0.0182
Mercury	82510-05-05 04:20 G	31857342.50	31857342.68	31857342.85	0.0296	0.0012
Mercury	82510-08-02 02:10 G	31857431.47	31857431.59	31857431.72	0.0296	0.0197
Moon	82519-04-25 12:15 G	31860619.78	31860620.01	31860620.25	0.0272	0.0054
Earth	82519-04-25 14:53 G	31860619.88	31860620.12	31860620.36	0.0272	0.0038 *
Venus	82521-10-26 03:22 G	31861534.49	31861534.64	31861534.81	0.0267	0.0173
Venus	82522-06-12 07:12 G	31861763.59	31861763.80	31861764.02	0.0266	0.0017
Venus	82523-01-27 10:20 G	31861992.75	31861992.93	31861993.12	0.0265	0.0137
Mercury	82524-08-22 18:00 G	31862566.17	31862566.25	31862566.32	0.0264	0.0223
Mercury	82524-11-19 04:34 G	31862654.57	31862654.69	31862654.81	0.0264	0.0119
Mercury	82525-02-15 15:22 G	31862743.01	31862743.14	31862743.28	0.0264	0.0017
Mercury	82525-05-15 02:24 G	31862831.47	31862831.60	31862831.74	0.0264	0.0093
Mercury	82525-08-11 13:41 G	31862919.98	31862920.07	31862920.16	0.0265	0.0201
Earth	82534-10-26 21:36 G	31866283.18	31866283.40	31866283.63	0.0288	0.0103
Moon	82534-10-26 23:46 G	31866283.27	31866283.49	31866283.73	0.0288	0.0091 *
Venus	82536-11-20 03:51 G	31867038.55	31867038.66	31867038.78	0.0294	0.0245
Venus	82537-07-08 00:58 G	31867268.33	31867268.54	31867268.74	0.0295	0.0040

Venus	82538-02-22 22:34 G	31867498.28	31867498.44	31867498.62	0.0296	0.0169
Mercury	82539-06-25 06:29 G	31867985.66	31867985.77	31867985.89	0.0297	0.0221
Mercury	82539-09-22 05:17 G	31868074.55	31868074.72	31868074.90	0.0297	0.0029
Mercury	82539-12-20 03:36 G	31868163.51	31868163.65	31868163.79	0.0297	0.0161
Earth	82548-04-19 16:05 G	31871207.02	31871207.17	31871207.34	0.0273	0.0208
Moon	82548-04-19 18:44 G	31871207.15	31871207.28	31871207.44	0.0273	0.0223 *
Moon	82549-05-02 00:15 G	31871584.32	31871584.51	31871584.72	0.0270	0.0161
Earth	82549-05-02 02:24 G	31871584.41	31871584.60	31871584.79	0.0270	0.0175 *
Venus	82551-05-08 09:51 G	31872320.73	31872320.91	31872321.09	0.0266	0.0144
Venus	82551-12-23 13:27 G	31872549.84	31872550.06	31872550.27	0.0265	0.0011
Venus	82552-08-08 16:20 G	31872779.01	31872779.18	31872779.35	0.0264	0.0163
Mercury	82554-01-09 20:53 G	31873298.33	31873298.37	31873298.42	0.0264	0.0248
Mercury	82554-04-08 07:41 G	31873386.70	31873386.82	31873386.93	0.0264	0.0145
Mercury	82554-07-05 18:29 G	31873475.13	31873475.27	31873475.41	0.0264	0.0041
Mercury	82554-10-02 05:32 G	31873563.59	31873563.73	31873563.86	0.0264	0.0065
Mercury	82554-12-29 16:34 G	31873652.09	31873652.19	31873652.30	0.0264	0.0173
Mars	82558-02-27 18:29 G	31874808.13	31874808.27	31874808.44	0.0269	0.0226
Moon	82564-11-02 18:44 G	31877248.08	31877248.28	31877248.48	0.0290	0.0167
Earth	82564-11-02 21:51 G	31877248.21	31877248.41	31877248.63	0.0290	0.0151 *
Venus	82566-06-02 07:41 G	31877824.69	31877824.82	31877824.97	0.0294	0.0219
Venus	82567-01-18 05:03 G	31878054.50	31878054.71	31878054.91	0.0295	0.0014
Venus	82567-09-05 02:53 G	31878284.46	31878284.62	31878284.78	0.0296	0.0195
Mercury	82568-11-11 04:05 G	31878717.64	31878717.67	31878717.72	0.0296	0.0286
Mercury	82569-02-08 03:08 G	31878806.47	31878806.63	31878806.80	0.0296	0.0092
Mercury	82569-05-08 01:27 G	31878895.40	31878895.56	31878895.73	0.0296	0.0098
Mercury	82569-08-04 23:17 G	31878984.43	31878984.47	31878984.52	0.0296	0.0283
Earth	82578-04-26 23:03 G	31882171.22	31882171.46	31882171.71	0.0272	0.0007
Moon	82578-04-27 01:12 G	31882171.31	31882171.55	31882171.79	0.0272	0.0010 *
Venus	82580-11-17 13:56 G	31883106.90	31883107.08	31883107.28	0.0267	0.0122
Venus	82581-07-04 17:46 G	31883336.03	31883336.24	31883336.45	0.0266	0.0034

Venus	82582-02-18 20:39 G	31883565.22	31883565.36	31883565.52	0.0265	0.0187
Mercury	82583-08-26 10:34 G	31884118.83	31884118.94	31884119.04	0.0264	0.0173
Mercury	82583-11-22 21:22 G	31884207.25	31884207.39	31884207.52	0.0264	0.0068
Mercury	82584-02-19 08:10 G	31884295.71	31884295.84	31884295.98	0.0265	0.0039
Mercury	82584-05-17 19:27 G	31884384.19	31884384.31	31884384.43	0.0265	0.0145
Mercury	82584-08-14 06:29 G	31884472.75	31884472.77	31884472.82	0.0265	0.0255
Earth	82593-10-28 11:32 G	31887834.74	31887834.98	31887835.22	0.0289	0.0048
Moon	82593-10-28 14:53 G	31887834.88	31887835.12	31887835.37	0.0289	0.0035 *
Venus	82595-12-13 19:41 G	31888611.15	31888611.32	31888611.48	0.0294	0.0180
Venus	82596-07-30 16:48 G	31888841.00	31888841.20	31888841.41	0.0295	0.0027
Venus	82597-03-17 14:53 G	31889070.99	31889071.12	31889071.24	0.0296	0.0236
Mercury	82598-06-28 04:34 G	31889538.54	31889538.69	31889538.85	0.0297	0.0127
Mercury	82598-09-25 03:08 G	31889627.47	31889627.63	31889627.80	0.0297	0.0066
Mercury	82598-12-23 01:12 G	31889716.46	31889716.55	31889716.64	0.0296	0.0251
Moon	82607-04-23 00:15 G	31892758.32	31892758.51	31892758.71	0.0273	0.0176
Earth	82607-04-23 02:10 G	31892758.40	31892758.59	31892758.80	0.0273	0.0161 *
Moon	82608-05-04 08:24 G	31893135.70	31893135.85	31893136.01	0.0270	0.0207
Earth	82608-05-04 12:00 G	31893135.87	31893136.00	31893136.15	0.0270	0.0221 *
Venus	82609-10-14 17:03 G	31893664.14	31893664.21	31893664.30	0.0267	0.0247
Venus	82610-05-31 21:08 G	31893893.19	31893893.38	31893893.59	0.0266	0.0092
Venus	82611-01-16 00:44 G	31894122.32	31894122.53	31894122.74	0.0265	0.0063
Venus	82611-09-02 03:36 G	31894351.53	31894351.65	31894351.78	0.0264	0.0215
Mercury	82613-01-13 13:56 G	31894850.99	31894851.08	31894851.17	0.0264	0.0195
Mercury	82613-04-12 00:29 G	31894939.40	31894939.52	31894939.66	0.0264	0.0093
Mercury	82613-07-09 11:32 G	31895027.84	31895027.98	31895028.12	0.0264	0.0013
Mercury	82613-10-05 22:34 G	31895116.32	31895116.44	31895116.57	0.0264	0.0120
Mercury	82614-01-02 09:51 G	31895204.84	31895204.91	31895204.98	0.0264	0.0229
Moon	82622-10-23 13:56 G	31898420.95	31898421.08	31898421.21	0.0287	0.0239
Earth	82622-10-23 17:17 G	31898421.11	31898421.22	31898421.35	0.0287	0.0250 *
Earth	82623-11-06 14:39 G	31898799.94	31898800.11	31898800.28	0.0290	0.0210

Moon	82623-11-06 14:24 G	31898799.95	31898800.10	31898800.24	0.0290	0.0226 *
Venus	82625-06-26 00:58 G	31899397.37	31899397.54	31899397.72	0.0294	0.0151
Venus	82626-02-10 22:05 G	31899627.22	31899627.42	31899627.63	0.0295	0.0057
Venus	82626-09-28 20:10 G	31899857.25	31899857.34	31899857.44	0.0296	0.0264
Mercury	82627-11-16 02:53 G	31900270.49	31900270.62	31900270.76	0.0296	0.0187
Mercury	82628-02-13 01:41 G	31900359.39	31900359.57	31900359.74	0.0296	0.0007
Mercury	82628-05-11 23:46 G	31900448.36	31900448.49	31900448.62	0.0296	0.0193
Earth	82637-04-29 08:53 G	31903722.63	31903722.87	31903723.12	0.0272	0.0053
Moon	82637-04-29 12:29 G	31903722.78	31903723.02	31903723.27	0.0272	0.0038 *
Venus	82639-04-26 20:53 G	31904450.27	31904450.37	31904450.50	0.0267	0.0226
Venus	82639-12-12 01:12 G	31904679.35	31904679.55	31904679.77	0.0266	0.0070
Venus	82640-07-28 04:48 G	31904908.50	31904908.70	31904908.91	0.0266	0.0086
Venus	82641-03-14 07:56 G	31905137.74	31905137.83	31905137.93	0.0265	0.0238
Mercury	82642-06-02 16:34 G	31905583.12	31905583.19	31905583.27	0.0265	0.0224
Mercury	82642-08-30 03:22 G	31905671.52	31905671.64	31905671.76	0.0265	0.0120
Mercury	82642-11-26 14:10 G	31905759.95	31905760.09	31905760.23	0.0265	0.0016
Mercury	82643-02-23 01:12 G	31905848.42	31905848.55	31905848.68	0.0265	0.0092
Mercury	82643-05-22 12:29 G	31905936.93	31905937.02	31905937.11	0.0265	0.0200
Earth	82652-10-31 03:08 G	31909386.38	31909386.63	31909386.87	0.0289	0.0010
Moon	82652-10-31 03:36 G	31909386.40	31909386.65	31909386.90	0.0289	0.0023 *
Venus	82655-01-06 12:29 G	31910183.83	31910184.02	31910184.21	0.0295	0.0111
Venus	82655-08-24 10:05 G	31910413.72	31910413.92	31910414.11	0.0296	0.0097
Mercury	82657-04-04 04:20 G	31911002.57	31911002.68	31911002.80	0.0297	0.0222
Mercury	82657-07-02 03:22 G	31911091.46	31911091.64	31911091.81	0.0297	0.0029
Mercury	82657-09-29 01:27 G	31911180.42	31911180.56	31911180.71	0.0297	0.0161
Moon	82666-04-24 10:34 G	31914309.72	31914309.94	31914310.15	0.0273	0.0128
Earth	82666-04-24 13:56 G	31914309.86	31914310.08	31914310.31	0.0273	0.0112 *
Moon	82667-05-06 23:03 G	31914687.40	31914687.46	31914687.54	0.0270	0.0258
Earth	82667-05-06 22:48 G	31914687.44	31914687.45	31914687.50	0.0270	0.0268 *
Venus	82668-11-06 05:32 G	31915236.59	31915236.73	31915236.88	0.0267	0.0193

Venus	82669-06-23 09:22 G	31915465.68	31915465.89	31915466.11	0.0266	0.0038
Venus	82670-02-07 12:44 G	31915694.84	31915695.03	31915695.23	0.0265	0.0116
Mercury	82671-10-20 20:10 G	31916315.29	31916315.34	31916315.39	0.0264	0.0244
Mercury	82672-01-17 06:44 G	31916403.67	31916403.78	31916403.90	0.0264	0.0142
Mercury	82672-04-14 17:46 G	31916492.10	31916492.24	31916492.38	0.0264	0.0037
Mercury	82672-07-12 04:48 G	31916580.56	31916580.70	31916580.83	0.0264	0.0070
Mercury	82672-10-08 15:51 G	31916669.06	31916669.16	31916669.26	0.0264	0.0177
Moon	82681-10-25 10:05 G	31919972.74	31919972.92	31919973.11	0.0287	0.0179
Earth	82681-10-25 10:05 G	31919972.75	31919972.92	31919973.12	0.0287	0.0192 *
Earth	82682-11-08 07:56 G	31920351.75	31920351.83	31920351.93	0.0291	0.0271
Moon	82682-11-08 10:48 G	31920351.93	31920351.95	31920352.00	0.0291	0.0288 *
Venus	82683-12-01 22:20 G	31920740.39	31920740.43	31920740.48	0.0293	0.0284
Venus	82684-07-18 18:58 G	31920970.09	31920970.29	31920970.49	0.0295	0.0081
Venus	82685-03-05 16:20 G	31921199.99	31921200.18	31921200.37	0.0295	0.0126
Mercury	82686-08-22 03:08 G	31921734.57	31921734.63	31921734.69	0.0296	0.0278
Mercury	82686-11-19 02:10 G	31921823.42	31921823.59	31921823.75	0.0296	0.0084
Mercury	82687-02-16 00:29 G	31921912.36	31921912.52	31921912.68	0.0296	0.0106
Mercury	82687-05-15 22:20 G	31922001.40	31922001.43	31922001.46	0.0296	0.0291
Moon	82696-04-30 20:10 G	31925274.10	31925274.34	31925274.59	0.0271	0.0087
Earth	82696-04-30 20:10 G	31925274.12	31925274.34	31925274.58	0.0271	0.0101 *
Venus	82698-05-19 09:08 G	31926022.72	31926022.88	31926023.05	0.0267	0.0171
Venus	82699-01-03 13:12 G	31926251.83	31926252.05	31926252.26	0.0266	0.0016
Venus	82699-08-20 16:20 G	31926481.00	31926481.18	31926481.37	0.0265	0.0139
Mercury	82701-06-06 09:22 G	31927135.79	31927135.89	31927136.00	0.0265	0.0172
Mercury	82701-09-02 20:10 G	31927224.21	31927224.34	31927224.48	0.0265	0.0068
Mercury	82701-11-30 07:12 G	31927312.66	31927312.80	31927312.94	0.0265	0.0039
Mercury	82702-02-26 18:15 G	31927401.15	31927401.26	31927401.38	0.0265	0.0147
Mercury	82702-05-26 05:32 G	31927489.70	31927489.73	31927489.77	0.0265	0.0256
Mars	82704-11-03 01:56 G	31928381.40	31928381.58	31928381.78	0.0268	0.0204
Moon	82711-11-03 16:05 G	31930937.94	31930938.17	31930938.42	0.0289	0.0085

Earth	82711-11-03 19:41 G	31930938.08	31930938.32	31930938.55	0.0289	0.0069	*
Venus	82713-06-14 09:08 G	31931526.77	31931526.88	31931527.00	0.0294	0.0246	
Venus	82714-01-30 06:15 G	31931756.55	31931756.76	31931756.96	0.0295	0.0041	
Venus	82714-09-17 03:51 G	31931986.50	31931986.66	31931986.84	0.0296	0.0168	
Mercury	82716-04-08 03:36 G	31932555.49	31932555.65	31932555.81	0.0297	0.0119	
Mercury	82716-07-06 02:10 G	31932644.42	31932644.59	31932644.76	0.0297	0.0072	
Mercury	82716-10-03 00:00 G	31932733.42	31932733.50	31932733.59	0.0296	0.0259	
Mars	82718-10-31 05:17 G	31933491.64	31933491.72	31933491.84	0.0293	0.0275	
Moon	82725-04-27 01:12 G	31935861.32	31935861.55	31935861.78	0.0272	0.0077	
Earth	82725-04-27 01:41 G	31935861.34	31935861.57	31935861.81	0.0272	0.0063	*
Venus	82727-11-30 17:32 G	31936809.06	31936809.23	31936809.42	0.0266	0.0139	
Venus	82728-07-16 21:22 G	31937038.18	31937038.39	31937038.61	0.0265	0.0017	
Venus	82729-03-03 00:29 G	31937267.36	31937267.52	31937267.69	0.0265	0.0170	
Mercury	82730-10-24 12:58 G	31937867.96	31937868.04	31937868.14	0.0264	0.0192	
Mercury	82731-01-21 00:00 G	31937956.37	31937956.50	31937956.63	0.0264	0.0088	
Mercury	82731-04-19 10:48 G	31938044.81	31938044.95	31938045.09	0.0264	0.0017	
Mercury	82731-07-16 21:51 G	31938133.29	31938133.41	31938133.53	0.0264	0.0124	
Mercury	82731-10-13 08:53 G	31938221.82	31938221.87	31938221.95	0.0264	0.0234	
Earth	82740-10-28 02:53 G	31941524.41	31941524.62	31941524.84	0.0288	0.0133	
Moon	82740-10-28 06:44 G	31941524.56	31941524.78	31941525.00	0.0288	0.0117	*
Venus	82742-12-25 15:51 G	31942313.03	31942313.16	31942313.31	0.0294	0.0216	
Venus	82743-08-12 12:44 G	31942542.83	31942543.03	31942543.24	0.0295	0.0012	
Venus	82744-03-29 10:20 G	31942772.78	31942772.93	31942773.09	0.0296	0.0197	
Mercury	82745-08-26 02:10 G	31943287.45	31943287.59	31943287.74	0.0296	0.0176	
Mercury	82745-11-23 00:58 G	31943376.37	31943376.54	31943376.71	0.0296	0.0017	
Mercury	82746-02-19 23:03 G	31943465.34	31943465.46	31943465.59	0.0296	0.0204	
Earth	82754-04-21 20:53 G	31946448.25	31946448.37	31946448.49	0.0274	0.0237	
Moon	82754-04-21 21:51 G	31946448.32	31946448.41	31946448.52	0.0274	0.0251	*
Moon	82755-05-04 04:05 G	31946825.46	31946825.67	31946825.89	0.0271	0.0136	
Earth	82755-05-04 07:41 G	31946825.61	31946825.82	31946826.03	0.0271	0.0147	*

Venus	82757-06-11 20:53 G	31947595.18	31947595.37	31947595.57	0.0267	0.0118
Venus	82758-01-27 00:44 G	31947824.32	31947824.53	31947824.74	0.0266	0.0038
Venus	82758-09-13 03:36 G	31948053.51	31948053.65	31948053.81	0.0265	0.0191
Mercury	82760-03-12 15:36 G	31948600.08	31948600.15	31948600.22	0.0265	0.0223
Mercury	82760-06-09 02:24 G	31948688.47	31948688.60	31948688.72	0.0265	0.0120
Mercury	82760-09-05 13:12 G	31948776.91	31948777.05	31948777.19	0.0265	0.0015
Mercury	82760-12-03 00:15 G	31948865.38	31948865.51	31948865.64	0.0265	0.0092
Mercury	82761-03-01 11:17 G	31948953.89	31948953.97	31948954.07	0.0265	0.0201
Moon	82770-11-05 07:27 G	31952489.61	31952489.81	31952490.02	0.0290	0.0142
Earth	82770-11-05 10:05 G	31952489.71	31952489.92	31952490.15	0.0290	0.0125 *
Venus	82772-07-07 01:27 G	31953099.40	31953099.56	31953099.73	0.0294	0.0179
Venus	82773-02-21 22:48 G	31953329.24	31953329.45	31953329.66	0.0295	0.0028
Venus	82773-10-09 20:53 G	31953559.25	31953559.37	31953559.50	0.0296	0.0237
Mercury	82775-01-13 03:08 G	31954019.52	31954019.63	31954019.75	0.0297	0.0216
Mercury	82775-04-12 02:10 G	31954108.41	31954108.59	31954108.76	0.0297	0.0022
Mercury	82775-07-10 00:15 G	31954197.37	31954197.51	31954197.66	0.0297	0.0168
Earth	82784-04-28 12:58 G	31957412.80	31957413.04	31957413.29	0.0272	0.0015
Moon	82784-04-28 16:05 G	31957412.93	31957413.17	31957413.41	0.0272	0.0030 *
Venus	82786-05-08 00:58 G	31958152.46	31958152.54	31958152.64	0.0267	0.0241
Venus	82786-12-23 05:17 G	31958381.52	31958381.72	31958381.93	0.0266	0.0086
Venus	82787-08-09 08:53 G	31958610.66	31958610.87	31958611.08	0.0265	0.0069
Venus	82788-03-25 11:32 G	31958839.88	31958839.98	31958840.11	0.0264	0.0222
Mercury	82789-07-30 19:12 G	31959332.25	31959332.30	31959332.35	0.0264	0.0244
Mercury	82789-10-27 05:46 G	31959420.63	31959420.74	31959420.86	0.0264	0.0141
Mercury	82790-01-23 16:48 G	31959509.06	31959509.20	31959509.33	0.0264	0.0037
Mercury	82790-04-22 03:36 G	31959597.52	31959597.65	31959597.79	0.0264	0.0070
Mercury	82790-07-19 14:53 G	31959686.01	31959686.12	31959686.22	0.0264	0.0178
Mars	82793-03-30 15:36 G	31960670.89	31960671.15	31960671.42	0.0268	0.0107
Earth	82799-10-30 17:46 G	31963076.01	31963076.24	31963076.48	0.0288	0.0077
Moon	82799-10-30 20:10 G	31963076.10	31963076.34	31963076.59	0.0288	0.0060 *

Venus	82802-01-17 08:39 G	31963885.69	31963885.86	31963886.04	0.0294	0.0148
Venus	82802-09-04 06:00 G	31964115.55	31964115.75	31964115.95	0.0295	0.0059
Venus	82803-04-22 03:51 G	31964345.57	31964345.66	31964345.75	0.0296	0.0267
Mercury	82804-06-01 01:56 G	31964751.52	31964751.58	31964751.66	0.0296	0.0272
Mercury	82804-08-29 00:58 G	31964840.38	31964840.54	31964840.71	0.0296	0.0077
Mercury	82804-11-25 23:32 G	31964929.32	31964929.48	31964929.64	0.0296	0.0114
Mars	82807-03-27 17:46 G	31965781.01	31965781.24	31965781.50	0.0292	0.0160
Moon	82813-04-23 04:48 G	31967999.54	31967999.70	31967999.87	0.0273	0.0205
Earth	82813-04-23 07:56 G	31967999.66	31967999.83	31968000.01	0.0273	0.0189 *
Moon	82814-05-05 15:22 G	31968376.97	31968377.14	31968377.32	0.0270	0.0181
Earth	82814-05-05 17:32 G	31968377.07	31968377.23	31968377.42	0.0270	0.0193 *
Venus	82815-11-18 03:36 G	31968938.54	31968938.65	31968938.78	0.0267	0.0221
Venus	82816-07-04 07:56 G	31969167.62	31969167.83	31969168.04	0.0266	0.0065
Venus	82817-02-18 11:17 G	31969396.77	31969396.97	31969397.18	0.0265	0.0090
Venus	82817-10-05 14:10 G	31969626.01	31969626.09	31969626.18	0.0265	0.0242
Mercury	82819-03-16 08:10 G	31970152.74	31970152.84	31970152.94	0.0264	0.0175
Mercury	82819-06-12 18:44 G	31970241.15	31970241.28	31970241.42	0.0264	0.0071
Mercury	82819-09-09 05:46 G	31970329.60	31970329.74	31970329.88	0.0265	0.0035
Mercury	82819-12-06 16:48 G	31970418.08	31970418.20	31970418.32	0.0265	0.0143
Mercury	82820-03-04 04:05 G	31970506.63	31970506.67	31970506.71	0.0265	0.0252
Moon	82828-10-23 23:03 G	31973662.38	31973662.46	31973662.55	0.0287	0.0267
Earth	82828-10-24 00:44 G	31973662.49	31973662.53	31973662.60	0.0287	0.0280 *
Earth	82829-11-06 22:20 G	31974041.24	31974041.43	31974041.63	0.0290	0.0178
Moon	82829-11-07 00:00 G	31974041.34	31974041.50	31974041.68	0.0290	0.0195 *
Venus	82831-07-30 16:34 G	31974672.00	31974672.19	31974672.38	0.0295	0.0114
Venus	82832-03-16 13:56 G	31974901.89	31974902.08	31974902.28	0.0296	0.0095
Mercury	82834-01-16 01:12 G	31975572.39	31975572.55	31975572.71	0.0297	0.0123
Mercury	82834-04-14 23:46 G	31975661.32	31975661.49	31975661.66	0.0297	0.0069
Mercury	82834-07-12 21:36 G	31975750.33	31975750.40	31975750.50	0.0297	0.0257
Earth	82843-04-30 22:34 G	31978964.20	31978964.44	31978964.69	0.0271	0.0031

Moon	82843-05-01 01:41 G	31978964.31	31978964.57	31978964.82	0.0271	0.0016	*
Venus	82845-05-30 11:46 G	31979724.84	31979724.99	31979725.14	0.0267	0.0190	
Venus	82846-01-14 15:36 G	31979953.94	31979954.15	31979954.37	0.0266	0.0035	
Venus	82846-08-31 18:58 G	31980183.10	31980183.29	31980183.48	0.0265	0.0120	
Mercury	82848-08-02 11:32 G	31980884.89	31980884.98	31980885.07	0.0264	0.0196	
Mercury	82848-10-29 22:20 G	31980973.30	31980973.43	31980973.56	0.0264	0.0093	
Mercury	82849-01-26 09:08 G	31981061.74	31981061.88	31981062.02	0.0264	0.0013	
Mercury	82849-04-24 20:10 G	31981150.22	31981150.34	31981150.47	0.0264	0.0119	
Mercury	82849-07-22 07:27 G	31981238.74	31981238.81	31981238.88	0.0264	0.0227	
Moon	82858-11-01 02:53 G	31984627.37	31984627.62	31984627.87	0.0289	0.0009	
Earth	82858-11-01 05:03 G	31984627.47	31984627.71	31984627.96	0.0289	0.0025	*
Venus	82860-06-24 02:39 G	31985228.57	31985228.61	31985228.65	0.0293	0.0287	
Venus	82861-02-08 23:17 G	31985458.27	31985458.47	31985458.67	0.0295	0.0084	
Venus	82861-09-26 20:39 G	31985688.18	31985688.36	31985688.55	0.0296	0.0125	
Mercury	82863-06-04 23:46 G	31986304.36	31986304.49	31986304.63	0.0297	0.0180	
Mercury	82863-09-01 22:34 G	31986393.27	31986393.44	31986393.62	0.0296	0.0014	
Mercury	82863-11-29 20:53 G	31986482.24	31986482.37	31986482.49	0.0296	0.0202	
Moon	82872-04-24 14:24 G	31989550.91	31989551.10	31989551.30	0.0273	0.0160	
Earth	82872-04-24 16:48 G	31989551.01	31989551.20	31989551.42	0.0273	0.0144	*
Earth	82873-05-07 01:41 G	31989928.46	31989928.57	31989928.70	0.0270	0.0235	
Moon	82873-05-07 03:36 G	31989928.53	31989928.65	31989928.78	0.0270	0.0226	*
Venus	82874-12-10 13:41 G	31990510.91	31990511.07	31990511.24	0.0267	0.0170	
Venus	82875-07-27 17:32 G	31990740.02	31990740.23	31990740.45	0.0266	0.0015	
Venus	82876-03-12 20:39 G	31990969.19	31990969.36	31990969.55	0.0265	0.0140	
Mercury	82877-12-20 13:27 G	31991617.00	31991617.06	31991617.13	0.0264	0.0232	
Mercury	82878-03-19 00:15 G	31991705.39	31991705.51	31991705.63	0.0264	0.0129	
Mercury	82878-06-15 11:03 G	31991793.82	31991793.96	31991794.10	0.0264	0.0024	
Mercury	82878-09-11 21:51 G	31991882.28	31991882.41	31991882.55	0.0264	0.0083	
Mercury	82878-12-09 09:08 G	31991970.78	31991970.88	31991970.98	0.0264	0.0190	
Mars	82881-08-24 07:56 G	31992959.55	31992959.83	31992960.13	0.0268	0.0049	

Earth	82887-10-26 08:24 G	31995213.72	31995213.85	31995214.01	0.0287	0.0233
Moon	82887-10-26 10:34 G	31995213.80	31995213.94	31995214.10	0.0287	0.0219 *
Earth	82888-11-08 06:44 G	31995592.64	31995592.78	31995592.94	0.0290	0.0226
Moon	82888-11-08 10:20 G	31995592.81	31995592.93	31995593.07	0.0290	0.0243 *
Venus	82890-01-04 08:10 G	31996014.74	31996014.84	31996014.94	0.0294	0.0257
Venus	82890-08-22 05:17 G	31996244.51	31996244.72	31996244.92	0.0295	0.0052
Venus	82891-04-09 03:08 G	31996474.45	31996474.63	31996474.81	0.0296	0.0157
Mercury	82892-10-21 23:03 G	31997036.35	31997036.46	31997036.57	0.0297	0.0235
Mercury	82893-01-18 22:05 G	31997125.24	31997125.42	31997125.59	0.0297	0.0040
Mercury	82893-04-17 20:24 G	31997214.20	31997214.35	31997214.50	0.0297	0.0151
Mars	82895-08-22 09:08 G	31998070.59	31998070.88	31998071.17	0.0293	0.0051
Moon	82902-05-03 04:20 G	32000515.43	32000515.68	32000515.93	0.0271	0.0061
Earth	82902-05-03 05:46 G	32000515.51	32000515.74	32000515.99	0.0271	0.0075 *
Venus	82904-06-22 20:53 G	32001297.20	32001297.37	32001297.56	0.0266	0.0141
Venus	82905-02-07 00:44 G	32001526.31	32001526.53	32001526.75	0.0265	0.0015
Venus	82905-09-24 03:36 G	32001755.49	32001755.65	32001755.82	0.0264	0.0168
Mercury	82907-05-10 17:03 G	32002349.18	32002349.21	32002349.24	0.0264	0.0254
Jupiter	82907-07-05 07:27 G	32002404.37	32002404.81	32002405.28	0.0264	0.0052
Mercury	82907-08-07 03:36 G	32002437.54	32002437.65	32002437.76	0.0264	0.0152
Mercury	82907-11-03 14:24 G	32002525.96	32002526.10	32002526.23	0.0264	0.0048
Mercury	82908-01-31 01:12 G	32002614.42	32002614.55	32002614.69	0.0264	0.0057
Mercury	82908-04-28 12:15 G	32002702.91	32002703.01	32002703.12	0.0264	0.0165
Moon	82917-11-03 09:08 G	32006178.64	32006178.88	32006179.12	0.0289	0.0038
Earth	82917-11-03 12:29 G	32006178.78	32006179.02	32006179.27	0.0289	0.0022 *
Venus	82919-07-18 14:39 G	32006800.98	32006801.11	32006801.24	0.0294	0.0228
Venus	82920-03-04 11:32 G	32007030.77	32007030.98	32007031.19	0.0295	0.0023
Venus	82920-10-20 09:08 G	32007260.73	32007260.88	32007261.05	0.0296	0.0187
Mercury	82922-03-11 21:22 G	32007768.37	32007768.39	32007768.40	0.0297	0.0295
Mercury	82922-06-08 20:24 G	32007857.19	32007857.35	32007857.52	0.0297	0.0099
Mercury	82922-09-05 18:58 G	32007946.13	32007946.29	32007946.46	0.0297	0.0093

Mercury	82922-12-03 16:48 G	32008035.16	32008035.20	32008035.26	0.0296	0.0281
Earth	82931-04-27 23:32 G	32011102.25	32011102.48	32011102.71	0.0272	0.0101
Moon	82931-04-28 01:12 G	32011102.34	32011102.55	32011102.78	0.0272	0.0116 *
Moon	82932-05-09 11:17 G	32011479.94	32011479.97	32011480.01	0.0269	0.0266
Venus	82934-01-02 22:05 G	32012083.24	32012083.42	32012083.62	0.0266	0.0122
Venus	82934-08-20 01:41 G	32012312.36	32012312.57	32012312.79	0.0265	0.0034
Venus	82935-04-06 04:34 G	32012541.55	32012541.69	32012541.85	0.0265	0.0187
Mercury	82936-12-24 05:17 G	32013169.63	32013169.72	32013169.82	0.0264	0.0190
Mercury	82937-03-22 16:05 G	32013258.04	32013258.17	32013258.30	0.0264	0.0087
Mercury	82937-06-19 02:53 G	32013346.48	32013346.62	32013346.76	0.0264	0.0019
Mercury	82937-09-15 13:41 G	32013434.95	32013435.07	32013435.20	0.0264	0.0125
Mercury	82937-12-13 00:58 G	32013523.48	32013523.54	32013523.60	0.0264	0.0233
Earth	82946-10-28 12:15 G	32016764.84	32016765.01	32016765.21	0.0287	0.0192
Moon	82946-10-28 15:51 G	32016764.98	32016765.16	32016765.37	0.0287	0.0176 *
Earth	82947-11-11 11:03 G	32017143.88	32017143.96	32017144.06	0.0291	0.0268
Moon	82947-11-11 11:17 G	32017143.92	32017143.97	32017144.04	0.0291	0.0282 *
Venus	82949-01-27 18:00 G	32017587.10	32017587.25	32017587.40	0.0294	0.0201
Venus	82949-09-14 15:22 G	32017816.93	32017817.14	32017817.35	0.0295	0.0006
Venus	82950-05-02 13:27 G	32018046.92	32018047.06	32018047.20	0.0296	0.0215
Mercury	82951-10-26 18:29 G	32018589.13	32018589.27	32018589.42	0.0297	0.0162
Mercury	82952-01-23 17:17 G	32018678.05	32018678.22	32018678.40	0.0297	0.0033
Mercury	82952-04-21 15:36 G	32018767.04	32018767.15	32018767.27	0.0297	0.0222
Earth	82960-04-21 23:46 G	32021689.44	32021689.49	32021689.55	0.0274	0.0266
Moon	82961-05-04 06:29 G	32022066.55	32022066.77	32022067.00	0.0271	0.0104
Earth	82961-05-04 10:20 G	32022066.71	32022066.93	32022067.15	0.0271	0.0114 *
Venus	82962-11-29 00:29 G	32022640.45	32022640.52	32022640.60	0.0267	0.0249
Venus	82963-07-16 04:34 G	32022869.49	32022869.69	32022869.89	0.0266	0.0093
Venus	82964-03-01 07:56 G	32023098.62	32023098.83	32023099.04	0.0265	0.0062
Venus	82964-10-16 10:34 G	32023327.82	32023327.94	32023328.07	0.0264	0.0214
Mercury	82966-05-13 08:24 G	32023901.78	32023901.85	32023901.93	0.0263	0.0214

Mercury	82966-08-09 18:58 G	32023990.17	32023990.29	32023990.42	0.0263	0.0113
Mercury	82966-11-06 06:00 G	32024078.61	32024078.75	32024078.88	0.0263	0.0011
Mercury	82967-02-02 16:48 G	32024167.07	32024167.20	32024167.33	0.0264	0.0098
Mercury	82967-05-02 03:51 G	32024255.58	32024255.66	32024255.75	0.0264	0.0206
Mars	82970-01-19 02:39 G	32025248.32	32025248.61	32025248.90	0.0268	0.0014
Moon	82976-11-04 15:08 G	32027729.91	32027730.13	32027730.36	0.0290	0.0079
Earth	82976-11-04 15:22 G	32027729.91	32027730.14	32027730.38	0.0290	0.0063 *
Venus	82978-08-10 00:00 G	32028373.33	32028373.50	32028373.67	0.0294	0.0173
Venus	82979-03-27 21:08 G	32028603.18	32028603.38	32028603.59	0.0296	0.0035
Venus	82979-11-12 18:58 G	32028833.19	32028833.29	32028833.42	0.0296	0.0245
Mercury	82981-03-14 16:48 G	32029321.09	32029321.20	32029321.32	0.0297	0.0223
Mercury	82981-06-11 15:51 G	32029409.98	32029410.16	32029410.33	0.0297	0.0028
Mercury	82981-09-08 14:10 G	32029498.95	32029499.09	32029499.24	0.0297	0.0163
Mars	82984-01-16 22:05 G	32030359.12	32030359.42	32030359.71	0.0293	0.0015
Earth	82990-04-29 03:36 G	32032653.41	32032653.65	32032653.89	0.0272	0.0061
Moon	82990-04-29 06:58 G	32032653.56	32032653.79	32032654.04	0.0272	0.0074 *
Venus	82992-06-10 01:12 G	32033426.46	32033426.55	32033426.67	0.0267	0.0231
Venus	82993-01-25 05:17 G	32033655.52	32033655.72	32033655.93	0.0266	0.0075
Venus	82993-09-11 08:24 G	32033884.65	32033884.85	32033885.06	0.0265	0.0080
Venus	82994-04-28 11:03 G	32034113.86	32034113.96	32034114.07	0.0264	0.0231
Mercury	82995-09-30 09:51 G	32034633.89	32034633.91	32034633.95	0.0264	0.0254
Mercury	82995-12-27 20:39 G	32034722.25	32034722.36	32034722.47	0.0264	0.0152
Mercury	82996-03-25 07:12 G	32034810.67	32034810.80	32034810.94	0.0264	0.0049
Mercury	82996-06-21 18:15 G	32034899.12	32034899.26	32034899.39	0.0264	0.0057
Mercury	82996-09-18 05:03 G	32034987.61	32034987.71	32034987.83	0.0264	0.0164

84TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 84th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	83005-10-30 12:29	G	32038315.80	32038316.02	32038316.25	0.0288	0.0137	
Earth	83005-10-30 12:44	G	32038315.83	32038316.03	32038316.24	0.0288	0.0154	*
Venus	83008-02-21 01:41	G	32039159.39	32039159.57	32039159.75	0.0294	0.0149	
Venus	83008-10-07 23:17	G	32039389.27	32039389.47	32039389.67	0.0296	0.0059	
Venus	83009-05-25 21:22	G	32039619.32	32039619.39	32039619.49	0.0296	0.0270	
Mercury	83010-08-02 13:41	G	32040053.06	32040053.07	32040053.09	0.0297	0.0295	
Mercury	83010-10-30 12:58	G	32040141.88	32040142.04	32040142.21	0.0297	0.0098	
Mercury	83011-01-27 11:46	G	32040230.83	32040230.99	32040231.15	0.0297	0.0096	
Mercury	83011-04-26 09:51	G	32040319.87	32040319.91	32040319.96	0.0297	0.0284	
Moon	83019-04-24 22:34	G	32043240.34	32043240.44	32043240.56	0.0274	0.0243	
Earth	83019-04-25 01:56	G	32043240.46	32043240.58	32043240.73	0.0274	0.0228	*
Earth	83020-05-06 12:00	G	32043617.80	32043618.00	32043618.20	0.0271	0.0151	
Moon	83020-05-06 12:15	G	32043617.81	32043618.01	32043618.21	0.0271	0.0145	*
Venus	83021-12-22 06:44	G	32044212.65	32044212.78	32044212.92	0.0267	0.0205	
Venus	83022-08-08 10:34	G	32044441.73	32044441.94	32044442.16	0.0266	0.0049	
Venus	83023-03-25 13:56	G	32044670.88	32044671.08	32044671.28	0.0265	0.0106	
Venus	83023-11-09 16:05	G	32044900.14	32044900.17	32044900.23	0.0264	0.0257	
Mercury	83025-05-16 23:46	G	32045454.39	32045454.49	32045454.59	0.0263	0.0178	
Mercury	83025-08-13 10:20	G	32045542.80	32045542.93	32045543.06	0.0263	0.0075	
Mercury	83025-11-09 21:08	G	32045631.24	32045631.38	32045631.52	0.0263	0.0030	
Mercury	83026-02-06 07:56	G	32045719.72	32045719.83	32045719.96	0.0263	0.0137	
Mercury	83026-05-05 19:12	G	32045808.25	32045808.30	32045808.35	0.0264	0.0244	

Earth	83035-11-07 15:08 G	32049280.90	32049281.13	32049281.36	0.0290	0.0099
Moon	83035-11-07 18:29 G	32049281.05	32049281.27	32049281.49	0.0290	0.0116 *
Venus	83037-09-02 07:12 G	32049945.61	32049945.80	32049945.99	0.0295	0.0122
Venus	83038-04-20 04:34 G	32050175.50	32050175.69	32050175.90	0.0296	0.0088
Mercury	83040-03-18 11:03 G	32050873.81	32050873.96	32050874.11	0.0297	0.0160
Mercury	83040-06-15 09:51 G	32050962.74	32050962.91	32050963.09	0.0297	0.0034
Mercury	83040-09-12 08:10 G	32051051.73	32051051.84	32051051.96	0.0297	0.0224
Moon	83049-05-01 05:03 G	32054204.46	32054204.71	32054204.96	0.0272	0.0034
Earth	83049-05-01 05:03 G	32054204.47	32054204.71	32054204.96	0.0272	0.0025 *
Venus	83051-07-04 07:27 G	32054998.66	32054998.81	32054998.97	0.0266	0.0186
Venus	83052-02-18 11:03 G	32055227.75	32055227.96	32055228.18	0.0265	0.0032
Venus	83052-10-04 13:56 G	32055456.90	32055457.08	32055457.28	0.0264	0.0123
Mercury	83054-10-04 01:12 G	32056186.47	32056186.55	32056186.62	0.0263	0.0218
Mercury	83054-12-31 11:46 G	32056274.87	32056274.99	32056275.11	0.0263	0.0115
Mercury	83055-03-29 22:20 G	32056363.30	32056363.43	32056363.57	0.0263	0.0015
Mercury	83055-06-26 09:22 G	32056451.76	32056451.89	32056452.02	0.0264	0.0094
Mercury	83055-09-22 20:10 G	32056540.26	32056540.34	32056540.44	0.0264	0.0201
Mars	83058-06-14 18:58 G	32057536.00	32057536.29	32057536.58	0.0268	0.0027
Moon	83064-10-31 06:00 G	32059866.52	32059866.75	32059866.98	0.0288	0.0104
Earth	83064-10-31 09:51 G	32059866.69	32059866.91	32059867.14	0.0288	0.0121 *
Venus	83067-03-15 07:12 G	32060731.61	32060731.80	32060732.00	0.0295	0.0101
Venus	83067-10-31 05:03 G	32060961.52	32060961.71	32060961.91	0.0296	0.0109
Mercury	83069-08-05 06:58 G	32061605.70	32061605.79	32061605.90	0.0297	0.0240
Mercury	83069-11-02 06:29 G	32061694.59	32061694.77	32061694.94	0.0297	0.0043
Mercury	83070-01-30 05:03 G	32061783.56	32061783.71	32061783.86	0.0297	0.0150
Mars	83072-06-11 20:10 G	32062647.05	32062647.34	32062647.63	0.0294	0.0045
Moon	83078-04-26 01:56 G	32064791.43	32064791.58	32064791.74	0.0274	0.0205
Earth	83078-04-26 02:24 G	32064791.43	32064791.60	32064791.78	0.0274	0.0191 *
Earth	83079-05-08 11:46 G	32065168.83	32065168.99	32065169.18	0.0270	0.0186
Moon	83079-05-08 15:22 G	32065168.98	32065169.14	32065169.33	0.0270	0.0184 *

Venus	83081-01-13 12:00 G	32065784.84	32065785.00	32065785.18	0.0266	0.0162
Venus	83081-08-30 15:51 G	32066013.94	32066014.16	32066014.37	0.0265	0.0006
Venus	83082-04-16 18:58 G	32066243.11	32066243.29	32066243.46	0.0264	0.0148
Mercury	83084-02-21 04:05 G	32066918.62	32066918.67	32066918.72	0.0263	0.0244
Mercury	83084-05-19 14:24 G	32067006.99	32067007.10	32067007.22	0.0263	0.0143
Mercury	83084-08-16 01:12 G	32067095.42	32067095.55	32067095.69	0.0263	0.0040
Mercury	83084-11-12 12:00 G	32067183.87	32067184.00	32067184.14	0.0263	0.0066
Mercury	83085-02-08 23:03 G	32067272.36	32067272.46	32067272.57	0.0263	0.0172
Earth	83094-11-08 12:00 G	32070831.79	32070832.00	32070832.22	0.0290	0.0132
Moon	83094-11-08 13:56 G	32070831.87	32070832.08	32070832.30	0.0290	0.0146 *
Venus	83096-02-07 15:51 G	32071288.11	32071288.16	32071288.23	0.0294	0.0278
Venus	83096-09-24 12:58 G	32071517.84	32071518.04	32071518.24	0.0295	0.0073
Venus	83097-05-12 10:34 G	32071747.76	32071747.94	32071748.13	0.0296	0.0138
Mercury	83099-03-22 04:20 G	32072426.52	32072426.68	32072426.85	0.0297	0.0105
Mercury	83099-06-19 03:08 G	32072515.47	32072515.63	32072515.80	0.0297	0.0091
Mercury	83099-09-16 01:27 G	32072604.51	32072604.56	32072604.62	0.0297	0.0279
Moon	83108-05-03 01:41 G	32075755.32	32075755.57	32075755.82	0.0271	0.0005
Earth	83108-05-03 05:03 G	32075755.47	32075755.71	32075755.96	0.0271	0.0011 *
Venus	83110-07-27 12:44 G	32076570.85	32076571.03	32076571.21	0.0266	0.0143
Venus	83111-03-13 16:20 G	32076799.96	32076800.18	32076800.39	0.0265	0.0013
Venus	83111-10-28 18:44 G	32077029.12	32077029.28	32077029.45	0.0264	0.0165
Mercury	83113-10-07 15:51 G	32077739.07	32077739.16	32077739.27	0.0263	0.0183
Mercury	83114-01-04 02:39 G	32077827.48	32077827.61	32077827.74	0.0263	0.0080
Mercury	83114-04-02 13:27 G	32077915.92	32077916.06	32077916.19	0.0263	0.0024
Mercury	83114-06-30 00:15 G	32078004.39	32078004.51	32078004.63	0.0263	0.0129
Mercury	83114-09-26 11:17 G	32078092.91	32078092.97	32078093.03	0.0263	0.0236
Moon	83123-11-03 05:03 G	32081417.49	32081417.71	32081417.94	0.0288	0.0076
Earth	83123-11-03 05:46 G	32081417.51	32081417.74	32081417.98	0.0288	0.0089 *
Venus	83125-08-20 15:22 G	32082074.05	32082074.14	32082074.24	0.0293	0.0258
Venus	83126-04-07 12:15 G	32082303.81	32082304.01	32082304.22	0.0295	0.0053

Venus	83126-11-23 10:05 G	32082533.74	32082533.92	32082534.10	0.0296	0.0157
Mercury	83128-08-09 00:00 G	32083158.37	32083158.50	32083158.64	0.0297	0.0187
Mercury	83128-11-05 23:17 G	32083247.29	32083247.47	32083247.64	0.0297	0.0010
Mercury	83129-02-02 21:51 G	32083336.28	32083336.41	32083336.53	0.0297	0.0201
Earth	83137-04-28 00:58 G	32086342.34	32086342.54	32086342.74	0.0274	0.0158
Moon	83137-04-28 04:34 G	32086342.50	32086342.69	32086342.88	0.0274	0.0171 *
Earth	83138-05-10 10:34 G	32086719.80	32086719.94	32086720.09	0.0270	0.0218
Moon	83138-05-10 12:15 G	32086719.86	32086720.01	32086720.16	0.0270	0.0217 *
Venus	83140-02-06 16:48 G	32087357.01	32087357.20	32087357.39	0.0266	0.0120
Venus	83140-09-22 20:10 G	32087586.13	32087586.34	32087586.56	0.0265	0.0036
Venus	83141-05-09 22:48 G	32087815.31	32087815.45	32087815.61	0.0264	0.0189
Mercury	83143-02-24 18:44 G	32088471.20	32088471.28	32088471.36	0.0263	0.0211
Mercury	83143-05-24 05:17 G	32088559.60	32088559.72	32088559.85	0.0263	0.0109
Mercury	83143-08-20 16:05 G	32088648.03	32088648.17	32088648.31	0.0263	0.0006
Mercury	83143-11-17 02:53 G	32088736.50	32088736.62	32088736.75	0.0263	0.0101
Mercury	83144-02-13 13:56 G	32088825.00	32088825.08	32088825.17	0.0263	0.0207
Mars	83146-11-09 01:41 G	32089824.29	32089824.57	32089824.86	0.0267	0.0073
Moon	83152-10-27 11:03 G	32092003.89	32092003.96	32092004.04	0.0286	0.0273
Moon	83153-11-10 04:48 G	32092382.50	32092382.70	32092382.90	0.0290	0.0173
Earth	83153-11-10 07:56 G	32092382.63	32092382.83	32092383.03	0.0290	0.0163 *
Venus	83155-03-02 20:24 G	32092860.23	32092860.35	32092860.49	0.0294	0.0232
Venus	83155-10-18 17:32 G	32093090.03	32093090.23	32093090.44	0.0295	0.0026
Venus	83156-06-04 15:36 G	32093319.99	32093320.15	32093320.31	0.0297	0.0186
Mercury	83157-12-26 22:05 G	32093890.33	32093890.42	32093890.52	0.0298	0.0250
Mercury	83158-03-25 21:22 G	32093979.22	32093979.39	32093979.57	0.0298	0.0052
Mercury	83158-06-22 19:56 G	32094068.19	32094068.33	32094068.49	0.0298	0.0142
Mars	83160-11-05 15:08 G	32094934.85	32094935.13	32094935.42	0.0294	0.0073
Moon	83167-05-05 02:39 G	32097306.37	32097306.61	32097306.84	0.0271	0.0039
Earth	83167-05-05 04:34 G	32097306.44	32097306.69	32097306.93	0.0271	0.0044 *
Venus	83169-01-01 13:27 G	32097914.01	32097914.06	32097914.12	0.0267	0.0257

Venus	83169-08-18 17:46 G	32098143.04	32098143.24	32098143.44	0.0266	0.0101
Venus	83170-04-04 21:08 G	32098372.17	32098372.38	32098372.59	0.0265	0.0054
Venus	83170-11-19 23:46 G	32098601.35	32098601.49	32098601.62	0.0264	0.0206
Mercury	83172-07-13 20:24 G	32099203.31	32099203.35	32099203.39	0.0263	0.0249
Mercury	83172-10-10 06:58 G	32099291.68	32099291.79	32099291.90	0.0263	0.0148
Mercury	83173-01-06 17:32 G	32099380.10	32099380.23	32099380.37	0.0263	0.0045
Mercury	83173-04-05 04:20 G	32099468.55	32099468.68	32099468.82	0.0263	0.0059
Mercury	83173-07-02 15:08 G	32099557.03	32099557.13	32099557.25	0.0263	0.0166
Earth	83182-11-04 01:27 G	32102968.32	32102968.56	32102968.80	0.0288	0.0058
Moon	83182-11-04 05:03 G	32102968.47	32102968.71	32102968.95	0.0288	0.0048 *
Venus	83184-09-11 19:41 G	32103646.19	32103646.32	32103646.47	0.0294	0.0213
Venus	83185-04-29 16:48 G	32103876.00	32103876.20	32103876.41	0.0295	0.0009
Venus	83185-12-15 14:39 G	32104105.97	32104106.11	32104106.27	0.0296	0.0205
Mercury	83187-08-12 16:48 G	32104711.05	32104711.20	32104711.36	0.0298	0.0136
Mercury	83187-11-09 15:51 G	32104799.99	32104800.16	32104800.33	0.0298	0.0059
Mercury	83188-02-06 14:10 G	32104889.00	32104889.09	32104889.19	0.0297	0.0250
Earth	83196-04-28 23:17 G	32107893.26	32107893.47	32107893.70	0.0274	0.0125
Moon	83196-04-29 01:27 G	32107893.34	32107893.56	32107893.78	0.0274	0.0134 *
Moon	83197-05-11 06:00 G	32108270.69	32108270.75	32108270.85	0.0270	0.0255
Earth	83197-05-11 09:08 G	32108270.79	32108270.88	32108270.98	0.0270	0.0250 *
Venus	83198-07-14 17:03 G	32108700.12	32108700.21	32108700.32	0.0267	0.0236
Venus	83199-02-28 21:22 G	32108929.19	32108929.39	32108929.60	0.0266	0.0079
Venus	83199-10-16 00:44 G	32109158.33	32109158.53	32109158.74	0.0265	0.0077
Venus	83200-06-01 03:22 G	32109387.54	32109387.64	32109387.75	0.0264	0.0230
Mercury	83202-02-27 09:36 G	32110023.81	32110023.90	32110024.01	0.0263	0.0176
Mercury	83202-05-26 20:24 G	32110112.22	32110112.35	32110112.48	0.0263	0.0074
Mercury	83202-08-23 07:12 G	32110200.66	32110200.80	32110200.93	0.0263	0.0031
Mercury	83202-11-19 18:00 G	32110289.13	32110289.25	32110289.37	0.0263	0.0136
Mercury	83203-02-16 05:03 G	32110377.66	32110377.71	32110377.76	0.0263	0.0243
Moon	83211-10-29 04:34 G	32113554.57	32113554.69	32113554.82	0.0286	0.0245

Earth	83211-10-29 07:56 G	32113554.73	32113554.83	32113554.95	0.0286	0.0255	*
Moon	83212-11-11 02:10 G	32113933.43	32113933.59	32113933.77	0.0290	0.0201	
Earth	83212-11-11 04:48 G	32113933.53	32113933.70	32113933.89	0.0290	0.0196	*
Venus	83214-03-25 01:41 G	32114432.42	32114432.57	32114432.74	0.0294	0.0185	
Venus	83214-11-09 23:03 G	32114662.25	32114662.46	32114662.66	0.0296	0.0024	
Venus	83215-06-27 20:53 G	32114892.25	32114892.37	32114892.50	0.0297	0.0235	
Mercury	83216-12-29 15:08 G	32115443.01	32115443.13	32115443.27	0.0298	0.0196	
Mercury	83217-03-28 14:24 G	32115531.93	32115532.10	32115532.28	0.0298	0.0005	
Mercury	83217-06-25 12:58 G	32115620.91	32115621.04	32115621.17	0.0298	0.0194	
Earth	83226-05-06 03:36 G	32118857.42	32118857.65	32118857.89	0.0271	0.0078	
Moon	83226-05-06 06:15 G	32118857.54	32118857.76	32118858.00	0.0271	0.0077	*
Venus	83228-01-24 18:44 G	32119486.17	32119486.28	32119486.42	0.0267	0.0215	
Venus	83228-09-09 23:03 G	32119715.25	32119715.46	32119715.67	0.0266	0.0058	
Venus	83229-04-27 02:10 G	32119944.39	32119944.59	32119944.79	0.0265	0.0097	
Venus	83229-12-12 04:34 G	32120173.63	32120173.69	32120173.77	0.0264	0.0248	
Mercury	83231-07-17 11:32 G	32120755.90	32120755.98	32120756.06	0.0263	0.0213	
Mercury	83231-10-13 22:05 G	32120844.30	32120844.42	32120844.54	0.0263	0.0111	
Mercury	83232-01-10 08:39 G	32120932.72	32120932.86	32120933.00	0.0263	0.0010	
Mercury	83232-04-07 19:27 G	32121021.18	32121021.31	32121021.44	0.0263	0.0097	
Mercury	83232-07-05 06:29 G	32121109.68	32121109.77	32121109.86	0.0263	0.0203	
Mars	83235-04-03 18:15 G	32122111.99	32122112.26	32122112.54	0.0267	0.0090	
Earth	83241-11-04 22:20 G	32124519.19	32124519.43	32124519.67	0.0288	0.0025	
Moon	83241-11-05 00:15 G	32124519.26	32124519.51	32124519.76	0.0288	0.0020	*
Venus	83243-10-05 00:44 G	32125218.37	32125218.53	32125218.71	0.0294	0.0166	
Venus	83244-05-21 22:05 G	32125448.21	32125448.42	32125448.63	0.0295	0.0042	
Venus	83245-01-06 19:56 G	32125678.23	32125678.33	32125678.45	0.0296	0.0253	
Mercury	83246-05-18 10:20 G	32126174.88	32126174.93	32126174.99	0.0298	0.0282	
Mercury	83246-08-15 09:51 G	32126263.74	32126263.91	32126264.08	0.0298	0.0084	
Mercury	83246-11-12 08:39 G	32126352.70	32126352.86	32126353.02	0.0298	0.0111	
Mars	83249-03-30 20:24 G	32127222.07	32127222.35	32127222.64	0.0294	0.0075	

Moon	83255-04-30 19:12 G	32129444.07	32129444.30	32129444.54	0.0274	0.0095
Earth	83255-04-30 22:20 G	32129444.20	32129444.43	32129444.67	0.0274	0.0091 *
Venus	83257-08-05 22:34 G	32130272.29	32130272.44	32130272.59	0.0267	0.0194
Venus	83258-03-23 02:53 G	32130501.40	32130501.62	32130501.83	0.0266	0.0036
Venus	83258-11-07 06:00 G	32130730.56	32130730.75	32130730.94	0.0265	0.0119
Mercury	83260-12-03 14:10 G	32131488.05	32131488.09	32131488.15	0.0263	0.0241
Mercury	83261-03-02 00:44 G	32131576.42	32131576.53	32131576.65	0.0263	0.0139
Mercury	83261-05-29 11:32 G	32131664.84	32131664.98	32131665.12	0.0263	0.0036
Mercury	83261-08-25 22:20 G	32131753.29	32131753.43	32131753.56	0.0263	0.0069
Mercury	83261-11-22 09:08 G	32131841.78	32131841.88	32131841.99	0.0263	0.0175
Moon	83270-10-30 04:48 G	32135105.55	32135105.70	32135105.86	0.0286	0.0213
Earth	83270-10-30 06:29 G	32135105.62	32135105.77	32135105.93	0.0286	0.0220 *
Earth	83271-11-13 03:22 G	32135484.50	32135484.64	32135484.79	0.0290	0.0230
Moon	83271-11-13 05:17 G	32135484.59	32135484.72	32135484.88	0.0290	0.0230 *
Venus	83273-04-16 07:56 G	32136004.65	32136004.83	32136005.02	0.0294	0.0135
Venus	83273-12-02 05:03 G	32136234.51	32136234.71	32136234.92	0.0296	0.0074
Venus	83274-07-20 03:08 G	32136464.58	32136464.63	32136464.69	0.0297	0.0285
Mercury	83276-01-02 08:53 G	32136995.71	32136995.87	32136996.03	0.0298	0.0138
Mercury	83276-03-31 07:56 G	32137084.66	32137084.83	32137085.00	0.0298	0.0058
Mercury	83276-06-28 06:15 G	32137173.67	32137173.76	32137173.86	0.0298	0.0249
Earth	83284-04-24 16:20 G	32140031.14	32140031.18	32140031.24	0.0275	0.0268
Moon	83284-04-24 19:27 G	32140031.31	32140031.31	32140031.32	0.0275	0.0274
Earth	83285-05-07 04:20 G	32140408.46	32140408.68	32140408.91	0.0271	0.0113
Moon	83285-05-07 07:27 G	32140408.59	32140408.81	32140409.05	0.0271	0.0116 *
Venus	83287-02-16 01:12 G	32141058.39	32141058.55	32141058.72	0.0267	0.0171
Venus	83287-10-03 05:03 G	32141287.50	32141287.71	32141287.93	0.0265	0.0016
Venus	83288-05-19 08:10 G	32141516.66	32141516.84	32141517.03	0.0264	0.0140
Mercury	83290-07-20 02:53 G	32142308.52	32142308.62	32142308.72	0.0263	0.0174
Mercury	83290-10-16 13:27 G	32142396.93	32142397.06	32142397.19	0.0263	0.0071
Mercury	83291-01-13 00:15 G	32142485.37	32142485.51	32142485.64	0.0263	0.0033

Mercury	83291-04-11 11:03 G	32142573.84	32142573.96	32142574.08	0.0263	0.0138
Mercury	83291-07-08 22:05 G	32142662.37	32142662.42	32142662.47	0.0263	0.0244
Moon	83300-11-06 20:10 G	32146070.09	32146070.34	32146070.59	0.0288	0.0012
Earth	83300-11-06 22:48 G	32146070.21	32146070.45	32146070.70	0.0288	0.0013 *
Venus	83302-10-28 07:56 G	32146790.65	32146790.83	32146791.03	0.0294	0.0115
Venus	83303-06-15 05:17 G	32147020.53	32147020.72	32147020.92	0.0295	0.0095
Jupiter	83305-02-05 12:15 G	32147621.61	32147622.01	32147622.45	0.0297	0.0127
Mercury	83305-05-22 04:20 G	32147727.57	32147727.68	32147727.80	0.0297	0.0221
Mercury	83305-08-19 03:36 G	32147816.48	32147816.65	32147816.83	0.0297	0.0024
Mercury	83305-11-16 02:24 G	32147905.46	32147905.60	32147905.74	0.0297	0.0170
Moon	83314-05-02 19:56 G	32150995.09	32150995.33	32150995.57	0.0274	0.0055
Earth	83314-05-02 22:34 G	32150995.21	32150995.44	32150995.69	0.0274	0.0057 *
Venus	83316-08-29 04:34 G	32151844.52	32151844.69	32151844.87	0.0267	0.0150
Venus	83317-04-15 08:53 G	32152073.65	32152073.87	32152074.09	0.0266	0.0008
Venus	83317-11-30 12:00 G	32152302.83	32152303.00	32152303.17	0.0265	0.0163
Mercury	83319-12-08 05:46 G	32153040.65	32153040.74	32153040.82	0.0263	0.0202
Mercury	83320-03-05 16:20 G	32153129.05	32153129.18	32153129.31	0.0263	0.0099
Mercury	83320-06-02 02:53 G	32153217.49	32153217.62	32153217.76	0.0263	0.0009
Mercury	83320-08-29 13:41 G	32153305.95	32153306.07	32153306.20	0.0263	0.0110
Mercury	83320-11-26 00:44 G	32153394.46	32153394.53	32153394.61	0.0263	0.0216
Mars	83323-08-29 12:58 G	32154400.82	32154401.04	32154401.29	0.0266	0.0160
Earth	83329-11-01 08:24 G	32156656.66	32156656.85	32156657.04	0.0286	0.0182
Moon	83329-11-01 10:48 G	32156656.77	32156656.95	32156657.14	0.0286	0.0177 *
Earth	83330-11-15 05:17 G	32157035.63	32157035.72	32157035.81	0.0290	0.0269
Moon	83330-11-15 08:39 G	32157035.76	32157035.86	32157035.96	0.0290	0.0265 *
Venus	83331-09-22 19:41 G	32157347.28	32157347.32	32157347.37	0.0293	0.0286
Venus	83332-05-09 15:51 G	32157576.97	32157577.16	32157577.37	0.0295	0.0083
Venus	83332-12-25 13:12 G	32157806.87	32157807.05	32157807.24	0.0296	0.0127
Mercury	83334-10-09 03:51 G	32158459.59	32158459.66	32158459.73	0.0298	0.0273
Mercury	83335-01-06 03:08 G	32158548.46	32158548.63	32158548.80	0.0298	0.0074

Mercury	83335-04-05 01:56 G	32158637.42	32158637.58	32158637.74	0.0298	0.0120
Mars	83337-08-25 05:32 G	32159510.47	32159510.73	32159510.99	0.0295	0.0133
Earth	83343-04-27 18:15 G	32161582.14	32161582.26	32161582.40	0.0275	0.0231
Moon	83343-04-27 21:08 G	32161582.26	32161582.38	32161582.52	0.0275	0.0235 *
Moon	83344-05-09 05:17 G	32161959.51	32161959.72	32161959.92	0.0271	0.0158
Earth	83344-05-09 06:44 G	32161959.58	32161959.78	32161959.99	0.0271	0.0150 *
Venus	83346-03-11 08:39 G	32162630.67	32162630.86	32162631.05	0.0267	0.0125
Venus	83346-10-26 12:29 G	32162859.81	32162860.02	32162860.24	0.0265	0.0032
Venus	83347-06-12 15:22 G	32163088.99	32163089.14	32163089.30	0.0264	0.0186
Mercury	83349-04-26 08:10 G	32163772.78	32163772.84	32163772.90	0.0263	0.0232
Mercury	83349-07-23 18:44 G	32163861.16	32163861.28	32163861.40	0.0263	0.0131
Mercury	83349-10-20 05:17 G	32163949.58	32163949.72	32163949.86	0.0263	0.0028
Mercury	83350-01-16 16:05 G	32164038.04	32164038.17	32164038.30	0.0263	0.0076
Mercury	83350-04-15 02:53 G	32164126.53	32164126.62	32164126.73	0.0263	0.0183
Moon	83359-11-08 23:32 G	32167621.24	32167621.48	32167621.72	0.0288	0.0053
Earth	83359-11-09 02:39 G	32167621.37	32167621.61	32167621.85	0.0288	0.0054 *
Venus	83361-04-03 20:53 G	32168133.29	32168133.37	32168133.46	0.0293	0.0264
Venus	83361-11-19 17:17 G	32168363.01	32168363.22	32168363.42	0.0294	0.0060
Venus	83362-07-07 14:24 G	32168592.93	32168593.10	32168593.29	0.0296	0.0150
Mercury	83364-05-24 23:17 G	32169280.32	32169280.47	32169280.62	0.0297	0.0152
Mercury	83364-08-21 22:20 G	32169369.26	32169369.43	32169369.61	0.0297	0.0044
Mercury	83364-11-18 20:53 G	32169458.27	32169458.37	32169458.48	0.0297	0.0235
Earth	83373-05-04 01:12 G	32172546.30	32172546.55	32172546.80	0.0274	0.0019
Moon	83373-05-04 02:53 G	32172546.38	32172546.62	32172546.86	0.0274	0.0014 *
Venus	83375-02-04 06:58 G	32173187.76	32173187.79	32173187.84	0.0269	0.0263
Venus	83375-09-21 12:15 G	32173416.81	32173417.01	32173417.21	0.0267	0.0103
Venus	83376-05-07 16:20 G	32173645.97	32173646.18	32173646.39	0.0266	0.0054
Venus	83376-12-22 19:12 G	32173875.18	32173875.30	32173875.44	0.0265	0.0209
Mercury	83378-09-13 11:03 G	32174504.94	32174504.96	32174504.98	0.0263	0.0260
Mercury	83378-12-10 21:36 G	32174593.29	32174593.40	32174593.51	0.0263	0.0159

Mercury	83379-03-09 08:10 G	32174681.70	32174681.84	32174681.97	0.0263	0.0056
Mercury	83379-06-05 18:58 G	32174770.15	32174770.29	32174770.42	0.0263	0.0049
Mercury	83379-09-02 05:46 G	32174858.63	32174858.74	32174858.85	0.0263	0.0155
Mercury	83379-11-29 16:48 G	32174947.19	32174947.20	32174947.21	0.0263	0.0262
Earth	83388-11-02 14:24 G	32178207.89	32178208.10	32178208.32	0.0287	0.0139
Moon	83388-11-02 17:46 G	32178208.03	32178208.24	32178208.47	0.0287	0.0134 *
Venus	83390-10-15 06:15 G	32178919.64	32178919.76	32178919.89	0.0293	0.0229
Venus	83391-06-02 02:39 G	32179149.40	32179149.61	32179149.82	0.0295	0.0024
Venus	83392-01-18 00:00 G	32179379.34	32179379.50	32179379.67	0.0296	0.0186
Mercury	83393-10-11 23:17 G	32180012.35	32180012.47	32180012.61	0.0298	0.0198
Mercury	83394-01-08 22:48 G	32180101.27	32180101.45	32180101.62	0.0298	0.0006
Mercury	83394-04-07 21:22 G	32180190.26	32180190.39	32180190.52	0.0298	0.0193
Moon	83402-04-29 21:36 G	32183133.23	32183133.40	32183133.59	0.0275	0.0191
Earth	83402-04-29 23:03 G	32183133.29	32183133.46	32183133.64	0.0275	0.0191 *
Moon	83403-05-12 07:56 G	32183510.67	32183510.83	32183511.00	0.0271	0.0201
Earth	83403-05-12 11:32 G	32183510.81	32183510.98	32183511.16	0.0271	0.0188 *
Venus	83404-08-17 12:15 G	32183973.91	32183974.01	32183974.12	0.0268	0.0235
Venus	83405-04-03 17:17 G	32184203.01	32184203.22	32184203.43	0.0266	0.0077
Venus	83405-11-18 20:53 G	32184432.17	32184432.37	32184432.59	0.0265	0.0081
Venus	83406-07-05 23:46 G	32184661.41	32184661.49	32184661.60	0.0264	0.0233
Mercury	83408-04-30 00:15 G	32185325.42	32185325.51	32185325.61	0.0263	0.0187
Mercury	83408-07-27 10:48 G	32185413.82	32185413.95	32185414.08	0.0263	0.0084
Mercury	83408-10-23 21:36 G	32185502.26	32185502.40	32185502.54	0.0263	0.0020
Mercury	83409-01-20 08:24 G	32185590.73	32185590.85	32185590.97	0.0263	0.0125
Mercury	83409-04-18 19:27 G	32185679.24	32185679.31	32185679.37	0.0263	0.0231
Mars	83412-01-24 06:00 G	32186689.61	32186689.75	32186689.93	0.0266	0.0225
Earth	83418-11-11 11:17 G	32189172.74	32189172.97	32189173.20	0.0288	0.0102
Moon	83418-11-11 11:32 G	32189172.76	32189172.98	32189173.21	0.0288	0.0099 *
Venus	83420-04-27 08:39 G	32189705.72	32189705.86	32189706.02	0.0293	0.0206
Venus	83420-12-13 05:17 G	32189935.51	32189935.72	32189935.93	0.0294	0.0002

Venus	83421-07-31 02:24 G	32190165.47	32190165.60	32190165.76	0.0296	0.0210
Mercury	83423-03-01 19:56 G	32190744.27	32190744.33	32190744.41	0.0297	0.0272
Mercury	83423-05-29 19:27 G	32190833.14	32190833.31	32190833.48	0.0297	0.0073
Mercury	83423-08-26 18:29 G	32190922.11	32190922.27	32190922.42	0.0297	0.0122
Mars	83426-01-19 07:12 G	32191798.58	32191798.80	32191799.04	0.0294	0.0180
Earth	83432-05-06 06:00 G	32194097.50	32194097.75	32194097.99	0.0274	0.0020
Moon	83432-05-06 09:22 G	32194097.65	32194097.89	32194098.14	0.0274	0.0028 *
Venus	83434-02-27 15:51 G	32194760.04	32194760.16	32194760.30	0.0269	0.0214
Venus	83434-10-14 20:53 G	32194989.16	32194989.37	32194989.59	0.0267	0.0055
Venus	83435-06-01 00:58 G	32195218.34	32195218.54	32195218.74	0.0266	0.0103
Venus	83436-01-16 04:05 G	32195447.62	32195447.67	32195447.72	0.0265	0.0256
Mercury	83437-09-17 03:08 G	32196057.56	32196057.63	32196057.71	0.0264	0.0214
Mercury	83437-12-14 13:41 G	32196145.95	32196146.07	32196146.20	0.0263	0.0112
Mercury	83438-03-13 00:29 G	32196234.38	32196234.52	32196234.65	0.0263	0.0011
Mercury	83438-06-09 11:17 G	32196322.84	32196322.97	32196323.10	0.0263	0.0097
Mercury	83438-09-05 22:05 G	32196411.34	32196411.42	32196411.51	0.0263	0.0204
Moon	83447-11-05 23:32 G	32199759.25	32199759.48	32199759.73	0.0287	0.0091
Earth	83447-11-06 00:15 G	32199759.28	32199759.51	32199759.75	0.0287	0.0091 *
Venus	83449-11-07 18:58 G	32200492.13	32200492.29	32200492.47	0.0293	0.0169
Venus	83450-06-25 15:36 G	32200721.94	32200722.15	32200722.36	0.0295	0.0038
Venus	83451-02-10 12:58 G	32200951.94	32200952.04	32200952.16	0.0296	0.0249
Mercury	83452-10-15 20:10 G	32201565.18	32201565.34	32201565.51	0.0298	0.0114
Mercury	83453-01-12 19:12 G	32201654.13	32201654.30	32201654.47	0.0298	0.0082
Mercury	83453-04-11 17:32 G	32201743.17	32201743.23	32201743.30	0.0298	0.0273
Moon	83461-05-01 02:10 G	32204684.40	32204684.59	32204684.81	0.0275	0.0149
Earth	83461-05-01 06:00 G	32204684.55	32204684.75	32204684.96	0.0275	0.0149 *
Earth	83462-05-13 18:15 G	32205062.14	32205062.26	32205062.40	0.0271	0.0230
Moon	83462-05-13 18:00 G	32205062.15	32205062.25	32205062.36	0.0271	0.0242 *
Venus	83463-09-09 22:20 G	32205546.28	32205546.43	32205546.59	0.0268	0.0185
Venus	83464-04-26 03:08 G	32205775.42	32205775.63	32205775.85	0.0266	0.0027

Venus	83464-12-11 06:58 G	32206004.60	32206004.79	32206004.98	0.0265	0.0130
Mercury	83467-02-04 06:15 G	32206789.71	32206789.76	32206789.82	0.0263	0.0239
Mercury	83467-05-03 16:48 G	32206878.08	32206878.20	32206878.32	0.0263	0.0138
Mercury	83467-07-31 03:22 G	32206966.51	32206966.64	32206966.78	0.0263	0.0035
Mercury	83467-10-27 14:10 G	32207054.96	32207055.09	32207055.23	0.0263	0.0070
Mercury	83468-01-24 01:12 G	32207143.44	32207143.55	32207143.65	0.0263	0.0177
Earth	83477-11-12 23:32 G	32210724.29	32210724.48	32210724.70	0.0289	0.0155
Moon	83477-11-13 03:08 G	32210724.44	32210724.63	32210724.85	0.0289	0.0150 *
Venus	83479-05-20 23:17 G	32211278.29	32211278.47	32211278.66	0.0293	0.0142
Venus	83480-01-05 19:56 G	32211508.13	32211508.33	32211508.53	0.0295	0.0065
Venus	83480-08-22 17:17 G	32211738.16	32211738.22	32211738.31	0.0296	0.0275
Mercury	83482-03-04 17:46 G	32212297.10	32212297.24	32212297.38	0.0297	0.0180
Mercury	83482-06-01 17:03 G	32212386.03	32212386.21	32212386.38	0.0297	0.0018
Mercury	83482-08-29 15:36 G	32212475.03	32212475.15	32212475.27	0.0297	0.0209
Earth	83491-05-08 13:41 G	32215648.83	32215649.07	32215649.31	0.0273	0.0062
Moon	83491-05-08 14:24 G	32215648.86	32215649.10	32215649.35	0.0273	0.0070 *
Venus	83493-03-22 02:24 G	32216332.43	32216332.60	32216332.77	0.0268	0.0163
Venus	83493-11-06 07:12 G	32216561.58	32216561.80	32216562.01	0.0267	0.0004
Venus	83494-06-23 11:03 G	32216790.78	32216790.96	32216791.14	0.0266	0.0153
Mercury	83496-09-19 19:41 G	32217610.21	32217610.32	32217610.43	0.0264	0.0165
Mercury	83496-12-17 06:15 G	32217698.63	32217698.76	32217698.90	0.0264	0.0062
Mercury	83497-03-15 17:03 G	32217787.07	32217787.21	32217787.35	0.0264	0.0043
Mercury	83497-06-12 03:51 G	32217875.55	32217875.66	32217875.78	0.0264	0.0149
Mercury	83497-09-08 14:53 G	32217964.10	32217964.12	32217964.16	0.0264	0.0257
Moon	83506-11-08 10:05 G	32221310.68	32221310.92	32221311.16	0.0287	0.0042
Earth	83506-11-08 13:56 G	32221310.84	32221311.08	32221311.32	0.0287	0.0038 *
Venus	83508-12-01 10:34 G	32222064.74	32222064.94	32222065.14	0.0294	0.0103
Venus	83509-07-19 07:12 G	32222294.61	32222294.80	32222295.00	0.0295	0.0105
Mercury	83511-07-23 18:58 G	32223029.17	32223029.29	32223029.41	0.0298	0.0218
Mercury	83511-10-20 18:15 G	32223118.08	32223118.26	32223118.43	0.0298	0.0020

Mercury	83512-01-17 16:48 G	32223207.07	32223207.20	32223207.35	0.0298	0.0174
Moon	83520-05-03 13:56 G	32226235.87	32226236.08	32226236.31	0.0274	0.0102
Earth	83520-05-03 15:22 G	32226235.91	32226236.14	32226236.36	0.0274	0.0104 *
Venus	83522-10-03 09:36 G	32227118.72	32227118.90	32227119.09	0.0267	0.0132
Venus	83523-05-20 14:24 G	32227347.88	32227348.10	32227348.31	0.0266	0.0027
Venus	83524-01-04 17:46 G	32227577.09	32227577.24	32227577.40	0.0265	0.0182
Mercury	83526-02-07 23:03 G	32228342.37	32228342.46	32228342.55	0.0263	0.0188
Mercury	83526-05-07 09:36 G	32228430.77	32228430.90	32228431.03	0.0263	0.0085
Mercury	83526-08-03 20:24 G	32228519.21	32228519.35	32228519.48	0.0263	0.0020
Mercury	83526-10-31 07:12 G	32228607.68	32228607.80	32228607.92	0.0263	0.0124
Mercury	83527-01-27 18:00 G	32228696.19	32228696.25	32228696.32	0.0263	0.0232
Earth	83535-11-02 21:08 G	32231897.25	32231897.38	32231897.53	0.0285	0.0231
Moon	83535-11-03 00:44 G	32231897.40	32231897.53	32231897.68	0.0285	0.0233 *
Earth	83536-11-15 15:22 G	32232275.98	32232276.14	32232276.32	0.0289	0.0211
Moon	83536-11-15 17:17 G	32232276.05	32232276.22	32232276.41	0.0289	0.0202 *
Venus	83537-10-26 20:24 G	32232621.29	32232621.35	32232621.42	0.0292	0.0276
Venus	83538-06-13 15:51 G	32232850.96	32232851.16	32232851.37	0.0294	0.0074
Venus	83539-01-29 12:29 G	32233080.84	32233081.02	32233081.21	0.0295	0.0134
Mercury	83540-12-09 16:48 G	32233761.15	32233761.20	32233761.26	0.0297	0.0280
Mercury	83541-03-08 16:20 G	32233850.01	32233850.18	32233850.35	0.0297	0.0081
Mercury	83541-06-05 15:22 G	32233938.98	32233939.14	32233939.30	0.0297	0.0113
Moon	83550-05-10 20:10 G	32237200.12	32237200.34	32237200.57	0.0273	0.0117
Earth	83550-05-10 23:17 G	32237200.25	32237200.47	32237200.70	0.0273	0.0107 *
Venus	83552-04-14 13:41 G	32237904.87	32237905.07	32237905.27	0.0268	0.0109
Venus	83552-11-29 18:15 G	32238134.05	32238134.26	32238134.48	0.0267	0.0050
Venus	83553-07-16 21:51 G	32238363.28	32238363.41	32238363.55	0.0266	0.0206
Mercury	83555-06-28 01:41 G	32239074.50	32239074.57	32239074.65	0.0264	0.0217
Mercury	83555-09-24 12:29 G	32239162.89	32239163.02	32239163.14	0.0264	0.0114
Mercury	83555-12-21 23:03 G	32239251.32	32239251.46	32239251.60	0.0264	0.0010
Mercury	83556-03-19 09:51 G	32239339.78	32239339.91	32239340.04	0.0264	0.0096

Mercury	83556-06-15 20:53 G	32239428.28	32239428.37	32239428.46	0.0264	0.0203
Mars	83558-09-28 05:17 G	32240262.54	32240262.72	32240262.91	0.0266	0.0209
Moon	83565-11-10 03:51 G	32242862.42	32242862.66	32242862.90	0.0287	0.0012
Earth	83565-11-10 05:17 G	32242862.48	32242862.72	32242862.97	0.0287	0.0018 *
Venus	83567-05-09 07:27 G	32243407.69	32243407.81	32243407.93	0.0292	0.0237
Venus	83567-12-25 03:22 G	32243637.43	32243637.64	32243637.85	0.0294	0.0034
Venus	83568-08-11 00:15 G	32243867.35	32243867.51	32243867.68	0.0295	0.0175
Mercury	83570-07-26 17:46 G	32244582.08	32244582.24	32244582.41	0.0298	0.0117
Mercury	83570-10-23 16:48 G	32244671.04	32244671.20	32244671.37	0.0298	0.0079
Mercury	83571-01-20 15:08 G	32244760.07	32244760.13	32244760.21	0.0298	0.0271
Earth	83579-05-06 02:39 G	32247787.37	32247787.61	32247787.85	0.0274	0.0056
Moon	83579-05-06 05:46 G	32247787.51	32247787.74	32247787.98	0.0274	0.0050 *
Venus	83581-03-10 16:34 G	32248462.09	32248462.19	32248462.29	0.0269	0.0237
Venus	83581-10-25 21:51 G	32248691.21	32248691.41	32248691.62	0.0267	0.0077
Venus	83582-06-12 02:10 G	32248920.39	32248920.59	32248920.80	0.0266	0.0081
Venus	83583-01-27 05:32 G	32249149.64	32249149.73	32249149.84	0.0265	0.0235
Mercury	83584-11-14 05:17 G	32249806.67	32249806.72	32249806.78	0.0263	0.0238
Mercury	83585-02-10 15:51 G	32249895.05	32249895.16	32249895.28	0.0263	0.0136
Mercury	83585-05-10 02:39 G	32249983.47	32249983.61	32249983.74	0.0263	0.0032
Mercury	83585-08-06 13:27 G	32250071.92	32250072.06	32250072.19	0.0263	0.0074
Mercury	83585-11-03 00:15 G	32250160.41	32250160.51	32250160.61	0.0263	0.0180
Earth	83594-11-04 14:39 G	32253448.92	32253449.11	32253449.31	0.0286	0.0174
Moon	83594-11-04 16:05 G	32253448.97	32253449.17	32253449.37	0.0286	0.0175 *
Moon	83595-11-18 06:44 G	32253827.68	32253827.78	32253827.90	0.0289	0.0257
Earth	83595-11-18 09:22 G	32253827.82	32253827.89	32253827.99	0.0289	0.0270 *
Venus	83596-11-18 14:10 G	32254193.95	32254194.09	32254194.24	0.0292	0.0208
Venus	83597-07-06 10:05 G	32254423.71	32254423.92	32254424.13	0.0294	0.0004
Venus	83598-02-21 06:58 G	32254653.64	32254653.79	32254653.94	0.0295	0.0206
Mercury	83599-12-13 16:20 G	32255314.05	32255314.18	32255314.33	0.0297	0.0174
Mercury	83600-03-11 15:36 G	32255402.98	32255403.15	32255403.33	0.0297	0.0024

Mercury	83600-06-08 14:10 G	32255491.98	32255492.09	32255492.21	0.0297	0.0215
Moon	83608-04-29 16:34 G	32258374.06	32258374.19	32258374.35	0.0276	0.0226
Earth	83608-04-29 19:56 G	32258374.22	32258374.33	32258374.48	0.0276	0.0231 *
Moon	83609-05-12 07:27 G	32258751.63	32258751.81	32258752.01	0.0273	0.0165
Earth	83609-05-12 10:20 G	32258751.73	32258751.93	32258752.14	0.0273	0.0152 *
Venus	83610-09-20 20:10 G	32259248.21	32259248.34	32259248.47	0.0269	0.0215
Venus	83611-05-08 01:41 G	32259477.36	32259477.57	32259477.78	0.0268	0.0055
Venus	83611-12-23 06:00 G	32259706.55	32259706.75	32259706.95	0.0266	0.0104
Venus	83612-08-08 09:36 G	32259935.85	32259935.90	32259935.95	0.0265	0.0258
Mercury	83614-06-30 18:44 G	32260627.17	32260627.28	32260627.38	0.0264	0.0165
Mercury	83614-09-27 05:17 G	32260715.59	32260715.72	32260715.85	0.0264	0.0061
Mercury	83614-12-24 16:05 G	32260804.03	32260804.17	32260804.30	0.0264	0.0044
Mercury	83615-03-23 02:53 G	32260892.51	32260892.62	32260892.74	0.0264	0.0150
Mercury	83615-06-19 13:56 G	32260981.06	32260981.08	32260981.11	0.0264	0.0258
Earth	83624-11-11 21:51 G	32264414.18	32264414.41	32264414.65	0.0288	0.0074
Moon	83624-11-12 00:29 G	32264414.29	32264414.52	32264414.75	0.0288	0.0067 *
Venus	83626-06-01 00:44 G	32264980.36	32264980.53	32264980.70	0.0293	0.0169
Venus	83627-01-16 20:53 G	32265210.17	32265210.37	32265210.58	0.0294	0.0038
Venus	83627-09-03 18:15 G	32265440.15	32265440.26	32265440.38	0.0296	0.0247
Mercury	83629-05-01 17:32 G	32266046.12	32266046.23	32266046.36	0.0298	0.0212
Mercury	83629-07-29 17:03 G	32266135.03	32266135.21	32266135.38	0.0298	0.0013
Mercury	83629-10-26 15:36 G	32266224.02	32266224.15	32266224.30	0.0298	0.0181
Earth	83638-05-07 14:53 G	32269338.87	32269339.12	32269339.36	0.0274	0.0009
Moon	83638-05-07 17:46 G	32269338.99	32269339.24	32269339.49	0.0274	0.0001 *
Venus	83640-04-02 04:48 G	32270034.56	32270034.70	32270034.87	0.0268	0.0183
Venus	83640-11-17 10:05 G	32270263.71	32270263.92	32270264.14	0.0267	0.0023
Venus	83641-07-04 14:24 G	32270492.91	32270493.10	32270493.28	0.0266	0.0135
Mercury	83643-11-17 22:20 G	32271359.34	32271359.43	32271359.53	0.0263	0.0185
Mercury	83644-02-14 08:53 G	32271447.74	32271447.87	32271448.00	0.0263	0.0082
Mercury	83644-05-12 19:41 G	32271536.18	32271536.32	32271536.46	0.0263	0.0023

Mercury	83644-08-09 06:29 G	32271624.65	32271624.77	32271624.89	0.0263	0.0128
Mercury	83644-11-05 17:17 G	32271713.17	32271713.22	32271713.29	0.0263	0.0236
Mars	83647-02-22 21:22 G	32272552.13	32272552.39	32272552.68	0.0266	0.0105
Moon	83653-11-06 05:03 G	32275000.49	32275000.71	32275000.94	0.0286	0.0121
Earth	83653-11-06 07:27 G	32275000.60	32275000.81	32275001.04	0.0286	0.0117 *
Venus	83655-12-12 07:56 G	32275766.65	32275766.83	32275767.02	0.0293	0.0138
Venus	83656-07-29 04:05 G	32275996.47	32275996.67	32275996.88	0.0294	0.0069
Venus	83657-03-16 01:12 G	32276226.49	32276226.55	32276226.63	0.0296	0.0278
Mercury	83658-09-18 16:34 G	32276778.12	32276778.19	32276778.27	0.0297	0.0267
Mercury	83658-12-16 16:05 G	32276867.00	32276867.17	32276867.34	0.0297	0.0068
Mercury	83659-03-15 14:53 G	32276955.96	32276956.12	32276956.28	0.0297	0.0127
Moon	83667-05-02 06:29 G	32279925.60	32279925.77	32279925.96	0.0275	0.0175
Earth	83667-05-02 09:22 G	32279925.70	32279925.89	32279926.07	0.0275	0.0181 *
Earth	83668-05-13 22:20 G	32280303.27	32280303.43	32280303.61	0.0272	0.0199
Moon	83668-05-13 23:46 G	32280303.36	32280303.49	32280303.65	0.0272	0.0214 *
Venus	83669-10-13 08:39 G	32280820.69	32280820.86	32280821.04	0.0268	0.0159
Venus	83670-05-30 13:41 G	32281049.86	32281050.07	32281050.29	0.0267	0.0005
Venus	83671-01-14 17:32 G	32281279.07	32281279.23	32281279.42	0.0266	0.0158
Mercury	83673-04-06 00:58 G	32282091.46	32282091.54	32282091.62	0.0264	0.0216
Mercury	83673-07-03 11:17 G	32282179.85	32282179.97	32282180.10	0.0264	0.0114
Mercury	83673-09-29 22:05 G	32282268.28	32282268.42	32282268.56	0.0264	0.0009
Mercury	83673-12-27 08:53 G	32282356.74	32282356.87	32282357.00	0.0264	0.0097
Mercury	83674-03-25 19:41 G	32282445.24	32282445.32	32282445.42	0.0264	0.0204
Earth	83683-11-14 13:12 G	32285965.84	32285966.05	32285966.28	0.0288	0.0130
Moon	83683-11-14 16:48 G	32285965.98	32285966.20	32285966.42	0.0288	0.0123 *
Venus	83685-06-23 17:32 G	32286553.04	32286553.23	32286553.43	0.0293	0.0100
Venus	83686-02-08 14:10 G	32286782.90	32286783.09	32286783.29	0.0295	0.0108
Mercury	83688-05-04 17:03 G	32287599.05	32287599.21	32287599.37	0.0298	0.0108
Mercury	83688-08-01 16:05 G	32287688.00	32287688.17	32287688.34	0.0298	0.0089
Mercury	83688-10-29 14:39 G	32287777.05	32287777.11	32287777.17	0.0298	0.0280

Moon	83697-05-09 01:27 G	32290890.31	32290890.56	32290890.81	0.0273	0.0051
Earth	83697-05-09 02:53 G	32290890.38	32290890.62	32290890.87	0.0273	0.0040 *
Venus	83699-04-25 17:17 G	32291607.04	32291607.22	32291607.42	0.0268	0.0127
Venus	83699-12-10 22:05 G	32291836.21	32291836.42	32291836.64	0.0266	0.0033
Venus	83700-07-28 01:56 G	32292065.44	32292065.58	32292065.74	0.0265	0.0189
Mercury	83702-08-25 04:34 G	32292823.63	32292823.69	32292823.75	0.0263	0.0236
Mercury	83702-11-21 14:53 G	32292912.01	32292912.12	32292912.25	0.0263	0.0135
Mercury	83703-02-18 01:41 G	32293000.43	32293000.57	32293000.71	0.0263	0.0030
Mercury	83703-05-17 12:29 G	32293088.89	32293089.02	32293089.15	0.0263	0.0075
Mercury	83703-08-13 23:17 G	32293177.37	32293177.47	32293177.57	0.0263	0.0182
Moon	83712-11-08 19:41 G	32296552.09	32296552.32	32296552.56	0.0287	0.0065
Earth	83712-11-08 23:03 G	32296552.23	32296552.46	32296552.71	0.0287	0.0062 *
Venus	83714-05-20 05:46 G	32297109.67	32297109.74	32297109.82	0.0292	0.0271
Venus	83715-01-05 01:12 G	32297339.35	32297339.55	32297339.75	0.0293	0.0069
Venus	83715-08-22 21:36 G	32297569.22	32297569.40	32297569.59	0.0295	0.0140
Mercury	83717-09-22 15:51 G	32298331.02	32298331.16	32298331.31	0.0297	0.0163
Mercury	83717-12-20 15:08 G	32298419.96	32298420.13	32298420.31	0.0297	0.0035
Mercury	83718-03-19 13:41 G	32298508.97	32298509.07	32298509.19	0.0297	0.0227
Earth	83726-05-04 21:22 G	32301477.18	32301477.39	32301477.61	0.0275	0.0132
Moon	83726-05-04 22:34 G	32301477.23	32301477.44	32301477.66	0.0275	0.0126 *
Earth	83727-05-17 09:36 G	32301854.80	32301854.90	32301855.01	0.0272	0.0244
Moon	83727-05-17 13:27 G	32301854.99	32301855.06	32301855.13	0.0272	0.0260 *
Venus	83728-03-21 14:53 G	32302164.10	32302164.12	32302164.16	0.0269	0.0266
Venus	83728-11-05 20:39 G	32302393.17	32302393.36	32302393.56	0.0268	0.0105
Venus	83729-06-23 01:12 G	32302622.34	32302622.55	32302622.77	0.0267	0.0055
Venus	83730-02-07 04:48 G	32302851.58	32302851.70	32302851.84	0.0266	0.0210
Mercury	83732-04-09 17:17 G	32303644.12	32303644.22	32303644.33	0.0264	0.0167
Mercury	83732-07-07 04:05 G	32303732.53	32303732.67	32303732.80	0.0264	0.0063
Mercury	83732-10-03 14:39 G	32303820.98	32303821.11	32303821.25	0.0264	0.0042
Mercury	83732-12-31 01:41 G	32303909.45	32303909.57	32303909.68	0.0264	0.0148

Mercury	83733-03-29 12:29 G	32303997.99	32303998.02	32303998.06	0.0264	0.0256
Mars	83735-07-21 00:29 G	32304841.23	32304841.52	32304841.82	0.0266	0.0026
Earth	83741-11-03 07:41 G	32307138.72	32307138.82	32307138.93	0.0285	0.0256
Moon	83741-11-03 11:03 G	32307138.87	32307138.96	32307139.08	0.0285	0.0256 *
Moon	83742-11-17 02:24 G	32307517.40	32307517.60	32307517.81	0.0289	0.0174
Earth	83742-11-17 01:56 G	32307517.41	32307517.58	32307517.78	0.0289	0.0183 *
Venus	83743-11-30 12:58 G	32307895.93	32307896.04	32307896.17	0.0292	0.0238
Venus	83744-07-17 08:53 G	32308125.66	32308125.87	32308126.08	0.0294	0.0034
Venus	83745-03-04 05:46 G	32308355.58	32308355.74	32308355.91	0.0295	0.0176
Mercury	83747-02-09 16:05 G	32309063.04	32309063.17	32309063.29	0.0298	0.0210
Mercury	83747-05-09 15:22 G	32309151.97	32309152.14	32309152.32	0.0298	0.0011
Mercury	83747-08-06 14:10 G	32309240.96	32309241.09	32309241.23	0.0298	0.0183
Mars	83749-07-14 11:03 G	32309948.74	32309948.96	32309949.20	0.0295	0.0182
Moon	83756-05-11 10:34 G	32312441.71	32312441.94	32312442.17	0.0273	0.0100
Earth	83756-05-11 14:10 G	32312441.86	32312442.09	32312442.32	0.0273	0.0087 *
Venus	83757-10-01 23:17 G	32312950.38	32312950.47	32312950.59	0.0269	0.0234
Venus	83758-05-19 05:03 G	32313179.50	32313179.71	32313179.92	0.0267	0.0073
Venus	83759-01-03 09:22 G	32313408.69	32313408.89	32313409.10	0.0266	0.0086
Venus	83759-08-20 12:58 G	32313637.95	32313638.04	32313638.13	0.0265	0.0240
Mercury	83761-08-27 21:08 G	32314376.28	32314376.38	32314376.47	0.0263	0.0187
Mercury	83761-11-24 07:41 G	32314464.69	32314464.82	32314464.95	0.0263	0.0085
Mercury	83762-02-20 18:15 G	32314553.12	32314553.26	32314553.40	0.0263	0.0020
Mercury	83762-05-20 05:03 G	32314641.59	32314641.71	32314641.83	0.0263	0.0125
Mercury	83762-08-16 16:05 G	32314730.11	32314730.17	32314730.23	0.0263	0.0232
Earth	83771-11-11 11:17 G	32318103.72	32318103.97	32318104.21	0.0287	0.0011
Moon	83771-11-11 11:17 G	32318103.73	32318103.97	32318104.20	0.0287	0.0017 *
Venus	83773-06-11 20:24 G	32318682.21	32318682.35	32318682.50	0.0292	0.0207
Venus	83774-01-27 16:20 G	32318911.97	32318912.18	32318912.39	0.0294	0.0004
Venus	83774-09-14 13:27 G	32319141.91	32319142.06	32319142.21	0.0295	0.0207
Mercury	83776-06-28 14:39 G	32319795.04	32319795.11	32319795.20	0.0297	0.0266

Mercury	83776-09-25 14:24 G	32319883.93	32319884.10	32319884.27	0.0297	0.0066
Mercury	83776-12-23 13:12 G	32319972.90	32319973.05	32319973.21	0.0297	0.0130
Earth	83785-05-06 08:10 G	32323028.61	32323028.84	32323029.08	0.0274	0.0085
Moon	83785-05-06 11:46 G	32323028.76	32323028.99	32323029.23	0.0274	0.0077 *
Venus	83787-04-14 02:24 G	32323736.48	32323736.60	32323736.74	0.0269	0.0212
Venus	83787-11-29 07:41 G	32323965.61	32323965.82	32323966.03	0.0267	0.0051
Venus	83788-07-15 11:46 G	32324194.80	32324194.99	32324195.19	0.0266	0.0107
Venus	83789-03-01 14:53 G	32324424.10	32324424.12	32324424.17	0.0265	0.0262
Mercury	83791-01-14 23:17 G	32325108.40	32325108.47	32325108.54	0.0264	0.0222
Mercury	83791-04-13 09:36 G	32325196.78	32325196.90	32325197.03	0.0263	0.0120
Mercury	83791-07-10 20:24 G	32325285.21	32325285.35	32325285.49	0.0263	0.0016
Mercury	83791-10-07 07:12 G	32325373.67	32325373.80	32325373.93	0.0264	0.0090
Mercury	83792-01-03 18:00 G	32325462.16	32325462.25	32325462.34	0.0264	0.0196
Moon	83800-11-05 16:20 G	32328690.01	32328690.18	32328690.35	0.0285	0.0214
Earth	83800-11-05 17:03 G	32328690.05	32328690.21	32328690.38	0.0285	0.0209 *
Moon	83801-11-19 08:24 G	32329068.71	32329068.85	32329069.03	0.0289	0.0219
Earth	83801-11-19 12:00 G	32329068.87	32329069.00	32329069.16	0.0289	0.0231 *
Venus	83802-12-24 02:10 G	32329468.43	32329468.59	32329468.76	0.0293	0.0177
Venus	83803-08-10 22:34 G	32329698.23	32329698.44	32329698.64	0.0294	0.0030
Venus	83804-03-27 19:41 G	32329928.21	32329928.32	32329928.45	0.0296	0.0240
Mercury	83806-02-13 13:41 G	32330615.90	32330616.07	32330616.23	0.0298	0.0120
Mercury	83806-05-13 12:44 G	32330704.86	32330705.03	32330705.20	0.0298	0.0077
Mercury	83806-08-10 11:17 G	32330793.91	32330793.97	32330794.05	0.0298	0.0270
Moon	83814-05-02 05:17 G	32333615.62	32333615.72	32333615.84	0.0276	0.0244
Earth	83814-05-02 09:08 G	32333615.78	32333615.88	32333616.00	0.0276	0.0247 *
Moon	83815-05-14 21:51 G	32333993.21	32333993.41	32333993.61	0.0272	0.0143
Earth	83815-05-14 22:48 G	32333993.24	32333993.45	32333993.67	0.0272	0.0131 *
Venus	83816-10-25 10:05 G	32334522.77	32334522.92	32334523.08	0.0268	0.0182
Venus	83817-06-11 15:08 G	32334751.92	32334752.13	32334752.35	0.0267	0.0021
Venus	83818-01-26 18:58 G	32334981.11	32334981.29	32334981.48	0.0266	0.0137

Mercury	83820-06-04 02:39 G	32335840.57	32335840.61	32335840.66	0.0263	0.0243
Mercury	83820-08-31 13:12 G	32335928.94	32335929.05	32335929.17	0.0263	0.0142
Mercury	83820-11-27 23:46 G	32336017.35	32336017.49	32336017.63	0.0263	0.0039
Mercury	83821-02-24 10:34 G	32336105.80	32336105.94	32336106.07	0.0263	0.0066
Mercury	83821-05-23 21:22 G	32336194.28	32336194.39	32336194.49	0.0263	0.0172
Mars	83823-12-16 04:48 G	32337130.42	32337130.70	32337131.00	0.0266	0.0057
Earth	83830-11-13 19:12 G	32339655.06	32339655.30	32339655.54	0.0288	0.0036
Moon	83830-11-13 22:48 G	32339655.21	32339655.45	32339655.70	0.0288	0.0027 *
Venus	83832-07-05 08:53 G	32340254.69	32340254.87	32340255.05	0.0293	0.0147
Venus	83833-02-20 05:03 G	32340484.51	32340484.71	32340484.91	0.0295	0.0060
Venus	83833-10-08 02:24 G	32340714.52	32340714.60	32340714.69	0.0296	0.0270
Mercury	83835-07-03 12:00 G	32341347.86	32341348.00	32341348.14	0.0298	0.0179
Mercury	83835-09-30 11:17 G	32341436.80	32341436.97	32341437.15	0.0298	0.0020
Mercury	83835-12-28 10:05 G	32341525.80	32341525.92	32341526.04	0.0298	0.0213
Mars	83837-12-09 14:53 G	32342237.85	32342238.12	32342238.40	0.0295	0.0086
Earth	83844-05-08 16:34 G	32344579.95	32344580.19	32344580.44	0.0274	0.0041
Moon	83844-05-08 18:00 G	32344580.00	32344580.25	32344580.51	0.0274	0.0032 *
Venus	83846-05-07 12:29 G	32345308.85	32345309.02	32345309.20	0.0268	0.0160
Venus	83846-12-22 17:17 G	32345538.01	32345538.22	32345538.44	0.0267	0.0002
Venus	83847-08-08 20:53 G	32345767.21	32345767.37	32345767.55	0.0266	0.0157
Mercury	83850-01-18 15:08 G	32346661.03	32346661.13	32346661.23	0.0263	0.0178
Mercury	83850-04-17 01:41 G	32346749.44	32346749.57	32346749.70	0.0263	0.0075
Mercury	83850-07-14 12:15 G	32346837.87	32346838.01	32346838.15	0.0263	0.0029
Mercury	83850-10-10 23:03 G	32346926.34	32346926.46	32346926.58	0.0263	0.0134
Mercury	83851-01-07 09:51 G	32347014.86	32347014.91	32347014.97	0.0263	0.0241
Moon	83859-11-07 17:46 G	32350241.06	32350241.24	32350241.44	0.0286	0.0178
Earth	83859-11-07 21:36 G	32350241.21	32350241.40	32350241.61	0.0286	0.0167 *
Moon	83860-11-20 15:22 G	32350620.04	32350620.14	32350620.25	0.0289	0.0260
Earth	83860-11-20 17:32 G	32350620.16	32350620.23	32350620.31	0.0289	0.0273 *
Venus	83862-01-15 12:29 G	32351040.83	32351041.02	32351041.21	0.0293	0.0120

Venus	83862-09-02 09:08 G	32351270.69	32351270.88	32351271.08	0.0295	0.0089
Mercury	83864-11-19 09:51 G	32352079.82	32352079.91	32352080.02	0.0298	0.0243
Mercury	83865-02-16 09:36 G	32352168.73	32352168.90	32352169.08	0.0298	0.0043
Mercury	83865-05-16 08:39 G	32352257.72	32352257.86	32352258.01	0.0298	0.0154
Moon	83873-05-03 14:39 G	32355166.96	32355167.11	32355167.29	0.0276	0.0198
Earth	83873-05-03 16:05 G	32355167.02	32355167.17	32355167.34	0.0276	0.0203 *
Earth	83874-05-16 05:03 G	32355544.53	32355544.71	32355544.91	0.0272	0.0172
Moon	83874-05-16 07:56 G	32355544.66	32355544.83	32355545.01	0.0272	0.0187 *
Venus	83875-11-17 19:12 G	32356095.12	32356095.30	32356095.49	0.0268	0.0132
Venus	83876-07-03 23:46 G	32356324.28	32356324.49	32356324.71	0.0266	0.0028
Venus	83877-02-18 03:22 G	32356553.49	32356553.64	32356553.80	0.0265	0.0184
Mercury	83879-06-07 18:15 G	32357393.18	32357393.26	32357393.35	0.0263	0.0202
Mercury	83879-09-04 04:48 G	32357481.58	32357481.70	32357481.83	0.0263	0.0100
Mercury	83879-12-01 15:36 G	32357570.01	32357570.15	32357570.28	0.0263	0.0008
Mercury	83880-02-28 02:10 G	32357658.47	32357658.59	32357658.72	0.0263	0.0109
Mercury	83880-05-26 13:12 G	32357746.97	32357747.05	32357747.13	0.0263	0.0215
Earth	83889-11-14 23:32 G	32361206.25	32361206.48	32361206.72	0.0288	0.0077
Moon	83889-11-15 00:58 G	32361206.30	32361206.54	32361206.79	0.0288	0.0065 *
Venus	83891-07-28 18:58 G	32361827.09	32361827.29	32361827.49	0.0294	0.0090
Venus	83892-03-14 15:36 G	32362056.96	32362057.15	32362057.34	0.0295	0.0119
Mercury	83894-07-06 08:10 G	32362900.67	32362900.84	32362901.00	0.0298	0.0102
Mercury	83894-10-03 07:12 G	32362989.64	32362989.80	32362989.97	0.0298	0.0095
Mercury	83894-12-31 05:46 G	32363078.70	32363078.74	32363078.79	0.0298	0.0288
Moon	83903-05-11 19:12 G	32366131.05	32366131.30	32366131.55	0.0273	0.0014
Earth	83903-05-11 22:20 G	32366131.19	32366131.43	32366131.68	0.0273	0.0001 *
Venus	83905-05-30 20:53 G	32366881.17	32366881.37	32366881.57	0.0267	0.0112
Venus	83906-01-15 01:12 G	32367110.34	32367110.55	32367110.76	0.0266	0.0048
Venus	83906-09-01 04:34 G	32367339.56	32367339.69	32367339.84	0.0265	0.0203
Mercury	83908-10-25 20:10 G	32368125.29	32368125.34	32368125.40	0.0263	0.0239
Mercury	83909-01-22 06:44 G	32368213.66	32368213.78	32368213.89	0.0263	0.0137

Mercury	83909-04-20 17:17 G	32368302.08	32368302.22	32368302.35	0.0263	0.0035
Mercury	83909-07-18 03:51 G	32368390.53	32368390.66	32368390.80	0.0263	0.0070
Mercury	83909-10-14 14:39 G	32368479.01	32368479.11	32368479.22	0.0263	0.0175
Mars	83912-05-11 07:27 G	32369418.53	32369418.81	32369419.09	0.0266	0.0090
Moon	83918-11-09 21:36 G	32371792.21	32371792.40	32371792.62	0.0286	0.0142
Earth	83918-11-09 22:34 G	32371792.23	32371792.44	32371792.66	0.0286	0.0130 *
Venus	83920-06-23 00:58 G	32372383.47	32372383.54	32372383.62	0.0292	0.0270
Venus	83921-02-07 20:39 G	32372613.15	32372613.36	32372613.56	0.0293	0.0067
Venus	83921-09-25 17:32 G	32372843.05	32372843.23	32372843.41	0.0295	0.0143
Mercury	83923-11-24 04:48 G	32373632.56	32373632.70	32373632.85	0.0298	0.0175
Mercury	83924-02-21 04:20 G	32373721.51	32373721.68	32373721.86	0.0298	0.0025
Mercury	83924-05-20 03:22 G	32373810.52	32373810.64	32373810.75	0.0298	0.0220
Mars	83926-05-06 04:05 G	32374526.38	32374526.67	32374526.96	0.0296	0.0027
Earth	83932-05-05 19:56 G	32376718.13	32376718.33	32376718.52	0.0275	0.0164
Moon	83932-05-05 22:48 G	32376718.26	32376718.45	32376718.66	0.0275	0.0154 *
Earth	83933-05-18 08:10 G	32377095.70	32377095.84	32377096.01	0.0272	0.0210
Moon	83933-05-18 11:17 G	32377095.84	32377095.97	32377096.12	0.0272	0.0225 *
Venus	83934-04-25 20:53 G	32377438.30	32377438.37	32377438.47	0.0269	0.0248
Venus	83934-12-11 02:24 G	32377667.40	32377667.60	32377667.81	0.0267	0.0086
Venus	83935-07-28 06:44 G	32377896.58	32377896.78	32377896.99	0.0266	0.0074
Venus	83936-03-13 10:20 G	32378125.83	32378125.93	32378126.04	0.0265	0.0229
Mercury	83938-06-11 09:51 G	32378945.80	32378945.91	32378946.02	0.0263	0.0163
Mercury	83938-09-07 20:24 G	32379034.21	32379034.35	32379034.48	0.0263	0.0061
Mercury	83938-12-05 06:58 G	32379122.65	32379122.79	32379122.93	0.0263	0.0043
Mercury	83939-03-03 17:46 G	32379211.12	32379211.24	32379211.35	0.0263	0.0149
Mercury	83939-05-31 04:34 G	32379299.66	32379299.69	32379299.72	0.0263	0.0255
Moon	83948-11-16 20:24 G	32382757.12	32382757.35	32382757.59	0.0288	0.0097
Earth	83948-11-16 23:32 G	32382757.26	32382757.48	32382757.71	0.0288	0.0113 *
Venus	83950-01-03 06:29 G	32383169.66	32383169.77	32383169.89	0.0292	0.0243
Venus	83950-08-21 02:24 G	32383399.39	32383399.60	32383399.80	0.0294	0.0038

Venus	83951-04-07 23:03 G	32383629.30	32383629.46	32383629.64	0.0296	0.0173
Mercury	83953-04-12 02:53 G	32384364.52	32384364.62	32384364.73	0.0298	0.0238
Mercury	83953-07-10 02:24 G	32384453.43	32384453.60	32384453.78	0.0298	0.0038
Mercury	83953-10-07 01:27 G	32384542.42	32384542.56	32384542.71	0.0298	0.0160
Moon	83962-05-12 22:20 G	32387682.20	32387682.43	32387682.67	0.0273	0.0054
Earth	83962-05-13 01:12 G	32387682.30	32387682.55	32387682.79	0.0273	0.0038 *
Venus	83963-11-05 22:20 G	32388224.33	32388224.43	32388224.56	0.0269	0.0227
Venus	83964-06-22 03:36 G	32388453.45	32388453.65	32388453.86	0.0267	0.0066
Venus	83965-02-06 07:41 G	32388682.62	32388682.82	32388683.03	0.0266	0.0093
Venus	83965-09-23 11:03 G	32388911.89	32388911.96	32388912.03	0.0265	0.0247
Mercury	83967-10-29 11:17 G	32389677.89	32389677.97	32389678.06	0.0263	0.0202
Mercury	83968-01-25 21:51 G	32389766.29	32389766.41	32389766.54	0.0263	0.0100
Mercury	83968-04-23 08:24 G	32389854.71	32389854.85	32389854.99	0.0263	0.0004
Mercury	83968-07-20 19:12 G	32389943.17	32389943.30	32389943.42	0.0263	0.0108
Mercury	83968-10-17 05:46 G	32390031.67	32390031.74	32390031.83	0.0263	0.0214
Earth	83977-11-10 20:24 G	32393343.13	32393343.35	32393343.59	0.0286	0.0097
Moon	83977-11-10 23:46 G	32393343.27	32393343.49	32393343.71	0.0286	0.0111 *
Venus	83979-07-16 06:44 G	32393955.66	32393955.78	32393955.93	0.0292	0.0222
Venus	83980-03-02 02:53 G	32394185.41	32394185.62	32394185.83	0.0294	0.0017
Venus	83980-10-17 23:46 G	32394415.35	32394415.49	32394415.66	0.0295	0.0195
Mercury	83982-11-26 22:48 G	32395185.29	32395185.45	32395185.61	0.0298	0.0115
Mercury	83983-02-23 22:05 G	32395274.25	32395274.42	32395274.59	0.0298	0.0084
Mercury	83983-05-23 20:53 G	32395363.31	32395363.37	32395363.43	0.0298	0.0278
Earth	83991-05-07 20:53 G	32398269.16	32398269.37	32398269.59	0.0275	0.0128
Moon	83991-05-07 23:17 G	32398269.25	32398269.47	32398269.71	0.0275	0.0115 *
Moon	83992-05-19 07:12 G	32398646.74	32398646.80	32398646.88	0.0272	0.0260
Earth	83992-05-19 09:08 G	32398646.78	32398646.88	32398646.99	0.0272	0.0244 *
Venus	83993-05-18 03:08 G	32399010.50	32399010.63	32399010.78	0.0269	0.0203
Venus	83994-01-02 08:24 G	32399239.64	32399239.85	32399240.06	0.0267	0.0041
Venus	83994-08-19 12:15 G	32399468.83	32399469.01	32399469.21	0.0266	0.0118

Mercury	83997-03-17 14:24 G	32400410.04	32400410.10	32400410.17	0.0263	0.0228
Mercury	83997-06-14 00:44 G	32400498.41	32400498.53	32400498.65	0.0262	0.0127
Mercury	83997-09-10 11:17 G	32400586.83	32400586.97	32400587.11	0.0262	0.0024
Mercury	83997-12-07 21:51 G	32400675.28	32400675.41	32400675.55	0.0262	0.0080
Mercury	83998-03-06 08:39 G	32400763.77	32400763.86	32400763.96	0.0262	0.0185
Mars	84000-10-04 17:32 G	32401706.99	32401707.23	32401707.49	0.0265	0.0143

85TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 85th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	84007-11-18 18:29 G		32404308.06	32404308.27	32404308.48	0.0288	0.0130	
Earth	84007-11-18 21:08 G		32404308.17	32404308.38	32404308.59	0.0288	0.0146	*
Venus	84009-01-25 11:46 G		32404741.85	32404741.99	32404742.16	0.0293	0.0196	
Venus	84009-09-12 08:10 G		32404971.63	32404971.84	32404972.05	0.0294	0.0012	
Venus	84010-04-30 05:03 G		32405201.58	32405201.71	32405201.86	0.0296	0.0223	
Mercury	84012-04-14 20:24 G		32405917.22	32405917.35	32405917.50	0.0298	0.0181	
Mercury	84012-07-12 20:10 G		32406006.16	32406006.34	32406006.51	0.0298	0.0021	
Mercury	84012-10-09 18:58 G		32406095.18	32406095.29	32406095.41	0.0298	0.0216	
Mars	84014-09-29 04:20 G		32406814.39	32406814.68	32406814.97	0.0296	0.0010	
Earth	84021-05-14 01:12 G		32409233.32	32409233.55	32409233.79	0.0273	0.0072	
Moon	84021-05-14 03:08 G		32409233.42	32409233.63	32409233.87	0.0273	0.0089	*
Venus	84022-11-28 04:20 G		32409796.52	32409796.68	32409796.84	0.0268	0.0182	
Venus	84023-07-15 09:08 G		32410025.67	32410025.88	32410026.10	0.0267	0.0023	

Venus	84024-02-29 12:58 G	32410254.86	32410255.04	32410255.23	0.0265	0.0136
Mercury	84026-11-01 02:24 G	32411230.49	32411230.60	32411230.70	0.0262	0.0166
Mercury	84027-01-28 12:44 G	32411318.90	32411319.03	32411319.17	0.0262	0.0065
Mercury	84027-04-26 23:17 G	32411407.34	32411407.47	32411407.61	0.0262	0.0040
Mercury	84027-07-24 10:05 G	32411495.81	32411495.92	32411496.04	0.0262	0.0144
Mercury	84027-10-20 20:53 G	32411584.33	32411584.37	32411584.41	0.0263	0.0250
Earth	84036-11-11 16:05 G	32414893.94	32414894.17	32414894.42	0.0286	0.0067
Moon	84036-11-11 18:44 G	32414894.04	32414894.28	32414894.53	0.0286	0.0081 *
Venus	84038-08-07 11:17 G	32415527.81	32415527.97	32415528.14	0.0292	0.0176
Venus	84039-03-25 07:27 G	32415757.60	32415757.81	32415758.01	0.0294	0.0031
Venus	84039-11-10 04:34 G	32415987.58	32415987.69	32415987.81	0.0296	0.0242
Mercury	84041-09-01 15:36 G	32416649.08	32416649.15	32416649.24	0.0298	0.0266
Mercury	84041-11-29 15:36 G	32416737.98	32416738.15	32416738.32	0.0298	0.0064
Mercury	84042-02-26 14:53 G	32416826.96	32416827.12	32416827.27	0.0298	0.0134
Moon	84050-05-08 17:32 G	32419819.99	32419820.23	32419820.47	0.0275	0.0080
Earth	84050-05-08 19:41 G	32419820.09	32419820.32	32419820.55	0.0275	0.0095 *
Venus	84052-06-09 07:56 G	32420582.67	32420582.83	32420583.01	0.0269	0.0161
Venus	84053-01-24 12:58 G	32420811.83	32420812.04	32420812.26	0.0267	0.0006
Venus	84053-09-10 16:48 G	32421041.04	32421041.20	32421041.38	0.0266	0.0160
Mercury	84056-03-20 05:03 G	32421962.63	32421962.71	32421962.81	0.0262	0.0195
Mercury	84056-06-16 15:36 G	32422051.02	32422051.15	32422051.28	0.0262	0.0093
Mercury	84056-09-13 02:10 G	32422139.45	32422139.59	32422139.73	0.0262	0.0010
Mercury	84056-12-10 12:44 G	32422227.91	32422228.03	32422228.16	0.0262	0.0115
Mercury	84057-03-08 23:32 G	32422316.41	32422316.48	32422316.56	0.0262	0.0220
Moon	84065-11-05 20:39 G	32425480.30	32425480.36	32425480.44	0.0285	0.0271
Earth	84065-11-05 23:03 G	32425480.36	32425480.46	32425480.57	0.0285	0.0256 *
Earth	84066-11-19 16:48 G	32425859.01	32425859.20	32425859.39	0.0289	0.0176
Moon	84066-11-19 18:29 G	32425859.07	32425859.27	32425859.46	0.0289	0.0161 *
Venus	84068-02-17 16:20 G	32426314.00	32426314.18	32426314.36	0.0293	0.0149
Venus	84068-10-04 12:44 G	32426543.82	32426544.03	32426544.23	0.0295	0.0059

Venus	84069-05-22 10:05 G	32426773.84	32426773.92	32426774.00	0.0296	0.0271
Mercury	84071-04-18 13:27 G	32427469.91	32427470.06	32427470.23	0.0299	0.0127
Mercury	84071-07-16 12:58 G	32427558.87	32427559.04	32427559.21	0.0299	0.0072
Mercury	84071-10-13 11:46 G	32427647.92	32427647.99	32427648.07	0.0299	0.0267
Earth	84079-05-03 09:22 G	32430406.87	32430406.89	32430406.93	0.0276	0.0273
Moon	84079-05-03 11:03 G	32430406.90	32430406.96	32430407.05	0.0276	0.0262 *
Earth	84080-05-15 00:15 G	32430784.28	32430784.51	32430784.74	0.0273	0.0105
Moon	84080-05-15 03:36 G	32430784.43	32430784.65	32430784.88	0.0273	0.0121 *
Venus	84081-12-20 09:22 G	32431368.71	32431368.89	32431369.07	0.0268	0.0139
Venus	84082-08-06 14:10 G	32431597.87	32431598.09	32431598.30	0.0266	0.0022
Venus	84083-03-23 17:46 G	32431827.09	32431827.24	32431827.40	0.0265	0.0178
Mercury	84085-08-07 06:44 G	32432694.73	32432694.78	32432694.85	0.0262	0.0233
Mercury	84085-11-03 17:17 G	32432783.10	32432783.22	32432783.34	0.0262	0.0132
Mercury	84086-01-31 03:51 G	32432871.52	32432871.66	32432871.79	0.0262	0.0031
Mercury	84086-04-29 14:24 G	32432959.96	32432960.10	32432960.23	0.0262	0.0074
Mercury	84086-07-27 00:58 G	32433048.44	32433048.54	32433048.64	0.0262	0.0179
Mars	84089-02-27 06:44 G	32433994.56	32433994.78	32433995.04	0.0265	0.0156
Moon	84095-11-13 09:36 G	32436444.65	32436444.90	32436445.15	0.0286	0.0052
Earth	84095-11-13 11:46 G	32436444.75	32436444.99	32436445.23	0.0286	0.0036 *
Venus	84097-08-29 15:22 G	32437099.96	32437100.14	32437100.33	0.0293	0.0130
Venus	84098-04-16 11:32 G	32437329.79	32437329.98	32437330.19	0.0294	0.0078
Venus	84098-12-02 08:53 G	32437559.84	32437559.87	32437559.92	0.0296	0.0289
Mercury	84100-09-05 08:24 G	32438201.73	32438201.85	32438201.98	0.0298	0.0215
Mercury	84100-12-03 08:10 G	32438290.66	32438290.84	32438291.02	0.0298	0.0014
Mercury	84101-03-02 07:12 G	32438379.67	32438379.80	32438379.94	0.0298	0.0183
Mars	84103-02-22 09:08 G	32439101.60	32439101.88	32439102.17	0.0297	0.0009
Moon	84109-05-10 13:41 G	32441370.83	32441371.07	32441371.31	0.0275	0.0049
Earth	84109-05-10 16:48 G	32441370.97	32441371.20	32441371.45	0.0275	0.0065 *
Venus	84111-07-03 12:15 G	32442154.83	32442155.01	32442155.21	0.0268	0.0119
Venus	84112-02-17 17:17 G	32442384.01	32442384.22	32442384.43	0.0267	0.0043

Venus	84112-10-03 20:53 G	32442613.24	32442613.37	32442613.52	0.0265	0.0200
Mercury	84114-12-26 09:36 G	32443426.89	32443426.90	32443426.91	0.0263	0.0261
Mercury	84115-03-24 19:56 G	32443515.22	32443515.33	32443515.44	0.0262	0.0161
Mercury	84115-06-21 06:15 G	32443603.63	32443603.76	32443603.90	0.0262	0.0060
Mercury	84115-09-17 16:48 G	32443692.07	32443692.20	32443692.34	0.0262	0.0046
Mercury	84115-12-15 03:36 G	32443780.54	32443780.65	32443780.77	0.0262	0.0149
Mercury	84116-03-12 14:24 G	32443869.08	32443869.10	32443869.13	0.0262	0.0255
Earth	84124-11-07 18:44 G	32447031.14	32447031.28	32447031.44	0.0285	0.0227
Moon	84124-11-07 21:08 G	32447031.27	32447031.38	32447031.51	0.0285	0.0244 *
Earth	84125-11-21 12:29 G	32447409.85	32447410.02	32447410.19	0.0289	0.0205
Moon	84125-11-21 16:05 G	32447409.98	32447410.17	32447410.35	0.0289	0.0189 *
Venus	84127-03-12 20:39 G	32447886.17	32447886.36	32447886.56	0.0293	0.0103
Venus	84127-10-28 17:03 G	32448116.02	32448116.21	32448116.40	0.0295	0.0107
Mercury	84130-01-23 06:29 G	32448933.71	32448933.77	32448933.83	0.0299	0.0279
Mercury	84130-04-22 06:15 G	32449022.59	32449022.76	32449022.93	0.0299	0.0076
Mercury	84130-07-20 05:32 G	32449111.58	32449111.73	32449111.89	0.0299	0.0123
Earth	84138-05-05 07:27 G	32451957.70	32451957.81	32451957.93	0.0276	0.0242
Moon	84138-05-05 11:03 G	32451957.83	32451957.96	32451958.10	0.0276	0.0227 *
Moon	84139-05-17 21:36 G	32452335.20	32452335.40	32452335.62	0.0273	0.0148
Earth	84139-05-17 22:20 G	32452335.22	32452335.43	32452335.65	0.0273	0.0136 *
Venus	84140-05-28 07:56 G	32452711.79	32452711.83	32452711.90	0.0269	0.0260
Venus	84141-01-12 13:56 G	32452940.88	32452941.08	32452941.28	0.0268	0.0097
Venus	84141-08-29 18:29 G	32453170.07	32453170.27	32453170.48	0.0266	0.0064
Venus	84142-04-15 22:20 G	32453399.31	32453399.43	32453399.55	0.0265	0.0219
Mercury	84144-08-10 21:36 G	32454247.32	32454247.40	32454247.49	0.0262	0.0198
Mercury	84144-11-07 07:56 G	32454335.71	32454335.83	32454335.96	0.0262	0.0098
Mercury	84145-02-03 18:29 G	32454424.14	32454424.27	32454424.41	0.0262	0.0010
Mercury	84145-05-03 05:03 G	32454512.59	32454512.71	32454512.84	0.0262	0.0110
Mercury	84145-07-30 15:51 G	32454601.09	32454601.16	32454601.24	0.0262	0.0215
Moon	84154-11-15 04:05 G	32457995.43	32457995.67	32457995.91	0.0286	0.0023

Earth	84154-11-15 07:27 G	32457995.57	32457995.81	32457996.06	0.0286	0.0006 *
Venus	84156-02-05 00:29 G	32458442.49	32458442.52	32458442.56	0.0291	0.0286
Venus	84156-09-21 19:56 G	32458672.13	32458672.33	32458672.53	0.0293	0.0084
Venus	84157-05-09 16:05 G	32458901.99	32458902.17	32458902.36	0.0295	0.0125
Jupiter	84158-12-31 04:34 G	32459502.24	32459502.69	32459503.15	0.0298	0.0071
Mercury	84159-09-09 01:12 G	32459754.41	32459754.55	32459754.70	0.0298	0.0164
Mercury	84159-12-07 00:58 G	32459843.36	32459843.54	32459843.71	0.0298	0.0037
Mercury	84160-03-04 23:46 G	32459932.39	32459932.49	32459932.60	0.0298	0.0233
Earth	84168-05-11 14:39 G	32462921.87	32462922.11	32462922.35	0.0275	0.0033
Moon	84168-05-11 14:53 G	32462921.88	32462922.12	32462922.36	0.0275	0.0019 *
Venus	84169-12-08 11:03 G	32463497.86	32463497.96	32463498.06	0.0270	0.0239
Venus	84170-07-25 16:48 G	32463727.00	32463727.20	32463727.41	0.0268	0.0076
Venus	84171-03-11 21:36 G	32463956.20	32463956.40	32463956.61	0.0267	0.0086
Venus	84171-10-27 01:12 G	32464185.47	32464185.55	32464185.65	0.0265	0.0242
Mercury	84173-12-29 00:15 G	32464979.45	32464979.51	32464979.58	0.0263	0.0228
Mercury	84174-03-27 10:48 G	32465067.83	32465067.95	32465068.07	0.0262	0.0126
Mercury	84174-06-23 21:08 G	32465156.25	32465156.38	32465156.52	0.0262	0.0025
Mercury	84174-09-20 07:41 G	32465244.69	32465244.82	32465244.96	0.0262	0.0081
Mercury	84174-12-17 18:29 G	32465333.18	32465333.27	32465333.37	0.0262	0.0185
Mars	84177-07-24 16:20 G	32466283.00	32466283.18	32466283.36	0.0264	0.0209
Earth	84183-11-09 15:51 G	32468582.00	32468582.16	32468582.35	0.0285	0.0196
Moon	84183-11-09 19:27 G	32468582.15	32468582.31	32468582.48	0.0285	0.0212 *
Moon	84184-11-22 09:22 G	32468960.75	32468960.89	32468961.07	0.0289	0.0223
Earth	84184-11-22 09:22 G	32468960.77	32468960.89	32468961.05	0.0289	0.0237 *
Venus	84185-08-17 06:44 G	32469228.69	32469228.78	32469228.88	0.0291	0.0257
Venus	84186-04-04 01:56 G	32469458.38	32469458.58	32469458.79	0.0293	0.0054
Venus	84186-11-19 22:20 G	32469688.26	32469688.43	32469688.61	0.0295	0.0156
Mercury	84189-01-25 23:32 G	32470486.37	32470486.48	32470486.61	0.0299	0.0224
Mercury	84189-04-24 23:32 G	32470575.30	32470575.48	32470575.65	0.0299	0.0022
Mercury	84189-07-22 22:34 G	32470664.31	32470664.44	32470664.59	0.0299	0.0176

Mars	84191-07-18 06:15 G	32471389.48	32471389.76	32471390.05	0.0297	0.0038
Moon	84197-05-06 06:00 G	32473508.58	32473508.75	32473508.94	0.0276	0.0194
Earth	84197-05-06 06:15 G	32473508.61	32473508.76	32473508.92	0.0276	0.0210 *
Moon	84198-05-18 17:46 G	32473886.06	32473886.24	32473886.43	0.0273	0.0179
Earth	84198-05-18 21:08 G	32473886.20	32473886.38	32473886.58	0.0273	0.0168 *
Venus	84199-06-20 13:12 G	32474283.93	32474284.05	32474284.19	0.0269	0.0217
Venus	84200-02-04 19:12 G	32474513.09	32474513.30	32474513.51	0.0268	0.0053
Venus	84200-09-21 23:46 G	32474742.29	32474742.49	32474742.69	0.0266	0.0106
Venus	84201-05-09 03:08 G	32474971.61	32474971.63	32474971.67	0.0265	0.0262
Mercury	84203-05-19 02:24 G	32475711.60	32475711.60	32475711.61	0.0262	0.0262
Mercury	84203-08-15 12:44 G	32475799.93	32475800.03	32475800.14	0.0262	0.0162
Mercury	84203-11-11 23:17 G	32475888.33	32475888.47	32475888.60	0.0262	0.0060
Mercury	84204-02-08 09:36 G	32475976.77	32475976.90	32475977.04	0.0262	0.0044
Mercury	84204-05-06 20:24 G	32476065.24	32476065.35	32476065.46	0.0262	0.0148
Mercury	84204-08-03 07:12 G	32476153.77	32476153.80	32476153.83	0.0262	0.0253
Earth	84213-11-17 05:46 G	32479546.50	32479546.74	32479546.99	0.0286	0.0027
Moon	84213-11-17 06:44 G	32479546.54	32479546.78	32479547.02	0.0286	0.0013 *
Venus	84215-02-28 06:15 G	32480014.65	32480014.76	32480014.88	0.0291	0.0238
Venus	84215-10-16 01:41 G	32480244.36	32480244.57	32480244.77	0.0293	0.0035
Venus	84216-06-01 22:05 G	32480474.25	32480474.42	32480474.59	0.0295	0.0175
Mercury	84218-09-12 18:44 G	32481307.11	32481307.28	32481307.44	0.0298	0.0107
Mercury	84218-12-10 18:00 G	32481396.09	32481396.25	32481396.42	0.0298	0.0092
Mercury	84219-03-09 17:03 G	32481485.16	32481485.21	32481485.25	0.0298	0.0287
Earth	84227-05-14 12:58 G	32484472.80	32484473.04	32484473.29	0.0275	0.0002
Moon	84227-05-14 16:34 G	32484472.95	32484473.19	32484473.43	0.0275	0.0014 *
Venus	84228-12-31 16:05 G	32485070.03	32485070.17	32485070.32	0.0270	0.0196
Venus	84229-08-17 22:05 G	32485299.20	32485299.42	32485299.63	0.0268	0.0032
Venus	84230-04-04 02:39 G	32485528.43	32485528.61	32485528.81	0.0267	0.0129
Mercury	84233-01-01 15:22 G	32486532.05	32486532.14	32486532.24	0.0263	0.0191
Mercury	84233-03-31 01:56 G	32486620.45	32486620.58	32486620.71	0.0262	0.0089

Mercury	84233-06-27 12:29 G	32486708.88	32486709.02	32486709.15	0.0262	0.0015
Mercury	84233-09-23 23:03 G	32486797.34	32486797.46	32486797.58	0.0262	0.0118
Mercury	84233-12-21 09:51 G	32486885.84	32486885.91	32486885.98	0.0262	0.0223
Moon	84242-11-11 14:10 G	32490132.90	32490133.09	32490133.30	0.0285	0.0176
Earth	84242-11-11 15:51 G	32490132.96	32490133.16	32490133.37	0.0285	0.0161 *
Moon	84243-11-25 05:32 G	32490511.63	32490511.73	32490511.85	0.0289	0.0259
Earth	84243-11-25 09:22 G	32490511.81	32490511.89	32490511.98	0.0289	0.0270 *
Venus	84244-09-09 13:12 G	32490800.92	32490801.05	32490801.21	0.0291	0.0208
Venus	84245-04-27 08:39 G	32491030.65	32491030.86	32491031.07	0.0294	0.0004
Venus	84245-12-13 05:17 G	32491260.57	32491260.72	32491260.87	0.0295	0.0208
Mercury	84248-01-30 17:32 G	32492039.09	32492039.23	32492039.38	0.0299	0.0163
Mercury	84248-04-28 17:17 G	32492128.04	32492128.22	32492128.39	0.0299	0.0038
Mercury	84248-07-26 16:05 G	32492217.07	32492217.17	32492217.29	0.0299	0.0235
Moon	84256-05-08 02:39 G	32495059.42	32495059.61	32495059.82	0.0276	0.0160
Earth	84256-05-08 06:29 G	32495059.59	32495059.77	32495059.97	0.0276	0.0177 *
Moon	84257-05-20 20:39 G	32495437.21	32495437.36	32495437.51	0.0273	0.0211
Earth	84257-05-20 21:51 G	32495437.25	32495437.41	32495437.58	0.0273	0.0201 *
Venus	84258-07-13 19:41 G	32495856.16	32495856.32	32495856.49	0.0269	0.0171
Venus	84259-02-28 01:27 G	32496085.35	32496085.56	32496085.78	0.0267	0.0009
Venus	84259-10-15 06:00 G	32496314.57	32496314.75	32496314.93	0.0266	0.0151
Mercury	84262-05-21 17:46 G	32497264.18	32497264.24	32497264.31	0.0262	0.0223
Mercury	84262-08-18 04:05 G	32497352.55	32497352.67	32497352.80	0.0262	0.0122
Mercury	84262-11-14 14:39 G	32497440.97	32497441.11	32497441.25	0.0262	0.0020
Mercury	84263-02-11 01:12 G	32497529.42	32497529.55	32497529.68	0.0262	0.0084
Mercury	84263-05-10 11:46 G	32497617.90	32497617.99	32497618.09	0.0262	0.0189
Mars	84265-12-18 19:12 G	32498571.22	32498571.30	32498571.41	0.0264	0.0250
Earth	84272-11-18 07:41 G	32501097.58	32501097.82	32501098.06	0.0286	0.0064
Moon	84272-11-18 11:32 G	32501097.74	32501097.98	32501098.22	0.0286	0.0053 *
Venus	84274-03-22 14:10 G	32501586.93	32501587.09	32501587.25	0.0291	0.0186
Venus	84274-11-07 09:36 G	32501816.69	32501816.90	32501817.11	0.0293	0.0019

Venus	84275-06-25 06:00 G	32502046.63	32502046.75	32502046.89	0.0295	0.0229
Mercury	84277-06-18 13:12 G	32502770.96	32502771.05	32502771.16	0.0298	0.0244
Mercury	84277-09-15 13:12 G	32502859.87	32502860.05	32502860.22	0.0298	0.0042
Mercury	84277-12-13 12:29 G	32502948.87	32502949.02	32502949.17	0.0298	0.0157
Mars	84279-12-11 17:32 G	32503676.94	32503677.23	32503677.51	0.0297	0.0053
Earth	84286-05-15 13:41 G	32506023.83	32506024.07	32506024.32	0.0275	0.0032
Moon	84286-05-15 15:22 G	32506023.89	32506024.14	32506024.39	0.0275	0.0046 *
Venus	84288-01-23 22:34 G	32506642.26	32506642.44	32506642.62	0.0270	0.0150
Venus	84288-09-09 04:20 G	32506871.47	32506871.68	32506871.90	0.0268	0.0014
Venus	84289-04-26 08:53 G	32507100.72	32507100.87	32507101.05	0.0267	0.0174
Mercury	84291-10-08 20:39 G	32507996.32	32507996.36	32507996.39	0.0263	0.0252
Mercury	84292-01-05 06:44 G	32508084.68	32508084.78	32508084.90	0.0263	0.0152
Mercury	84292-04-02 17:17 G	32508173.09	32508173.22	32508173.36	0.0263	0.0049
Mercury	84292-06-30 03:51 G	32508261.53	32508261.66	32508261.80	0.0263	0.0055
Mercury	84292-09-26 14:39 G	32508350.00	32508350.11	32508350.22	0.0262	0.0160
Moon	84301-11-13 16:05 G	32511683.97	32511684.17	32511684.39	0.0285	0.0135
Earth	84301-11-13 19:56 G	32511684.11	32511684.33	32511684.55	0.0285	0.0123 *
Venus	84303-10-03 22:34 G	32512373.27	32512373.44	32512373.62	0.0292	0.0152
Venus	84304-05-20 18:00 G	32512603.05	32512603.25	32512603.46	0.0294	0.0054
Venus	84305-01-05 14:39 G	32512833.02	32512833.11	32512833.21	0.0295	0.0264
Mercury	84306-11-06 12:44 G	32513503.02	32513503.03	32513503.06	0.0299	0.0296
Mercury	84307-02-03 12:44 G	32513591.87	32513592.03	32513592.20	0.0299	0.0092
Mercury	84307-05-03 12:15 G	32513680.85	32513681.01	32513681.17	0.0299	0.0108
Moon	84315-05-11 08:10 G	32516610.63	32516610.84	32516611.06	0.0276	0.0125
Earth	84315-05-11 09:22 G	32516610.68	32516610.89	32516611.10	0.0276	0.0140 *
Earth	84316-05-23 00:29 G	32516988.41	32516988.52	32516988.65	0.0273	0.0237
Moon	84316-05-23 03:22 G	32516988.55	32516988.64	32516988.76	0.0273	0.0245 *
Venus	84317-08-06 03:22 G	32517428.46	32517428.64	32517428.84	0.0269	0.0123
Venus	84318-03-23 09:08 G	32517657.67	32517657.88	32517658.10	0.0267	0.0040
Venus	84318-11-07 13:41 G	32517886.93	32517887.07	32517887.21	0.0266	0.0198

Mercury	84321-05-25 09:36 G	32518816.80	32518816.90	32518817.00	0.0262	0.0180
Mercury	84321-08-21 19:56 G	32518905.20	32518905.33	32518905.46	0.0262	0.0079
Mercury	84321-11-18 06:29 G	32518993.63	32518993.77	32518993.91	0.0262	0.0025
Mercury	84322-02-14 17:03 G	32519082.09	32519082.21	32519082.33	0.0262	0.0129
Mercury	84322-05-14 03:51 G	32519170.61	32519170.66	32519170.72	0.0262	0.0235
Earth	84331-11-21 13:41 G	32522648.85	32522649.07	32522649.30	0.0287	0.0107
Moon	84331-11-21 14:10 G	32522648.86	32522649.09	32522649.34	0.0287	0.0100 *
Venus	84333-04-15 00:29 G	32523159.34	32523159.52	32523159.71	0.0292	0.0130
Venus	84333-11-30 19:56 G	32523389.13	32523389.33	32523389.54	0.0294	0.0077
Venus	84334-07-18 16:34 G	32523619.15	32523619.19	32523619.25	0.0295	0.0287
Mercury	84336-06-22 09:08 G	32524323.74	32524323.88	32524324.03	0.0298	0.0168
Mercury	84336-09-19 08:39 G	32524412.69	32524412.86	32524413.04	0.0298	0.0034
Mercury	84336-12-17 07:56 G	32524501.72	32524501.83	32524501.94	0.0298	0.0230
Moon	84345-05-17 14:24 G	32527574.86	32527575.10	32527575.34	0.0275	0.0079
Earth	84345-05-17 17:32 G	32527575.00	32527575.23	32527575.47	0.0275	0.0069 *
Venus	84346-07-02 00:00 G	32527985.46	32527985.50	32527985.53	0.0271	0.0267
Venus	84347-02-16 06:58 G	32528214.59	32528214.79	32528214.99	0.0270	0.0101
Venus	84347-10-03 12:29 G	32528443.82	32528444.02	32528444.23	0.0268	0.0063
Venus	84348-05-19 17:03 G	32528673.10	32528673.21	32528673.34	0.0266	0.0222
Mercury	84350-10-12 12:15 G	32529548.94	32529549.01	32529549.10	0.0263	0.0209
Mercury	84351-01-08 22:48 G	32529637.33	32529637.45	32529637.58	0.0263	0.0107
Mercury	84351-04-07 09:22 G	32529725.75	32529725.89	32529726.03	0.0263	0.0005
Mercury	84351-07-04 19:56 G	32529814.20	32529814.33	32529814.46	0.0263	0.0101
Mercury	84351-10-01 06:29 G	32529902.70	32529902.77	32529902.86	0.0263	0.0207
Moon	84360-11-15 02:39 G	32533235.40	32533235.61	32533235.84	0.0285	0.0090
Earth	84360-11-15 03:22 G	32533235.41	32533235.64	32533235.88	0.0285	0.0080 *
Venus	84362-10-26 10:05 G	32533945.73	32533945.92	32533946.12	0.0292	0.0093
Venus	84363-06-13 05:46 G	32534175.55	32534175.74	32534175.93	0.0294	0.0115
Mercury	84365-11-09 09:22 G	32535055.77	32535055.89	32535056.02	0.0299	0.0213
Mercury	84366-02-06 09:08 G	32535144.71	32535144.88	32535145.06	0.0299	0.0012

Mercury	84366-05-06 08:24 G	32535233.72	32535233.85	32535233.99	0.0299	0.0187
Mars	84368-05-07 20:39 G	32535966.12	32535966.36	32535966.62	0.0297	0.0147
Earth	84374-05-12 15:22 G	32538161.91	32538162.14	32538162.37	0.0276	0.0100
Moon	84374-05-12 18:29 G	32538162.05	32538162.27	32538162.50	0.0276	0.0087 *
Venus	84376-01-12 06:15 G	32538771.66	32538771.76	32538771.87	0.0271	0.0237
Venus	84376-08-28 12:58 G	32539000.84	32539001.04	32539001.25	0.0269	0.0072
Venus	84377-04-14 18:29 G	32539230.07	32539230.27	32539230.48	0.0267	0.0091
Venus	84377-11-29 22:48 G	32539459.38	32539459.45	32539459.53	0.0266	0.0248
Mercury	84380-02-29 15:22 G	32540281.09	32540281.14	32540281.21	0.0263	0.0235
Mercury	84380-05-28 01:41 G	32540369.46	32540369.57	32540369.70	0.0263	0.0134
Mercury	84380-08-24 12:15 G	32540457.88	32540458.01	32540458.15	0.0262	0.0031
Mercury	84380-11-20 22:48 G	32540546.32	32540546.45	32540546.59	0.0262	0.0074
Mercury	84381-02-17 09:36 G	32540634.80	32540634.90	32540635.00	0.0262	0.0178
Earth	84389-11-09 10:34 G	32543821.87	32543821.94	32543822.03	0.0283	0.0266
Moon	84389-11-09 11:03 G	32543821.93	32543821.96	32543822.02	0.0283	0.0278 *
Moon	84390-11-22 21:36 G	32544200.20	32544200.40	32544200.62	0.0287	0.0152
Earth	84390-11-23 00:58 G	32544200.34	32544200.54	32544200.75	0.0287	0.0155 *
Venus	84391-09-20 19:56 G	32544502.26	32544502.33	32544502.41	0.0290	0.0267
Venus	84392-05-07 14:10 G	32544731.89	32544732.09	32544732.29	0.0292	0.0067
Venus	84392-12-23 09:51 G	32544961.73	32544961.91	32544962.09	0.0294	0.0141
Mercury	84395-03-29 06:29 G	32545787.72	32545787.77	32545787.83	0.0298	0.0282
Mercury	84395-06-26 06:29 G	32545876.60	32545876.77	32545876.94	0.0298	0.0079
Mercury	84395-09-23 05:46 G	32545965.58	32545965.74	32545965.90	0.0298	0.0120
Moon	84403-05-07 01:56 G	32548748.52	32548748.58	32548748.68	0.0279	0.0263
Earth	84403-05-07 05:32 G	32548748.70	32548748.73	32548748.76	0.0279	0.0276
Moon	84404-05-18 21:36 G	32549126.18	32549126.40	32549126.62	0.0275	0.0115
Earth	84404-05-19 00:15 G	32549126.29	32549126.51	32549126.74	0.0275	0.0109 *
Venus	84405-07-24 09:36 G	32549557.78	32549557.90	32549558.04	0.0271	0.0215
Venus	84406-03-10 16:48 G	32549786.99	32549787.20	32549787.41	0.0269	0.0049
Venus	84406-10-25 22:20 G	32550016.24	32550016.43	32550016.63	0.0268	0.0114

Mercury	84409-07-18 18:29 G	32551013.26	32551013.27	32551013.27	0.0263	0.0263
Mercury	84409-10-15 04:48 G	32551101.59	32551101.70	32551101.80	0.0263	0.0161
Mercury	84410-01-11 15:08 G	32551190.00	32551190.13	32551190.27	0.0263	0.0059
Mercury	84410-04-10 01:41 G	32551278.44	32551278.57	32551278.71	0.0263	0.0045
Mercury	84410-07-07 12:15 G	32551366.90	32551367.01	32551367.13	0.0263	0.0151
Mercury	84410-10-03 23:03 G	32551455.44	32551455.46	32551455.49	0.0263	0.0257
Mars	84412-08-22 00:00 G	32552143.33	32552143.50	32552143.70	0.0264	0.0208
Earth	84419-11-17 15:08 G	32554786.89	32554787.13	32554787.38	0.0285	0.0031
Moon	84419-11-17 18:15 G	32554787.02	32554787.26	32554787.49	0.0285	0.0041 *
Venus	84421-04-02 05:46 G	32555288.62	32555288.74	32555288.87	0.0290	0.0230
Venus	84421-11-18 00:15 G	32555518.31	32555518.51	32555518.72	0.0292	0.0028
Venus	84422-07-05 20:10 G	32555748.18	32555748.34	32555748.50	0.0294	0.0180
Mercury	84424-11-12 07:12 G	32556608.64	32556608.80	32556608.96	0.0299	0.0121
Mercury	84425-02-09 06:44 G	32556697.61	32556697.78	32556697.95	0.0299	0.0079
Mercury	84425-05-09 05:46 G	32556786.67	32556786.74	32556786.80	0.0299	0.0275
Earth	84433-05-14 00:15 G	32559713.27	32559713.51	32559713.75	0.0276	0.0056
Moon	84433-05-14 03:08 G	32559713.38	32559713.63	32559713.88	0.0276	0.0045 *
Venus	84435-02-03 17:32 G	32560344.08	32560344.23	32560344.39	0.0270	0.0183
Venus	84435-09-21 00:15 G	32560573.29	32560573.51	32560573.72	0.0269	0.0018
Venus	84436-05-07 05:32 G	32560802.55	32560802.73	32560802.91	0.0267	0.0144
Mercury	84439-03-04 08:10 G	32561833.74	32561833.84	32561833.93	0.0263	0.0184
Mercury	84439-05-31 18:29 G	32561922.14	32561922.27	32561922.40	0.0263	0.0082
Mercury	84439-08-28 05:03 G	32562010.57	32562010.71	32562010.85	0.0263	0.0022
Mercury	84439-11-24 15:36 G	32562099.03	32562099.15	32562099.27	0.0262	0.0126
Mercury	84440-02-21 02:24 G	32562187.54	32562187.60	32562187.67	0.0262	0.0232
Moon	84448-11-10 21:22 G	32565373.25	32565373.39	32565373.54	0.0283	0.0228
Earth	84448-11-11 00:29 G	32565373.37	32565373.52	32565373.69	0.0283	0.0215 *
Moon	84449-11-24 12:29 G	32565751.86	32565752.02	32565752.20	0.0287	0.0203
Earth	84449-11-24 15:08 G	32565751.98	32565752.13	32565752.32	0.0287	0.0208 *
Venus	84450-10-13 11:17 G	32566074.83	32566074.97	32566075.13	0.0290	0.0202

Venus	84451-05-31 06:00 G	32566304.54	32566304.75	32566304.95	0.0292	0.0006
Venus	84452-01-16 01:41 G	32566534.43	32566534.57	32566534.72	0.0294	0.0209
Mercury	84454-04-01 05:17 G	32567340.58	32567340.72	32567340.86	0.0298	0.0183
Mercury	84454-06-29 04:48 G	32567429.53	32567429.70	32567429.88	0.0298	0.0019
Mercury	84454-09-26 03:51 G	32567518.55	32567518.66	32567518.79	0.0298	0.0216
Mars	84456-10-01 19:56 G	32568255.17	32568255.33	32568255.51	0.0296	0.0238
Moon	84462-05-08 12:44 G	32570299.89	32570300.03	32570300.19	0.0278	0.0218
Earth	84462-05-08 15:22 G	32570300.02	32570300.14	32570300.29	0.0278	0.0232 *
Earth	84463-05-21 10:05 G	32570677.71	32570677.92	32570678.12	0.0275	0.0152
Moon	84463-05-21 11:32 G	32570677.79	32570677.98	32570678.18	0.0275	0.0156 *
Venus	84464-08-15 21:22 G	32571130.23	32571130.39	32571130.57	0.0271	0.0160
Venus	84465-04-02 04:20 G	32571359.46	32571359.68	32571359.89	0.0269	0.0007
Venus	84465-11-17 09:22 G	32571588.73	32571588.89	32571589.07	0.0267	0.0168
Mercury	84468-07-21 11:03 G	32572565.88	32572565.96	32572566.04	0.0263	0.0213
Mercury	84468-10-17 21:22 G	32572654.27	32572654.39	32572654.51	0.0263	0.0110
Mercury	84469-01-14 07:56 G	32572742.69	32572742.83	32572742.97	0.0263	0.0008
Mercury	84469-04-12 18:29 G	32572831.14	32572831.27	32572831.40	0.0263	0.0098
Mercury	84469-07-10 05:03 G	32572919.63	32572919.71	32572919.81	0.0263	0.0204
Earth	84478-11-19 06:29 G	32576338.53	32576338.77	32576339.01	0.0285	0.0022
Moon	84478-11-19 09:36 G	32576338.65	32576338.90	32576339.15	0.0285	0.0013 *
Venus	84480-04-24 22:05 G	32576861.25	32576861.42	32576861.60	0.0291	0.0163
Venus	84480-12-10 17:03 G	32577091.00	32577091.21	32577091.41	0.0293	0.0042
Venus	84481-07-28 12:58 G	32577320.94	32577321.04	32577321.16	0.0295	0.0251
Mercury	84483-08-19 06:15 G	32578072.65	32578072.76	32578072.89	0.0298	0.0221
Mercury	84483-11-16 06:15 G	32578161.58	32578161.76	32578161.93	0.0299	0.0019
Mercury	84484-02-13 05:17 G	32578250.59	32578250.72	32578250.87	0.0299	0.0180
Moon	84492-05-15 10:34 G	32581264.69	32581264.94	32581265.20	0.0276	0.0004
Earth	84492-05-15 11:46 G	32581264.75	32581264.99	32581265.24	0.0276	0.0010 *
Venus	84494-02-26 06:15 G	32581916.57	32581916.76	32581916.95	0.0270	0.0126
Venus	84494-10-13 12:29 G	32582145.81	32582146.02	32582146.24	0.0268	0.0038

Venus	84495-05-30 17:32 G	32582375.09	32582375.23	32582375.38	0.0267	0.0199
Mercury	84497-12-08 14:39 G	32583298.05	32583298.11	32583298.17	0.0263	0.0233
Mercury	84498-03-07 00:58 G	32583386.42	32583386.54	32583386.66	0.0263	0.0131
Mercury	84498-06-03 11:32 G	32583474.84	32583474.98	32583475.11	0.0263	0.0029
Mercury	84498-08-30 22:05 G	32583563.29	32583563.42	32583563.55	0.0263	0.0076
Mercury	84498-11-27 08:39 G	32583651.77	32583651.86	32583651.97	0.0263	0.0182
Mars	84501-01-17 16:05 G	32584432.89	32584433.17	32584433.44	0.0264	0.0103
Moon	84507-11-14 14:24 G	32586924.92	32586925.10	32586925.30	0.0284	0.0173
Earth	84507-11-14 17:32 G	32586925.03	32586925.23	32586925.44	0.0284	0.0161 *
Earth	84508-11-27 08:53 G	32587303.78	32587303.87	32587303.97	0.0288	0.0263
Moon	84508-11-27 09:22 G	32587303.81	32587303.89	32587304.00	0.0288	0.0261 *
Venus	84509-11-06 04:48 G	32587647.51	32587647.70	32587647.88	0.0291	0.0133
Venus	84510-06-23 23:32 G	32587877.28	32587877.48	32587877.68	0.0293	0.0072
Venus	84511-02-08 19:27 G	32588107.26	32588107.31	32588107.38	0.0295	0.0281
Mercury	84513-01-06 04:48 G	32588804.64	32588804.70	32588804.75	0.0298	0.0280
Mercury	84513-04-05 04:34 G	32588893.52	32588893.69	32588893.86	0.0298	0.0078
Mercury	84513-07-03 04:05 G	32588982.51	32588982.67	32588982.83	0.0298	0.0122
Earth	84521-05-11 04:05 G	32591851.49	32591851.67	32591851.86	0.0278	0.0183
Moon	84521-05-11 04:48 G	32591851.52	32591851.70	32591851.89	0.0278	0.0171 *
Earth	84522-05-23 21:22 G	32592229.23	32592229.39	32592229.57	0.0274	0.0197
Moon	84522-05-24 00:58 G	32592229.38	32592229.54	32592229.72	0.0274	0.0200 *
Venus	84523-01-23 02:24 G	32592473.59	32592473.60	32592473.64	0.0272	0.0270
Venus	84523-09-09 10:20 G	32592702.73	32592702.93	32592703.13	0.0270	0.0102
Venus	84524-04-25 16:34 G	32592931.99	32592932.19	32592932.41	0.0269	0.0063
Venus	84524-12-10 21:36 G	32593161.29	32593161.40	32593161.52	0.0267	0.0223
Mercury	84527-04-28 17:32 G	32594030.22	32594030.23	32594030.24	0.0264	0.0262
Mercury	84527-07-26 03:51 G	32594118.55	32594118.66	32594118.77	0.0263	0.0160
Mercury	84527-10-22 14:24 G	32594206.96	32594207.10	32594207.23	0.0263	0.0058
Mercury	84528-01-19 00:58 G	32594295.40	32594295.54	32594295.67	0.0263	0.0048
Mercury	84528-04-16 11:32 G	32594383.87	32594383.98	32594384.09	0.0263	0.0153

Mercury	84528-07-13 22:20 G	32594472.41	32594472.43	32594472.45	0.0263	0.0259
Moon	84537-11-21 21:51 G	32597890.17	32597890.41	32597890.66	0.0286	0.0070
Earth	84537-11-21 22:48 G	32597890.22	32597890.45	32597890.69	0.0286	0.0076 *
Venus	84539-05-19 15:08 G	32598433.93	32598434.13	32598434.33	0.0291	0.0094
Venus	84540-01-04 10:20 G	32598663.74	32598663.93	32598664.12	0.0293	0.0112
Mercury	84542-08-23 05:46 G	32599625.58	32599625.74	32599625.91	0.0298	0.0116
Mercury	84542-11-20 05:32 G	32599714.56	32599714.73	32599714.89	0.0299	0.0086
Mercury	84543-02-17 04:20 G	32599803.63	32599803.68	32599803.74	0.0299	0.0281
Moon	84551-05-18 21:08 G	32602816.14	32602816.38	32602816.63	0.0275	0.0048
Earth	84551-05-19 00:44 G	32602816.29	32602816.53	32602816.78	0.0275	0.0039 *
Venus	84552-08-04 12:00 G	32603259.90	32603260.00	32603260.11	0.0271	0.0236
Venus	84553-03-21 19:27 G	32603489.10	32603489.31	32603489.52	0.0269	0.0069
Venus	84553-11-06 01:27 G	32603718.36	32603718.56	32603718.76	0.0268	0.0095
Venus	84554-06-23 06:00 G	32603947.70	32603947.75	32603947.82	0.0266	0.0254
Jupiter	84555-12-08 00:00 G	32604480.11	32604480.50	32604480.90	0.0264	0.0138
Mercury	84556-12-12 07:41 G	32604850.72	32604850.82	32604850.92	0.0263	0.0180
Mercury	84557-03-10 18:00 G	32604939.12	32604939.25	32604939.38	0.0263	0.0077
Mercury	84557-06-07 04:34 G	32605027.55	32605027.69	32605027.83	0.0263	0.0026
Mercury	84557-09-03 15:08 G	32605116.01	32605116.13	32605116.25	0.0263	0.0131
Mercury	84557-12-01 01:56 G	32605204.53	32605204.58	32605204.64	0.0263	0.0237
Earth	84566-11-16 11:17 G	32608476.74	32608476.97	32608477.20	0.0284	0.0105
Moon	84566-11-16 12:44 G	32608476.81	32608477.03	32608477.24	0.0284	0.0114 *
Venus	84568-04-13 05:03 G	32608990.63	32608990.71	32608990.80	0.0290	0.0262
Venus	84568-11-28 22:48 G	32609220.25	32609220.45	32609220.66	0.0292	0.0062
Venus	84569-07-16 18:00 G	32609450.07	32609450.25	32609450.43	0.0294	0.0145
Mercury	84572-01-10 04:48 G	32610357.56	32610357.70	32610357.85	0.0298	0.0169
Mercury	84572-04-08 04:34 G	32610446.52	32610446.69	32610446.87	0.0298	0.0032
Mercury	84572-07-06 03:36 G	32610535.55	32610535.65	32610535.77	0.0298	0.0229
Earth	84580-05-12 17:46 G	32613403.04	32613403.24	32613403.46	0.0277	0.0133
Moon	84580-05-12 21:51 G	32613403.19	32613403.41	32613403.63	0.0277	0.0119 *

Earth	84581-05-25 10:20 G	32613780.83	32613780.93	32613781.05	0.0274	0.0243
Moon	84581-05-25 11:32 G	32613780.88	32613780.98	32613781.10	0.0274	0.0245 *
Venus	84582-02-14 16:20 G	32614046.05	32614046.18	32614046.32	0.0271	0.0211
Venus	84582-10-01 23:32 G	32614275.27	32614275.48	32614275.69	0.0270	0.0045
Venus	84583-05-19 05:17 G	32614504.53	32614504.72	32614504.92	0.0268	0.0119
Mercury	84586-05-01 10:20 G	32615582.85	32615582.93	32615583.01	0.0263	0.0210
Mercury	84586-07-28 20:39 G	32615671.24	32615671.36	32615671.49	0.0263	0.0107
Mercury	84586-10-25 07:12 G	32615759.66	32615759.80	32615759.94	0.0263	0.0004
Mercury	84587-01-21 17:46 G	32615848.11	32615848.24	32615848.37	0.0263	0.0101
Mercury	84587-04-20 04:34 G	32615936.61	32615936.69	32615936.77	0.0263	0.0207
Mars	84589-06-14 04:20 G	32616722.38	32616722.68	32616722.98	0.0264	0.0008
Moon	84596-11-23 11:32 G	32619441.76	32619441.98	32619442.20	0.0286	0.0127
Earth	84596-11-23 15:22 G	32619441.93	32619442.14	32619442.36	0.0286	0.0132 *
Venus	84597-10-24 14:10 G	32619776.97	32619777.09	32619777.22	0.0290	0.0226
Venus	84598-06-11 08:24 G	32620006.64	32620006.85	32620007.06	0.0292	0.0024
Venus	84599-01-27 03:51 G	32620236.51	32620236.66	32620236.83	0.0294	0.0184
Mercury	84601-05-30 05:32 G	32621089.61	32621089.73	32621089.86	0.0298	0.0211
Mercury	84601-08-27 05:32 G	32621178.55	32621178.73	32621178.91	0.0298	0.0009
Mercury	84601-11-24 04:48 G	32621267.57	32621267.70	32621267.83	0.0299	0.0190
Moon	84610-05-21 12:00 G	32624367.78	32624368.00	32624368.23	0.0275	0.0095
Earth	84610-05-21 13:41 G	32624367.84	32624368.07	32624368.31	0.0275	0.0087 *
Venus	84611-08-29 01:27 G	32624832.40	32624832.56	32624832.72	0.0271	0.0178
Venus	84612-04-14 08:24 G	32625061.64	32625061.85	32625062.07	0.0269	0.0012
Venus	84612-11-29 14:10 G	32625290.91	32625291.09	32625291.26	0.0267	0.0151
Mercury	84615-09-19 14:10 G	32626315.02	32626315.09	32626315.15	0.0263	0.0229
Mercury	84615-12-17 00:29 G	32626403.40	32626403.52	32626403.64	0.0263	0.0127
Mercury	84616-03-14 10:48 G	32626491.82	32626491.95	32626492.09	0.0263	0.0025
Mercury	84616-06-10 21:22 G	32626580.26	32626580.39	32626580.53	0.0263	0.0081
Mercury	84616-09-07 08:10 G	32626668.75	32626668.84	32626668.94	0.0263	0.0186
Earth	84625-11-19 03:22 G	32630028.40	32630028.64	32630028.89	0.0285	0.0051

Moon	84625-11-19 07:12 G	32630028.56	32630028.80	32630029.04	0.0285	0.0057 *
Venus	84627-05-07 22:05 G	32630563.27	32630563.42	32630563.58	0.0290	0.0195
Venus	84627-12-23 16:20 G	32630792.97	32630793.18	32630793.39	0.0292	0.0009
Venus	84628-08-09 11:46 G	32631022.86	32631022.99	32631023.14	0.0294	0.0217
Mercury	84630-10-17 04:34 G	32631821.62	32631821.69	32631821.78	0.0298	0.0265
Mercury	84631-01-14 04:34 G	32631910.52	32631910.69	32631910.87	0.0298	0.0062
Mercury	84631-04-13 04:05 G	32631999.51	32631999.67	32631999.82	0.0298	0.0137
Earth	84639-05-16 07:12 G	32634954.58	32634954.80	32634955.04	0.0276	0.0084
Moon	84639-05-16 08:53 G	32634954.62	32634954.87	32634955.11	0.0276	0.0073 *
Venus	84641-03-10 05:32 G	32635618.56	32635618.73	32635618.92	0.0271	0.0154
Venus	84641-10-25 12:15 G	32635847.80	32635848.01	32635848.23	0.0269	0.0013
Venus	84642-06-11 17:32 G	32636077.08	32636077.23	32636077.40	0.0267	0.0175
Mercury	84645-02-05 16:34 G	32637047.18	32637047.19	32637047.21	0.0263	0.0261
Mercury	84645-05-05 02:53 G	32637135.52	32637135.62	32637135.73	0.0263	0.0159
Mercury	84645-08-01 13:27 G	32637223.93	32637224.06	32637224.19	0.0263	0.0056
Mercury	84645-10-29 00:00 G	32637312.36	32637312.50	32637312.63	0.0263	0.0048
Mercury	84646-01-25 10:34 G	32637400.83	32637400.94	32637401.05	0.0263	0.0154
Mercury	84646-04-23 21:22 G	32637489.38	32637489.39	32637489.41	0.0263	0.0260
Moon	84654-11-13 11:32 G	32640614.86	32640614.98	32640615.10	0.0283	0.0243
Earth	84654-11-13 14:53 G	32640614.99	32640615.12	32640615.27	0.0283	0.0234 *
Moon	84655-11-27 04:05 G	32640993.50	32640993.67	32640993.87	0.0287	0.0184
Earth	84655-11-27 05:32 G	32640993.55	32640993.73	32640993.92	0.0287	0.0184 *
Venus	84656-11-17 05:46 G	32641349.57	32641349.74	32641349.92	0.0290	0.0161
Venus	84657-07-05 00:29 G	32641579.31	32641579.52	32641579.72	0.0292	0.0044
Venus	84658-02-19 20:24 G	32641809.25	32641809.35	32641809.46	0.0294	0.0253
Mercury	84660-06-02 04:48 G	32642642.54	32642642.70	32642642.87	0.0298	0.0108
Mercury	84660-08-30 04:34 G	32642731.52	32642731.69	32642731.85	0.0299	0.0094
Mercury	84660-11-27 03:36 G	32642820.61	32642820.65	32642820.69	0.0299	0.0290
Moon	84668-05-10 06:44 G	32645541.66	32645541.78	32645541.92	0.0278	0.0232
Earth	84668-05-10 07:56 G	32645541.73	32645541.83	32645541.96	0.0278	0.0244 *

Earth	84669-05-23 01:56 G	32645919.37	32645919.58	32645919.80	0.0275	0.0135
Moon	84669-05-23 04:48 G	32645919.50	32645919.70	32645919.91	0.0275	0.0140 *
Venus	84670-09-20 14:24 G	32646404.91	32646405.10	32646405.29	0.0270	0.0122
Venus	84671-05-07 20:53 G	32646634.16	32646634.37	32646634.58	0.0268	0.0044
Venus	84671-12-23 01:56 G	32646863.45	32646863.58	32646863.72	0.0267	0.0205
Mercury	84674-09-22 06:44 G	32647867.68	32647867.78	32647867.88	0.0263	0.0179
Mercury	84674-12-19 17:03 G	32647956.08	32647956.21	32647956.34	0.0263	0.0077
Mercury	84675-03-18 03:36 G	32648044.51	32648044.65	32648044.79	0.0263	0.0027
Mercury	84675-06-14 14:10 G	32648132.97	32648133.09	32648133.21	0.0262	0.0132
Mercury	84675-09-11 00:58 G	32648221.49	32648221.54	32648221.60	0.0262	0.0238
Mars	84677-11-09 18:00 G	32649011.98	32649012.25	32649012.54	0.0264	0.0094
Earth	84684-11-20 17:03 G	32651579.97	32651580.21	32651580.46	0.0285	0.0002
Moon	84684-11-20 18:15 G	32651580.01	32651580.26	32651580.51	0.0285	0.0004 *
Venus	84686-05-30 13:41 G	32652135.89	32652136.07	32652136.26	0.0291	0.0129
Venus	84687-01-15 08:24 G	32652365.65	32652365.85	32652366.05	0.0293	0.0077
Venus	84687-09-02 04:20 G	32652595.64	32652595.68	32652595.73	0.0295	0.0286
Mercury	84689-10-20 03:51 G	32653374.51	32653374.66	32653374.81	0.0298	0.0162
Mercury	84690-01-17 03:36 G	32653463.47	32653463.65	32653463.82	0.0298	0.0040
Mercury	84690-04-16 02:39 G	32653552.51	32653552.61	32653552.72	0.0298	0.0237
Mars	84691-10-31 21:22 G	32654116.24	32654116.39	32654116.56	0.0297	0.0244
Moon	84698-05-17 16:05 G	32656505.93	32656506.17	32656506.42	0.0276	0.0030
Earth	84698-05-17 19:12 G	32656506.06	32656506.30	32656506.55	0.0276	0.0036 *
Venus	84699-08-16 10:05 G	32656961.89	32656961.92	32656961.97	0.0272	0.0266
Venus	84700-04-02 17:46 G	32657191.05	32657191.24	32657191.45	0.0270	0.0098
Venus	84700-11-18 00:00 G	32657420.29	32657420.50	32657420.71	0.0268	0.0067
Venus	84701-07-05 05:03 G	32657649.60	32657649.71	32657649.82	0.0267	0.0227
Mercury	84704-02-10 09:08 G	32658599.80	32658599.88	32658599.96	0.0263	0.0212
Mercury	84704-05-08 19:27 G	32658688.19	32658688.31	32658688.43	0.0263	0.0110
Mercury	84704-08-05 05:46 G	32658776.61	32658776.74	32658776.88	0.0263	0.0009
Mercury	84704-11-01 16:20 G	32658865.06	32658865.18	32658865.31	0.0263	0.0098

Mercury	84705-01-29 03:08 G	32658953.54	32658953.63	32658953.72	0.0263	0.0203
Moon	84713-11-16 00:00 G	32662166.34	32662166.50	32662166.68	0.0283	0.0196
Earth	84713-11-16 01:27 G	32662166.37	32662166.56	32662166.74	0.0283	0.0187 *
Earth	84714-11-29 16:34 G	32662545.05	32662545.19	32662545.33	0.0287	0.0233
Moon	84714-11-29 19:12 G	32662545.18	32662545.30	32662545.45	0.0287	0.0236 *
Venus	84715-12-11 19:27 G	32662922.12	32662922.31	32662922.51	0.0291	0.0098
Venus	84716-07-28 14:24 G	32663151.91	32663152.10	32663152.30	0.0293	0.0109
Mercury	84719-03-10 02:53 G	32664106.50	32664106.62	32664106.75	0.0298	0.0217
Mercury	84719-06-07 02:53 G	32664195.44	32664195.62	32664195.80	0.0299	0.0014
Mercury	84719-09-04 02:10 G	32664284.46	32664284.59	32664284.73	0.0299	0.0186
Earth	84727-05-13 18:44 G	32667093.12	32667093.28	32667093.46	0.0278	0.0196
Moon	84727-05-13 21:36 G	32667093.23	32667093.40	32667093.58	0.0278	0.0186 *
Earth	84728-05-25 12:00 G	32667470.81	32667471.00	32667471.18	0.0274	0.0179
Moon	84728-05-25 15:08 G	32667470.95	32667471.13	32667471.32	0.0274	0.0181 *
Venus	84729-02-26 18:29 G	32667748.17	32667748.27	32667748.38	0.0272	0.0235
Venus	84729-10-14 01:41 G	32667977.37	32667977.57	32667977.78	0.0270	0.0068
Venus	84730-05-31 07:41 G	32668206.62	32668206.82	32668207.02	0.0268	0.0097
Venus	84731-01-15 12:15 G	32668435.97	32668436.01	32668436.07	0.0266	0.0257
Mercury	84733-06-29 12:29 G	32669331.97	32669332.02	32669332.09	0.0263	0.0234
Mercury	84733-09-25 22:48 G	32669420.34	32669420.45	32669420.57	0.0263	0.0132
Mercury	84733-12-23 09:22 G	32669508.75	32669508.89	32669509.02	0.0262	0.0030
Mercury	84734-03-21 19:56 G	32669597.20	32669597.33	32669597.46	0.0262	0.0075
Mercury	84734-06-18 06:29 G	32669685.67	32669685.77	32669685.87	0.0262	0.0180
Moon	84743-11-23 23:17 G	32673131.23	32673131.47	32673131.72	0.0286	0.0046
Earth	84743-11-24 02:10 G	32673131.35	32673131.59	32673131.84	0.0286	0.0048 *
Venus	84744-11-05 09:08 G	32673478.80	32673478.88	32673478.95	0.0289	0.0268
Venus	84745-06-23 02:39 G	32673708.41	32673708.61	32673708.81	0.0292	0.0067
Venus	84746-02-07 21:51 G	32673938.23	32673938.41	32673938.59	0.0294	0.0141
Mercury	84748-07-27 01:27 G	32674838.50	32674838.56	32674838.64	0.0298	0.0275
Mercury	84748-10-24 01:41 G	32674927.40	32674927.57	32674927.74	0.0298	0.0070

Mercury	84749-01-21 01:12 G	32675016.39	32675016.55	32675016.71	0.0299	0.0130
Moon	84757-05-20 02:10 G	32678057.35	32678057.59	32678057.84	0.0275	0.0015
Earth	84757-05-20 05:03 G	32678057.47	32678057.71	32678057.96	0.0275	0.0011 *
Venus	84758-09-08 21:36 G	32678534.27	32678534.40	32678534.54	0.0271	0.0212
Venus	84759-04-26 04:48 G	32678763.49	32678763.70	32678763.91	0.0269	0.0044
Venus	84759-12-11 10:20 G	32678992.74	32678992.93	32678993.13	0.0268	0.0119
Mercury	84763-02-13 00:58 G	32680152.44	32680152.54	32680152.65	0.0263	0.0167
Mercury	84763-05-12 11:17 G	32680240.84	32680240.97	32680241.11	0.0263	0.0065
Mercury	84763-08-08 21:51 G	32680329.27	32680329.41	32680329.55	0.0263	0.0039
Mercury	84763-11-05 08:24 G	32680417.74	32680417.85	32680417.97	0.0263	0.0143
Mercury	84764-02-01 19:12 G	32680506.26	32680506.30	32680506.34	0.0263	0.0249
Mars	84766-04-06 07:12 G	32681300.57	32681300.80	32681301.07	0.0264	0.0149
Earth	84772-11-17 07:12 G	32683717.59	32683717.80	32683718.02	0.0284	0.0145
Moon	84772-11-17 10:05 G	32683717.72	32683717.92	32683718.13	0.0284	0.0152 *
Earth	84773-11-30 23:17 G	32684096.41	32684096.47	32684096.55	0.0288	0.0276
Moon	84773-12-01 02:24 G	32684096.55	32684096.60	32684096.67	0.0288	0.0278 *
Venus	84774-05-18 12:44 G	32684264.92	32684265.03	32684265.15	0.0289	0.0241
Venus	84775-01-03 06:44 G	32684494.58	32684494.78	32684494.99	0.0292	0.0039
Venus	84775-08-21 01:56 G	32684724.42	32684724.58	32684724.76	0.0294	0.0170
Mercury	84778-03-12 23:46 G	32685659.34	32685659.49	32685659.65	0.0299	0.0133
Mercury	84778-06-09 23:32 G	32685748.31	32685748.48	32685748.66	0.0299	0.0070
Mercury	84778-09-06 22:48 G	32685837.38	32685837.45	32685837.53	0.0299	0.0268
Mars	84780-03-28 04:48 G	32686405.46	32686405.70	32686405.95	0.0298	0.0148
Earth	84786-05-15 02:53 G	32688644.42	32688644.62	32688644.83	0.0277	0.0152
Moon	84786-05-15 06:00 G	32688644.54	32688644.75	32688644.97	0.0277	0.0141 *
Moon	84787-05-27 17:46 G	32689022.09	32689022.24	32689022.40	0.0274	0.0217
Earth	84787-05-27 19:12 G	32689022.16	32689022.30	32689022.45	0.0274	0.0221 *
Venus	84788-03-21 04:48 G	32689320.54	32689320.70	32689320.86	0.0271	0.0183
Venus	84788-11-05 11:32 G	32689549.77	32689549.98	32689550.20	0.0269	0.0016
Venus	84789-06-22 16:48 G	32689779.03	32689779.20	32689779.39	0.0267	0.0147

Mercury	84792-07-02 04:20 G	32690884.59	32690884.68	32690884.77	0.0262	0.0191
Mercury	84792-09-28 14:39 G	32690972.98	32690973.11	32690973.24	0.0262	0.0089
Mercury	84792-12-26 01:12 G	32691061.41	32691061.55	32691061.69	0.0262	0.0014
Mercury	84793-03-24 11:46 G	32691149.87	32691149.99	32691150.11	0.0262	0.0118
Mercury	84793-06-20 22:20 G	32691238.37	32691238.43	32691238.51	0.0262	0.0224
Moon	84802-11-25 04:05 G	32694682.45	32694682.67	32694682.91	0.0286	0.0088
Earth	84802-11-25 07:12 G	32694682.57	32694682.80	32694683.04	0.0286	0.0089 *
Venus	84803-11-28 18:58 G	32695051.16	32695051.29	32695051.44	0.0290	0.0213
Venus	84804-07-15 13:12 G	32695280.84	32695281.05	32695281.25	0.0292	0.0011
Venus	84805-03-02 08:24 G	32695510.71	32695510.85	32695511.01	0.0294	0.0200
Mercury	84807-07-30 22:05 G	32696391.29	32696391.42	32696391.56	0.0299	0.0193
Mercury	84807-10-27 22:05 G	32696480.24	32696480.42	32696480.60	0.0299	0.0011
Mercury	84808-01-24 21:22 G	32696569.27	32696569.39	32696569.52	0.0299	0.0209
Earth	84816-05-21 11:32 G	32699608.74	32699608.98	32699609.23	0.0275	0.0051
Moon	84816-05-21 12:44 G	32699608.80	32699609.03	32699609.26	0.0275	0.0053 *
Venus	84817-10-01 07:12 G	32700106.63	32700106.80	32700106.97	0.0270	0.0161
Venus	84818-05-18 13:41 G	32700335.86	32700336.07	32700336.29	0.0269	0.0007
Venus	84819-01-02 18:58 G	32700565.12	32700565.29	32700565.46	0.0267	0.0168
Mercury	84821-11-19 06:29 G	32701616.70	32701616.77	32701616.83	0.0263	0.0227
Mercury	84822-02-15 16:34 G	32701705.07	32701705.19	32701705.31	0.0263	0.0126
Mercury	84822-05-15 03:08 G	32701793.49	32701793.63	32701793.76	0.0262	0.0025
Mercury	84822-08-11 13:27 G	32701881.93	32701882.06	32701882.19	0.0262	0.0081
Mercury	84822-11-08 00:00 G	32701970.41	32701970.50	32701970.60	0.0262	0.0186
Earth	84831-11-19 08:39 G	32705268.64	32705268.86	32705269.09	0.0284	0.0108
Moon	84831-11-19 11:32 G	32705268.76	32705268.98	32705269.22	0.0284	0.0112 *
Venus	84833-06-09 20:53 G	32705837.21	32705837.37	32705837.53	0.0290	0.0189
Venus	84834-01-25 15:08 G	32706066.92	32706067.13	32706067.34	0.0292	0.0015
Venus	84834-09-12 11:03 G	32706296.83	32706296.96	32706297.09	0.0294	0.0224
Mercury	84836-12-16 18:58 G	32707123.21	32707123.29	32707123.37	0.0299	0.0266
Mercury	84837-03-15 19:12 G	32707212.12	32707212.30	32707212.47	0.0299	0.0061

Mercury	84837-06-12 18:44 G	32707301.13	32707301.28	32707301.44	0.0299	0.0141
Moon	84845-05-16 07:27 G	32710195.57	32710195.81	32710196.04	0.0277	0.0104
Earth	84845-05-16 07:56 G	32710195.61	32710195.83	32710196.06	0.0277	0.0111 *
Moon	84846-05-28 19:56 G	32710573.25	32710573.33	32710573.44	0.0273	0.0252
Earth	84846-05-28 23:46 G	32710573.42	32710573.49	32710573.57	0.0273	0.0259 *
Venus	84847-04-13 13:12 G	32710892.87	32710893.05	32710893.24	0.0271	0.0134
Venus	84847-11-28 19:41 G	32711122.10	32711122.32	32711122.53	0.0269	0.0033
Venus	84848-07-15 00:44 G	32711351.38	32711351.53	32711351.67	0.0267	0.0194
Mercury	84851-04-08 09:22 G	32712348.86	32712348.89	32712348.93	0.0262	0.0253
Mercury	84851-07-05 19:41 G	32712437.21	32712437.32	32712437.43	0.0262	0.0151
Mercury	84851-10-02 06:00 G	32712525.62	32712525.75	32712525.89	0.0262	0.0050
Mercury	84851-12-29 16:34 G	32712614.06	32712614.19	32712614.33	0.0262	0.0054
Mercury	84852-03-27 03:08 G	32712702.52	32712702.63	32712702.74	0.0262	0.0159
Mars	84854-08-31 00:29 G	32713589.36	32713589.52	32713589.71	0.0263	0.0214
Earth	84861-11-26 07:41 G	32716233.61	32716233.82	32716234.05	0.0287	0.0125
Moon	84861-11-26 08:53 G	32716233.67	32716233.87	32716234.09	0.0287	0.0128 *
Venus	84862-12-21 02:24 G	32716623.43	32716623.60	32716623.78	0.0291	0.0162
Venus	84863-08-07 20:53 G	32716853.16	32716853.37	32716853.58	0.0293	0.0044
Venus	84864-03-24 16:34 G	32717083.10	32717083.19	32717083.30	0.0295	0.0255
Mercury	84866-08-02 17:17 G	32717944.06	32717944.22	32717944.38	0.0299	0.0123
Mercury	84866-10-30 17:03 G	32718033.04	32718033.21	32718033.38	0.0299	0.0080
Mercury	84867-01-27 16:05 G	32718122.12	32718122.17	32718122.24	0.0299	0.0278
Mars	84868-08-21 17:17 G	32718693.95	32718694.22	32718694.50	0.0298	0.0087
Moon	84874-05-10 21:36 G	32720782.40	32720782.40	32720782.42	0.0278	0.0278
Earth	84875-05-23 15:22 G	32721159.91	32721160.14	32721160.38	0.0275	0.0089
Moon	84875-05-23 18:58 G	32721160.06	32721160.29	32721160.52	0.0275	0.0090 *
Venus	84876-10-23 14:53 G	32721678.93	32721679.12	32721679.32	0.0270	0.0113
Venus	84877-06-09 21:08 G	32721908.17	32721908.38	32721908.59	0.0268	0.0053
Venus	84878-01-25 01:41 G	32722137.46	32722137.57	32722137.71	0.0267	0.0215
Mercury	84880-11-21 21:22 G	32723169.31	32723169.39	32723169.49	0.0262	0.0190

Mercury	84881-02-18 07:56 G	32723257.70	32723257.83	32723257.96	0.0262	0.0088
Mercury	84881-05-17 18:15 G	32723346.12	32723346.26	32723346.40	0.0262	0.0015
Mercury	84881-08-14 04:48 G	32723434.58	32723434.70	32723434.82	0.0262	0.0119
Mercury	84881-11-10 15:22 G	32723523.07	32723523.14	32723523.21	0.0262	0.0224
Moon	84890-11-20 05:03 G	32726819.47	32726819.71	32726819.96	0.0284	0.0072
Earth	84890-11-20 07:12 G	32726819.56	32726819.80	32726820.04	0.0284	0.0075 *
Venus	84892-07-02 02:53 G	32727409.44	32727409.62	32727409.80	0.0290	0.0140
Venus	84893-02-16 21:36 G	32727639.19	32727639.40	32727639.60	0.0292	0.0066
Venus	84893-10-04 17:46 G	32727869.17	32727869.24	32727869.31	0.0294	0.0276
Mercury	84895-12-20 13:12 G	32728675.92	32728676.05	32728676.18	0.0299	0.0203
Mercury	84896-03-18 13:12 G	32728764.88	32728765.05	32728765.23	0.0299	0.0004
Mercury	84896-06-15 12:44 G	32728853.90	32728854.03	32728854.16	0.0299	0.0202
Moon	84904-05-18 06:00 G	32731746.51	32731746.75	32731746.99	0.0277	0.0070
Earth	84904-05-18 09:36 G	32731746.67	32731746.90	32731747.14	0.0277	0.0075 *
Venus	84905-09-19 12:15 G	32732235.95	32732236.01	32732236.08	0.0272	0.0257
Venus	84906-05-06 19:41 G	32732465.12	32732465.32	32732465.53	0.0270	0.0088
Venus	84906-12-22 01:41 G	32732694.37	32732694.57	32732694.78	0.0268	0.0079
Venus	84907-08-08 06:29 G	32732923.69	32732923.77	32732923.87	0.0267	0.0239
Mercury	84910-04-12 00:29 G	32733901.45	32733901.52	32733901.60	0.0262	0.0216
Mercury	84910-07-09 10:48 G	32733989.83	32733989.95	32733990.07	0.0262	0.0115
Mercury	84910-10-05 21:08 G	32734078.24	32734078.38	32734078.52	0.0262	0.0013
Mercury	84911-01-02 07:41 G	32734166.69	32734166.82	32734166.95	0.0262	0.0091
Mercury	84911-03-31 18:15 G	32734255.17	32734255.26	32734255.35	0.0262	0.0196
Earth	84919-11-15 15:36 G	32737406.05	32737406.15	32737406.25	0.0282	0.0257
Moon	84919-11-15 18:00 G	32737406.16	32737406.25	32737406.35	0.0282	0.0256 *
Earth	84920-11-28 05:17 G	32737784.52	32737784.72	32737784.93	0.0287	0.0155
Moon	84920-11-28 09:08 G	32737784.68	32737784.88	32737785.08	0.0287	0.0163 *
Venus	84922-01-13 07:27 G	32738195.63	32738195.81	32738196.01	0.0291	0.0114
Venus	84922-08-31 02:24 G	32738425.40	32738425.60	32738425.80	0.0293	0.0094
Mercury	84925-05-09 10:48 G	32739407.88	32739407.95	32739408.03	0.0299	0.0269

Mercury	84925-08-06 11:03 G	32739496.79	32739496.96	32739497.13	0.0299	0.0064
Mercury	84925-11-03 10:34 G	32739585.79	32739585.94	32739586.10	0.0299	0.0139
Earth	84933-05-12 22:20 G	32742333.34	32742333.43	32742333.54	0.0278	0.0252
Moon	84933-05-13 02:10 G	32742333.48	32742333.59	32742333.71	0.0278	0.0245 *
Earth	84934-05-25 16:34 G	32742710.98	32742711.19	32742711.42	0.0274	0.0124
Moon	84934-05-25 17:46 G	32742711.02	32742711.24	32742711.48	0.0274	0.0121 *
Venus	84935-04-01 14:10 G	32743021.99	32743022.09	32743022.20	0.0271	0.0235
Venus	84935-11-16 21:22 G	32743251.19	32743251.39	32743251.60	0.0269	0.0067
Venus	84936-07-03 03:08 G	32743480.44	32743480.63	32743480.84	0.0268	0.0099
Venus	84937-02-17 07:41 G	32743709.78	32743709.82	32743709.88	0.0266	0.0258
Mercury	84939-08-30 02:24 G	32744633.57	32744633.60	32744633.63	0.0262	0.0253
Mercury	84939-11-26 12:29 G	32744721.91	32744722.02	32744722.13	0.0262	0.0153
Mercury	84940-02-22 22:48 G	32744810.32	32744810.45	32744810.59	0.0262	0.0051
Mercury	84940-05-21 09:22 G	32744898.75	32744898.89	32744899.02	0.0262	0.0052
Mercury	84940-08-17 19:41 G	32744987.22	32744987.32	32744987.44	0.0262	0.0156
Mercury	84940-11-14 06:29 G	32745075.76	32745075.77	32745075.78	0.0262	0.0261
Mars	84943-01-24 16:48 G	32745877.08	32745877.20	32745877.35	0.0263	0.0233
Moon	84949-11-21 23:17 G	32748370.23	32748370.47	32748370.71	0.0284	0.0037
Earth	84949-11-22 02:53 G	32748370.38	32748370.62	32748370.86	0.0284	0.0046 *
Venus	84951-07-26 06:58 G	32748981.60	32748981.79	32748982.00	0.0291	0.0095
Venus	84952-03-12 02:10 G	32749211.39	32749211.59	32749211.78	0.0293	0.0113
Mercury	84954-12-24 06:15 G	32750228.61	32750228.76	32750228.92	0.0299	0.0149
Mercury	84955-03-23 06:15 G	32750317.59	32750317.76	32750317.94	0.0299	0.0056
Mercury	84955-06-20 05:46 G	32750406.65	32750406.74	32750406.83	0.0299	0.0255
Mars	84957-01-15 06:44 G	32750981.51	32750981.78	32750982.06	0.0298	0.0075
Moon	84963-05-20 08:24 G	32753297.61	32753297.85	32753298.08	0.0277	0.0042
Earth	84963-05-20 09:22 G	32753297.65	32753297.89	32753298.13	0.0277	0.0042 *
Venus	84964-10-11 18:00 G	32753808.12	32753808.25	32753808.39	0.0272	0.0213
Venus	84965-05-29 01:12 G	32754037.34	32754037.55	32754037.77	0.0270	0.0044
Venus	84966-01-13 06:58 G	32754266.61	32754266.79	32754266.99	0.0268	0.0122

Mercury	84969-04-14 15:22 G	32755454.04	32755454.14	32755454.24	0.0262	0.0181
Mercury	84969-07-12 01:41 G	32755542.44	32755542.57	32755542.70	0.0262	0.0080
Mercury	84969-10-08 12:00 G	32755630.86	32755631.00	32755631.14	0.0262	0.0023
Mercury	84970-01-04 22:34 G	32755719.32	32755719.44	32755719.56	0.0262	0.0126
Mercury	84970-04-03 09:08 G	32755807.82	32755807.88	32755807.95	0.0262	0.0231
Earth	84978-11-16 11:32 G	32758956.84	32758956.98	32758957.12	0.0282	0.0228
Moon	84978-11-16 14:24 G	32758956.96	32758957.10	32758957.27	0.0282	0.0223 *
Earth	84979-11-30 01:27 G	32759335.37	32759335.56	32759335.75	0.0287	0.0184
Moon	84979-11-30 01:12 G	32759335.37	32759335.55	32759335.74	0.0287	0.0197 *
Venus	84980-06-19 18:44 G	32759538.20	32759538.28	32759538.35	0.0289	0.0267
Venus	84981-02-04 12:00 G	32759767.80	32759768.00	32759768.20	0.0291	0.0067
Venus	84981-09-22 07:12 G	32759997.62	32759997.80	32759997.98	0.0293	0.0142
Mercury	84984-05-12 04:05 G	32760960.55	32760960.67	32760960.79	0.0299	0.0214
Mercury	84984-08-09 04:05 G	32761049.50	32761049.67	32761049.85	0.0299	0.0011
Mercury	84984-11-06 03:36 G	32761138.52	32761138.65	32761138.79	0.0299	0.0193
Earth	84992-05-13 21:51 G	32763884.26	32763884.41	32763884.56	0.0278	0.0220
Moon	84992-05-13 22:05 G	32763884.27	32763884.42	32763884.58	0.0278	0.0217 *
Moon	84993-05-26 12:44 G	32764261.82	32764262.03	32764262.24	0.0274	0.0147
Earth	84993-05-26 15:51 G	32764261.97	32764262.16	32764262.37	0.0274	0.0157 *
Venus	84994-04-23 19:41 G	32764594.17	32764594.32	32764594.48	0.0271	0.0190
Venus	84994-12-09 02:53 G	32764823.40	32764823.62	32764823.83	0.0269	0.0022
Venus	84995-07-26 08:10 G	32765052.67	32765052.84	32765053.03	0.0267	0.0143
Mercury	84998-09-01 17:03 G	32766186.15	32766186.21	32766186.29	0.0262	0.0219
Mercury	84998-11-29 03:22 G	32766274.52	32766274.64	32766274.76	0.0262	0.0118
Mercury	84999-02-25 13:41 G	32766362.94	32766363.07	32766363.21	0.0262	0.0016
Mercury	84999-05-25 00:00 G	32766451.38	32766451.50	32766451.64	0.0262	0.0088
Mercury	84999-08-21 10:34 G	32766539.85	32766539.94	32766540.04	0.0262	0.0192

86TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 86th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	85008-11-23 21:36	G	32769921.15	32769921.40	32769921.64	0.0284	0.0019	
Moon	85008-11-23 22:34	G	32769921.20	32769921.44	32769921.68	0.0284	0.0006	*
Venus	85009-12-31 16:48	G	32770324.11	32770324.20	32770324.32	0.0289	0.0251	
Venus	85010-08-18 10:48	G	32770553.74	32770553.95	32770554.15	0.0291	0.0049	
Venus	85011-04-05 05:46	G	32770783.57	32770783.74	32770783.92	0.0293	0.0159	
Mercury	85013-12-27 22:48	G	32771781.29	32771781.45	32771781.62	0.0299	0.0099	
Mercury	85014-03-26 22:48	G	32771870.28	32771870.45	32771870.61	0.0299	0.0105	
Earth	85022-05-22 07:12	G	32774848.55	32774848.80	32774849.04	0.0277	0.0011	
Moon	85022-05-22 10:48	G	32774848.71	32774848.95	32774849.19	0.0277	0.0017	*
Venus	85023-11-04 23:03	G	32775380.29	32775380.46	32775380.63	0.0272	0.0169	
Venus	85024-06-21 06:00	G	32775609.54	32775609.75	32775609.97	0.0270	0.0002	
Venus	85025-02-05 11:32	G	32775838.82	32775838.98	32775839.16	0.0268	0.0165	
Mercury	85028-01-20 19:56	G	32776918.29	32776918.33	32776918.37	0.0262	0.0248	
Mercury	85028-04-18 06:00	G	32777006.64	32777006.75	32777006.87	0.0262	0.0148	
Mercury	85028-07-15 16:20	G	32777095.05	32777095.18	32777095.32	0.0262	0.0046	
Mercury	85028-10-12 02:53	G	32777183.48	32777183.62	32777183.75	0.0262	0.0058	
Mercury	85029-01-08 13:12	G	32777271.95	32777272.05	32777272.16	0.0262	0.0162	
Moon	85037-11-18 05:17	G	32780507.54	32780507.72	32780507.91	0.0282	0.0191	
Earth	85037-11-18 06:29	G	32780507.60	32780507.77	32780507.94	0.0282	0.0201	*
Moon	85038-12-01 16:20	G	32780886.04	32780886.18	32780886.33	0.0287	0.0228	
Earth	85038-12-01 20:24	G	32780886.18	32780886.35	32780886.51	0.0287	0.0211	*
Venus	85039-07-13 21:51	G	32781110.29	32781110.41	32781110.55	0.0289	0.0223	

Venus	85040-02-28 15:36 G	32781339.94	32781340.15	32781340.36	0.0292	0.0021
Venus	85040-10-15 10:48 G	32781569.80	32781569.95	32781570.12	0.0294	0.0189
Mercury	85043-05-16 20:53 G	32782513.22	32782513.37	32782513.52	0.0299	0.0164
Mercury	85043-08-13 20:53 G	32782602.19	32782602.37	32782602.54	0.0300	0.0042
Mercury	85043-11-10 20:24 G	32782691.25	32782691.35	32782691.45	0.0300	0.0242
Mars	85045-06-11 00:15 G	32783269.23	32783269.51	32783269.79	0.0299	0.0053
Moon	85051-05-16 16:20 G	32785435.02	32785435.18	32785435.37	0.0278	0.0194
Earth	85051-05-16 20:10 G	32785435.17	32785435.34	32785435.52	0.0278	0.0188 *
Moon	85052-05-28 12:15 G	32785812.83	32785813.01	32785813.20	0.0274	0.0175
Earth	85052-05-28 14:39 G	32785812.93	32785813.11	32785813.29	0.0274	0.0187 *
Venus	85053-05-17 00:44 G	32786166.36	32786166.53	32786166.72	0.0271	0.0146
Venus	85054-01-01 07:41 G	32786395.61	32786395.82	32786396.04	0.0269	0.0023
Venus	85054-08-18 13:12 G	32786624.90	32786625.05	32786625.21	0.0267	0.0185
Mercury	85057-09-05 07:56 G	32787738.74	32787738.83	32787738.93	0.0262	0.0184
Mercury	85057-12-02 18:15 G	32787827.13	32787827.26	32787827.39	0.0262	0.0083
Mercury	85058-03-01 04:34 G	32787915.56	32787915.69	32787915.83	0.0262	0.0020
Mercury	85058-05-28 15:08 G	32788004.01	32788004.13	32788004.25	0.0261	0.0123
Mercury	85058-08-25 01:27 G	32788092.50	32788092.56	32788092.64	0.0261	0.0228
Earth	85067-11-25 17:17 G	32791471.97	32791472.22	32791472.47	0.0284	0.0010
Moon	85067-11-25 20:53 G	32791472.13	32791472.37	32791472.62	0.0284	0.0026 *
Venus	85069-01-22 20:53 G	32791896.23	32791896.37	32791896.52	0.0289	0.0205
Venus	85069-09-09 14:53 G	32792125.91	32792126.12	32792126.33	0.0291	0.0002
Venus	85070-04-27 10:05 G	32792355.78	32792355.92	32792356.07	0.0293	0.0207
Mercury	85072-10-02 15:36 G	32793245.05	32793245.15	32793245.24	0.0299	0.0253
Mercury	85072-12-30 15:36 G	32793333.98	32793334.15	32793334.33	0.0299	0.0048
Mercury	85073-03-29 15:22 G	32793422.99	32793423.14	32793423.29	0.0299	0.0156
Earth	85081-05-23 04:48 G	32796399.45	32796399.70	32796399.94	0.0277	0.0019
Moon	85081-05-23 06:44 G	32796399.53	32796399.78	32796400.03	0.0277	0.0009 *
Venus	85082-11-27 03:22 G	32796952.46	32796952.64	32796952.84	0.0272	0.0126
Venus	85083-07-14 10:34 G	32797181.73	32797181.94	32797182.15	0.0270	0.0044

Venus	85084-02-28 15:51 G	32797411.04	32797411.16	32797411.31	0.0268	0.0208
Mercury	85087-01-23 10:34 G	32798470.87	32798470.94	32798471.02	0.0262	0.0214
Mercury	85087-04-21 20:53 G	32798559.25	32798559.37	32798559.50	0.0262	0.0113
Mercury	85087-07-19 07:12 G	32798647.67	32798647.80	32798647.94	0.0262	0.0012
Mercury	85087-10-15 17:46 G	32798736.11	32798736.24	32798736.37	0.0262	0.0093
Mercury	85088-01-12 04:20 G	32798824.59	32798824.68	32798824.77	0.0262	0.0197
Moon	85096-11-18 23:32 G	32802058.28	32802058.48	32802058.68	0.0282	0.0160
Earth	85096-11-19 02:53 G	32802058.44	32802058.62	32802058.83	0.0282	0.0172 *
Moon	85097-12-02 15:36 G	32802437.05	32802437.15	32802437.26	0.0287	0.0256
Earth	85097-12-02 16:20 G	32802437.06	32802437.18	32802437.33	0.0287	0.0240 *
Venus	85098-08-05 02:24 G	32802682.44	32802682.60	32802682.77	0.0289	0.0177
Venus	85099-03-22 20:10 G	32802912.13	32802912.34	32802912.55	0.0292	0.0027
Venus	85099-11-07 15:22 G	32803142.03	32803142.14	32803142.27	0.0294	0.0237
Mercury	85102-05-20 13:41 G	32804065.90	32804066.07	32804066.24	0.0299	0.0111
Mercury	85102-08-17 13:27 G	32804154.90	32804155.06	32804155.23	0.0300	0.0094
Mercury	85102-11-14 12:58 G	32804244.01	32804244.04	32804244.08	0.0300	0.0293
Moon	85110-05-18 16:20 G	32806986.00	32806986.18	32806986.38	0.0278	0.0165
Earth	85110-05-18 18:00 G	32806986.06	32806986.25	32806986.46	0.0278	0.0159 *
Earth	85111-05-31 12:58 G	32807363.89	32807364.04	32807364.19	0.0274	0.0217
Moon	85111-05-31 15:22 G	32807363.99	32807364.14	32807364.31	0.0274	0.0202 *
Venus	85111-10-23 21:51 G	32807509.40	32807509.41	32807509.42	0.0273	0.0272
Venus	85112-06-09 06:00 G	32807738.56	32807738.75	32807738.95	0.0271	0.0101
Venus	85113-01-24 12:44 G	32807967.83	32807968.03	32807968.24	0.0269	0.0067
Venus	85113-09-10 18:00 G	32808197.15	32808197.25	32808197.37	0.0267	0.0229
Mercury	85116-06-12 12:58 G	32809203.00	32809203.04	32809203.08	0.0262	0.0248
Mercury	85116-09-08 23:03 G	32809291.35	32809291.46	32809291.57	0.0262	0.0148
Mercury	85116-12-06 09:22 G	32809379.75	32809379.89	32809380.02	0.0262	0.0046
Mercury	85117-03-04 19:41 G	32809468.19	32809468.32	32809468.46	0.0262	0.0057
Mercury	85117-06-01 06:15 G	32809556.65	32809556.76	32809556.87	0.0261	0.0160
Earth	85126-11-27 14:39 G	32813022.87	32813023.11	32813023.35	0.0284	0.0040

Moon	85126-11-27 15:22 G	32813022.89	32813023.14	32813023.39	0.0284	0.0055 *
Venus	85128-02-16 01:41 G	32813468.40	32813468.57	32813468.75	0.0289	0.0158
Venus	85128-10-02 19:41 G	32813698.12	32813698.32	32813698.53	0.0292	0.0047
Venus	85129-05-20 14:53 G	32813928.03	32813928.12	32813928.24	0.0294	0.0256
Mercury	85131-10-07 08:24 G	32814797.73	32814797.85	32814797.99	0.0299	0.0199
Mercury	85132-01-04 08:39 G	32814886.69	32814886.86	32814887.04	0.0299	0.0009
Mercury	85132-04-02 08:10 G	32814975.72	32814975.84	32814975.97	0.0299	0.0209
Mars	85133-11-04 01:56 G	32815556.31	32815556.58	32815556.86	0.0299	0.0061
Moon	85140-05-24 23:46 G	32817950.25	32817950.49	32817950.75	0.0277	0.0035
Earth	85140-05-25 02:39 G	32817950.37	32817950.61	32817950.85	0.0277	0.0048 *
Venus	85141-05-05 00:00 G	32818295.43	32818295.50	32818295.59	0.0274	0.0253
Venus	85141-12-20 08:39 G	32818524.65	32818524.86	32818525.06	0.0271	0.0080
Venus	85142-08-06 15:22 G	32818753.94	32818754.14	32818754.35	0.0269	0.0088
Venus	85143-03-23 20:53 G	32818983.31	32818983.37	32818983.45	0.0268	0.0251
Mercury	85146-01-27 01:41 G	32820023.47	32820023.57	32820023.67	0.0262	0.0178
Mercury	85146-04-25 12:00 G	32820111.87	32820112.00	32820112.13	0.0262	0.0077
Mercury	85146-07-22 22:20 G	32820200.29	32820200.43	32820200.57	0.0262	0.0026
Mercury	85146-10-19 08:53 G	32820288.75	32820288.87	32820288.98	0.0262	0.0130
Mercury	85147-01-15 19:12 G	32820377.25	32820377.30	32820377.37	0.0262	0.0235
Moon	85155-11-22 01:27 G	32823609.35	32823609.56	32823609.77	0.0282	0.0128
Earth	85155-11-22 02:10 G	32823609.38	32823609.59	32823609.81	0.0282	0.0141 *
Earth	85156-12-04 15:36 G	32823988.08	32823988.15	32823988.23	0.0287	0.0271
Venus	85157-08-28 08:24 G	32824254.67	32824254.85	32824255.04	0.0290	0.0127
Venus	85158-04-15 02:24 G	32824484.40	32824484.60	32824484.80	0.0292	0.0078
Venus	85158-11-30 21:36 G	32824714.37	32824714.40	32824714.45	0.0294	0.0288
Mercury	85161-02-23 06:58 G	32825529.71	32825529.79	32825529.89	0.0299	0.0259
Mercury	85161-05-23 07:27 G	32825618.63	32825618.81	32825618.98	0.0300	0.0051
Mercury	85161-08-20 07:12 G	32825707.65	32825707.80	32825707.95	0.0300	0.0152
Earth	85169-05-19 17:46 G	32828537.03	32828537.24	32828537.47	0.0279	0.0126
Moon	85169-05-19 20:24 G	32828537.14	32828537.35	32828537.56	0.0279	0.0136 *

Earth	85170-06-01 12:44 G	32828914.93	32828915.03	32828915.14	0.0274	0.0248
Moon	85170-06-01 15:36 G	32828915.03	32828915.15	32828915.30	0.0274	0.0232 *
Venus	85170-11-15 03:51 G	32829081.55	32829081.66	32829081.78	0.0273	0.0226
Venus	85171-07-02 12:00 G	32829310.79	32829311.00	32829311.22	0.0271	0.0055
Venus	85172-02-16 18:44 G	32829540.09	32829540.28	32829540.48	0.0269	0.0112
Mercury	85175-06-16 04:05 G	32830755.59	32830755.67	32830755.75	0.0262	0.0210
Mercury	85175-09-12 14:10 G	32830843.97	32830844.09	32830844.22	0.0262	0.0110
Mercury	85175-12-10 00:29 G	32830932.39	32830932.52	32830932.66	0.0262	0.0011
Mercury	85176-03-07 11:03 G	32831020.83	32831020.96	32831021.09	0.0262	0.0096
Mercury	85176-06-03 21:22 G	32831109.31	32831109.39	32831109.49	0.0261	0.0201
Mars	85178-02-20 04:34 G	32831735.61	32831735.69	32831735.78	0.0262	0.0251
Moon	85185-11-28 12:29 G	32834573.78	32834574.02	32834574.26	0.0284	0.0090
Earth	85185-11-28 15:36 G	32834573.92	32834574.15	32834574.39	0.0284	0.0075 *
Venus	85187-03-10 08:53 G	32835040.68	32835040.87	32835041.06	0.0290	0.0106
Venus	85187-10-26 02:53 G	32835270.43	32835270.62	32835270.82	0.0292	0.0099
Mercury	85190-10-10 02:39 G	32836350.46	32836350.61	32836350.78	0.0299	0.0136
Mercury	85191-01-07 02:53 G	32836439.44	32836439.62	32836439.79	0.0299	0.0069
Mercury	85191-04-06 02:10 G	32836528.52	32836528.59	32836528.67	0.0299	0.0269
Moon	85199-05-26 23:03 G	32839501.23	32839501.46	32839501.70	0.0277	0.0065
Earth	85199-05-27 02:10 G	32839501.35	32839501.59	32839501.82	0.0277	0.0079 *
Venus	85200-05-27 05:46 G	32839867.62	32839867.74	32839867.90	0.0273	0.0207
Venus	85201-01-11 14:24 G	32840096.89	32840097.10	32840097.32	0.0271	0.0034
Venus	85201-08-28 21:08 G	32840326.20	32840326.38	32840326.57	0.0269	0.0134
Mercury	85204-11-02 06:44 G	32841487.73	32841487.78	32841487.83	0.0263	0.0241
Mercury	85205-01-29 17:03 G	32841576.09	32841576.21	32841576.32	0.0262	0.0140
Mercury	85205-04-28 03:08 G	32841664.50	32841664.63	32841664.77	0.0262	0.0038
Mercury	85205-07-25 13:41 G	32841752.94	32841753.07	32841753.20	0.0262	0.0066
Mercury	85205-10-22 00:00 G	32841841.40	32841841.50	32841841.61	0.0262	0.0171
Earth	85214-11-23 04:34 G	32845160.46	32845160.69	32845160.92	0.0282	0.0105
Moon	85214-11-23 07:41 G	32845160.60	32845160.82	32845161.06	0.0282	0.0090 *

Venus	85216-02-03 00:00 G	32845597.43	32845597.50	32845597.57	0.0287	0.0271
Venus	85216-09-19 16:34 G	32845826.98	32845827.19	32845827.39	0.0290	0.0073
Venus	85217-05-07 10:20 G	32846056.75	32846056.93	32846057.12	0.0292	0.0134
Mercury	85220-02-27 01:41 G	32847082.44	32847082.57	32847082.71	0.0299	0.0191
Mercury	85220-05-26 01:56 G	32847171.41	32847171.58	32847171.76	0.0299	0.0016
Mercury	85220-08-23 01:27 G	32847260.45	32847260.56	32847260.69	0.0300	0.0217
Mars	85222-03-30 12:15 G	32847844.72	32847845.01	32847845.29	0.0299	0.0006
Earth	85228-05-20 19:12 G	32850088.07	32850088.30	32850088.53	0.0279	0.0093
Moon	85228-05-20 22:34 G	32850088.21	32850088.44	32850088.67	0.0279	0.0103 *
Moon	85229-06-02 13:12 G	32850465.99	32850466.05	32850466.11	0.0274	0.0265
Venus	85229-12-07 11:03 G	32850653.80	32850653.96	32850654.12	0.0273	0.0178
Venus	85230-07-24 19:12 G	32850883.08	32850883.30	32850883.51	0.0270	0.0007
Venus	85231-03-11 01:56 G	32851112.40	32851112.58	32851112.75	0.0268	0.0160
Mercury	85234-06-18 19:41 G	32852308.22	32852308.32	32852308.42	0.0262	0.0169
Mercury	85234-09-15 05:46 G	32852396.61	32852396.74	32852396.88	0.0262	0.0068
Mercury	85234-12-12 16:20 G	32852485.04	32852485.18	32852485.31	0.0262	0.0036
Mercury	85235-03-11 02:39 G	32852573.50	32852573.61	32852573.73	0.0262	0.0139
Mercury	85235-06-07 13:27 G	32852662.01	32852662.06	32852662.10	0.0262	0.0244
Moon	85243-11-17 06:58 G	32855746.73	32855746.79	32855746.86	0.0280	0.0270
Moon	85244-11-29 17:32 G	32856125.03	32856125.23	32856125.46	0.0285	0.0130
Earth	85244-11-29 20:24 G	32856125.13	32856125.35	32856125.58	0.0285	0.0113 *
Venus	85245-08-15 01:56 G	32856383.48	32856383.58	32856383.68	0.0287	0.0249
Venus	85246-04-01 18:15 G	32856613.06	32856613.26	32856613.47	0.0290	0.0051
Venus	85246-11-17 12:29 G	32856842.85	32856843.02	32856843.20	0.0292	0.0156
Mercury	85249-07-15 21:51 G	32857814.34	32857814.41	32857814.49	0.0299	0.0268
Mercury	85249-10-12 22:20 G	32857903.25	32857903.43	32857903.60	0.0299	0.0062
Mercury	85250-01-09 22:05 G	32857992.26	32857992.42	32857992.57	0.0299	0.0141
Earth	85257-05-15 05:17 G	32860674.67	32860674.72	32860674.79	0.0281	0.0272
Earth	85258-05-28 04:34 G	32861052.47	32861052.69	32861052.91	0.0277	0.0113
Moon	85258-05-28 05:17 G	32861052.51	32861052.72	32861052.95	0.0277	0.0099 *

Venus	85259-06-19 13:41 G	32861439.90	32861440.07	32861440.25	0.0273	0.0156
Venus	85260-02-03 21:51 G	32861669.20	32861669.41	32861669.63	0.0271	0.0017
Venus	85260-09-20 04:48 G	32861898.54	32861898.70	32861898.85	0.0269	0.0182
Mercury	85263-11-05 22:20 G	32863040.35	32863040.43	32863040.52	0.0263	0.0199
Mercury	85264-02-02 08:39 G	32863128.73	32863128.86	32863128.99	0.0263	0.0097
Mercury	85264-04-30 18:58 G	32863217.15	32863217.29	32863217.43	0.0262	0.0006
Mercury	85264-07-28 05:17 G	32863305.60	32863305.72	32863305.85	0.0262	0.0110
Mercury	85264-10-24 15:51 G	32863394.09	32863394.16	32863394.25	0.0262	0.0215
Mars	85266-07-17 01:41 G	32864024.36	32864024.57	32864024.81	0.0262	0.0175
Earth	85273-11-24 11:03 G	32866711.72	32866711.96	32866712.20	0.0283	0.0065
Moon	85273-11-24 13:41 G	32866711.82	32866712.07	32866712.32	0.0283	0.0048 *
Venus	85275-02-25 10:20 G	32867169.80	32867169.93	32867170.08	0.0288	0.0214
Venus	85275-10-13 03:08 G	32867399.43	32867399.63	32867399.84	0.0290	0.0016
Venus	85276-05-29 21:36 G	32867629.24	32867629.40	32867629.55	0.0293	0.0193
Mercury	85279-03-01 22:05 G	32868635.25	32868635.42	32868635.58	0.0299	0.0111
Mercury	85279-05-29 21:51 G	32868724.25	32868724.41	32868724.58	0.0299	0.0094
Mercury	85279-08-26 21:22 G	32868813.36	32868813.39	32868813.43	0.0300	0.0293
Moon	85287-05-22 22:48 G	32871639.21	32871639.45	32871639.70	0.0278	0.0069
Earth	85287-05-22 23:32 G	32871639.24	32871639.48	32871639.72	0.0278	0.0056 *
Venus	85288-12-29 19:41 G	32872226.13	32872226.32	32872226.51	0.0272	0.0126
Venus	85289-08-16 03:36 G	32872455.44	32872455.65	32872455.87	0.0270	0.0045
Venus	85290-04-02 10:05 G	32872684.80	32872684.92	32872685.06	0.0268	0.0210
Mercury	85293-03-25 01:27 G	32873772.49	32873772.56	32873772.62	0.0262	0.0226
Mercury	85293-06-21 11:32 G	32873860.86	32873860.98	32873861.10	0.0262	0.0125
Mercury	85293-09-17 21:51 G	32873949.28	32873949.41	32873949.55	0.0262	0.0023
Mercury	85293-12-15 08:24 G	32874037.72	32874037.85	32874037.98	0.0262	0.0082
Mercury	85294-03-13 18:44 G	32874126.19	32874126.28	32874126.38	0.0262	0.0186
Moon	85302-11-19 18:00 G	32877298.12	32877298.25	32877298.40	0.0281	0.0228
Earth	85302-11-19 19:41 G	32877298.22	32877298.32	32877298.46	0.0281	0.0244 *
Earth	85303-12-03 05:46 G	32877676.54	32877676.74	32877676.95	0.0285	0.0157

Moon	85303-12-03 07:27 G	32877676.63	32877676.81	32877677.01	0.0285	0.0174 *
Venus	85304-09-07 14:10 G	32877955.93	32877956.09	32877956.24	0.0288	0.0189
Venus	85305-04-25 06:44 G	32878185.57	32878185.78	32878185.99	0.0290	0.0012
Venus	85305-12-11 00:58 G	32878415.41	32878415.54	32878415.68	0.0292	0.0219
Mercury	85308-07-19 18:58 G	32879367.15	32879367.29	32879367.43	0.0299	0.0183
Mercury	85308-10-16 18:58 G	32879456.12	32879456.29	32879456.47	0.0299	0.0023
Mercury	85309-01-13 18:29 G	32879545.16	32879545.27	32879545.39	0.0299	0.0224
Mars	85310-08-24 18:44 G	32880133.00	32880133.28	32880133.56	0.0298	0.0052
Earth	85316-05-17 10:48 G	32882225.83	32882225.95	32882226.09	0.0281	0.0234
Moon	85316-05-17 12:00 G	32882225.89	32882226.00	32882226.12	0.0281	0.0247 *
Earth	85317-05-30 09:36 G	32882603.70	32882603.90	32882604.11	0.0277	0.0150
Moon	85317-05-30 13:12 G	32882603.85	32882604.05	32882604.27	0.0277	0.0134 *
Venus	85318-07-12 23:03 G	32883012.26	32883012.46	32883012.66	0.0273	0.0104
Venus	85319-02-27 06:58 G	32883241.59	32883241.79	32883242.00	0.0271	0.0068
Venus	85319-10-14 13:41 G	32883470.97	32883471.07	32883471.18	0.0269	0.0233
Mercury	85322-08-13 04:05 G	32884504.65	32884504.67	32884504.70	0.0263	0.0256
Mercury	85322-11-09 14:24 G	32884592.99	32884593.10	32884593.21	0.0263	0.0154
Mercury	85323-02-06 00:44 G	32884681.39	32884681.53	32884681.66	0.0263	0.0052
Mercury	85323-05-05 11:03 G	32884769.83	32884769.96	32884770.10	0.0262	0.0052
Mercury	85323-08-01 21:36 G	32884858.29	32884858.40	32884858.51	0.0262	0.0157
Moon	85332-11-26 18:58 G	32888263.04	32888263.29	32888263.54	0.0283	0.0005
Earth	85332-11-26 21:08 G	32888263.14	32888263.38	32888263.63	0.0283	0.0022 *
Venus	85334-03-20 23:17 G	32888742.29	32888742.47	32888742.65	0.0288	0.0152
Venus	85334-11-05 16:20 G	32888971.98	32888972.18	32888972.39	0.0291	0.0050
Venus	85335-06-23 10:48 G	32889201.86	32889201.95	32889202.05	0.0293	0.0257
Mercury	85337-12-06 19:12 G	32890099.19	32890099.30	32890099.42	0.0299	0.0228
Mercury	85338-03-05 19:27 G	32890188.14	32890188.31	32890188.49	0.0299	0.0023
Mercury	85338-06-02 19:12 G	32890277.16	32890277.30	32890277.44	0.0299	0.0181
Moon	85346-05-25 03:36 G	32893190.41	32893190.65	32893190.90	0.0278	0.0031
Earth	85346-05-25 07:27 G	32893190.57	32893190.81	32893191.06	0.0278	0.0015 *

Venus	85347-06-07 20:53 G	32893569.29	32893569.37	32893569.48	0.0274	0.0246
Venus	85348-01-23 06:15 G	32893798.56	32893798.76	32893798.98	0.0272	0.0072
Venus	85348-09-08 14:10 G	32894027.89	32894028.09	32894028.29	0.0270	0.0098
Venus	85349-04-25 20:39 G	32894257.32	32894257.36	32894257.40	0.0268	0.0262
Mercury	85352-03-28 17:46 G	32895325.14	32895325.24	32895325.34	0.0262	0.0178
Mercury	85352-06-25 03:51 G	32895413.54	32895413.66	32895413.80	0.0262	0.0076
Mercury	85352-09-21 14:24 G	32895501.96	32895502.10	32895502.23	0.0262	0.0028
Mercury	85352-12-19 00:44 G	32895590.42	32895590.53	32895590.65	0.0262	0.0132
Mercury	85353-03-17 11:32 G	32895678.92	32895678.98	32895679.03	0.0262	0.0237
Mars	85354-12-12 06:29 G	32896313.49	32896313.77	32896314.06	0.0262	0.0087
Earth	85361-11-21 08:39 G	32898849.69	32898849.86	32898850.04	0.0281	0.0196
Moon	85361-11-21 11:17 G	32898849.79	32898849.97	32898850.15	0.0281	0.0180 *
Earth	85362-12-04 18:58 G	32899228.13	32899228.29	32899228.47	0.0285	0.0206
Moon	85362-12-04 22:48 G	32899228.31	32899228.45	32899228.61	0.0285	0.0222 *
Venus	85363-10-01 04:48 G	32899528.51	32899528.70	32899528.89	0.0288	0.0125
Venus	85364-05-17 21:36 G	32899758.20	32899758.40	32899758.61	0.0291	0.0079
Venus	85365-01-02 16:05 G	32899988.14	32899988.17	32899988.22	0.0293	0.0286
Mercury	85367-04-25 17:03 G	32900831.18	32900831.21	32900831.24	0.0298	0.0292
Mercury	85367-07-23 17:17 G	32900920.05	32900920.22	32900920.39	0.0299	0.0085
Mercury	85367-10-20 17:17 G	32901009.06	32901009.22	32901009.38	0.0299	0.0118
Earth	85375-05-19 19:56 G	32903777.16	32903777.33	32903777.52	0.0280	0.0191
Moon	85375-05-20 00:00 G	32903777.34	32903777.50	32903777.67	0.0280	0.0206 *
Earth	85376-05-31 18:15 G	32904155.09	32904155.26	32904155.45	0.0276	0.0191
Moon	85376-05-31 19:41 G	32904155.13	32904155.32	32904155.53	0.0276	0.0174 *
Venus	85376-12-18 00:44 G	32904355.41	32904355.53	32904355.66	0.0274	0.0222
Venus	85377-08-04 10:05 G	32904584.71	32904584.92	32904585.13	0.0272	0.0048
Venus	85378-03-21 18:00 G	32904814.06	32904814.25	32904814.44	0.0270	0.0123
Mercury	85381-08-15 20:24 G	32906057.27	32906057.35	32906057.44	0.0263	0.0207
Mercury	85381-11-12 06:44 G	32906145.66	32906145.78	32906145.91	0.0263	0.0105
Mercury	85382-02-08 17:03 G	32906234.08	32906234.21	32906234.35	0.0263	0.0009

Mercury	85382-05-08 03:36 G	32906322.53	32906322.65	32906322.78	0.0263	0.0103
Mercury	85382-08-04 14:10 G	32906411.01	32906411.09	32906411.18	0.0262	0.0208
Moon	85391-11-29 07:41 G	32909814.58	32909814.82	32909815.06	0.0283	0.0044
Earth	85391-11-29 11:17 G	32909814.73	32909814.97	32909815.21	0.0283	0.0028 *
Venus	85392-08-25 22:48 G	32910085.43	32910085.45	32910085.49	0.0286	0.0282
Venus	85393-04-12 14:39 G	32910314.91	32910315.11	32910315.31	0.0289	0.0086
Venus	85393-11-28 07:56 G	32910544.64	32910544.83	32910545.02	0.0291	0.0118
Mercury	85396-12-09 18:15 G	32911652.10	32911652.26	32911652.42	0.0299	0.0126
Mercury	85397-03-08 18:15 G	32911741.09	32911741.26	32911741.43	0.0299	0.0078
Mercury	85397-06-05 17:32 G	32911830.17	32911830.23	32911830.30	0.0299	0.0279
Mars	85399-01-19 17:03 G	32912422.99	32912423.21	32912423.44	0.0299	0.0184
Moon	85405-05-27 16:48 G	32914741.96	32914742.20	32914742.44	0.0278	0.0013
Earth	85405-05-27 18:00 G	32914742.00	32914742.25	32914742.49	0.0278	0.0030 *
Venus	85406-07-01 09:22 G	32915141.74	32915141.89	32915142.05	0.0274	0.0189
Venus	85407-02-15 18:29 G	32915371.06	32915371.27	32915371.49	0.0272	0.0015
Venus	85407-10-03 01:56 G	32915600.41	32915600.58	32915600.76	0.0270	0.0154
Mercury	85411-01-04 00:00 G	32916789.44	32916789.50	32916789.57	0.0263	0.0229
Mercury	85411-04-02 10:20 G	32916877.81	32916877.93	32916878.05	0.0262	0.0127
Mercury	85411-06-29 20:39 G	32916966.23	32916966.36	32916966.50	0.0262	0.0024
Mercury	85411-09-26 07:12 G	32917054.67	32917054.80	32917054.93	0.0262	0.0080
Mercury	85411-12-23 17:46 G	32917143.14	32917143.24	32917143.33	0.0262	0.0185
Earth	85420-11-24 00:00 G	32920401.30	32920401.50	32920401.72	0.0282	0.0146
Moon	85420-11-24 03:22 G	32920401.43	32920401.64	32920401.87	0.0282	0.0130 *
Earth	85421-12-07 11:17 G	32920779.88	32920779.97	32920780.08	0.0286	0.0258
Moon	85421-12-07 11:32 G	32920779.91	32920779.98	32920780.07	0.0286	0.0270 *
Venus	85422-03-09 05:17 G	32920871.63	32920871.72	32920871.82	0.0287	0.0254
Venus	85422-10-24 21:08 G	32921101.18	32921101.38	32921101.59	0.0289	0.0056
Venus	85423-06-11 14:24 G	32921330.93	32921331.10	32921331.28	0.0291	0.0149
Mercury	85426-04-29 16:34 G	32922384.05	32922384.19	32922384.33	0.0298	0.0185
Mercury	85426-07-27 16:48 G	32922473.02	32922473.20	32922473.37	0.0299	0.0021

Mercury	85426-10-24 16:05 G	32922562.07	32922562.17	32922562.30	0.0299	0.0222
Earth	85434-05-22 08:39 G	32925328.65	32925328.86	32925329.07	0.0280	0.0143
Moon	85434-05-22 09:22 G	32925328.69	32925328.89	32925329.11	0.0280	0.0158 *
Moon	85435-06-04 02:53 G	32925706.47	32925706.62	32925706.78	0.0276	0.0218
Earth	85435-06-04 06:00 G	32925706.63	32925706.75	32925706.89	0.0276	0.0234 *
Venus	85436-01-11 13:56 G	32925927.91	32925928.08	32925928.26	0.0274	0.0163
Venus	85436-08-27 22:48 G	32926157.24	32926157.45	32926157.67	0.0272	0.0011
Venus	85437-04-14 06:15 G	32926386.61	32926386.76	32926386.93	0.0270	0.0179
Mercury	85440-05-23 02:53 G	32927521.60	32927521.62	32927521.65	0.0263	0.0258
Mercury	85440-08-19 13:12 G	32927609.94	32927610.05	32927610.16	0.0263	0.0156
Mercury	85440-11-15 23:32 G	32927698.35	32927698.48	32927698.61	0.0263	0.0053
Mercury	85441-02-12 09:51 G	32927786.78	32927786.91	32927787.05	0.0263	0.0052
Mercury	85441-05-11 20:24 G	32927875.24	32927875.35	32927875.46	0.0263	0.0156
Mercury	85441-08-08 07:12 G	32927963.80	32927963.80	32927963.80	0.0262	0.0262
Mars	85443-05-09 17:46 G	32928602.94	32928603.24	32928603.55	0.0263	0.0009
Moon	85450-12-02 02:39 G	32931366.39	32931366.61	32931366.84	0.0284	0.0094
Earth	85450-12-02 02:53 G	32931366.39	32931366.62	32931366.86	0.0284	0.0080 *
Venus	85451-09-19 15:08 G	32931657.99	32931658.13	32931658.27	0.0287	0.0216
Venus	85452-05-06 07:12 G	32931887.59	32931887.80	32931888.01	0.0289	0.0017
Venus	85452-12-22 00:44 G	32932117.38	32932117.53	32932117.70	0.0292	0.0189
Mercury	85455-09-16 17:32 G	32933116.12	32933116.23	32933116.35	0.0299	0.0225
Mercury	85455-12-14 17:46 G	32933205.07	32933205.24	32933205.42	0.0299	0.0020
Mercury	85456-03-12 17:32 G	32933294.10	32933294.23	32933294.37	0.0299	0.0184
Earth	85464-05-29 06:58 G	32936293.56	32936293.79	32936294.03	0.0278	0.0077
Moon	85464-05-29 10:05 G	32936293.69	32936293.92	32936294.16	0.0278	0.0061 *
Venus	85465-07-23 23:03 G	32936714.28	32936714.46	32936714.66	0.0273	0.0130
Venus	85466-03-10 07:56 G	32936943.62	32936943.83	32936944.04	0.0271	0.0044
Venus	85466-10-25 14:53 G	32937172.99	32937173.12	32937173.26	0.0269	0.0212
Mercury	85470-01-06 16:48 G	32938342.11	32938342.20	32938342.31	0.0263	0.0176
Mercury	85470-04-05 03:08 G	32938430.50	32938430.63	32938430.77	0.0262	0.0074

Mercury	85470-07-02 13:41 G	32938518.93	32938519.07	32938519.20	0.0262	0.0031
Mercury	85470-09-29 00:00 G	32938607.39	32938607.50	32938607.62	0.0262	0.0135
Mercury	85470-12-26 10:48 G	32938695.89	32938695.95	32938696.00	0.0262	0.0241
Earth	85479-11-26 17:32 G	32941953.00	32941953.23	32941953.46	0.0282	0.0092
Moon	85479-11-26 18:00 G	32941953.01	32941953.25	32941953.50	0.0282	0.0077 *
Venus	85481-03-31 22:34 G	32942444.29	32942444.44	32942444.61	0.0287	0.0186
Venus	85481-11-16 14:53 G	32942673.92	32942674.12	32942674.33	0.0290	0.0016
Venus	85482-07-04 08:39 G	32942903.73	32942903.86	32942904.00	0.0292	0.0222
Mercury	85485-02-02 16:34 G	32943848.13	32943848.19	32943848.25	0.0298	0.0280
Mercury	85485-05-02 16:48 G	32943937.03	32943937.20	32943937.38	0.0299	0.0073
Mercury	85485-07-30 16:48 G	32944026.04	32944026.20	32944026.36	0.0299	0.0131
Moon	85493-05-23 19:41 G	32946880.10	32946880.32	32946880.56	0.0279	0.0109
Earth	85493-05-23 22:48 G	32946880.22	32946880.45	32946880.68	0.0279	0.0094 *
Moon	85494-06-05 16:20 G	32947258.12	32947258.18	32947258.24	0.0275	0.0266
Venus	85495-02-03 03:51 G	32947500.47	32947500.66	32947500.86	0.0273	0.0103
Venus	85495-09-20 12:15 G	32947729.81	32947730.01	32947730.22	0.0271	0.0070
Venus	85496-05-06 19:12 G	32947959.21	32947959.30	32947959.41	0.0269	0.0237
Mercury	85499-05-26 19:41 G	32949074.24	32949074.32	32949074.41	0.0263	0.0205
Mercury	85499-08-23 06:00 G	32949162.63	32949162.75	32949162.88	0.0263	0.0103
Mercury	85499-11-19 16:20 G	32949251.05	32949251.18	32949251.32	0.0263	0.0005
Mercury	85500-02-16 02:53 G	32949339.49	32949339.62	32949339.74	0.0263	0.0105
Mercury	85500-05-15 13:27 G	32949427.98	32949428.06	32949428.14	0.0263	0.0211
Moon	85508-11-21 08:39 G	32952539.77	32952539.86	32952539.99	0.0280	0.0248
Earth	85508-11-21 09:22 G	32952539.82	32952539.89	32952539.99	0.0280	0.0263 *
Earth	85509-12-04 18:44 G	32952918.08	32952918.28	32952918.51	0.0284	0.0133
Moon	85509-12-04 21:51 G	32952918.21	32952918.41	32952918.62	0.0284	0.0148 *
Venus	85510-10-13 07:12 G	32953230.63	32953230.80	32953230.99	0.0288	0.0150
Venus	85511-05-31 00:00 G	32953460.30	32953460.50	32953460.71	0.0290	0.0052
Venus	85512-01-15 18:15 G	32953690.17	32953690.26	32953690.36	0.0292	0.0260
Mercury	85514-09-20 17:32 G	32954669.07	32954669.23	32954669.40	0.0299	0.0115

Mercury	85514-12-18 17:32 G	32954758.06	32954758.23	32954758.40	0.0299	0.0090
Mercury	85515-03-17 17:03 G	32954847.17	32954847.21	32954847.25	0.0299	0.0290
Earth	85522-05-19 22:05 G	32957467.32	32957467.42	32957467.53	0.0281	0.0254
Moon	85522-05-20 00:29 G	32957467.46	32957467.52	32957467.60	0.0281	0.0267 *
Earth	85523-06-01 21:22 G	32957845.17	32957845.39	32957845.61	0.0277	0.0126
Moon	85523-06-02 00:15 G	32957845.29	32957845.51	32957845.75	0.0277	0.0111 *
Venus	85523-12-31 04:05 G	32958057.57	32958057.67	32958057.76	0.0275	0.0244
Venus	85524-08-16 13:27 G	32958286.86	32958287.06	32958287.27	0.0273	0.0069
Venus	85525-04-02 21:36 G	32958516.21	32958516.40	32958516.60	0.0271	0.0104
Mercury	85528-10-13 23:46 G	32959806.42	32959806.49	32959806.55	0.0263	0.0224
Mercury	85529-01-10 09:51 G	32959894.79	32959894.91	32959895.03	0.0263	0.0122
Mercury	85529-04-08 20:10 G	32959983.21	32959983.34	32959983.48	0.0262	0.0019
Mercury	85529-07-06 06:44 G	32960071.65	32960071.78	32960071.91	0.0262	0.0085
Mercury	85529-10-02 17:03 G	32960160.12	32960160.21	32960160.31	0.0262	0.0190
Mars	85531-10-05 12:00 G	32960892.74	32960893.00	32960893.28	0.0263	0.0121
Moon	85538-11-29 06:29 G	32963504.53	32963504.77	32963505.02	0.0283	0.0024
Earth	85538-11-29 09:36 G	32963504.66	32963504.90	32963505.15	0.0283	0.0040 *
Venus	85540-04-24 15:36 G	32964016.96	32964017.15	32964017.34	0.0288	0.0117
Venus	85540-12-10 08:10 G	32964246.65	32964246.84	32964247.05	0.0291	0.0087
Mercury	85544-02-07 16:48 G	32965401.05	32965401.20	32965401.35	0.0299	0.0167
Mercury	85544-05-06 16:48 G	32965490.03	32965490.20	32965490.38	0.0299	0.0039
Mercury	85544-08-03 16:20 G	32965579.09	32965579.18	32965579.29	0.0299	0.0240
Moon	85552-05-26 10:48 G	32968431.72	32968431.95	32968432.19	0.0279	0.0058
Earth	85552-05-26 13:56 G	32968431.84	32968432.08	32968432.32	0.0279	0.0043 *
Venus	85553-07-12 08:53 G	32968843.74	32968843.87	32968844.00	0.0274	0.0218
Venus	85554-02-26 18:15 G	32969073.05	32969073.26	32969073.47	0.0272	0.0042
Venus	85554-10-14 02:10 G	32969302.40	32969302.59	32969302.78	0.0270	0.0129
Mercury	85558-03-03 02:24 G	32970538.57	32970538.60	32970538.63	0.0263	0.0254
Mercury	85558-05-30 12:29 G	32970626.91	32970627.02	32970627.13	0.0263	0.0153
Mercury	85558-08-26 22:48 G	32970715.32	32970715.45	32970715.59	0.0263	0.0050

Mercury	85558-11-23 09:22 G	32970803.75	32970803.89	32970804.02	0.0263	0.0055
Mercury	85559-02-19 19:41 G	32970892.22	32970892.32	32970892.43	0.0263	0.0159
Earth	85567-11-24 00:00 G	32974091.34	32974091.50	32974091.66	0.0281	0.0213
Moon	85567-11-24 03:22 G	32974091.47	32974091.64	32974091.81	0.0281	0.0196 *
Earth	85568-12-06 10:20 G	32974469.75	32974469.93	32974470.12	0.0285	0.0185
Moon	85568-12-06 13:12 G	32974469.88	32974470.05	32974470.24	0.0285	0.0200 *
Venus	85569-03-20 07:56 G	32974573.79	32974573.83	32974573.88	0.0286	0.0279
Venus	85569-11-04 23:32 G	32974803.28	32974803.48	32974803.68	0.0288	0.0083
Venus	85570-06-22 16:34 G	32975033.00	32975033.19	32975033.38	0.0291	0.0122
Mercury	85573-06-26 16:48 G	32976133.08	32976133.20	32976133.33	0.0299	0.0214
Mercury	85573-09-23 17:17 G	32976222.04	32976222.22	32976222.40	0.0299	0.0007
Mercury	85573-12-21 17:03 G	32976311.08	32976311.21	32976311.34	0.0299	0.0196
Earth	85581-05-21 12:44 G	32979018.87	32979019.03	32979019.21	0.0281	0.0203
Moon	85581-05-21 16:20 G	32979019.03	32979019.18	32979019.35	0.0281	0.0216 *
Moon	85582-06-03 10:05 G	32979396.73	32979396.92	32979397.14	0.0277	0.0161
Earth	85582-06-03 10:48 G	32979396.77	32979396.95	32979397.15	0.0277	0.0175 *
Venus	85583-01-22 18:15 G	32979630.11	32979630.26	32979630.42	0.0274	0.0184
Venus	85583-09-09 03:22 G	32979859.43	32979859.64	32979859.86	0.0272	0.0009
Venus	85584-04-25 11:03 G	32980088.79	32980088.96	32980089.13	0.0270	0.0161
Mercury	85587-10-17 16:20 G	32981359.08	32981359.18	32981359.28	0.0263	0.0172
Mercury	85588-01-14 02:39 G	32981447.48	32981447.61	32981447.74	0.0262	0.0070
Mercury	85588-04-11 12:58 G	32981535.91	32981536.04	32981536.18	0.0262	0.0034
Mercury	85588-07-08 23:32 G	32981624.36	32981624.48	32981624.59	0.0262	0.0138
Mercury	85588-10-05 09:51 G	32981712.87	32981712.91	32981712.97	0.0262	0.0244
Moon	85597-11-30 21:08 G	32985056.14	32985056.38	32985056.62	0.0283	0.0027
Earth	85597-12-01 00:00 G	32985056.25	32985056.50	32985056.74	0.0283	0.0011 *
Venus	85598-09-30 15:36 G	32985360.06	32985360.15	32985360.26	0.0287	0.0249
Venus	85599-05-18 07:27 G	32985589.60	32985589.81	32985590.01	0.0289	0.0050
Venus	85600-01-03 00:29 G	32985819.35	32985819.52	32985819.70	0.0291	0.0155
Mercury	85602-11-13 15:51 G	32986865.09	32986865.16	32986865.24	0.0299	0.0269

Mercury	85603-02-10 16:20 G	32986954.01	32986954.18	32986954.36	0.0299	0.0061
Mercury	85603-05-10 16:05 G	32987043.02	32987043.17	32987043.33	0.0299	0.0143
Earth	85611-05-29 03:51 G	32989983.41	32989983.66	32989983.90	0.0278	0.0007
Moon	85611-05-29 04:05 G	32989983.44	32989983.67	32989983.91	0.0278	0.0009 *
Venus	85612-08-03 22:48 G	32990416.28	32990416.45	32990416.63	0.0274	0.0158
Venus	85613-03-21 07:56 G	32990645.61	32990645.83	32990646.04	0.0272	0.0017
Venus	85613-11-05 15:08 G	32990874.98	32990875.13	32990875.29	0.0270	0.0186
Mercury	85617-03-05 18:44 G	32992091.21	32992091.28	32992091.37	0.0263	0.0204
Mercury	85617-06-02 05:03 G	32992179.59	32992179.71	32992179.84	0.0263	0.0102
Mercury	85617-08-29 15:22 G	32992268.01	32992268.14	32992268.28	0.0263	0.0009
Mercury	85617-11-26 01:56 G	32992356.45	32992356.58	32992356.70	0.0262	0.0106
Mercury	85618-02-22 12:15 G	32992444.94	32992445.01	32992445.10	0.0262	0.0212
Mars	85620-02-29 14:39 G	32993181.92	32993182.11	32993182.31	0.0263	0.0199
Earth	85626-11-25 11:03 G	32995642.76	32995642.96	32995643.16	0.0281	0.0166
Moon	85626-11-25 13:27 G	32995642.86	32995643.06	32995643.28	0.0281	0.0150 *
Moon	85627-12-08 20:53 G	32996021.25	32996021.37	32996021.51	0.0285	0.0246
Earth	85627-12-08 22:05 G	32996021.29	32996021.42	32996021.57	0.0285	0.0234 *
Venus	85628-04-11 21:36 G	32996146.27	32996146.40	32996146.54	0.0287	0.0218
Venus	85628-11-27 13:27 G	32996375.85	32996376.06	32996376.27	0.0289	0.0019
Venus	85629-07-15 06:58 G	32996605.64	32996605.79	32996605.95	0.0291	0.0188
Mercury	85632-06-29 15:36 G	32997685.99	32997686.15	32997686.32	0.0299	0.0114
Mercury	85632-09-26 15:51 G	32997774.99	32997775.16	32997775.33	0.0299	0.0092
Mercury	85632-12-24 15:22 G	32997864.11	32997864.14	32997864.18	0.0299	0.0293
Moon	85640-05-23 01:41 G	33000570.37	33000570.57	33000570.78	0.0280	0.0167
Earth	85640-05-23 02:10 G	33000570.39	33000570.59	33000570.80	0.0280	0.0152 *
Moon	85641-06-04 19:41 G	33000948.16	33000948.32	33000948.49	0.0276	0.0205
Earth	85641-06-04 23:03 G	33000948.33	33000948.46	33000948.62	0.0276	0.0221 *
Venus	85642-02-14 07:41 G	33001202.63	33001202.82	33001203.01	0.0273	0.0126
Venus	85642-10-01 16:05 G	33001431.96	33001432.17	33001432.39	0.0271	0.0049
Venus	85643-05-18 23:17 G	33001661.35	33001661.47	33001661.60	0.0269	0.0216

Mercury	85646-07-23 22:34 G	33002823.37	33002823.44	33002823.51	0.0263	0.0224
Mercury	85646-10-20 08:39 G	33002911.75	33002911.86	33002911.99	0.0262	0.0123
Mercury	85647-01-16 18:58 G	33003000.16	33003000.29	33003000.43	0.0262	0.0021
Mercury	85647-04-15 05:32 G	33003088.60	33003088.73	33003088.86	0.0262	0.0084
Mercury	85647-07-12 15:51 G	33003177.07	33003177.16	33003177.26	0.0262	0.0189
Earth	85656-12-02 10:48 G	33006607.71	33006607.95	33006608.19	0.0284	0.0058
Moon	85656-12-02 12:15 G	33006607.78	33006608.01	33006608.24	0.0284	0.0073 *
Venus	85657-10-23 05:03 G	33006932.56	33006932.71	33006932.87	0.0287	0.0188
Venus	85658-06-09 21:08 G	33007162.17	33007162.38	33007162.59	0.0290	0.0014
Venus	85659-01-25 14:39 G	33007391.99	33007392.11	33007392.26	0.0292	0.0221
Mercury	85661-11-16 14:39 G	33008417.97	33008418.11	33008418.26	0.0299	0.0169
Mercury	85662-02-13 14:53 G	33008506.95	33008507.12	33008507.30	0.0299	0.0038
Mercury	85662-05-13 14:24 G	33008596.01	33008596.10	33008596.21	0.0299	0.0241
Earth	85670-05-30 15:36 G	33011534.91	33011535.15	33011535.39	0.0277	0.0054
Moon	85670-05-30 19:12 G	33011535.06	33011535.30	33011535.55	0.0277	0.0037 *
Venus	85671-08-27 11:32 G	33011988.79	33011988.98	33011989.19	0.0273	0.0101
Venus	85672-04-12 19:56 G	33012218.13	33012218.33	33012218.54	0.0271	0.0073
Venus	85672-11-28 02:39 G	33012447.52	33012447.61	33012447.71	0.0269	0.0240
Mercury	85675-12-11 00:58 G	33013555.52	33013555.54	33013555.57	0.0263	0.0257
Mercury	85676-03-08 11:03 G	33013643.86	33013643.96	33013644.07	0.0263	0.0156
Mercury	85676-06-04 21:22 G	33013732.26	33013732.39	33013732.53	0.0262	0.0054
Mercury	85676-09-01 07:41 G	33013820.69	33013820.82	33013820.96	0.0262	0.0050
Mercury	85676-11-28 18:15 G	33013909.15	33013909.26	33013909.37	0.0262	0.0154
Mercury	85677-02-25 04:34 G	33013997.69	33013997.69	33013997.72	0.0262	0.0260
Moon	85685-11-26 16:20 G	33017193.95	33017194.18	33017194.42	0.0282	0.0110
Earth	85685-11-26 18:29 G	33017194.05	33017194.27	33017194.49	0.0282	0.0124 *
Earth	85686-12-10 06:15 G	33017572.71	33017572.76	33017572.83	0.0286	0.0277
Venus	85687-05-05 09:08 G	33017718.71	33017718.88	33017719.05	0.0287	0.0160
Venus	85687-12-21 01:27 G	33017948.35	33017948.56	33017948.76	0.0290	0.0041
Venus	85688-08-06 19:12 G	33018178.20	33018178.30	33018178.41	0.0292	0.0249

Mercury	85691-04-05 12:29 G	33019149.92	33019150.02	33019150.14	0.0299	0.0233
Mercury	85691-07-03 12:58 G	33019238.87	33019239.04	33019239.22	0.0299	0.0026
Mercury	85691-09-30 12:58 G	33019327.90	33019328.04	33019328.18	0.0299	0.0180
Moon	85699-05-25 08:10 G	33022121.62	33022121.84	33022122.06	0.0280	0.0124
Earth	85699-05-25 11:46 G	33022121.78	33022121.99	33022122.23	0.0280	0.0107 *
Moon	85700-06-07 06:15 G	33022499.67	33022499.76	33022499.87	0.0276	0.0250
Earth	85700-06-07 07:56 G	33022499.78	33022499.83	33022499.92	0.0276	0.0264 *
Venus	85700-07-23 09:22 G	33022545.81	33022545.89	33022545.99	0.0275	0.0248
Venus	85701-03-09 19:12 G	33022775.09	33022775.30	33022775.51	0.0273	0.0071
Venus	85701-10-25 03:08 G	33023004.44	33023004.63	33023004.83	0.0271	0.0102
Venus	85702-06-11 09:36 G	33023233.90	33023233.90	33023233.92	0.0269	0.0269
Mercury	85705-07-27 14:39 G	33024376.01	33024376.11	33024376.21	0.0262	0.0179
Mercury	85705-10-24 00:44 G	33024464.41	33024464.53	33024464.66	0.0262	0.0077
Mercury	85706-01-20 11:03 G	33024552.83	33024552.96	33024553.10	0.0262	0.0028
Mercury	85706-04-18 21:36 G	33024641.28	33024641.40	33024641.52	0.0262	0.0130
Mercury	85706-07-16 07:56 G	33024729.78	33024729.83	33024729.90	0.0262	0.0236
Moon	85714-11-22 10:05 G	33027780.89	33027780.92	33027780.95	0.0280	0.0277
Earth	85715-12-05 16:34 G	33028158.97	33028159.19	33028159.43	0.0284	0.0099
Moon	85715-12-05 20:24 G	33028159.12	33028159.35	33028159.58	0.0284	0.0111 *
Venus	85716-11-15 15:22 G	33028504.96	33028505.14	33028505.33	0.0288	0.0131
Venus	85717-07-03 07:56 G	33028734.63	33028734.83	33028735.03	0.0290	0.0072
Venus	85718-02-18 01:56 G	33028964.54	33028964.58	33028964.65	0.0293	0.0281
Mercury	85720-08-23 11:03 G	33029881.93	33029881.96	33029882.00	0.0299	0.0292
Mercury	85720-11-20 11:32 G	33029970.81	33029970.98	33029971.16	0.0299	0.0084
Mercury	85721-02-17 11:32 G	33030059.83	33030059.98	33030060.15	0.0299	0.0122
Mars	85722-07-15 23:03 G	33030573.29	33030573.46	33030573.66	0.0299	0.0224
Earth	85729-06-01 23:46 G	33033086.27	33033086.49	33033086.73	0.0277	0.0097
Moon	85729-06-02 01:27 G	33033086.33	33033086.56	33033086.81	0.0277	0.0081 *
Venus	85730-02-02 12:58 G	33033331.92	33033332.04	33033332.17	0.0274	0.0222
Venus	85730-09-19 22:20 G	33033561.22	33033561.43	33033561.64	0.0272	0.0046

Venus	85731-05-07 06:15 G	33033790.57	33033790.76	33033790.95	0.0270	0.0125
Mercury	85734-12-14 16:48 G	33035108.12	33035108.20	33035108.28	0.0262	0.0214
Mercury	85735-03-13 02:53 G	33035196.50	33035196.62	33035196.75	0.0262	0.0112
Mercury	85735-06-09 13:12 G	33035284.91	33035285.05	33035285.19	0.0262	0.0010
Mercury	85735-09-05 23:32 G	33035373.35	33035373.48	33035373.61	0.0262	0.0094
Mercury	85735-12-03 09:51 G	33035461.83	33035461.91	33035462.01	0.0262	0.0199
Moon	85744-11-28 18:15 G	33038745.02	33038745.26	33038745.49	0.0282	0.0074
Earth	85744-11-28 21:22 G	33038745.17	33038745.39	33038745.63	0.0282	0.0087 *
Venus	85746-05-28 17:46 G	33039291.05	33039291.24	33039291.44	0.0288	0.0107
Venus	85747-01-13 10:34 G	33039520.75	33039520.94	33039521.14	0.0290	0.0097
Mercury	85750-04-09 08:39 G	33040702.71	33040702.86	33040703.02	0.0299	0.0154
Mercury	85750-07-07 09:08 G	33040791.70	33040791.88	33040792.05	0.0299	0.0053
Mercury	85750-10-04 08:39 G	33040880.78	33040880.86	33040880.96	0.0300	0.0257
Moon	85758-05-27 17:17 G	33043672.99	33043673.22	33043673.45	0.0279	0.0081
Earth	85758-05-27 18:29 G	33043673.04	33043673.27	33043673.51	0.0279	0.0065 *
Venus	85759-08-15 19:12 G	33044118.16	33044118.30	33044118.46	0.0275	0.0196
Venus	85760-04-01 04:48 G	33044347.48	33044347.70	33044347.91	0.0272	0.0020
Venus	85760-11-16 12:15 G	33044576.84	33044577.01	33044577.19	0.0270	0.0152
Mercury	85764-05-02 19:56 G	33045840.28	33045840.33	33045840.39	0.0262	0.0239
Mercury	85764-07-30 06:15 G	33045928.64	33045928.76	33045928.87	0.0262	0.0138
Mercury	85764-10-26 16:20 G	33046017.05	33046017.18	33046017.32	0.0262	0.0035
Mercury	85765-01-23 02:39 G	33046105.48	33046105.61	33046105.74	0.0262	0.0068
Mercury	85765-04-21 13:12 G	33046193.95	33046194.05	33046194.15	0.0261	0.0172
Earth	85773-11-23 09:51 G	33049331.82	33049331.91	33049332.01	0.0280	0.0257
Moon	85773-11-23 13:12 G	33049331.94	33049332.05	33049332.18	0.0280	0.0241 *
Earth	85774-12-06 18:44 G	33049710.07	33049710.28	33049710.50	0.0284	0.0135
Moon	85774-12-06 18:44 G	33049710.07	33049710.28	33049710.51	0.0284	0.0143 *
Venus	85775-04-23 08:10 G	33049847.79	33049847.84	33049847.90	0.0286	0.0275
Venus	85775-12-08 23:17 G	33050077.28	33050077.47	33050077.68	0.0288	0.0079
Venus	85776-07-25 16:20 G	33050306.99	33050307.18	33050307.37	0.0291	0.0127

Mercury	85779-08-27 06:44 G	33051434.66	33051434.78	33051434.90	0.0299	0.0218
Mercury	85779-11-24 07:12 G	33051523.62	33051523.80	33051523.98	0.0299	0.0010
Mercury	85780-02-21 06:58 G	33051612.66	33051612.79	33051612.93	0.0300	0.0195
Earth	85787-05-22 05:46 G	33054259.62	33054259.74	33054259.87	0.0281	0.0242
Moon	85787-05-22 06:58 G	33054259.70	33054259.79	33054259.91	0.0281	0.0256 *
Moon	85788-06-03 01:27 G	33054637.34	33054637.56	33054637.79	0.0277	0.0121
Earth	85788-06-03 04:34 G	33054637.48	33054637.69	33054637.91	0.0277	0.0135 *
Venus	85789-02-24 21:51 G	33054904.25	33054904.41	33054904.58	0.0274	0.0171
Venus	85789-10-12 06:58 G	33055133.57	33055133.79	33055134.00	0.0272	0.0005
Venus	85790-05-29 14:10 G	33055362.93	33055363.09	33055363.26	0.0270	0.0174
Mercury	85793-12-17 08:10 G	33056660.74	33056660.84	33056660.94	0.0262	0.0174
Mercury	85794-03-15 18:15 G	33056749.13	33056749.26	33056749.39	0.0262	0.0072
Mercury	85794-06-12 04:34 G	33056837.56	33056837.69	33056837.83	0.0262	0.0031
Mercury	85794-09-08 14:53 G	33056926.01	33056926.12	33056926.24	0.0262	0.0134
Mercury	85794-12-06 01:27 G	33057014.51	33057014.56	33057014.62	0.0262	0.0239
Earth	85803-12-01 20:39 G	33060296.12	33060296.36	33060296.60	0.0282	0.0054
Moon	85803-12-01 20:39 G	33060296.13	33060296.36	33060296.60	0.0282	0.0045 *
Venus	85804-11-03 08:39 G	33060633.77	33060633.86	33060633.96	0.0286	0.0255
Venus	85805-06-21 00:00 G	33060863.30	33060863.50	33060863.71	0.0288	0.0057
Venus	85806-02-05 17:03 G	33061093.04	33061093.21	33061093.40	0.0291	0.0149
Mercury	85809-01-14 02:24 G	33062166.60	33062166.60	33062166.61	0.0299	0.0299
Mercury	85809-04-13 03:08 G	33062255.46	33062255.63	33062255.80	0.0299	0.0089
Mercury	85809-07-11 03:22 G	33062344.48	33062344.64	33062344.80	0.0300	0.0117
Mars	85810-12-10 02:53 G	33062861.40	33062861.62	33062861.85	0.0300	0.0183
Earth	85817-05-29 20:53 G	33065224.13	33065224.37	33065224.62	0.0279	0.0029
Moon	85817-05-29 23:46 G	33065224.26	33065224.49	33065224.73	0.0279	0.0043 *
Venus	85818-09-08 02:53 G	33065690.44	33065690.62	33065690.80	0.0274	0.0147
Venus	85819-04-25 11:46 G	33065919.78	33065919.99	33065920.21	0.0272	0.0030
Venus	85819-12-10 18:58 G	33066149.16	33066149.29	33066149.44	0.0270	0.0200
Mercury	85823-05-07 11:03 G	33067392.88	33067392.96	33067393.05	0.0262	0.0201

Mercury	85823-08-03 21:22 G	33067481.26	33067481.39	33067481.51	0.0262	0.0100
Mercury	85823-10-31 07:27 G	33067569.68	33067569.81	33067569.95	0.0262	0.0006
Mercury	85824-01-27 17:46 G	33067658.12	33067658.24	33067658.37	0.0261	0.0106
Mercury	85824-04-25 04:20 G	33067746.60	33067746.68	33067746.76	0.0261	0.0210
Moon	85832-11-25 07:27 G	33070882.65	33070882.81	33070882.98	0.0280	0.0213
Earth	85832-11-25 07:41 G	33070882.68	33070882.82	33070882.96	0.0280	0.0227 *
Moon	85833-12-08 13:12 G	33071260.86	33071261.05	33071261.25	0.0285	0.0169
Earth	85833-12-08 16:48 G	33071261.00	33071261.20	33071261.40	0.0285	0.0166 *
Venus	85834-05-16 13:27 G	33071419.94	33071420.06	33071420.19	0.0286	0.0229
Venus	85835-01-01 04:48 G	33071649.50	33071649.70	33071649.91	0.0289	0.0030
Venus	85835-08-18 22:05 G	33071879.26	33071879.42	33071879.59	0.0291	0.0177
Mercury	85838-08-31 00:58 G	33072987.39	33072987.54	33072987.69	0.0299	0.0155
Mercury	85838-11-28 01:12 G	33073076.38	33073076.55	33073076.73	0.0300	0.0053
Mercury	85839-02-25 00:58 G	33073165.46	33073165.54	33073165.63	0.0300	0.0257
Moon	85846-05-24 05:17 G	33075810.57	33075810.72	33075810.87	0.0281	0.0221
Earth	85846-05-24 07:56 G	33075810.67	33075810.83	33075811.00	0.0281	0.0206 *
Moon	85847-06-06 03:51 G	33076188.46	33076188.66	33076188.86	0.0276	0.0159
Earth	85847-06-06 06:15 G	33076188.58	33076188.76	33076188.97	0.0276	0.0170 *
Venus	85848-03-20 05:03 G	33076476.52	33076476.71	33076476.91	0.0273	0.0123
Venus	85848-11-04 13:41 G	33076705.86	33076706.07	33076706.28	0.0271	0.0052
Venus	85849-06-21 20:39 G	33076935.24	33076935.36	33076935.49	0.0269	0.0220
Mercury	85852-09-23 12:58 G	33078124.99	33078125.04	33078125.10	0.0262	0.0238
Mercury	85852-12-20 23:03 G	33078213.35	33078213.46	33078213.58	0.0262	0.0138
Mercury	85853-03-19 09:22 G	33078301.75	33078301.89	33078302.02	0.0262	0.0035
Mercury	85853-06-15 19:41 G	33078390.19	33078390.32	33078390.45	0.0261	0.0068
Mercury	85853-09-12 06:00 G	33078478.65	33078478.75	33078478.85	0.0261	0.0171
Mars	85855-03-28 17:03 G	33079041.20	33079041.21	33079041.23	0.0261	0.0261
Earth	85862-12-02 16:48 G	33081846.95	33081847.20	33081847.44	0.0282	0.0025
Moon	85862-12-02 20:10 G	33081847.10	33081847.34	33081847.59	0.0282	0.0017 *
Venus	85863-11-26 12:29 G	33082205.89	33082206.02	33082206.18	0.0286	0.0211

Venus	85864-07-13 04:34 G	33082435.48	33082435.69	33082435.90	0.0289	0.0011
Venus	85865-02-27 21:36 G	33082665.26	33082665.40	33082665.57	0.0291	0.0197
Mercury	85868-01-17 19:56 G	33083719.23	33083719.33	33083719.44	0.0299	0.0241
Mercury	85868-04-15 20:24 G	33083808.18	33083808.35	33083808.53	0.0299	0.0033
Mercury	85868-07-13 20:24 G	33083897.22	33083897.35	33083897.50	0.0300	0.0174
Earth	85876-05-30 20:24 G	33086775.10	33086775.35	33086775.59	0.0279	0.0004
Moon	85876-05-30 23:17 G	33086775.22	33086775.47	33086775.72	0.0279	0.0011 *
Venus	85877-09-30 08:39 G	33087262.66	33087262.86	33087263.06	0.0274	0.0100
Venus	85878-05-17 17:17 G	33087492.02	33087492.22	33087492.43	0.0272	0.0075
Venus	85879-01-02 00:15 G	33087721.43	33087721.51	33087721.61	0.0269	0.0244
Mercury	85882-05-10 01:56 G	33088945.48	33088945.58	33088945.68	0.0262	0.0167
Mercury	85882-08-06 12:00 G	33089033.87	33089034.00	33089034.13	0.0262	0.0065
Mercury	85882-11-02 22:20 G	33089122.29	33089122.43	33089122.56	0.0261	0.0038
Mercury	85883-01-30 08:39 G	33089210.75	33089210.86	33089210.98	0.0261	0.0141
Mercury	85883-04-28 19:12 G	33089299.25	33089299.30	33089299.34	0.0261	0.0246
Moon	85891-11-26 23:17 G	33092433.29	33092433.47	33092433.66	0.0280	0.0189
Earth	85891-11-27 02:53 G	33092433.46	33092433.62	33092433.80	0.0280	0.0200 *
Moon	85892-12-09 10:34 G	33092811.77	33092811.94	33092812.11	0.0285	0.0195
Earth	85892-12-09 12:29 G	33092811.84	33092812.02	33092812.20	0.0285	0.0193 *
Venus	85893-06-07 17:03 G	33092992.05	33092992.21	33092992.37	0.0287	0.0184
Venus	85894-01-23 08:53 G	33093221.66	33093221.87	33093222.08	0.0289	0.0017
Venus	85894-09-10 02:10 G	33093451.47	33093451.59	33093451.73	0.0292	0.0225
Mercury	85897-09-02 18:00 G	33094540.08	33094540.25	33094540.42	0.0300	0.0100
Mercury	85897-11-30 18:15 G	33094629.09	33094629.26	33094629.43	0.0300	0.0107
Mars	85899-05-05 00:00 G	33095149.26	33095149.50	33095149.74	0.0300	0.0156
Moon	85905-05-26 03:36 G	33097361.49	33097361.65	33097361.84	0.0281	0.0191
Earth	85905-05-26 06:44 G	33097361.59	33097361.78	33097361.98	0.0281	0.0175 *
Earth	85906-06-08 05:17 G	33097739.56	33097739.72	33097739.89	0.0276	0.0199
Moon	85906-06-08 06:44 G	33097739.62	33097739.78	33097739.96	0.0276	0.0194 *
Venus	85906-08-27 00:15 G	33097819.44	33097819.51	33097819.60	0.0275	0.0256

Venus	85907-04-13 10:34 G	33098048.74	33098048.94	33098049.15	0.0273	0.0077
Venus	85907-11-28 18:58 G	33098278.09	33098278.29	33098278.49	0.0271	0.0097
Venus	85908-07-15 01:27 G	33098507.53	33098507.56	33098507.61	0.0269	0.0264
Mercury	85911-09-28 03:51 G	33099677.57	33099677.66	33099677.74	0.0262	0.0204
Mercury	85911-12-25 13:41 G	33099765.95	33099766.07	33099766.20	0.0262	0.0104
Mercury	85912-03-23 00:00 G	33099854.37	33099854.50	33099854.64	0.0261	0.0004
Mercury	85912-06-19 10:20 G	33099942.81	33099942.93	33099943.06	0.0261	0.0102
Mercury	85912-09-15 20:39 G	33100031.28	33100031.36	33100031.45	0.0261	0.0206
Earth	85921-12-04 10:48 G	33103397.71	33103397.95	33103398.20	0.0282	0.0003
Moon	85921-12-04 12:29 G	33103397.76	33103398.02	33103398.27	0.0282	0.0005 *
Venus	85922-12-19 15:36 G	33103777.98	33103778.15	33103778.32	0.0287	0.0166
Venus	85923-08-06 07:27 G	33104007.61	33104007.81	33104008.02	0.0289	0.0035
Venus	85924-03-23 00:58 G	33104237.44	33104237.54	33104237.66	0.0292	0.0243
Mercury	85927-01-21 12:29 G	33105271.89	33105272.02	33105272.16	0.0299	0.0191
Mercury	85927-04-20 13:12 G	33105360.87	33105361.05	33105361.22	0.0300	0.0019
Mercury	85927-07-18 12:58 G	33105449.93	33105450.04	33105450.16	0.0300	0.0223
Moon	85935-06-02 16:34 G	33108325.94	33108326.19	33108326.44	0.0279	0.0022
Earth	85935-06-02 18:00 G	33108326.00	33108326.25	33108326.49	0.0279	0.0033 *
Venus	85936-03-08 03:08 G	33108605.53	33108605.63	33108605.75	0.0276	0.0235
Venus	85936-10-23 13:27 G	33108834.85	33108835.06	33108835.27	0.0274	0.0055
Venus	85937-06-09 21:51 G	33109064.22	33109064.41	33109064.60	0.0271	0.0119
Mercury	85941-02-14 06:15 G	33110409.71	33110409.76	33110409.82	0.0262	0.0235
Mercury	85941-05-13 16:34 G	33110498.07	33110498.19	33110498.30	0.0262	0.0134
Mercury	85941-08-10 02:39 G	33110586.48	33110586.61	33110586.75	0.0262	0.0032
Mercury	85941-11-06 12:58 G	33110674.91	33110675.04	33110675.17	0.0261	0.0071
Mercury	85942-02-02 23:17 G	33110763.37	33110763.47	33110763.57	0.0261	0.0175
Mars	85943-08-22 21:08 G	33111329.20	33111329.38	33111329.56	0.0261	0.0211
Moon	85950-11-28 20:24 G	33113984.16	33113984.35	33113984.54	0.0280	0.0169
Earth	85950-11-28 21:22 G	33113984.20	33113984.39	33113984.59	0.0280	0.0174 *
Earth	85951-12-12 06:29 G	33114362.63	33114362.77	33114362.94	0.0285	0.0219

Moon	85951-12-12 09:08 G	33114362.73	33114362.88	33114363.04	0.0285	0.0216	*
Venus	85952-06-30 20:10 G	33114564.16	33114564.34	33114564.52	0.0287	0.0139	
Venus	85953-02-15 12:00 G	33114793.80	33114794.00	33114794.21	0.0290	0.0063	
Venus	85953-10-03 05:46 G	33115023.67	33115023.74	33115023.82	0.0292	0.0271	
Mercury	85956-06-09 10:05 G	33116003.83	33116003.92	33116004.01	0.0300	0.0260	
Mercury	85956-09-06 10:34 G	33116092.77	33116092.94	33116093.12	0.0300	0.0050	
Mercury	85956-12-04 10:48 G	33116181.80	33116181.95	33116182.10	0.0300	0.0157	
Earth	85964-05-27 04:05 G	33118912.47	33118912.67	33118912.88	0.0281	0.0146	
Moon	85964-05-27 05:46 G	33118912.54	33118912.74	33118912.93	0.0281	0.0160	*
Earth	85965-06-09 02:53 G	33119290.48	33119290.62	33119290.76	0.0276	0.0228	
Moon	85965-06-09 06:15 G	33119290.62	33119290.76	33119290.91	0.0276	0.0222	*
Venus	85965-09-18 05:17 G	33119391.59	33119391.72	33119391.86	0.0275	0.0211	
Venus	85966-05-05 15:22 G	33119620.92	33119621.14	33119621.35	0.0273	0.0032	
Venus	85966-12-20 23:17 G	33119850.29	33119850.47	33119850.66	0.0270	0.0141	
Mercury	85970-09-30 18:29 G	33121230.17	33121230.27	33121230.37	0.0262	0.0171	
Mercury	85970-12-28 04:34 G	33121318.56	33121318.69	33121318.82	0.0262	0.0070	
Mercury	85971-03-26 14:39 G	33121406.98	33121407.11	33121407.25	0.0261	0.0034	
Mercury	85971-06-23 00:58 G	33121495.43	33121495.54	33121495.66	0.0261	0.0136	
Mercury	85971-09-19 11:32 G	33121583.93	33121583.98	33121584.03	0.0261	0.0240	
Moon	85980-12-05 02:10 G	33124948.34	33124948.59	33124948.84	0.0282	0.0023	
Earth	85980-12-05 05:32 G	33124948.48	33124948.73	33124948.97	0.0282	0.0026	*
Venus	85982-01-10 18:44 G	33125350.09	33125350.28	33125350.47	0.0287	0.0122	
Venus	85982-08-28 10:48 G	33125579.75	33125579.95	33125580.15	0.0289	0.0081	
Venus	85983-04-15 04:34 G	33125809.66	33125809.69	33125809.72	0.0292	0.0288	
Mercury	85986-01-24 05:03 G	33126824.55	33126824.71	33126824.87	0.0299	0.0142	
Mercury	85986-04-23 05:32 G	33126913.55	33126913.73	33126913.90	0.0300	0.0067	
Mercury	85986-07-21 05:17 G	33127002.65	33127002.72	33127002.80	0.0300	0.0271	
Mars	85987-09-27 23:32 G	33127436.26	33127436.48	33127436.72	0.0300	0.0173	
Moon	85994-06-03 10:34 G	33129876.70	33129876.94	33129877.18	0.0279	0.0050	
Earth	85994-06-03 14:10 G	33129876.85	33129877.09	33129877.33	0.0279	0.0059	*

Venus	85995-03-31 07:27 G	33130177.66	33130177.81	33130177.96	0.0276	0.0190
Venus	85995-11-15 17:32 G	33130407.01	33130407.23	33130407.44	0.0273	0.0011
Venus	85996-07-02 01:41 G	33130636.40	33130636.57	33130636.74	0.0271	0.0162
Mercury	86000-02-17 20:53 G	33131962.29	33131962.37	33131962.46	0.0262	0.0203
Mercury	86000-05-16 06:58 G	33132050.67	33132050.79	33132050.92	0.0262	0.0102
Mercury	86000-08-12 17:17 G	33132139.08	33132139.22	33132139.36	0.0262	0.0001
Mercury	86000-11-09 03:36 G	33132227.52	33132227.65	33132227.77	0.0261	0.0104

87TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 87th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	86001-02-05 13:56 G		33132316.00	33132316.08	33132316.16	0.0261	0.0208	
Earth	86009-11-29 16:05 G		33135534.96	33135535.17	33135535.38	0.0280	0.0149	
Moon	86009-11-29 19:27 G		33135535.11	33135535.31	33135535.52	0.0280	0.0150	*
Earth	86010-12-13 01:12 G		33135913.43	33135913.55	33135913.68	0.0285	0.0243	
Moon	86010-12-13 04:05 G		33135913.55	33135913.67	33135913.82	0.0285	0.0236	*
Venus	86011-07-23 23:03 G		33136136.27	33136136.46	33136136.66	0.0287	0.0094	
Venus	86012-03-09 15:08 G		33136365.94	33136366.13	33136366.33	0.0290	0.0110	
Mercury	86015-06-13 02:39 G		33137556.48	33137556.61	33137556.73	0.0300	0.0210	
Mercury	86015-09-10 03:08 G		33137645.45	33137645.63	33137645.81	0.0300	0.0000	
Mercury	86015-12-08 03:08 G		33137734.51	33137734.63	33137734.76	0.0300	0.0206	
Earth	86023-05-29 01:27 G		33140463.34	33140463.56	33140463.78	0.0281	0.0117	
Moon	86023-05-29 05:03 G		33140463.50	33140463.71	33140463.93	0.0281	0.0129	*

Earth	86024-06-10 00:15 G	33140841.43	33140841.51	33140841.61	0.0276	0.0256
Moon	86024-06-10 00:29 G	33140841.43	33140841.52	33140841.63	0.0276	0.0254 *
Venus	86024-10-10 10:05 G	33140963.76	33140963.92	33140964.10	0.0275	0.0165
Venus	86025-05-27 19:56 G	33141193.12	33141193.33	33141193.55	0.0273	0.0014
Venus	86026-01-12 03:51 G	33141422.51	33141422.66	33141422.82	0.0270	0.0185
Mercury	86029-07-06 23:03 G	33142694.41	33142694.46	33142694.52	0.0262	0.0238
Mercury	86029-10-03 09:08 G	33142782.77	33142782.88	33142783.00	0.0262	0.0137
Mercury	86029-12-30 19:12 G	33142871.17	33142871.30	33142871.44	0.0261	0.0036
Mercury	86030-03-29 05:32 G	33142959.60	33142959.73	33142959.86	0.0261	0.0068
Mercury	86030-06-25 15:51 G	33143048.06	33143048.16	33143048.27	0.0261	0.0171
Mars	86032-01-15 13:41 G	33143616.86	33143617.07	33143617.30	0.0261	0.0185
Moon	86039-12-06 22:48 G	33146499.21	33146499.45	33146499.69	0.0282	0.0045
Earth	86039-12-07 01:12 G	33146499.31	33146499.55	33146499.79	0.0282	0.0053 *
Venus	86040-06-17 07:41 G	33146692.77	33146692.82	33146692.89	0.0284	0.0272
Venus	86041-02-01 22:20 G	33146922.23	33146922.43	33146922.63	0.0287	0.0076
Venus	86041-09-19 14:39 G	33147151.92	33147152.11	33147152.30	0.0290	0.0128
Mercury	86045-01-26 21:51 G	33148377.24	33148377.41	33148377.58	0.0299	0.0090
Mercury	86045-04-25 22:05 G	33148466.26	33148466.42	33148466.59	0.0300	0.0118
Earth	86053-06-04 11:03 G	33151427.73	33151427.96	33151428.20	0.0279	0.0086
Moon	86053-06-04 11:03 G	33151427.74	33151427.96	33151428.19	0.0279	0.0083 *
Venus	86054-04-22 12:00 G	33151749.82	33151750.00	33151750.18	0.0276	0.0145
Venus	86054-12-07 21:51 G	33151979.20	33151979.41	33151979.63	0.0273	0.0034
Venus	86055-07-25 06:00 G	33152208.62	33152208.75	33152208.89	0.0271	0.0207
Mercury	86059-02-20 11:32 G	33153514.88	33153514.98	33153515.09	0.0262	0.0169
Mercury	86059-05-19 21:51 G	33153603.28	33153603.41	33153603.54	0.0262	0.0067
Mercury	86059-08-16 07:56 G	33153691.70	33153691.83	33153691.97	0.0262	0.0037
Mercury	86059-11-12 18:15 G	33153780.15	33153780.26	33153780.38	0.0261	0.0140
Mercury	86060-02-09 04:48 G	33153868.66	33153868.70	33153868.75	0.0261	0.0244
Earth	86068-11-30 13:27 G	33157085.84	33157086.06	33157086.29	0.0280	0.0121
Moon	86068-11-30 15:36 G	33157085.93	33157086.15	33157086.38	0.0280	0.0126 *

Moon	86069-12-13 20:39 G	33157464.26	33157464.36	33157464.48	0.0285	0.0257
Earth	86069-12-13 22:20 G	33157464.37	33157464.43	33157464.52	0.0285	0.0271 *
Venus	86069-12-28 13:27 G	33157478.96	33157479.06	33157479.17	0.0285	0.0242
Venus	86070-08-15 04:05 G	33157708.46	33157708.67	33157708.87	0.0287	0.0046
Venus	86071-04-01 20:10 G	33157938.17	33157938.34	33157938.52	0.0290	0.0159
Mercury	86074-06-15 19:56 G	33159109.18	33159109.33	33159109.48	0.0300	0.0154
Mercury	86074-09-12 20:24 G	33159198.17	33159198.35	33159198.52	0.0300	0.0055
Mercury	86074-12-10 20:10 G	33159287.26	33159287.34	33159287.43	0.0300	0.0261
Mars	86076-02-20 20:53 G	33159724.13	33159724.37	33159724.62	0.0301	0.0147
Moon	86082-05-29 22:48 G	33162014.22	33162014.45	33162014.69	0.0281	0.0094
Earth	86082-05-29 23:17 G	33162014.24	33162014.47	33162014.71	0.0281	0.0089 *
Venus	86083-11-02 15:22 G	33162535.95	33162536.14	33162536.34	0.0275	0.0118
Venus	86084-06-19 00:58 G	33162765.34	33162765.54	33162765.76	0.0272	0.0060
Venus	86085-02-03 08:53 G	33162994.77	33162994.87	33162994.99	0.0270	0.0231
Mercury	86088-07-09 13:56 G	33164247.00	33164247.08	33164247.17	0.0262	0.0202
Mercury	86088-10-06 00:00 G	33164335.38	33164335.50	33164335.63	0.0262	0.0101
Mercury	86089-01-02 10:20 G	33164423.79	33164423.93	33164424.07	0.0261	0.0003
Mercury	86089-03-31 20:39 G	33164512.23	33164512.36	33164512.48	0.0261	0.0105
Mercury	86089-06-28 06:58 G	33164600.71	33164600.79	33164600.87	0.0261	0.0209
Earth	86098-12-07 23:46 G	33168050.26	33168050.49	33168050.73	0.0282	0.0083
Moon	86098-12-08 02:10 G	33168050.36	33168050.59	33168050.83	0.0282	0.0071 *
Venus	86099-07-10 13:12 G	33168264.92	33168265.05	33168265.18	0.0285	0.0223
Venus	86100-02-25 03:36 G	33168494.45	33168494.65	33168494.86	0.0287	0.0027
Venus	86100-10-12 20:10 G	33168724.18	33168724.34	33168724.51	0.0290	0.0178
Mercury	86103-11-03 14:53 G	33169841.01	33169841.12	33169841.22	0.0299	0.0241
Mercury	86104-01-31 15:22 G	33169929.96	33169930.14	33169930.32	0.0299	0.0032
Mercury	86104-04-29 15:36 G	33170019.01	33170019.15	33170019.29	0.0300	0.0175
Earth	86111-05-25 05:32 G	33172600.67	33172600.73	33172600.81	0.0284	0.0270
Moon	86111-05-25 06:44 G	33172600.74	33172600.78	33172600.83	0.0284	0.0278 *
Earth	86112-06-06 09:22 G	33172978.68	33172978.89	33172979.12	0.0279	0.0115

Moon	86112-06-06 13:12 G	33172978.84	33172979.05	33172979.28	0.0279	0.0116	*
Venus	86113-05-15 17:32 G	33173322.03	33173322.23	33173322.43	0.0275	0.0097	
Venus	86113-12-31 03:22 G	33173551.43	33173551.64	33173551.84	0.0273	0.0081	
Venus	86114-08-17 11:17 G	33173780.91	33173780.97	33173781.05	0.0271	0.0253	
Mercury	86117-11-27 16:34 G	33174979.14	33174979.19	33174979.25	0.0263	0.0234	
Mercury	86118-02-24 02:39 G	33175067.50	33175067.61	33175067.73	0.0262	0.0132	
Mercury	86118-05-23 12:58 G	33175155.90	33175156.04	33175156.17	0.0262	0.0030	
Mercury	86118-08-19 23:17 G	33175244.34	33175244.47	33175244.60	0.0262	0.0074	
Mercury	86118-11-16 09:36 G	33175332.80	33175332.90	33175333.00	0.0261	0.0178	
Mars	86120-06-11 00:44 G	33175905.27	33175905.53	33175905.81	0.0261	0.0126	
Moon	86127-12-03 11:17 G	33178636.73	33178636.97	33178637.20	0.0280	0.0100	
Earth	86127-12-03 13:56 G	33178636.85	33178637.08	33178637.31	0.0280	0.0090	*
Venus	86129-01-20 19:56 G	33179051.17	33179051.33	33179051.48	0.0285	0.0191	
Venus	86129-09-07 10:34 G	33179280.73	33179280.94	33179281.15	0.0288	0.0007	
Venus	86130-04-25 02:53 G	33179510.48	33179510.62	33179510.77	0.0290	0.0212	
Mercury	86133-06-19 13:56 G	33180661.92	33180662.08	33180662.26	0.0300	0.0091	
Mercury	86133-09-16 14:24 G	33180750.94	33180751.10	33180751.26	0.0300	0.0118	
Moon	86141-05-31 20:10 G	33183565.10	33183565.34	33183565.58	0.0281	0.0057	
Earth	86141-06-01 00:00 G	33183565.26	33183565.50	33183565.74	0.0281	0.0057	*
Venus	86142-04-10 10:48 G	33183878.87	33183878.95	33183879.04	0.0277	0.0251	
Venus	86142-11-25 22:05 G	33184108.22	33184108.42	33184108.63	0.0275	0.0069	
Venus	86143-07-13 07:41 G	33184337.63	33184337.82	33184338.02	0.0272	0.0108	
Mercury	86147-07-14 05:17 G	33185799.62	33185799.72	33185799.83	0.0262	0.0163	
Mercury	86147-10-10 15:36 G	33185888.01	33185888.15	33185888.28	0.0262	0.0061	
Mercury	86148-01-07 01:41 G	33185976.44	33185976.57	33185976.71	0.0261	0.0043	
Mercury	86148-04-04 12:00 G	33186064.89	33186065.00	33186065.12	0.0261	0.0146	
Mercury	86148-07-01 22:34 G	33186153.40	33186153.44	33186153.47	0.0261	0.0250	
Earth	86156-11-26 21:51 G	33189223.34	33189223.41	33189223.50	0.0278	0.0262	
Moon	86156-11-27 00:15 G	33189223.46	33189223.51	33189223.58	0.0278	0.0268	*
Earth	86157-12-10 02:53 G	33189601.40	33189601.62	33189601.85	0.0282	0.0117	

Moon	86157-12-10 06:15 G	33189601.53	33189601.76	33189601.99	0.0282	0.0103 *
Venus	86158-08-02 21:08 G	33189837.23	33189837.38	33189837.56	0.0285	0.0171
Venus	86159-03-20 12:00 G	33190066.79	33190067.00	33190067.21	0.0288	0.0029
Venus	86159-11-05 04:34 G	33190296.57	33190296.69	33190296.82	0.0290	0.0234
Mercury	86162-11-06 09:51 G	33191393.77	33191393.91	33191394.06	0.0299	0.0170
Mercury	86163-02-03 10:20 G	33191482.76	33191482.93	33191483.11	0.0299	0.0039
Mercury	86163-05-03 10:20 G	33191571.83	33191571.93	33191572.04	0.0300	0.0244
Mars	86164-07-16 11:17 G	33192011.73	33192011.97	33192012.23	0.0300	0.0128
Earth	86170-05-26 06:58 G	33194151.66	33194151.79	33194151.92	0.0283	0.0238
Moon	86170-05-26 10:20 G	33194151.82	33194151.93	33194152.07	0.0283	0.0243 *
Earth	86171-06-08 10:34 G	33194529.74	33194529.94	33194530.16	0.0279	0.0146
Moon	86171-06-08 12:00 G	33194529.79	33194530.00	33194530.21	0.0279	0.0151 *
Venus	86171-10-21 12:58 G	33194664.93	33194665.04	33194665.17	0.0278	0.0230
Venus	86172-06-07 00:29 G	33194894.31	33194894.52	33194894.73	0.0275	0.0047
Venus	86173-01-22 10:05 G	33195123.74	33195123.92	33195124.11	0.0273	0.0131
Mercury	86176-11-30 07:56 G	33196531.75	33196531.83	33196531.93	0.0263	0.0194
Mercury	86177-02-26 18:15 G	33196620.13	33196620.26	33196620.38	0.0262	0.0091
Mercury	86177-05-26 04:20 G	33196708.55	33196708.68	33196708.82	0.0262	0.0013
Mercury	86177-08-22 14:39 G	33196796.99	33196797.11	33196797.24	0.0262	0.0116
Mercury	86177-11-19 00:58 G	33196885.48	33196885.54	33196885.62	0.0262	0.0221
Moon	86186-12-04 15:08 G	33200187.90	33200188.13	33200188.37	0.0280	0.0065
Earth	86186-12-04 18:29 G	33200188.03	33200188.27	33200188.51	0.0280	0.0054 *
Venus	86188-02-13 04:48 G	33200623.52	33200623.70	33200623.88	0.0285	0.0136
Venus	86188-09-29 19:41 G	33200853.12	33200853.32	33200853.53	0.0288	0.0064
Venus	86189-05-17 12:29 G	33201082.94	33201083.02	33201083.10	0.0291	0.0269
Mercury	86192-03-25 08:53 G	33202125.76	33202125.87	33202125.99	0.0299	0.0226
Mercury	86192-06-22 09:36 G	33202214.72	33202214.90	33202215.08	0.0300	0.0016
Mercury	86192-09-19 09:36 G	33202303.77	33202303.90	33202304.04	0.0300	0.0191
Moon	86200-06-03 02:10 G	33205116.35	33205116.59	33205116.82	0.0281	0.0021
Earth	86200-06-03 03:08 G	33205116.39	33205116.63	33205116.88	0.0281	0.0023 *

Venus	86201-05-03 19:12 G	33205451.16	33205451.30	33205451.45	0.0277	0.0199
Venus	86201-12-19 06:29 G	33205680.56	33205680.77	33205680.99	0.0274	0.0017
Venus	86202-08-05 15:51 G	33205909.99	33205910.16	33205910.34	0.0272	0.0160
Mercury	86206-04-20 11:03 G	33207263.89	33207263.96	33207264.03	0.0262	0.0220
Mercury	86206-07-17 21:08 G	33207352.26	33207352.38	33207352.50	0.0262	0.0119
Mercury	86206-10-14 07:27 G	33207440.67	33207440.81	33207440.94	0.0262	0.0018
Mercury	86207-01-10 17:32 G	33207529.11	33207529.23	33207529.36	0.0262	0.0088
Mercury	86207-04-09 04:05 G	33207617.58	33207617.67	33207617.76	0.0261	0.0192
Mars	86208-11-05 18:00 G	33208193.95	33208194.25	33208194.55	0.0261	0.0056
Earth	86215-11-30 05:17 G	33210774.58	33210774.72	33210774.87	0.0278	0.0224
Moon	86215-11-30 08:24 G	33210774.73	33210774.85	33210775.01	0.0278	0.0230 *
Moon	86216-12-12 09:36 G	33211152.68	33211152.90	33211153.12	0.0283	0.0142
Earth	86216-12-12 10:20 G	33211152.73	33211152.93	33211153.13	0.0283	0.0157 *
Venus	86217-08-26 07:56 G	33211409.65	33211409.83	33211410.03	0.0286	0.0112
Venus	86218-04-12 22:48 G	33211639.26	33211639.45	33211639.66	0.0288	0.0089
Mercury	86221-11-10 06:15 G	33212946.59	33212946.76	33212946.94	0.0299	0.0089
Mercury	86222-02-07 06:44 G	33213035.61	33213035.78	33213035.94	0.0299	0.0119
Earth	86229-05-28 11:46 G	33215702.83	33215702.99	33215703.17	0.0283	0.0201
Moon	86229-05-28 12:58 G	33215702.87	33215703.04	33215703.22	0.0283	0.0204 *
Moon	86230-06-10 12:00 G	33216080.83	33216081.00	33216081.19	0.0279	0.0191
Earth	86230-06-10 15:08 G	33216080.96	33216081.13	33216081.33	0.0279	0.0181 *
Venus	86230-11-13 22:20 G	33216237.27	33216237.43	33216237.60	0.0277	0.0175
Venus	86231-07-01 09:36 G	33216466.68	33216466.90	33216467.11	0.0275	0.0007
Venus	86232-02-15 18:58 G	33216696.14	33216696.29	33216696.45	0.0272	0.0184
Mercury	86235-09-07 13:41 G	33217996.04	33217996.07	33217996.11	0.0263	0.0251
Mercury	86235-12-05 00:00 G	33218084.39	33218084.50	33218084.61	0.0263	0.0149
Mercury	86236-03-02 10:05 G	33218172.79	33218172.92	33218173.05	0.0263	0.0046
Mercury	86236-05-29 20:24 G	33218261.22	33218261.35	33218261.48	0.0262	0.0058
Mercury	86236-08-26 06:44 G	33218349.67	33218349.78	33218349.89	0.0262	0.0162
Earth	86245-12-07 03:22 G	33221739.40	33221739.64	33221739.89	0.0280	0.0014

Moon	86245-12-07 03:36 G	33221739.42	33221739.65	33221739.89	0.0280	0.0025 *
Venus	86246-07-22 03:22 G	33221966.58	33221966.64	33221966.71	0.0283	0.0268
Venus	86247-03-08 16:48 G	33222196.00	33222196.20	33222196.40	0.0286	0.0075
Venus	86247-10-24 07:56 G	33222425.65	33222425.83	33222426.03	0.0288	0.0127
Mercury	86251-03-30 06:29 G	33223678.61	33223678.77	33223678.93	0.0299	0.0137
Mercury	86251-06-27 06:44 G	33223767.61	33223767.78	33223767.96	0.0300	0.0072
Mercury	86251-09-24 06:44 G	33223856.72	33223856.78	33223856.85	0.0300	0.0277
Mars	86252-12-11 17:03 G	33224300.93	33224301.21	33224301.49	0.0301	0.0033
Earth	86259-06-05 10:05 G	33226667.68	33226667.92	33226668.16	0.0281	0.0017
Moon	86259-06-05 12:58 G	33226667.80	33226668.04	33226668.28	0.0281	0.0022 *
Venus	86260-05-26 05:46 G	33227023.56	33227023.74	33227023.93	0.0277	0.0143
Venus	86261-01-10 16:48 G	33227252.99	33227253.20	33227253.41	0.0274	0.0039
Venus	86261-08-28 01:56 G	33227482.45	33227482.58	33227482.71	0.0272	0.0214
Mercury	86265-04-23 03:08 G	33228816.53	33228816.63	33228816.73	0.0262	0.0174
Mercury	86265-07-20 13:27 G	33228904.93	33228905.06	33228905.19	0.0262	0.0071
Mercury	86265-10-16 23:32 G	33228993.35	33228993.48	33228993.62	0.0262	0.0034
Mercury	86266-01-13 09:51 G	33229081.80	33229081.91	33229082.03	0.0262	0.0137
Mercury	86266-04-11 20:24 G	33229170.30	33229170.35	33229170.40	0.0261	0.0241
Moon	86274-12-01 16:34 G	33232326.02	33232326.19	33232326.39	0.0279	0.0189
Earth	86274-12-01 17:03 G	33232326.03	33232326.21	33232326.40	0.0279	0.0179 *
Moon	86275-12-14 18:58 G	33232704.11	33232704.29	33232704.48	0.0283	0.0186
Earth	86275-12-14 22:34 G	33232704.27	33232704.44	33232704.61	0.0283	0.0202 *
Venus	86276-02-01 08:10 G	33232752.74	33232752.84	33232752.96	0.0283	0.0242
Venus	86276-09-17 21:51 G	33232982.20	33232982.41	33232982.62	0.0286	0.0047
Venus	86277-05-05 12:58 G	33233211.87	33233212.04	33233212.22	0.0289	0.0154
Mercury	86280-08-16 03:51 G	33234410.53	33234410.66	33234410.79	0.0299	0.0204
Mercury	86280-11-13 04:20 G	33234499.50	33234499.68	33234499.86	0.0299	0.0005
Mercury	86281-02-10 04:20 G	33234588.56	33234588.68	33234588.81	0.0299	0.0211
Moon	86288-05-29 17:17 G	33237254.02	33237254.22	33237254.43	0.0283	0.0160
Earth	86288-05-29 19:56 G	33237254.14	33237254.33	33237254.55	0.0283	0.0161 *

Moon	86289-06-11 20:10 G	33237632.22	33237632.34	33237632.49	0.0279	0.0231
Earth	86289-06-11 23:03 G	33237632.32	33237632.46	33237632.62	0.0279	0.0219 *
Venus	86289-12-06 09:22 G	33237809.70	33237809.89	33237810.09	0.0277	0.0118
Venus	86290-07-23 20:24 G	33238039.14	33238039.35	33238039.56	0.0274	0.0064
Venus	86291-03-10 05:32 G	33238268.64	33238268.73	33238268.84	0.0272	0.0239
Mercury	86294-09-10 06:00 G	33239548.67	33239548.75	33239548.84	0.0263	0.0203
Mercury	86294-12-07 16:05 G	33239637.05	33239637.17	33239637.30	0.0263	0.0101
Mercury	86295-03-06 02:24 G	33239725.47	33239725.60	33239725.74	0.0263	0.0006
Mercury	86295-06-02 12:44 G	33239813.91	33239814.03	33239814.16	0.0262	0.0108
Mercury	86295-08-29 23:17 G	33239902.39	33239902.47	33239902.55	0.0262	0.0213
Mars	86297-04-02 00:15 G	33240483.21	33240483.51	33240483.82	0.0262	0.0032
Earth	86304-12-09 16:05 G	33243290.92	33243291.17	33243291.41	0.0281	0.0033
Moon	86304-12-09 19:41 G	33243291.07	33243291.32	33243291.56	0.0281	0.0020 *
Venus	86305-08-14 17:03 G	33243539.08	33243539.21	33243539.37	0.0284	0.0206
Venus	86306-04-01 06:58 G	33243768.58	33243768.79	33243769.00	0.0286	0.0011
Venus	86306-11-16 22:34 G	33243998.29	33243998.44	33243998.60	0.0289	0.0193
Mercury	86310-01-04 04:05 G	33245142.58	33245142.67	33245142.78	0.0299	0.0248
Mercury	86310-04-03 04:48 G	33245231.53	33245231.70	33245231.88	0.0299	0.0039
Mercury	86310-07-01 05:03 G	33245320.57	33245320.71	33245320.86	0.0300	0.0169
Earth	86318-06-07 20:10 G	33248219.10	33248219.34	33248219.58	0.0280	0.0060
Moon	86318-06-07 23:17 G	33248219.23	33248219.47	33248219.72	0.0280	0.0064 *
Venus	86318-11-02 05:46 G	33248366.69	33248366.74	33248366.80	0.0279	0.0269
Venus	86319-06-19 18:00 G	33248596.05	33248596.25	33248596.46	0.0276	0.0084
Venus	86320-02-04 04:48 G	33248825.50	33248825.70	33248825.90	0.0274	0.0097
Venus	86320-09-20 13:27 G	33249055.05	33249055.06	33249055.09	0.0271	0.0270
Mercury	86324-01-29 09:36 G	33250280.84	33250280.90	33250280.97	0.0263	0.0225
Mercury	86324-04-26 19:41 G	33250369.21	33250369.32	33250369.44	0.0262	0.0123
Mercury	86324-07-24 06:00 G	33250457.61	33250457.75	33250457.88	0.0262	0.0020
Mercury	86324-10-20 16:20 G	33250546.05	33250546.18	33250546.31	0.0262	0.0084
Mercury	86325-01-17 02:39 G	33250634.52	33250634.61	33250634.71	0.0262	0.0189

Moon	86333-12-04 04:05 G	33253877.46	33253877.67	33253877.88	0.0279	0.0144
Earth	86333-12-04 07:56 G	33253877.62	33253877.83	33253878.05	0.0279	0.0131 *
Moon	86334-12-17 12:00 G	33254255.87	33254256.00	33254256.13	0.0283	0.0237
Earth	86334-12-17 14:10 G	33254255.98	33254256.09	33254256.20	0.0283	0.0252 *
Venus	86335-02-24 23:46 G	33254325.33	33254325.49	33254325.66	0.0284	0.0176
Venus	86335-10-12 13:41 G	33254554.87	33254555.07	33254555.28	0.0287	0.0022
Venus	86336-05-29 05:17 G	33254784.59	33254784.72	33254784.86	0.0289	0.0224
Mercury	86339-08-21 03:22 G	33255963.47	33255963.64	33255963.81	0.0299	0.0097
Mercury	86339-11-18 03:36 G	33256052.49	33256052.65	33256052.82	0.0299	0.0111
Mars	86341-05-08 23:32 G	33256590.21	33256590.48	33256590.75	0.0300	0.0073
Moon	86347-06-02 05:17 G	33258805.50	33258805.72	33258805.94	0.0282	0.0113
Earth	86347-06-02 08:24 G	33258805.63	33258805.85	33258806.08	0.0282	0.0114 *
Venus	86348-05-14 10:34 G	33259152.84	33259152.94	33259153.04	0.0278	0.0242
Earth	86348-06-14 10:20 G	33259183.86	33259183.93	33259184.02	0.0278	0.0262
Moon	86348-06-14 11:17 G	33259183.94	33259183.97	33259184.02	0.0278	0.0274 *
Venus	86348-12-29 22:34 G	33259382.24	33259382.44	33259382.66	0.0276	0.0057
Venus	86349-08-16 09:08 G	33259611.69	33259611.88	33259612.07	0.0274	0.0123
Mercury	86353-06-17 12:29 G	33261012.99	33261013.02	33261013.05	0.0264	0.0255
Mercury	86353-09-13 22:34 G	33261101.34	33261101.44	33261101.55	0.0263	0.0152
Mercury	86353-12-11 08:53 G	33261189.74	33261189.87	33261190.00	0.0263	0.0049
Mercury	86354-03-09 19:12 G	33261278.16	33261278.30	33261278.43	0.0263	0.0056
Mercury	86354-06-06 05:32 G	33261366.62	33261366.73	33261366.84	0.0262	0.0160
Earth	86363-12-12 07:41 G	33264842.58	33264842.82	33264843.05	0.0281	0.0083
Moon	86363-12-12 09:51 G	33264842.67	33264842.91	33264843.16	0.0281	0.0068 *
Venus	86364-09-06 08:53 G	33265111.70	33265111.87	33265112.06	0.0284	0.0140
Venus	86365-04-23 23:17 G	33265341.27	33265341.47	33265341.68	0.0287	0.0059
Venus	86365-12-09 15:08 G	33265571.05	33265571.13	33265571.22	0.0290	0.0263
Mercury	86369-01-07 04:05 G	33266695.51	33266695.67	33266695.83	0.0299	0.0139
Mercury	86369-04-06 04:34 G	33266784.52	33266784.69	33266784.86	0.0299	0.0070
Mercury	86369-07-04 04:20 G	33266873.62	33266873.68	33266873.76	0.0300	0.0275

Earth	86376-05-27 03:36 G	33269392.62	33269392.65	33269392.71	0.0284	0.0278
Moon	86376-05-27 06:44 G	33269392.75	33269392.78	33269392.84	0.0284	0.0280
Moon	86377-06-09 08:10 G	33269770.62	33269770.84	33269771.08	0.0280	0.0113
Earth	86377-06-09 08:53 G	33269770.65	33269770.87	33269771.10	0.0280	0.0106 *
Venus	86377-11-24 20:10 G	33269939.20	33269939.34	33269939.48	0.0278	0.0207
Venus	86378-07-12 07:56 G	33270168.61	33270168.83	33270169.04	0.0276	0.0023
Venus	86379-02-26 18:00 G	33270398.07	33270398.25	33270398.43	0.0273	0.0157
Mercury	86383-02-01 02:24 G	33271833.50	33271833.60	33271833.70	0.0263	0.0172
Mercury	86383-04-30 12:29 G	33271921.89	33271922.02	33271922.15	0.0262	0.0070
Mercury	86383-07-27 22:48 G	33272010.32	33272010.45	33272010.59	0.0262	0.0034
Mercury	86383-10-24 09:08 G	33272098.77	33272098.88	33272099.00	0.0262	0.0139
Mercury	86384-01-20 19:27 G	33272187.27	33272187.31	33272187.37	0.0262	0.0245
Mars	86385-08-28 17:32 G	33272772.99	33272773.23	33272773.51	0.0261	0.0144
Moon	86392-12-05 22:34 G	33275429.22	33275429.44	33275429.67	0.0280	0.0095
Earth	86392-12-06 00:29 G	33275429.29	33275429.52	33275429.76	0.0280	0.0081 *
Venus	86394-03-19 16:34 G	33275898.00	33275898.19	33275898.39	0.0285	0.0108
Venus	86394-11-04 06:58 G	33276127.60	33276127.79	33276127.99	0.0288	0.0092
Mercury	86398-05-27 02:53 G	33277427.49	33277427.62	33277427.76	0.0299	0.0194
Mercury	86398-08-24 03:36 G	33277516.47	33277516.65	33277516.83	0.0299	0.0016
Mercury	86398-11-21 03:36 G	33277605.53	33277605.65	33277605.77	0.0299	0.0221
Earth	86406-06-03 22:48 G	33280357.21	33280357.45	33280357.69	0.0282	0.0065
Moon	86406-06-03 23:46 G	33280357.26	33280357.49	33280357.72	0.0282	0.0060 *
Venus	86407-06-07 01:12 G	33280725.39	33280725.55	33280725.72	0.0278	0.0179
Venus	86408-01-22 12:58 G	33280954.82	33280955.04	33280955.25	0.0275	0.0006
Venus	86408-09-07 22:48 G	33281184.30	33281184.45	33281184.61	0.0273	0.0183
Mercury	86412-06-20 05:17 G	33282565.64	33282565.72	33282565.81	0.0263	0.0202
Mercury	86412-09-16 15:22 G	33282654.02	33282654.14	33282654.27	0.0263	0.0099
Mercury	86412-12-14 01:41 G	33282742.43	33282742.57	33282742.71	0.0263	0.0005
Mercury	86413-03-12 12:00 G	33282830.88	33282831.00	33282831.13	0.0263	0.0110
Mercury	86413-06-08 22:20 G	33282919.36	33282919.43	33282919.51	0.0262	0.0215

Earth	86421-11-30 19:27 G	33286016.20	33286016.31	33286016.44	0.0278	0.0241
Moon	86421-11-30 21:22 G	33286016.29	33286016.39	33286016.51	0.0278	0.0250 *
Moon	86422-12-13 21:36 G	33286394.17	33286394.40	33286394.63	0.0282	0.0117
Earth	86422-12-13 23:46 G	33286394.28	33286394.49	33286394.71	0.0282	0.0134 *
Venus	86423-02-12 12:15 G	33286454.95	33286455.01	33286455.09	0.0282	0.0264
Venus	86423-09-30 01:27 G	33286684.36	33286684.56	33286684.76	0.0285	0.0072
Venus	86424-05-16 16:05 G	33286913.99	33286914.17	33286914.36	0.0288	0.0129
Mercury	86427-10-14 03:36 G	33288159.55	33288159.65	33288159.76	0.0299	0.0236
Mercury	86428-01-11 04:20 G	33288248.50	33288248.68	33288248.86	0.0299	0.0026
Mercury	86428-04-09 04:34 G	33288337.55	33288337.69	33288337.83	0.0299	0.0181
Mars	86429-10-04 07:56 G	33288880.66	33288880.83	33288881.03	0.0300	0.0227
Moon	86435-05-29 18:29 G	33290944.12	33290944.27	33290944.43	0.0284	0.0223
Earth	86435-05-29 19:41 G	33290944.18	33290944.32	33290944.47	0.0284	0.0226 *
Moon	86436-06-10 19:56 G	33291322.13	33291322.33	33291322.53	0.0279	0.0165
Earth	86436-06-10 23:46 G	33291322.29	33291322.49	33291322.69	0.0279	0.0154 *
Venus	86436-12-17 11:03 G	33291511.79	33291511.96	33291512.16	0.0277	0.0145
Venus	86437-08-03 22:34 G	33291741.23	33291741.44	33291741.65	0.0275	0.0040
Venus	86438-03-21 07:56 G	33291970.72	33291970.83	33291970.97	0.0272	0.0218
Mercury	86441-11-07 09:08 G	33293297.81	33293297.88	33293297.95	0.0263	0.0221
Mercury	86442-02-03 19:12 G	33293386.18	33293386.30	33293386.42	0.0263	0.0119
Mercury	86442-05-03 05:32 G	33293474.59	33293474.73	33293474.87	0.0262	0.0015
Mercury	86442-07-30 15:51 G	33293563.03	33293563.16	33293563.29	0.0262	0.0089
Mercury	86442-10-27 02:10 G	33293651.50	33293651.59	33293651.68	0.0262	0.0194
Earth	86451-12-08 17:17 G	33296980.98	33296981.22	33296981.47	0.0280	0.0029
Moon	86451-12-08 19:41 G	33296981.08	33296981.32	33296981.56	0.0280	0.0043 *
Venus	86452-08-24 20:24 G	33297241.24	33297241.35	33297241.48	0.0283	0.0233
Venus	86453-04-11 09:51 G	33297470.70	33297470.91	33297471.11	0.0286	0.0039
Venus	86453-11-27 00:29 G	33297700.36	33297700.52	33297700.70	0.0288	0.0164
Mercury	86457-03-02 02:53 G	33298891.58	33298891.62	33298891.67	0.0298	0.0288
Mercury	86457-05-30 03:36 G	33298980.48	33298980.65	33298980.83	0.0299	0.0078

Mercury	86457-08-27 03:51 G	33299069.51	33299069.66	33299069.83	0.0299	0.0131
Earth	86465-06-05 14:24 G	33301908.85	33301909.10	33301909.34	0.0281	0.0015
Moon	86465-06-05 18:15 G	33301909.01	33301909.26	33301909.50	0.0281	0.0008 *
Venus	86466-06-29 16:20 G	33302298.00	33302298.18	33302298.39	0.0277	0.0116
Venus	86467-02-14 03:36 G	33302527.44	33302527.65	33302527.86	0.0274	0.0067
Venus	86467-10-01 12:44 G	33302756.95	33302757.03	33302757.14	0.0272	0.0244
Mercury	86471-03-27 11:46 G	33304029.96	33304029.99	33304030.04	0.0263	0.0252
Mercury	86471-06-23 22:05 G	33304118.31	33304118.42	33304118.53	0.0263	0.0149
Mercury	86471-09-20 08:10 G	33304206.71	33304206.84	33304206.98	0.0263	0.0046
Mercury	86471-12-17 18:29 G	33304295.14	33304295.27	33304295.40	0.0263	0.0059
Mercury	86472-03-15 04:48 G	33304383.60	33304383.70	33304383.81	0.0262	0.0164
Mars	86474-01-23 03:36 G	33305062.52	33305062.65	33305062.78	0.0262	0.0235
Moon	86480-12-02 07:56 G	33307567.67	33307567.83	33307568.01	0.0278	0.0203
Earth	86480-12-02 10:20 G	33307567.75	33307567.93	33307568.11	0.0278	0.0193 *
Moon	86481-12-15 12:00 G	33307945.82	33307946.00	33307946.21	0.0282	0.0168
Earth	86481-12-15 15:51 G	33307945.97	33307946.16	33307946.34	0.0282	0.0185 *
Venus	86482-03-07 03:51 G	33308027.52	33308027.66	33308027.81	0.0283	0.0200
Venus	86482-10-22 17:32 G	33308257.02	33308257.23	33308257.44	0.0286	0.0004
Venus	86483-06-09 08:39 G	33308486.71	33308486.86	33308487.02	0.0288	0.0198
Mercury	86486-10-17 03:51 G	33309712.50	33309712.66	33309712.83	0.0299	0.0124
Mercury	86487-01-14 04:20 G	33309801.51	33309801.68	33309801.85	0.0299	0.0085
Mercury	86487-04-13 04:05 G	33309890.64	33309890.67	33309890.72	0.0300	0.0291
Moon	86494-05-31 07:41 G	33312495.63	33312495.82	33312496.02	0.0283	0.0169
Earth	86494-05-31 11:17 G	33312495.79	33312495.97	33312496.17	0.0283	0.0173 *
Venus	86495-05-25 13:41 G	33312855.03	33312855.07	33312855.14	0.0279	0.0268
Moon	86495-06-13 12:29 G	33312873.88	33312874.02	33312874.18	0.0279	0.0216
Earth	86495-06-13 14:10 G	33312873.93	33312874.09	33312874.26	0.0279	0.0203 *
Venus	86496-01-10 02:24 G	33313084.39	33313084.60	33313084.80	0.0276	0.0081
Venus	86496-08-26 12:58 G	33313313.85	33313314.04	33313314.24	0.0274	0.0101
Mercury	86500-11-11 01:41 G	33314850.48	33314850.57	33314850.68	0.0263	0.0169

Mercury	86501-02-07 12:00 G	33314938.87	33314939.00	33314939.13	0.0262	0.0065
Mercury	86501-05-06 22:20 G	33315027.29	33315027.43	33315027.56	0.0262	0.0039
Mercury	86501-08-03 08:39 G	33315115.75	33315115.86	33315115.97	0.0262	0.0143
Mercury	86501-10-30 18:58 G	33315204.26	33315204.29	33315204.33	0.0262	0.0249
Earth	86510-12-11 07:56 G	33318532.58	33318532.83	33318533.07	0.0281	0.0021
Moon	86510-12-11 11:17 G	33318532.72	33318532.97	33318533.22	0.0281	0.0006 *
Venus	86511-09-18 11:46 G	33318813.83	33318813.99	33318814.17	0.0284	0.0169
Venus	86512-05-05 01:41 G	33319043.36	33319043.57	33319043.78	0.0287	0.0029
Venus	86512-12-20 17:03 G	33319273.09	33319273.21	33319273.33	0.0289	0.0233
Mercury	86516-03-06 03:08 G	33320444.49	33320444.63	33320444.78	0.0299	0.0176
Mercury	86516-06-03 03:51 G	33320533.48	33320533.66	33320533.84	0.0299	0.0034
Mercury	86516-08-31 03:51 G	33320622.56	33320622.66	33320622.77	0.0299	0.0240
Earth	86524-06-08 05:46 G	33323460.50	33323460.74	33323460.99	0.0280	0.0037
Moon	86524-06-08 07:12 G	33323460.55	33323460.80	33323461.05	0.0280	0.0045 *
Venus	86524-12-05 19:27 G	33323641.21	33323641.31	33323641.43	0.0278	0.0238
Venus	86525-07-23 07:41 G	33323870.61	33323870.82	33323871.03	0.0276	0.0052
Venus	86526-03-09 18:00 G	33324100.07	33324100.25	33324100.45	0.0274	0.0129
Mercury	86530-03-31 04:34 G	33325582.61	33325582.69	33325582.78	0.0263	0.0199
Mercury	86530-06-27 14:39 G	33325670.99	33325671.11	33325671.24	0.0263	0.0096
Mercury	86530-09-24 00:58 G	33325759.40	33325759.54	33325759.67	0.0263	0.0008
Mercury	86530-12-21 11:17 G	33325847.85	33325847.97	33325848.09	0.0262	0.0112
Mercury	86531-03-19 21:36 G	33325936.33	33325936.40	33325936.48	0.0262	0.0217
Moon	86539-12-05 18:29 G	33329119.08	33329119.27	33329119.48	0.0279	0.0158
Earth	86539-12-05 22:05 G	33329119.21	33329119.42	33329119.63	0.0279	0.0147 *
Moon	86540-12-18 04:34 G	33329497.54	33329497.69	33329497.84	0.0283	0.0218
Earth	86540-12-18 04:20 G	33329497.56	33329497.68	33329497.83	0.0283	0.0233 *
Venus	86541-03-30 18:00 G	33329600.07	33329600.25	33329600.43	0.0284	0.0138
Venus	86541-11-15 08:10 G	33329829.63	33329829.84	33329830.04	0.0287	0.0061
Venus	86542-07-02 23:46 G	33330059.41	33330059.49	33330059.58	0.0289	0.0265
Mercury	86545-07-24 02:39 G	33331176.49	33331176.61	33331176.72	0.0299	0.0228

Mercury	86545-10-21 03:22 G	33331265.46	33331265.64	33331265.82	0.0299	0.0018
Mercury	86546-01-18 03:22 G	33331354.51	33331354.64	33331354.79	0.0300	0.0191
Moon	86553-06-03 00:15 G	33334047.31	33334047.51	33334047.73	0.0283	0.0120
Earth	86553-06-03 01:56 G	33334047.37	33334047.58	33334047.81	0.0283	0.0122 *
Earth	86554-06-16 03:51 G	33334425.55	33334425.66	33334425.76	0.0278	0.0250
Moon	86554-06-16 06:15 G	33334425.70	33334425.76	33334425.85	0.0278	0.0265 *
Venus	86554-06-18 04:48 G	33334427.56	33334427.70	33334427.85	0.0278	0.0206
Venus	86555-02-02 16:34 G	33334656.98	33334657.19	33334657.41	0.0276	0.0020
Venus	86555-09-20 02:39 G	33334886.44	33334886.61	33334886.79	0.0273	0.0161
Mercury	86559-08-18 08:10 G	33336314.77	33336314.84	33336314.92	0.0263	0.0220
Mercury	86559-11-14 18:29 G	33336403.15	33336403.27	33336403.39	0.0262	0.0117
Mercury	86560-02-11 04:34 G	33336491.56	33336491.69	33336491.83	0.0262	0.0014
Mercury	86560-05-09 14:53 G	33336579.99	33336580.12	33336580.25	0.0262	0.0090
Mercury	86560-08-06 01:12 G	33336668.46	33336668.55	33336668.64	0.0262	0.0195
Earth	86569-12-12 19:41 G	33340084.08	33340084.32	33340084.56	0.0281	0.0067
Moon	86569-12-12 19:56 G	33340084.09	33340084.33	33340084.59	0.0281	0.0053 *
Venus	86570-10-11 01:27 G	33340386.37	33340386.56	33340386.76	0.0285	0.0107
Venus	86571-05-28 15:51 G	33340615.96	33340616.16	33340616.36	0.0287	0.0094
Mercury	86574-12-11 01:27 G	33341908.51	33341908.56	33341908.62	0.0299	0.0283
Mercury	86575-03-10 02:24 G	33341997.43	33341997.60	33341997.78	0.0299	0.0072
Mercury	86575-06-07 02:53 G	33342086.46	33342086.62	33342086.77	0.0299	0.0137
Moon	86583-06-10 16:20 G	33345011.95	33345012.18	33345012.42	0.0280	0.0096
Earth	86583-06-10 18:58 G	33345012.06	33345012.29	33345012.53	0.0280	0.0085 *
Venus	86583-12-29 09:51 G	33345213.75	33345213.91	33345214.08	0.0277	0.0177
Venus	86584-08-14 21:22 G	33345443.18	33345443.39	33345443.61	0.0275	0.0008
Venus	86585-04-01 07:12 G	33345672.65	33345672.80	33345672.96	0.0273	0.0187
Mercury	86589-01-04 10:48 G	33347046.92	33347046.95	33347046.99	0.0263	0.0252
Mercury	86589-04-02 20:53 G	33347135.26	33347135.37	33347135.48	0.0263	0.0150
Mercury	86589-06-30 06:58 G	33347223.66	33347223.79	33347223.93	0.0262	0.0048
Mercury	86589-09-26 17:17 G	33347312.09	33347312.22	33347312.35	0.0262	0.0057

Mercury	86589-12-24 03:36 G	33347400.55	33347400.65	33347400.76	0.0262	0.0162
Moon	86598-12-07 05:46 G	33350670.53	33350670.74	33350670.96	0.0279	0.0118
Earth	86598-12-07 06:00 G	33350670.53	33350670.75	33350670.98	0.0279	0.0105 *
Venus	86599-09-05 16:48 G	33350943.15	33350943.20	33350943.26	0.0282	0.0272
Earth	86599-12-20 13:12 G	33351049.01	33351049.05	33351049.11	0.0283	0.0276
Moon	86599-12-20 16:34 G	33351049.11	33351049.19	33351049.29	0.0283	0.0261 *
Venus	86600-04-23 05:32 G	33351172.54	33351172.73	33351172.94	0.0285	0.0080
Venus	86600-12-08 20:10 G	33351402.15	33351402.34	33351402.53	0.0287	0.0122
Mercury	86604-07-28 00:29 G	33352729.37	33352729.52	33352729.69	0.0299	0.0134
Mercury	86604-10-25 01:12 G	33352818.38	33352818.55	33352818.73	0.0299	0.0077
Mercury	86605-01-22 01:27 G	33352907.50	33352907.56	33352907.61	0.0300	0.0283
Earth	86612-06-05 14:10 G	33355598.85	33355599.09	33355599.33	0.0282	0.0074
Moon	86612-06-05 16:20 G	33355598.95	33355599.18	33355599.41	0.0282	0.0069 *
Venus	86613-07-11 18:15 G	33356000.08	33356000.26	33356000.44	0.0278	0.0146
Venus	86614-02-26 05:32 G	33356229.52	33356229.73	33356229.94	0.0275	0.0039
Venus	86614-10-13 14:53 G	33356459.00	33356459.12	33356459.26	0.0273	0.0218
Mercury	86618-08-22 00:29 G	33357867.42	33357867.52	33357867.62	0.0262	0.0172
Mercury	86618-11-18 10:34 G	33357955.81	33357955.94	33357956.07	0.0262	0.0069
Mercury	86619-02-14 20:53 G	33358044.23	33358044.37	33358044.50	0.0262	0.0035
Mercury	86619-05-14 06:58 G	33358132.68	33358132.79	33358132.91	0.0262	0.0139
Mercury	86619-08-10 17:32 G	33358221.18	33358221.23	33358221.28	0.0261	0.0243
Mars	86620-09-26 21:08 G	33358634.24	33358634.38	33358634.53	0.0261	0.0230
Earth	86627-12-02 22:34 G	33361257.38	33361257.44	33361257.53	0.0277	0.0264
Moon	86627-12-02 22:34 G	33361257.42	33361257.44	33361257.49	0.0277	0.0275 *
Moon	86628-12-14 23:17 G	33361635.24	33361635.47	33361635.71	0.0282	0.0091
Earth	86628-12-15 02:39 G	33361635.39	33361635.61	33361635.84	0.0282	0.0108 *
Venus	86629-03-18 23:03 G	33361729.37	33361729.46	33361729.58	0.0283	0.0244
Venus	86629-11-03 12:29 G	33361958.81	33361959.02	33361959.23	0.0286	0.0049
Venus	86630-06-21 03:08 G	33362188.46	33362188.63	33362188.81	0.0288	0.0154
Mercury	86633-12-14 23:17 G	33363461.34	33363461.47	33363461.62	0.0299	0.0190

Mercury	86634-03-14 00:15 G	33363550.33	33363550.51	33363550.69	0.0300	0.0022
Mercury	86634-06-11 00:15 G	33363639.40	33363639.51	33363639.63	0.0300	0.0228
Moon	86641-05-30 23:03 G	33366185.34	33366185.46	33366185.59	0.0283	0.0246
Earth	86641-05-31 01:27 G	33366185.46	33366185.56	33366185.69	0.0283	0.0249 *
Moon	86642-06-13 02:24 G	33366563.40	33366563.60	33366563.81	0.0279	0.0140
Earth	86642-06-13 05:32 G	33366563.52	33366563.73	33366563.96	0.0279	0.0130 *
Venus	86643-01-21 22:34 G	33366786.25	33366786.44	33366786.63	0.0277	0.0118
Venus	86643-09-08 09:36 G	33367015.69	33367015.90	33367016.11	0.0274	0.0065
Venus	86644-04-24 18:44 G	33367245.19	33367245.28	33367245.39	0.0272	0.0242
Mercury	86648-01-09 02:39 G	33368599.54	33368599.61	33368599.70	0.0263	0.0206
Mercury	86648-04-06 12:58 G	33368687.91	33368688.04	33368688.16	0.0262	0.0103
Mercury	86648-07-03 23:03 G	33368776.32	33368776.46	33368776.60	0.0262	0.0001
Mercury	86648-09-30 09:22 G	33368864.76	33368864.89	33368865.01	0.0262	0.0104
Mercury	86648-12-27 19:27 G	33368953.24	33368953.31	33368953.40	0.0262	0.0209
Earth	86657-12-09 10:20 G	33372221.70	33372221.93	33372222.18	0.0280	0.0068
Moon	86657-12-09 14:10 G	33372221.86	33372222.09	33372222.32	0.0280	0.0083 *
Venus	86658-09-29 01:41 G	33372515.45	33372515.57	33372515.71	0.0283	0.0220
Venus	86659-05-16 15:08 G	33372744.93	33372745.13	33372745.34	0.0286	0.0025
Venus	86660-01-01 06:00 G	33372974.60	33372974.75	33372974.92	0.0288	0.0179
Mercury	86663-05-03 20:24 G	33374193.27	33374193.35	33374193.44	0.0299	0.0261
Mercury	86663-07-31 21:22 G	33374282.21	33374282.39	33374282.57	0.0299	0.0049
Mercury	86663-10-28 21:51 G	33374371.26	33374371.41	33374371.56	0.0300	0.0161
Earth	86671-06-07 22:20 G	33377150.19	33377150.43	33377150.68	0.0282	0.0032
Moon	86671-06-08 01:56 G	33377150.34	33377150.58	33377150.83	0.0282	0.0025 *
Venus	86671-12-17 16:48 G	33377343.18	33377343.20	33377343.22	0.0280	0.0278
Venus	86672-08-03 05:17 G	33377572.52	33377572.72	33377572.93	0.0277	0.0090
Venus	86673-03-20 16:20 G	33377801.98	33377802.18	33377802.38	0.0274	0.0094
Venus	86673-11-05 01:12 G	33378031.54	33378031.55	33378031.58	0.0272	0.0270
Mercury	86677-05-28 06:00 G	33379331.69	33379331.75	33379331.82	0.0263	0.0230
Mercury	86677-08-24 16:05 G	33379420.06	33379420.17	33379420.29	0.0262	0.0128

Mercury	86677-11-21 02:24 G	33379508.46	33379508.60	33379508.73	0.0262	0.0026
Mercury	86678-02-17 12:29 G	33379596.89	33379597.02	33379597.15	0.0262	0.0078
Mercury	86678-05-16 22:48 G	33379685.36	33379685.45	33379685.55	0.0261	0.0183
Moon	86686-12-03 21:22 G	33382808.28	33382808.39	33382808.51	0.0278	0.0245
Earth	86686-12-04 00:58 G	33382808.42	33382808.54	33382808.69	0.0278	0.0230 *
Moon	86687-12-17 03:08 G	33383186.42	33383186.63	33383186.84	0.0282	0.0127
Earth	86687-12-17 05:17 G	33383186.52	33383186.72	33383186.94	0.0282	0.0143 *
Venus	86688-04-10 06:58 G	33383301.65	33383301.79	33383301.96	0.0283	0.0193
Venus	86688-11-25 20:39 G	33383531.15	33383531.36	33383531.57	0.0286	0.0006
Venus	86689-07-13 11:32 G	33383760.85	33383760.98	33383761.13	0.0289	0.0209
Mercury	86692-12-17 19:27 G	33385014.15	33385014.31	33385014.48	0.0300	0.0111
Mercury	86693-03-16 19:56 G	33385103.17	33385103.33	33385103.50	0.0300	0.0099
Moon	86700-06-02 05:32 G	33387736.58	33387736.73	33387736.91	0.0283	0.0202
Earth	86700-06-02 09:08 G	33387736.72	33387736.88	33387737.05	0.0283	0.0207 *
Earth	86701-06-15 12:29 G	33388114.83	33388115.02	33388115.22	0.0279	0.0169
Moon	86701-06-15 12:44 G	33388114.86	33388115.03	33388115.22	0.0279	0.0182 *
Venus	86701-06-29 20:39 G	33388129.28	33388129.36	33388129.46	0.0279	0.0250
Venus	86702-02-14 09:08 G	33388358.67	33388358.88	33388359.09	0.0276	0.0063
Venus	86702-10-01 19:41 G	33388588.12	33388588.32	33388588.51	0.0274	0.0119
Mercury	86707-01-12 18:15 G	33390152.16	33390152.26	33390152.37	0.0262	0.0164
Mercury	86707-04-11 04:34 G	33390240.56	33390240.69	33390240.82	0.0262	0.0060
Mercury	86707-07-08 14:39 G	33390328.98	33390329.11	33390329.25	0.0262	0.0043
Mercury	86707-10-05 00:58 G	33390417.43	33390417.54	33390417.65	0.0261	0.0147
Mercury	86708-01-01 11:17 G	33390505.94	33390505.97	33390506.01	0.0261	0.0251
Mars	86709-02-21 04:20 G	33390922.47	33390922.68	33390922.92	0.0261	0.0180
Earth	86716-12-11 10:34 G	33393772.70	33393772.94	33393773.19	0.0280	0.0035
Moon	86716-12-11 12:15 G	33393772.77	33393773.01	33393773.26	0.0280	0.0052 *
Venus	86717-10-22 08:10 G	33394087.68	33394087.84	33394088.01	0.0283	0.0171
Venus	86718-06-08 21:51 G	33394317.20	33394317.41	33394317.62	0.0286	0.0027
Venus	86719-01-24 13:12 G	33394546.93	33394547.05	33394547.17	0.0289	0.0231

Mercury	86722-05-07 15:36 G	33395746.01	33395746.15	33395746.29	0.0299	0.0190
Mercury	86722-08-04 16:20 G	33395835.00	33395835.18	33395835.36	0.0300	0.0023
Mercury	86722-11-01 16:48 G	33395924.08	33395924.20	33395924.31	0.0300	0.0230
Moon	86730-06-10 02:39 G	33398701.36	33398701.61	33398701.87	0.0282	0.0018
Earth	86730-06-10 03:22 G	33398701.39	33398701.64	33398701.88	0.0282	0.0007 *
Venus	86731-01-10 02:10 G	33398915.47	33398915.59	33398915.72	0.0279	0.0224
Venus	86731-08-27 14:24 G	33399144.89	33399145.10	33399145.32	0.0276	0.0037
Venus	86732-04-13 00:58 G	33399374.36	33399374.54	33399374.73	0.0274	0.0146
Mercury	86736-05-31 21:22 G	33400884.31	33400884.39	33400884.49	0.0262	0.0190
Mercury	86736-08-28 07:27 G	33400972.69	33400972.81	33400972.94	0.0262	0.0088
Mercury	86736-11-24 17:46 G	33401061.10	33401061.24	33401061.37	0.0262	0.0016
Mercury	86737-02-21 03:51 G	33401149.54	33401149.66	33401149.78	0.0261	0.0119
Mercury	86737-05-20 14:10 G	33401238.03	33401238.09	33401238.16	0.0261	0.0223
Moon	86745-12-05 23:03 G	33404359.31	33404359.46	33404359.61	0.0278	0.0215
Earth	86745-12-06 00:15 G	33404359.35	33404359.51	33404359.69	0.0278	0.0199 *
Earth	86746-12-19 04:34 G	33404737.51	33404737.69	33404737.89	0.0282	0.0174
Moon	86746-12-19 07:12 G	33404737.61	33404737.80	33404738.00	0.0282	0.0159 *
Venus	86747-05-04 13:12 G	33404873.87	33404874.05	33404874.23	0.0284	0.0143
Venus	86747-12-20 02:39 G	33405103.41	33405103.61	33405103.82	0.0287	0.0056
Venus	86748-08-05 18:15 G	33405333.17	33405333.26	33405333.35	0.0289	0.0261
Mercury	86751-09-24 13:12 G	33406477.97	33406478.05	33406478.15	0.0299	0.0256
Mercury	86751-12-22 14:10 G	33406566.92	33406567.09	33406567.27	0.0300	0.0044
Mercury	86752-03-20 14:39 G	33406655.97	33406656.11	33406656.26	0.0300	0.0167
Mars	86753-03-29 06:44 G	33407029.69	33407029.78	33407029.90	0.0301	0.0279
Earth	86759-06-04 12:29 G	33409287.84	33409288.02	33409288.23	0.0283	0.0170
Moon	86759-06-04 13:56 G	33409287.89	33409288.08	33409288.28	0.0283	0.0160 *
Earth	86760-06-16 15:36 G	33409666.00	33409666.15	33409666.33	0.0279	0.0205
Moon	86760-06-16 19:41 G	33409666.17	33409666.32	33409666.47	0.0279	0.0220 *
Venus	86760-07-22 05:17 G	33409701.58	33409701.72	33409701.87	0.0278	0.0198
Venus	86761-03-08 17:17 G	33409931.01	33409931.22	33409931.44	0.0276	0.0012

Venus	86761-10-24 03:22 G	33410160.48	33410160.64	33410160.82	0.0273	0.0169
Mercury	86765-10-18 23:32 G	33411616.42	33411616.48	33411616.55	0.0262	0.0226
Mercury	86766-01-15 09:36 G	33411704.78	33411704.90	33411705.02	0.0262	0.0124
Mercury	86766-04-13 19:41 G	33411793.19	33411793.32	33411793.46	0.0262	0.0022
Mercury	86766-07-11 05:46 G	33411881.62	33411881.74	33411881.87	0.0261	0.0082
Mercury	86766-10-07 16:05 G	33411970.08	33411970.17	33411970.27	0.0261	0.0186
Moon	86775-12-13 04:20 G	33415323.43	33415323.68	33415323.94	0.0280	0.0023
Earth	86775-12-13 07:41 G	33415323.57	33415323.82	33415324.06	0.0280	0.0007 *
Venus	86776-11-13 12:29 G	33415659.84	33415660.02	33415660.21	0.0284	0.0125
Venus	86777-07-01 02:24 G	33415889.40	33415889.60	33415889.80	0.0286	0.0075
Venus	86778-02-15 17:46 G	33416119.21	33416119.24	33416119.30	0.0289	0.0280
Mercury	86781-05-10 09:22 G	33417298.73	33417298.89	33417299.05	0.0299	0.0130
Mercury	86781-08-07 10:05 G	33417387.75	33417387.92	33417388.09	0.0300	0.0081
Mercury	86781-11-04 10:05 G	33417476.88	33417476.92	33417476.97	0.0300	0.0289
Moon	86789-06-11 00:15 G	33420252.27	33420252.51	33420252.75	0.0281	0.0055
Earth	86789-06-11 04:05 G	33420252.43	33420252.67	33420252.92	0.0281	0.0039 *
Venus	86790-02-01 09:08 G	33420487.72	33420487.88	33420488.05	0.0279	0.0175
Venus	86790-09-18 21:22 G	33420717.17	33420717.39	33420717.60	0.0276	0.0013
Venus	86791-05-06 07:41 G	33420946.67	33420946.82	33420946.97	0.0274	0.0194
Mercury	86795-03-08 02:24 G	33422348.57	33422348.60	33422348.63	0.0263	0.0255
Mercury	86795-06-04 12:29 G	33422436.91	33422437.02	33422437.13	0.0262	0.0153
Mercury	86795-08-31 22:34 G	33422525.31	33422525.44	33422525.57	0.0262	0.0051
Mercury	86795-11-28 08:39 G	33422613.73	33422613.86	33422613.99	0.0261	0.0052
Mercury	86796-02-24 18:58 G	33422702.18	33422702.29	33422702.40	0.0261	0.0156
Mercury	86796-05-23 05:17 G	33422790.72	33422790.72	33422790.72	0.0261	0.0261
Mars	86797-07-17 15:51 G	33423210.89	33423211.16	33423211.45	0.0260	0.0117
Earth	86804-12-06 20:10 G	33425910.16	33425910.34	33425910.54	0.0278	0.0173
Moon	86804-12-06 23:03 G	33425910.30	33425910.46	33425910.65	0.0278	0.0189 *
Earth	86805-12-20 00:29 G	33426288.36	33426288.52	33426288.70	0.0282	0.0201
Moon	86805-12-20 03:51 G	33426288.48	33426288.66	33426288.85	0.0282	0.0187 *

Venus	86806-05-26 16:48 G	33426446.01	33426446.20	33426446.40	0.0284	0.0098
Venus	86807-01-11 06:44 G	33426675.59	33426675.78	33426675.98	0.0287	0.0103
Mercury	86810-09-27 06:44 G	33428030.65	33428030.78	33428030.92	0.0300	0.0199
Mercury	86810-12-25 07:41 G	33428119.64	33428119.82	33428120.00	0.0300	0.0014
Mercury	86811-03-24 07:56 G	33428208.72	33428208.83	33428208.95	0.0300	0.0223
Earth	86818-06-05 12:44 G	33430838.83	33430839.03	33430839.25	0.0283	0.0138
Moon	86818-06-05 16:34 G	33430838.97	33430839.19	33430839.41	0.0283	0.0124 *
Earth	86819-06-18 15:51 G	33431217.05	33431217.16	33431217.31	0.0278	0.0236
Moon	86819-06-18 17:03 G	33431217.12	33431217.21	33431217.34	0.0278	0.0252 *
Venus	86819-08-14 12:00 G	33431273.82	33431274.00	33431274.18	0.0278	0.0149
Venus	86820-03-30 23:46 G	33431503.28	33431503.49	33431503.71	0.0275	0.0038
Venus	86820-11-15 09:36 G	33431732.78	33431732.90	33431733.04	0.0273	0.0217
Mercury	86824-10-21 14:24 G	33433169.01	33433169.10	33433169.19	0.0262	0.0190
Mercury	86825-01-18 00:29 G	33433257.39	33433257.52	33433257.65	0.0262	0.0088
Mercury	86825-04-16 10:34 G	33433345.81	33433345.94	33433346.08	0.0261	0.0015
Mercury	86825-07-13 20:53 G	33433434.25	33433434.37	33433434.49	0.0261	0.0118
Mercury	86825-10-10 07:12 G	33433522.73	33433522.80	33433522.87	0.0261	0.0222
Moon	86834-12-14 00:00 G	33436874.26	33436874.50	33436874.74	0.0280	0.0007
Earth	86834-12-14 02:39 G	33436874.36	33436874.61	33436874.86	0.0280	0.0019 *
Venus	86835-04-21 03:22 G	33437002.60	33437002.64	33437002.71	0.0281	0.0272
Venus	86835-12-06 15:51 G	33437231.96	33437232.16	33437232.36	0.0284	0.0079
Venus	86836-07-23 05:46 G	33437461.55	33437461.74	33437461.93	0.0287	0.0121
Mercury	86840-02-14 01:12 G	33438762.51	33438762.55	33438762.60	0.0299	0.0289
Mercury	86840-05-13 02:24 G	33438851.42	33438851.60	33438851.77	0.0300	0.0076
Mercury	86840-08-10 02:53 G	33438940.46	33438940.62	33438940.78	0.0300	0.0135
Mars	86841-08-21 13:27 G	33439316.97	33439317.06	33439317.16	0.0301	0.0281
Moon	86848-06-12 01:41 G	33441803.35	33441803.57	33441803.80	0.0281	0.0085
Earth	86848-06-12 02:24 G	33441803.37	33441803.60	33441803.84	0.0281	0.0068 *
Venus	86849-02-23 14:39 G	33442059.93	33442060.11	33442060.31	0.0278	0.0127
Venus	86849-10-11 02:39 G	33442289.40	33442289.61	33442289.82	0.0276	0.0061

Venus	86850-05-28 12:29 G	33442518.94	33442519.02	33442519.14	0.0273	0.0241
Mercury	86854-03-10 17:17 G	33443901.15	33443901.22	33443901.29	0.0262	0.0221
Mercury	86854-06-07 03:08 G	33443989.51	33443989.63	33443989.75	0.0262	0.0119
Mercury	86854-09-03 13:12 G	33444077.92	33444078.05	33444078.19	0.0262	0.0017
Mercury	86854-11-30 23:32 G	33444166.35	33444166.48	33444166.60	0.0261	0.0087
Mercury	86855-02-27 09:36 G	33444254.81	33444254.90	33444255.00	0.0261	0.0191
Earth	86863-12-08 15:08 G	33447460.93	33447461.13	33447461.34	0.0278	0.0148
Moon	86863-12-08 17:46 G	33447461.04	33447461.24	33447461.45	0.0278	0.0163 *
Venus	86864-10-31 07:41 G	33447788.72	33447788.82	33447788.92	0.0282	0.0245
Moon	86864-12-20 17:46 G	33447839.08	33447839.24	33447839.40	0.0282	0.0217
Earth	86864-12-20 19:27 G	33447839.17	33447839.31	33447839.46	0.0282	0.0224 *
Venus	86865-06-17 19:56 G	33448018.12	33448018.33	33448018.54	0.0284	0.0052
Venus	86866-02-02 09:51 G	33448247.74	33448247.91	33448248.09	0.0287	0.0149
Mercury	86869-09-29 23:17 G	33449583.32	33449583.47	33449583.63	0.0300	0.0148
Mercury	86869-12-28 00:15 G	33449672.33	33449672.51	33449672.68	0.0300	0.0065
Mercury	86870-03-27 00:29 G	33449761.45	33449761.52	33449761.59	0.0301	0.0273
Earth	86877-06-06 10:05 G	33452389.71	33452389.92	33452390.16	0.0283	0.0110
Moon	86877-06-06 10:48 G	33452389.71	33452389.95	33452390.19	0.0283	0.0096 *
Moon	86878-06-19 10:20 G	33452767.93	33452767.93	33452767.94	0.0279	0.0278
Earth	86878-06-19 13:41 G	33452768.00	33452768.07	33452768.16	0.0279	0.0263
Venus	86878-09-05 17:03 G	33452846.01	33452846.21	33452846.41	0.0278	0.0102
Venus	86879-04-23 04:48 G	33453075.50	33453075.70	33453075.91	0.0275	0.0084
Venus	86879-12-08 14:24 G	33453305.05	33453305.10	33453305.17	0.0272	0.0262
Mercury	86883-07-28 19:12 G	33454633.28	33454633.30	33454633.32	0.0262	0.0257
Mercury	86883-10-25 05:03 G	33454721.61	33454721.71	33454721.82	0.0262	0.0156
Mercury	86884-01-21 15:08 G	33454810.00	33454810.13	33454810.27	0.0262	0.0054
Mercury	86884-04-19 01:27 G	33454898.42	33454898.56	33454898.69	0.0261	0.0050
Mercury	86884-07-16 11:32 G	33454986.87	33454986.98	33454987.09	0.0261	0.0153
Mercury	86884-10-12 21:51 G	33455075.39	33455075.41	33455075.43	0.0261	0.0257
Mars	86885-12-10 07:56 G	33455498.55	33455498.83	33455499.13	0.0260	0.0090

Earth	86893-12-14 20:53 G	33458425.13	33458425.37	33458425.61	0.0280	0.0043
Moon	86893-12-14 22:48 G	33458425.21	33458425.45	33458425.69	0.0280	0.0034 *
Venus	86894-05-13 06:00 G	33458574.64	33458574.75	33458574.88	0.0282	0.0229
Venus	86894-12-28 18:29 G	33458804.06	33458804.27	33458804.48	0.0284	0.0035
Venus	86895-08-15 08:24 G	33459033.69	33459033.85	33459034.03	0.0287	0.0166
Mercury	86899-02-16 17:46 G	33460315.13	33460315.24	33460315.35	0.0299	0.0240
Mercury	86899-05-16 18:44 G	33460404.10	33460404.28	33460404.46	0.0300	0.0028
Mercury	86899-08-13 18:58 G	33460493.16	33460493.29	33460493.44	0.0300	0.0183
Moon	86906-06-01 13:41 G	33462976.03	33462976.07	33462976.12	0.0286	0.0280
Earth	86907-06-14 22:34 G	33463354.21	33463354.44	33463354.67	0.0282	0.0094
Moon	86907-06-15 01:56 G	33463354.36	33463354.58	33463354.81	0.0282	0.0110 *
Venus	86907-08-02 05:17 G	33463402.67	33463402.72	33463402.77	0.0281	0.0272
Venus	86908-03-18 18:58 G	33463632.09	33463632.29	33463632.50	0.0278	0.0081
Venus	86908-11-03 06:44 G	33463861.59	33463861.78	33463861.99	0.0276	0.0107
Mercury	86913-03-14 07:41 G	33465453.73	33465453.82	33465453.91	0.0262	0.0188
Mercury	86913-06-10 17:46 G	33465542.11	33465542.24	33465542.37	0.0262	0.0086
Mercury	86913-09-07 03:51 G	33465630.52	33465630.66	33465630.79	0.0262	0.0017
Mercury	86913-12-04 13:56 G	33465718.96	33465719.08	33465719.21	0.0261	0.0121
Mercury	86914-03-03 00:15 G	33465807.45	33465807.51	33465807.58	0.0261	0.0225
Moon	86922-12-10 07:56 G	33469011.62	33469011.83	33469012.06	0.0278	0.0137
Earth	86922-12-10 09:51 G	33469011.69	33469011.91	33469012.13	0.0278	0.0125 *
Venus	86923-11-24 10:20 G	33469360.79	33469360.93	33469361.08	0.0282	0.0201
Moon	86923-12-23 10:34 G	33469389.83	33469389.94	33469390.07	0.0282	0.0245
Earth	86923-12-23 14:10 G	33469389.98	33469390.09	33469390.21	0.0282	0.0248 *
Venus	86924-07-10 22:48 G	33469590.24	33469590.45	33469590.66	0.0285	0.0008
Venus	86925-02-25 12:44 G	33469819.89	33469820.03	33469820.19	0.0287	0.0195
Mercury	86928-10-03 16:05 G	33471136.00	33471136.17	33471136.34	0.0300	0.0097
Mercury	86928-12-31 16:34 G	33471225.03	33471225.19	33471225.36	0.0300	0.0115
Mars	86930-01-15 05:03 G	33471604.60	33471604.71	33471604.83	0.0301	0.0271
Moon	86936-06-08 03:36 G	33473940.42	33473940.65	33473940.90	0.0283	0.0068

Earth	86936-06-08 06:58 G	33473940.56	33473940.79	33473941.03	0.0283	0.0084	*
Venus	86937-02-11 07:56 G	33474188.74	33474188.83	33474188.94	0.0280	0.0246	
Venus	86937-09-28 21:36 G	33474418.20	33474418.40	33474418.62	0.0277	0.0055	
Venus	86938-05-16 09:22 G	33474647.70	33474647.89	33474648.08	0.0275	0.0130	
Mercury	86942-08-01 09:51 G	33476185.84	33476185.91	33476185.98	0.0262	0.0224	
Mercury	86942-10-28 19:56 G	33476274.21	33476274.33	33476274.44	0.0262	0.0122	
Mercury	86943-01-25 05:46 G	33476362.61	33476362.74	33476362.88	0.0261	0.0021	
Mercury	86943-04-23 16:05 G	33476451.04	33476451.17	33476451.30	0.0261	0.0084	
Mercury	86943-07-21 02:10 G	33476539.50	33476539.59	33476539.69	0.0261	0.0188	
Earth	86952-12-16 16:20 G	33479975.94	33479976.18	33479976.42	0.0280	0.0067	
Moon	86952-12-16 19:41 G	33479976.08	33479976.32	33479976.57	0.0280	0.0060	*
Venus	86953-06-05 09:22 G	33480146.74	33480146.89	33480147.05	0.0282	0.0184	
Venus	86954-01-20 21:51 G	33480376.20	33480376.41	33480376.62	0.0285	0.0012	
Venus	86954-09-07 11:46 G	33480605.86	33480605.99	33480606.14	0.0287	0.0213	
Mercury	86958-02-20 10:20 G	33481867.79	33481867.93	33481868.07	0.0299	0.0189	
Mercury	86958-05-20 11:17 G	33481956.79	33481956.97	33481957.15	0.0300	0.0023	
Mercury	86958-08-17 11:46 G	33482045.88	33482045.99	33482046.10	0.0300	0.0232	
Earth	86965-06-02 09:22 G	33484526.81	33484526.89	33484526.98	0.0286	0.0267	
Moon	86965-06-02 12:58 G	33484526.93	33484527.04	33484527.15	0.0286	0.0252	*
Earth	86966-06-15 18:15 G	33484905.04	33484905.26	33484905.48	0.0282	0.0119	
Moon	86966-06-15 20:24 G	33484905.13	33484905.35	33484905.57	0.0282	0.0133	*
Venus	86966-08-24 09:08 G	33484974.76	33484974.88	33484975.02	0.0281	0.0226	
Venus	86967-04-10 23:03 G	33485204.25	33485204.46	33485204.68	0.0278	0.0034	
Venus	86967-11-26 10:48 G	33485433.77	33485433.95	33485434.13	0.0275	0.0152	
Mercury	86971-12-19 12:15 G	33486917.99	33486918.01	33486918.03	0.0263	0.0257	
Mercury	86972-03-16 22:05 G	33487006.32	33487006.42	33487006.53	0.0262	0.0156	
Mercury	86972-06-13 08:24 G	33487094.71	33487094.85	33487094.98	0.0262	0.0053	
Mercury	86972-09-09 18:29 G	33487183.14	33487183.27	33487183.40	0.0262	0.0051	
Mercury	86972-12-07 04:48 G	33487271.59	33487271.70	33487271.80	0.0261	0.0155	
Mercury	86973-03-05 14:53 G	33487360.11	33487360.12	33487360.14	0.0261	0.0259	

Mars	86974-05-06 11:03 G	33487786.66	33487786.96	33487787.27	0.0260	0.0042
Moon	86981-12-11 02:24 G	33490562.38	33490562.60	33490562.83	0.0277	0.0111
Earth	86981-12-11 06:00 G	33490562.52	33490562.75	33490562.98	0.0277	0.0100 *
Venus	86982-12-16 13:56 G	33490932.91	33490933.08	33490933.26	0.0282	0.0155
Earth	86982-12-24 09:51 G	33490940.86	33490940.91	33490940.99	0.0282	0.0272
Moon	86982-12-24 10:05 G	33490940.87	33490940.92	33490940.99	0.0282	0.0273 *
Venus	86983-08-03 02:24 G	33491162.39	33491162.60	33491162.81	0.0285	0.0041
Venus	86984-03-19 16:34 G	33491392.09	33491392.19	33491392.31	0.0288	0.0243
Mercury	86987-07-10 07:27 G	33492599.74	33492599.81	33492599.91	0.0299	0.0260
Mercury	86987-10-07 08:39 G	33492688.69	33492688.86	33492689.04	0.0300	0.0046
Mercury	86988-01-04 09:22 G	33492777.74	33492777.89	33492778.04	0.0300	0.0166
Moon	86995-06-10 01:27 G	33495491.33	33495491.56	33495491.80	0.0283	0.0042
Earth	86995-06-10 03:36 G	33495491.41	33495491.65	33495491.89	0.0283	0.0057 *
Venus	86996-03-05 12:44 G	33495760.89	33495761.03	33495761.19	0.0280	0.0199
Venus	86996-10-21 02:24 G	33495990.38	33495990.60	33495990.81	0.0277	0.0008
Venus	86997-06-07 13:41 G	33496219.91	33496220.07	33496220.24	0.0275	0.0177

88TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 88th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	87001-08-05 00:29 G	33497738.43	33497738.52	33497738.61	0.0262	0.0190		
Mercury	87001-11-01 10:34 G	33497826.81	33497826.94	33497827.07	0.0262	0.0087		
Mercury	87002-01-28 20:39 G	33497915.23	33497915.36	33497915.50	0.0261	0.0016		

Mercury	87002-04-27 06:58 G	33498003.67	33498003.79	33498003.91	0.0261	0.0119
Mercury	87002-07-24 17:03 G	33498092.15	33498092.21	33498092.28	0.0261	0.0224
Earth	87010-12-06 13:41 G	33501149.02	33501149.07	33501149.14	0.0275	0.0266
Moon	87011-12-19 13:12 G	33501526.82	33501527.05	33501527.30	0.0280	0.0091
Earth	87011-12-19 13:41 G	33501526.84	33501527.07	33501527.30	0.0280	0.0094 *
Venus	87012-06-28 13:41 G	33501718.89	33501719.07	33501719.25	0.0282	0.0136
Venus	87013-02-13 02:10 G	33501948.38	33501948.59	33501948.79	0.0285	0.0060
Venus	87013-09-30 16:34 G	33502178.11	33502178.19	33502178.28	0.0288	0.0262
Mercury	87017-02-24 03:36 G	33503420.49	33503420.65	33503420.81	0.0299	0.0134
Mercury	87017-05-24 04:20 G	33503509.51	33503509.68	33503509.86	0.0300	0.0078
Mercury	87017-08-21 04:34 G	33503598.65	33503598.69	33503598.75	0.0300	0.0287
Mars	87018-06-10 06:29 G	33503891.69	33503891.77	33503891.88	0.0301	0.0282
Earth	87024-06-04 06:15 G	33506077.65	33506077.76	33506077.90	0.0286	0.0241
Moon	87024-06-04 08:10 G	33506077.70	33506077.84	33506078.01	0.0286	0.0224 *
Moon	87025-06-17 12:58 G	33506455.84	33506456.04	33506456.26	0.0282	0.0156
Earth	87025-06-17 15:22 G	33506455.94	33506456.14	33506456.36	0.0282	0.0145 *
Venus	87025-09-16 14:10 G	33506546.93	33506547.09	33506547.26	0.0281	0.0178
Venus	87026-05-04 03:51 G	33506776.45	33506776.66	33506776.88	0.0278	0.0016
Venus	87026-12-19 15:22 G	33507006.00	33507006.14	33507006.30	0.0275	0.0199
Mercury	87030-12-23 03:08 G	33508470.56	33508470.63	33508470.70	0.0263	0.0223
Mercury	87031-03-21 12:58 G	33508558.93	33508559.04	33508559.16	0.0262	0.0121
Mercury	87031-06-17 23:03 G	33508647.33	33508647.46	33508647.60	0.0262	0.0020
Mercury	87031-09-14 09:22 G	33508735.76	33508735.89	33508736.02	0.0262	0.0086
Mercury	87031-12-11 19:41 G	33508824.22	33508824.32	33508824.41	0.0261	0.0191
Earth	87040-12-13 04:48 G	33512113.47	33512113.70	33512113.94	0.0278	0.0072
Moon	87040-12-13 05:17 G	33512113.49	33512113.72	33512113.95	0.0278	0.0079 *
Venus	87042-01-08 19:27 G	33512505.11	33512505.31	33512505.50	0.0282	0.0105
Venus	87042-08-26 07:56 G	33512734.63	33512734.83	33512735.03	0.0285	0.0091
Mercury	87046-07-14 01:27 G	33514152.43	33514152.56	33514152.70	0.0299	0.0199
Mercury	87046-10-11 02:39 G	33514241.43	33514241.61	33514241.79	0.0300	0.0016

Mercury	87047-01-08 02:53 G	33514330.51	33514330.62	33514330.74	0.0300	0.0225
Earth	87054-06-12 01:56 G	33517042.34	33517042.58	33517042.83	0.0283	0.0029
Moon	87054-06-12 04:20 G	33517042.44	33517042.68	33517042.92	0.0283	0.0013 *
Venus	87055-03-29 18:44 G	33517333.10	33517333.28	33517333.46	0.0280	0.0149
Venus	87055-11-14 07:56 G	33517562.62	33517562.83	33517563.04	0.0277	0.0041
Venus	87056-06-30 19:12 G	33517792.18	33517792.30	33517792.43	0.0274	0.0225
Mercury	87060-05-11 05:32 G	33519202.70	33519202.73	33519202.76	0.0263	0.0255
Mercury	87060-08-07 15:22 G	33519291.04	33519291.14	33519291.26	0.0262	0.0154
Mercury	87060-11-04 01:41 G	33519379.43	33519379.57	33519379.70	0.0262	0.0050
Mercury	87061-01-31 11:46 G	33519467.86	33519467.99	33519468.12	0.0261	0.0053
Mercury	87061-04-29 21:51 G	33519556.31	33519556.41	33519556.52	0.0261	0.0158
Mars	87062-09-30 12:44 G	33520074.71	33520075.03	33520075.34	0.0260	0.0004
Moon	87069-12-07 13:56 G	33522699.97	33522700.08	33522700.20	0.0276	0.0243
Earth	87069-12-07 14:53 G	33522700.00	33522700.12	33522700.25	0.0276	0.0236 *
Venus	87070-12-04 09:36 G	33523061.86	33523061.90	33523061.94	0.0280	0.0273
Moon	87070-12-20 11:03 G	33523077.74	33523077.96	33523078.18	0.0280	0.0125
Earth	87070-12-20 14:53 G	33523077.90	33523078.12	33523078.34	0.0280	0.0124 *
Venus	87071-07-21 20:10 G	33523291.14	33523291.34	33523291.55	0.0282	0.0085
Venus	87072-03-07 08:39 G	33523520.68	33523520.86	33523521.06	0.0285	0.0114
Mercury	87075-11-30 20:53 G	33524884.32	33524884.37	33524884.43	0.0299	0.0282
Mercury	87076-02-27 22:05 G	33524973.24	33524973.42	33524973.59	0.0299	0.0069
Mercury	87076-05-26 22:34 G	33525062.29	33525062.44	33525062.60	0.0300	0.0142
Moon	87083-06-06 02:24 G	33527628.43	33527628.60	33527628.79	0.0286	0.0195
Earth	87083-06-06 05:32 G	33527628.57	33527628.73	33527628.90	0.0286	0.0212 *
Moon	87084-06-18 11:17 G	33528006.79	33528006.97	33528007.15	0.0282	0.0184
Earth	87084-06-18 14:24 G	33528006.91	33528007.10	33528007.30	0.0282	0.0172 *
Venus	87084-10-08 20:10 G	33528119.16	33528119.34	33528119.54	0.0280	0.0128
Venus	87085-05-26 09:51 G	33528348.70	33528348.91	33528349.12	0.0278	0.0064
Venus	87086-01-10 21:08 G	33528578.30	33528578.38	33528578.48	0.0275	0.0248
Mercury	87089-12-25 18:00 G	33530023.16	33530023.25	33530023.35	0.0263	0.0186

Mercury	87090-03-24 04:05 G	33530111.54	33530111.67	33530111.80	0.0263	0.0083
Mercury	87090-06-20 14:10 G	33530199.96	33530200.09	33530200.23	0.0262	0.0022
Mercury	87090-09-17 00:29 G	33530288.40	33530288.52	33530288.64	0.0262	0.0125
Mercury	87090-12-14 10:34 G	33530376.89	33530376.94	33530377.01	0.0262	0.0231
Earth	87099-12-15 06:58 G	33533664.55	33533664.79	33533665.04	0.0278	0.0041
Moon	87099-12-15 11:03 G	33533664.71	33533664.96	33533665.20	0.0278	0.0043 *
Venus	87100-06-16 15:36 G	33533848.05	33533848.15	33533848.26	0.0280	0.0242
Venus	87101-02-01 02:39 G	33534077.41	33534077.61	33534077.82	0.0283	0.0052
Venus	87101-09-18 15:36 G	33534306.97	33534307.15	33534307.33	0.0285	0.0146
Mercury	87105-07-17 20:39 G	33535705.20	33535705.36	33535705.53	0.0299	0.0128
Mercury	87105-10-14 21:22 G	33535794.22	33535794.39	33535794.57	0.0300	0.0085
Mercury	87106-01-11 21:36 G	33535883.37	33535883.40	33535883.44	0.0300	0.0293
Mars	87106-11-04 16:34 G	33536180.03	33536180.19	33536180.37	0.0301	0.0232
Earth	87113-06-14 03:36 G	33538593.41	33538593.65	33538593.90	0.0283	0.0003
Moon	87113-06-14 06:58 G	33538593.54	33538593.79	33538594.04	0.0283	0.0018 *
Venus	87114-04-22 02:10 G	33538905.39	33538905.59	33538905.80	0.0280	0.0097
Venus	87114-12-07 15:22 G	33539134.94	33539135.14	33539135.34	0.0277	0.0094
Mercury	87119-05-15 20:53 G	33540755.30	33540755.37	33540755.45	0.0263	0.0215
Mercury	87119-08-12 06:58 G	33540843.67	33540843.79	33540843.91	0.0262	0.0112
Mercury	87119-11-08 17:03 G	33540932.08	33540932.21	33540932.35	0.0262	0.0009
Mercury	87120-02-05 03:08 G	33541020.51	33541020.63	33541020.76	0.0262	0.0096
Mercury	87120-05-03 13:27 G	33541108.98	33541109.06	33541109.15	0.0261	0.0200
Moon	87128-12-09 16:05 G	33544251.01	33544251.17	33544251.34	0.0276	0.0205
Earth	87128-12-09 19:56 G	33544251.17	33544251.33	33544251.50	0.0276	0.0201 *
Moon	87129-12-22 18:29 G	33544629.08	33544629.27	33544629.46	0.0280	0.0164
Earth	87129-12-22 19:41 G	33544629.13	33544629.32	33544629.53	0.0280	0.0160 *
Venus	87129-12-27 18:15 G	33544634.14	33544634.26	33544634.40	0.0280	0.0220
Venus	87130-08-14 05:32 G	33544863.52	33544863.73	33544863.94	0.0283	0.0028
Venus	87131-03-31 18:15 G	33545093.10	33545093.26	33545093.43	0.0286	0.0171
Mercury	87134-12-04 17:03 G	33546437.08	33546437.21	33546437.34	0.0299	0.0204

Mercury	87135-03-03 18:00 G	33546526.07	33546526.25	33546526.43	0.0299	0.0010
Mercury	87135-05-31 18:15 G	33546615.15	33546615.26	33546615.39	0.0300	0.0219
Moon	87142-06-08 05:46 G	33549179.55	33549179.74	33549179.94	0.0286	0.0164
Earth	87142-06-08 08:24 G	33549179.67	33549179.85	33549180.05	0.0286	0.0179 *
Venus	87143-03-17 13:41 G	33549462.01	33549462.07	33549462.14	0.0282	0.0268
Earth	87143-06-21 17:03 G	33549558.05	33549558.21	33549558.38	0.0281	0.0204
Moon	87143-06-21 17:46 G	33549558.09	33549558.24	33549558.40	0.0281	0.0213 *
Venus	87143-11-02 04:48 G	33549691.49	33549691.70	33549691.90	0.0280	0.0072
Venus	87144-06-18 17:46 G	33549921.05	33549921.24	33549921.44	0.0277	0.0118
Mercury	87148-10-01 23:32 G	33551487.44	33551487.48	33551487.53	0.0264	0.0247
Mercury	87148-12-29 09:36 G	33551575.79	33551575.90	33551576.01	0.0263	0.0144
Mercury	87149-03-27 19:41 G	33551664.19	33551664.32	33551664.46	0.0263	0.0041
Mercury	87149-06-24 05:46 G	33551752.61	33551752.74	33551752.88	0.0262	0.0065
Mercury	87149-09-20 16:05 G	33551841.07	33551841.17	33551841.28	0.0262	0.0169
Mars	87151-02-25 05:17 G	33552363.42	33552363.72	33552364.03	0.0261	0.0071
Earth	87158-12-17 13:56 G	33555215.84	33555216.08	33555216.33	0.0278	0.0004
Moon	87158-12-17 15:08 G	33555215.88	33555216.13	33555216.39	0.0278	0.0002 *
Venus	87159-07-10 01:41 G	33555420.42	33555420.57	33555420.73	0.0280	0.0185
Venus	87160-02-24 12:58 G	33555649.83	33555650.04	33555650.25	0.0283	0.0008
Venus	87160-10-11 02:24 G	33555879.45	33555879.60	33555879.74	0.0286	0.0206
Mercury	87164-04-22 16:20 G	33557169.09	33557169.18	33557169.27	0.0299	0.0257
Mercury	87164-07-20 17:17 G	33557258.04	33557258.22	33557258.40	0.0299	0.0044
Mercury	87164-10-17 17:46 G	33557347.10	33557347.24	33557347.39	0.0300	0.0167
Moon	87172-06-15 07:27 G	33560144.56	33560144.81	33560145.06	0.0283	0.0049
Earth	87172-06-15 08:39 G	33560144.62	33560144.86	33560145.10	0.0283	0.0039 *
Venus	87172-09-26 20:39 G	33560248.26	33560248.36	33560248.49	0.0282	0.0236
Venus	87173-05-14 11:46 G	33560477.78	33560477.99	33560478.20	0.0279	0.0040
Venus	87173-12-30 00:29 G	33560707.34	33560707.52	33560707.70	0.0276	0.0149
Mercury	87178-05-18 12:44 G	33562307.93	33562308.03	33562308.13	0.0263	0.0170
Mercury	87178-08-14 22:48 G	33562396.32	33562396.45	33562396.58	0.0262	0.0067

Mercury	87178-11-11 08:53 G	33562484.74	33562484.87	33562485.01	0.0262	0.0038
Mercury	87179-02-07 19:12 G	33562573.19	33562573.30	33562573.42	0.0262	0.0141
Mercury	87179-05-07 05:32 G	33562661.69	33562661.73	33562661.77	0.0261	0.0247
Moon	87187-12-12 04:05 G	33565802.48	33565802.67	33565802.86	0.0276	0.0165
Earth	87187-12-12 04:48 G	33565802.51	33565802.70	33565802.91	0.0276	0.0162 *
Earth	87188-12-24 05:03 G	33566180.55	33566180.71	33566180.89	0.0280	0.0199
Moon	87188-12-24 08:10 G	33566180.69	33566180.84	33566181.01	0.0280	0.0209 *
Venus	87189-01-19 06:00 G	33566206.58	33566206.75	33566206.92	0.0281	0.0160
Venus	87189-09-05 17:17 G	33566436.01	33566436.22	33566436.43	0.0283	0.0034
Venus	87190-04-23 06:29 G	33566665.65	33566665.77	33566665.89	0.0286	0.0233
Mercury	87193-12-07 14:24 G	33567989.94	33567990.10	33567990.27	0.0299	0.0114
Mercury	87194-03-06 15:08 G	33568078.97	33568079.13	33568079.30	0.0299	0.0098
Mars	87195-03-31 05:46 G	33568468.52	33568468.74	33568468.97	0.0301	0.0166
Earth	87201-06-09 15:51 G	33570730.96	33570731.16	33570731.38	0.0285	0.0139
Moon	87201-06-09 17:32 G	33570731.03	33570731.23	33570731.45	0.0285	0.0128 *
Venus	87202-04-09 00:44 G	33571034.39	33571034.53	33571034.68	0.0282	0.0209
Earth	87202-06-23 00:00 G	33571109.38	33571109.50	33571109.62	0.0281	0.0240
Moon	87202-06-23 03:36 G	33571109.55	33571109.65	33571109.78	0.0281	0.0247 *
Venus	87202-11-24 15:22 G	33571263.93	33571264.14	33571264.36	0.0279	0.0015
Venus	87203-07-12 04:05 G	33571493.51	33571493.67	33571493.84	0.0277	0.0175
Mercury	87207-10-05 15:22 G	33573040.06	33573040.14	33573040.23	0.0264	0.0202
Mercury	87208-01-02 01:41 G	33573128.44	33573128.57	33573128.69	0.0263	0.0098
Mercury	87208-03-30 11:46 G	33573216.86	33573216.99	33573217.13	0.0263	0.0007
Mercury	87208-06-26 22:05 G	33573305.29	33573305.42	33573305.54	0.0262	0.0112
Mercury	87208-09-23 08:10 G	33573393.77	33573393.84	33573393.92	0.0262	0.0217
Moon	87217-12-18 21:22 G	33576767.14	33576767.39	33576767.64	0.0278	0.0044
Earth	87217-12-19 00:29 G	33576767.28	33576767.52	33576767.77	0.0278	0.0038 *
Venus	87218-08-01 13:56 G	33576992.90	33576993.08	33576993.28	0.0281	0.0125
Venus	87219-03-19 01:41 G	33577222.37	33577222.57	33577222.78	0.0284	0.0070
Venus	87219-11-03 15:22 G	33577452.08	33577452.14	33577452.21	0.0286	0.0271

Mercury	87223-04-26 14:39 G	33578721.96	33578722.11	33578722.27	0.0299	0.0160
Mercury	87223-07-24 15:36 G	33578810.97	33578811.15	33578811.32	0.0300	0.0052
Mercury	87223-10-21 15:51 G	33578900.08	33578900.16	33578900.25	0.0300	0.0261
Moon	87231-06-17 14:10 G	33581695.86	33581696.09	33581696.32	0.0283	0.0087
Earth	87231-06-17 18:00 G	33581696.01	33581696.25	33581696.48	0.0283	0.0080 *
Venus	87231-10-20 09:22 G	33581820.73	33581820.89	33581821.06	0.0281	0.0175
Venus	87232-06-05 23:46 G	33582050.28	33582050.49	33582050.70	0.0279	0.0020
Venus	87233-01-21 12:15 G	33582279.87	33582280.01	33582280.15	0.0276	0.0207
Mercury	87237-02-21 18:58 G	33583772.23	33583772.29	33583772.36	0.0263	0.0224
Mercury	87237-05-21 05:03 G	33583860.59	33583860.71	33583860.83	0.0263	0.0121
Mercury	87237-08-17 15:08 G	33583949.00	33583949.13	33583949.27	0.0262	0.0018
Mercury	87237-11-14 01:27 G	33584037.43	33584037.56	33584037.69	0.0262	0.0087
Mercury	87238-02-10 11:32 G	33584125.90	33584125.98	33584126.08	0.0262	0.0193
Mars	87239-07-22 12:29 G	33584652.79	33584653.02	33584653.27	0.0261	0.0166
Earth	87246-12-13 18:15 G	33587354.04	33587354.26	33587354.49	0.0277	0.0117
Moon	87246-12-13 20:53 G	33587354.16	33587354.37	33587354.59	0.0277	0.0118 *
Earth	87247-12-26 19:12 G	33587732.19	33587732.30	33587732.43	0.0281	0.0245
Moon	87247-12-26 22:20 G	33587732.33	33587732.43	33587732.54	0.0281	0.0255 *
Venus	87248-02-11 20:10 G	33587779.15	33587779.34	33587779.54	0.0281	0.0096
Venus	87248-09-28 08:10 G	33588008.64	33588008.84	33588009.04	0.0284	0.0100
Mercury	87252-09-12 12:44 G	33589453.92	33589454.03	33589454.16	0.0298	0.0222
Mercury	87252-12-10 13:41 G	33589542.89	33589543.07	33589543.25	0.0299	0.0010
Mercury	87253-03-09 14:10 G	33589631.96	33589632.09	33589632.22	0.0299	0.0201
Earth	87260-06-11 03:22 G	33592282.41	33592282.64	33592282.87	0.0285	0.0095
Moon	87260-06-11 06:58 G	33592282.56	33592282.79	33592283.02	0.0285	0.0084 *
Venus	87261-05-01 14:10 G	33592606.91	33592607.09	33592607.27	0.0281	0.0146
Venus	87261-12-17 04:20 G	33592836.47	33592836.68	33592836.89	0.0278	0.0048
Venus	87262-08-03 16:34 G	33593066.08	33593066.19	33593066.30	0.0276	0.0234
Mercury	87266-07-11 21:51 G	33594504.38	33594504.41	33594504.45	0.0264	0.0255
Mercury	87266-10-08 07:56 G	33594592.72	33594592.83	33594592.94	0.0263	0.0151

Mercury	87267-01-04 18:00 G	33594681.12	33594681.25	33594681.39	0.0263	0.0047
Mercury	87267-04-03 04:20 G	33594769.55	33594769.68	33594769.81	0.0263	0.0058
Mercury	87267-06-30 14:24 G	33594858.00	33594858.10	33594858.21	0.0262	0.0163
Moon	87275-12-08 13:41 G	33597941.07	33597941.07	33597941.07	0.0274	0.0274
Earth	87275-12-08 16:05 G	33597941.13	33597941.17	33597941.23	0.0274	0.0269
Moon	87276-12-20 11:17 G	33598318.74	33598318.97	33598319.20	0.0279	0.0089
Earth	87276-12-20 14:10 G	33598318.86	33598319.09	33598319.33	0.0279	0.0084 *
Venus	87277-01-06 18:00 G	33598336.17	33598336.25	33598336.36	0.0279	0.0249
Venus	87277-08-24 04:34 G	33598565.49	33598565.69	33598565.90	0.0282	0.0060
Venus	87278-04-10 16:34 G	33598795.01	33598795.19	33598795.38	0.0284	0.0137
Mercury	87282-01-30 12:58 G	33600185.97	33600186.04	33600186.13	0.0299	0.0267
Mercury	87282-04-29 14:10 G	33600274.91	33600275.09	33600275.27	0.0299	0.0054
Mercury	87282-07-27 14:39 G	33600363.96	33600364.11	33600364.27	0.0300	0.0157
Mars	87283-08-26 03:36 G	33600758.38	33600758.65	33600758.93	0.0301	0.0036
Moon	87289-06-05 16:34 G	33602869.07	33602869.19	33602869.32	0.0287	0.0245
Earth	87289-06-05 19:56 G	33602869.24	33602869.33	33602869.45	0.0287	0.0260 *
Moon	87290-06-19 05:32 G	33603247.53	33603247.73	33603247.95	0.0282	0.0131
Earth	87290-06-19 06:29 G	33603247.56	33603247.77	33603248.00	0.0282	0.0126 *
Venus	87290-11-11 23:46 G	33603393.30	33603393.49	33603393.69	0.0281	0.0111
Venus	87291-06-29 13:41 G	33603622.86	33603623.07	33603623.27	0.0278	0.0083
Venus	87292-02-14 01:12 G	33603852.52	33603852.55	33603852.61	0.0275	0.0269
Mercury	87296-02-25 11:32 G	33605324.89	33605324.98	33605325.09	0.0263	0.0172
Mercury	87296-05-23 21:51 G	33605413.28	33605413.41	33605413.54	0.0263	0.0068
Mercury	87296-08-20 07:56 G	33605501.70	33605501.83	33605501.97	0.0262	0.0037
Mercury	87296-11-16 18:15 G	33605590.15	33605590.26	33605590.37	0.0262	0.0141
Mercury	87297-02-13 04:34 G	33605678.65	33605678.69	33605678.73	0.0262	0.0247
Earth	87305-12-16 09:36 G	33608905.66	33608905.90	33608906.14	0.0277	0.0070
Moon	87305-12-16 12:58 G	33608905.80	33608906.04	33608906.28	0.0277	0.0072 *
Venus	87306-07-21 01:27 G	33609122.44	33609122.56	33609122.70	0.0280	0.0219
Venus	87307-03-07 12:00 G	33609351.79	33609352.00	33609352.21	0.0282	0.0028

Venus	87307-10-23 00:15 G	33609581.35	33609581.51	33609581.68	0.0285	0.0170
Mercury	87311-09-17 12:58 G	33611006.88	33611007.04	33611007.22	0.0299	0.0109
Mercury	87311-12-15 13:41 G	33611095.91	33611096.07	33611096.24	0.0299	0.0103
Earth	87319-06-14 18:29 G	33613834.03	33613834.27	33613834.51	0.0284	0.0046
Moon	87319-06-14 19:27 G	33613834.06	33613834.31	33613834.57	0.0284	0.0036 *
Venus	87319-10-08 13:56 G	33613950.05	33613950.08	33613950.12	0.0283	0.0278
Venus	87320-05-25 05:32 G	33614179.52	33614179.73	33614179.93	0.0280	0.0080
Venus	87321-01-09 19:12 G	33614409.10	33614409.30	33614409.49	0.0278	0.0112
Mercury	87325-07-15 14:39 G	33616057.03	33616057.11	33616057.20	0.0264	0.0201
Mercury	87325-10-12 00:44 G	33616145.41	33616145.53	33616145.66	0.0263	0.0097
Mercury	87326-01-08 10:48 G	33616233.82	33616233.95	33616234.09	0.0263	0.0011
Mercury	87326-04-06 21:08 G	33616322.26	33616322.38	33616322.50	0.0263	0.0112
Mercury	87326-07-04 07:27 G	33616410.74	33616410.81	33616410.88	0.0262	0.0218
Moon	87334-12-11 03:51 G	33619492.53	33619492.66	33619492.80	0.0275	0.0227
Earth	87334-12-11 07:12 G	33619492.66	33619492.80	33619492.95	0.0275	0.0222 *
Earth	87335-12-24 06:15 G	33619870.55	33619870.76	33619870.98	0.0279	0.0133
Moon	87335-12-24 06:44 G	33619870.58	33619870.78	33619870.99	0.0279	0.0139 *
Venus	87336-01-31 09:36 G	33619908.75	33619908.90	33619909.06	0.0280	0.0185
Venus	87336-09-16 20:39 G	33620138.15	33620138.36	33620138.57	0.0282	0.0008
Venus	87337-05-04 09:08 G	33620367.74	33620367.88	33620368.03	0.0285	0.0207
Mercury	87341-02-03 13:41 G	33621738.92	33621739.07	33621739.23	0.0299	0.0151
Mercury	87341-05-03 14:39 G	33621827.93	33621828.11	33621828.28	0.0299	0.0061
Mercury	87341-07-31 14:39 G	33621917.05	33621917.11	33621917.20	0.0300	0.0271
Moon	87348-06-08 11:17 G	33624420.80	33624420.97	33624421.15	0.0286	0.0194
Earth	87348-06-08 12:44 G	33624420.87	33624421.03	33624421.20	0.0286	0.0207 *
Venus	87349-04-20 00:29 G	33624736.42	33624736.52	33624736.64	0.0283	0.0242
Earth	87349-06-21 21:51 G	33624799.22	33624799.41	33624799.61	0.0282	0.0174
Moon	87349-06-22 00:29 G	33624799.34	33624799.52	33624799.71	0.0282	0.0178 *
Venus	87349-12-05 15:36 G	33624965.94	33624966.15	33624966.37	0.0280	0.0045
Venus	87350-07-23 04:48 G	33625195.52	33625195.70	33625195.89	0.0277	0.0147

Mercury	87354-12-02 18:29 G	33626789.20	33626789.27	33626789.34	0.0263	0.0221
Mercury	87355-03-01 04:34 G	33626877.57	33626877.69	33626877.81	0.0263	0.0117
Mercury	87355-05-28 14:39 G	33626965.98	33626966.11	33626966.25	0.0263	0.0014
Mercury	87355-08-25 00:58 G	33627054.41	33627054.54	33627054.67	0.0262	0.0092
Mercury	87355-11-21 11:03 G	33627142.88	33627142.96	33627143.06	0.0262	0.0198
Moon	87364-12-18 01:56 G	33630457.32	33630457.58	33630457.83	0.0278	0.0020
Earth	87364-12-18 02:10 G	33630457.34	33630457.59	33630457.84	0.0278	0.0021 *
Venus	87365-08-12 17:46 G	33630695.06	33630695.24	33630695.41	0.0280	0.0153
Venus	87366-03-30 04:34 G	33630924.49	33630924.69	33630924.90	0.0283	0.0041
Venus	87366-11-14 17:17 G	33631154.12	33631154.22	33631154.34	0.0286	0.0241
Mercury	87370-06-23 12:44 G	33632470.91	33632471.03	33632471.17	0.0299	0.0205
Mercury	87370-09-20 13:56 G	33632559.90	33632560.08	33632560.26	0.0299	0.0010
Mercury	87370-12-18 14:10 G	33632648.98	33632649.09	33632649.22	0.0299	0.0218
Mars	87372-01-22 03:22 G	33633048.38	33633048.64	33633048.90	0.0301	0.0104
Moon	87378-06-16 08:10 G	33635385.59	33635385.84	33635386.09	0.0284	0.0014
Earth	87378-06-16 10:48 G	33635385.71	33635385.95	33635386.20	0.0284	0.0007 *
Venus	87378-10-31 06:44 G	33635522.64	33635522.78	33635522.93	0.0282	0.0210
Venus	87379-06-17 21:36 G	33635752.19	33635752.40	33635752.62	0.0279	0.0014
Venus	87380-02-02 10:20 G	33635981.78	33635981.93	33635982.11	0.0277	0.0177
Mercury	87384-04-20 21:22 G	33637521.36	33637521.39	33637521.44	0.0264	0.0250
Mercury	87384-07-18 07:27 G	33637609.70	33637609.81	33637609.93	0.0263	0.0146
Mercury	87384-10-14 17:32 G	33637698.10	33637698.23	33637698.37	0.0263	0.0043
Mercury	87385-01-11 03:51 G	33637786.53	33637786.66	33637786.79	0.0263	0.0063
Mercury	87385-04-09 14:10 G	33637874.98	33637875.09	33637875.19	0.0262	0.0169
Earth	87393-12-12 21:51 G	33641044.23	33641044.41	33641044.61	0.0276	0.0175
Moon	87393-12-12 22:20 G	33641044.26	33641044.43	33641044.62	0.0276	0.0178 *
Earth	87394-12-25 22:05 G	33641422.24	33641422.42	33641422.61	0.0280	0.0183
Moon	87394-12-26 01:27 G	33641422.40	33641422.56	33641422.75	0.0280	0.0190 *
Venus	87395-02-23 00:58 G	33641481.36	33641481.54	33641481.73	0.0280	0.0120
Venus	87395-10-10 12:29 G	33641710.82	33641711.02	33641711.23	0.0283	0.0075

Venus	87396-05-27 01:27 G	33641940.52	33641940.56	33641940.63	0.0286	0.0276
Mercury	87399-11-10 13:12 G	33643202.95	33643203.05	33643203.15	0.0299	0.0250
Mercury	87400-02-07 14:10 G	33643291.91	33643292.09	33643292.27	0.0299	0.0036
Mercury	87400-05-07 14:53 G	33643380.97	33643381.12	33643381.26	0.0300	0.0175
Earth	87407-06-12 05:46 G	33645972.54	33645972.74	33645972.95	0.0286	0.0153
Moon	87407-06-12 08:39 G	33645972.65	33645972.86	33645973.07	0.0286	0.0140 *
Venus	87408-05-13 17:32 G	33646309.06	33646309.23	33646309.40	0.0282	0.0174
Earth	87408-06-24 13:41 G	33646350.94	33646351.07	33646351.23	0.0281	0.0224
Moon	87408-06-24 17:03 G	33646351.08	33646351.21	33646351.36	0.0281	0.0229 *
Venus	87408-12-29 07:56 G	33646538.62	33646538.83	33646539.04	0.0279	0.0022
Venus	87409-08-15 20:24 G	33646768.22	33646768.35	33646768.49	0.0277	0.0211
Mercury	87413-12-06 11:17 G	33648341.87	33648341.97	33648342.08	0.0263	0.0166
Mercury	87414-03-04 21:22 G	33648430.26	33648430.39	33648430.53	0.0263	0.0062
Mercury	87414-06-01 07:41 G	33648518.69	33648518.82	33648518.95	0.0262	0.0043
Mercury	87414-08-28 18:00 G	33648607.13	33648607.25	33648607.36	0.0262	0.0148
Mercury	87414-11-25 04:05 G	33648695.65	33648695.67	33648695.71	0.0262	0.0254
Moon	87423-12-21 13:56 G	33652008.83	33652009.08	33652009.33	0.0278	0.0032
Earth	87423-12-21 17:46 G	33652008.99	33652009.24	33652009.48	0.0278	0.0028 *
Venus	87424-01-19 23:32 G	33652038.45	33652038.48	33652038.51	0.0279	0.0275
Venus	87424-09-05 09:08 G	33652267.69	33652267.88	33652268.09	0.0281	0.0088
Venus	87425-04-22 20:53 G	33652497.18	33652497.37	33652497.56	0.0284	0.0109
Mercury	87429-06-27 13:41 G	33654023.90	33654024.07	33654024.25	0.0299	0.0087
Mercury	87429-09-24 14:24 G	33654112.94	33654113.10	33654113.27	0.0299	0.0125
Moon	87437-06-19 00:29 G	33656937.29	33656937.52	33656937.76	0.0283	0.0067
Earth	87437-06-19 04:05 G	33656937.43	33656937.67	33656937.91	0.0283	0.0058 *
Venus	87437-11-23 23:46 G	33657095.31	33657095.49	33657095.68	0.0281	0.0142
Venus	87438-07-11 13:56 G	33657324.87	33657325.08	33657325.29	0.0278	0.0053
Venus	87439-02-26 02:10 G	33657554.49	33657554.59	33657554.70	0.0276	0.0240
Mercury	87443-04-25 14:10 G	33659074.01	33659074.09	33659074.19	0.0264	0.0195
Mercury	87443-07-23 00:15 G	33659162.39	33659162.51	33659162.64	0.0263	0.0092

Mercury	87443-10-19 10:34 G	33659250.80	33659250.94	33659251.07	0.0263	0.0014
Mercury	87444-01-15 20:39 G	33659339.24	33659339.36	33659339.48	0.0262	0.0118
Mercury	87444-04-13 06:58 G	33659427.72	33659427.79	33659427.86	0.0262	0.0224
Earth	87452-12-15 11:03 G	33662595.75	33662595.96	33662596.18	0.0276	0.0129
Moon	87452-12-15 14:53 G	33662595.90	33662596.12	33662596.34	0.0276	0.0128 *
Venus	87453-08-01 05:03 G	33662824.63	33662824.71	33662824.82	0.0279	0.0246
Earth	87453-12-28 12:15 G	33662973.88	33662974.01	33662974.16	0.0280	0.0231
Moon	87453-12-28 14:39 G	33662973.98	33662974.11	33662974.25	0.0280	0.0239 *
Venus	87454-03-18 15:36 G	33663053.94	33663054.15	33663054.35	0.0281	0.0056
Venus	87454-11-03 03:36 G	33663283.47	33663283.65	33663283.83	0.0284	0.0141
Mercury	87458-11-14 13:12 G	33664755.89	33664756.05	33664756.21	0.0299	0.0138
Mercury	87459-02-11 13:56 G	33664844.91	33664845.08	33664845.26	0.0299	0.0075
Mercury	87459-05-11 14:24 G	33664934.05	33664934.10	33664934.16	0.0300	0.0284
Mars	87460-06-19 06:29 G	33665338.63	33665338.77	33665338.93	0.0301	0.0251
Earth	87466-06-13 21:51 G	33667524.19	33667524.41	33667524.64	0.0285	0.0101
Moon	87466-06-14 01:12 G	33667524.32	33667524.55	33667524.79	0.0285	0.0089 *
Venus	87467-06-06 09:22 G	33667881.70	33667881.89	33667882.09	0.0281	0.0108
Earth	87467-06-27 05:03 G	33667902.65	33667902.71	33667902.77	0.0281	0.0271
Moon	87467-06-27 04:48 G	33667902.65	33667902.70	33667902.76	0.0281	0.0273 *
Venus	87468-01-21 23:17 G	33668111.27	33668111.47	33668111.68	0.0278	0.0087
Venus	87468-09-07 11:03 G	33668340.95	33668340.96	33668341.00	0.0276	0.0274
Mercury	87472-09-11 18:00 G	33669806.18	33669806.25	33669806.33	0.0263	0.0216
Mercury	87472-12-09 04:05 G	33669894.55	33669894.67	33669894.79	0.0263	0.0112
Mercury	87473-03-07 14:10 G	33669982.96	33669983.09	33669983.23	0.0262	0.0010
Mercury	87473-06-04 00:29 G	33670071.39	33670071.52	33670071.64	0.0262	0.0097
Mercury	87473-08-31 10:34 G	33670159.86	33670159.94	33670160.03	0.0262	0.0203
Mars	87474-08-21 00:00 G	33670514.29	33670514.50	33670514.72	0.0261	0.0188
Moon	87482-12-23 04:34 G	33673560.46	33673560.69	33673560.92	0.0279	0.0081
Earth	87482-12-23 06:15 G	33673560.53	33673560.76	33673561.00	0.0279	0.0074 *
Venus	87483-02-11 12:29 G	33673610.90	33673611.02	33673611.17	0.0279	0.0216

Venus	87483-09-28 23:17 G	33673840.26	33673840.47	33673840.68	0.0282	0.0024
Venus	87484-05-15 11:17 G	33674069.81	33674069.97	33674070.14	0.0285	0.0175
Mercury	87488-04-02 12:29 G	33675487.88	33675488.02	33675488.16	0.0299	0.0191
Mercury	87488-06-30 13:27 G	33675576.88	33675577.06	33675577.24	0.0299	0.0023
Mercury	87488-09-27 13:56 G	33675665.97	33675666.08	33675666.19	0.0300	0.0233
Moon	87495-06-08 05:46 G	33678110.66	33678110.74	33678110.85	0.0287	0.0263
Earth	87495-06-08 08:53 G	33678110.81	33678110.87	33678110.94	0.0287	0.0274 *
Venus	87496-05-01 00:00 G	33678438.46	33678438.50	33678438.55	0.0283	0.0276
Earth	87496-06-20 19:12 G	33678489.07	33678489.30	33678489.52	0.0282	0.0107
Moon	87496-06-20 19:41 G	33678489.10	33678489.32	33678489.54	0.0282	0.0113 *
Venus	87496-12-16 15:22 G	33678667.94	33678668.14	33678668.35	0.0280	0.0077
Venus	87497-08-03 04:48 G	33678897.52	33678897.70	33678897.90	0.0277	0.0117
Mercury	87502-01-30 20:39 G	33680538.32	33680538.36	33680538.41	0.0264	0.0247
Mercury	87502-04-29 06:44 G	33680626.67	33680626.78	33680626.90	0.0263	0.0143
Mercury	87502-07-26 16:48 G	33680715.07	33680715.20	33680715.34	0.0263	0.0040
Mercury	87502-10-23 03:08 G	33680803.50	33680803.63	33680803.76	0.0262	0.0066
Mercury	87503-01-19 13:12 G	33680891.95	33680892.05	33680892.16	0.0262	0.0171
Earth	87511-12-18 20:39 G	33684147.12	33684147.36	33684147.59	0.0277	0.0087
Moon	87511-12-18 22:20 G	33684147.18	33684147.43	33684147.67	0.0277	0.0084 *
Venus	87512-08-24 17:17 G	33684397.07	33684397.22	33684397.37	0.0279	0.0188
Earth	87512-12-30 22:48 G	33684525.41	33684525.45	33684525.51	0.0281	0.0274
Venus	87513-04-11 04:05 G	33684626.46	33684626.67	33684626.88	0.0282	0.0007
Venus	87513-11-26 16:20 G	33684856.05	33684856.18	33684856.34	0.0285	0.0204
Mercury	87517-08-21 10:48 G	33686219.86	33686219.95	33686220.06	0.0299	0.0250
Mercury	87517-11-18 12:00 G	33686308.83	33686309.00	33686309.18	0.0299	0.0036
Mercury	87518-02-15 12:44 G	33686397.89	33686398.03	33686398.18	0.0300	0.0176
Moon	87525-06-16 11:03 G	33689075.71	33689075.96	33689076.21	0.0285	0.0044
Earth	87525-06-16 12:00 G	33689075.76	33689076.00	33689076.24	0.0285	0.0052 *
Venus	87525-11-12 09:08 G	33689224.78	33689224.88	33689224.99	0.0283	0.0243
Venus	87526-06-30 00:15 G	33689454.30	33689454.51	33689454.73	0.0280	0.0044

Venus	87527-02-14 13:27 G	33689683.89	33689684.06	33689684.25	0.0278	0.0149
Mercury	87531-09-16 10:20 G	33691358.83	33691358.93	33691359.04	0.0263	0.0165
Mercury	87531-12-13 20:24 G	33691447.22	33691447.35	33691447.48	0.0263	0.0062
Mercury	87532-03-11 06:29 G	33691535.64	33691535.77	33691535.91	0.0262	0.0044
Mercury	87532-06-07 16:48 G	33691624.09	33691624.20	33691624.31	0.0262	0.0148
Mercury	87532-09-04 02:53 G	33691712.60	33691712.62	33691712.66	0.0261	0.0254
Moon	87540-12-12 14:24 G	33694734.00	33694734.10	33694734.23	0.0275	0.0240
Earth	87540-12-12 16:20 G	33694734.07	33694734.18	33694734.32	0.0275	0.0237 *
Earth	87541-12-25 15:08 G	33695111.91	33695112.13	33695112.36	0.0279	0.0115
Moon	87541-12-25 17:46 G	33695112.03	33695112.24	33695112.46	0.0279	0.0126 *
Venus	87542-03-06 23:46 G	33695183.33	33695183.49	33695183.67	0.0280	0.0158
Venus	87542-10-22 11:03 G	33695412.75	33695412.96	33695413.17	0.0283	0.0036
Venus	87543-06-08 23:32 G	33695642.37	33695642.48	33695642.60	0.0286	0.0237
Mercury	87547-04-07 11:03 G	33697040.79	33697040.96	33697041.13	0.0299	0.0091
Mercury	87547-07-05 11:46 G	33697129.83	33697129.99	33697130.16	0.0300	0.0121
Earth	87554-06-10 21:51 G	33699662.26	33699662.41	33699662.56	0.0286	0.0226
Moon	87554-06-10 22:48 G	33699662.30	33699662.45	33699662.60	0.0286	0.0216 *
Venus	87555-05-25 14:24 G	33700010.97	33700011.10	33700011.24	0.0282	0.0212
Earth	87555-06-24 06:58 G	33700040.59	33700040.79	33700041.00	0.0282	0.0153
Moon	87555-06-24 10:34 G	33700040.75	33700040.94	33700041.16	0.0282	0.0156 *
Venus	87556-01-10 05:17 G	33700240.51	33700240.72	33700240.93	0.0279	0.0015
Venus	87556-08-26 18:00 G	33700470.09	33700470.25	33700470.42	0.0277	0.0176
Mercury	87561-02-02 12:58 G	33702090.95	33702091.04	33702091.13	0.0263	0.0198
Mercury	87561-05-01 23:03 G	33702179.33	33702179.46	33702179.58	0.0263	0.0094
Mercury	87561-07-29 09:08 G	33702267.74	33702267.88	33702268.01	0.0262	0.0011
Mercury	87561-10-25 19:12 G	33702356.18	33702356.30	33702356.42	0.0262	0.0114
Mercury	87562-01-22 05:17 G	33702444.66	33702444.72	33702444.80	0.0262	0.0220
Mars	87563-01-15 20:10 G	33702803.07	33702803.34	33702803.63	0.0261	0.0114
Moon	87570-12-19 23:32 G	33705698.24	33705698.48	33705698.74	0.0277	0.0043
Earth	87570-12-20 02:10 G	33705698.35	33705698.59	33705698.84	0.0277	0.0050 *

Venus	87571-09-17 02:53 G	33705969.43	33705969.62	33705969.80	0.0280	0.0133
Venus	87572-05-03 13:56 G	33706198.88	33706199.08	33706199.29	0.0283	0.0061
Venus	87572-12-19 02:39 G	33706428.54	33706428.61	33706428.70	0.0286	0.0263
Mercury	87576-08-24 08:24 G	33707772.69	33707772.85	33707773.00	0.0299	0.0160
Mercury	87576-11-21 09:22 G	33707861.71	33707861.89	33707862.06	0.0299	0.0054
Mercury	87577-02-18 09:51 G	33707950.83	33707950.91	33707950.99	0.0300	0.0264
Moon	87584-06-17 18:15 G	33710627.02	33710627.26	33710627.51	0.0284	0.0006
Earth	87584-06-17 22:05 G	33710627.17	33710627.42	33710627.66	0.0284	0.0009 *
Venus	87584-12-04 21:51 G	33710797.25	33710797.41	33710797.58	0.0282	0.0182
Venus	87585-07-22 12:29 G	33711026.81	33711027.02	33711027.24	0.0280	0.0017
Venus	87586-03-09 01:12 G	33711256.42	33711256.55	33711256.70	0.0277	0.0207
Mercury	87590-06-22 16:20 G	33712823.11	33712823.18	33712823.25	0.0263	0.0222
Mercury	87590-09-19 02:10 G	33712911.48	33712911.59	33712911.71	0.0263	0.0120
Mercury	87590-12-16 12:29 G	33712999.88	33713000.02	33713000.15	0.0262	0.0017
Mercury	87591-03-14 22:34 G	33713088.31	33713088.44	33713088.57	0.0262	0.0089
Mercury	87591-06-11 08:39 G	33713176.77	33713176.86	33713176.95	0.0261	0.0194
Earth	87599-12-14 19:56 G	33716285.17	33716285.33	33716285.50	0.0275	0.0203
Moon	87599-12-14 21:51 G	33716285.26	33716285.41	33716285.59	0.0275	0.0204 *
Earth	87600-12-26 18:58 G	33716663.09	33716663.29	33716663.51	0.0280	0.0151
Moon	87600-12-26 22:20 G	33716663.23	33716663.43	33716663.64	0.0280	0.0161 *
Venus	87601-03-29 08:24 G	33716755.65	33716755.85	33716756.04	0.0281	0.0105
Venus	87601-11-13 19:41 G	33716985.12	33716985.32	33716985.52	0.0283	0.0091
Mercury	87606-01-11 06:29 G	33718504.66	33718504.77	33718504.90	0.0299	0.0221
Mercury	87606-04-10 07:41 G	33718593.64	33718593.82	33718594.00	0.0300	0.0008
Mercury	87606-07-08 08:24 G	33718682.72	33718682.85	33718682.98	0.0300	0.0205
Earth	87613-06-12 06:58 G	33721213.60	33721213.79	33721213.98	0.0286	0.0182
Moon	87613-06-12 10:20 G	33721213.74	33721213.93	33721214.13	0.0286	0.0172 *
Venus	87614-06-17 02:39 G	33721583.43	33721583.61	33721583.79	0.0281	0.0152
Earth	87614-06-25 15:36 G	33721591.98	33721592.15	33721592.33	0.0281	0.0194
Moon	87614-06-25 16:48 G	33721592.03	33721592.20	33721592.40	0.0281	0.0193 *

Venus	87615-02-01 16:48 G	33721812.99	33721813.20	33721813.42	0.0279	0.0044
Venus	87615-09-19 05:03 G	33722042.61	33722042.71	33722042.84	0.0276	0.0233
Mercury	87619-11-09 18:44 G	33723555.25	33723555.28	33723555.31	0.0263	0.0256
Mercury	87620-02-06 04:34 G	33723643.59	33723643.69	33723643.80	0.0263	0.0154
Mercury	87620-05-04 14:39 G	33723731.98	33723732.11	33723732.25	0.0262	0.0050
Mercury	87620-08-01 00:44 G	33723820.40	33723820.53	33723820.67	0.0262	0.0055
Mercury	87620-10-28 11:03 G	33723908.85	33723908.96	33723909.07	0.0262	0.0159
Moon	87629-12-21 00:29 G	33727249.28	33727249.52	33727249.76	0.0277	0.0010
Earth	87629-12-21 03:36 G	33727249.41	33727249.65	33727249.90	0.0277	0.0018 *
Venus	87630-02-21 23:46 G	33727312.45	33727312.49	33727312.54	0.0278	0.0271
Venus	87630-10-09 09:51 G	33727541.71	33727541.91	33727542.11	0.0281	0.0083
Venus	87631-05-26 21:22 G	33727771.20	33727771.39	33727771.58	0.0283	0.0114
Mercury	87635-05-31 02:39 G	33729236.61	33729236.61	33729236.62	0.0299	0.0299
Mercury	87635-08-28 04:05 G	33729325.50	33729325.67	33729325.85	0.0299	0.0083
Mercury	87635-11-25 04:48 G	33729414.55	33729414.70	33729414.87	0.0300	0.0131
Moon	87643-06-20 02:24 G	33732178.37	33732178.60	33732178.84	0.0284	0.0034
Earth	87643-06-20 03:51 G	33732178.42	33732178.66	33732178.90	0.0284	0.0031 *
Venus	87643-12-28 08:10 G	33732369.65	33732369.84	33732370.03	0.0282	0.0125
Venus	87644-08-13 22:20 G	33732599.23	33732599.43	33732599.64	0.0279	0.0072
Venus	87645-03-31 10:48 G	33732828.89	33732828.95	33732829.03	0.0276	0.0260
Mercury	87649-06-25 07:41 G	33734375.73	33734375.82	33734375.92	0.0263	0.0181
Mercury	87649-09-21 17:46 G	33734464.11	33734464.24	33734464.37	0.0262	0.0078
Mercury	87649-12-19 03:51 G	33734552.52	33734552.66	33734552.79	0.0262	0.0027
Mercury	87650-03-17 13:56 G	33734640.96	33734641.08	33734641.20	0.0262	0.0131
Mercury	87650-06-14 00:00 G	33734729.45	33734729.50	33734729.56	0.0261	0.0236
Mars	87651-06-11 16:20 G	33735091.87	33735092.18	33735092.50	0.0260	0.0034
Earth	87658-12-15 19:27 G	33737836.13	33737836.31	33737836.51	0.0275	0.0173
Moon	87658-12-15 23:17 G	33737836.27	33737836.47	33737836.66	0.0275	0.0170 *
Venus	87659-09-04 04:20 G	33738098.59	33738098.68	33738098.79	0.0278	0.0244
Moon	87659-12-28 18:15 G	33738214.08	33738214.26	33738214.45	0.0280	0.0193

Earth	87659-12-28 18:58 G	33738214.11	33738214.29	33738214.49	0.0280	0.0181	*
Venus	87660-04-20 14:24 G	33738327.89	33738328.10	33738328.30	0.0281	0.0055	
Venus	87660-12-06 01:56 G	33738557.40	33738557.58	33738557.76	0.0284	0.0143	
Mercury	87665-01-14 01:41 G	33740057.42	33740057.57	33740057.73	0.0299	0.0150	
Mercury	87665-04-13 02:53 G	33740146.44	33740146.62	33740146.79	0.0300	0.0065	
Mercury	87665-07-11 03:08 G	33740235.58	33740235.63	33740235.71	0.0300	0.0277	
Earth	87672-06-13 11:17 G	33742764.77	33742764.97	33742765.18	0.0286	0.0146	
Moon	87672-06-13 12:58 G	33742764.82	33742765.04	33742765.26	0.0286	0.0137	*
Moon	87673-06-26 16:48 G	33743143.06	33743143.20	33743143.36	0.0281	0.0223	
Earth	87673-06-26 19:41 G	33743143.19	33743143.32	33743143.47	0.0281	0.0229	*
Venus	87673-07-09 11:46 G	33743155.80	33743155.99	33743156.20	0.0281	0.0098	
Venus	87674-02-24 01:41 G	33743385.38	33743385.57	33743385.78	0.0278	0.0099	
Mercury	87678-11-12 09:51 G	33745107.84	33745107.91	33745107.99	0.0263	0.0216	
Mercury	87679-02-08 19:56 G	33745196.21	33745196.33	33745196.45	0.0262	0.0113	
Mercury	87679-05-08 06:00 G	33745284.61	33745284.75	33745284.88	0.0262	0.0012	
Mercury	87679-08-04 16:05 G	33745373.04	33745373.17	33745373.29	0.0262	0.0094	
Mercury	87679-11-01 02:10 G	33745461.51	33745461.59	33745461.68	0.0261	0.0199	
Earth	87688-12-22 00:58 G	33748800.30	33748800.54	33748800.79	0.0277	0.0011	
Moon	87688-12-22 01:56 G	33748800.34	33748800.58	33748800.82	0.0277	0.0021	*
Venus	87689-03-16 03:51 G	33748884.55	33748884.66	33748884.79	0.0278	0.0226	
Venus	87689-10-31 14:10 G	33749113.88	33749114.09	33749114.30	0.0281	0.0036	
Venus	87690-06-18 01:56 G	33749343.41	33749343.58	33749343.76	0.0284	0.0162	
Mercury	87694-06-02 20:53 G	33750789.27	33750789.37	33750789.49	0.0299	0.0235	
Mercury	87694-08-30 22:20 G	33750878.25	33750878.43	33750878.61	0.0299	0.0020	
Mercury	87694-11-27 23:03 G	33750967.32	33750967.46	33750967.59	0.0300	0.0193	
Venus	87702-06-05 00:00 G	33753712.45	33753712.50	33753712.56	0.0284	0.0273	
Earth	87702-06-22 06:00 G	33753729.51	33753729.75	33753729.99	0.0284	0.0064	
Moon	87702-06-22 08:24 G	33753729.63	33753729.85	33753730.09	0.0284	0.0065	*
Venus	87703-01-20 16:05 G	33753941.97	33753942.17	33753942.38	0.0281	0.0072	
Venus	87703-09-07 06:00 G	33754171.57	33754171.75	33754171.95	0.0279	0.0125	

Mercury	87708-04-01 12:44 G	33755839.99	33755840.03	33755840.08	0.0263	0.0246
Mercury	87708-06-28 22:48 G	33755928.34	33755928.45	33755928.56	0.0263	0.0143
Mercury	87708-09-25 08:39 G	33756016.73	33756016.86	33756017.00	0.0262	0.0040
Mercury	87708-12-22 18:44 G	33756105.15	33756105.28	33756105.42	0.0262	0.0065
Mercury	87709-03-21 04:48 G	33756193.61	33756193.70	33756193.81	0.0261	0.0170
Moon	87717-12-17 14:39 G	33759386.90	33759387.11	33759387.34	0.0275	0.0139
Earth	87717-12-17 15:51 G	33759386.97	33759387.16	33759387.38	0.0275	0.0149 *
Venus	87718-09-27 08:10 G	33759670.70	33759670.84	33759670.99	0.0279	0.0199
Moon	87718-12-30 11:46 G	33759764.85	33759764.99	33759765.15	0.0280	0.0222
Earth	87718-12-30 15:36 G	33759764.99	33759765.15	33759765.32	0.0280	0.0206 *
Venus	87719-05-14 18:15 G	33759900.05	33759900.26	33759900.47	0.0281	0.0009
Venus	87719-12-30 06:00 G	33760129.60	33760129.75	33760129.91	0.0284	0.0191
Mercury	87724-01-18 19:41 G	33761610.14	33761610.32	33761610.49	0.0300	0.0089
Mercury	87724-04-16 20:39 G	33761699.19	33761699.36	33761699.52	0.0300	0.0126
Moon	87731-06-16 09:22 G	33764315.66	33764315.89	33764316.12	0.0286	0.0110
Earth	87731-06-16 12:15 G	33764315.79	33764316.01	33764316.24	0.0286	0.0114 *
Venus	87731-12-16 03:08 G	33764498.54	33764498.63	33764498.75	0.0283	0.0246
Moon	87732-06-28 17:46 G	33764694.15	33764694.24	33764694.35	0.0281	0.0254
Earth	87732-06-28 20:39 G	33764694.28	33764694.36	33764694.46	0.0281	0.0260 *
Venus	87732-08-01 19:12 G	33764728.09	33764728.30	33764728.51	0.0281	0.0045
Venus	87733-03-19 08:53 G	33764957.69	33764957.87	33764958.05	0.0278	0.0149
Mercury	87737-11-16 00:44 G	33766660.44	33766660.53	33766660.63	0.0262	0.0180
Mercury	87738-02-12 10:48 G	33766748.82	33766748.95	33766749.08	0.0262	0.0076
Mercury	87738-05-11 20:53 G	33766837.23	33766837.37	33766837.50	0.0262	0.0027
Mercury	87738-08-08 06:58 G	33766925.67	33766925.79	33766925.91	0.0261	0.0131
Mercury	87738-11-04 17:03 G	33767014.16	33767014.21	33767014.27	0.0261	0.0236
Mars	87739-11-05 12:15 G	33767379.69	33767380.01	33767380.32	0.0260	0.0002
Earth	87747-12-24 20:10 G	33770351.10	33770351.34	33770351.59	0.0277	0.0035
Moon	87747-12-25 00:00 G	33770351.26	33770351.50	33770351.75	0.0277	0.0050 *
Venus	87748-04-08 06:58 G	33770456.64	33770456.79	33770456.96	0.0279	0.0182

Venus	87748-11-23 17:17 G	33770686.01	33770686.22	33770686.43	0.0281	0.0010
Venus	87749-07-11 05:17 G	33770915.58	33770915.72	33770915.86	0.0284	0.0208
Mercury	87753-06-06 14:10 G	33772341.95	33772342.09	33772342.24	0.0299	0.0179
Mercury	87753-09-03 15:22 G	33772430.96	33772431.14	33772431.32	0.0300	0.0036
Mercury	87753-12-01 15:51 G	33772520.07	33772520.16	33772520.27	0.0300	0.0248
Earth	87761-06-23 04:20 G	33775280.45	33775280.68	33775280.92	0.0284	0.0092
Moon	87761-06-23 07:41 G	33775280.58	33775280.82	33775281.05	0.0284	0.0090 *
Venus	87761-06-27 06:00 G	33775284.62	33775284.75	33775284.88	0.0284	0.0223
Venus	87762-02-11 21:51 G	33775514.20	33775514.41	33775514.63	0.0281	0.0022
Venus	87762-09-29 11:46 G	33775743.83	33775743.99	33775744.16	0.0278	0.0173
Mercury	87767-04-05 03:22 G	33777392.57	33777392.64	33777392.72	0.0263	0.0212
Mercury	87767-07-02 13:27 G	33777480.94	33777481.06	33777481.18	0.0262	0.0108
Mercury	87767-09-28 23:32 G	33777569.34	33777569.48	33777569.61	0.0262	0.0006
Mercury	87767-12-26 09:36 G	33777657.77	33777657.90	33777658.02	0.0262	0.0100
Mercury	87768-03-23 19:41 G	33777746.24	33777746.32	33777746.41	0.0261	0.0204
Moon	87776-12-18 06:44 G	33780937.56	33780937.78	33780938.01	0.0275	0.0111
Earth	87776-12-18 10:34 G	33780937.72	33780937.94	33780938.16	0.0275	0.0125 *
Venus	87777-10-19 10:34 G	33781242.77	33781242.94	33781243.12	0.0279	0.0156
Moon	87777-12-31 08:53 G	33781315.76	33781315.87	33781315.99	0.0280	0.0245
Earth	87777-12-31 09:51 G	33781315.77	33781315.91	33781316.05	0.0280	0.0228 *
Venus	87778-06-05 20:53 G	33781472.16	33781472.37	33781472.58	0.0282	0.0037
Venus	87779-01-21 08:39 G	33781701.75	33781701.86	33781701.98	0.0285	0.0236
Mercury	87782-10-24 11:03 G	33783073.86	33783073.96	33783074.06	0.0299	0.0253
Mercury	87783-01-21 12:15 G	33783162.83	33783163.01	33783163.19	0.0300	0.0037
Mercury	87783-04-20 13:12 G	33783251.90	33783252.05	33783252.19	0.0300	0.0177
Moon	87790-06-17 07:41 G	33785866.60	33785866.82	33785867.05	0.0286	0.0087
Earth	87790-06-17 10:20 G	33785866.70	33785866.93	33785867.17	0.0286	0.0086 *
Venus	87791-01-07 08:53 G	33786070.73	33786070.87	33786071.03	0.0283	0.0196
Moon	87791-06-30 20:10 G	33786245.31	33786245.34	33786245.37	0.0281	0.0278
Venus	87791-08-25 00:44 G	33786300.32	33786300.53	33786300.75	0.0280	0.0005

Venus	87792-04-10 14:24 G	33786529.96	33786530.10	33786530.25	0.0277	0.0198
Mercury	87796-08-22 05:32 G	33788124.69	33788124.73	33788124.78	0.0263	0.0248
Mercury	87796-11-18 15:22 G	33788213.04	33788213.14	33788213.26	0.0262	0.0145
Mercury	87797-02-15 01:27 G	33788301.43	33788301.56	33788301.70	0.0262	0.0042
Mercury	87797-05-14 11:32 G	33788389.85	33788389.98	33788390.11	0.0261	0.0062
Mercury	87797-08-10 21:36 G	33788478.30	33788478.40	33788478.51	0.0261	0.0166
Moon	87805-12-13 22:20 G	33791524.42	33791524.43	33791524.45	0.0273	0.0272
Earth	87806-12-26 14:10 G	33791901.85	33791902.09	33791902.33	0.0277	0.0057
Moon	87806-12-26 14:24 G	33791901.85	33791902.10	33791902.34	0.0277	0.0073 *
Venus	87807-05-02 09:08 G	33792028.70	33792028.88	33792029.07	0.0279	0.0139
Venus	87807-12-17 19:27 G	33792258.10	33792258.31	33792258.52	0.0282	0.0054
Venus	87808-08-03 07:27 G	33792487.72	33792487.81	33792487.91	0.0285	0.0254
Mercury	87812-06-10 06:44 G	33793894.62	33793894.78	33793894.94	0.0299	0.0129
Mercury	87812-09-07 07:41 G	33793983.65	33793983.82	33793984.00	0.0300	0.0086
Mercury	87812-12-05 08:10 G	33794072.83	33794072.84	33794072.87	0.0300	0.0298
Earth	87819-06-12 11:17 G	33796452.89	33796452.97	33796453.06	0.0289	0.0269
Moon	87819-06-12 13:27 G	33796452.98	33796453.06	33796453.16	0.0289	0.0269 *
Moon	87820-06-24 23:32 G	33796831.25	33796831.48	33796831.72	0.0284	0.0109
Earth	87820-06-25 01:12 G	33796831.33	33796831.55	33796831.77	0.0284	0.0117 *
Venus	87820-07-20 10:48 G	33796856.79	33796856.95	33796857.12	0.0284	0.0174
Venus	87821-03-07 02:39 G	33797086.40	33797086.61	33797086.83	0.0281	0.0028
Venus	87821-10-22 16:20 G	33797316.06	33797316.18	33797316.32	0.0278	0.0221
Mercury	87826-04-08 18:00 G	33798945.15	33798945.25	33798945.35	0.0263	0.0178
Mercury	87826-07-06 03:51 G	33799033.54	33799033.66	33799033.79	0.0262	0.0076
Mercury	87826-10-02 13:56 G	33799121.95	33799122.08	33799122.22	0.0262	0.0030
Mercury	87826-12-30 00:00 G	33799210.39	33799210.50	33799210.62	0.0261	0.0134
Mercury	87827-03-28 10:20 G	33799298.88	33799298.93	33799298.98	0.0261	0.0238
Mars	87828-03-31 13:56 G	33799667.78	33799668.08	33799668.40	0.0260	0.0049
Earth	87835-12-21 05:03 G	33802488.48	33802488.71	33802488.94	0.0275	0.0103
Moon	87835-12-21 05:17 G	33802488.49	33802488.72	33802488.95	0.0275	0.0088 *

Venus	87836-11-11 12:58 G	33802814.85	33802815.04	33802815.24	0.0279	0.0111
Earth	87837-01-02 03:51 G	33802866.56	33802866.66	33802866.78	0.0280	0.0250
Moon	87837-01-02 07:27 G	33802866.75	33802866.81	33802866.89	0.0280	0.0267 *
Venus	87837-06-28 23:17 G	33803044.27	33803044.47	33803044.67	0.0282	0.0082
Venus	87838-02-13 11:17 G	33803273.95	33803273.97	33803274.01	0.0285	0.0282
Mercury	87841-10-28 03:22 G	33804626.52	33804626.64	33804626.78	0.0299	0.0204
Mercury	87842-01-25 04:48 G	33804715.52	33804715.70	33804715.88	0.0300	0.0013
Mercury	87842-04-24 05:17 G	33804804.62	33804804.72	33804804.85	0.0301	0.0227
Earth	87849-06-19 06:44 G	33807417.55	33807417.78	33807418.02	0.0286	0.0060
Moon	87849-06-19 09:08 G	33807417.65	33807417.88	33807418.11	0.0286	0.0067 *
Venus	87850-01-30 13:41 G	33807642.90	33807643.07	33807643.26	0.0283	0.0147
Venus	87850-09-17 05:17 G	33807872.51	33807872.72	33807872.94	0.0280	0.0054
Venus	87851-05-04 18:44 G	33808102.20	33808102.28	33808102.39	0.0277	0.0246
Mercury	87855-08-26 19:56 G	33809677.27	33809677.33	33809677.42	0.0263	0.0215
Mercury	87855-11-23 06:00 G	33809765.63	33809765.75	33809765.88	0.0262	0.0112
Mercury	87856-02-19 16:05 G	33809854.04	33809854.17	33809854.31	0.0262	0.0008
Mercury	87856-05-18 02:10 G	33809942.47	33809942.59	33809942.72	0.0261	0.0096
Mercury	87856-08-14 12:15 G	33810030.93	33810031.01	33810031.10	0.0261	0.0201
Moon	87864-12-14 13:12 G	33813074.95	33813075.05	33813075.16	0.0273	0.0248
Earth	87864-12-14 13:56 G	33813075.01	33813075.08	33813075.14	0.0273	0.0262 *
Moon	87865-12-27 04:48 G	33813452.46	33813452.70	33813452.93	0.0277	0.0095
Earth	87865-12-27 08:39 G	33813452.62	33813452.86	33813453.09	0.0277	0.0079 *
Venus	87866-05-24 11:46 G	33813600.79	33813600.99	33813601.19	0.0279	0.0094
Venus	87867-01-08 21:51 G	33813830.22	33813830.41	33813830.61	0.0282	0.0100
Mercury	87871-03-16 21:22 G	33815358.39	33815358.39	33815358.41	0.0299	0.0298
Mercury	87871-06-13 23:03 G	33815447.28	33815447.46	33815447.63	0.0299	0.0081
Mercury	87871-09-11 00:00 G	33815536.34	33815536.50	33815536.66	0.0300	0.0133
Moon	87878-06-13 03:36 G	33818003.54	33818003.65	33818003.78	0.0289	0.0253
Earth	87878-06-13 06:44 G	33818003.65	33818003.78	33818003.91	0.0289	0.0245 *
Moon	87879-06-26 17:17 G	33818382.00	33818382.22	33818382.43	0.0284	0.0127

Earth	87879-06-26 20:39 G	33818382.16	33818382.36	33818382.58	0.0284	0.0142	*
Venus	87879-08-12 14:53 G	33818428.94	33818429.12	33818429.32	0.0284	0.0126	
Venus	87880-03-29 06:58 G	33818658.58	33818658.79	33818659.00	0.0281	0.0076	
Venus	87880-11-13 20:39 G	33818888.31	33818888.36	33818888.42	0.0278	0.0268	
Mercury	87885-01-12 22:34 G	33820409.40	33820409.44	33820409.49	0.0263	0.0249	
Mercury	87885-04-11 08:39 G	33820497.75	33820497.86	33820497.97	0.0263	0.0145	
Mercury	87885-07-08 18:29 G	33820586.14	33820586.27	33820586.41	0.0262	0.0042	
Mercury	87885-10-05 04:34 G	33820674.56	33820674.69	33820674.83	0.0262	0.0063	
Mercury	87886-01-01 14:39 G	33820763.01	33820763.11	33820763.22	0.0261	0.0168	
Earth	87894-12-22 00:00 G	33824039.27	33824039.50	33824039.74	0.0275	0.0081	
Moon	87894-12-22 03:36 G	33824039.42	33824039.65	33824039.89	0.0275	0.0065	*
Venus	87895-04-19 06:58 G	33824157.72	33824157.79	33824157.89	0.0276	0.0252	
Venus	87895-12-04 15:36 G	33824386.95	33824387.15	33824387.36	0.0279	0.0066	
Earth	87896-01-03 22:48 G	33824417.41	33824417.45	33824417.52	0.0280	0.0272	
Venus	87896-07-21 02:10 G	33824616.40	33824616.59	33824616.77	0.0282	0.0129	
Mercury	87900-10-31 20:10 G	33826179.18	33826179.34	33826179.50	0.0300	0.0153	
Mercury	87901-01-28 21:08 G	33826268.21	33826268.38	33826268.56	0.0300	0.0063	
Mercury	87901-04-27 21:51 G	33826357.35	33826357.41	33826357.48	0.0301	0.0275	
Earth	87908-06-21 03:22 G	33828968.39	33828968.64	33828968.88	0.0286	0.0035	
Moon	87908-06-21 06:29 G	33828968.53	33828968.77	33828969.02	0.0286	0.0047	*
Venus	87909-02-22 18:29 G	33829215.08	33829215.27	33829215.48	0.0283	0.0098	
Venus	87909-10-10 10:05 G	33829444.72	33829444.92	33829445.12	0.0280	0.0102	
Mercury	87914-08-30 10:48 G	33831229.86	33831229.95	33831230.05	0.0263	0.0180	
Mercury	87914-11-26 20:53 G	33831318.24	33831318.37	33831318.50	0.0262	0.0077	
Mercury	87915-02-23 06:58 G	33831406.65	33831406.79	33831406.92	0.0262	0.0028	
Mercury	87915-05-22 17:03 G	33831495.09	33831495.21	33831495.32	0.0261	0.0132	
Mercury	87915-08-19 03:08 G	33831583.58	33831583.63	33831583.69	0.0261	0.0236	
Mars	87916-08-25 08:24 G	33831955.56	33831955.85	33831956.16	0.0260	0.0084	
Moon	87923-12-17 06:58 G	33834625.66	33834625.79	33834625.95	0.0273	0.0223	
Earth	87923-12-17 10:34 G	33834625.84	33834625.94	33834626.07	0.0273	0.0238	*

Venus	87924-10-30 06:44 G	33834943.68	33834943.78	33834943.90	0.0277	0.0234
Moon	87924-12-29 04:05 G	33835003.46	33835003.67	33835003.89	0.0277	0.0116
Earth	87924-12-29 05:03 G	33835003.49	33835003.71	33835003.95	0.0277	0.0103 *
Venus	87925-06-16 15:22 G	33835172.94	33835173.14	33835173.35	0.0279	0.0048
Venus	87926-02-01 01:56 G	33835402.40	33835402.58	33835402.75	0.0282	0.0148
Mercury	87930-03-20 14:39 G	33836911.01	33836911.11	33836911.22	0.0299	0.0243
Mercury	87930-06-17 16:05 G	33836999.99	33837000.17	33837000.35	0.0299	0.0027
Mercury	87930-09-14 16:48 G	33837089.07	33837089.20	33837089.34	0.0300	0.0187
Moon	87937-06-15 00:15 G	33839554.37	33839554.51	33839554.65	0.0289	0.0231
Earth	87937-06-15 02:53 G	33839554.47	33839554.62	33839554.78	0.0289	0.0221 *
Venus	87938-01-18 01:56 G	33839771.56	33839771.58	33839771.63	0.0286	0.0282
Earth	87938-06-28 17:17 G	33839933.03	33839933.22	33839933.42	0.0284	0.0165
Moon	87938-06-28 18:00 G	33839933.05	33839933.25	33839933.45	0.0284	0.0150 *
Venus	87938-09-04 19:41 G	33840001.12	33840001.32	33840001.53	0.0283	0.0076
Venus	87939-04-22 11:32 G	33840230.79	33840230.98	33840231.18	0.0280	0.0125
Mercury	87944-01-17 13:12 G	33841961.98	33841962.05	33841962.13	0.0263	0.0215
Mercury	87944-04-14 23:17 G	33842050.35	33842050.47	33842050.59	0.0263	0.0111
Mercury	87944-07-12 09:22 G	33842138.75	33842138.89	33842139.02	0.0262	0.0009
Mercury	87944-10-08 19:27 G	33842227.18	33842227.31	33842227.43	0.0262	0.0098
Mercury	87945-01-05 05:32 G	33842315.65	33842315.73	33842315.82	0.0262	0.0203
Earth	87953-12-23 21:51 G	33845590.17	33845590.41	33845590.65	0.0275	0.0055
Moon	87953-12-23 23:03 G	33845590.21	33845590.46	33845590.72	0.0275	0.0041 *
Venus	87954-05-12 11:17 G	33845729.84	33845729.97	33845730.12	0.0277	0.0205
Venus	87954-12-27 20:10 G	33845959.13	33845959.34	33845959.55	0.0279	0.0017
Venus	87955-08-14 06:29 G	33846188.61	33846188.77	33846188.94	0.0282	0.0178
Mercury	87959-11-04 13:27 G	33847731.89	33847732.06	33847732.23	0.0299	0.0096
Mercury	87960-02-01 14:24 G	33847820.94	33847821.10	33847821.27	0.0300	0.0119
Moon	87967-06-22 23:32 G	33850519.23	33850519.48	33850519.74	0.0286	0.0023
Earth	87967-06-23 00:44 G	33850519.28	33850519.53	33850519.77	0.0286	0.0009 *
Venus	87967-07-31 06:15 G	33850557.68	33850557.76	33850557.87	0.0286	0.0254

Venus	87968-03-17 00:00 G	33850787.29	33850787.50	33850787.71	0.0283	0.0047
Venus	87968-11-01 15:22 G	33851016.96	33851017.14	33851017.32	0.0280	0.0152
Mercury	87973-06-05 15:51 G	33852694.12	33852694.16	33852694.20	0.0263	0.0247
Mercury	87973-09-02 01:41 G	33852782.46	33852782.57	33852782.68	0.0263	0.0144
Mercury	87973-11-29 11:46 G	33852870.86	33852870.99	33852871.12	0.0262	0.0040
Mercury	87974-02-25 21:51 G	33852959.28	33852959.41	33852959.54	0.0262	0.0065
Mercury	87974-05-25 07:56 G	33853047.73	33853047.83	33853047.93	0.0261	0.0169
Moon	87982-12-18 08:53 G	33856176.72	33856176.87	33856177.04	0.0273	0.0197
Earth	87982-12-18 10:20 G	33856176.79	33856176.93	33856177.10	0.0273	0.0211 *
Venus	87983-11-22 12:15 G	33856515.86	33856516.01	33856516.17	0.0277	0.0185
Earth	87983-12-31 04:48 G	33856554.49	33856554.70	33856554.92	0.0277	0.0130
Moon	87983-12-31 07:56 G	33856554.62	33856554.83	33856555.04	0.0277	0.0140 *
Venus	87984-07-08 20:53 G	33856745.16	33856745.37	33856745.58	0.0280	0.0005
Venus	87985-02-23 07:27 G	33856974.66	33856974.81	33856974.96	0.0282	0.0199
Mercury	87989-03-23 08:39 G	33858463.72	33858463.86	33858464.01	0.0299	0.0182
Mercury	87989-06-20 09:51 G	33858552.73	33858552.91	33858553.09	0.0299	0.0034
Mercury	87989-09-17 10:34 G	33858641.84	33858641.94	33858642.04	0.0300	0.0247
Earth	87996-06-16 00:58 G	33861105.37	33861105.54	33861105.73	0.0289	0.0194
Moon	87996-06-16 02:24 G	33861105.44	33861105.60	33861105.76	0.0289	0.0206 *
Venus	87997-02-09 07:56 G	33861343.71	33861343.83	33861343.96	0.0286	0.0230
Earth	87997-06-29 15:36 G	33861483.97	33861484.15	33861484.33	0.0284	0.0191
Moon	87997-06-29 19:12 G	33861484.12	33861484.30	33861484.50	0.0284	0.0174 *
Venus	87997-09-27 01:41 G	33861573.36	33861573.57	33861573.78	0.0283	0.0023
Venus	87998-05-14 17:03 G	33861803.06	33861803.21	33861803.39	0.0280	0.0177

89TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 89th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	88003-01-20 04:20	G	33863514.58	33863514.68	33863514.77	0.0264	0.0178	
Mercury	88003-04-18 14:10	G	33863602.96	33863603.09	33863603.22	0.0263	0.0074	
Mercury	88003-07-16 00:15	G	33863691.38	33863691.51	33863691.65	0.0263	0.0032	
Mercury	88003-10-12 10:34	G	33863779.82	33863779.94	33863780.05	0.0262	0.0136	
Mercury	88004-01-08 20:39	G	33863868.31	33863868.36	33863868.41	0.0262	0.0242	
Mars	88005-01-18 15:51	G	33864243.91	33864244.16	33864244.44	0.0260	0.0137	
Moon	88012-12-24 20:10	G	33867141.09	33867141.34	33867141.60	0.0275	0.0014	
Earth	88012-12-24 23:03	G	33867141.22	33867141.46	33867141.71	0.0275	0.0027	*
Venus	88013-06-03 17:46	G	33867302.08	33867302.24	33867302.43	0.0277	0.0154	
Venus	88014-01-19 02:53	G	33867531.41	33867531.62	33867531.82	0.0280	0.0036	
Venus	88014-09-05 13:12	G	33867760.94	33867761.05	33867761.18	0.0283	0.0232	
Mercury	88018-08-10 06:44	G	33869195.69	33869195.78	33869195.89	0.0299	0.0245	
Mercury	88018-11-07 08:10	G	33869284.66	33869284.84	33869285.02	0.0299	0.0028	
Mercury	88019-02-04 08:53	G	33869373.74	33869373.87	33869374.02	0.0300	0.0186	
Moon	88026-06-23 21:36	G	33872070.16	33872070.40	33872070.65	0.0286	0.0005	
Earth	88026-06-24 01:12	G	33872070.31	33872070.55	33872070.79	0.0286	0.0021	*
Venus	88026-08-22 13:41	G	33872129.92	33872130.07	33872130.23	0.0285	0.0199	
Venus	88027-04-09 07:12	G	33872359.58	33872359.80	33872360.01	0.0282	0.0008	
Venus	88027-11-24 22:20	G	33872589.29	33872589.43	33872589.58	0.0280	0.0205	
Mercury	88032-06-08 06:58	G	33874246.71	33874246.79	33874246.87	0.0263	0.0208	
Mercury	88032-09-04 17:03	G	33874335.09	33874335.21	33874335.33	0.0263	0.0104	
Mercury	88032-12-02 03:08	G	33874423.49	33874423.63	33874423.76	0.0262	0.0004	
Mercury	88033-02-28 13:12	G	33874511.93	33874512.05	33874512.17	0.0262	0.0105	
Mercury	88033-05-27 23:17	G	33874600.39	33874600.47	33874600.55	0.0261	0.0210	
Earth	88041-12-19 14:10	G	33877727.91	33877728.09	33877728.28	0.0273	0.0179	

Moon	88041-12-19 17:03 G	33877728.02	33877728.21	33877728.41	0.0273	0.0163	*
Venus	88042-12-14 20:24 G	33878088.16	33878088.35	33878088.53	0.0277	0.0131	
Earth	88043-01-01 08:39 G	33878105.67	33878105.86	33878106.07	0.0277	0.0163	
Moon	88043-01-01 11:32 G	33878105.79	33878105.98	33878106.19	0.0277	0.0171	*
Venus	88043-08-01 05:03 G	33878317.51	33878317.71	33878317.92	0.0280	0.0059	
Venus	88044-03-17 15:51 G	33878547.07	33878547.16	33878547.25	0.0283	0.0255	
Mercury	88048-03-26 04:05 G	33880016.50	33880016.67	33880016.84	0.0299	0.0108	
Mercury	88048-06-23 05:03 G	33880105.55	33880105.71	33880105.88	0.0299	0.0107	
Earth	88055-06-18 02:24 G	33882656.40	33882656.60	33882656.80	0.0289	0.0163	
Moon	88055-06-18 05:46 G	33882656.56	33882656.74	33882656.94	0.0289	0.0177	*
Venus	88056-03-03 15:51 G	33882915.99	33882916.16	33882916.33	0.0285	0.0175	
Earth	88056-06-30 16:34 G	33883035.04	33883035.19	33883035.35	0.0284	0.0220	
Moon	88056-06-30 17:17 G	33883035.06	33883035.22	33883035.41	0.0284	0.0205	*
Venus	88056-10-19 09:08 G	33883145.67	33883145.88	33883146.10	0.0283	0.0032	
Venus	88057-06-06 00:15 G	33883375.40	33883375.51	33883375.64	0.0280	0.0230	
Mercury	88061-10-26 09:36 G	33884978.85	33884978.90	33884978.95	0.0264	0.0242	
Mercury	88062-01-22 19:41 G	33885067.20	33885067.32	33885067.43	0.0264	0.0138	
Mercury	88062-04-21 05:32 G	33885155.60	33885155.73	33885155.87	0.0263	0.0034	
Mercury	88062-07-18 15:51 G	33885244.03	33885244.16	33885244.29	0.0263	0.0073	
Mercury	88062-10-15 01:56 G	33885332.48	33885332.58	33885332.68	0.0262	0.0178	
Moon	88071-12-27 01:27 G	33888692.32	33888692.56	33888692.80	0.0275	0.0020	
Earth	88071-12-27 04:20 G	33888692.44	33888692.68	33888692.93	0.0275	0.0009	*
Venus	88072-06-26 02:39 G	33888874.42	33888874.61	33888874.81	0.0277	0.0099	
Venus	88073-02-10 11:46 G	33889103.80	33889103.99	33889104.19	0.0280	0.0093	
Mercury	88077-08-13 03:08 G	33890748.48	33890748.63	33890748.78	0.0299	0.0165	
Mercury	88077-11-10 04:20 G	33890837.50	33890837.68	33890837.85	0.0299	0.0051	
Mercury	88078-02-07 04:48 G	33890926.62	33890926.70	33890926.79	0.0300	0.0263	
Moon	88085-06-25 03:36 G	33893621.41	33893621.65	33893621.88	0.0286	0.0040	
Earth	88085-06-25 04:34 G	33893621.45	33893621.69	33893621.93	0.0286	0.0055	*
Venus	88085-09-13 22:48 G	33893702.27	33893702.45	33893702.64	0.0285	0.0142	

Venus	88086-05-01 16:05 G	33893931.96	33893932.17	33893932.37	0.0282	0.0063
Venus	88086-12-17 06:44 G	33894161.72	33894161.78	33894161.87	0.0279	0.0260
Mercury	88091-06-11 22:34 G	33895799.34	33895799.44	33895799.55	0.0263	0.0165
Mercury	88091-09-08 08:39 G	33895887.73	33895887.86	33895887.99	0.0263	0.0061
Mercury	88091-12-05 18:44 G	33895976.15	33895976.28	33895976.41	0.0262	0.0044
Mercury	88092-03-03 04:48 G	33896064.59	33896064.70	33896064.81	0.0262	0.0150
Mercury	88092-05-30 15:08 G	33896153.11	33896153.13	33896153.16	0.0261	0.0255
Mars	88093-06-14 10:20 G	33896532.75	33896532.93	33896533.12	0.0260	0.0210
Earth	88100-12-21 21:51 G	33899279.20	33899279.41	33899279.62	0.0273	0.0143
Moon	88100-12-22 00:58 G	33899279.32	33899279.54	33899279.77	0.0273	0.0127 *
Venus	88101-05-22 23:17 G	33899431.41	33899431.47	33899431.56	0.0275	0.0257
Moon	88102-01-03 15:22 G	33899656.98	33899657.14	33899657.32	0.0278	0.0205
Earth	88102-01-03 16:48 G	33899657.03	33899657.20	33899657.37	0.0278	0.0199 *
Venus	88102-01-07 06:44 G	33899660.58	33899660.78	33899660.99	0.0278	0.0073
Venus	88102-08-24 15:36 G	33899889.97	33899890.15	33899890.35	0.0281	0.0120
Mercury	88107-01-01 00:00 G	33901480.40	33901480.50	33901480.62	0.0298	0.0236
Mercury	88107-03-31 01:27 G	33901569.37	33901569.56	33901569.74	0.0299	0.0021
Mercury	88107-06-28 02:10 G	33901658.45	33901658.59	33901658.73	0.0299	0.0193
Earth	88114-06-20 08:24 G	33904207.64	33904207.85	33904208.08	0.0288	0.0126
Moon	88114-06-20 09:22 G	33904207.68	33904207.89	33904208.12	0.0288	0.0140 *
Venus	88115-03-28 02:24 G	33904488.41	33904488.60	33904488.80	0.0285	0.0115
Moon	88115-07-03 18:58 G	33904586.17	33904586.29	33904586.43	0.0284	0.0240
Earth	88115-07-03 22:05 G	33904586.32	33904586.42	33904586.53	0.0284	0.0255 *
Venus	88115-11-12 19:27 G	33904718.11	33904718.31	33904718.51	0.0282	0.0090
Mercury	88120-10-30 01:12 G	33906531.47	33906531.55	33906531.64	0.0264	0.0198
Mercury	88121-01-26 11:17 G	33906619.85	33906619.97	33906620.10	0.0264	0.0093
Mercury	88121-04-24 21:22 G	33906708.26	33906708.39	33906708.53	0.0263	0.0014
Mercury	88121-07-22 07:27 G	33906796.70	33906796.81	33906796.94	0.0263	0.0119
Mercury	88121-10-18 17:46 G	33906885.17	33906885.24	33906885.31	0.0262	0.0224
Moon	88129-12-16 18:44 G	33909866.27	33909866.28	33909866.31	0.0271	0.0270

Venus	88130-12-03 06:29 G	33910217.65	33910217.77	33910217.89	0.0275	0.0223
Earth	88130-12-29 13:41 G	33910243.83	33910244.07	33910244.31	0.0276	0.0046
Moon	88130-12-29 14:39 G	33910243.88	33910244.11	33910244.35	0.0276	0.0058 *
Venus	88131-07-20 14:10 G	33910446.88	33910447.09	33910447.30	0.0278	0.0038
Venus	88132-03-05 23:17 G	33910676.31	33910676.47	33910676.66	0.0281	0.0155
Mercury	88136-05-19 23:46 G	33912212.44	33912212.49	33912212.54	0.0298	0.0286
Mercury	88136-08-17 00:58 G	33912301.37	33912301.54	33912301.72	0.0299	0.0071
Mercury	88136-11-14 01:56 G	33912390.42	33912390.58	33912390.74	0.0299	0.0143
Mars	88137-07-18 18:29 G	33912637.20	33912637.27	33912637.36	0.0301	0.0285
Earth	88144-06-27 12:15 G	33915172.78	33915173.01	33915173.24	0.0286	0.0093
Moon	88144-06-27 14:53 G	33915172.90	33915173.12	33915173.36	0.0286	0.0077 *
Venus	88144-10-07 10:34 G	33915274.73	33915274.94	33915275.14	0.0284	0.0081
Venus	88145-05-25 03:08 G	33915504.44	33915504.63	33915504.82	0.0282	0.0124
Mercury	88150-03-19 04:34 G	33917263.63	33917263.69	33917263.76	0.0264	0.0223
Mercury	88150-06-15 14:39 G	33917351.99	33917352.11	33917352.23	0.0263	0.0118
Mercury	88150-09-12 00:44 G	33917440.40	33917440.53	33917440.67	0.0263	0.0013
Mercury	88150-12-09 10:48 G	33917528.83	33917528.95	33917529.08	0.0262	0.0093
Mercury	88151-03-07 20:53 G	33917617.29	33917617.37	33917617.47	0.0262	0.0199
Moon	88159-12-24 07:41 G	33920830.59	33920830.82	33920831.07	0.0274	0.0089
Earth	88159-12-24 09:08 G	33920830.66	33920830.88	33920831.12	0.0274	0.0102 *
Venus	88160-06-14 11:46 G	33921003.86	33921003.99	33921004.15	0.0276	0.0197
Moon	88161-01-05 00:58 G	33921208.44	33921208.54	33921208.66	0.0278	0.0247
Earth	88161-01-05 04:48 G	33921208.59	33921208.70	33921208.83	0.0278	0.0241 *
Venus	88161-01-29 19:41 G	33921233.11	33921233.32	33921233.53	0.0279	0.0011
Venus	88161-09-16 05:03 G	33921462.56	33921462.71	33921462.88	0.0281	0.0184
Mercury	88166-01-03 22:48 G	33923033.29	33923033.45	33923033.62	0.0298	0.0135
Mercury	88166-04-03 00:00 G	33923122.32	33923122.50	33923122.67	0.0299	0.0080
Mercury	88166-07-01 00:29 G	33923211.49	33923211.52	33923211.56	0.0300	0.0292
Moon	88173-06-21 15:08 G	33925758.91	33925759.13	33925759.37	0.0288	0.0101
Earth	88173-06-21 18:44 G	33925759.04	33925759.28	33925759.51	0.0288	0.0083 *

Venus	88173-09-01 20:39 G	33925831.28	33925831.36	33925831.45	0.0287	0.0261
Venus	88174-04-19 15:08 G	33926060.92	33926061.13	33926061.34	0.0284	0.0051
Moon	88174-07-05 04:20 G	33926137.64	33926137.68	33926137.72	0.0283	0.0278
Venus	88174-12-05 07:27 G	33926290.64	33926290.81	33926291.00	0.0281	0.0153
Mercury	88179-08-06 07:27 G	33927995.78	33927995.81	33927995.85	0.0265	0.0254
Mercury	88179-11-02 17:32 G	33928084.12	33928084.23	33928084.34	0.0264	0.0149
Mercury	88180-01-30 03:36 G	33928172.52	33928172.65	33928172.78	0.0264	0.0043
Mercury	88180-04-27 13:41 G	33928260.94	33928261.07	33928261.20	0.0263	0.0062
Mercury	88180-07-24 23:46 G	33928349.39	33928349.49	33928349.60	0.0263	0.0169
Earth	88188-12-18 09:08 G	33931417.78	33931417.88	33931417.99	0.0272	0.0245
Moon	88188-12-18 10:20 G	33931417.82	33931417.93	33931418.07	0.0272	0.0232 *
Venus	88189-12-25 19:27 G	33931790.14	33931790.31	33931790.48	0.0276	0.0163
Earth	88189-12-31 01:56 G	33931795.35	33931795.58	33931795.81	0.0276	0.0089
Moon	88189-12-31 05:46 G	33931795.51	33931795.74	33931795.97	0.0276	0.0099 *
Venus	88190-08-12 03:22 G	33932019.43	33932019.64	33932019.85	0.0279	0.0025
Venus	88191-03-29 13:12 G	33932248.93	33932249.05	33932249.19	0.0281	0.0219
Mercury	88195-05-23 23:03 G	33933765.32	33933765.46	33933765.61	0.0298	0.0181
Mercury	88195-08-21 00:15 G	33933854.33	33933854.51	33933854.69	0.0299	0.0035
Mercury	88195-11-18 00:58 G	33933943.44	33933943.54	33933943.64	0.0300	0.0247
Earth	88202-06-17 07:56 G	33936345.71	33936345.83	33936345.96	0.0290	0.0248
Moon	88202-06-17 11:17 G	33936345.88	33936345.97	33936346.07	0.0290	0.0266 *
Venus	88203-03-16 06:44 G	33936617.65	33936617.78	33936617.91	0.0287	0.0224
Earth	88203-07-01 00:00 G	33936724.29	33936724.50	33936724.72	0.0285	0.0137
Moon	88203-07-01 03:22 G	33936724.41	33936724.64	33936724.87	0.0285	0.0120 *
Venus	88203-11-01 00:44 G	33936847.32	33936847.53	33936847.74	0.0284	0.0015
Venus	88204-06-17 16:48 G	33937077.04	33937077.20	33937077.36	0.0281	0.0187
Mercury	88209-03-22 21:08 G	33938816.28	33938816.38	33938816.48	0.0264	0.0171
Mercury	88209-06-19 07:12 G	33938904.67	33938904.80	33938904.93	0.0263	0.0066
Mercury	88209-09-15 17:17 G	33938993.09	33938993.22	33938993.35	0.0263	0.0039
Mercury	88209-12-13 03:22 G	33939081.53	33939081.64	33939081.76	0.0262	0.0146

Mercury	88210-03-11 13:41 G	33939170.04	33939170.07	33939170.11	0.0262	0.0252
Moon	88218-12-26 19:56 G	33942382.09	33942382.33	33942382.57	0.0274	0.0047
Earth	88218-12-26 23:32 G	33942382.24	33942382.48	33942382.73	0.0274	0.0058 *
Venus	88219-07-09 02:24 G	33942576.41	33942576.60	33942576.78	0.0277	0.0133
Venus	88220-02-23 10:34 G	33942805.74	33942805.94	33942806.15	0.0279	0.0056
Venus	88220-10-09 20:39 G	33943035.27	33943035.36	33943035.46	0.0282	0.0252
Mercury	88224-10-10 21:51 G	33944497.30	33944497.41	33944497.52	0.0298	0.0237
Mercury	88225-01-07 23:03 G	33944586.28	33944586.46	33944586.64	0.0299	0.0022
Mercury	88225-04-07 00:00 G	33944675.36	33944675.50	33944675.63	0.0299	0.0192
Mars	88225-12-14 08:39 G	33944926.64	33944926.86	33944927.09	0.0300	0.0169
Moon	88232-06-24 06:00 G	33947310.52	33947310.75	33947310.99	0.0287	0.0053
Earth	88232-06-24 08:53 G	33947310.63	33947310.87	33947311.11	0.0287	0.0035 *
Venus	88232-09-25 12:15 G	33947403.86	33947404.01	33947404.17	0.0286	0.0193
Venus	88233-05-13 06:15 G	33947633.55	33947633.76	33947633.98	0.0283	0.0016
Venus	88233-12-28 22:05 G	33947863.29	33947863.42	33947863.56	0.0280	0.0217
Mercury	88238-08-10 00:00 G	33949548.42	33949548.50	33949548.59	0.0264	0.0202
Mercury	88238-11-06 10:05 G	33949636.80	33949636.92	33949637.04	0.0264	0.0096
Mercury	88239-02-02 20:10 G	33949725.21	33949725.34	33949725.47	0.0263	0.0010
Mercury	88239-05-02 06:15 G	33949813.64	33949813.76	33949813.88	0.0263	0.0116
Mercury	88239-07-29 16:20 G	33949902.12	33949902.18	33949902.26	0.0263	0.0223
Earth	88247-12-21 22:48 G	33952969.30	33952969.45	33952969.63	0.0272	0.0202
Moon	88247-12-22 02:39 G	33952969.44	33952969.61	33952969.79	0.0272	0.0187 *
Earth	88249-01-02 16:48 G	33953346.99	33953347.20	33953347.42	0.0277	0.0135
Moon	88249-01-02 18:00 G	33953347.03	33953347.25	33953347.47	0.0277	0.0141 *
Venus	88249-01-18 09:51 G	33953362.72	33953362.91	33953363.11	0.0277	0.0100
Venus	88249-09-04 18:29 G	33953592.07	33953592.27	33953592.47	0.0279	0.0091
Mercury	88254-02-27 22:05 G	33955229.37	33955229.42	33955229.48	0.0298	0.0282
Mercury	88254-05-27 23:32 G	33955318.30	33955318.48	33955318.66	0.0299	0.0066
Mercury	88254-08-25 00:15 G	33955407.36	33955407.51	33955407.67	0.0299	0.0148
Earth	88261-06-18 23:46 G	33957897.32	33957897.49	33957897.67	0.0289	0.0197

Moon	88261-06-19 02:10 G	33957897.43	33957897.59	33957897.76	0.0289	0.0214	*
Venus	88262-04-07 23:03 G	33958190.29	33958190.46	33958190.64	0.0286	0.0155	
Moon	88262-07-02 13:27 G	33958275.86	33958276.06	33958276.27	0.0285	0.0168	
Earth	88262-07-02 14:39 G	33958275.93	33958276.11	33958276.30	0.0285	0.0184	*
Venus	88262-11-23 16:34 G	33958419.98	33958420.19	33958420.40	0.0283	0.0053	
Venus	88263-07-11 07:56 G	33958649.74	33958649.83	33958649.92	0.0280	0.0252	
Mercury	88267-12-28 03:51 G	33960280.59	33960280.66	33960280.73	0.0264	0.0222	
Mercury	88268-03-25 13:41 G	33960368.96	33960369.07	33960369.20	0.0264	0.0118	
Mercury	88268-06-22 00:00 G	33960457.36	33960457.50	33960457.63	0.0263	0.0014	
Mercury	88268-09-18 10:05 G	33960545.79	33960545.92	33960546.04	0.0263	0.0094	
Mercury	88268-12-15 20:10 G	33960634.26	33960634.34	33960634.43	0.0262	0.0201	
Venus	88277-12-14 10:20 G	33963919.85	33963919.93	33963920.01	0.0275	0.0252	
Moon	88277-12-28 13:56 G	33963933.84	33963934.08	33963934.32	0.0275	0.0002	
Earth	88277-12-28 14:53 G	33963933.88	33963934.12	33963934.37	0.0275	0.0011	*
Venus	88278-07-31 17:17 G	33964149.02	33964149.22	33964149.43	0.0277	0.0068	
Venus	88279-03-18 02:10 G	33964378.41	33964378.59	33964378.78	0.0280	0.0124	
Mercury	88283-10-14 22:48 G	33966050.28	33966050.45	33966050.62	0.0298	0.0118	
Mercury	88284-01-11 23:46 G	33966139.32	33966139.49	33966139.66	0.0299	0.0096	
Earth	88291-06-27 01:56 G	33968862.33	33968862.58	33968862.82	0.0286	0.0016	
Moon	88291-06-27 03:22 G	33968862.41	33968862.64	33968862.88	0.0286	0.0006	*
Venus	88291-10-19 05:46 G	33968976.55	33968976.74	33968976.94	0.0285	0.0122	
Venus	88292-06-04 23:03 G	33969206.26	33969206.46	33969206.66	0.0282	0.0085	
Mercury	88297-05-16 06:44 G	33971012.75	33971012.78	33971012.82	0.0265	0.0251	
Mercury	88297-08-12 16:48 G	33971101.09	33971101.20	33971101.31	0.0264	0.0146	
Mercury	88297-11-09 02:53 G	33971189.49	33971189.62	33971189.75	0.0264	0.0041	
Mercury	88298-02-05 12:58 G	33971277.91	33971278.04	33971278.17	0.0263	0.0066	
Mercury	88298-05-04 23:17 G	33971366.37	33971366.47	33971366.57	0.0263	0.0172	
Earth	88306-12-24 13:12 G	33974520.85	33974521.05	33974521.26	0.0273	0.0156	
Moon	88306-12-24 14:53 G	33974520.91	33974521.12	33974521.34	0.0273	0.0142	*
Venus	88307-06-27 17:03 G	33974706.10	33974706.21	33974706.34	0.0275	0.0221	

Moon	88308-01-06 04:48 G	33974898.53	33974898.70	33974898.90	0.0277	0.0185
Earth	88308-01-06 08:10 G	33974898.66	33974898.84	33974899.03	0.0277	0.0182 *
Venus	88308-02-12 00:44 G	33974935.32	33974935.53	33974935.74	0.0278	0.0035
Venus	88308-09-28 09:51 G	33975164.75	33975164.91	33975165.09	0.0280	0.0158
Mercury	88313-03-03 23:03 G	33976782.31	33976782.46	33976782.61	0.0298	0.0163
Mercury	88313-06-01 00:15 G	33976871.33	33976871.51	33976871.69	0.0299	0.0052
Mercury	88313-08-29 00:44 G	33976960.46	33976960.53	33976960.62	0.0299	0.0265
Mars	88314-05-12 15:08 G	33977216.85	33977217.13	33977217.40	0.0301	0.0017
Moon	88320-06-21 16:34 G	33979448.98	33979449.19	33979449.40	0.0289	0.0159
Earth	88320-06-21 18:00 G	33979449.04	33979449.25	33979449.47	0.0289	0.0144 *
Venus	88321-05-01 16:48 G	33979763.00	33979763.20	33979763.40	0.0285	0.0084
Moon	88321-07-05 04:05 G	33979827.51	33979827.67	33979827.82	0.0284	0.0219
Earth	88321-07-05 07:41 G	33979827.69	33979827.82	33979827.96	0.0284	0.0233 *
Venus	88321-12-17 09:22 G	33979992.70	33979992.89	33979993.09	0.0282	0.0122
Mercury	88326-12-31 20:39 G	33981833.26	33981833.36	33981833.46	0.0264	0.0166
Mercury	88327-03-30 06:44 G	33981921.65	33981921.78	33981921.91	0.0263	0.0061
Mercury	88327-06-26 16:48 G	33982010.07	33982010.20	33982010.33	0.0263	0.0045
Mercury	88327-09-23 02:53 G	33982098.52	33982098.62	33982098.74	0.0262	0.0151
Mercury	88327-12-20 13:12 G	33982187.03	33982187.05	33982187.08	0.0262	0.0257
Mars	88328-07-14 03:51 G	33982393.44	33982393.66	33982393.91	0.0261	0.0173
Earth	88336-12-31 06:15 G	33985485.51	33985485.76	33985486.00	0.0276	0.0036
Moon	88336-12-31 08:53 G	33985485.63	33985485.87	33985486.11	0.0276	0.0045 *
Venus	88337-01-07 00:58 G	33985492.39	33985492.54	33985492.70	0.0276	0.0190
Venus	88337-08-24 08:39 G	33985721.65	33985721.86	33985722.07	0.0278	0.0005
Venus	88338-04-10 18:00 G	33985951.10	33985951.25	33985951.41	0.0281	0.0192
Mercury	88342-07-21 22:34 G	33987514.32	33987514.44	33987514.57	0.0298	0.0214
Mercury	88342-10-18 23:46 G	33987603.31	33987603.49	33987603.67	0.0299	0.0004
Mercury	88343-01-16 00:29 G	33987692.40	33987692.52	33987692.65	0.0299	0.0215
Venus	88350-03-27 05:32 G	33990319.65	33990319.73	33990319.82	0.0287	0.0261
Earth	88350-06-29 19:41 G	33990414.09	33990414.32	33990414.56	0.0286	0.0069

Moon	88350-06-29 23:17 G	33990414.23	33990414.47	33990414.71	0.0286	0.0053 *
Venus	88350-11-11 23:46 G	33990549.28	33990549.49	33990549.70	0.0284	0.0050
Venus	88351-06-29 16:05 G	33990778.99	33990779.17	33990779.35	0.0281	0.0154
Mercury	88356-05-19 23:46 G	33992565.40	33992565.49	33992565.58	0.0264	0.0195
Mercury	88356-08-16 09:36 G	33992653.78	33992653.90	33992654.03	0.0264	0.0091
Mercury	88356-11-12 19:41 G	33992742.19	33992742.32	33992742.46	0.0263	0.0018
Mercury	88357-02-09 06:00 G	33992830.63	33992830.75	33992830.87	0.0263	0.0122
Mercury	88357-05-08 16:05 G	33992919.11	33992919.17	33992919.24	0.0262	0.0228
Moon	88365-12-25 23:46 G	33996072.25	33996072.49	33996072.73	0.0274	0.0099
Earth	88365-12-26 02:10 G	33996072.37	33996072.59	33996072.82	0.0274	0.0112 *
Venus	88366-07-20 06:44 G	33996278.61	33996278.78	33996278.95	0.0276	0.0160
Moon	88367-01-07 19:12 G	33996450.17	33996450.30	33996450.44	0.0278	0.0231
Earth	88367-01-07 22:20 G	33996450.29	33996450.43	33996450.57	0.0278	0.0228 *
Venus	88367-03-06 14:53 G	33996507.91	33996508.12	33996508.33	0.0278	0.0029
Venus	88367-10-22 00:44 G	33996737.41	33996737.53	33996737.66	0.0281	0.0224
Mercury	88371-12-08 21:51 G	33998246.34	33998246.41	33998246.50	0.0298	0.0265
Mercury	88372-03-06 23:17 G	33998335.30	33998335.47	33998335.66	0.0299	0.0049
Mercury	88372-06-04 00:15 G	33998424.37	33998424.51	33998424.66	0.0299	0.0166
Moon	88379-06-24 08:24 G	34001000.63	34001000.85	34001001.08	0.0288	0.0107
Earth	88379-06-24 12:00 G	34001000.77	34001001.00	34001001.24	0.0288	0.0090 *
Venus	88379-10-07 16:05 G	34001106.05	34001106.17	34001106.31	0.0287	0.0224
Venus	88380-05-24 10:20 G	34001335.72	34001335.93	34001336.14	0.0284	0.0013
Moon	88380-07-06 23:17 G	34001379.41	34001379.47	34001379.54	0.0283	0.0270
Earth	88380-07-07 00:29 G	34001379.51	34001379.52	34001379.54	0.0283	0.0283 *
Venus	88381-01-09 02:24 G	34001565.44	34001565.60	34001565.75	0.0281	0.0190
Mercury	88385-10-07 03:22 G	34003297.57	34003297.64	34003297.72	0.0264	0.0216
Mercury	88386-01-03 13:27 G	34003385.94	34003386.06	34003386.18	0.0264	0.0111
Mercury	88386-04-01 23:32 G	34003474.35	34003474.48	34003474.62	0.0263	0.0006
Mercury	88386-06-29 09:36 G	34003562.78	34003562.90	34003563.03	0.0263	0.0101
Mercury	88386-09-25 19:56 G	34003651.25	34003651.33	34003651.41	0.0262	0.0207

Earth	88394-12-21 02:24 G	34006659.51	34006659.60	34006659.70	0.0272	0.0251
Moon	88394-12-21 04:48 G	34006659.59	34006659.70	34006659.83	0.0272	0.0236 *
Earth	88396-01-02 18:58 G	34007037.06	34007037.29	34007037.53	0.0276	0.0081
Moon	88396-01-02 22:20 G	34007037.20	34007037.43	34007037.68	0.0276	0.0091 *
Venus	88396-01-30 14:24 G	34007064.91	34007065.10	34007065.29	0.0277	0.0129
Venus	88396-09-15 22:34 G	34007294.24	34007294.44	34007294.65	0.0279	0.0062
Venus	88397-05-03 08:39 G	34007523.78	34007523.86	34007523.95	0.0282	0.0258
Mercury	88401-07-24 23:03 G	34009067.29	34009067.46	34009067.63	0.0299	0.0099
Mercury	88401-10-22 00:00 G	34009156.34	34009156.50	34009156.67	0.0299	0.0117
Mars	88402-10-07 16:20 G	34009506.94	34009507.18	34009507.43	0.0301	0.0126
Earth	88408-06-17 21:22 G	34011587.30	34011587.39	34011587.50	0.0289	0.0262
Moon	88408-06-18 01:12 G	34011587.49	34011587.55	34011587.62	0.0289	0.0279 *
Venus	88409-04-18 23:32 G	34011892.33	34011892.48	34011892.65	0.0286	0.0189
Earth	88409-07-01 13:12 G	34011965.83	34011966.05	34011966.28	0.0285	0.0120
Moon	88409-07-01 14:53 G	34011965.88	34011966.12	34011966.35	0.0285	0.0105 *
Venus	88409-12-04 17:17 G	34012122.01	34012122.22	34012122.43	0.0283	0.0020
Venus	88410-07-22 08:53 G	34012351.74	34012351.87	34012352.00	0.0280	0.0222
Mercury	88415-02-24 06:15 G	34014029.72	34014029.76	34014029.81	0.0264	0.0246
Mercury	88415-05-23 16:20 G	34014118.07	34014118.18	34014118.30	0.0264	0.0140
Mercury	88415-08-20 02:24 G	34014206.47	34014206.60	34014206.73	0.0263	0.0035
Mercury	88415-11-16 12:29 G	34014294.89	34014295.02	34014295.15	0.0263	0.0071
Mercury	88416-02-12 22:34 G	34014383.35	34014383.44	34014383.54	0.0262	0.0177
Mars	88416-12-08 13:12 G	34014682.75	34014683.05	34014683.36	0.0261	0.0075
Moon	88424-12-27 09:36 G	34017623.66	34017623.90	34017624.14	0.0274	0.0058
Earth	88424-12-27 12:58 G	34017623.80	34017624.04	34017624.28	0.0274	0.0070 *
Venus	88425-08-11 19:12 G	34017851.10	34017851.30	34017851.49	0.0277	0.0101
Earth	88426-01-09 09:51 G	34018001.87	34018001.91	34018001.97	0.0278	0.0272
Moon	88426-01-09 10:34 G	34018001.90	34018001.94	34018001.99	0.0278	0.0273 *
Venus	88426-03-29 03:51 G	34018080.46	34018080.66	34018080.86	0.0279	0.0091
Mercury	88430-12-11 21:36 G	34019799.25	34019799.40	34019799.56	0.0298	0.0156

Mercury	88431-03-10 23:03 G	34019888.28	34019888.46	34019888.64	0.0299	0.0061
Mercury	88431-06-07 23:46 G	34019977.42	34019977.49	34019977.56	0.0300	0.0274
Moon	88438-06-26 02:39 G	34022552.38	34022552.61	34022552.84	0.0288	0.0055
Earth	88438-06-26 04:05 G	34022552.44	34022552.67	34022552.92	0.0288	0.0040 *
Venus	88438-10-30 09:08 G	34022678.70	34022678.88	34022679.06	0.0286	0.0154
Venus	88439-06-17 02:39 G	34022908.40	34022908.61	34022908.82	0.0283	0.0056
Venus	88440-02-01 17:46 G	34023138.17	34023138.24	34023138.33	0.0280	0.0256
Mercury	88444-10-09 19:56 G	34024850.23	34024850.33	34024850.44	0.0264	0.0163
Mercury	88445-01-06 06:00 G	34024938.62	34024938.75	34024938.88	0.0263	0.0057
Mercury	88445-04-04 16:05 G	34025027.04	34025027.17	34025027.30	0.0263	0.0049
Mercury	88445-07-02 02:24 G	34025115.49	34025115.60	34025115.70	0.0262	0.0155
Mercury	88445-09-28 12:29 G	34025204.01	34025204.02	34025204.03	0.0262	0.0261
Earth	88453-12-22 11:17 G	34028210.83	34028210.97	34028211.14	0.0272	0.0213
Moon	88453-12-22 14:53 G	34028210.95	34028211.12	34028211.30	0.0272	0.0197 *
Venus	88454-07-07 18:29 G	34028408.21	34028408.27	34028408.36	0.0275	0.0255
Moon	88455-01-04 04:34 G	34028588.46	34028588.69	34028588.92	0.0277	0.0127
Earth	88455-01-04 05:03 G	34028588.49	34028588.71	34028588.93	0.0277	0.0121 *
Venus	88455-02-22 01:41 G	34028637.37	34028637.57	34028637.78	0.0277	0.0070
Venus	88455-10-09 10:34 G	34028866.76	34028866.94	34028867.13	0.0280	0.0123
Mercury	88460-04-29 20:53 G	34030531.24	34030531.37	34030531.49	0.0298	0.0211
Mercury	88460-07-27 22:05 G	34030620.24	34030620.42	34030620.60	0.0299	0.0006
Mercury	88460-10-24 22:48 G	34030709.33	34030709.45	34030709.58	0.0300	0.0220
Earth	88467-06-20 12:58 G	34033138.88	34033139.04	34033139.21	0.0289	0.0212
Moon	88467-06-20 14:10 G	34033138.94	34033139.09	34033139.25	0.0289	0.0228 *
Venus	88468-05-11 15:51 G	34033464.97	34033465.16	34033465.35	0.0285	0.0120
Moon	88468-07-03 01:12 G	34033517.35	34033517.55	34033517.78	0.0284	0.0153
Earth	88468-07-03 03:51 G	34033517.47	34033517.66	34033517.87	0.0284	0.0168 *
Venus	88468-12-27 08:53 G	34033694.67	34033694.87	34033695.07	0.0282	0.0087
Mercury	88474-02-26 22:48 G	34035582.36	34035582.45	34035582.54	0.0264	0.0193
Mercury	88474-05-26 08:53 G	34035670.74	34035670.87	34035671.00	0.0263	0.0088

Mercury	88474-08-22 18:58 G	34035759.15	34035759.29	34035759.42	0.0263	0.0018
Mercury	88474-11-19 05:03 G	34035847.59	34035847.71	34035847.83	0.0262	0.0123
Mercury	88475-02-15 15:08 G	34035936.07	34035936.13	34035936.20	0.0262	0.0229
Earth	88483-12-29 19:41 G	34039175.08	34039175.32	34039175.57	0.0275	0.0033
Moon	88483-12-29 20:24 G	34039175.12	34039175.35	34039175.59	0.0275	0.0025 *
Venus	88484-01-17 21:36 G	34039194.30	34039194.40	34039194.52	0.0275	0.0231
Venus	88484-09-03 05:03 G	34039423.51	34039423.71	34039423.92	0.0277	0.0045
Venus	88485-04-20 13:56 G	34039652.91	34039653.08	34039653.27	0.0280	0.0149
Mercury	88489-09-16 18:15 G	34041263.20	34041263.26	34041263.33	0.0298	0.0276
Mercury	88489-12-14 19:41 G	34041352.15	34041352.32	34041352.50	0.0299	0.0060
Mercury	88490-03-13 20:53 G	34041441.22	34041441.37	34041441.52	0.0299	0.0156
Mars	88491-03-04 01:27 G	34041796.39	34041796.56	34041796.73	0.0301	0.0235
Earth	88497-06-27 17:03 G	34044103.97	34044104.21	34044104.45	0.0287	0.0007
Moon	88497-06-27 19:41 G	34044104.08	34044104.32	34044104.56	0.0287	0.0010 *
Venus	88497-11-22 00:00 G	34044251.30	34044251.50	34044251.71	0.0285	0.0087
Venus	88498-07-09 16:48 G	34044481.01	34044481.20	34044481.40	0.0282	0.0121
Mercury	88503-07-18 02:24 G	34046314.52	34046314.60	34046314.67	0.0264	0.0217
Mercury	88503-10-14 12:15 G	34046402.89	34046403.01	34046403.13	0.0263	0.0112
Mercury	88504-01-10 22:20 G	34046491.30	34046491.43	34046491.56	0.0263	0.0007
Mercury	88504-04-08 08:24 G	34046579.73	34046579.85	34046579.98	0.0262	0.0099
Mercury	88504-07-05 18:29 G	34046668.19	34046668.27	34046668.36	0.0262	0.0205
Mars	88505-05-06 00:58 G	34046972.22	34046972.54	34046972.86	0.0261	0.0033
Moon	88512-12-24 15:36 G	34049761.96	34049762.15	34049762.37	0.0273	0.0167
Earth	88512-12-24 16:48 G	34049762.02	34049762.20	34049762.39	0.0273	0.0178 *
Venus	88513-07-31 03:36 G	34049980.51	34049980.65	34049980.79	0.0275	0.0201
Moon	88514-01-06 07:12 G	34050139.60	34050139.80	34050140.00	0.0277	0.0159
Earth	88514-01-06 10:48 G	34050139.76	34050139.95	34050140.16	0.0277	0.0157 *
Venus	88514-03-17 11:03 G	34050209.75	34050209.96	34050210.17	0.0278	0.0015
Venus	88514-11-01 20:24 G	34050439.19	34050439.35	34050439.51	0.0281	0.0180
Mercury	88519-05-04 18:29 G	34052084.10	34052084.27	34052084.44	0.0299	0.0118

Mercury	88519-08-01 19:41 G	34052173.15	34052173.32	34052173.49	0.0300	0.0098
Moon	88526-06-22 21:08 G	34054690.20	34054690.38	34054690.58	0.0289	0.0185
Earth	88526-06-23 00:29 G	34054690.33	34054690.52	34054690.73	0.0289	0.0167 *
Venus	88526-10-18 10:48 G	34054807.89	34054807.95	34054808.04	0.0287	0.0269
Venus	88527-06-05 05:46 G	34055037.53	34055037.74	34055037.95	0.0284	0.0055
Moon	88527-07-06 11:46 G	34055068.82	34055068.99	34055069.16	0.0284	0.0195
Earth	88527-07-06 15:08 G	34055068.97	34055069.13	34055069.29	0.0284	0.0210 *
Venus	88528-01-20 22:05 G	34055267.25	34055267.42	34055267.61	0.0281	0.0151
Mercury	88532-12-04 04:48 G	34057046.67	34057046.70	34057046.75	0.0264	0.0249
Mercury	88533-03-02 14:53 G	34057135.01	34057135.12	34057135.23	0.0263	0.0144
Mercury	88533-05-30 00:58 G	34057223.40	34057223.54	34057223.67	0.0263	0.0040
Mercury	88533-08-26 10:48 G	34057311.82	34057311.95	34057312.09	0.0262	0.0066
Mercury	88533-11-22 21:08 G	34057400.27	34057400.38	34057400.48	0.0262	0.0171
Earth	88542-12-31 22:48 G	34060726.20	34060726.45	34060726.70	0.0275	0.0000
Moon	88543-01-01 02:39 G	34060726.36	34060726.61	34060726.86	0.0275	0.0005 *
Venus	88543-02-10 05:03 G	34060766.56	34060766.71	34060766.87	0.0275	0.0180
Venus	88543-09-27 12:58 G	34060995.83	34060996.04	34060996.25	0.0278	0.0009
Venus	88544-05-13 22:20 G	34061225.29	34061225.43	34061225.57	0.0281	0.0203
Mercury	88548-09-20 14:53 G	34062815.98	34062816.12	34062816.26	0.0298	0.0193
Mercury	88548-12-18 16:05 G	34062904.99	34062905.17	34062905.36	0.0299	0.0024
Mercury	88549-03-17 17:03 G	34062994.11	34062994.21	34062994.32	0.0300	0.0238
Venus	88556-04-29 17:03 G	34065594.10	34065594.21	34065594.34	0.0288	0.0239
Earth	88556-06-30 00:58 G	34065655.30	34065655.54	34065655.78	0.0287	0.0047
Moon	88556-06-30 04:20 G	34065655.43	34065655.68	34065655.93	0.0287	0.0030 *
Venus	88556-12-15 11:46 G	34065823.78	34065823.99	34065824.21	0.0285	0.0026
Venus	88557-08-02 04:20 G	34066053.52	34066053.68	34066053.85	0.0282	0.0180
Mercury	88562-07-20 18:00 G	34067867.15	34067867.25	34067867.35	0.0264	0.0172
Mercury	88562-10-17 04:05 G	34067955.54	34067955.67	34067955.80	0.0263	0.0067
Mercury	88563-01-13 13:56 G	34068043.95	34068044.08	34068044.22	0.0262	0.0040
Mercury	88563-04-12 00:00 G	34068132.39	34068132.50	34068132.62	0.0262	0.0144

Mercury	88563-07-09 10:20 G	34068220.89	34068220.93	34068220.97	0.0262	0.0250
Moon	88571-12-26 14:10 G	34071312.89	34071313.09	34071313.31	0.0273	0.0141
Earth	88571-12-26 18:00 G	34071313.05	34071313.25	34071313.46	0.0273	0.0148 *
Venus	88572-08-22 09:51 G	34071552.74	34071552.91	34071553.09	0.0275	0.0152
Moon	88573-01-07 11:17 G	34071690.79	34071690.97	34071691.15	0.0277	0.0185
Earth	88573-01-07 12:15 G	34071690.83	34071691.01	34071691.20	0.0277	0.0187 *
Venus	88573-04-08 17:46 G	34071782.03	34071782.24	34071782.45	0.0278	0.0037
Venus	88573-11-24 03:08 G	34072011.52	34072011.63	34072011.75	0.0281	0.0233
Mercury	88578-02-07 12:44 G	34073547.94	34073548.03	34073548.12	0.0299	0.0259
Mercury	88578-05-07 14:10 G	34073636.91	34073637.09	34073637.27	0.0299	0.0041
Mercury	88578-08-04 15:08 G	34073725.99	34073726.13	34073726.28	0.0300	0.0175
Moon	88585-06-24 04:34 G	34076241.48	34076241.69	34076241.90	0.0289	0.0145
Earth	88585-06-24 06:58 G	34076241.58	34076241.79	34076242.02	0.0289	0.0129 *
Venus	88585-11-09 22:05 G	34076380.29	34076380.42	34076380.58	0.0287	0.0208
Venus	88586-06-27 16:34 G	34076609.98	34076610.19	34076610.40	0.0284	0.0005
Earth	88586-07-07 21:22 G	34076620.28	34076620.39	34076620.51	0.0284	0.0247
Moon	88586-07-07 21:51 G	34076620.29	34076620.41	34076620.55	0.0284	0.0236 *
Venus	88587-02-12 08:39 G	34076839.72	34076839.86	34076840.01	0.0281	0.0209
Mercury	88591-12-07 20:24 G	34078599.27	34078599.35	34078599.43	0.0263	0.0206
Mercury	88592-03-05 06:29 G	34078687.64	34078687.77	34078687.89	0.0263	0.0101
Mercury	88592-06-01 16:20 G	34078776.05	34078776.18	34078776.32	0.0262	0.0007
Mercury	88592-08-29 02:24 G	34078864.48	34078864.60	34078864.72	0.0262	0.0109
Mercury	88592-11-25 12:29 G	34078952.95	34078953.02	34078953.10	0.0262	0.0215
Mars	88593-09-29 10:20 G	34079260.63	34079260.93	34079261.23	0.0260	0.0094
Earth	88602-01-02 22:05 G	34082277.17	34082277.42	34082277.66	0.0275	0.0028
Moon	88602-01-02 22:48 G	34082277.19	34082277.45	34082277.70	0.0275	0.0028 *
Venus	88602-03-05 10:05 G	34082338.74	34082338.92	34082339.11	0.0276	0.0132
Venus	88602-10-20 18:15 G	34082568.05	34082568.26	34082568.47	0.0278	0.0058
Venus	88603-06-07 03:51 G	34082797.58	34082797.66	34082797.75	0.0281	0.0253
Mercury	88607-09-25 09:51 G	34084368.74	34084368.91	34084369.08	0.0299	0.0123

Mercury	88607-12-23 11:03 G	34084457.79	34084457.96	34084458.13	0.0299	0.0094
Venus	88615-05-24 02:39 G	34087166.46	34087166.61	34087166.79	0.0287	0.0181
Moon	88615-07-03 03:36 G	34087206.41	34087206.65	34087206.90	0.0287	0.0068
Earth	88615-07-03 05:03 G	34087206.48	34087206.71	34087206.95	0.0287	0.0081 *
Venus	88616-01-08 21:08 G	34087396.17	34087396.38	34087396.60	0.0284	0.0033
Venus	88616-08-25 13:12 G	34087625.95	34087626.05	34087626.17	0.0281	0.0237
Mercury	88621-04-26 23:17 G	34089331.42	34089331.47	34089331.53	0.0264	0.0236
Mercury	88621-07-24 09:08 G	34089419.77	34089419.88	34089420.00	0.0263	0.0132
Mercury	88621-10-20 19:12 G	34089508.17	34089508.30	34089508.44	0.0263	0.0027
Mercury	88622-01-17 05:17 G	34089596.59	34089596.72	34089596.85	0.0262	0.0079
Mercury	88622-04-15 15:22 G	34089685.05	34089685.14	34089685.24	0.0262	0.0185
Moon	88630-12-28 14:53 G	34092863.91	34092864.12	34092864.34	0.0273	0.0118
Earth	88630-12-28 15:36 G	34092863.94	34092864.15	34092864.38	0.0273	0.0123 *
Venus	88631-09-15 14:10 G	34093124.90	34093125.09	34093125.29	0.0276	0.0105
Earth	88632-01-10 10:05 G	34093241.77	34093241.92	34093242.08	0.0277	0.0213
Moon	88632-01-10 13:12 G	34093241.90	34093242.05	34093242.23	0.0277	0.0206 *
Venus	88632-05-01 22:20 G	34093354.23	34093354.43	34093354.63	0.0279	0.0085
Mercury	88637-02-11 06:58 G	34095100.65	34095100.79	34095100.93	0.0299	0.0194
Mercury	88637-05-11 08:24 G	34095189.67	34095189.85	34095190.03	0.0300	0.0024
Mercury	88637-08-08 09:08 G	34095278.78	34095278.88	34095279.00	0.0300	0.0240
Earth	88644-06-26 08:53 G	34097792.64	34097792.87	34097793.10	0.0289	0.0096
Moon	88644-06-26 10:34 G	34097792.73	34097792.94	34097793.16	0.0289	0.0110 *
Venus	88644-12-03 06:29 G	34097952.59	34097952.77	34097952.95	0.0286	0.0152
Earth	88645-07-09 22:48 G	34098171.42	34098171.45	34098171.51	0.0284	0.0278
Moon	88645-07-10 02:53 G	34098171.55	34098171.62	34098171.70	0.0284	0.0269
Venus	88645-07-21 00:29 G	34098182.31	34098182.52	34098182.73	0.0283	0.0060
Venus	88646-03-07 16:34 G	34098412.12	34098412.19	34098412.26	0.0281	0.0262
Mercury	88650-12-11 11:32 G	34100151.88	34100151.98	34100152.08	0.0263	0.0167
Mercury	88651-03-09 21:22 G	34100240.27	34100240.39	34100240.53	0.0263	0.0063
Mercury	88651-06-06 07:27 G	34100328.68	34100328.81	34100328.94	0.0262	0.0043

Mercury	88651-09-02 17:32 G	34100417.12	34100417.23	34100417.34	0.0262	0.0148
Mercury	88651-11-30 03:36 G	34100505.62	34100505.65	34100505.68	0.0261	0.0254
Moon	88659-12-23 04:34 G	34103450.65	34103450.69	34103450.77	0.0271	0.0263
Venus	88660-08-10 06:58 G	34103681.77	34103681.79	34103681.83	0.0273	0.0269
Moon	88661-01-03 14:53 G	34103827.87	34103828.12	34103828.37	0.0275	0.0046
Earth	88661-01-03 18:15 G	34103828.02	34103828.26	34103828.50	0.0275	0.0052 *
Venus	88661-03-27 13:27 G	34103910.86	34103911.06	34103911.26	0.0276	0.0087
Venus	88661-11-11 21:36 G	34104140.21	34104140.40	34104140.60	0.0279	0.0104
Mercury	88666-07-01 01:41 G	34105832.52	34105832.57	34105832.62	0.0298	0.0283
Mercury	88666-09-28 03:08 G	34105921.45	34105921.63	34105921.81	0.0299	0.0065
Mercury	88666-12-26 04:05 G	34106010.52	34106010.67	34106010.84	0.0299	0.0152
Earth	88673-06-20 08:53 G	34108378.81	34108378.87	34108378.95	0.0291	0.0278
Venus	88674-06-15 09:22 G	34108738.71	34108738.89	34108739.09	0.0287	0.0126
Moon	88674-07-04 00:44 G	34108757.31	34108757.53	34108757.76	0.0287	0.0100
Earth	88674-07-04 04:20 G	34108757.46	34108757.68	34108757.91	0.0287	0.0109 *
Venus	88675-01-31 03:36 G	34108968.45	34108968.65	34108968.86	0.0284	0.0086
Mercury	88680-04-29 14:10 G	34110884.01	34110884.09	34110884.18	0.0264	0.0199
Mercury	88680-07-27 00:00 G	34110972.38	34110972.50	34110972.63	0.0263	0.0095
Mercury	88680-10-23 10:05 G	34111060.79	34111060.92	34111061.05	0.0263	0.0010
Mercury	88681-01-19 20:10 G	34111149.22	34111149.34	34111149.46	0.0262	0.0116
Mercury	88681-04-18 06:00 G	34111237.69	34111237.75	34111237.83	0.0262	0.0222
Mars	88682-02-23 17:17 G	34111548.97	34111549.22	34111549.49	0.0260	0.0152
Earth	88689-12-29 10:48 G	34114414.73	34114414.95	34114415.19	0.0273	0.0101
Moon	88689-12-29 13:55 G	34114414.86	34114415.08	34114415.31	0.0273	0.0099 *
Venus	88690-02-20 10:34 G	34114467.85	34114467.94	34114468.03	0.0273	0.0243
Venus	88690-10-07 16:48 G	34114697.00	34114697.20	34114697.41	0.0276	0.0060
Earth	88691-01-11 04:48 G	34114792.58	34114792.70	34114792.84	0.0277	0.0235
Moon	88691-01-11 06:58 G	34114792.66	34114792.79	34114792.95	0.0277	0.0225 *
Venus	88691-05-25 00:58 G	34114926.36	34114926.54	34114926.73	0.0279	0.0131
Mercury	88696-02-15 00:00 G	34116653.34	34116653.50	34116653.66	0.0299	0.0139

Mercury	88696-05-14 01:12 G	34116742.38	34116742.55	34116742.73	0.0300	0.0079
Mercury	88696-08-11 02:10 G	34116831.56	34116831.59	34116831.63	0.0300	0.0293
Earth	88703-06-29 07:27 G	34119343.58	34119343.81	34119344.05	0.0289	0.0069
Moon	88703-06-29 11:03 G	34119343.72	34119343.96	34119344.19	0.0289	0.0081 *
Venus	88703-12-27 12:43 G	34119524.83	34119525.03	34119525.23	0.0286	0.0099
Venus	88704-08-13 06:29 G	34119754.58	34119754.77	34119754.97	0.0283	0.0112
Mercury	88709-09-17 16:05 G	34121616.12	34121616.17	34121616.24	0.0264	0.0237
Mercury	88709-12-15 02:10 G	34121704.48	34121704.59	34121704.71	0.0263	0.0132
Mercury	88710-03-13 12:15 G	34121792.87	34121793.01	34121793.14	0.0262	0.0028
Mercury	88710-06-09 22:05 G	34121881.29	34121881.42	34121881.55	0.0262	0.0078
Mercury	88710-09-06 08:10 G	34121969.75	34121969.84	34121969.94	0.0261	0.0184
Moon	88718-12-24 18:58 G	34125001.20	34125001.29	34125001.40	0.0271	0.0246
Earth	88718-12-24 22:34 G	34125001.35	34125001.44	34125001.53	0.0271	0.0251 *
Venus	88719-09-03 09:07 G	34125253.78	34125253.88	34125254.01	0.0273	0.0227
Moon	88720-01-06 10:19 G	34125378.70	34125378.93	34125379.17	0.0275	0.0067
Earth	88720-01-06 12:29 G	34125378.79	34125379.02	34125379.26	0.0275	0.0073 *
Venus	88720-04-19 15:36 G	34125482.95	34125483.15	34125483.36	0.0276	0.0043
Venus	88720-12-04 23:46 G	34125712.32	34125712.49	34125712.67	0.0279	0.0149
Mercury	88725-07-04 18:15 G	34127385.15	34127385.26	34127385.38	0.0298	0.0232
Mercury	88725-10-01 19:41 G	34127474.14	34127474.32	34127474.51	0.0299	0.0016
Mercury	88725-12-29 20:53 G	34127563.24	34127563.37	34127563.50	0.0300	0.0202
Moon	88732-06-22 01:27 G	34129929.48	34129929.56	34129929.66	0.0291	0.0269
Earth	88732-06-22 04:48 G	34129929.60	34129929.70	34129929.83	0.0291	0.0255 *
Earth	88733-07-06 00:29 G	34130308.31	34130308.52	34130308.74	0.0287	0.0133
Moon	88733-07-06 00:15 G	34130308.31	34130308.51	34130308.73	0.0287	0.0128 *
Venus	88733-07-08 14:10 G	34130310.89	34130311.09	34130311.30	0.0287	0.0075
Venus	88734-02-23 08:10 G	34130540.66	34130540.84	34130541.03	0.0284	0.0136
Mercury	88739-05-04 04:34 G	34132436.59	34132436.69	34132436.79	0.0264	0.0167
Mercury	88739-07-31 14:39 G	34132524.98	34132525.11	34132525.24	0.0263	0.0062
Mercury	88739-10-28 00:29 G	34132613.39	34132613.52	34132613.66	0.0262	0.0044

Mercury	88740-01-24 10:34 G	34132701.83	34132701.94	34132702.05	0.0262	0.0149
Mercury	88740-04-21 20:39 G	34132790.34	34132790.36	34132790.39	0.0261	0.0255
Earth	88748-12-31 05:03 G	34135965.48	34135965.71	34135965.95	0.0273	0.0080
Moon	88748-12-31 07:41 G	34135965.58	34135965.82	34135966.06	0.0273	0.0081 *
Venus	88749-03-15 12:29 G	34136039.88	34136040.02	34136040.16	0.0273	0.0200
Venus	88749-10-30 18:58 G	34136269.08	34136269.29	34136269.50	0.0276	0.0015
Moon	88750-01-12 20:24 G	34136343.23	34136343.35	34136343.48	0.0277	0.0240
Earth	88750-01-12 22:34 G	34136343.36	34136343.44	34136343.55	0.0277	0.0255 *
Venus	88750-06-17 03:07 G	34136498.47	34136498.63	34136498.79	0.0279	0.0176
Mercury	88755-02-18 16:19 G	34138206.01	34138206.18	34138206.35	0.0299	0.0091
Mercury	88755-05-18 17:31 G	34138295.07	34138295.23	34138295.40	0.0300	0.0126
Venus	88762-06-02 20:53 G	34140867.31	34140867.37	34140867.47	0.0289	0.0266
Earth	88762-06-30 03:07 G	34140894.39	34140894.63	34140894.87	0.0289	0.0045
Moon	88762-06-30 03:07 G	34140894.39	34140894.63	34140894.88	0.0289	0.0054 *
Venus	88763-01-18 17:03 G	34141097.00	34141097.21	34141097.42	0.0286	0.0048
Venus	88763-09-05 10:48 G	34141326.78	34141326.95	34141327.13	0.0283	0.0162
Mercury	88768-09-20 06:43 G	34143168.70	34143168.78	34143168.86	0.0263	0.0204
Mercury	88768-12-17 16:34 G	34143257.07	34143257.19	34143257.32	0.0263	0.0099
Mercury	88769-03-16 02:39 G	34143345.48	34143345.61	34143345.74	0.0262	0.0006
Mercury	88769-06-12 12:43 G	34143433.91	34143434.03	34143434.15	0.0262	0.0111
Mercury	88769-09-08 22:48 G	34143522.38	34143522.45	34143522.52	0.0261	0.0217
Mars	88770-07-20 07:27 G	34143836.59	34143836.81	34143837.05	0.0260	0.0180
Moon	88777-12-25 14:10 G	34146551.98	34146552.09	34146552.22	0.0271	0.0232
Earth	88777-12-25 16:19 G	34146552.06	34146552.18	34146552.32	0.0271	0.0231 *
Venus	88778-09-25 11:03 G	34146825.81	34146825.96	34146826.12	0.0274	0.0183
Earth	88779-01-07 06:00 G	34146929.52	34146929.75	34146929.98	0.0275	0.0093
Moon	88779-01-07 08:10 G	34146929.62	34146929.84	34146930.08	0.0275	0.0083 *
Venus	88779-05-12 17:31 G	34147055.02	34147055.23	34147055.44	0.0276	0.0002
Venus	88779-12-28 01:27 G	34147284.42	34147284.56	34147284.72	0.0279	0.0194
Mercury	88784-07-07 10:34 G	34148937.80	34148937.94	34148938.08	0.0298	0.0185

Mercury	88784-10-04 11:46 G	34149026.81	34149026.99	34149027.18	0.0299	0.0034
Mercury	88785-01-01 12:43 G	34149115.94	34149116.03	34149116.14	0.0300	0.0249
Earth	88791-06-23 23:31 G	34151480.35	34151480.48	34151480.64	0.0291	0.0232
Moon	88791-06-24 00:00 G	34151480.38	34151480.50	34151480.63	0.0291	0.0244 *
Venus	88791-12-13 22:05 G	34151653.31	34151653.42	34151653.54	0.0289	0.0243
Earth	88792-07-06 19:27 G	34151859.11	34151859.31	34151859.52	0.0287	0.0155
Moon	88792-07-06 22:48 G	34151859.25	34151859.45	34151859.66	0.0287	0.0153 *
Venus	88792-07-30 18:15 G	34151883.05	34151883.26	34151883.47	0.0286	0.0025
Venus	88793-03-17 12:00 G	34152112.85	34152113.00	34152113.17	0.0283	0.0186
Mercury	88798-02-07 08:53 G	34153900.83	34153900.87	34153900.93	0.0264	0.0241
Mercury	88798-05-06 18:58 G	34153989.18	34153989.29	34153989.41	0.0264	0.0135
Mercury	88798-08-03 05:03 G	34154077.57	34154077.71	34154077.84	0.0263	0.0030
Mercury	88798-10-30 14:53 G	34154166.00	34154166.12	34154166.25	0.0262	0.0077
Mercury	88799-01-27 00:58 G	34154254.45	34154254.54	34154254.64	0.0262	0.0182
Moon	88808-01-01 20:39 G	34157516.12	34157516.36	34157516.61	0.0272	0.0068
Earth	88808-01-01 23:17 G	34157516.23	34157516.47	34157516.71	0.0272	0.0059 *
Venus	88808-04-06 14:10 G	34157611.93	34157612.09	34157612.27	0.0274	0.0157
Venus	88808-11-21 20:53 G	34157841.16	34157841.37	34157841.58	0.0276	0.0029
Moon	88809-01-13 13:27 G	34157893.99	34157894.06	34157894.15	0.0277	0.0260
Earth	88809-01-13 16:34 G	34157894.17	34157894.19	34157894.23	0.0277	0.0274
Venus	88809-07-09 05:03 G	34158070.59	34158070.71	34158070.84	0.0279	0.0222
Mercury	88813-11-24 07:12 G	34159669.71	34159669.80	34159669.89	0.0298	0.0261
Mercury	88814-02-21 08:39 G	34159758.68	34159758.86	34159759.04	0.0299	0.0042
Mercury	88814-05-21 09:36 G	34159847.76	34159847.90	34159848.06	0.0300	0.0175
Venus	88821-06-25 01:12 G	34162439.42	34162439.55	34162439.70	0.0289	0.0216
Moon	88821-06-30 18:43 G	34162445.03	34162445.28	34162445.52	0.0289	0.0028
Earth	88821-06-30 22:05 G	34162445.18	34162445.42	34162445.67	0.0289	0.0023 *
Venus	88822-02-09 21:07 G	34162669.17	34162669.38	34162669.59	0.0286	0.0002
Venus	88822-09-27 14:39 G	34162898.98	34162899.11	34162899.26	0.0283	0.0211
Mercury	88827-09-23 21:07 G	34164721.28	34164721.38	34164721.48	0.0263	0.0172

Mercury	88827-12-21 06:58 G	34164809.67	34164809.79	34164809.92	0.0263	0.0067
Mercury	88828-03-18 17:03 G	34164898.08	34164898.21	34164898.34	0.0262	0.0039
Mercury	88828-06-15 03:07 G	34164986.52	34164986.63	34164986.74	0.0262	0.0144
Mercury	88828-09-11 13:12 G	34165075.02	34165075.05	34165075.09	0.0261	0.0250
Earth	88836-12-26 11:31 G	34168102.84	34168102.98	34168103.15	0.0271	0.0210
Moon	88836-12-26 14:39 G	34168102.97	34168103.11	34168103.26	0.0271	0.0216 *
Venus	88837-10-17 13:41 G	34168397.89	34168398.07	34168398.26	0.0274	0.0139
Earth	88838-01-08 00:58 G	34168480.32	34168480.54	34168480.77	0.0275	0.0114
Moon	88838-01-08 04:19 G	34168480.45	34168480.68	34168480.92	0.0275	0.0101 *
Venus	88838-06-03 20:10 G	34168627.13	34168627.34	34168627.55	0.0277	0.0048
Venus	88839-01-19 04:05 G	34168856.58	34168856.67	34168856.79	0.0279	0.0240
Mercury	88843-07-11 02:53 G	34170490.46	34170490.62	34170490.79	0.0298	0.0135
Mercury	88843-10-08 04:19 G	34170579.51	34170579.68	34170579.85	0.0299	0.0082
Mercury	88844-01-05 05:03 G	34170668.70	34170668.71	34170668.74	0.0300	0.0298
Mars	88844-10-09 21:22 G	34170947.36	34170947.39	34170947.44	0.0301	0.0298
Earth	88850-06-24 17:46 G	34173031.08	34173031.24	34173031.42	0.0292	0.0211
Moon	88850-06-24 21:36 G	34173031.25	34173031.40	34173031.57	0.0292	0.0218 *
Venus	88851-01-05 01:55 G	34173225.43	34173225.58	34173225.74	0.0289	0.0193
Earth	88851-07-08 13:55 G	34173409.90	34173410.08	34173410.28	0.0287	0.0176
Moon	88851-07-08 16:05 G	34173409.97	34173410.17	34173410.37	0.0287	0.0176 *
Venus	88851-08-22 21:51 G	34173455.20	34173455.41	34173455.63	0.0286	0.0025
Venus	88852-04-08 15:36 G	34173685.04	34173685.15	34173685.28	0.0283	0.0235
Mercury	88857-02-09 23:17 G	34175453.40	34175453.47	34175453.56	0.0264	0.0209
Mercury	88857-05-09 09:22 G	34175541.77	34175541.89	34175542.01	0.0264	0.0103
Mercury	88857-08-05 19:27 G	34175630.17	34175630.31	34175630.44	0.0263	0.0006
Mercury	88857-11-02 05:17 G	34175718.60	34175718.72	34175718.85	0.0263	0.0109
Mercury	88858-01-29 15:22 G	34175807.07	34175807.14	34175807.22	0.0262	0.0215
Mars	88858-12-13 03:22 G	34176124.48	34176124.64	34176124.84	0.0261	0.0217
Moon	88867-01-02 15:36 G	34179066.91	34179067.15	34179067.39	0.0272	0.0051
Earth	88867-01-02 18:43 G	34179067.04	34179067.28	34179067.53	0.0272	0.0038 *

Venus	88867-04-29 17:17 G	34179184.03	34179184.22	34179184.41	0.0274	0.0111
Venus	88867-12-14 23:46 G	34179413.29	34179413.49	34179413.69	0.0276	0.0076
Venus	88868-07-31 07:55 G	34179642.78	34179642.83	34179642.89	0.0279	0.0269
Mercury	88872-11-26 23:46 G	34181222.37	34181222.49	34181222.63	0.0299	0.0209
Mercury	88873-02-24 01:27 G	34181311.37	34181311.56	34181311.74	0.0299	0.0011
Mercury	88873-05-24 02:24 G	34181400.48	34181400.60	34181400.72	0.0300	0.0225
Moon	88880-07-01 16:34 G	34183995.95	34183996.19	34183996.43	0.0289	0.0001
Earth	88880-07-01 18:00 G	34183996.01	34183996.25	34183996.50	0.0289	0.0004 *
Venus	88880-07-17 06:00 G	34184011.58	34184011.75	34184011.93	0.0289	0.0165
Venus	88881-03-04 01:41 G	34184241.36	34184241.57	34184241.78	0.0286	0.0053
Venus	88881-10-19 19:12 G	34184471.23	34184471.30	34184471.39	0.0283	0.0261
Mercury	88886-06-30 01:41 G	34186185.53	34186185.57	34186185.62	0.0264	0.0243
Mercury	88886-09-26 11:46 G	34186273.88	34186273.99	34186274.10	0.0263	0.0138
Mercury	88886-12-23 21:36 G	34186362.27	34186362.40	34186362.54	0.0263	0.0033
Mercury	88887-03-22 07:41 G	34186450.69	34186450.82	34186450.95	0.0262	0.0074
Mercury	88887-06-18 17:46 G	34186539.15	34186539.24	34186539.34	0.0262	0.0180
Earth	88895-12-28 09:07 G	34189653.71	34189653.88	34189654.07	0.0271	0.0186
Moon	88895-12-28 12:00 G	34189653.84	34189654.00	34189654.19	0.0271	0.0196 *
Venus	88896-03-24 12:43 G	34189741.02	34189741.03	34189741.04	0.0271	0.0271
Venus	88896-11-08 17:46 G	34189970.04	34189970.24	34189970.44	0.0274	0.0091
Moon	88897-01-08 21:07 G	34190031.16	34190031.38	34190031.61	0.0275	0.0121
Earth	88897-01-08 22:19 G	34190031.23	34190031.43	34190031.65	0.0275	0.0138 *
Venus	88897-06-26 00:15 G	34190199.31	34190199.51	34190199.70	0.0277	0.0096
Mercury	88902-04-16 18:43 G	34191954.27	34191954.28	34191954.29	0.0298	0.0297
Mercury	88902-07-14 20:24 G	34192043.17	34192043.35	34192043.52	0.0298	0.0078
Mercury	88902-10-11 21:22 G	34192132.24	34192132.39	34192132.56	0.0299	0.0139
Earth	88909-06-26 14:24 G	34194581.92	34194582.10	34194582.30	0.0291	0.0186
Moon	88909-06-26 15:07 G	34194581.94	34194582.13	34194582.33	0.0291	0.0186 *
Venus	88910-01-28 06:58 G	34194797.61	34194797.79	34194797.98	0.0289	0.0141
Moon	88910-07-10 07:55 G	34194960.67	34194960.83	34194961.01	0.0287	0.0206

Earth	88910-07-10 10:48 G	34194960.78	34194960.95	34194961.13	0.0287	0.0199	*
Venus	88910-09-15 02:53 G	34195027.41	34195027.62	34195027.83	0.0286	0.0077	
Mercury	88916-02-14 13:55 G	34197005.99	34197006.08	34197006.19	0.0264	0.0175	
Mercury	88916-05-13 00:00 G	34197094.37	34197094.50	34197094.63	0.0264	0.0069	
Mercury	88916-08-09 10:05 G	34197182.79	34197182.92	34197183.05	0.0263	0.0038	
Mercury	88916-11-05 20:10 G	34197271.23	34197271.34	34197271.45	0.0263	0.0144	
Mercury	88917-02-02 06:15 G	34197359.73	34197359.76	34197359.80	0.0262	0.0251	
Venus	88925-10-05 17:17 G	34200527.13	34200527.22	34200527.31	0.0271	0.0242	
Earth	88926-01-04 17:46 G	34200618.00	34200618.24	34200618.49	0.0272	0.0012	
Moon	88926-01-04 19:27 G	34200618.07	34200618.31	34200618.55	0.0272	0.0027	*
Venus	88926-05-22 22:05 G	34200756.22	34200756.42	34200756.63	0.0274	0.0062	
Venus	88927-01-07 04:48 G	34200985.52	34200985.70	34200985.89	0.0277	0.0126	
Mercury	88931-12-01 18:00 G	34202775.09	34202775.25	34202775.41	0.0298	0.0147	
Mercury	88932-02-28 19:12 G	34202864.13	34202864.30	34202864.48	0.0299	0.0071	
Mercury	88932-05-27 20:10 G	34202953.29	34202953.34	34202953.39	0.0300	0.0286	
Earth	88939-07-04 16:05 G	34205546.93	34205547.17	34205547.42	0.0289	0.0027	
Moon	88939-07-04 19:27 G	34205547.07	34205547.31	34205547.54	0.0289	0.0033	*
Venus	88939-08-10 12:00 G	34205583.81	34205584.00	34205584.20	0.0289	0.0111	
Venus	88940-03-27 07:41 G	34205813.62	34205813.82	34205814.02	0.0286	0.0106	
Mercury	88945-07-03 16:34 G	34207738.12	34207738.19	34207738.28	0.0264	0.0207	
Mercury	88945-09-30 02:39 G	34207826.49	34207826.61	34207826.73	0.0263	0.0101	
Mercury	88945-12-27 12:43 G	34207914.89	34207915.03	34207915.16	0.0263	0.0006	
Mercury	88946-03-25 22:48 G	34208003.33	34208003.45	34208003.57	0.0262	0.0111	
Mercury	88946-06-22 08:39 G	34208091.80	34208091.86	34208091.94	0.0262	0.0218	
Moon	88954-12-30 08:24 G	34211204.66	34211204.85	34211205.06	0.0271	0.0171	
Earth	88954-12-30 10:19 G	34211204.73	34211204.93	34211205.13	0.0271	0.0158	*
Venus	88955-04-17 18:43 G	34211313.16	34211313.28	34211313.40	0.0272	0.0221	
Venus	88955-12-02 23:46 G	34211542.28	34211542.49	34211542.70	0.0274	0.0040	
Moon	88956-01-11 19:41 G	34211582.12	34211582.32	34211582.53	0.0275	0.0148	
Earth	88956-01-11 23:31 G	34211582.29	34211582.48	34211582.68	0.0275	0.0165	*

Venus	88956-07-19 06:15 G	34211771.59	34211771.76	34211771.94	0.0277	0.0149
Mercury	88961-04-19 13:27 G	34213506.95	34213507.06	34213507.18	0.0298	0.0230
Mercury	88961-07-17 14:53 G	34213595.94	34213596.12	34213596.30	0.0299	0.0012
Mercury	88961-10-14 16:05 G	34213685.04	34213685.17	34213685.30	0.0299	0.0205
Moon	88968-06-27 10:34 G	34216132.74	34216132.94	34216133.16	0.0291	0.0151
Earth	88968-06-27 14:24 G	34216132.90	34216133.10	34216133.30	0.0291	0.0158 *
Venus	88969-02-19 13:55 G	34216369.88	34216370.08	34216370.29	0.0288	0.0085
Moon	88969-07-11 07:12 G	34216511.68	34216511.80	34216511.94	0.0287	0.0238
Earth	88969-07-11 10:19 G	34216511.79	34216511.93	34216512.09	0.0287	0.0226 *
Venus	88969-10-07 09:36 G	34216599.71	34216599.90	34216600.09	0.0286	0.0132
Mercury	88974-11-20 19:12 G	34218470.25	34218470.30	34218470.35	0.0265	0.0242
Mercury	88975-02-17 05:03 G	34218558.60	34218558.71	34218558.83	0.0264	0.0136
Mercury	88975-05-16 15:07 G	34218647.00	34218647.13	34218647.26	0.0264	0.0029
Mercury	88975-08-13 01:12 G	34218735.42	34218735.55	34218735.68	0.0263	0.0077
Mercury	88975-11-09 11:17 G	34218823.88	34218823.97	34218824.07	0.0263	0.0184
Venus	88984-10-28 00:00 G	34222099.35	34222099.50	34222099.65	0.0272	0.0191
Earth	88985-01-05 20:24 G	34222169.10	34222169.35	34222169.59	0.0273	0.0018
Moon	88985-01-06 00:00 G	34222169.25	34222169.50	34222169.75	0.0273	0.0001 *
Venus	88985-06-14 05:17 G	34222328.51	34222328.72	34222328.93	0.0274	0.0009
Venus	88986-01-29 12:00 G	34222557.85	34222558.00	34222558.16	0.0277	0.0180
Mercury	88990-09-06 11:46 G	34224238.96	34224238.99	34224239.03	0.0298	0.0291
Mercury	88990-12-04 13:27 G	34224327.88	34224328.06	34224328.24	0.0299	0.0073
Mercury	88991-03-03 14:24 G	34224416.95	34224417.10	34224417.27	0.0299	0.0144
Venus	88998-01-14 23:17 G	34226926.41	34226926.47	34226926.54	0.0291	0.0275
Earth	88998-07-05 18:15 G	34227098.03	34227098.26	34227098.51	0.0289	0.0059
Moon	88998-07-05 20:53 G	34227098.14	34227098.37	34227098.62	0.0289	0.0069 *
Venus	88998-09-01 20:39 G	34227156.15	34227156.36	34227156.57	0.0288	0.0053
Venus	88999-04-19 15:51 G	34227385.99	34227386.16	34227386.34	0.0285	0.0164

90TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 90th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	89004-07-07 07:55	G	34229290.73	34229290.83	34229290.94	0.0264	0.0166	
Mercury	89004-10-03 18:00	G	34229379.12	34229379.25	34229379.38	0.0263	0.0059	
Mercury	89004-12-31 04:05	G	34229467.54	34229467.67	34229467.80	0.0263	0.0047	
Mercury	89005-03-29 14:10	G	34229555.98	34229556.09	34229556.20	0.0262	0.0154	
Mercury	89005-06-26 00:15	G	34229644.50	34229644.51	34229644.52	0.0262	0.0261	
Moon	89014-01-01 12:15	G	34232755.80	34232756.01	34232756.22	0.0271	0.0140	
Earth	89014-01-01 15:51	G	34232755.94	34232756.16	34232756.38	0.0271	0.0125	*
Venus	89014-05-11 03:22	G	34232885.48	34232885.64	34232885.81	0.0272	0.0167	
Venus	89014-12-26 08:39	G	34233114.65	34233114.86	34233115.07	0.0275	0.0017	
Moon	89015-01-14 05:03	G	34233133.55	34233133.71	34233133.90	0.0275	0.0184	
Earth	89015-01-14 05:17	G	34233133.56	34233133.72	34233133.90	0.0275	0.0198	*
Venus	89015-08-12 15:22	G	34233344.01	34233344.14	34233344.29	0.0278	0.0207	
Mercury	89020-04-23 09:51	G	34235059.76	34235059.91	34235060.08	0.0298	0.0147	
Mercury	89020-07-21 11:17	G	34235148.80	34235148.97	34235149.15	0.0299	0.0071	
Mercury	89020-10-18 12:15	G	34235237.96	34235238.01	34235238.06	0.0299	0.0286	
Moon	89027-06-30 16:34	G	34237683.98	34237684.19	34237684.41	0.0291	0.0115	
Earth	89027-06-30 18:43	G	34237684.06	34237684.28	34237684.50	0.0291	0.0123	*
Venus	89027-07-29 02:10	G	34237712.50	34237712.59	34237712.71	0.0291	0.0248	
Venus	89028-03-14 23:46	G	34237942.28	34237942.49	34237942.70	0.0288	0.0025	
Earth	89028-07-13 13:55	G	34238062.99	34238063.08	34238063.19	0.0286	0.0258	

Moon	89028-07-13 15:36 G	34238063.09	34238063.15	34238063.23	0.0286	0.0273	*
Venus	89028-10-30 18:58 G	34238172.13	34238172.29	34238172.45	0.0285	0.0190	
Mercury	89033-11-24 10:34 G	34240022.86	34240022.94	34240023.03	0.0265	0.0200	
Mercury	89034-02-20 20:39 G	34240111.24	34240111.36	34240111.49	0.0264	0.0093	
Mercury	89034-05-20 06:43 G	34240199.65	34240199.78	34240199.91	0.0264	0.0014	
Mercury	89034-08-16 16:48 G	34240288.08	34240288.20	34240288.32	0.0263	0.0121	
Mercury	89034-11-13 02:53 G	34240376.56	34240376.62	34240376.69	0.0263	0.0229	
Earth	89042-12-27 16:48 G	34243343.15	34243343.20	34243343.26	0.0269	0.0262	
Venus	89043-11-21 09:36 G	34243671.71	34243671.90	34243672.08	0.0272	0.0136	
Earth	89044-01-09 03:22 G	34243720.40	34243720.64	34243720.88	0.0273	0.0052	
Moon	89044-01-09 03:36 G	34243720.40	34243720.65	34243720.91	0.0273	0.0038	*
Venus	89044-07-07 14:53 G	34243900.92	34243901.12	34243901.33	0.0275	0.0049	
Venus	89045-02-21 22:05 G	34244130.32	34244130.42	34244130.53	0.0278	0.0239	
Mercury	89049-09-10 08:53 G	34245791.74	34245791.87	34245792.01	0.0298	0.0203	
Mercury	89049-12-08 10:19 G	34245880.75	34245880.93	34245881.12	0.0299	0.0016	
Mercury	89050-03-07 11:17 G	34245969.86	34245969.97	34245970.09	0.0299	0.0231	
Moon	89056-06-24 03:07 G	34248270.61	34248270.63	34248270.67	0.0293	0.0290	
Venus	89057-02-07 10:34 G	34248498.80	34248498.94	34248499.09	0.0291	0.0213	
Moon	89057-07-07 22:34 G	34248649.21	34248649.44	34248649.67	0.0289	0.0108	
Earth	89057-07-08 00:43 G	34248649.30	34248649.53	34248649.76	0.0289	0.0095	*
Venus	89057-09-25 07:41 G	34248728.60	34248728.82	34248729.03	0.0288	0.0011	
Venus	89058-05-13 02:24 G	34248958.48	34248958.60	34248958.74	0.0285	0.0224	
Mercury	89063-04-13 13:55 G	34250755.01	34250755.08	34250755.15	0.0265	0.0226	
Mercury	89063-07-11 00:00 G	34250843.38	34250843.50	34250843.62	0.0264	0.0119	
Mercury	89063-10-07 09:51 G	34250931.78	34250931.91	34250932.05	0.0264	0.0016	
Mercury	89064-01-03 19:55 G	34251020.21	34251020.33	34251020.46	0.0263	0.0095	
Mercury	89064-04-01 06:15 G	34251108.67	34251108.76	34251108.84	0.0262	0.0201	
Moon	89073-01-03 00:00 G	34254307.29	34254307.50	34254307.73	0.0271	0.0102	
Earth	89073-01-03 00:58 G	34254307.31	34254307.54	34254307.78	0.0271	0.0089	*
Venus	89073-06-02 14:24 G	34254457.91	34254458.10	34254458.30	0.0273	0.0109	

Earth	89074-01-15 15:07 G	34254685.01	34254685.13	34254685.26	0.0276	0.0236
Moon	89074-01-15 18:29 G	34254685.14	34254685.27	34254685.42	0.0276	0.0223 *
Venus	89074-01-17 19:55 G	34254687.13	34254687.33	34254687.54	0.0276	0.0077
Venus	89074-09-04 03:07 G	34254916.59	34254916.63	34254916.69	0.0278	0.0268
Mercury	89079-01-28 06:29 G	34256523.70	34256523.77	34256523.86	0.0297	0.0269
Mercury	89079-04-27 08:10 G	34256612.66	34256612.84	34256613.02	0.0298	0.0051
Mercury	89079-07-25 09:07 G	34256701.74	34256701.88	34256702.04	0.0299	0.0166
Earth	89086-07-02 03:36 G	34259235.42	34259235.65	34259235.89	0.0291	0.0083
Moon	89086-07-02 05:46 G	34259235.52	34259235.74	34259235.97	0.0291	0.0072 *
Venus	89086-08-20 15:07 G	34259284.98	34259285.13	34259285.31	0.0290	0.0182
Venus	89087-04-07 12:15 G	34259514.80	34259515.01	34259515.22	0.0287	0.0040
Venus	89087-11-23 06:58 G	34259744.70	34259744.79	34259744.89	0.0284	0.0253
Mercury	89092-08-30 16:48 G	34261487.17	34261487.20	34261487.23	0.0266	0.0258
Mercury	89092-11-27 02:39 G	34261575.51	34261575.61	34261575.72	0.0265	0.0151
Mercury	89093-02-23 12:43 G	34261663.90	34261664.03	34261664.16	0.0264	0.0044
Mercury	89093-05-22 22:48 G	34261752.32	34261752.45	34261752.58	0.0264	0.0063
Mercury	89093-08-19 08:53 G	34261840.77	34261840.87	34261840.98	0.0263	0.0171
Earth	89101-12-30 03:07 G	34264894.50	34264894.63	34264894.77	0.0269	0.0224
Moon	89101-12-30 04:19 G	34264894.57	34264894.68	34264894.82	0.0269	0.0235 *
Venus	89102-04-29 16:48 G	34265015.15	34265015.20	34265015.28	0.0271	0.0256
Venus	89102-12-14 21:22 G	34265244.19	34265244.39	34265244.60	0.0273	0.0076
Moon	89103-01-11 11:17 G	34265271.74	34265271.97	34265272.22	0.0273	0.0077
Earth	89103-01-11 14:39 G	34265271.88	34265272.11	34265272.34	0.0273	0.0092 *
Venus	89103-08-01 03:22 G	34265473.45	34265473.64	34265473.83	0.0276	0.0111
Mercury	89108-09-14 08:10 G	34267344.67	34267344.84	34267345.01	0.0298	0.0099
Mercury	89108-12-12 09:22 G	34267433.72	34267433.89	34267434.06	0.0299	0.0118
Moon	89115-06-27 11:17 G	34269821.83	34269821.97	34269822.11	0.0293	0.0242
Earth	89115-06-27 13:12 G	34269821.94	34269822.05	34269822.19	0.0293	0.0250 *
Venus	89116-03-03 00:58 G	34270071.36	34270071.54	34270071.73	0.0290	0.0145
Moon	89116-07-10 08:10 G	34270200.64	34270200.84	34270201.05	0.0288	0.0151

Earth	89116-07-10 11:46 G	34270200.78	34270200.99	34270201.21	0.0288	0.0137	*
Venus	89116-10-18 21:22 G	34270301.19	34270301.39	34270301.60	0.0287	0.0077	
Mercury	89122-04-17 06:15 G	34272307.66	34272307.76	34272307.86	0.0265	0.0175	
Mercury	89122-07-14 16:19 G	34272396.05	34272396.18	34272396.31	0.0264	0.0068	
Mercury	89122-10-11 02:10 G	34272484.46	34272484.59	34272484.73	0.0263	0.0041	
Mercury	89123-01-07 12:15 G	34272572.91	34272573.01	34272573.13	0.0263	0.0147	
Mercury	89123-04-05 22:34 G	34272661.41	34272661.44	34272661.47	0.0262	0.0254	
Venus	89131-11-09 23:17 G	34275801.36	34275801.47	34275801.59	0.0271	0.0227	
Earth	89132-01-06 14:10 G	34275858.85	34275859.09	34275859.33	0.0272	0.0047	
Moon	89132-01-06 17:03 G	34275858.98	34275859.21	34275859.45	0.0272	0.0062	*
Venus	89132-06-26 03:51 G	34276030.45	34276030.66	34276030.87	0.0274	0.0046	
Moon	89133-01-18 07:27 G	34276236.76	34276236.81	34276236.89	0.0276	0.0265	
Venus	89133-02-10 09:51 G	34276259.73	34276259.91	34276260.09	0.0276	0.0142	
Mercury	89138-02-01 06:43 G	34278076.62	34278076.78	34278076.93	0.0298	0.0158	
Mercury	89138-05-01 07:55 G	34278165.65	34278165.83	34278166.01	0.0298	0.0059	
Mercury	89138-07-29 08:39 G	34278254.80	34278254.86	34278254.94	0.0299	0.0274	
Earth	89145-07-04 17:03 G	34280786.97	34280787.21	34280787.46	0.0290	0.0037	
Moon	89145-07-04 20:39 G	34280787.12	34280787.36	34280787.61	0.0290	0.0026	*
Venus	89145-09-13 06:58 G	34280857.59	34280857.79	34280857.98	0.0289	0.0111	
Venus	89146-05-01 03:07 G	34281087.44	34281087.63	34281087.83	0.0286	0.0109	
Mercury	89151-09-04 09:07 G	34283039.80	34283039.88	34283039.96	0.0265	0.0205	
Mercury	89151-12-01 19:12 G	34283128.17	34283128.30	34283128.42	0.0265	0.0098	
Mercury	89152-02-28 05:17 G	34283216.58	34283216.72	34283216.85	0.0264	0.0010	
Mercury	89152-05-26 15:22 G	34283305.02	34283305.14	34283305.26	0.0264	0.0117	
Mercury	89152-08-23 01:27 G	34283393.50	34283393.56	34283393.63	0.0263	0.0224	
Moon	89160-12-31 12:43 G	34286445.87	34286446.03	34286446.21	0.0270	0.0197	
Earth	89160-12-31 16:05 G	34286445.99	34286446.17	34286446.35	0.0270	0.0182	*
Venus	89161-05-22 06:15 G	34286587.62	34286587.76	34286587.91	0.0271	0.0195	
Venus	89162-01-06 11:03 G	34286816.75	34286816.96	34286817.17	0.0274	0.0013	
Moon	89162-01-13 01:41 G	34286823.35	34286823.57	34286823.79	0.0274	0.0120	

Earth	89162-01-13 04:19 G	34286823.47	34286823.68	34286823.90	0.0274	0.0136	*
Venus	89162-08-23 17:17 G	34287046.06	34287046.22	34287046.39	0.0276	0.0176	
Mercury	89167-06-21 06:43 G	34288808.65	34288808.78	34288808.92	0.0297	0.0204	
Mercury	89167-09-18 08:10 G	34288897.66	34288897.84	34288898.02	0.0298	0.0014	
Mercury	89167-12-16 09:07 G	34288986.77	34288986.88	34288987.00	0.0299	0.0229	
Moon	89174-06-29 01:12 G	34291373.38	34291373.55	34291373.74	0.0292	0.0193	
Earth	89174-06-29 05:03 G	34291373.54	34291373.71	34291373.89	0.0292	0.0200	*
Venus	89175-03-26 17:46 G	34291644.03	34291644.24	34291644.44	0.0289	0.0072	
Moon	89175-07-13 01:27 G	34291752.40	34291752.56	34291752.74	0.0288	0.0197	
Earth	89175-07-13 02:10 G	34291752.41	34291752.59	34291752.78	0.0288	0.0184	*
Venus	89175-11-11 13:27 G	34291873.88	34291874.06	34291874.25	0.0286	0.0147	
Mercury	89181-01-21 12:43 G	34293771.97	34293772.03	34293772.10	0.0265	0.0227	
Mercury	89181-04-19 22:48 G	34293860.34	34293860.45	34293860.57	0.0265	0.0120	
Mercury	89181-07-17 08:53 G	34293948.74	34293948.87	34293949.01	0.0264	0.0014	
Mercury	89181-10-13 18:58 G	34294037.17	34294037.29	34294037.42	0.0263	0.0095	
Mercury	89182-01-10 05:17 G	34294125.63	34294125.72	34294125.80	0.0263	0.0202	
Mars	89182-06-05 14:53 G	34294271.89	34294272.12	34294272.37	0.0262	0.0174	
Venus	89190-12-02 13:27 G	34297373.89	34297374.06	34297374.23	0.0272	0.0165	
Earth	89191-01-08 05:03 G	34297410.47	34297410.71	34297410.96	0.0272	0.0005	
Moon	89191-01-08 08:24 G	34297410.60	34297410.85	34297411.10	0.0272	0.0018	*
Venus	89191-07-19 18:29 G	34297603.06	34297603.27	34297603.48	0.0274	0.0019	
Venus	89192-03-05 00:58 G	34297832.41	34297832.54	34297832.68	0.0277	0.0209	
Mercury	89196-11-07 06:15 G	34299540.67	34299540.76	34299540.85	0.0297	0.0255	
Mercury	89197-02-04 07:41 G	34299629.64	34299629.82	34299630.00	0.0298	0.0038	
Mercury	89197-05-04 08:39 G	34299718.72	34299718.86	34299719.01	0.0299	0.0178	
Venus	89204-02-19 03:07 G	34302200.56	34302200.63	34302200.74	0.0291	0.0262	
Earth	89204-07-06 10:48 G	34302338.70	34302338.95	34302339.19	0.0289	0.0016	
Moon	89204-07-06 11:31 G	34302338.73	34302338.98	34302339.23	0.0289	0.0026	*
Venus	89204-10-06 00:43 G	34302430.32	34302430.53	34302430.74	0.0288	0.0037	
Venus	89205-05-23 20:10 G	34302660.19	34302660.34	34302660.51	0.0285	0.0181	

Mercury	89210-06-10 15:51 G	34304504.13	34304504.16	34304504.20	0.0266	0.0257
Mercury	89210-09-07 01:55 G	34304592.47	34304592.58	34304592.69	0.0265	0.0149
Mercury	89210-12-04 12:00 G	34304680.87	34304681.00	34304681.13	0.0264	0.0042
Mercury	89211-03-02 22:05 G	34304769.29	34304769.42	34304769.55	0.0264	0.0066
Mercury	89211-05-30 08:10 G	34304857.74	34304857.84	34304857.94	0.0263	0.0173
Moon	89220-01-03 03:22 G	34307997.44	34307997.64	34307997.84	0.0270	0.0155
Earth	89220-01-03 06:15 G	34307997.55	34307997.76	34307997.98	0.0270	0.0139 *
Venus	89220-06-13 20:24 G	34308160.16	34308160.35	34308160.53	0.0272	0.0134
Earth	89221-01-14 19:41 G	34308375.14	34308375.32	34308375.51	0.0274	0.0181
Moon	89221-01-14 20:39 G	34308375.18	34308375.36	34308375.56	0.0274	0.0167 *
Venus	89221-01-29 01:41 G	34308389.36	34308389.57	34308389.78	0.0275	0.0052
Venus	89221-09-15 08:24 G	34308618.76	34308618.85	34308618.96	0.0277	0.0243
Mercury	89226-06-24 07:41 G	34310361.65	34310361.82	34310362.00	0.0298	0.0084
Mercury	89226-09-21 08:53 G	34310450.71	34310450.87	34310451.04	0.0298	0.0133
Moon	89233-06-30 22:48 G	34312925.25	34312925.45	34312925.66	0.0292	0.0137
Earth	89233-06-30 23:03 G	34312925.26	34312925.46	34312925.68	0.0292	0.0147 *
Venus	89233-08-31 14:24 G	34312986.97	34312987.10	34312987.24	0.0291	0.0223
Venus	89234-04-18 11:46 G	34313216.77	34313216.99	34313217.20	0.0288	0.0006
Earth	89234-07-14 19:12 G	34313304.16	34313304.30	34313304.44	0.0287	0.0232
Moon	89234-07-14 21:51 G	34313304.30	34313304.41	34313304.54	0.0287	0.0247 *
Venus	89234-12-04 06:43 G	34313446.65	34313446.78	34313446.92	0.0285	0.0218
Mercury	89240-01-25 05:31 G	34315324.64	34315324.73	34315324.84	0.0265	0.0171
Mercury	89240-04-22 15:51 G	34315413.03	34315413.16	34315413.29	0.0264	0.0063
Mercury	89240-07-20 01:55 G	34315501.44	34315501.58	34315501.71	0.0264	0.0045
Mercury	89240-10-16 12:00 G	34315589.89	34315590.00	34315590.11	0.0263	0.0152
Mercury	89241-01-12 22:05 G	34315678.41	34315678.42	34315678.44	0.0263	0.0260
Earth	89248-12-28 09:51 G	34318584.91	34318584.91	34318584.94	0.0269	0.0269
Venus	89249-12-25 03:51 G	34318946.47	34318946.66	34318946.86	0.0273	0.0102
Moon	89250-01-09 19:12 G	34318962.05	34318962.30	34318962.56	0.0273	0.0027
Earth	89250-01-09 20:24 G	34318962.11	34318962.35	34318962.60	0.0273	0.0043 *

Venus	89250-08-11 09:22 G	34319175.69	34319175.89	34319176.09	0.0275	0.0085
Venus	89251-03-28 16:19 G	34319405.18	34319405.18	34319405.21	0.0278	0.0277
Mercury	89255-11-11 07:27 G	34321093.65	34321093.81	34321093.98	0.0298	0.0133
Mercury	89256-02-08 08:39 G	34321182.69	34321182.86	34321183.04	0.0298	0.0084
Mercury	89256-05-07 09:36 G	34321271.90	34321271.90	34321271.91	0.0299	0.0298
Mars	89256-08-29 04:34 G	34321385.47	34321385.69	34321385.92	0.0300	0.0160
Venus	89263-03-13 22:34 G	34323773.28	34323773.44	34323773.61	0.0290	0.0185
Moon	89263-07-09 01:55 G	34323890.35	34323890.58	34323890.83	0.0289	0.0082
Earth	89263-07-09 05:17 G	34323890.49	34323890.72	34323890.96	0.0288	0.0068 *
Venus	89263-10-29 19:27 G	34324003.10	34324003.31	34324003.52	0.0287	0.0038
Venus	89264-06-15 13:55 G	34324233.00	34324233.08	34324233.19	0.0284	0.0252
Mercury	89269-06-13 08:39 G	34326056.78	34326056.86	34326056.95	0.0265	0.0200
Mercury	89269-09-09 18:43 G	34326145.16	34326145.28	34326145.41	0.0265	0.0092
Mercury	89269-12-07 04:48 G	34326233.57	34326233.70	34326233.84	0.0264	0.0017
Mercury	89270-03-05 14:53 G	34326322.01	34326322.12	34326322.24	0.0264	0.0124
Mercury	89270-06-02 01:12 G	34326410.49	34326410.55	34326410.61	0.0263	0.0231
Mars	89270-10-31 04:19 G	34326561.38	34326561.68	34326562.00	0.0262	0.0067
Venus	89278-11-20 05:17 G	34329503.66	34329503.72	34329503.80	0.0271	0.0253
Earth	89279-01-04 19:27 G	34329549.09	34329549.31	34329549.55	0.0271	0.0097
Moon	89279-01-04 20:53 G	34329549.15	34329549.37	34329549.59	0.0271	0.0111 *
Venus	89279-07-07 09:51 G	34329732.71	34329732.91	34329733.12	0.0273	0.0072
Earth	89280-01-17 10:05 G	34329926.79	34329926.92	34329927.07	0.0275	0.0226
Moon	89280-01-17 13:55 G	34329926.93	34329927.08	34329927.25	0.0275	0.0210 *
Venus	89280-02-21 15:51 G	34329961.97	34329962.16	34329962.35	0.0276	0.0116
Mercury	89285-03-30 07:12 G	34331825.66	34331825.80	34331825.95	0.0297	0.0181
Mercury	89285-06-27 08:39 G	34331914.68	34331914.86	34331915.04	0.0298	0.0037
Mercury	89285-09-24 09:36 G	34332003.81	34332003.90	34332004.00	0.0299	0.0252
Earth	89292-07-02 18:43 G	34334477.05	34334477.28	34334477.52	0.0291	0.0092
Moon	89292-07-02 22:19 G	34334477.20	34334477.43	34334477.66	0.0291	0.0080 *
Venus	89292-09-23 09:36 G	34334559.72	34334559.90	34334560.09	0.0290	0.0146

Venus	89293-05-11 06:15 G	34334789.56	34334789.76	34334789.97	0.0287	0.0077
Earth	89293-07-16 13:12 G	34334856.02	34334856.05	34334856.10	0.0286	0.0282
Mercury	89298-10-31 12:29 G	34336788.95	34336789.02	34336789.10	0.0265	0.0220
Mercury	89299-01-27 22:34 G	34336877.32	34336877.44	34336877.56	0.0265	0.0113
Mercury	89299-04-26 08:39 G	34336965.73	34336965.86	34336965.99	0.0264	0.0005
Mercury	89299-07-23 18:43 G	34337054.16	34337054.28	34337054.40	0.0263	0.0102
Mercury	89299-10-20 04:48 G	34337142.62	34337142.70	34337142.78	0.0263	0.0210
Moon	89307-12-31 21:51 G	34340136.31	34340136.41	34340136.55	0.0270	0.0239
Earth	89307-12-31 22:34 G	34340136.32	34340136.44	34340136.58	0.0270	0.0228 *
Venus	89308-06-02 12:58 G	34340289.92	34340290.04	34340290.16	0.0271	0.0221
Moon	89309-01-12 06:29 G	34340513.54	34340513.77	34340514.01	0.0274	0.0071
Earth	89309-01-12 10:19 G	34340513.70	34340513.93	34340514.17	0.0274	0.0086 *
Venus	89309-01-17 17:31 G	34340519.02	34340519.23	34340519.44	0.0274	0.0039
Venus	89309-09-03 23:31 G	34340748.31	34340748.48	34340748.66	0.0276	0.0150
Mercury	89314-08-18 06:58 G	34342557.68	34342557.79	34342557.91	0.0297	0.0230
Mercury	89314-11-15 08:24 G	34342646.67	34342646.85	34342647.04	0.0298	0.0013
Mercury	89315-02-12 09:22 G	34342735.77	34342735.89	34342736.03	0.0299	0.0204
Moon	89321-06-27 22:19 G	34345063.32	34345063.43	34345063.56	0.0292	0.0253
Earth	89321-06-28 01:55 G	34345063.49	34345063.58	34345063.69	0.0292	0.0264 *
Venus	89322-04-06 17:46 G	34345346.05	34345346.24	34345346.44	0.0289	0.0109
Moon	89322-07-11 21:07 G	34345442.17	34345442.38	34345442.59	0.0288	0.0135
Earth	89322-07-11 23:46 G	34345442.28	34345442.49	34345442.72	0.0288	0.0120 *
Venus	89322-11-22 13:41 G	34345575.88	34345576.07	34345576.27	0.0286	0.0112
Mercury	89328-03-20 15:36 G	34347521.11	34347521.15	34347521.20	0.0265	0.0249
Mercury	89328-06-17 01:41 G	34347609.46	34347609.57	34347609.68	0.0265	0.0142
Mercury	89328-09-13 11:31 G	34347697.85	34347697.98	34347698.12	0.0264	0.0036
Mercury	89328-12-10 21:36 G	34347786.28	34347786.40	34347786.53	0.0264	0.0073
Mercury	89329-03-09 07:55 G	34347874.73	34347874.83	34347874.93	0.0263	0.0180
Venus	89337-12-13 17:31 G	34351076.09	34351076.23	34351076.38	0.0271	0.0194
Earth	89338-01-07 07:12 G	34351100.56	34351100.80	34351101.05	0.0272	0.0055

Moon	89338-01-07 10:48 G	34351100.71	34351100.95	34351101.19	0.0272	0.0070	*
Venus	89338-07-30 22:34 G	34351305.23	34351305.44	34351305.65	0.0274	0.0011	
Earth	89339-01-19 22:48 G	34351478.40	34351478.45	34351478.51	0.0276	0.0268	
Moon	89339-01-19 23:46 G	34351478.40	34351478.49	34351478.59	0.0276	0.0255	*
Venus	89339-03-17 05:03 G	34351534.55	34351534.71	34351534.87	0.0276	0.0179	
Mercury	89344-01-05 05:46 G	34353289.70	34353289.74	34353289.79	0.0297	0.0285	
Mercury	89344-04-03 07:27 G	34353378.63	34353378.81	34353378.99	0.0298	0.0067	
Mercury	89344-07-01 08:39 G	34353467.70	34353467.86	34353468.02	0.0299	0.0150	
Mars	89345-01-25 04:19 G	34353675.41	34353675.68	34353675.95	0.0300	0.0017	
Earth	89351-07-06 12:29 G	34356028.78	34356029.02	34356029.26	0.0290	0.0041	
Moon	89351-07-06 14:53 G	34356028.88	34356029.12	34356029.37	0.0290	0.0028	*
Venus	89351-10-18 03:51 G	34356132.45	34356132.66	34356132.86	0.0289	0.0071	
Venus	89352-06-03 23:31 G	34356362.31	34356362.48	34356362.67	0.0286	0.0149	
Mercury	89357-11-04 05:17 G	34358341.62	34358341.72	34358341.83	0.0265	0.0164	
Mercury	89358-01-31 15:22 G	34358430.01	34358430.14	34358430.27	0.0264	0.0057	
Mercury	89358-04-30 01:27 G	34358518.43	34358518.56	34358518.69	0.0264	0.0050	
Mercury	89358-07-27 11:17 G	34358606.87	34358606.97	34358607.09	0.0263	0.0158	
Mars	89359-03-29 01:27 G	34358851.24	34358851.56	34358851.87	0.0262	0.0060	
Moon	89367-01-02 04:48 G	34361687.55	34361687.70	34361687.88	0.0270	0.0203	
Earth	89367-01-02 08:39 G	34361687.69	34361687.86	34361688.04	0.0270	0.0189	*
Venus	89367-06-26 00:15 G	34361862.35	34361862.51	34361862.68	0.0272	0.0164	
Moon	89368-01-14 19:55 G	34362065.12	34362065.33	34362065.55	0.0274	0.0113	
Earth	89368-01-14 20:53 G	34362065.15	34362065.37	34362065.59	0.0274	0.0126	*
Venus	89368-02-10 05:17 G	34362091.51	34362091.72	34362091.93	0.0274	0.0021	
Venus	89368-09-26 12:00 G	34362320.87	34362321.00	34362321.13	0.0277	0.0211	
Mercury	89373-08-21 06:43 G	34364110.62	34364110.78	34364110.95	0.0298	0.0120	
Mercury	89373-11-18 08:10 G	34364199.67	34364199.84	34364200.01	0.0299	0.0098	
Moon	89380-06-29 17:17 G	34366615.06	34366615.22	34366615.39	0.0292	0.0204	
Earth	89380-06-29 19:55 G	34366615.16	34366615.33	34366615.49	0.0292	0.0212	*
Venus	89380-09-11 14:10 G	34366689.00	34366689.09	34366689.18	0.0291	0.0260	

Venus	89381-04-29 11:31 G	34366918.77	34366918.98	34366919.20	0.0288	0.0035
Earth	89381-07-13 16:48 G	34366994.00	34366994.20	34366994.40	0.0287	0.0169
Moon	89381-07-13 18:00 G	34366994.08	34366994.25	34366994.44	0.0287	0.0184 *
Venus	89381-12-15 06:58 G	34367148.63	34367148.79	34367148.96	0.0285	0.0183
Mercury	89387-03-24 08:10 G	34369073.76	34369073.84	34369073.93	0.0265	0.0194
Mercury	89387-06-20 18:15 G	34369162.14	34369162.26	34369162.39	0.0264	0.0087
Mercury	89387-09-17 04:19 G	34369250.54	34369250.68	34369250.81	0.0264	0.0020
Mercury	89387-12-14 14:24 G	34369338.98	34369339.10	34369339.22	0.0263	0.0127
Mercury	89388-03-12 00:29 G	34369427.46	34369427.52	34369427.58	0.0263	0.0235
Venus	89397-01-05 03:36 G	34372648.47	34372648.65	34372648.84	0.0272	0.0139
Earth	89397-01-08 15:22 G	34372651.89	34372652.14	34372652.38	0.0272	0.0018
Moon	89397-01-08 16:48 G	34372651.94	34372652.20	34372652.45	0.0272	0.0032 *
Venus	89397-08-22 08:53 G	34372877.67	34372877.87	34372878.08	0.0274	0.0047
Venus	89398-04-08 15:51 G	34373107.06	34373107.16	34373107.27	0.0277	0.0238
Mercury	89403-01-09 04:48 G	34374842.56	34374842.70	34374842.85	0.0297	0.0181
Mercury	89403-04-08 06:15 G	34374931.58	34374931.76	34374931.94	0.0298	0.0037
Mercury	89403-07-06 07:27 G	34375020.71	34375020.81	34375020.90	0.0299	0.0253
Venus	89410-03-25 22:48 G	34377475.32	34377475.45	34377475.59	0.0291	0.0225
Moon	89410-07-09 01:55 G	34377580.33	34377580.58	34377580.83	0.0290	0.0020
Earth	89410-07-09 03:22 G	34377580.40	34377580.64	34377580.88	0.0290	0.0007 *
Venus	89410-11-10 20:10 G	34377705.13	34377705.34	34377705.55	0.0288	0.0001
Venus	89411-06-28 15:22 G	34377935.01	34377935.14	34377935.28	0.0286	0.0219
Mercury	89416-08-11 11:31 G	34379805.92	34379805.98	34379806.06	0.0265	0.0219
Mercury	89416-11-07 21:36 G	34379894.28	34379894.40	34379894.52	0.0264	0.0112
Mercury	89417-02-04 07:41 G	34379982.69	34379982.82	34379982.95	0.0264	0.0005
Mercury	89417-05-03 17:46 G	34380071.11	34380071.24	34380071.36	0.0263	0.0103
Mercury	89417-07-31 03:51 G	34380159.58	34380159.66	34380159.74	0.0263	0.0210
Moon	89426-01-04 13:27 G	34383238.87	34383239.06	34383239.25	0.0270	0.0170
Earth	89426-01-04 14:53 G	34383238.93	34383239.12	34383239.34	0.0270	0.0156 *
Venus	89426-07-19 09:36 G	34383434.71	34383434.90	34383435.09	0.0272	0.0109

Earth	89427-01-17 03:51 G	34383616.47	34383616.66	34383616.87	0.0274	0.0162
Moon	89427-01-17 06:43 G	34383616.59	34383616.78	34383616.99	0.0274	0.0150 *
Venus	89427-03-05 14:53 G	34383663.92	34383664.12	34383664.33	0.0275	0.0078
Venus	89427-10-20 22:05 G	34383893.38	34383893.42	34383893.47	0.0278	0.0270
Mercury	89432-05-28 03:36 G	34385574.54	34385574.65	34385574.76	0.0298	0.0240
Mercury	89432-08-25 05:03 G	34385663.53	34385663.71	34385663.90	0.0298	0.0022
Mercury	89432-11-22 06:15 G	34385752.63	34385752.76	34385752.90	0.0299	0.0197
Mars	89433-06-22 15:51 G	34385964.91	34385965.16	34385965.42	0.0301	0.0096
Earth	89439-07-03 09:07 G	34388166.69	34388166.88	34388167.08	0.0292	0.0166
Moon	89439-07-03 10:19 G	34388166.74	34388166.93	34388167.14	0.0292	0.0157 *
Venus	89439-10-06 05:46 G	34388261.58	34388261.74	34388261.90	0.0290	0.0190
Venus	89440-05-23 02:53 G	34388491.41	34388491.62	34388491.83	0.0288	0.0035
Earth	89440-07-16 05:31 G	34388545.57	34388545.73	34388545.89	0.0287	0.0212
Moon	89440-07-16 08:53 G	34388545.74	34388545.87	34388546.03	0.0287	0.0229 *
Venus	89441-01-07 21:22 G	34388721.31	34388721.39	34388721.51	0.0285	0.0251
Mercury	89445-12-29 14:24 G	34390538.06	34390538.10	34390538.15	0.0265	0.0250
Mercury	89446-03-28 00:15 G	34390626.41	34390626.51	34390626.63	0.0264	0.0144
Mercury	89446-06-24 10:19 G	34390714.80	34390714.93	34390715.07	0.0264	0.0037
Mercury	89446-09-20 20:24 G	34390803.22	34390803.35	34390803.48	0.0263	0.0071
Mercury	89446-12-18 06:29 G	34390891.67	34390891.77	34390891.87	0.0263	0.0178
Mars	89447-08-24 00:43 G	34391140.26	34391140.53	34391140.79	0.0261	0.0147
Venus	89455-06-14 07:12 G	34393991.78	34393991.80	34393991.84	0.0270	0.0266
Moon	89456-01-11 16:19 G	34394202.93	34394203.18	34394203.44	0.0272	0.0005
Earth	89456-01-11 19:12 G	34394203.06	34394203.30	34394203.55	0.0272	0.0014 *
Venus	89456-01-29 11:17 G	34394220.78	34394220.97	34394221.18	0.0272	0.0087
Venus	89456-09-14 17:03 G	34394450.01	34394450.21	34394450.41	0.0275	0.0101
Mercury	89462-01-12 01:55 G	34396395.41	34396395.58	34396395.76	0.0298	0.0093
Mercury	89462-04-11 03:22 G	34396484.47	34396484.64	34396484.80	0.0299	0.0126
Venus	89469-04-17 12:58 G	34399047.86	34399048.04	34399048.22	0.0291	0.0157
Moon	89469-07-10 10:34 G	34399131.70	34399131.94	34399132.18	0.0290	0.0063

Earth	89469-07-10 14:10 G	34399131.85	34399132.09	34399132.33	0.0290	0.0049	*
Venus	89469-12-03 09:51 G	34399277.71	34399277.91	34399278.12	0.0288	0.0068	
Venus	89470-07-21 04:48 G	34399507.68	34399507.70	34399507.72	0.0285	0.0283	
Mercury	89475-08-15 03:36 G	34401358.55	34401358.65	34401358.75	0.0265	0.0170	
Mercury	89475-11-11 13:41 G	34401446.94	34401447.07	34401447.20	0.0264	0.0063	
Mercury	89476-02-07 23:31 G	34401535.35	34401535.48	34401535.62	0.0263	0.0045	
Mercury	89476-05-06 09:36 G	34401623.79	34401623.90	34401624.01	0.0263	0.0151	
Mercury	89476-08-02 19:41 G	34401712.31	34401712.32	34401712.35	0.0262	0.0259	
Venus	89484-12-24 12:15 G	34404777.91	34404778.01	34404778.11	0.0270	0.0238	
Earth	89485-01-05 17:17 G	34404790.00	34404790.22	34404790.44	0.0270	0.0126	
Moon	89485-01-05 19:55 G	34404790.14	34404790.33	34404790.55	0.0270	0.0142	*
Venus	89485-08-10 16:19 G	34405006.97	34405007.18	34405007.39	0.0273	0.0057	
Earth	89486-01-18 06:29 G	34405167.60	34405167.77	34405167.95	0.0275	0.0192	
Moon	89486-01-18 09:36 G	34405167.71	34405167.90	34405168.09	0.0275	0.0179	*
Venus	89486-03-27 22:05 G	34405236.23	34405236.42	34405236.60	0.0275	0.0131	
Mercury	89491-06-01 00:00 G	34407127.35	34407127.50	34407127.66	0.0298	0.0156	
Mercury	89491-08-29 01:27 G	34407216.39	34407216.56	34407216.74	0.0299	0.0064	
Mercury	89491-11-26 02:39 G	34407305.55	34407305.61	34407305.67	0.0300	0.0280	
Earth	89498-07-04 18:29 G	34409718.05	34409718.27	34409718.49	0.0291	0.0126	
Moon	89498-07-04 22:05 G	34409718.20	34409718.42	34409718.65	0.0291	0.0113	*
Venus	89498-10-28 18:43 G	34409834.09	34409834.28	34409834.48	0.0290	0.0123	
Venus	89499-06-15 15:22 G	34410063.95	34410064.14	34410064.34	0.0287	0.0100	
Earth	89499-07-18 14:24 G	34410096.99	34410097.10	34410097.22	0.0287	0.0251	
Moon	89499-07-18 15:22 G	34410097.06	34410097.14	34410097.25	0.0287	0.0266	*
Mercury	89505-01-02 06:15 G	34412090.68	34412090.76	34412090.84	0.0264	0.0203	
Mercury	89505-03-31 16:05 G	34412179.05	34412179.17	34412179.30	0.0264	0.0097	
Mercury	89505-06-28 02:10 G	34412267.46	34412267.59	34412267.72	0.0263	0.0011	
Mercury	89505-09-24 12:15 G	34412355.89	34412356.01	34412356.13	0.0263	0.0117	
Mercury	89505-12-21 22:05 G	34412444.36	34412444.42	34412444.50	0.0262	0.0225	
Earth	89514-01-01 10:05 G	34415376.90	34415376.92	34415376.96	0.0269	0.0266	

Venus	89514-07-07 12:58 G	34415563.92	34415564.04	34415564.16	0.0270	0.0218
Moon	89515-01-13 16:48 G	34415753.96	34415754.20	34415754.44	0.0272	0.0028
Earth	89515-01-13 19:55 G	34415754.08	34415754.33	34415754.57	0.0272	0.0042 *
Venus	89515-02-21 17:03 G	34415793.01	34415793.21	34415793.43	0.0273	0.0037
Venus	89515-10-08 22:48 G	34416022.29	34416022.45	34416022.64	0.0276	0.0153
Mercury	89520-10-18 19:55 G	34417859.22	34417859.33	34417859.44	0.0297	0.0235
Mercury	89521-01-15 21:36 G	34417948.21	34417948.40	34417948.58	0.0298	0.0016
Mercury	89521-04-14 22:34 G	34418037.32	34418037.44	34418037.58	0.0299	0.0202
Mars	89521-11-16 23:46 G	34418253.27	34418253.49	34418253.73	0.0301	0.0151
Moon	89527-06-29 15:07 G	34420304.12	34420304.13	34420304.17	0.0294	0.0292
Venus	89528-05-11 00:00 G	34420620.30	34420620.50	34420620.70	0.0290	0.0093
Moon	89528-07-12 18:43 G	34420683.06	34420683.28	34420683.50	0.0289	0.0099
Earth	89528-07-12 19:41 G	34420683.10	34420683.32	34420683.56	0.0289	0.0085 *
Venus	89528-12-26 20:24 G	34420850.17	34420850.35	34420850.55	0.0287	0.0131
Mercury	89534-05-22 09:07 G	34422822.83	34422822.88	34422822.95	0.0265	0.0233
Mercury	89534-08-18 19:12 G	34422911.18	34422911.30	34422911.41	0.0264	0.0126
Mercury	89534-11-15 05:03 G	34422999.58	34422999.71	34422999.85	0.0264	0.0020
Mercury	89535-02-11 15:07 G	34423088.00	34423088.13	34423088.26	0.0263	0.0088
Mercury	89535-05-11 01:12 G	34423176.46	34423176.55	34423176.64	0.0262	0.0195
Mars	89536-01-18 20:24 G	34423429.21	34423429.35	34423429.51	0.0261	0.0230
Earth	89544-01-08 16:05 G	34426340.94	34426341.17	34426341.40	0.0270	0.0101
Moon	89544-01-08 18:58 G	34426341.06	34426341.29	34426341.52	0.0270	0.0116 *
Venus	89544-01-17 16:34 G	34426350.05	34426350.19	34426350.35	0.0270	0.0191
Venus	89544-09-02 20:53 G	34426579.16	34426579.37	34426579.59	0.0273	0.0010
Moon	89545-01-20 03:36 G	34426718.50	34426718.65	34426718.83	0.0275	0.0208
Earth	89545-01-20 05:17 G	34426718.57	34426718.72	34426718.87	0.0275	0.0217 *
Venus	89545-04-20 02:53 G	34426808.46	34426808.62	34426808.78	0.0276	0.0180
Mercury	89550-06-04 18:43 G	34428680.11	34428680.28	34428680.46	0.0298	0.0087
Mercury	89550-09-01 20:10 G	34428769.18	34428769.34	34428769.51	0.0299	0.0132
Venus	89557-04-05 06:00 G	34431176.75	34431176.75	34431176.78	0.0293	0.0292

Earth	89557-07-06 22:34 G	34431269.21	34431269.44	34431269.67	0.0291	0.0092
Moon	89557-07-06 23:03 G	34431269.22	34431269.46	34431269.71	0.0291	0.0077 *
Venus	89557-11-21 04:34 G	34431406.49	34431406.69	34431406.90	0.0290	0.0063
Venus	89558-07-09 00:58 G	34431636.37	34431636.54	34431636.72	0.0287	0.0160
Earth	89558-07-20 18:15 G	34431648.24	34431648.26	34431648.31	0.0286	0.0284
Mercury	89564-01-05 21:36 G	34433643.29	34433643.40	34433643.50	0.0264	0.0161
Mercury	89564-04-03 07:27 G	34433731.68	34433731.81	34433731.94	0.0264	0.0055
Mercury	89564-06-30 17:31 G	34433820.10	34433820.23	34433820.36	0.0263	0.0053
Mercury	89564-09-27 03:22 G	34433908.54	34433908.64	34433908.75	0.0262	0.0159
Moon	89573-01-02 04:48 G	34436927.65	34436927.70	34436927.78	0.0269	0.0259
Earth	89573-01-02 07:12 G	34436927.71	34436927.80	34436927.92	0.0269	0.0243 *
Venus	89573-07-29 16:19 G	34437136.02	34437136.18	34437136.35	0.0271	0.0172
Earth	89574-01-14 17:03 G	34437304.97	34437305.21	34437305.45	0.0272	0.0066
Moon	89574-01-14 18:43 G	34437305.05	34437305.28	34437305.52	0.0272	0.0054 *
Venus	89574-03-15 20:53 G	34437365.15	34437365.37	34437365.58	0.0273	0.0012
Venus	89574-10-31 02:39 G	34437594.48	34437594.61	34437594.76	0.0276	0.0200
Mercury	89579-10-22 13:55 G	34439411.93	34439412.08	34439412.23	0.0298	0.0173
Mercury	89580-01-19 15:22 G	34439500.97	34439501.14	34439501.33	0.0298	0.0048
Mercury	89580-04-17 16:34 G	34439590.11	34439590.19	34439590.28	0.0299	0.0264
Moon	89586-06-30 20:39 G	34441855.27	34441855.36	34441855.48	0.0294	0.0261
Earth	89586-06-30 20:39 G	34441855.28	34441855.36	34441855.45	0.0294	0.0274 *
Venus	89586-10-16 09:36 G	34441962.82	34441962.90	34441963.00	0.0293	0.0264
Venus	89587-06-03 08:24 G	34442192.64	34442192.85	34442193.06	0.0290	0.0034
Earth	89587-07-14 21:22 G	34442234.18	34442234.39	34442234.62	0.0289	0.0115
Moon	89587-07-15 00:43 G	34442234.32	34442234.53	34442234.74	0.0289	0.0132 *
Venus	89588-01-19 04:48 G	34442422.54	34442422.70	34442422.86	0.0287	0.0188
Mercury	89593-05-25 00:15 G	34444375.42	34444375.51	34444375.60	0.0265	0.0194
Mercury	89593-08-21 10:05 G	34444463.80	34444463.92	34444464.05	0.0264	0.0087
Mercury	89593-11-17 20:10 G	34444552.21	34444552.34	34444552.47	0.0263	0.0020
Mercury	89594-02-14 06:15 G	34444640.64	34444640.76	34444640.87	0.0263	0.0127

Mercury	89594-05-13 16:05 G	34444729.12	34444729.17	34444729.24	0.0262	0.0234
Moon	89603-01-09 10:19 G	34447891.69	34447891.93	34447892.17	0.0270	0.0091
Earth	89603-01-09 12:29 G	34447891.78	34447892.02	34447892.26	0.0270	0.0078 *
Venus	89603-02-08 19:41 G	34447922.15	34447922.32	34447922.51	0.0271	0.0146
Venus	89603-09-26 00:15 G	34448151.30	34448151.51	34448151.72	0.0273	0.0038
Moon	89604-01-21 21:36 G	34448269.29	34448269.40	34448269.54	0.0275	0.0234
Earth	89604-01-22 01:27 G	34448269.45	34448269.56	34448269.69	0.0275	0.0239 *
Venus	89604-05-12 06:15 G	34448380.65	34448380.76	34448380.88	0.0276	0.0227
Mercury	89609-03-10 10:48 G	34450143.85	34450143.95	34450144.05	0.0298	0.0247
Mercury	89609-06-07 12:29 G	34450232.83	34450233.02	34450233.20	0.0299	0.0028
Mercury	89609-09-04 13:41 G	34450321.93	34450322.07	34450322.21	0.0299	0.0192
Mars	89610-04-12 00:00 G	34450541.30	34450541.50	34450541.73	0.0301	0.0178
Venus	89616-04-27 13:41 G	34452748.95	34452749.07	34452749.20	0.0292	0.0235
Moon	89616-07-07 18:58 G	34452820.05	34452820.29	34452820.53	0.0291	0.0045
Earth	89616-07-07 22:34 G	34452820.21	34452820.44	34452820.68	0.0291	0.0063 *
Venus	89616-12-13 12:00 G	34452978.79	34452979.00	34452979.22	0.0289	0.0007
Venus	89617-07-31 07:55 G	34453208.71	34453208.83	34453208.98	0.0286	0.0217
Mercury	89622-10-12 02:24 G	34455107.54	34455107.60	34455107.67	0.0265	0.0230
Mercury	89623-01-08 12:29 G	34455195.90	34455196.02	34455196.14	0.0264	0.0123
Mercury	89623-04-06 22:19 G	34455284.30	34455284.43	34455284.57	0.0263	0.0017
Mercury	89623-07-04 08:24 G	34455372.72	34455372.85	34455372.97	0.0263	0.0090
Mercury	89623-09-30 18:15 G	34455461.18	34455461.26	34455461.36	0.0262	0.0198
Earth	89632-01-04 02:39 G	34458478.49	34458478.61	34458478.77	0.0268	0.0222
Moon	89632-01-04 04:48 G	34458478.60	34458478.70	34458478.82	0.0268	0.0235 *
Venus	89632-08-20 18:43 G	34458708.10	34458708.28	34458708.47	0.0271	0.0128
Earth	89633-01-15 12:00 G	34458855.77	34458856.00	34458856.24	0.0272	0.0086
Moon	89633-01-15 15:51 G	34458855.92	34458856.16	34458856.40	0.0272	0.0079 *
Venus	89633-04-06 23:17 G	34458937.26	34458937.47	34458937.67	0.0273	0.0056
Venus	89633-11-22 05:03 G	34459166.63	34459166.71	34459166.82	0.0276	0.0246
Mercury	89638-10-25 06:43 G	34460964.62	34460964.78	34460964.95	0.0298	0.0120

Mercury	89639-01-22 08:10 G	34461053.67	34461053.84	34461054.02	0.0299	0.0100
Earth	89645-07-01 17:31 G	34463406.12	34463406.23	34463406.37	0.0294	0.0250
Moon	89645-07-01 21:22 G	34463406.25	34463406.39	34463406.55	0.0294	0.0232 *
Venus	89645-11-07 15:36 G	34463535.01	34463535.15	34463535.30	0.0293	0.0209
Venus	89646-06-25 14:10 G	34463764.88	34463765.09	34463765.30	0.0290	0.0021
Earth	89646-07-15 19:12 G	34463785.09	34463785.30	34463785.52	0.0290	0.0139
Moon	89646-07-15 21:51 G	34463785.20	34463785.41	34463785.62	0.0290	0.0156 *
Venus	89647-02-10 10:34 G	34463994.83	34463994.94	34463995.05	0.0287	0.0242
Mercury	89652-02-29 05:03 G	34465839.71	34465839.71	34465839.72	0.0265	0.0265
Mercury	89652-05-27 14:53 G	34465928.02	34465928.12	34465928.23	0.0265	0.0158
Mercury	89652-08-24 00:58 G	34466016.41	34466016.54	34466016.67	0.0264	0.0051
Mercury	89652-11-20 10:48 G	34466104.82	34466104.95	34466105.09	0.0263	0.0057
Mercury	89653-02-16 20:53 G	34466193.27	34466193.37	34466193.48	0.0263	0.0163
Moon	89662-01-10 03:51 G	34469442.42	34469442.66	34469442.89	0.0270	0.0068
Earth	89662-01-10 07:12 G	34469442.56	34469442.80	34469443.04	0.0270	0.0059 *
Venus	89662-03-02 21:51 G	34469494.22	34469494.41	34469494.61	0.0271	0.0101
Venus	89662-10-18 02:24 G	34469723.40	34469723.60	34469723.80	0.0273	0.0083
Earth	89663-01-22 19:41 G	34469820.24	34469820.32	34469820.41	0.0274	0.0258
Moon	89663-01-22 19:55 G	34469820.26	34469820.33	34469820.41	0.0274	0.0259 *
Venus	89663-06-04 08:10 G	34469952.82	34469952.84	34469952.88	0.0276	0.0273
Mercury	89668-03-13 03:07 G	34471696.50	34471696.63	34471696.77	0.0298	0.0198
Mercury	89668-06-10 04:48 G	34471785.52	34471785.70	34471785.88	0.0299	0.0023
Mercury	89668-09-07 06:00 G	34471874.65	34471874.75	34471874.86	0.0300	0.0241
Venus	89675-05-20 19:12 G	34474321.14	34474321.30	34474321.47	0.0292	0.0181
Moon	89675-07-09 17:46 G	34474371.01	34474371.24	34474371.48	0.0292	0.0022
Earth	89675-07-09 19:27 G	34474371.07	34474371.31	34474371.55	0.0292	0.0039 *
Venus	89676-01-05 17:17 G	34474551.02	34474551.22	34474551.44	0.0289	0.0050
Venus	89676-08-22 13:41 G	34474781.00	34474781.07	34474781.14	0.0286	0.0269
Mercury	89681-10-14 17:03 G	34476660.13	34476660.21	34476660.30	0.0264	0.0195
Mercury	89682-01-11 03:07 G	34476748.50	34476748.63	34476748.75	0.0264	0.0088

Mercury	89682-04-09 12:58 G	34476836.91	34476837.04	34476837.18	0.0263	0.0020
Mercury	89682-07-06 23:03 G	34476925.34	34476925.46	34476925.58	0.0263	0.0126
Mercury	89682-10-03 09:07 G	34477013.82	34477013.88	34477013.94	0.0262	0.0232
Earth	89691-01-04 21:36 G	34480029.25	34480029.40	34480029.57	0.0268	0.0201
Moon	89691-01-05 00:58 G	34480029.40	34480029.54	34480029.70	0.0268	0.0214 *
Venus	89691-01-26 18:00 G	34480051.21	34480051.25	34480051.31	0.0269	0.0261
Venus	89691-09-12 20:53 G	34480280.17	34480280.37	34480280.58	0.0271	0.0084
Moon	89692-01-17 05:31 G	34480406.50	34480406.73	34480406.97	0.0272	0.0105
Earth	89692-01-17 06:29 G	34480406.55	34480406.77	34480407.00	0.0272	0.0106 *
Venus	89692-04-29 01:12 G	34480509.36	34480509.55	34480509.75	0.0273	0.0101
Mercury	89697-07-30 21:36 G	34482428.36	34482428.40	34482428.44	0.0297	0.0290
Mercury	89697-10-27 23:17 G	34482517.29	34482517.47	34482517.65	0.0298	0.0069
Mercury	89698-01-25 00:29 G	34482606.37	34482606.52	34482606.69	0.0299	0.0150
Mars	89698-09-04 01:55 G	34482828.35	34482828.58	34482828.81	0.0300	0.0158
Earth	89704-07-03 12:58 G	34484956.90	34484957.04	34484957.20	0.0294	0.0228
Moon	89704-07-03 14:10 G	34484956.91	34484957.09	34484957.26	0.0294	0.0211 *
Venus	89704-11-30 20:10 G	34485107.17	34485107.34	34485107.53	0.0292	0.0156
Moon	89705-07-17 12:00 G	34485335.81	34485336.00	34485336.21	0.0290	0.0175
Earth	89705-07-17 14:53 G	34485335.92	34485336.12	34485336.33	0.0290	0.0160 *
Venus	89705-07-18 18:43 G	34485337.07	34485337.28	34485337.48	0.0290	0.0074
Mercury	89711-03-04 19:27 G	34487392.25	34487392.31	34487392.37	0.0265	0.0232
Mercury	89711-06-01 05:31 G	34487480.61	34487480.73	34487480.84	0.0265	0.0125
Mercury	89711-08-28 15:22 G	34487569.01	34487569.14	34487569.27	0.0264	0.0017
Mercury	89711-11-25 01:27 G	34487657.43	34487657.56	34487657.68	0.0263	0.0090
Mercury	89712-02-21 11:17 G	34487745.89	34487745.97	34487746.06	0.0263	0.0198
Venus	89720-08-08 20:53 G	34490837.28	34490837.37	34490837.48	0.0268	0.0234
Earth	89721-01-12 01:41 G	34490993.33	34490993.57	34490993.82	0.0270	0.0039
Moon	89721-01-12 02:24 G	34490993.37	34490993.60	34490993.84	0.0270	0.0044 *
Venus	89721-03-25 23:46 G	34491066.29	34491066.49	34491066.70	0.0271	0.0057
Venus	89721-11-10 04:19 G	34491295.50	34491295.68	34491295.87	0.0273	0.0128

Mercury	89727-03-17 19:27 G	34493249.16	34493249.31	34493249.48	0.0298	0.0149
Mercury	89727-06-14 21:07 G	34493338.20	34493338.38	34493338.56	0.0299	0.0071
Mercury	89727-09-11 22:05 G	34493427.38	34493427.42	34493427.47	0.0300	0.0289
Venus	89734-06-12 23:17 G	34495893.28	34495893.47	34495893.67	0.0292	0.0129
Earth	89734-07-11 14:10 G	34495921.85	34495922.09	34495922.33	0.0292	0.0017
Moon	89734-07-11 17:03 G	34495921.97	34495922.21	34495922.45	0.0292	0.0004 *
Venus	89735-01-28 21:22 G	34496123.20	34496123.39	34496123.60	0.0289	0.0101
Mercury	89740-10-18 07:27 G	34498212.71	34498212.81	34498212.92	0.0264	0.0162
Mercury	89741-01-14 17:31 G	34498301.10	34498301.23	34498301.36	0.0264	0.0055
Mercury	89741-04-13 03:22 G	34498389.51	34498389.64	34498389.78	0.0263	0.0053
Mercury	89741-07-10 13:27 G	34498477.96	34498478.06	34498478.17	0.0262	0.0160
Moon	89750-01-06 16:19 G	34501580.02	34501580.18	34501580.38	0.0268	0.0191
Earth	89750-01-06 16:48 G	34501580.03	34501580.20	34501580.40	0.0268	0.0181 *
Venus	89750-02-18 20:24 G	34501623.23	34501623.35	34501623.48	0.0269	0.0217
Venus	89750-10-05 23:17 G	34501852.26	34501852.47	34501852.68	0.0271	0.0039
Moon	89751-01-18 21:36 G	34501957.19	34501957.40	34501957.62	0.0272	0.0130
Earth	89751-01-19 01:12 G	34501957.34	34501957.55	34501957.78	0.0272	0.0126 *
Venus	89751-05-23 03:36 G	34502081.48	34502081.65	34502081.83	0.0274	0.0147
Mercury	89756-08-03 13:55 G	34503980.97	34503981.08	34503981.19	0.0297	0.0241
Mercury	89756-10-31 15:36 G	34504069.96	34504070.15	34504070.33	0.0298	0.0022
Mercury	89757-01-28 16:48 G	34504159.07	34504159.20	34504159.34	0.0299	0.0197
Moon	89763-07-05 03:51 G	34506507.48	34506507.66	34506507.85	0.0294	0.0192
Earth	89763-07-05 07:12 G	34506507.63	34506507.80	34506507.97	0.0294	0.0207 *
Venus	89763-12-24 00:00 G	34506679.31	34506679.50	34506679.70	0.0292	0.0105
Moon	89764-07-18 06:00 G	34506886.58	34506886.75	34506886.94	0.0290	0.0192
Earth	89764-07-18 09:07 G	34506886.70	34506886.88	34506887.08	0.0290	0.0181 *
Venus	89764-08-09 22:19 G	34506909.24	34506909.43	34506909.63	0.0289	0.0125
Mercury	89770-03-07 09:51 G	34508944.83	34508944.91	34508945.00	0.0265	0.0200
Mercury	89770-06-03 19:41 G	34509033.20	34509033.32	34509033.45	0.0265	0.0093
Mercury	89770-08-31 05:46 G	34509121.61	34509121.74	34509121.88	0.0264	0.0016

Mercury	89770-11-27 15:51 G	34509210.04	34509210.16	34509210.28	0.0263	0.0123
Mercury	89771-02-24 01:55 G	34509298.52	34509298.58	34509298.64	0.0263	0.0231
Venus	89779-08-31 23:17 G	34512409.33	34512409.47	34512409.63	0.0268	0.0191
Earth	89780-01-13 21:07 G	34512544.14	34512544.38	34512544.63	0.0270	0.0019
Moon	89780-01-14 00:43 G	34512544.29	34512544.53	34512544.78	0.0270	0.0021 *
Venus	89780-04-17 02:24 G	34512638.39	34512638.60	34512638.81	0.0271	0.0011
Venus	89780-12-02 06:58 G	34512867.63	34512867.79	34512867.95	0.0274	0.0175
Mercury	89786-03-20 12:15 G	34514801.84	34514802.01	34514802.18	0.0298	0.0097
Mercury	89786-06-17 13:41 G	34514890.90	34514891.07	34514891.24	0.0299	0.0122
Mars	89787-01-28 15:07 G	34515115.90	34515116.13	34515116.36	0.0301	0.0154
Venus	89793-07-05 03:51 G	34517465.46	34517465.66	34517465.87	0.0292	0.0076
Earth	89793-07-12 09:22 G	34517472.65	34517472.89	34517473.14	0.0292	0.0008
Moon	89793-07-12 12:15 G	34517472.76	34517473.01	34517473.26	0.0292	0.0018 *
Venus	89794-02-20 01:55 G	34517695.40	34517695.58	34517695.76	0.0289	0.0153
Mercury	89799-07-25 12:00 G	34519676.95	34519677.00	34519677.06	0.0265	0.0237
Mercury	89799-10-21 22:05 G	34519765.31	34519765.42	34519765.54	0.0264	0.0129
Mercury	89800-01-18 08:10 G	34519853.70	34519853.84	34519853.97	0.0264	0.0022
Mercury	89800-04-16 18:00 G	34519942.13	34519942.25	34519942.38	0.0263	0.0087
Mercury	89800-07-14 04:05 G	34520030.58	34520030.67	34520030.76	0.0262	0.0194
Moon	89809-01-08 10:19 G	34523130.75	34523130.93	34523131.13	0.0268	0.0166
Earth	89809-01-08 14:10 G	34523130.90	34523131.09	34523131.29	0.0268	0.0159 *
Venus	89809-03-13 23:46 G	34523195.33	34523195.49	34523195.66	0.0269	0.0171
Venus	89809-10-29 02:53 G	34523424.41	34523424.62	34523424.83	0.0271	0.0009
Moon	89810-01-20 21:22 G	34523508.20	34523508.39	34523508.59	0.0272	0.0154
Earth	89810-01-20 22:05 G	34523508.22	34523508.42	34523508.63	0.0272	0.0147 *
Venus	89810-06-15 07:12 G	34523653.66	34523653.80	34523653.95	0.0274	0.0195
Mercury	89815-08-08 06:58 G	34525533.65	34525533.79	34525533.93	0.0297	0.0187
Mercury	89815-11-05 08:24 G	34525622.67	34525622.85	34525623.04	0.0298	0.0033
Mercury	89816-02-02 09:36 G	34525711.81	34525711.90	34525712.00	0.0299	0.0251
Venus	89822-05-31 04:19 G	34528021.64	34528021.68	34528021.73	0.0295	0.0287

Moon	89822-07-06 23:46 G	34528058.30	34528058.49	34528058.68	0.0294	0.0172
Earth	89822-07-07 01:55 G	34528058.40	34528058.58	34528058.78	0.0294	0.0185 *
Venus	89823-01-16 04:19 G	34528251.48	34528251.68	34528251.90	0.0292	0.0052
Earth	89823-07-21 04:19 G	34528437.50	34528437.68	34528437.85	0.0290	0.0202
Moon	89823-07-21 05:46 G	34528437.58	34528437.74	34528437.90	0.0290	0.0208 *
Venus	89823-09-03 02:39 G	34528481.44	34528481.61	34528481.78	0.0289	0.0177
Mercury	89829-03-11 00:15 G	34530497.41	34530497.51	34530497.62	0.0265	0.0167
Mercury	89829-06-07 10:19 G	34530585.80	34530585.93	34530586.06	0.0265	0.0059
Mercury	89829-09-03 20:24 G	34530674.22	34530674.35	34530674.48	0.0264	0.0049
Mercury	89829-12-01 06:15 G	34530762.66	34530762.76	34530762.87	0.0263	0.0158
Venus	89838-09-24 03:22 G	34533981.47	34533981.64	34533981.83	0.0269	0.0143
Earth	89839-01-15 18:58 G	34534095.05	34534095.29	34534095.54	0.0270	0.0006
Moon	89839-01-15 20:10 G	34534095.09	34534095.34	34534095.60	0.0270	0.0007 *
Venus	89839-05-11 06:29 G	34534210.56	34534210.77	34534210.98	0.0271	0.0037
Venus	89839-12-26 10:48 G	34534439.84	34534439.95	34534440.08	0.0274	0.0224
Mercury	89844-12-25 03:51 G	34536265.58	34536265.66	34536265.76	0.0297	0.0260
Mercury	89845-03-24 05:46 G	34536354.55	34536354.74	34536354.92	0.0298	0.0040
Mercury	89845-06-21 06:58 G	34536443.65	34536443.79	34536443.94	0.0299	0.0179
Venus	89851-12-11 09:07 G	34538807.79	34538807.88	34538807.99	0.0295	0.0258
Moon	89852-07-14 04:05 G	34539023.42	34539023.67	34539023.92	0.0292	0.0036
Earth	89852-07-14 05:46 G	34539023.50	34539023.74	34539023.99	0.0292	0.0029 *
Venus	89852-07-28 09:07 G	34539037.67	34539037.88	34539038.09	0.0292	0.0022
Venus	89853-03-15 06:58 G	34539267.64	34539267.79	34539267.94	0.0289	0.0206
Mercury	89858-07-29 02:53 G	34541229.53	34541229.62	34541229.70	0.0265	0.0201
Mercury	89858-10-25 12:43 G	34541317.91	34541318.03	34541318.16	0.0264	0.0093
Mercury	89859-01-21 22:48 G	34541406.31	34541406.45	34541406.58	0.0264	0.0015
Mercury	89859-04-20 08:53 G	34541494.75	34541494.87	34541494.98	0.0263	0.0123
Mercury	89859-07-17 18:43 G	34541583.23	34541583.28	34541583.35	0.0263	0.0231
Moon	89868-01-10 12:29 G	34544681.82	34544682.02	34544682.23	0.0268	0.0137
Earth	89868-01-10 13:41 G	34544681.86	34544682.07	34544682.29	0.0268	0.0134 *

Venus	89868-04-05 04:48 G	34544767.51	34544767.70	34544767.88	0.0269	0.0123
Venus	89868-11-20 07:55 G	34544996.62	34544996.83	34544997.03	0.0272	0.0059
Earth	89869-01-21 21:36 G	34545059.21	34545059.40	34545059.59	0.0272	0.0172
Moon	89869-01-22 00:43 G	34545059.36	34545059.53	34545059.71	0.0272	0.0181 *
Venus	89869-07-07 12:15 G	34545225.92	34545226.01	34545226.11	0.0274	0.0246
Mercury	89874-08-11 01:12 G	34547086.38	34547086.55	34547086.72	0.0297	0.0123
Mercury	89874-11-08 02:39 G	34547175.44	34547175.61	34547175.78	0.0298	0.0096
Mars	89875-06-24 03:07 G	34547403.41	34547403.63	34547403.87	0.0300	0.0156
Venus	89881-06-22 10:34 G	34549593.82	34549593.94	34549594.08	0.0294	0.0232
Earth	89881-07-08 00:00 G	34549609.31	34549609.50	34549609.72	0.0294	0.0158
Moon	89881-07-08 02:10 G	34549609.39	34549609.59	34549609.80	0.0294	0.0148 *
Venus	89882-02-07 10:48 G	34549823.73	34549823.95	34549824.16	0.0292	0.0008
Earth	89882-07-22 02:10 G	34549988.45	34549988.59	34549988.75	0.0289	0.0227
Moon	89882-07-22 05:46 G	34549988.60	34549988.74	34549988.89	0.0289	0.0230 *
Venus	89882-09-25 08:39 G	34550053.74	34550053.86	34550053.99	0.0289	0.0232
Mercury	89887-12-16 05:03 G	34551961.66	34551961.71	34551961.77	0.0266	0.0239
Mercury	89888-03-13 15:07 G	34552050.01	34552050.13	34552050.24	0.0265	0.0131
Mercury	89888-06-10 01:12 G	34552138.41	34552138.55	34552138.68	0.0265	0.0023
Mercury	89888-09-06 11:03 G	34552226.84	34552226.96	34552227.09	0.0264	0.0087
Mercury	89888-12-03 21:07 G	34552315.30	34552315.38	34552315.47	0.0263	0.0195
Earth	89897-01-04 15:07 G	34555269.10	34555269.13	34555269.15	0.0266	0.0265
Venus	89897-10-16 09:22 G	34555553.69	34555553.89	34555554.09	0.0269	0.0093
Moon	89898-01-16 16:48 G	34555645.95	34555646.20	34555646.45	0.0270	0.0037
Earth	89898-01-16 19:55 G	34555646.09	34555646.33	34555646.58	0.0270	0.0032 *
Venus	89898-06-02 12:29 G	34555782.82	34555783.02	34555783.22	0.0271	0.0088
Mercury	89903-12-29 23:03 G	34557818.32	34557818.46	34557818.60	0.0297	0.0189
Mercury	89904-03-28 00:29 G	34557907.34	34557907.52	34557907.71	0.0298	0.0030
Mercury	89904-06-25 01:41 G	34557996.47	34557996.57	34557996.67	0.0299	0.0248
Venus	89911-01-03 16:48 G	34560380.05	34560380.20	34560380.36	0.0294	0.0200
Moon	89911-07-17 02:10 G	34560574.35	34560574.59	34560574.83	0.0292	0.0063

Earth	89911-07-17 05:46 G	34560574.50	34560574.74	34560574.98	0.0292	0.0057	*
Venus	89911-08-21 16:19 G	34560609.97	34560610.18	34560610.39	0.0291	0.0036	
Venus	89912-04-07 13:55 G	34560840.00	34560840.08	34560840.17	0.0288	0.0263	
Mercury	89917-08-01 17:46 G	34562782.14	34562782.24	34562782.34	0.0265	0.0163	
Mercury	89917-10-29 03:51 G	34562870.53	34562870.66	34562870.79	0.0265	0.0055	
Mercury	89918-01-25 13:41 G	34562958.94	34562959.07	34562959.21	0.0264	0.0055	
Mercury	89918-04-23 23:46 G	34563047.39	34563047.49	34563047.60	0.0263	0.0163	
Venus	89926-09-12 09:51 G	34566110.84	34566110.91	34566111.00	0.0267	0.0246	
Earth	89927-01-12 16:48 G	34566232.98	34566233.20	34566233.43	0.0268	0.0105	
Moon	89927-01-12 20:10 G	34566233.12	34566233.34	34566233.57	0.0268	0.0103	*
Venus	89927-04-29 12:00 G	34566339.79	34566340.00	34566340.20	0.0270	0.0070	
Venus	89927-12-14 15:07 G	34566568.94	34566569.13	34566569.33	0.0272	0.0113	
Earth	89928-01-25 00:58 G	34566610.39	34566610.54	34566610.72	0.0272	0.0202	
Moon	89928-01-25 03:51 G	34566610.51	34566610.66	34566610.83	0.0272	0.0211	*
Mercury	89933-05-17 19:12 G	34568550.23	34568550.30	34568550.38	0.0296	0.0266	
Mercury	89933-08-14 20:53 G	34568639.19	34568639.37	34568639.55	0.0297	0.0047	
Mercury	89933-11-11 22:05 G	34568728.27	34568728.42	34568728.57	0.0298	0.0171	
Earth	89940-07-10 01:55 G	34571160.36	34571160.58	34571160.80	0.0294	0.0127	
Moon	89940-07-10 05:31 G	34571160.51	34571160.73	34571160.96	0.0294	0.0118	*
Venus	89940-07-15 19:27 G	34571166.14	34571166.31	34571166.48	0.0294	0.0171	
Venus	89941-03-02 18:58 G	34571396.08	34571396.29	34571396.50	0.0291	0.0064	
Earth	89941-07-24 03:36 G	34571539.54	34571539.65	34571539.77	0.0289	0.0255	
Moon	89941-07-24 04:05 G	34571539.56	34571539.67	34571539.79	0.0289	0.0255	*
Mercury	89946-12-19 20:10 G	34573514.26	34573514.34	34573514.43	0.0266	0.0199	
Mercury	89947-03-18 06:15 G	34573602.64	34573602.76	34573602.89	0.0266	0.0090	
Mercury	89947-06-14 16:19 G	34573691.05	34573691.18	34573691.31	0.0265	0.0019	
Mercury	89947-09-11 02:24 G	34573779.48	34573779.60	34573779.72	0.0264	0.0127	
Mercury	89947-12-08 12:29 G	34573867.97	34573868.02	34573868.08	0.0264	0.0236	
Moon	89956-01-07 15:51 G	34576820.04	34576820.16	34576820.27	0.0267	0.0236	
Earth	89956-01-07 18:58 G	34576820.18	34576820.29	34576820.41	0.0267	0.0235	*

Venus	89956-03-24 14:39 G	34576897.00	34576897.11	34576897.24	0.0267	0.0218
Venus	89956-11-08 17:03 G	34577126.01	34577126.21	34577126.42	0.0270	0.0040
Moon	89957-01-18 21:51 G	34577197.18	34577197.41	34577197.64	0.0270	0.0071
Earth	89957-01-19 00:29 G	34577197.28	34577197.52	34577197.76	0.0270	0.0063 *
Venus	89957-06-25 20:39 G	34577355.18	34577355.36	34577355.54	0.0272	0.0143
Mercury	89963-01-01 19:27 G	34579371.14	34579371.31	34579371.49	0.0297	0.0107
Mercury	89963-03-31 20:53 G	34579460.20	34579460.37	34579460.54	0.0298	0.0112
Mars	89963-11-18 19:41 G	34579692.14	34579692.32	34579692.51	0.0300	0.0216
Moon	89969-07-04 01:55 G	34581746.54	34581746.58	34581746.62	0.0296	0.0291
Venus	89970-01-26 03:22 G	34581952.45	34581952.64	34581952.82	0.0294	0.0136
Moon	89970-07-18 09:36 G	34582125.69	34582125.90	34582126.13	0.0292	0.0095
Earth	89970-07-18 10:05 G	34582125.69	34582125.92	34582126.15	0.0292	0.0091 *
Venus	89970-09-13 02:24 G	34582182.40	34582182.60	34582182.80	0.0291	0.0099
Mercury	89976-05-07 23:17 G	34584246.41	34584246.47	34584246.54	0.0266	0.0228
Mercury	89976-08-04 09:22 G	34584334.77	34584334.89	34584335.01	0.0265	0.0119
Mercury	89976-10-31 19:27 G	34584423.17	34584423.31	34584423.44	0.0265	0.0014
Mercury	89977-01-28 05:17 G	34584511.60	34584511.72	34584511.85	0.0264	0.0099
Mercury	89977-04-26 15:22 G	34584600.07	34584600.14	34584600.23	0.0263	0.0207
Venus	89985-10-04 19:12 G	34587683.16	34587683.30	34587683.45	0.0268	0.0192
Earth	89986-01-13 23:46 G	34587784.25	34587784.49	34587784.73	0.0269	0.0071
Moon	89986-01-14 02:24 G	34587784.35	34587784.60	34587784.84	0.0269	0.0066 *
Venus	89986-05-21 21:22 G	34587912.18	34587912.39	34587912.60	0.0270	0.0014
Venus	89987-01-06 00:58 G	34588141.38	34588141.54	34588141.70	0.0273	0.0171
Moon	89987-01-26 06:58 G	34588161.69	34588161.79	34588161.89	0.0273	0.0248
Earth	89987-01-26 08:39 G	34588161.75	34588161.86	34588161.99	0.0273	0.0235 *
Mercury	89992-05-20 16:48 G	34590103.06	34590103.20	34590103.35	0.0297	0.0175
Mercury	89992-08-17 18:29 G	34590192.08	34590192.27	34590192.45	0.0298	0.0045
Mercury	89992-11-14 19:27 G	34590281.23	34590281.31	34590281.40	0.0298	0.0262
Moon	89999-07-12 08:39 G	34592711.63	34592711.86	34592712.11	0.0293	0.0085
Earth	89999-07-12 09:22 G	34592711.66	34592711.89	34592712.12	0.0293	0.0088 *

Venus	89999-08-08 07:27 G	34592738.61	34592738.81	34592739.01	0.0293	0.0105
Venus	90000-03-25 06:29 G	34592968.58	34592968.77	34592968.96	0.0290	0.0129
Moon	90000-07-25 06:29 G	34593090.75	34593090.77	34593090.81	0.0289	0.0286

91ST MILLENNIUM CE

This is a list of transits visible from Saturn in the 91st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	90005-09-25 01:55 G		34594978.56	34594978.58	34594978.60	0.0267	0.0263	
Mercury	90005-12-22 11:46 G		34595066.89	34595066.99	34595067.10	0.0266	0.0154	
Mercury	90006-03-20 21:51 G		34595155.28	34595155.41	34595155.55	0.0265	0.0046	
Mercury	90006-06-17 07:55 G		34595243.71	34595243.83	34595243.96	0.0265	0.0065	
Mercury	90006-09-13 18:00 G		34595332.16	34595332.25	34595332.36	0.0264	0.0174	
Moon	90015-01-09 00:29 G		34598371.36	34598371.52	34598371.68	0.0267	0.0201	
Earth	90015-01-09 03:07 G		34598371.47	34598371.63	34598371.79	0.0267	0.0200	*
Venus	90015-04-17 00:43 G		34598469.37	34598469.53	34598469.71	0.0268	0.0162	
Venus	90015-12-02 03:22 G		34598698.43	34598698.64	34598698.86	0.0270	0.0018	
Earth	90016-01-21 09:07 G		34598748.66	34598748.88	34598749.12	0.0271	0.0099	
Moon	90016-01-21 11:03 G		34598748.75	34598748.96	34598749.19	0.0271	0.0111	*
Venus	90016-07-18 07:12 G		34598927.67	34598927.80	34598927.94	0.0273	0.0203	
Mercury	90021-10-07 16:05 G		34600835.06	34600835.17	34600835.30	0.0296	0.0228	
Mercury	90022-01-04 17:46 G		34600924.06	34600924.24	34600924.42	0.0297	0.0009	
Mercury	90022-04-03 18:58 G		34601013.16	34601013.29	34601013.42	0.0298	0.0209	
Earth	90028-07-05 14:24 G		34603297.99	34603298.10	34603298.23	0.0296	0.0258	

Moon	90028-07-05 15:51 G	34603298.04	34603298.16	34603298.28	0.0296	0.0254 *
Venus	90029-02-17 16:19 G	34603524.98	34603525.18	34603525.39	0.0293	0.0068
Earth	90029-07-19 18:58 G	34603677.07	34603677.29	34603677.51	0.0291	0.0130
Moon	90029-07-19 22:34 G	34603677.22	34603677.44	34603677.65	0.0291	0.0130 *
Venus	90029-10-05 15:07 G	34603754.96	34603755.13	34603755.31	0.0290	0.0165
Mercury	90035-05-11 15:07 G	34605799.04	34605799.13	34605799.23	0.0266	0.0180
Mercury	90035-08-08 01:12 G	34605887.42	34605887.55	34605887.68	0.0265	0.0071
Mercury	90035-11-04 11:17 G	34605975.84	34605975.97	34605976.10	0.0265	0.0039
Mercury	90036-01-31 21:22 G	34606064.28	34606064.39	34606064.50	0.0264	0.0148
Mars	90036-04-26 16:34 G	34606149.96	34606150.19	34606150.43	0.0263	0.0181
Mercury	90036-04-29 07:27 G	34606152.79	34606152.81	34606152.84	0.0263	0.0257
Venus	90044-10-27 06:15 G	34609255.59	34609255.76	34609255.95	0.0268	0.0135
Moon	90045-01-15 08:10 G	34609335.58	34609335.84	34609336.09	0.0269	0.0025
Earth	90045-01-15 10:05 G	34609335.68	34609335.92	34609336.17	0.0269	0.0034 *
Venus	90045-06-13 08:53 G	34609484.67	34609484.87	34609485.08	0.0271	0.0047
Earth	90046-01-27 19:55 G	34609713.33	34609713.33	34609713.35	0.0273	0.0273
Venus	90046-01-28 12:58 G	34609713.93	34609714.04	34609714.15	0.0273	0.0233
Mercury	90051-02-24 14:24 G	34611567.07	34611567.10	34611567.14	0.0296	0.0288
Mercury	90051-05-24 16:05 G	34611655.99	34611656.17	34611656.35	0.0297	0.0070
Mercury	90051-08-21 17:17 G	34611745.07	34611745.22	34611745.38	0.0298	0.0149
Venus	90058-01-12 22:19 G	34614081.35	34614081.43	34614081.51	0.0295	0.0271
Moon	90058-07-13 17:46 G	34614263.01	34614263.24	34614263.49	0.0293	0.0046
Earth	90058-07-13 21:51 G	34614263.17	34614263.41	34614263.65	0.0293	0.0044 *
Venus	90058-08-30 22:34 G	34614311.23	34614311.44	34614311.65	0.0292	0.0033
Venus	90059-04-17 21:07 G	34614541.23	34614541.38	34614541.54	0.0289	0.0198
Mercury	90064-09-27 18:00 G	34616531.18	34616531.25	34616531.33	0.0267	0.0212
Mercury	90064-12-25 04:05 G	34616619.55	34616619.67	34616619.80	0.0266	0.0102
Mercury	90065-03-23 14:10 G	34616707.96	34616708.09	34616708.23	0.0265	0.0009
Mercury	90065-06-20 00:15 G	34616796.39	34616796.51	34616796.63	0.0265	0.0117
Mercury	90065-09-16 10:19 G	34616884.87	34616884.93	34616885.00	0.0264	0.0226

Earth	90074-01-10 13:27 G	34619922.88	34619923.06	34619923.27	0.0268	0.0163
Moon	90074-01-10 14:53 G	34619922.93	34619923.12	34619923.31	0.0268	0.0162 *
Venus	90074-05-09 12:29 G	34620041.83	34620042.02	34620042.22	0.0269	0.0104
Venus	90074-12-24 15:36 G	34620270.95	34620271.15	34620271.35	0.0271	0.0079
Earth	90075-01-22 20:53 G	34620300.16	34620300.37	34620300.59	0.0271	0.0138
Moon	90075-01-23 00:43 G	34620300.32	34620300.53	34620300.73	0.0271	0.0152 *
Venus	90075-08-10 19:41 G	34620500.28	34620500.32	34620500.38	0.0273	0.0266
Mercury	90080-10-10 16:05 G	34622388.00	34622388.17	34622388.34	0.0297	0.0117
Mercury	90081-01-07 17:17 G	34622477.05	34622477.22	34622477.40	0.0298	0.0102
Earth	90087-07-08 05:31 G	34624849.57	34624849.73	34624849.91	0.0295	0.0209
Moon	90087-07-08 09:07 G	34624849.72	34624849.88	34624850.07	0.0295	0.0207 *
Venus	90087-07-26 08:53 G	34624867.75	34624867.87	34624868.00	0.0295	0.0232
Venus	90088-03-12 08:53 G	34625097.66	34625097.87	34625098.08	0.0292	0.0007
Earth	90088-07-21 08:53 G	34625228.69	34625228.87	34625229.07	0.0291	0.0176
Moon	90088-07-21 11:03 G	34625228.77	34625228.96	34625229.17	0.0291	0.0172 *
Venus	90088-10-28 07:12 G	34625327.68	34625327.80	34625327.92	0.0289	0.0237
Mercury	90094-02-14 21:36 G	34627263.34	34627263.40	34627263.46	0.0267	0.0236
Mercury	90094-05-14 07:41 G	34627351.71	34627351.82	34627351.94	0.0266	0.0126
Mercury	90094-08-10 17:46 G	34627440.11	34627440.24	34627440.37	0.0265	0.0017
Mercury	90094-11-07 03:51 G	34627528.54	34627528.66	34627528.79	0.0264	0.0093
Mercury	90095-02-03 13:55 G	34627617.00	34627617.08	34627617.17	0.0264	0.0202
Venus	90103-04-05 17:31 G	34630599.16	34630599.23	34630599.30	0.0267	0.0250
Venus	90103-11-20 19:27 G	34630828.11	34630828.31	34630828.51	0.0269	0.0073
Moon	90104-01-18 20:10 G	34630887.09	34630887.34	34630887.58	0.0270	0.0017
Earth	90104-01-18 23:31 G	34630887.24	34630887.48	34630887.73	0.0270	0.0008 *
Venus	90104-07-06 22:19 G	34631057.25	34631057.43	34631057.63	0.0272	0.0111
Mercury	90110-02-28 15:07 G	34633119.99	34633120.13	34633120.29	0.0296	0.0170
Mercury	90110-05-28 16:48 G	34633209.01	34633209.20	34633209.38	0.0297	0.0049
Mercury	90110-08-25 17:46 G	34633298.16	34633298.24	34633298.32	0.0298	0.0265
Venus	90117-02-05 16:34 G	34635654.04	34635654.19	34635654.35	0.0294	0.0194

Moon	90117-07-16 12:58 G	34635814.80	34635815.04	34635815.27	0.0292	0.0004
Earth	90117-07-16 14:39 G	34635814.86	34635815.11	34635815.35	0.0292	0.0008 *
Venus	90117-09-23 16:19 G	34635883.97	34635884.18	34635884.39	0.0291	0.0043
Venus	90118-05-11 13:55 G	34636114.02	34636114.08	34636114.16	0.0288	0.0272
Mercury	90123-07-06 00:43 G	34637995.52	34637995.53	34637995.54	0.0267	0.0265
Mercury	90123-10-02 10:48 G	34638083.84	34638083.95	34638084.06	0.0266	0.0156
Mercury	90123-12-29 20:53 G	34638172.24	34638172.37	34638172.50	0.0266	0.0046
Mercury	90124-03-27 06:58 G	34638260.66	34638260.79	34638260.92	0.0265	0.0064
Mercury	90124-06-23 17:03 G	34638349.11	34638349.21	34638349.31	0.0264	0.0173
Mars	90124-09-22 01:55 G	34638439.27	34638439.58	34638439.89	0.0264	0.0081
Venus	90132-10-15 23:31 G	34641385.36	34641385.48	34641385.60	0.0267	0.0220
Earth	90133-01-13 02:10 G	34641474.38	34641474.59	34641474.82	0.0268	0.0122
Moon	90133-01-13 05:46 G	34641474.53	34641474.74	34641474.97	0.0268	0.0122 *
Venus	90133-06-02 01:41 G	34641614.36	34641614.57	34641614.78	0.0269	0.0042
Venus	90134-01-17 05:03 G	34641843.53	34641843.71	34641843.89	0.0272	0.0142
Earth	90134-01-25 10:34 G	34641851.77	34641851.94	34641852.13	0.0272	0.0180
Moon	90134-01-25 10:48 G	34641851.79	34641851.95	34641852.15	0.0272	0.0193 *
Jupiter	90136-01-24 03:22 G	34642580.23	34642580.64	34642581.06	0.0280	0.0139
Mercury	90139-07-18 15:07 G	34643852.01	34643852.13	34643852.26	0.0296	0.0217
Mercury	90139-10-15 16:48 G	34643941.01	34643941.20	34643941.38	0.0297	0.0008
Mercury	90140-01-12 17:46 G	34644030.12	34644030.24	34644030.37	0.0298	0.0219
Earth	90146-07-11 00:15 G	34646401.31	34646401.51	34646401.72	0.0295	0.0157
Moon	90146-07-11 01:55 G	34646401.37	34646401.58	34646401.80	0.0295	0.0153 *
Venus	90146-08-19 03:51 G	34646440.48	34646440.66	34646440.84	0.0294	0.0153
Venus	90147-04-06 03:22 G	34646670.44	34646670.64	34646670.84	0.0291	0.0084
Moon	90147-07-25 00:00 G	34646780.34	34646780.50	34646780.67	0.0290	0.0216
Earth	90147-07-25 02:24 G	34646780.45	34646780.60	34646780.76	0.0290	0.0224 *
Mercury	90153-02-18 14:24 G	34648816.01	34648816.10	34648816.20	0.0266	0.0178
Mercury	90153-05-18 00:29 G	34648904.39	34648904.52	34648904.65	0.0265	0.0068
Mercury	90153-08-14 10:34 G	34648992.81	34648992.94	34648993.07	0.0265	0.0042

Mercury	90153-11-10 20:39 G	34649081.25	34649081.36	34649081.47	0.0264	0.0151
Mercury	90154-02-07 06:43 G	34649169.77	34649169.78	34649169.80	0.0264	0.0261
Moon	90162-01-08 04:19 G	34652061.61	34652061.68	34652061.78	0.0267	0.0249
Earth	90162-01-08 08:39 G	34652061.76	34652061.86	34652061.95	0.0267	0.0245 *
Venus	90162-04-28 06:29 G	34652171.63	34652171.77	34652171.93	0.0268	0.0190
Venus	90162-12-13 09:07 G	34652400.67	34652400.88	34652401.09	0.0270	0.0011
Moon	90163-01-20 12:43 G	34652438.80	34652439.03	34652439.27	0.0270	0.0058
Earth	90163-01-20 13:55 G	34652438.84	34652439.08	34652439.32	0.0270	0.0050 *
Venus	90163-07-30 12:29 G	34652629.86	34652630.02	34652630.18	0.0272	0.0176
Mercury	90168-12-04 14:53 G	34654584.05	34654584.12	34654584.20	0.0296	0.0266
Mercury	90169-03-03 16:34 G	34654673.01	34654673.19	34654673.37	0.0297	0.0047
Mercury	90169-05-31 17:46 G	34654762.09	34654762.24	34654762.39	0.0298	0.0171
Venus	90176-02-29 12:43 G	34657226.84	34657227.03	34657227.23	0.0293	0.0113
Earth	90176-07-18 10:19 G	34657366.69	34657366.93	34657367.17	0.0291	0.0059
Moon	90176-07-18 12:29 G	34657366.79	34657367.02	34657367.26	0.0291	0.0056 *
Venus	90176-10-16 11:46 G	34657456.80	34657456.99	34657457.18	0.0290	0.0122
Mercury	90182-07-08 17:46 G	34659548.16	34659548.24	34659548.32	0.0267	0.0206
Mercury	90182-10-05 03:36 G	34659636.53	34659636.65	34659636.78	0.0266	0.0097
Mercury	90183-01-01 13:41 G	34659724.94	34659725.07	34659725.21	0.0265	0.0015
Mercury	90183-03-30 23:46 G	34659813.38	34659813.49	34659813.61	0.0265	0.0123
Mercury	90183-06-27 10:05 G	34659901.86	34659901.92	34659901.98	0.0264	0.0232
Venus	90191-11-08 12:43 G	34662957.86	34662958.03	34662958.20	0.0268	0.0160
Earth	90192-01-15 15:51 G	34663025.93	34663026.16	34663026.40	0.0269	0.0081
Moon	90192-01-15 17:17 G	34663025.98	34663026.22	34663026.47	0.0269	0.0078 *
Venus	90192-06-24 15:07 G	34663186.92	34663187.13	34663187.34	0.0270	0.0021
Moon	90193-01-26 22:19 G	34663403.31	34663403.43	34663403.55	0.0272	0.0237
Earth	90193-01-27 01:12 G	34663403.42	34663403.55	34663403.70	0.0272	0.0223 *
Venus	90193-02-08 18:58 G	34663416.16	34663416.29	34663416.43	0.0273	0.0207
Mercury	90198-07-21 16:34 G	34665405.01	34665405.19	34665405.36	0.0297	0.0094
Mercury	90198-10-18 17:46 G	34665494.08	34665494.24	34665494.41	0.0298	0.0125

Mars	90198-12-18 08:39 G	34665554.80	34665554.86	34665554.93	0.0298	0.0288
Moon	90205-07-13 18:43 G	34667953.05	34667953.28	34667953.52	0.0294	0.0100
Earth	90205-07-13 20:53 G	34667953.14	34667953.37	34667953.60	0.0294	0.0102 *
Venus	90205-09-12 00:00 G	34668013.30	34668013.50	34668013.71	0.0293	0.0072
Venus	90206-04-29 23:03 G	34668243.28	34668243.46	34668243.63	0.0290	0.0163
Moon	90206-07-27 18:15 G	34668332.17	34668332.26	34668332.35	0.0289	0.0267
Earth	90206-07-27 21:36 G	34668332.33	34668332.40	34668332.48	0.0289	0.0274 *
Mercury	90211-11-26 21:22 G	34670280.33	34670280.39	34670280.46	0.0267	0.0228
Mercury	90212-02-23 07:27 G	34670368.69	34670368.81	34670368.93	0.0266	0.0118
Mercury	90212-05-21 17:31 G	34670457.10	34670457.23	34670457.36	0.0265	0.0009
Mercury	90212-08-18 03:36 G	34670545.53	34670545.65	34670545.78	0.0264	0.0101
Mercury	90212-11-14 13:41 G	34670634.00	34670634.07	34670634.15	0.0264	0.0211
Mars	90213-02-18 04:19 G	34670729.36	34670729.68	34670730.00	0.0263	0.0057
Moon	90221-01-10 19:55 G	34673613.19	34673613.33	34673613.49	0.0267	0.0206
Earth	90221-01-10 21:22 G	34673613.24	34673613.39	34673613.56	0.0267	0.0205 *
Venus	90221-05-21 19:55 G	34673744.15	34673744.33	34673744.52	0.0268	0.0128
Venus	90222-01-05 22:34 G	34673973.23	34673973.44	34673973.65	0.0271	0.0054
Earth	90222-01-23 03:51 G	34673990.43	34673990.66	34673990.90	0.0271	0.0092
Moon	90222-01-23 06:43 G	34673990.56	34673990.78	34673991.01	0.0271	0.0102 *
Venus	90222-08-23 02:39 G	34674202.51	34674202.61	34674202.71	0.0273	0.0240
Mercury	90227-12-09 16:05 G	34676137.01	34676137.17	34676137.34	0.0297	0.0144
Mercury	90228-03-07 17:31 G	34676226.06	34676226.23	34676226.41	0.0298	0.0076
Mercury	90228-06-04 18:43 G	34676315.25	34676315.28	34676315.31	0.0298	0.0293
Earth	90234-07-08 02:10 G	34678539.51	34678539.59	34678539.68	0.0295	0.0274
Moon	90234-07-08 04:19 G	34678539.60	34678539.68	34678539.79	0.0295	0.0269 *
Venus	90234-08-07 08:53 G	34678569.79	34678569.87	34678569.95	0.0295	0.0271
Venus	90235-03-25 09:07 G	34678799.67	34678799.88	34678800.09	0.0292	0.0032
Earth	90235-07-22 06:29 G	34678918.55	34678918.77	34678918.99	0.0291	0.0112
Moon	90235-07-22 09:51 G	34678918.69	34678918.91	34678919.14	0.0291	0.0111 *
Venus	90235-11-10 07:12 G	34679029.66	34679029.80	34679029.96	0.0289	0.0201

Mercury	90241-04-15 00:43 G	34681012.50	34681012.53	34681012.57	0.0267	0.0255
Mercury	90241-07-12 10:34 G	34681100.84	34681100.94	34681101.06	0.0266	0.0146
Mercury	90241-10-08 20:39 G	34681189.23	34681189.36	34681189.50	0.0265	0.0038
Mercury	90242-01-05 06:43 G	34681277.66	34681277.78	34681277.91	0.0265	0.0074
Mercury	90242-04-03 16:48 G	34681366.11	34681366.20	34681366.30	0.0264	0.0183
Venus	90250-12-02 00:58 G	34684530.34	34684530.54	34684530.74	0.0269	0.0101
Moon	90251-01-18 01:12 G	34684577.30	34684577.55	34684577.80	0.0269	0.0033
Earth	90251-01-18 04:05 G	34684577.43	34684577.67	34684577.92	0.0269	0.0041 *
Venus	90251-07-19 03:51 G	34684759.46	34684759.66	34684759.86	0.0271	0.0082
Earth	90252-01-30 14:24 G	34684955.05	34684955.10	34684955.17	0.0273	0.0264
Venus	90252-03-04 07:55 G	34684988.82	34684988.83	34684988.88	0.0273	0.0271
Mercury	90257-04-27 15:22 G	34686869.01	34686869.14	34686869.28	0.0296	0.0195
Mercury	90257-07-25 17:03 G	34686958.03	34686958.21	34686958.39	0.0297	0.0024
Mercury	90257-10-22 18:15 G	34687047.16	34687047.26	34687047.37	0.0298	0.0242
Venus	90264-02-17 19:27 G	34689356.19	34689356.31	34689356.45	0.0295	0.0231
Moon	90264-07-15 13:12 G	34689504.81	34689505.05	34689505.29	0.0293	0.0047
Earth	90264-07-15 16:48 G	34689504.96	34689505.20	34689505.44	0.0293	0.0049 *
Venus	90264-10-04 19:41 G	34689586.11	34689586.32	34689586.53	0.0292	0.0009
Venus	90265-05-22 18:00 G	34689816.14	34689816.25	34689816.37	0.0290	0.0241
Mercury	90270-11-29 14:24 G	34691833.00	34691833.10	34691833.20	0.0266	0.0168
Mercury	90271-02-26 00:29 G	34691921.39	34691921.52	34691921.65	0.0265	0.0058
Mercury	90271-05-25 10:34 G	34692009.81	34692009.94	34692010.07	0.0265	0.0051
Mercury	90271-08-21 20:39 G	34692098.25	34692098.36	34692098.46	0.0264	0.0160
Venus	90279-10-28 06:00 G	34695087.68	34695087.75	34695087.83	0.0267	0.0246
Earth	90280-01-13 08:24 G	34695164.67	34695164.85	34695165.05	0.0268	0.0168
Moon	90280-01-13 11:17 G	34695164.79	34695164.97	34695165.17	0.0268	0.0165 *
Venus	90280-06-13 07:55 G	34695316.63	34695316.83	34695317.04	0.0269	0.0069
Earth	90281-01-24 15:51 G	34695541.95	34695542.16	34695542.38	0.0271	0.0131
Moon	90281-01-24 19:12 G	34695542.09	34695542.30	34695542.52	0.0271	0.0143 *
Venus	90281-01-28 10:48 G	34695545.77	34695545.95	34695546.15	0.0271	0.0116

Mercury	90286-09-14 15:07 G	34697601.03	34697601.13	34697601.24	0.0296	0.0245
Mercury	90286-12-12 16:48 G	34697690.02	34697690.20	34697690.38	0.0297	0.0025
Mercury	90287-03-11 18:00 G	34697779.12	34697779.25	34697779.39	0.0298	0.0194
Mars	90287-05-16 09:22 G	34697844.66	34697844.89	34697845.13	0.0299	0.0147
Earth	90293-07-09 22:19 G	34700091.28	34700091.43	34700091.60	0.0295	0.0220
Moon	90293-07-10 01:55 G	34700091.42	34700091.58	34700091.76	0.0295	0.0216 *
Venus	90293-08-30 04:48 G	34700142.54	34700142.70	34700142.86	0.0294	0.0190
Venus	90294-04-17 04:34 G	34700372.48	34700372.69	34700372.90	0.0291	0.0048
Earth	90294-07-24 01:27 G	34700470.37	34700470.56	34700470.77	0.0290	0.0163
Moon	90294-07-24 02:24 G	34700470.40	34700470.60	34700470.82	0.0290	0.0161 *
Venus	90294-12-03 02:10 G	34700602.55	34700602.59	34700602.66	0.0289	0.0278
Mercury	90300-04-18 17:31 G	34702565.15	34702565.23	34702565.32	0.0266	0.0196
Mercury	90300-07-16 03:36 G	34702653.52	34702653.65	34702653.77	0.0265	0.0087
Mercury	90300-10-12 13:41 G	34702741.93	34702742.07	34702742.20	0.0265	0.0023
Mercury	90301-01-08 23:31 G	34702830.37	34702830.48	34702830.60	0.0264	0.0132
Mercury	90301-04-07 09:51 G	34702918.86	34702918.91	34702918.96	0.0264	0.0241
Mars	90301-07-16 18:29 G	34703019.04	34703019.27	34703019.53	0.0263	0.0172
Venus	90309-05-10 09:36 G	34705873.79	34705873.90	34705874.03	0.0267	0.0222
Venus	90309-12-25 11:46 G	34706102.78	34706102.99	34706103.20	0.0269	0.0043
Moon	90310-01-20 11:03 G	34706128.72	34706128.96	34706129.20	0.0270	0.0007
Earth	90310-01-20 13:55 G	34706128.84	34706129.08	34706129.33	0.0270	0.0005 *
Venus	90310-08-11 14:53 G	34706331.95	34706332.12	34706332.31	0.0272	0.0143
Mercury	90316-05-01 15:07 G	34708421.95	34708422.13	34708422.31	0.0297	0.0085
Mercury	90316-07-29 16:34 G	34708511.03	34708511.19	34708511.35	0.0298	0.0134
Venus	90323-03-13 13:55 G	34710928.90	34710929.08	34710929.26	0.0294	0.0152
Moon	90323-07-19 09:22 G	34711056.65	34711056.89	34711057.12	0.0293	0.0002
Earth	90323-07-19 09:51 G	34711056.67	34711056.91	34711057.15	0.0293	0.0002 *
Venus	90323-10-29 13:27 G	34711158.86	34711159.06	34711159.27	0.0292	0.0086
Mercury	90329-09-05 21:07 G	34713297.31	34713297.38	34713297.45	0.0266	0.0220
Mercury	90329-12-03 06:58 G	34713385.68	34713385.79	34713385.92	0.0266	0.0112

Mercury	90330-03-01 17:03 G	34713474.08	34713474.21	34713474.35	0.0265	0.0006
Mercury	90330-05-29 03:07 G	34713562.51	34713562.63	34713562.75	0.0264	0.0108
Mercury	90330-08-25 13:12 G	34713650.98	34713651.05	34713651.13	0.0264	0.0217
Venus	90338-11-20 15:51 G	34716660.01	34716660.16	34716660.31	0.0267	0.0191
Earth	90339-01-15 16:34 G	34716715.98	34716716.19	34716716.41	0.0268	0.0133
Moon	90339-01-15 19:41 G	34716716.10	34716716.32	34716716.54	0.0268	0.0128 *
Venus	90339-07-07 18:00 G	34716889.04	34716889.25	34716889.46	0.0270	0.0011
Moon	90340-01-27 23:03 G	34717093.27	34717093.46	34717093.65	0.0272	0.0181
Earth	90340-01-28 00:15 G	34717093.33	34717093.51	34717093.72	0.0272	0.0167 *
Venus	90340-02-21 21:22 G	34717118.23	34717118.39	34717118.55	0.0272	0.0174
Mercury	90345-09-18 14:10 G	34719153.93	34719154.09	34719154.25	0.0297	0.0140
Mercury	90345-12-16 15:36 G	34719242.98	34719243.15	34719243.33	0.0298	0.0079
Mercury	90346-03-15 16:34 G	34719332.19	34719332.19	34719332.22	0.0299	0.0298
Moon	90352-07-12 13:55 G	34721642.88	34721643.08	34721643.29	0.0294	0.0172
Earth	90352-07-12 14:24 G	34721642.90	34721643.10	34721643.29	0.0294	0.0172 *
Venus	90352-09-22 22:05 G	34721715.22	34721715.42	34721715.61	0.0294	0.0114
Venus	90353-05-10 21:22 G	34721945.20	34721945.39	34721945.59	0.0291	0.0123
Moon	90353-07-26 13:27 G	34722021.89	34722022.06	34722022.24	0.0290	0.0202
Earth	90353-07-26 16:34 G	34722022.04	34722022.19	34722022.37	0.0290	0.0209 *
Jupiter	90355-04-09 03:22 G	34722643.21	34722643.64	34722644.09	0.0282	0.0074
Mercury	90359-01-24 00:00 G	34724029.46	34724029.50	34724029.55	0.0266	0.0250
Mercury	90359-04-22 10:05 G	34724117.81	34724117.92	34724118.03	0.0266	0.0141
Mercury	90359-07-19 20:10 G	34724206.20	34724206.34	34724206.47	0.0265	0.0033
Mercury	90359-10-16 06:00 G	34724294.63	34724294.75	34724294.88	0.0264	0.0077
Mercury	90360-01-12 16:05 G	34724383.08	34724383.17	34724383.27	0.0264	0.0186
Moon	90368-01-10 11:31 G	34727302.96	34727302.98	34727303.01	0.0266	0.0264
Earth	90368-01-10 14:53 G	34727303.09	34727303.12	34727303.16	0.0266	0.0263
Venus	90368-06-01 18:15 G	34727446.10	34727446.26	34727446.43	0.0268	0.0168
Venus	90369-01-16 20:24 G	34727675.14	34727675.35	34727675.57	0.0270	0.0014
Earth	90369-01-21 19:55 G	34727680.08	34727680.33	34727680.57	0.0270	0.0029

Moon	90369-01-21 21:07 G	34727680.15	34727680.38	34727680.62	0.0270	0.0042 *
Venus	90369-09-03 00:00 G	34727904.36	34727904.50	34727904.65	0.0272	0.0199
Mercury	90375-02-05 11:31 G	34729885.85	34729885.98	34729886.11	0.0296	0.0207
Mercury	90375-05-05 13:12 G	34729974.86	34729975.05	34729975.23	0.0297	0.0013
Mercury	90375-08-02 14:24 G	34730063.99	34730064.10	34730064.22	0.0298	0.0231
Mars	90375-10-11 13:12 G	34730133.79	34730134.05	34730134.32	0.0299	0.0046
Venus	90382-04-05 05:46 G	34732501.54	34732501.74	34732501.95	0.0294	0.0078
Earth	90382-07-20 23:03 G	34732608.22	34732608.46	34732608.70	0.0293	0.0044
Moon	90382-07-21 02:39 G	34732608.37	34732608.61	34732608.85	0.0293	0.0040 *
Venus	90382-11-21 05:03 G	34732731.54	34732731.71	34732731.89	0.0291	0.0159
Mercury	90388-09-08 13:27 G	34734849.96	34734850.06	34734850.16	0.0266	0.0168
Mercury	90388-12-05 23:17 G	34734938.34	34734938.47	34734938.60	0.0265	0.0059
Mercury	90389-03-04 09:22 G	34735026.76	34735026.89	34735027.02	0.0264	0.0050
Mercury	90389-05-31 19:27 G	34735115.20	34735115.31	34735115.42	0.0264	0.0159
Venus	90397-12-12 23:17 G	34738232.29	34738232.47	34738232.66	0.0268	0.0138
Moon	90398-01-16 19:41 G	34738267.09	34738267.32	34738267.57	0.0268	0.0096
Earth	90398-01-16 20:53 G	34738267.14	34738267.37	34738267.60	0.0268	0.0103 *
Venus	90398-07-30 01:41 G	34738461.36	34738461.57	34738461.78	0.0270	0.0043
Moon	90399-01-29 01:12 G	34738644.41	34738644.55	34738644.71	0.0272	0.0214
Earth	90399-01-29 04:48 G	34738644.54	34738644.70	34738644.88	0.0272	0.0198 *
Venus	90399-03-16 05:02 G	34738690.61	34738690.71	34738690.84	0.0272	0.0230
Mercury	90404-06-24 09:50 G	34740617.83	34740617.91	34740617.98	0.0296	0.0270
Mercury	90404-09-21 11:31 G	34740706.80	34740706.98	34740707.16	0.0297	0.0049
Mercury	90404-12-19 12:43 G	34740795.89	34740796.03	34740796.19	0.0298	0.0171
Venus	90411-02-28 11:17 G	34743057.93	34743057.97	34743058.04	0.0296	0.0285
Moon	90411-07-14 21:36 G	34743194.19	34743194.40	34743194.62	0.0294	0.0135
Earth	90411-07-15 01:12 G	34743194.34	34743194.55	34743194.77	0.0294	0.0131 *
Venus	90411-10-16 12:14 G	34743287.80	34743288.01	34743288.22	0.0293	0.0042
Venus	90412-06-02 11:02 G	34743517.82	34743517.96	34743518.13	0.0290	0.0194
Moon	90412-07-28 00:29 G	34743573.39	34743573.52	34743573.66	0.0290	0.0239

Earth	90412-07-28 03:22 G	34743573.52	34743573.64	34743573.77	0.0290	0.0248	*
Mercury	90418-01-26 16:05 G	34745582.09	34745582.17	34745582.26	0.0266	0.0201	
Mercury	90418-04-25 01:55 G	34745670.46	34745670.58	34745670.71	0.0265	0.0092	
Mercury	90418-07-22 12:00 G	34745758.87	34745759.00	34745759.13	0.0264	0.0018	
Mercury	90418-10-18 22:05 G	34745847.30	34745847.42	34745847.54	0.0264	0.0126	
Mercury	90419-01-15 08:10 G	34745935.78	34745935.84	34745935.90	0.0263	0.0235	
Earth	90427-01-11 16:48 G	34748854.10	34748854.20	34748854.32	0.0266	0.0235	
Moon	90427-01-11 17:17 G	34748854.12	34748854.22	34748854.34	0.0266	0.0234	*
Venus	90427-06-25 00:43 G	34749018.34	34749018.53	34749018.72	0.0268	0.0117	
Earth	90428-01-23 21:50 G	34749231.17	34749231.41	34749231.65	0.0270	0.0057	
Moon	90428-01-24 01:26 G	34749231.32	34749231.56	34749231.80	0.0270	0.0071	*
Venus	90428-02-09 02:53 G	34749247.42	34749247.62	34749247.83	0.0270	0.0065	
Venus	90428-09-25 06:29 G	34749476.70	34749476.77	34749476.86	0.0273	0.0252	
Mercury	90434-02-08 07:41 G	34751438.66	34751438.82	34751438.99	0.0297	0.0126	
Mercury	90434-05-08 09:22 G	34751527.71	34751527.89	34751528.06	0.0298	0.0094	
Venus	90440-09-09 17:02 G	34753844.11	34753844.21	34753844.33	0.0296	0.0252	
Venus	90441-04-27 18:14 G	34754074.05	34754074.26	34754074.47	0.0293	0.0009	
Earth	90441-07-22 06:29 G	34754159.54	34754159.77	34754160.01	0.0292	0.0081	
Moon	90441-07-22 08:53 G	34754159.63	34754159.87	34754160.11	0.0292	0.0073	*
Venus	90441-12-13 17:02 G	34754304.09	34754304.21	34754304.35	0.0291	0.0226	
Mercury	90447-06-15 18:58 G	34756314.23	34756314.29	34756314.36	0.0266	0.0231	
Mercury	90447-09-12 05:02 G	34756402.59	34756402.71	34756402.83	0.0266	0.0121	
Mercury	90447-12-09 15:07 G	34756490.99	34756491.13	34756491.26	0.0265	0.0015	
Mercury	90448-03-07 00:58 G	34756579.42	34756579.54	34756579.67	0.0264	0.0097	
Mercury	90448-06-03 11:02 G	34756667.88	34756667.96	34756668.04	0.0263	0.0206	
Venus	90456-05-20 03:07 G	34759575.62	34759575.63	34759575.66	0.0266	0.0265	
Venus	90457-01-04 04:19 G	34759804.49	34759804.68	34759804.89	0.0268	0.0089	
Moon	90457-01-17 17:17 G	34759817.98	34759818.22	34759818.46	0.0268	0.0068	
Earth	90457-01-17 20:53 G	34759818.14	34759818.37	34759818.61	0.0268	0.0078	*
Venus	90457-08-21 06:43 G	34760033.59	34760033.78	34760033.98	0.0270	0.0093	

Earth	90458-01-30 04:48 G	34760195.58	34760195.70	34760195.86	0.0272	0.0223
Moon	90458-01-30 04:48 G	34760195.59	34760195.70	34760195.82	0.0272	0.0238 *
Mercury	90463-06-28 05:17 G	34762170.58	34762170.72	34762170.86	0.0297	0.0195
Mercury	90463-09-25 06:58 G	34762259.60	34762259.79	34762259.97	0.0298	0.0026
Mercury	90463-12-23 08:10 G	34762348.74	34762348.84	34762348.95	0.0299	0.0245
Mars	90464-03-06 04:34 G	34762422.43	34762422.69	34762422.96	0.0299	0.0015
Venus	90470-03-22 22:48 G	34764630.32	34764630.45	34764630.60	0.0296	0.0219
Moon	90470-07-16 05:31 G	34764745.51	34764745.73	34764745.95	0.0294	0.0100
Earth	90470-07-16 07:12 G	34764745.58	34764745.80	34764746.04	0.0294	0.0096 *
Venus	90470-11-07 23:31 G	34764860.27	34764860.48	34764860.70	0.0293	0.0025
Venus	90471-06-25 22:34 G	34765090.34	34765090.44	34765090.53	0.0290	0.0257
Earth	90471-07-30 09:07 G	34765124.84	34765124.88	34765124.94	0.0289	0.0281
Moon	90471-07-30 11:02 G	34765124.88	34765124.96	34765125.05	0.0289	0.0270 *
Mercury	90476-11-01 21:36 G	34767046.39	34767046.40	34767046.41	0.0266	0.0265
Mercury	90477-01-29 07:26 G	34767134.71	34767134.81	34767134.92	0.0265	0.0156
Mercury	90477-04-27 17:31 G	34767223.10	34767223.23	34767223.36	0.0265	0.0047
Mercury	90477-07-25 03:22 G	34767311.51	34767311.64	34767311.77	0.0264	0.0062
Mercury	90477-10-21 13:26 G	34767399.96	34767400.06	34767400.16	0.0263	0.0171
Venus	90485-11-30 03:22 G	34770361.57	34770361.64	34770361.73	0.0266	0.0246
Earth	90486-01-12 15:36 G	34770405.00	34770405.15	34770405.30	0.0266	0.0212
Moon	90486-01-12 19:12 G	34770405.15	34770405.30	34770405.46	0.0266	0.0207 *
Venus	90486-07-17 04:48 G	34770590.49	34770590.70	34770590.90	0.0268	0.0069
Earth	90487-01-24 20:10 G	34770782.11	34770782.34	34770782.58	0.0270	0.0080
Moon	90487-01-24 20:38 G	34770782.12	34770782.36	34770782.60	0.0270	0.0094 *
Venus	90487-03-03 07:12 G	34770819.61	34770819.80	34770819.99	0.0270	0.0113
Mercury	90492-11-14 00:29 G	34772902.47	34772902.52	34772902.59	0.0296	0.0278
Mercury	90493-02-11 02:24 G	34772991.42	34772991.60	34772991.78	0.0297	0.0057
Mercury	90493-05-11 03:36 G	34773080.51	34773080.65	34773080.81	0.0298	0.0163
Earth	90499-07-10 02:24 G	34775331.53	34775331.60	34775331.69	0.0297	0.0279
Moon	90499-07-10 04:05 G	34775331.60	34775331.67	34775331.77	0.0297	0.0280 *

Venus	90499-10-03 02:24 G	34775416.45	34775416.60	34775416.77	0.0296	0.0189
Venus	90500-05-21 03:22 G	34775646.43	34775646.64	34775646.85	0.0293	0.0054
Moon	90500-07-24 07:12 G	34775710.56	34775710.80	34775711.04	0.0292	0.0099
Earth	90500-07-24 09:22 G	34775710.67	34775710.89	34775711.12	0.0292	0.0110 *
Venus	90501-01-06 01:55 G	34775876.57	34775876.58	34775876.62	0.0290	0.0287
Mercury	90506-06-19 10:05 G	34777866.83	34777866.92	34777867.02	0.0266	0.0190
Mercury	90506-09-15 20:10 G	34777955.21	34777955.34	34777955.47	0.0265	0.0080
Mercury	90506-12-13 06:14 G	34778043.62	34778043.76	34778043.89	0.0265	0.0029
Mercury	90507-03-11 16:05 G	34778132.06	34778132.17	34778132.29	0.0264	0.0138
Mercury	90507-06-08 02:10 G	34778220.55	34778220.59	34778220.64	0.0263	0.0247
Venus	90515-06-13 06:29 G	34781147.66	34781147.77	34781147.90	0.0266	0.0219
Moon	90516-01-20 17:02 G	34781368.97	34781369.21	34781369.44	0.0268	0.0045
Earth	90516-01-20 17:46 G	34781369.00	34781369.24	34781369.49	0.0268	0.0057 *
Venus	90516-01-28 07:55 G	34781376.62	34781376.83	34781377.04	0.0268	0.0042
Venus	90516-09-13 10:19 G	34781605.75	34781605.93	34781606.11	0.0270	0.0140
Earth	90517-02-01 01:41 G	34781746.48	34781746.57	34781746.69	0.0272	0.0244
Moon	90517-02-01 05:31 G	34781746.65	34781746.73	34781746.80	0.0272	0.0258 *
Mercury	90522-07-01 23:02 G	34783723.30	34783723.46	34783723.63	0.0297	0.0133
Mercury	90522-09-29 00:29 G	34783812.35	34783812.52	34783812.70	0.0298	0.0088
Venus	90529-04-15 06:58 G	34786202.62	34786202.79	34786202.97	0.0295	0.0158
Earth	90529-07-18 07:41 G	34786296.59	34786296.82	34786297.06	0.0294	0.0067
Moon	90529-07-18 10:05 G	34786296.69	34786296.92	34786297.15	0.0294	0.0075 *
Venus	90529-12-01 07:26 G	34786432.61	34786432.81	34786433.02	0.0293	0.0084
Mercury	90535-11-06 12:29 G	34788598.95	34788599.02	34788599.09	0.0266	0.0226
Mercury	90536-02-02 22:34 G	34788687.32	34788687.44	34788687.55	0.0265	0.0118
Mercury	90536-05-01 08:24 G	34788775.72	34788775.85	34788775.98	0.0264	0.0009
Mercury	90536-07-28 18:29 G	34788864.15	34788864.27	34788864.39	0.0264	0.0101
Mercury	90536-10-25 04:34 G	34788952.61	34788952.69	34788952.77	0.0263	0.0210
Venus	90544-12-23 06:00 G	34791933.62	34791933.75	34791933.89	0.0266	0.0201
Earth	90545-01-14 11:17 G	34791955.80	34791955.97	34791956.14	0.0266	0.0192

Moon	90545-01-14 12:00 G	34791955.81	34791956.00	34791956.19	0.0266	0.0181	*
Venus	90545-08-09 07:12 G	34792162.59	34792162.80	34792163.01	0.0268	0.0024	
Moon	90546-01-26 12:14 G	34792332.78	34792333.01	34792333.24	0.0270	0.0115	
Earth	90546-01-26 15:36 G	34792332.92	34792333.15	34792333.38	0.0270	0.0100	*
Venus	90546-03-26 09:22 G	34792391.73	34792391.89	34792392.07	0.0271	0.0160	
Mercury	90551-11-18 17:46 G	34794455.12	34794455.24	34794455.36	0.0296	0.0223	
Mercury	90552-02-15 19:26 G	34794544.13	34794544.31	34794544.49	0.0297	0.0002	
Mercury	90552-05-14 20:53 G	34794633.25	34794633.37	34794633.49	0.0298	0.0218	
Mars	90552-07-30 16:05 G	34794709.90	34794710.17	34794710.43	0.0299	0.0019	
Moon	90558-07-11 22:05 G	34796882.31	34796882.42	34796882.54	0.0297	0.0261	
Earth	90558-07-12 00:43 G	34796882.42	34796882.53	34796882.67	0.0297	0.0254	*
Venus	90558-10-26 09:22 G	34796988.70	34796988.89	34796989.08	0.0296	0.0130	
Venus	90559-06-13 09:50 G	34797218.72	34797218.91	34797219.11	0.0293	0.0113	
Moon	90559-07-26 04:48 G	34797261.49	34797261.70	34797261.92	0.0292	0.0123	
Earth	90559-07-26 08:10 G	34797261.62	34797261.84	34797262.05	0.0292	0.0135	*
Mercury	90565-03-25 14:53 G	34799331.11	34799331.12	34799331.15	0.0267	0.0263	
Mercury	90565-06-22 00:58 G	34799419.43	34799419.54	34799419.65	0.0266	0.0153	
Mercury	90565-09-18 11:02 G	34799507.82	34799507.96	34799508.09	0.0265	0.0044	
Mercury	90565-12-15 20:53 G	34799596.24	34799596.37	34799596.50	0.0264	0.0066	
Mercury	90566-03-14 06:58 G	34799684.69	34799684.79	34799684.89	0.0264	0.0175	
Venus	90574-07-05 08:38 G	34802719.70	34802719.86	34802720.02	0.0266	0.0175	
Earth	90575-01-21 12:29 G	34802919.77	34802920.02	34802920.26	0.0268	0.0038	
Moon	90575-01-21 15:50 G	34802919.92	34802920.16	34802920.41	0.0268	0.0022	*
Venus	90575-02-19 09:50 G	34802948.70	34802948.91	34802949.12	0.0268	0.0004	
Venus	90575-10-06 12:14 G	34803177.86	34803178.01	34803178.17	0.0271	0.0186	
Earth	90576-02-02 20:10 G	34803297.29	34803297.34	34803297.41	0.0272	0.0262	
Mercury	90581-07-04 15:50 G	34805275.98	34805276.16	34805276.34	0.0297	0.0081	
Mercury	90581-10-01 17:17 G	34805365.06	34805365.22	34805365.38	0.0298	0.0140	
Venus	90588-05-07 12:43 G	34807774.84	34807775.03	34807775.24	0.0295	0.0102	
Earth	90588-07-19 05:02 G	34807847.47	34807847.71	34807847.95	0.0294	0.0043	

Moon	90588-07-19 08:24 G	34807847.61	34807847.85	34807848.09	0.0294	0.0053	*
Venus	90588-12-23 13:12 G	34808004.87	34808005.05	34808005.24	0.0292	0.0141	
Mercury	90594-11-09 02:53 G	34810151.54	34810151.62	34810151.72	0.0266	0.0192	
Mercury	90595-02-05 12:58 G	34810239.92	34810240.04	34810240.17	0.0265	0.0082	
Mercury	90595-05-04 23:02 G	34810328.33	34810328.46	34810328.59	0.0264	0.0027	
Mercury	90595-08-01 08:53 G	34810416.76	34810416.87	34810416.99	0.0264	0.0136	
Mercury	90595-10-28 18:58 G	34810505.25	34810505.29	34810505.34	0.0263	0.0245	
Venus	90604-01-16 07:41 G	34813505.66	34813505.82	34813506.00	0.0266	0.0158	
Moon	90604-01-17 01:55 G	34813506.39	34813506.58	34813506.79	0.0266	0.0158	
Earth	90604-01-17 05:31 G	34813506.55	34813506.73	34813506.93	0.0266	0.0174	*
Venus	90604-09-01 08:53 G	34813734.66	34813734.87	34813735.08	0.0268	0.0021	
Moon	90605-01-28 07:41 G	34813883.62	34813883.82	34813884.03	0.0270	0.0133	
Earth	90605-01-28 09:50 G	34813883.69	34813883.91	34813884.13	0.0270	0.0118	*
Venus	90605-04-18 11:17 G	34813963.83	34813963.97	34813964.11	0.0271	0.0204	
Mercury	90610-11-22 10:05 G	34816007.77	34816007.92	34816008.07	0.0296	0.0173	
Mercury	90611-02-19 11:46 G	34816096.81	34816096.99	34816097.17	0.0297	0.0048	
Mercury	90611-05-19 12:58 G	34816185.97	34816186.04	34816186.13	0.0298	0.0268	
Moon	90617-07-13 16:48 G	34818433.08	34818433.20	34818433.34	0.0297	0.0245	
Earth	90617-07-13 19:55 G	34818433.18	34818433.33	34818433.48	0.0297	0.0232	*
Venus	90617-11-18 13:55 G	34818560.87	34818561.08	34818561.28	0.0295	0.0075	
Venus	90618-07-06 14:24 G	34818790.93	34818791.10	34818791.28	0.0293	0.0167	
Earth	90618-07-28 03:07 G	34818812.43	34818812.63	34818812.84	0.0292	0.0156	
Moon	90618-07-28 03:36 G	34818812.45	34818812.65	34818812.86	0.0292	0.0143	*
Mercury	90624-03-29 05:17 G	34820883.66	34820883.72	34820883.79	0.0267	0.0230	
Mercury	90624-06-25 15:22 G	34820972.02	34820972.14	34820972.26	0.0266	0.0120	
Mercury	90624-09-22 01:12 G	34821060.42	34821060.55	34821060.69	0.0265	0.0012	
Mercury	90624-12-19 11:17 G	34821148.85	34821148.97	34821149.09	0.0264	0.0099	
Mercury	90625-03-17 21:22 G	34821237.31	34821237.39	34821237.47	0.0264	0.0208	
Venus	90633-07-28 09:50 G	34824291.73	34824291.91	34824292.10	0.0266	0.0132	
Earth	90634-01-23 06:14 G	34824470.51	34824470.76	34824471.01	0.0268	0.0020	

Moon	90634-01-23 08:10 G	34824470.59	34824470.84	34824471.10	0.0268	0.0004	*
Venus	90634-03-14 11:02 G	34824520.75	34824520.96	34824521.17	0.0268	0.0046	
Venus	90634-10-29 13:41 G	34824749.96	34824750.07	34824750.18	0.0271	0.0230	
Mercury	90640-04-10 06:00 G	34826739.66	34826739.75	34826739.85	0.0296	0.0255	
Mercury	90640-07-08 07:55 G	34826828.64	34826828.83	34826829.01	0.0297	0.0035	
Mercury	90640-10-05 09:07 G	34826917.75	34826917.88	34826918.03	0.0298	0.0187	
Mars	90640-12-24 03:07 G	34826997.37	34826997.63	34826997.90	0.0299	0.0011	
Venus	90646-10-13 14:53 G	34829117.10	34829117.12	34829117.15	0.0298	0.0295	
Venus	90647-05-31 17:17 G	34829347.01	34829347.22	34829347.43	0.0295	0.0047	
Moon	90647-07-21 22:48 G	34829398.20	34829398.45	34829398.70	0.0295	0.0037	
Earth	90647-07-21 23:46 G	34829398.25	34829398.49	34829398.74	0.0295	0.0023	*
Venus	90648-01-16 17:31 G	34829577.08	34829577.23	34829577.39	0.0292	0.0194	
Mercury	90653-11-12 17:17 G	34831704.12	34831704.22	34831704.33	0.0266	0.0159	
Mercury	90654-02-09 03:22 G	34831792.51	34831792.64	34831792.77	0.0265	0.0049	
Mercury	90654-05-08 13:26 G	34831880.93	34831881.06	34831881.19	0.0264	0.0061	
Mercury	90654-08-04 23:31 G	34831969.38	34831969.48	34831969.58	0.0263	0.0170	
Moon	90663-01-17 22:19 G	34835057.23	34835057.43	34835057.64	0.0266	0.0140	
Earth	90663-01-17 23:46 G	34835057.30	34835057.49	34835057.70	0.0266	0.0155	*
Venus	90663-02-07 09:22 G	34835077.70	34835077.89	34835078.08	0.0266	0.0114	
Venus	90663-09-24 10:19 G	34835306.73	34835306.93	34835307.14	0.0268	0.0065	
Earth	90664-01-30 03:22 G	34835434.44	34835434.64	34835434.86	0.0270	0.0136	
Moon	90664-01-30 06:14 G	34835434.56	34835434.76	34835434.97	0.0270	0.0149	*
Venus	90664-05-10 12:43 G	34835535.95	34835536.03	34835536.12	0.0271	0.0249	
Mercury	90669-11-25 02:10 G	34837560.43	34837560.59	34837560.76	0.0296	0.0127	
Mercury	90670-02-22 03:50 G	34837649.49	34837649.66	34837649.83	0.0297	0.0094	
Venus	90676-04-24 15:22 G	34839903.06	34839903.14	34839903.24	0.0298	0.0270	
Earth	90676-07-14 13:26 G	34839983.90	34839984.06	34839984.24	0.0297	0.0212	
Moon	90676-07-14 15:36 G	34839984.01	34839984.15	34839984.31	0.0297	0.0229	*
Venus	90676-12-10 17:46 G	34840133.03	34840133.24	34840133.46	0.0295	0.0022	
Venus	90677-07-28 18:14 G	34840363.13	34840363.26	34840363.40	0.0292	0.0220	

Earth	90677-07-28 21:22 G	34840363.20	34840363.39	34840363.59	0.0292	0.0176	*
Moon	90677-07-29 01:12 G	34840363.34	34840363.55	34840363.75	0.0292	0.0159	*
Mercury	90683-04-01 19:41 G	34842436.23	34842436.32	34842436.41	0.0267	0.0198	
Mercury	90683-06-29 05:46 G	34842524.61	34842524.74	34842524.86	0.0266	0.0088	
Mercury	90683-09-25 15:36 G	34842613.02	34842613.15	34842613.28	0.0265	0.0023	
Mercury	90683-12-23 01:41 G	34842701.46	34842701.57	34842701.69	0.0264	0.0132	
Mercury	90684-03-20 11:31 G	34842789.94	34842789.98	34842790.04	0.0264	0.0242	
Venus	90692-01-03 11:46 G	34845634.97	34845634.99	34845635.02	0.0264	0.0261	
Venus	90692-08-19 11:46 G	34845863.79	34845863.99	34845864.19	0.0266	0.0088	
Moon	90693-01-23 21:50 G	34846021.16	34846021.41	34846021.66	0.0268	0.0013	
Earth	90693-01-24 00:58 G	34846021.30	34846021.54	34846021.79	0.0268	0.0003	*
Venus	90693-04-05 12:58 G	34846092.84	34846093.04	34846093.24	0.0268	0.0091	
Mercury	90699-04-13 22:19 G	34848292.31	34848292.43	34848292.57	0.0296	0.0207	
Mercury	90699-07-12 00:14 G	34848381.32	34848381.51	34848381.69	0.0297	0.0015	
Mercury	90699-10-09 01:26 G	34848470.46	34848470.56	34848470.68	0.0298	0.0235	
Venus	90705-11-05 18:58 G	34850689.18	34850689.29	34850689.42	0.0298	0.0242	
Venus	90706-06-23 21:07 G	34850919.17	34850919.38	34850919.60	0.0295	0.0010	
Moon	90706-07-23 14:10 G	34850948.85	34850949.09	34850949.34	0.0295	0.0020	
Earth	90706-07-23 18:00 G	34850949.01	34850949.25	34850949.49	0.0295	0.0002	*
Venus	90707-02-08 21:22 G	34851149.29	34851149.39	34851149.51	0.0292	0.0247	
Mercury	90712-08-19 21:36 G	34853168.35	34853168.40	34853168.47	0.0267	0.0237	
Mercury	90712-11-16 07:41 G	34853256.71	34853256.82	34853256.94	0.0266	0.0126	
Mercury	90713-02-12 17:46 G	34853345.11	34853345.24	34853345.37	0.0265	0.0016	
Mercury	90713-05-12 03:50 G	34853433.53	34853433.66	34853433.78	0.0264	0.0094	
Mercury	90713-08-08 13:41 G	34853521.99	34853522.07	34853522.16	0.0264	0.0204	
Venus	90721-07-16 11:31 G	34856420.91	34856420.98	34856421.08	0.0264	0.0244	
Earth	90722-01-19 19:26 G	34856608.10	34856608.31	34856608.53	0.0266	0.0135	
Moon	90722-01-19 22:19 G	34856608.22	34856608.43	34856608.65	0.0266	0.0121	*
Venus	90722-03-02 11:31 G	34856649.78	34856649.98	34856650.19	0.0266	0.0070	
Venus	90722-10-17 12:43 G	34856878.84	34856879.03	34856879.23	0.0269	0.0111	

Earth	90723-01-31 22:34 G	34856985.25	34856985.44	34856985.65	0.0270	0.0155
Moon	90723-02-01 01:41 G	34856985.37	34856985.57	34856985.77	0.0270	0.0164 *
Mercury	90728-11-28 18:43 G	34859113.10	34859113.28	34859113.46	0.0297	0.0077
Mercury	90729-02-25 20:10 G	34859202.18	34859202.34	34859202.50	0.0297	0.0143
Mars	90729-05-19 06:29 G	34859284.50	34859284.77	34859285.04	0.0298	0.0012
Venus	90735-05-18 19:26 G	34861475.17	34861475.31	34861475.46	0.0297	0.0217
Earth	90735-07-17 07:41 G	34861534.63	34861534.82	34861535.00	0.0297	0.0191
Moon	90735-07-17 11:02 G	34861534.79	34861534.96	34861535.13	0.0297	0.0209 *
Venus	90736-01-03 21:50 G	34861705.20	34861705.41	34861705.62	0.0295	0.0032
Earth	90736-07-30 15:36 G	34861913.97	34861914.15	34861914.33	0.0292	0.0195
Moon	90736-07-30 16:19 G	34861913.99	34861914.18	34861914.39	0.0292	0.0178 *
Venus	90736-08-20 22:05 G	34861935.36	34861935.42	34861935.50	0.0292	0.0273
Mercury	90742-04-05 09:50 G	34863988.82	34863988.91	34863989.02	0.0267	0.0166
Mercury	90742-07-02 19:55 G	34864077.20	34864077.33	34864077.46	0.0266	0.0055
Mercury	90742-09-29 06:00 G	34864165.62	34864165.75	34864165.88	0.0265	0.0056
Mercury	90742-12-26 16:05 G	34864254.07	34864254.17	34864254.27	0.0264	0.0166
Moon	90751-01-14 18:00 G	34867195.17	34867195.25	34867195.35	0.0264	0.0247
Earth	90751-01-14 20:38 G	34867195.34	34867195.36	34867195.40	0.0264	0.0262 *
Venus	90751-01-26 14:38 G	34867206.99	34867207.11	34867207.23	0.0264	0.0217
Venus	90751-09-12 14:38 G	34867435.90	34867436.11	34867436.32	0.0266	0.0043
Moon	90752-01-26 18:43 G	34867572.04	34867572.28	34867572.52	0.0267	0.0031
Earth	90752-01-26 21:07 G	34867572.14	34867572.38	34867572.63	0.0267	0.0021 *
Venus	90752-04-28 15:50 G	34867664.98	34867665.16	34867665.34	0.0268	0.0138
Mercury	90758-04-17 15:22 G	34869844.99	34869845.14	34869845.30	0.0296	0.0153
Mercury	90758-07-15 17:02 G	34869934.03	34869934.21	34869934.39	0.0297	0.0068
Mercury	90758-10-12 18:14 G	34870023.22	34870023.26	34870023.31	0.0298	0.0288
Venus	90764-11-28 00:00 G	34872261.34	34872261.50	34872261.67	0.0297	0.0187
Venus	90765-07-16 02:10 G	34872491.38	34872491.59	34872491.80	0.0295	0.0062
Earth	90765-07-24 13:41 G	34872499.82	34872500.07	34872500.31	0.0295	0.0022
Moon	90765-07-24 13:41 G	34872499.84	34872500.07	34872500.31	0.0295	0.0005 *

Mercury	90771-08-23 12:14 G	34874720.93	34874721.01	34874721.10	0.0267	0.0202
Mercury	90771-11-19 22:19 G	34874809.31	34874809.43	34874809.55	0.0266	0.0091
Mercury	90772-02-16 08:24 G	34874897.72	34874897.85	34874897.98	0.0265	0.0019
Mercury	90772-05-14 18:14 G	34874986.15	34874986.26	34874986.38	0.0264	0.0129
Mercury	90772-08-11 04:19 G	34875074.63	34875074.68	34875074.74	0.0264	0.0239
Venus	90780-08-07 15:36 G	34877993.01	34877993.15	34877993.29	0.0265	0.0197
Earth	90781-01-20 17:46 G	34878159.02	34878159.24	34878159.47	0.0266	0.0112
Moon	90781-01-20 20:38 G	34878159.12	34878159.36	34878159.60	0.0266	0.0098 *
Venus	90781-03-24 15:36 G	34878221.94	34878222.15	34878222.36	0.0267	0.0022
Venus	90781-11-08 16:48 G	34878451.04	34878451.20	34878451.38	0.0269	0.0160
Moon	90782-02-01 18:29 G	34878536.09	34878536.27	34878536.47	0.0270	0.0180
Earth	90782-02-01 20:38 G	34878536.19	34878536.36	34878536.56	0.0270	0.0178 *
Mercury	90787-09-04 10:48 G	34880576.84	34880576.95	34880577.06	0.0296	0.0238
Mercury	90787-12-02 12:29 G	34880665.83	34880666.02	34880666.20	0.0297	0.0019
Mercury	90788-02-29 13:41 G	34880754.94	34880755.07	34880755.21	0.0298	0.0203
Venus	90794-06-10 01:26 G	34883047.38	34883047.56	34883047.74	0.0297	0.0160
Moon	90794-07-18 03:07 G	34883085.44	34883085.63	34883085.83	0.0297	0.0182
Earth	90794-07-18 04:19 G	34883085.49	34883085.68	34883085.89	0.0297	0.0167 *
Venus	90795-01-26 03:22 G	34883277.44	34883277.64	34883277.84	0.0295	0.0089
Moon	90795-08-01 08:38 G	34883464.69	34883464.86	34883465.04	0.0292	0.0203
Earth	90795-08-01 12:14 G	34883464.86	34883465.01	34883465.18	0.0292	0.0218 *
Mercury	90801-01-09 14:24 G	34885453.05	34885453.10	34885453.16	0.0268	0.0242
Mercury	90801-04-08 00:29 G	34885541.41	34885541.52	34885541.64	0.0267	0.0131
Mercury	90801-07-05 10:34 G	34885629.81	34885629.94	34885630.08	0.0266	0.0020
Mercury	90801-10-01 20:38 G	34885718.24	34885718.36	34885718.49	0.0265	0.0092
Mars	90801-10-23 10:34 G	34885739.82	34885739.94	34885740.08	0.0265	0.0241
Mercury	90801-12-29 06:43 G	34885806.70	34885806.78	34885806.87	0.0265	0.0202
Moon	90810-01-15 16:48 G	34888746.08	34888746.20	34888746.34	0.0264	0.0223
Earth	90810-01-15 19:55 G	34888746.24	34888746.33	34888746.45	0.0264	0.0238 *
Venus	90810-02-17 18:58 G	34888779.14	34888779.29	34888779.46	0.0264	0.0171

Venus	90810-10-04 19:26 G	34889008.09	34889008.31	34889008.52	0.0266	0.0007
Earth	90811-01-27 20:38 G	34889123.11	34889123.36	34889123.60	0.0268	0.0044
Moon	90811-01-27 22:19 G	34889123.20	34889123.43	34889123.67	0.0268	0.0052 *
Venus	90811-05-21 20:24 G	34889237.21	34889237.35	34889237.51	0.0269	0.0188
Mercury	90817-04-20 09:36 G	34891397.72	34891397.90	34891398.08	0.0296	0.0089
Mercury	90817-07-18 11:02 G	34891486.80	34891486.96	34891487.13	0.0297	0.0131
Mars	90817-10-12 05:46 G	34891572.47	34891572.74	34891573.01	0.0298	0.0006
Venus	90823-12-21 06:43 G	34893833.59	34893833.78	34893833.97	0.0297	0.0129
Earth	90824-07-25 11:31 G	34894050.74	34894050.98	34894051.22	0.0295	0.0047
Moon	90824-07-25 15:22 G	34894050.90	34894051.14	34894051.38	0.0295	0.0032 *
Venus	90824-08-07 08:24 G	34894063.66	34894063.85	34894064.05	0.0295	0.0120
Mercury	90830-08-26 03:07 G	34896273.53	34896273.63	34896273.74	0.0267	0.0165
Mercury	90830-11-22 13:12 G	34896361.92	34896362.05	34896362.18	0.0266	0.0054
Mercury	90831-02-18 23:17 G	34896450.34	34896450.47	34896450.60	0.0265	0.0057
Mercury	90831-05-18 09:22 G	34896538.79	34896538.89	34896538.99	0.0264	0.0168
Venus	90839-08-30 21:22 G	34899565.22	34899565.39	34899565.57	0.0265	0.0147
Moon	90840-01-22 18:00 G	34899710.00	34899710.25	34899710.50	0.0266	0.0074
Earth	90840-01-22 19:12 G	34899710.07	34899710.30	34899710.54	0.0266	0.0086 *
Venus	90840-04-15 21:36 G	34899794.19	34899794.40	34899794.61	0.0267	0.0030
Venus	90840-11-30 22:48 G	34900023.33	34900023.45	34900023.59	0.0269	0.0212
Moon	90841-02-02 19:12 G	34900087.14	34900087.30	34900087.46	0.0270	0.0202
Earth	90841-02-02 22:19 G	34900087.28	34900087.43	34900087.61	0.0270	0.0204 *
Mercury	90846-09-07 05:31 G	34902129.59	34902129.73	34902129.89	0.0296	0.0168
Mercury	90846-12-05 07:12 G	34902218.62	34902218.80	34902218.99	0.0297	0.0053
Mercury	90847-03-04 08:38 G	34902307.79	34902307.86	34902307.93	0.0298	0.0272
Venus	90853-07-02 09:22 G	34904619.69	34904619.89	34904620.09	0.0297	0.0099
Moon	90853-07-19 00:58 G	34904636.34	34904636.54	34904636.76	0.0296	0.0153
Earth	90853-07-19 04:34 G	34904636.48	34904636.69	34904636.91	0.0296	0.0138 *
Venus	90854-02-17 10:48 G	34904849.78	34904849.95	34904850.14	0.0294	0.0149
Moon	90854-08-02 10:34 G	34905015.80	34905015.94	34905016.08	0.0292	0.0234

Earth	90854-08-02 12:14 G	34905015.89	34905016.01	34905016.15	0.0292	0.0245	*
Mercury	90860-01-13 05:31 G	34907005.65	34907005.73	34907005.82	0.0268	0.0203	
Mercury	90860-04-10 15:36 G	34907094.03	34907094.15	34907094.28	0.0267	0.0091	
Mercury	90860-07-08 01:41 G	34907182.44	34907182.57	34907182.70	0.0266	0.0020	
Mercury	90860-10-04 11:46 G	34907270.88	34907270.99	34907271.11	0.0265	0.0131	
Mercury	90860-12-31 21:50 G	34907359.36	34907359.41	34907359.46	0.0265	0.0242	
Earth	90869-01-16 23:02 G	34910297.31	34910297.46	34910297.61	0.0264	0.0210	
Moon	90869-01-16 23:46 G	34910297.34	34910297.49	34910297.66	0.0264	0.0196	*
Venus	90869-03-12 01:41 G	34910351.39	34910351.57	34910351.76	0.0265	0.0120	
Venus	90869-10-27 02:10 G	34910580.39	34910580.59	34910580.80	0.0267	0.0059	
Earth	90870-01-28 23:31 G	34910674.25	34910674.48	34910674.73	0.0268	0.0073	
Moon	90870-01-29 03:07 G	34910674.40	34910674.63	34910674.87	0.0268	0.0079	*
Venus	90870-06-13 03:50 G	34910809.57	34910809.66	34910809.75	0.0269	0.0241	
Mercury	90876-01-25 03:50 G	34912861.55	34912861.66	34912861.78	0.0295	0.0230	
Mercury	90876-04-23 05:31 G	34912950.55	34912950.73	34912950.92	0.0296	0.0011	
Mercury	90876-07-21 06:58 G	34913039.66	34913039.79	34913039.92	0.0297	0.0210	
Venus	90883-01-12 16:19 G	34915405.97	34915406.18	34915406.39	0.0297	0.0065	
Earth	90883-07-27 14:24 G	34915601.87	34915602.10	34915602.34	0.0294	0.0079	
Moon	90883-07-27 15:50 G	34915601.91	34915602.16	34915602.40	0.0294	0.0066	*
Venus	90883-08-30 17:31 G	34915636.08	34915636.23	34915636.41	0.0294	0.0183	
Mercury	90889-06-01 08:24 G	34917737.79	34917737.85	34917737.91	0.0268	0.0234	
Mercury	90889-08-28 18:29 G	34917826.15	34917826.27	34917826.39	0.0267	0.0122	
Mercury	90889-11-25 04:34 G	34917914.55	34917914.69	34917914.82	0.0266	0.0013	
Mercury	90890-02-21 14:38 G	34918002.98	34918003.11	34918003.23	0.0265	0.0100	
Mars	90890-03-18 19:55 G	34918028.09	34918028.33	34918028.58	0.0265	0.0177	
Mercury	90890-05-21 00:43 G	34918091.45	34918091.53	34918091.61	0.0264	0.0211	
Venus	90898-09-22 05:31 G	34921137.53	34921137.73	34921137.93	0.0265	0.0094	
Moon	90899-01-23 21:07 G	34921261.14	34921261.38	34921261.63	0.0266	0.0044	
Earth	90899-01-24 00:43 G	34921261.29	34921261.53	34921261.78	0.0266	0.0055	*
Venus	90899-05-09 06:00 G	34921366.55	34921366.75	34921366.95	0.0267	0.0085	

Venus	90899-12-24 07:26 G	34921595.80	34921595.81	34921595.84	0.0270	0.0268
Earth	90900-02-05 04:48 G	34921638.58	34921638.70	34921638.82	0.0270	0.0235
Moon	90900-02-05 04:48 G	34921638.59	34921638.70	34921638.82	0.0270	0.0232 *
Mercury	90905-09-11 02:38 G	34923682.43	34923682.61	34923682.79	0.0296	0.0081
Mercury	90905-12-09 04:05 G	34923771.51	34923771.67	34923771.83	0.0297	0.0139
Mars	90906-03-08 17:17 G	34923860.96	34923861.22	34923861.48	0.0298	0.0057
Venus	90911-12-08 17:02 G	34925962.16	34925962.21	34925962.28	0.0298	0.0286
Moon	90912-07-21 08:53 G	34926187.66	34926187.87	34926188.09	0.0296	0.0115
Earth	90912-07-21 09:36 G	34926187.68	34926187.90	34926188.14	0.0296	0.0103 *
Venus	90912-07-25 20:10 G	34926192.13	34926192.34	34926192.55	0.0296	0.0033
Venus	90913-03-12 21:22 G	34926422.25	34926422.39	34926422.54	0.0293	0.0213
Earth	90913-08-04 16:34 G	34926567.12	34926567.19	34926567.27	0.0292	0.0277
Moon	90913-08-04 19:12 G	34926567.22	34926567.30	34926567.40	0.0292	0.0271 *
Mercury	90919-01-16 20:53 G	34928558.27	34928558.37	34928558.48	0.0268	0.0159
Mercury	90919-04-15 06:58 G	34928646.66	34928646.79	34928646.92	0.0267	0.0047
Mercury	90919-07-12 17:02 G	34928735.09	34928735.21	34928735.34	0.0266	0.0066
Mercury	90919-10-09 03:22 G	34928823.54	34928823.64	34928823.74	0.0265	0.0177
Venus	90927-08-19 10:34 G	34931694.87	34931694.94	34931695.04	0.0264	0.0240
Earth	90928-01-20 05:17 G	34931848.54	34931848.72	34931848.91	0.0265	0.0178
Moon	90928-01-20 09:07 G	34931848.69	34931848.88	34931849.08	0.0265	0.0163 *
Venus	90928-04-04 10:34 G	34931923.74	34931923.94	34931924.15	0.0265	0.0065
Venus	90928-11-19 11:17 G	34932152.78	34932152.97	34932153.17	0.0267	0.0115
Earth	90929-01-31 06:43 G	34932225.55	34932225.78	34932226.01	0.0268	0.0105
Moon	90929-01-31 06:58 G	34932225.57	34932225.79	34932226.04	0.0268	0.0110 *
Mercury	90935-01-29 01:41 G	34934414.40	34934414.57	34934414.73	0.0295	0.0137
Mercury	90935-04-28 03:07 G	34934503.45	34934503.63	34934503.81	0.0296	0.0083
Venus	90941-06-20 01:55 G	34936748.47	34936748.58	34936748.70	0.0299	0.0248
Earth	90941-07-15 11:02 G	34936773.88	34936773.96	34936774.07	0.0298	0.0273
Moon	90941-07-15 12:00 G	34936773.93	34936774.00	34936774.07	0.0298	0.0287 *
Venus	90942-02-05 04:34 G	34936978.48	34936978.69	34936978.91	0.0296	0.0008

Moon	90942-07-29 18:58 G	34937153.06	34937153.29	34937153.52	0.0294	0.0107
Earth	90942-07-29 21:36 G	34937153.18	34937153.40	34937153.63	0.0294	0.0116 *
Venus	90942-09-23 05:46 G	34937208.63	34937208.74	34937208.85	0.0294	0.0250
Mercury	90948-06-05 00:00 G	34939290.41	34939290.50	34939290.60	0.0268	0.0187
Mercury	90948-09-01 10:05 G	34939378.80	34939378.92	34939379.05	0.0267	0.0076
Mercury	90948-11-28 20:10 G	34939467.21	34939467.34	34939467.48	0.0266	0.0038
Mercury	90949-02-25 06:29 G	34939555.66	34939555.77	34939555.88	0.0265	0.0148
Mercury	90949-05-24 16:34 G	34939644.17	34939644.19	34939644.21	0.0264	0.0259
Venus	90957-02-28 15:50 G	34942481.04	34942481.16	34942481.29	0.0264	0.0212
Venus	90957-10-15 15:36 G	34942709.94	34942710.15	34942710.37	0.0266	0.0037
Moon	90958-01-26 08:38 G	34942812.62	34942812.86	34942813.10	0.0267	0.0012
Earth	90958-01-26 09:36 G	34942812.65	34942812.90	34942813.15	0.0267	0.0020 *
Venus	90958-06-01 16:19 G	34942939.01	34942939.18	34942939.36	0.0268	0.0144
Earth	90959-02-07 14:10 G	34943190.08	34943190.09	34943190.11	0.0271	0.0270
Moon	90959-02-07 17:31 G	34943190.19	34943190.23	34943190.28	0.0271	0.0266
Mercury	90964-06-16 23:46 G	34945146.36	34945146.49	34945146.63	0.0295	0.0198
Mercury	90964-09-14 01:12 G	34945235.37	34945235.55	34945235.74	0.0296	0.0022
Mercury	90964-12-12 02:24 G	34945324.50	34945324.60	34945324.72	0.0297	0.0240
Venus	90970-12-31 08:10 G	34947534.70	34947534.84	34947535.00	0.0298	0.0212
Earth	90971-07-23 20:53 G	34947739.14	34947739.37	34947739.61	0.0296	0.0060
Moon	90971-07-23 23:46 G	34947739.26	34947739.49	34947739.72	0.0296	0.0072 *
Venus	90971-08-18 10:34 G	34947764.73	34947764.94	34947765.15	0.0295	0.0040
Venus	90972-04-04 11:31 G	34947994.93	34947994.98	34947995.03	0.0293	0.0283
Mercury	90977-10-23 02:53 G	34950022.55	34950022.62	34950022.70	0.0268	0.0220
Mercury	90978-01-19 12:58 G	34950110.92	34950111.04	34950111.16	0.0267	0.0108
Mercury	90978-04-17 23:02 G	34950199.33	34950199.46	34950199.60	0.0267	0.0008
Mercury	90978-07-15 09:07 G	34950287.77	34950287.88	34950288.00	0.0266	0.0116
Mars	90978-08-13 15:36 G	34950316.86	34950317.15	34950317.46	0.0266	0.0101
Mercury	90978-10-11 19:26 G	34950376.24	34950376.31	34950376.37	0.0265	0.0227
Venus	90986-09-10 21:22 G	34953267.24	34953267.39	34953267.54	0.0264	0.0184

Earth	90987-01-21 14:53 G	34953399.91	34953400.12	34953400.33	0.0265	0.0142
Moon	90987-01-21 15:50 G	34953399.93	34953400.16	34953400.38	0.0265	0.0130 *
Venus	90987-04-27 21:22 G	34953496.18	34953496.39	34953496.60	0.0266	0.0007
Venus	90987-12-12 22:34 G	34953725.28	34953725.44	34953725.60	0.0268	0.0174
Moon	90988-02-02 13:41 G	34953776.87	34953777.07	34953777.29	0.0269	0.0144
Earth	90988-02-02 17:02 G	34953777.01	34953777.21	34953777.43	0.0269	0.0143 *
Jupiter	90989-11-30 17:02 G	34954443.87	34954444.21	34954444.59	0.0276	0.0179
Mercury	90993-11-03 23:17 G	34955878.38	34955878.47	34955878.57	0.0295	0.0248
Mercury	90994-02-01 00:58 G	34955967.36	34955967.54	34955967.72	0.0296	0.0029
Mercury	90994-05-01 02:10 G	34956056.46	34956056.59	34956056.74	0.0297	0.0190
Mars	90994-08-03 05:02 G	34956150.51	34956150.71	34956150.94	0.0298	0.0170
Venus	91000-07-13 17:46 G	34958321.08	34958321.24	34958321.42	0.0298	0.0173
Moon	91000-07-17 21:07 G	34958325.25	34958325.38	34958325.53	0.0298	0.0242
Earth	91000-07-18 00:29 G	34958325.37	34958325.52	34958325.68	0.0298	0.0227 *

92ND MILLENNIUM CE

This is a list of transits visible from Saturn in the 92nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	91001-02-28 20:10 G		34958551.14	34958551.34	34958551.54	0.0295	0.0079	
Moon	91001-08-01 06:43 G		34958704.58	34958704.78	34958704.99	0.0294	0.0148	
Earth	91001-08-01 09:50 G		34958704.72	34958704.91	34958705.12	0.0294	0.0159 *	
Mercury	91007-03-13 06:14 G		34960754.71	34960754.76	34960754.81	0.0268	0.0247	
Mercury	91007-06-09 16:19 G		34960843.07	34960843.18	34960843.30	0.0267	0.0134	

Mercury	91007-09-06 02:24 G	34960931.47	34960931.60	34960931.73	0.0267	0.0023
Mercury	91007-12-03 12:29 G	34961019.90	34961020.02	34961020.15	0.0266	0.0090
Mercury	91008-02-29 22:48 G	34961108.36	34961108.45	34961108.53	0.0265	0.0201
Moon	91016-01-17 20:38 G	34963987.28	34963987.36	34963987.45	0.0264	0.0247
Earth	91016-01-17 21:50 G	34963987.37	34963987.41	34963987.45	0.0264	0.0260 *
Venus	91016-03-24 03:22 G	34964053.47	34964053.64	34964053.82	0.0265	0.0154
Venus	91016-11-08 03:50 G	34964282.44	34964282.66	34964282.87	0.0267	0.0024
Earth	91017-01-28 21:22 G	34964364.14	34964364.39	34964364.64	0.0267	0.0018
Moon	91017-01-29 00:43 G	34964364.29	34964364.53	34964364.78	0.0267	0.0025 *
Venus	91017-06-25 04:48 G	34964511.57	34964511.70	34964511.84	0.0269	0.0206
Mercury	91023-06-22 00:00 G	34966699.32	34966699.50	34966699.68	0.0295	0.0084
Mercury	91023-09-19 01:26 G	34966788.40	34966788.56	34966788.72	0.0296	0.0135
Venus	91030-01-24 01:55 G	34969107.39	34969107.58	34969107.77	0.0297	0.0133
Earth	91030-07-26 12:29 G	34969290.77	34969291.02	34969291.26	0.0295	0.0012
Moon	91030-07-26 15:36 G	34969290.91	34969291.15	34969291.40	0.0295	0.0025 *
Venus	91030-09-11 03:36 G	34969337.46	34969337.65	34969337.85	0.0294	0.0117
Mercury	91036-10-26 19:26 G	34971575.20	34971575.31	34971575.41	0.0268	0.0165
Mercury	91037-01-23 05:31 G	34971663.60	34971663.73	34971663.86	0.0267	0.0053
Mercury	91037-04-21 15:36 G	34971752.02	34971752.15	34971752.28	0.0266	0.0059
Mercury	91037-07-19 01:41 G	34971840.47	34971840.57	34971840.67	0.0266	0.0171
Venus	91045-10-04 09:07 G	34974839.69	34974839.88	34974840.07	0.0265	0.0125
Moon	91046-01-23 22:48 G	34974951.23	34974951.45	34974951.70	0.0266	0.0096
Earth	91046-01-24 02:24 G	34974951.38	34974951.60	34974951.83	0.0266	0.0105 *
Venus	91046-05-21 09:36 G	34975068.69	34975068.90	34975069.11	0.0267	0.0054
Venus	91047-01-05 10:48 G	34975297.86	34975297.95	34975298.06	0.0269	0.0237
Moon	91047-02-05 03:07 G	34975328.46	34975328.63	34975328.81	0.0269	0.0181
Earth	91047-02-05 05:31 G	34975328.56	34975328.73	34975328.93	0.0269	0.0183 *
Mercury	91052-11-08 00:00 G	34977431.33	34977431.50	34977431.67	0.0295	0.0131
Mercury	91053-02-05 01:26 G	34977520.38	34977520.56	34977520.74	0.0296	0.0088
Moon	91059-07-20 15:50 G	34979876.99	34979877.16	34979877.35	0.0297	0.0190

Earth	91059-07-20 18:43 G	34979877.09	34979877.28	34979877.48	0.0297	0.0176	*
Venus	91059-08-06 12:58 G	34979893.84	34979894.04	34979894.24	0.0297	0.0091	
Venus	91060-03-23 14:38 G	34980123.93	34980124.11	34980124.29	0.0295	0.0159	
Earth	91060-08-03 02:53 G	34980256.46	34980256.62	34980256.80	0.0293	0.0206	
Moon	91060-08-03 03:07 G	34980256.47	34980256.63	34980256.81	0.0293	0.0198	*
Mercury	91066-03-15 23:02 G	34982307.36	34982307.46	34982307.55	0.0268	0.0189	
Mercury	91066-06-12 08:53 G	34982395.75	34982395.87	34982396.00	0.0267	0.0078	
Mercury	91066-09-08 19:12 G	34982484.17	34982484.30	34982484.43	0.0266	0.0036	
Mercury	91066-12-06 05:17 G	34982572.61	34982572.72	34982572.83	0.0266	0.0147	
Mars	91067-01-09 08:53 G	34982606.55	34982606.87	34982607.20	0.0265	0.0024	
Mercury	91067-03-04 15:22 G	34982661.12	34982661.14	34982661.17	0.0265	0.0259	
Earth	91075-01-19 10:05 G	34985538.80	34985538.92	34985539.06	0.0265	0.0222	
Moon	91075-01-19 12:58 G	34985538.90	34985539.04	34985539.19	0.0265	0.0209	*
Venus	91075-04-16 15:50 G	34985625.97	34985626.16	34985626.37	0.0265	0.0094	
Venus	91075-12-01 16:34 G	34985854.99	34985855.19	34985855.40	0.0267	0.0086	
Earth	91076-01-31 11:02 G	34985915.72	34985915.96	34985916.20	0.0268	0.0058	
Moon	91076-01-31 13:41 G	34985915.82	34985916.07	34985916.32	0.0268	0.0062	*
Mercury	91082-03-27 23:31 G	34988163.34	34988163.48	34988163.64	0.0295	0.0180	
Mercury	91082-06-25 01:12 G	34988252.37	34988252.55	34988252.74	0.0296	0.0040	
Mercury	91082-09-22 02:24 G	34988341.52	34988341.60	34988341.69	0.0297	0.0258	
Venus	91089-02-15 22:05 G	34990680.21	34990680.42	34990680.63	0.0296	0.0049	
Moon	91089-07-28 07:12 G	34990842.55	34990842.80	34990843.05	0.0294	0.0030	
Earth	91089-07-28 07:55 G	34990842.59	34990842.83	34990843.07	0.0294	0.0040	*
Venus	91089-10-03 23:02 G	34990910.31	34990910.46	34990910.63	0.0294	0.0199	
Mercury	91095-08-03 02:10 G	34993039.51	34993039.59	34993039.66	0.0268	0.0218	
Mercury	91095-10-30 12:14 G	34993127.89	34993128.01	34993128.13	0.0267	0.0106	
Mercury	91096-01-26 22:19 G	34993216.30	34993216.43	34993216.56	0.0267	0.0007	
Mercury	91096-04-24 08:24 G	34993304.73	34993304.85	34993304.97	0.0266	0.0119	
Mercury	91096-07-21 18:29 G	34993393.21	34993393.27	34993393.34	0.0265	0.0230	
Venus	91104-03-12 21:22 G	34996183.32	34996183.39	34996183.49	0.0264	0.0241	

Venus	91104-10-27 21:36 G	34996412.20	34996412.40	34996412.61	0.0266	0.0065
Moon	91105-01-26 12:29 G	34996502.79	34996503.02	34996503.26	0.0266	0.0058
Earth	91105-01-26 15:07 G	34996502.90	34996503.13	34996503.38	0.0266	0.0066 *
Venus	91105-06-13 22:19 G	34996641.25	34996641.43	34996641.63	0.0268	0.0117
Earth	91106-02-07 19:26 G	34996880.19	34996880.31	34996880.46	0.0270	0.0223
Moon	91106-02-07 21:36 G	34996880.27	34996880.40	34996880.54	0.0270	0.0219 *
Mercury	91111-08-15 23:31 G	34998895.36	34998895.48	34998895.60	0.0295	0.0227
Mercury	91111-11-13 01:12 G	34998984.36	34998984.55	34998984.73	0.0296	0.0008
Mercury	91112-02-10 02:24 G	34999073.48	34999073.60	34999073.73	0.0297	0.0211
Venus	91118-01-12 06:43 G	35001236.68	35001236.78	35001236.88	0.0299	0.0260
Earth	91118-07-23 15:07 G	35001428.92	35001429.13	35001429.36	0.0297	0.0123
Moon	91118-07-23 16:34 G	35001428.99	35001429.19	35001429.40	0.0297	0.0134 *
Venus	91118-08-30 09:07 G	35001466.67	35001466.88	35001467.10	0.0296	0.0009
Venus	91119-04-17 10:19 G	35001696.81	35001696.93	35001697.05	0.0294	0.0241
Earth	91119-08-06 22:05 G	35001808.31	35001808.42	35001808.54	0.0292	0.0256
Moon	91119-08-07 01:41 G	35001808.45	35001808.57	35001808.70	0.0292	0.0248 *
Mercury	91124-12-21 05:46 G	35003771.69	35003771.74	35003771.80	0.0268	0.0241
Mercury	91125-03-19 15:50 G	35003860.05	35003860.16	35003860.28	0.0267	0.0129
Mercury	91125-06-16 01:55 G	35003948.45	35003948.58	35003948.72	0.0267	0.0017
Mercury	91125-09-12 12:00 G	35004036.88	35004037.00	35004037.13	0.0266	0.0096
Mercury	91125-12-09 22:19 G	35004125.35	35004125.43	35004125.51	0.0265	0.0207
Venus	91133-09-23 04:34 G	35006969.57	35006969.69	35006969.82	0.0264	0.0209
Earth	91134-01-21 22:34 G	35007090.27	35007090.44	35007090.62	0.0265	0.0184
Moon	91134-01-22 01:55 G	35007090.39	35007090.58	35007090.78	0.0265	0.0170 *
Venus	91134-05-10 04:34 G	35007198.48	35007198.69	35007198.90	0.0266	0.0033
Venus	91134-12-25 05:31 G	35007427.56	35007427.73	35007427.91	0.0268	0.0149
Moon	91135-02-02 22:48 G	35007467.21	35007467.45	35007467.69	0.0268	0.0098
Earth	91135-02-03 00:14 G	35007467.29	35007467.51	35007467.75	0.0268	0.0099 *
Mercury	91141-01-01 23:17 G	35009627.42	35009627.47	35009627.54	0.0295	0.0275
Mercury	91141-04-01 00:58 G	35009716.36	35009716.54	35009716.73	0.0296	0.0056

Mercury	91141-06-29 02:24 G	35009805.45	35009805.60	35009805.76	0.0297	0.0164
Earth	91147-07-17 18:58 G	35012015.26	35012015.29	35012015.35	0.0298	0.0293
Venus	91147-07-25 16:48 G	35012023.06	35012023.20	35012023.35	0.0298	0.0216
Venus	91148-03-11 19:12 G	35012253.09	35012253.30	35012253.51	0.0295	0.0037
Moon	91148-07-31 01:41 G	35012394.33	35012394.57	35012394.80	0.0294	0.0085
Earth	91148-07-31 05:31 G	35012394.50	35012394.73	35012394.96	0.0294	0.0093 *
Venus	91148-10-27 19:41 G	35012483.27	35012483.32	35012483.39	0.0293	0.0281
Mercury	91154-08-06 19:12 G	35014592.19	35014592.30	35014592.41	0.0268	0.0156
Mercury	91154-11-03 05:17 G	35014680.59	35014680.72	35014680.85	0.0267	0.0044
Mercury	91155-01-30 15:22 G	35014769.01	35014769.14	35014769.27	0.0266	0.0068
Mercury	91155-04-29 01:26 G	35014857.46	35014857.56	35014857.66	0.0265	0.0180
Mars	91155-06-07 02:38 G	35014896.35	35014896.61	35014896.89	0.0265	0.0147
Venus	91163-04-05 09:36 G	35017755.74	35017755.90	35017756.05	0.0265	0.0182
Venus	91163-11-20 09:50 G	35017984.70	35017984.91	35017985.12	0.0266	0.0004
Earth	91164-01-29 03:22 G	35018054.40	35018054.64	35018054.89	0.0267	0.0027
Moon	91164-01-29 04:34 G	35018054.45	35018054.69	35018054.93	0.0267	0.0021 *
Venus	91164-07-06 11:02 G	35018213.80	35018213.96	35018214.12	0.0268	0.0179
Earth	91165-02-09 08:53 G	35018431.81	35018431.87	35018431.93	0.0271	0.0262
Moon	91165-02-09 12:14 G	35018431.94	35018432.01	35018432.10	0.0271	0.0256
Mercury	91170-08-19 00:43 G	35020448.36	35020448.53	35020448.70	0.0295	0.0104
Mercury	91170-11-16 02:10 G	35020537.42	35020537.59	35020537.76	0.0296	0.0115
Venus	91177-02-04 03:50 G	35022809.49	35022809.66	35022809.84	0.0298	0.0173
Earth	91177-07-25 12:43 G	35022980.80	35022981.03	35022981.27	0.0296	0.0069
Moon	91177-07-25 16:19 G	35022980.95	35022981.18	35022981.42	0.0296	0.0079 *
Venus	91177-09-22 06:00 G	35023039.55	35023039.75	35023039.96	0.0296	0.0080
Mercury	91183-12-24 22:48 G	35025324.36	35025324.45	35025324.55	0.0268	0.0179
Mercury	91184-03-22 08:53 G	35025412.74	35025412.87	35025413.00	0.0267	0.0067
Mercury	91184-06-18 18:58 G	35025501.16	35025501.29	35025501.42	0.0266	0.0045
Mercury	91184-09-15 05:02 G	35025589.61	35025589.71	35025589.82	0.0265	0.0157
Venus	91192-10-15 16:19 G	35028542.01	35028542.18	35028542.36	0.0265	0.0150

Moon	91193-01-23 09:50 G	35028641.69	35028641.91	35028642.13	0.0265	0.0135
Earth	91193-01-23 10:05 G	35028641.72	35028641.92	35028642.13	0.0265	0.0148 *
Venus	91193-06-01 16:48 G	35028770.99	35028771.20	35028771.41	0.0267	0.0029
Venus	91194-01-16 18:00 G	35029000.12	35029000.25	35029000.38	0.0269	0.0212
Moon	91194-02-04 09:07 G	35029018.68	35029018.88	35029019.11	0.0269	0.0136
Earth	91194-02-04 12:43 G	35029018.83	35029019.03	35029019.26	0.0269	0.0137 *
Mercury	91200-01-06 00:29 G	35031180.36	35031180.52	35031180.68	0.0295	0.0153
Mercury	91200-04-04 01:55 G	35031269.41	35031269.58	35031269.77	0.0296	0.0068
Mercury	91200-07-02 03:22 G	35031358.59	35031358.64	35031358.69	0.0297	0.0286
Moon	91206-07-19 13:12 G	35033566.92	35033567.05	35033567.18	0.0297	0.0252
Earth	91206-07-19 16:48 G	35033567.06	35033567.20	35033567.34	0.0297	0.0239 *
Venus	91206-08-17 13:41 G	35033595.89	35033596.07	35033596.27	0.0297	0.0130
Venus	91207-04-04 15:36 G	35033825.96	35033826.15	35033826.35	0.0295	0.0121
Moon	91207-08-03 00:00 G	35033946.30	35033946.50	35033946.72	0.0293	0.0138
Earth	91207-08-03 01:55 G	35033946.37	35033946.58	35033946.79	0.0293	0.0145 *
Jupiter	91209-03-01 15:07 G	35034522.72	35034523.13	35034523.56	0.0286	0.0109
Mercury	91213-05-13 02:10 G	35036056.51	35036056.59	35036056.67	0.0268	0.0207
Mercury	91213-08-09 12:14 G	35036144.88	35036145.01	35036145.13	0.0267	0.0095
Mercury	91213-11-05 22:19 G	35036233.29	35036233.43	35036233.56	0.0266	0.0019
Mercury	91214-02-02 08:10 G	35036321.73	35036321.84	35036321.96	0.0266	0.0129
Mercury	91214-05-01 18:29 G	35036410.21	35036410.27	35036410.32	0.0265	0.0240
Moon	91222-01-18 13:55 G	35039229.01	35039229.08	35039229.14	0.0264	0.0254
Venus	91222-04-27 20:10 G	35039328.16	35039328.34	35039328.53	0.0265	0.0124
Venus	91222-12-12 20:53 G	35039557.16	35039557.37	35039557.58	0.0267	0.0056
Earth	91223-01-30 13:41 G	35039605.82	35039606.07	35039606.31	0.0267	0.0010
Moon	91223-01-30 17:17 G	35039605.97	35039606.22	35039606.46	0.0267	0.0016 *
Venus	91223-07-29 22:19 G	35039786.34	35039786.43	35039786.53	0.0269	0.0239
Mercury	91229-05-24 23:02 G	35041912.34	35041912.46	35041912.60	0.0295	0.0210
Mercury	91229-08-22 00:43 G	35042001.35	35042001.53	35042001.72	0.0296	0.0011
Mars	91229-09-03 15:22 G	35042014.06	35042014.14	35042014.24	0.0296	0.0279

Mercury	91229-11-19 01:55 G	35042090.47	35042090.58	35042090.70	0.0297	0.0230
Venus	91236-02-28 00:00 G	35044382.30	35044382.50	35044382.70	0.0297	0.0088
Earth	91236-07-27 08:24 G	35044532.61	35044532.85	35044533.10	0.0296	0.0019
Moon	91236-07-27 10:05 G	35044532.67	35044532.92	35044533.17	0.0296	0.0029 *
Venus	91236-10-15 01:41 G	35044612.40	35044612.57	35044612.75	0.0295	0.0163
Mercury	91242-09-30 05:46 G	35046788.68	35046788.74	35046788.80	0.0268	0.0231
Mercury	91242-12-27 15:36 G	35046877.04	35046877.15	35046877.28	0.0267	0.0120
Mercury	91243-03-26 01:55 G	35046965.44	35046965.58	35046965.71	0.0266	0.0010
Mercury	91243-06-22 11:46 G	35047053.88	35047053.99	35047054.12	0.0266	0.0106
Mercury	91243-09-18 21:50 G	35047142.34	35047142.41	35047142.49	0.0265	0.0217
Venus	91251-11-08 02:38 G	35050114.41	35050114.61	35050114.81	0.0265	0.0092
Moon	91252-01-25 15:07 G	35050192.90	35050193.13	35050193.36	0.0266	0.0103
Earth	91252-01-25 18:58 G	35050193.07	35050193.29	35050193.51	0.0266	0.0114 *
Venus	91252-06-24 02:53 G	35050343.43	35050343.62	35050343.83	0.0267	0.0088
Moon	91253-02-05 21:07 G	35050570.20	35050570.38	35050570.57	0.0269	0.0170
Earth	91253-02-05 22:05 G	35050570.24	35050570.42	35050570.62	0.0269	0.0171 *
Mercury	91258-10-11 22:34 G	35052644.36	35052644.44	35052644.52	0.0295	0.0262
Mercury	91259-01-09 00:14 G	35052733.33	35052733.51	35052733.69	0.0296	0.0042
Mercury	91259-04-08 01:41 G	35052822.42	35052822.57	35052822.72	0.0297	0.0178
Moon	91265-07-21 10:05 G	35055118.75	35055118.92	35055119.10	0.0297	0.0202
Earth	91265-07-21 11:31 G	35055118.80	35055118.98	35055119.18	0.0297	0.0189 *
Venus	91265-09-09 09:07 G	35055168.67	35055168.88	35055169.09	0.0297	0.0046
Venus	91266-04-27 10:48 G	35055398.80	35055398.95	35055399.10	0.0294	0.0203
Earth	91266-08-04 19:55 G	35055498.15	35055498.33	35055498.52	0.0293	0.0193
Moon	91266-08-04 22:05 G	35055498.25	35055498.42	35055498.61	0.0293	0.0188 *
Mercury	91272-02-17 08:53 G	35057520.84	35057520.87	35057520.90	0.0268	0.0260
Mercury	91272-05-15 18:43 G	35057609.18	35057609.28	35057609.40	0.0267	0.0149
Mercury	91272-08-12 05:02 G	35057697.58	35057697.71	35057697.84	0.0266	0.0036
Mercury	91272-11-08 14:53 G	35057786.00	35057786.12	35057786.25	0.0266	0.0077
Mercury	91273-02-05 01:12 G	35057874.45	35057874.55	35057874.64	0.0265	0.0187

Venus	91280-10-03 05:46 G	35060671.67	35060671.74	35060671.83	0.0264	0.0244
Earth	91281-01-19 20:24 G	35060780.25	35060780.35	35060780.47	0.0264	0.0236
Moon	91281-01-20 00:14 G	35060780.39	35060780.51	35060780.65	0.0264	0.0223 *
Venus	91281-05-20 05:46 G	35060900.53	35060900.74	35060900.94	0.0265	0.0068
Venus	91282-01-04 06:14 G	35061129.57	35061129.76	35061129.95	0.0267	0.0113
Earth	91282-01-31 21:07 G	35061157.14	35061157.38	35061157.63	0.0268	0.0041
Moon	91282-01-31 22:34 G	35061157.19	35061157.44	35061157.70	0.0268	0.0046 *
Mercury	91288-05-27 22:05 G	35063465.25	35063465.42	35063465.59	0.0295	0.0105
Mercury	91288-08-24 23:31 G	35063554.31	35063554.48	35063554.65	0.0296	0.0116
Venus	91294-08-04 14:38 G	35065725.02	35065725.11	35065725.22	0.0299	0.0262
Venus	91295-03-22 17:46 G	35065955.03	35065955.24	35065955.45	0.0297	0.0007
Moon	91295-07-29 22:19 G	35066084.18	35066084.43	35066084.68	0.0295	0.0018
Earth	91295-07-30 00:29 G	35066084.28	35066084.52	35066084.76	0.0295	0.0027 *
Venus	91295-11-07 18:58 G	35066185.18	35066185.29	35066185.42	0.0294	0.0242
Mercury	91301-10-03 22:19 G	35068341.33	35068341.43	35068341.53	0.0268	0.0174
Mercury	91301-12-31 08:24 G	35068429.72	35068429.85	35068429.98	0.0267	0.0062
Mercury	91302-03-29 18:29 G	35068518.14	35068518.27	35068518.40	0.0266	0.0050
Mercury	91302-06-26 04:19 G	35068606.58	35068606.68	35068606.79	0.0265	0.0162
Venus	91310-04-16 10:48 G	35071457.84	35071457.95	35071458.08	0.0263	0.0214
Venus	91310-12-01 10:48 G	35071686.74	35071686.95	35071687.16	0.0265	0.0037
Moon	91311-01-27 23:02 G	35071744.24	35071744.46	35071744.70	0.0266	0.0077
Earth	91311-01-28 00:29 G	35071744.29	35071744.52	35071744.76	0.0266	0.0084 *
Venus	91311-07-18 11:31 G	35071915.80	35071915.98	35071916.16	0.0267	0.0144
Earth	91312-02-09 03:50 G	35072121.51	35072121.66	35072121.83	0.0269	0.0201
Moon	91312-02-09 06:58 G	35072121.63	35072121.79	35072121.96	0.0269	0.0198 *
Mercury	91317-10-15 20:24 G	35074197.20	35074197.35	35074197.51	0.0296	0.0166
Mercury	91318-01-12 22:05 G	35074286.24	35074286.42	35074286.60	0.0297	0.0055
Mars	91318-01-30 00:14 G	35074303.30	35074303.51	35074303.73	0.0297	0.0177
Mercury	91318-04-11 23:31 G	35074375.41	35074375.48	35074375.55	0.0297	0.0275
Venus	91324-02-15 22:19 G	35076511.31	35076511.43	35076511.58	0.0299	0.0224

Earth	91324-07-24 01:26 G	35076670.35	35076670.56	35076670.78	0.0297	0.0145
Moon	91324-07-24 03:50 G	35076670.47	35076670.66	35076670.87	0.0297	0.0158 *
Venus	91324-10-03 01:26 G	35076741.35	35076741.56	35076741.77	0.0296	0.0032
Venus	91325-05-21 02:24 G	35076971.55	35076971.60	35076971.68	0.0293	0.0280
Earth	91325-08-07 09:22 G	35077049.76	35077049.89	35077050.04	0.0292	0.0234
Moon	91325-08-07 12:58 G	35077049.90	35077050.04	35077050.20	0.0292	0.0228 *
Mercury	91331-02-21 01:12 G	35079073.47	35079073.55	35079073.64	0.0267	0.0205
Mercury	91331-05-20 11:17 G	35079161.85	35079161.97	35079162.09	0.0267	0.0093
Mercury	91331-08-16 21:22 G	35079250.25	35079250.39	35079250.52	0.0266	0.0020
Mercury	91331-11-13 07:26 G	35079338.69	35079338.81	35079338.92	0.0265	0.0131
Mercury	91332-02-09 17:17 G	35079427.17	35079427.22	35079427.28	0.0264	0.0242
Venus	91339-10-27 13:12 G	35082243.91	35082244.05	35082244.20	0.0264	0.0191
Earth	91340-01-23 00:14 G	35082331.36	35082331.51	35082331.67	0.0264	0.0209
Moon	91340-01-23 01:26 G	35082331.40	35082331.56	35082331.74	0.0264	0.0198 *
Venus	91340-06-12 12:58 G	35082472.82	35082473.04	35082473.25	0.0266	0.0015
Venus	91341-01-27 13:26 G	35082701.90	35082702.06	35082702.23	0.0268	0.0167
Moon	91341-02-02 21:36 G	35082708.16	35082708.40	35082708.65	0.0268	0.0068
Earth	91341-02-03 00:43 G	35082708.30	35082708.53	35082708.78	0.0268	0.0070 *
Mercury	91347-03-04 17:17 G	35084929.12	35084929.22	35084929.34	0.0295	0.0237
Mercury	91347-06-01 19:12 G	35085018.11	35085018.30	35085018.48	0.0296	0.0018
Mercury	91347-08-29 20:38 G	35085107.22	35085107.36	35085107.49	0.0297	0.0204
Venus	91353-08-28 05:17 G	35087297.56	35087297.72	35087297.89	0.0299	0.0187
Venus	91354-04-15 08:24 G	35087527.64	35087527.85	35087528.05	0.0296	0.0069
Moon	91354-08-01 07:55 G	35087635.60	35087635.83	35087636.07	0.0295	0.0058
Earth	91354-08-01 11:31 G	35087635.75	35087635.98	35087636.22	0.0295	0.0067 *
Mercury	91360-07-10 04:19 G	35089805.62	35089805.68	35089805.74	0.0268	0.0235
Mercury	91360-10-06 14:24 G	35089893.98	35089894.10	35089894.22	0.0267	0.0122
Mercury	91361-01-03 00:29 G	35089982.38	35089982.52	35089982.65	0.0266	0.0012
Mercury	91361-04-01 10:19 G	35090070.81	35090070.93	35090071.06	0.0266	0.0102
Mercury	91361-06-28 20:24 G	35090159.28	35090159.35	35090159.43	0.0265	0.0213

Venus	91369-05-08 17:17 G	35093030.06	35093030.22	35093030.39	0.0264	0.0162
Venus	91369-12-23 17:02 G	35093259.00	35093259.21	35093259.42	0.0265	0.0015
Earth	91370-01-29 02:53 G	35093295.38	35093295.62	35093295.86	0.0266	0.0058
Moon	91370-01-29 06:00 G	35093295.51	35093295.75	35093295.99	0.0266	0.0055 *
Venus	91370-08-09 17:46 G	35093488.10	35093488.24	35093488.39	0.0268	0.0197
Earth	91371-02-10 06:00 G	35093672.64	35093672.75	35093672.90	0.0270	0.0228
Moon	91371-02-10 09:22 G	35093672.74	35093672.89	35093673.03	0.0270	0.0220 *
Mercury	91376-10-18 16:48 G	35095750.03	35095750.20	35095750.38	0.0296	0.0083
Mercury	91377-01-15 18:29 G	35095839.11	35095839.27	35095839.43	0.0297	0.0138
Venus	91383-03-10 12:00 G	35098083.82	35098084.00	35098084.18	0.0298	0.0151
Earth	91383-07-26 10:34 G	35098221.71	35098221.94	35098222.17	0.0297	0.0108
Moon	91383-07-26 13:55 G	35098221.86	35098222.08	35098222.31	0.0297	0.0118 *
Venus	91383-10-26 14:38 G	35098313.91	35098314.11	35098314.31	0.0296	0.0104
Earth	91384-08-08 18:14 G	35098601.18	35098601.26	35098601.36	0.0292	0.0270
Moon	91384-08-08 18:43 G	35098601.19	35098601.28	35098601.39	0.0292	0.0266 *
Mercury	91390-02-23 17:02 G	35100626.10	35100626.21	35100626.32	0.0267	0.0156
Mercury	91390-05-23 03:07 G	35100714.50	35100714.63	35100714.76	0.0266	0.0044
Mercury	91390-08-19 12:58 G	35100802.92	35100803.04	35100803.17	0.0265	0.0068
Mercury	91390-11-15 23:02 G	35100891.37	35100891.46	35100891.56	0.0265	0.0179
Venus	91398-11-18 18:29 G	35103816.09	35103816.27	35103816.45	0.0264	0.0141
Moon	91399-01-23 21:50 G	35103882.22	35103882.41	35103882.60	0.0264	0.0178
Earth	91399-01-24 00:43 G	35103882.36	35103882.53	35103882.72	0.0264	0.0185 *
Venus	91399-07-05 18:00 G	35104045.05	35104045.25	35104045.47	0.0266	0.0037
Moon	91400-02-04 22:34 G	35104259.22	35104259.44	35104259.67	0.0268	0.0088
Earth	91400-02-05 00:58 G	35104259.32	35104259.54	35104259.78	0.0268	0.0094 *
Venus	91400-02-19 18:43 G	35104274.16	35104274.28	35104274.41	0.0268	0.0218
Mercury	91406-03-08 12:29 G	35106481.87	35106482.02	35106482.18	0.0295	0.0164
Mercury	91406-06-05 14:10 G	35106570.91	35106571.09	35106571.28	0.0296	0.0058
Mars	91406-06-26 06:14 G	35106591.52	35106591.76	35106592.00	0.0296	0.0128
Mercury	91406-09-02 15:36 G	35106660.09	35106660.15	35106660.22	0.0297	0.0278

Earth	91412-07-20 04:19 G	35108807.62	35108807.68	35108807.73	0.0299	0.0290
Venus	91412-09-20 16:19 G	35108869.99	35108870.18	35108870.37	0.0298	0.0118
Venus	91413-05-08 19:12 G	35109100.11	35109100.30	35109100.49	0.0296	0.0137
Earth	91413-08-03 16:34 G	35109186.96	35109187.19	35109187.42	0.0295	0.0098
Moon	91413-08-03 16:48 G	35109186.98	35109187.20	35109187.43	0.0295	0.0095 *
Mercury	91419-07-14 19:55 G	35111358.24	35111358.33	35111358.42	0.0268	0.0189
Mercury	91419-10-11 06:00 G	35111446.62	35111446.75	35111446.87	0.0267	0.0077
Mercury	91420-01-07 15:50 G	35111535.03	35111535.16	35111535.30	0.0266	0.0037
Mercury	91420-04-05 01:55 G	35111623.47	35111623.58	35111623.69	0.0265	0.0147
Mercury	91420-07-02 12:00 G	35111711.98	35111712.00	35111712.03	0.0264	0.0258
Venus	91428-05-31 21:36 G	35114602.21	35114602.40	35114602.60	0.0264	0.0114
Venus	91429-01-15 21:22 G	35114831.18	35114831.39	35114831.59	0.0266	0.0064
Earth	91429-01-31 01:26 G	35114846.32	35114846.56	35114846.81	0.0266	0.0036
Moon	91429-01-31 04:05 G	35114846.42	35114846.67	35114846.93	0.0266	0.0036 *
Venus	91429-09-01 21:50 G	35115060.34	35115060.41	35115060.50	0.0268	0.0246
Moon	91430-02-12 02:38 G	35115223.50	35115223.61	35115223.74	0.0269	0.0236
Earth	91430-02-12 05:02 G	35115223.62	35115223.71	35115223.80	0.0269	0.0249 *
Mercury	91435-07-26 09:22 G	35117213.79	35117213.89	35117214.01	0.0295	0.0238
Mercury	91435-10-23 11:17 G	35117302.78	35117302.97	35117303.16	0.0296	0.0016
Mercury	91436-01-20 12:43 G	35117391.90	35117392.03	35117392.17	0.0297	0.0205
Venus	91442-04-02 21:36 G	35119656.20	35119656.40	35119656.60	0.0298	0.0085
Moon	91442-07-28 12:14 G	35119772.77	35119773.01	35119773.25	0.0297	0.0081
Earth	91442-07-28 13:26 G	35119772.83	35119773.06	35119773.30	0.0297	0.0078 *
Venus	91442-11-19 00:14 G	35119886.34	35119886.51	35119886.68	0.0296	0.0170
Mercury	91448-11-30 22:19 G	35122090.36	35122090.43	35122090.50	0.0268	0.0225
Mercury	91449-02-27 08:24 G	35122178.73	35122178.85	35122178.97	0.0267	0.0113
Mercury	91449-05-26 18:14 G	35122267.13	35122267.26	35122267.40	0.0266	0.0008
Mercury	91449-08-23 04:19 G	35122355.56	35122355.68	35122355.80	0.0265	0.0111
Mercury	91449-11-19 14:24 G	35122444.03	35122444.10	35122444.17	0.0264	0.0222
Venus	91457-12-11 21:50 G	35125388.21	35125388.41	35125388.61	0.0264	0.0094

Moon	91458-01-25 19:41 G	35125433.13	35125433.32	35125433.51	0.0264	0.0159
Earth	91458-01-25 22:19 G	35125433.24	35125433.43	35125433.63	0.0264	0.0163 *
Venus	91458-07-28 21:22 G	35125617.19	35125617.39	35125617.60	0.0266	0.0084
Earth	91459-02-06 22:19 G	35125810.20	35125810.43	35125810.65	0.0268	0.0114
Moon	91459-02-07 00:29 G	35125810.30	35125810.52	35125810.75	0.0268	0.0105 *
Venus	91459-03-14 22:05 G	35125846.40	35125846.42	35125846.45	0.0268	0.0266
Mercury	91465-03-11 06:29 G	35128034.60	35128034.77	35128034.95	0.0295	0.0101
Mercury	91465-06-08 08:10 G	35128123.67	35128123.84	35128124.01	0.0296	0.0120
Earth	91471-07-22 04:48 G	35130358.59	35130358.70	35130358.81	0.0299	0.0263
Moon	91471-07-22 06:43 G	35130358.68	35130358.78	35130358.89	0.0299	0.0267 *
Venus	91471-10-14 00:29 G	35130442.31	35130442.52	35130442.73	0.0298	0.0054
Venus	91472-05-31 03:07 G	35130672.49	35130672.63	35130672.80	0.0296	0.0201
Earth	91472-08-04 17:17 G	35130738.00	35130738.22	35130738.44	0.0295	0.0125
Moon	91472-08-04 21:07 G	35130738.17	35130738.38	35130738.60	0.0295	0.0126 *
Mercury	91478-04-20 00:43 G	35132822.51	35132822.53	35132822.56	0.0268	0.0262
Mercury	91478-07-17 10:48 G	35132910.84	35132910.95	35132911.06	0.0268	0.0149
Mercury	91478-10-13 20:53 G	35132999.24	35132999.37	35132999.50	0.0267	0.0036
Mars	91478-11-27 09:36 G	35133043.78	35133043.90	35133044.06	0.0266	0.0241
Mercury	91479-01-10 06:58 G	35133087.66	35133087.79	35133087.92	0.0266	0.0076
Mercury	91479-04-08 16:48 G	35133176.11	35133176.20	35133176.30	0.0265	0.0187
Venus	91486-11-07 01:41 G	35135945.50	35135945.57	35135945.66	0.0262	0.0241
Venus	91487-06-24 00:29 G	35136174.32	35136174.52	35136174.73	0.0264	0.0068
Moon	91488-02-01 19:41 G	35136397.07	35136397.32	35136397.58	0.0266	0.0022
Earth	91488-02-01 21:50 G	35136397.16	35136397.41	35136397.66	0.0266	0.0016 *
Venus	91488-02-08 00:00 G	35136403.31	35136403.50	35136403.70	0.0266	0.0111
Moon	91489-02-12 21:22 G	35136774.32	35136774.39	35136774.48	0.0269	0.0252
Earth	91489-02-13 00:43 G	35136774.52	35136774.53	35136774.57	0.0269	0.0268
Mercury	91494-07-29 02:38 G	35138766.47	35138766.61	35138766.76	0.0295	0.0181
Mercury	91494-10-26 04:19 G	35138855.50	35138855.68	35138855.87	0.0296	0.0041
Mars	91494-11-19 02:38 G	35138879.37	35138879.61	35138879.86	0.0297	0.0115

Mercury	91495-01-23 05:46 G	35138944.66	35138944.74	35138944.83	0.0297	0.0262
Venus	91500-09-08 00:14 G	35140998.44	35140998.51	35140998.57	0.0300	0.0285
Venus	91501-04-26 04:05 G	35141228.46	35141228.67	35141228.89	0.0298	0.0025
Moon	91501-07-30 07:55 G	35141323.59	35141323.83	35141324.07	0.0297	0.0051
Earth	91501-07-30 11:31 G	35141323.74	35141323.98	35141324.22	0.0297	0.0053 *
Venus	91501-12-12 06:43 G	35141458.65	35141458.78	35141458.91	0.0295	0.0229
Mercury	91507-12-05 12:58 G	35143642.95	35143643.04	35143643.14	0.0267	0.0187
Mercury	91508-03-02 23:02 G	35143731.33	35143731.46	35143731.59	0.0267	0.0075
Mercury	91508-05-30 09:07 G	35143819.75	35143819.88	35143820.01	0.0266	0.0037
Mercury	91508-08-26 18:58 G	35143908.19	35143908.29	35143908.41	0.0265	0.0149
Mercury	91508-11-23 05:17 G	35143996.70	35143996.72	35143996.74	0.0264	0.0259
Venus	91516-05-20 01:26 G	35146731.46	35146731.56	35146731.68	0.0262	0.0223
Venus	91517-01-04 00:00 G	35146960.30	35146960.50	35146960.71	0.0264	0.0049
Earth	91517-01-27 18:00 G	35146984.04	35146984.25	35146984.46	0.0264	0.0144
Moon	91517-01-27 19:26 G	35146984.11	35146984.31	35146984.51	0.0264	0.0144 *
Venus	91517-08-20 23:31 G	35147189.30	35147189.48	35147189.67	0.0266	0.0130
Earth	91518-02-08 17:17 G	35147361.01	35147361.22	35147361.44	0.0268	0.0133
Moon	91518-02-08 20:38 G	35147361.14	35147361.36	35147361.59	0.0268	0.0120 *
Mercury	91523-12-16 21:07 G	35149498.32	35149498.38	35149498.46	0.0294	0.0272
Mercury	91524-03-14 23:02 G	35149587.28	35149587.46	35149587.64	0.0296	0.0050
Mercury	91524-06-12 00:29 G	35149676.38	35149676.52	35149676.68	0.0297	0.0171
Venus	91530-03-21 01:12 G	35151784.46	35151784.55	35151784.67	0.0300	0.0258
Earth	91530-07-24 00:00 G	35151909.37	35151909.50	35151909.65	0.0299	0.0242
Moon	91530-07-24 03:22 G	35151909.51	35151909.64	35151909.79	0.0299	0.0241 *
Venus	91530-11-06 05:31 G	35152014.52	35152014.73	35152014.95	0.0298	0.0008
Venus	91531-06-24 08:24 G	35152244.75	35152244.85	35152244.95	0.0296	0.0258
Earth	91531-08-07 13:12 G	35152288.84	35152289.05	35152289.27	0.0295	0.0146
Moon	91531-08-07 14:10 G	35152288.88	35152289.09	35152289.31	0.0295	0.0152 *
Mercury	91537-04-23 15:22 G	35154375.07	35154375.14	35154375.21	0.0268	0.0227
Mercury	91537-07-21 01:26 G	35154463.44	35154463.56	35154463.68	0.0267	0.0114

Mercury	91537-10-17 11:31 G	35154551.84	35154551.98	35154552.11	0.0267	0.0008
Mercury	91538-01-13 21:22 G	35154640.27	35154640.39	35154640.52	0.0266	0.0111
Mercury	91538-04-12 07:26 G	35154728.74	35154728.81	35154728.88	0.0265	0.0223
Venus	91545-11-30 03:22 G	35157517.51	35157517.64	35157517.79	0.0262	0.0198
Moon	91546-01-22 18:00 G	35157571.23	35157571.25	35157571.29	0.0262	0.0261
Venus	91546-07-17 02:10 G	35157746.38	35157746.59	35157746.80	0.0264	0.0024
Moon	91547-02-03 12:58 G	35157947.79	35157948.04	35157948.28	0.0265	0.0007
Earth	91547-02-03 16:19 G	35157947.93	35157948.18	35157948.43	0.0265	0.0002 *
Venus	91547-03-03 01:41 G	35157975.40	35157975.57	35157975.74	0.0266	0.0155
Mercury	91553-08-01 19:12 G	35160319.13	35160319.30	35160319.46	0.0295	0.0132
Mercury	91553-10-29 20:38 G	35160408.19	35160408.36	35160408.54	0.0296	0.0090
Venus	91559-10-01 04:48 G	35162570.57	35162570.70	35162570.84	0.0300	0.0229
Venus	91560-05-18 09:07 G	35162800.67	35162800.88	35162801.09	0.0298	0.0033
Earth	91560-07-31 06:43 G	35162874.54	35162874.78	35162875.03	0.0297	0.0032
Moon	91560-07-31 06:43 G	35162874.55	35162874.78	35162875.02	0.0297	0.0026 *
Venus	91561-01-03 11:31 G	35163030.94	35163030.98	35163031.04	0.0295	0.0286
Mercury	91566-09-10 17:31 G	35165107.22	35165107.23	35165107.24	0.0268	0.0266
Mercury	91566-12-08 03:22 G	35165195.54	35165195.64	35165195.75	0.0267	0.0154
Mercury	91567-03-06 13:26 G	35165283.93	35165284.06	35165284.19	0.0266	0.0041
Mars	91567-04-22 23:31 G	35165331.29	35165331.48	35165331.69	0.0266	0.0209
Mercury	91567-06-02 23:31 G	35165372.35	35165372.48	35165372.61	0.0266	0.0071
Mercury	91567-08-30 09:36 G	35165460.81	35165460.90	35165461.00	0.0265	0.0183
Venus	91575-06-12 03:07 G	35168303.48	35168303.63	35168303.79	0.0262	0.0180
Venus	91576-01-27 01:41 G	35168532.36	35168532.57	35168532.78	0.0264	0.0005
Earth	91576-01-29 12:29 G	35168534.80	35168535.02	35168535.24	0.0264	0.0126
Moon	91576-01-29 16:05 G	35168534.96	35168535.17	35168535.39	0.0264	0.0128 *
Venus	91576-09-12 01:12 G	35168761.39	35168761.55	35168761.71	0.0266	0.0175
Moon	91577-02-09 10:34 G	35168911.73	35168911.94	35168912.17	0.0268	0.0136
Earth	91577-02-09 11:31 G	35168911.79	35168911.98	35168912.19	0.0268	0.0150 *
Mercury	91582-12-19 13:26 G	35171050.94	35171051.06	35171051.18	0.0295	0.0224

Mercury	91583-03-18 15:22 G	35171139.95	35171140.14	35171140.32	0.0296	0.0008
Mars	91583-04-14 07:41 G	35171166.58	35171166.82	35171167.06	0.0296	0.0134
Mercury	91583-06-15 16:34 G	35171229.07	35171229.19	35171229.32	0.0297	0.0219
Venus	91589-04-12 05:02 G	35173356.57	35173356.71	35173356.87	0.0300	0.0203
Moon	91589-07-24 16:48 G	35173460.03	35173460.20	35173460.37	0.0299	0.0217
Earth	91589-07-24 17:17 G	35173460.07	35173460.22	35173460.39	0.0299	0.0223 *
Venus	91589-11-28 09:22 G	35173586.68	35173586.89	35173587.10	0.0298	0.0059
Moon	91590-08-08 03:22 G	35173839.45	35173839.64	35173839.84	0.0295	0.0177
Earth	91590-08-08 06:43 G	35173839.59	35173839.78	35173839.99	0.0295	0.0165 *
Mercury	91596-04-26 05:31 G	35175927.64	35175927.73	35175927.82	0.0268	0.0195
Mercury	91596-07-23 15:36 G	35176016.03	35176016.15	35176016.28	0.0267	0.0082
Mercury	91596-10-20 01:41 G	35176104.44	35176104.57	35176104.70	0.0267	0.0031
Mercury	91597-01-16 11:31 G	35176192.88	35176192.98	35176193.10	0.0266	0.0144
Mercury	91597-04-14 21:50 G	35176281.38	35176281.41	35176281.44	0.0265	0.0255
Venus	91604-12-22 05:02 G	35179089.54	35179089.71	35179089.89	0.0262	0.0155
Moon	91605-01-23 10:19 G	35179121.86	35179121.93	35179122.01	0.0262	0.0248
Earth	91605-01-23 13:55 G	35179122.02	35179122.08	35179122.17	0.0262	0.0249
Venus	91605-08-08 03:36 G	35179318.44	35179318.65	35179318.86	0.0264	0.0021
Earth	91606-02-04 10:34 G	35179498.69	35179498.94	35179499.19	0.0265	0.0020
Moon	91606-02-04 10:48 G	35179498.71	35179498.95	35179499.19	0.0265	0.0010 *
Venus	91606-03-25 02:53 G	35179547.49	35179547.62	35179547.77	0.0266	0.0200
Mercury	91612-08-04 11:02 G	35181871.79	35181871.96	35181872.14	0.0295	0.0086
Mercury	91612-11-01 12:43 G	35181960.87	35181961.03	35181961.19	0.0296	0.0136
Venus	91618-10-23 08:10 G	35184142.68	35184142.84	35184143.02	0.0300	0.0176
Venus	91619-06-10 12:29 G	35184372.82	35184373.02	35184373.22	0.0298	0.0087
Earth	91619-08-01 23:46 G	35184425.25	35184425.49	35184425.74	0.0297	0.0013
Moon	91619-08-02 03:22 G	35184425.40	35184425.64	35184425.88	0.0297	0.0005 *
Mercury	91625-09-13 07:26 G	35186659.76	35186659.81	35186659.88	0.0268	0.0236
Mercury	91625-12-10 17:31 G	35186748.12	35186748.23	35186748.35	0.0267	0.0122
Mercury	91626-03-09 03:36 G	35186836.52	35186836.65	35186836.79	0.0266	0.0011

Mercury	91626-06-05 13:41 G	35186924.95	35186925.07	35186925.19	0.0266	0.0103
Mercury	91626-09-01 23:46 G	35187013.42	35187013.49	35187013.57	0.0265	0.0215
Venus	91634-07-04 04:48 G	35189875.52	35189875.70	35189875.89	0.0262	0.0136
Moon	91635-01-30 06:29 G	35190085.55	35190085.77	35190086.01	0.0264	0.0116
Earth	91635-01-30 06:58 G	35190085.57	35190085.79	35190086.02	0.0264	0.0108 *
Venus	91635-02-18 03:22 G	35190104.43	35190104.64	35190104.85	0.0264	0.0039
Venus	91635-10-05 02:38 G	35190333.50	35190333.61	35190333.73	0.0266	0.0219
Moon	91636-02-11 02:24 G	35190462.40	35190462.60	35190462.80	0.0267	0.0152
Earth	91636-02-11 06:00 G	35190462.56	35190462.75	35190462.94	0.0267	0.0167 *
Mercury	91641-12-22 05:31 G	35192603.59	35192603.73	35192603.89	0.0295	0.0177
Mercury	91642-03-21 07:26 G	35192692.62	35192692.81	35192692.99	0.0296	0.0045
Mercury	91642-06-18 08:53 G	35192781.79	35192781.87	35192781.95	0.0297	0.0265
Venus	91648-05-04 08:53 G	35194928.69	35194928.87	35194929.06	0.0300	0.0149
Moon	91648-07-25 06:58 G	35195010.61	35195010.79	35195010.98	0.0299	0.0193
Earth	91648-07-25 10:34 G	35195010.77	35195010.94	35195011.12	0.0299	0.0203 *
Venus	91648-12-20 12:58 G	35195158.85	35195159.04	35195159.24	0.0298	0.0113
Moon	91649-08-08 22:05 G	35195390.25	35195390.42	35195390.60	0.0295	0.0198
Earth	91649-08-09 00:00 G	35195390.32	35195390.50	35195390.70	0.0295	0.0183 *
Mercury	91655-04-29 19:41 G	35197480.22	35197480.32	35197480.43	0.0268	0.0164
Mercury	91655-07-27 05:46 G	35197568.61	35197568.74	35197568.87	0.0268	0.0050
Mars	91655-09-15 08:53 G	35197618.67	35197618.87	35197619.11	0.0267	0.0196
Mercury	91655-10-23 15:50 G	35197657.03	35197657.16	35197657.29	0.0267	0.0063
Mercury	91656-01-20 01:55 G	35197745.48	35197745.58	35197745.68	0.0266	0.0175
Venus	91664-01-14 06:58 G	35200661.60	35200661.79	35200661.99	0.0262	0.0111
Earth	91664-01-25 09:22 G	35200672.77	35200672.89	35200673.01	0.0262	0.0230
Moon	91664-01-25 09:22 G	35200672.80	35200672.89	35200673.01	0.0262	0.0236 *
Venus	91664-08-30 05:31 G	35200890.53	35200890.73	35200890.94	0.0264	0.0065
Earth	91665-02-05 05:31 G	35201049.49	35201049.73	35201049.98	0.0265	0.0038
Moon	91665-02-05 09:22 G	35201049.64	35201049.89	35201050.13	0.0265	0.0025 *
Venus	91665-04-16 04:48 G	35201119.63	35201119.70	35201119.79	0.0266	0.0245

Mercury	91671-05-11 01:55 G	35203335.49	35203335.58	35203335.68	0.0294	0.0255
Mercury	91671-08-08 03:36 G	35203424.47	35203424.65	35203424.84	0.0295	0.0035
Mars	91671-09-06 19:26 G	35203454.08	35203454.31	35203454.54	0.0296	0.0144
Mercury	91671-11-05 05:02 G	35203513.57	35203513.71	35203513.86	0.0296	0.0187
Venus	91677-11-14 12:29 G	35205714.83	35205715.02	35205715.22	0.0300	0.0120
Venus	91678-07-02 16:19 G	35205945.00	35205945.18	35205945.37	0.0298	0.0142
Earth	91678-08-02 17:31 G	35205975.99	35205976.23	35205976.47	0.0297	0.0008
Moon	91678-08-02 19:12 G	35205976.05	35205976.30	35205976.55	0.0297	0.0019 *
Mercury	91684-09-15 21:50 G	35208212.32	35208212.41	35208212.49	0.0268	0.0204
Mercury	91684-12-13 07:55 G	35208300.70	35208300.83	35208300.95	0.0267	0.0090
Mercury	91685-03-11 18:00 G	35208389.12	35208389.25	35208389.38	0.0267	0.0024
Mercury	91685-06-08 04:05 G	35208477.56	35208477.67	35208477.78	0.0266	0.0136
Mercury	91685-09-04 14:10 G	35208566.05	35208566.09	35208566.13	0.0265	0.0248
Venus	91693-07-26 07:26 G	35211447.62	35211447.81	35211448.02	0.0263	0.0091
Moon	91694-01-30 23:31 G	35211636.25	35211636.48	35211636.71	0.0264	0.0101
Earth	91694-01-31 03:22 G	35211636.41	35211636.64	35211636.88	0.0264	0.0088 *
Venus	91694-03-12 06:00 G	35211676.55	35211676.75	35211676.95	0.0264	0.0086
Venus	91694-10-27 05:46 G	35211905.73	35211905.74	35211905.75	0.0266	0.0266
Moon	91695-02-12 01:26 G	35212013.38	35212013.56	35212013.74	0.0267	0.0173
Earth	91695-02-12 02:10 G	35212013.42	35212013.59	35212013.77	0.0267	0.0187 *
Mercury	91700-12-25 22:34 G	35214156.28	35214156.44	35214156.61	0.0295	0.0123
Mercury	91701-03-25 00:14 G	35214245.34	35214245.51	35214245.68	0.0296	0.0098
Venus	91707-05-28 13:12 G	35216500.85	35216501.05	35216501.25	0.0300	0.0093
Moon	91707-07-28 03:50 G	35216561.47	35216561.66	35216561.86	0.0299	0.0170
Earth	91707-07-28 04:34 G	35216561.51	35216561.69	35216561.89	0.0299	0.0182 *
Venus	91708-01-13 17:02 G	35216731.04	35216731.21	35216731.39	0.0297	0.0168
Earth	91708-08-10 18:00 G	35216941.09	35216941.25	35216941.44	0.0295	0.0203
Moon	91708-08-10 20:38 G	35216941.21	35216941.36	35216941.52	0.0295	0.0219 *
Mercury	91714-02-04 00:00 G	35218944.45	35218944.50	35218944.55	0.0269	0.0246
Mercury	91714-05-03 10:05 G	35219032.80	35219032.92	35219033.03	0.0268	0.0132

Mercury	91714-07-30 20:10 G	35219121.20	35219121.34	35219121.47	0.0268	0.0019
Mercury	91714-10-27 06:14 G	35219209.63	35219209.76	35219209.88	0.0267	0.0096
Mercury	91715-01-23 16:19 G	35219298.10	35219298.18	35219298.26	0.0266	0.0209
Venus	91722-06-22 12:14 G	35222004.93	35222005.01	35222005.10	0.0261	0.0238
Earth	91723-01-27 06:14 G	35222223.61	35222223.76	35222223.91	0.0262	0.0209
Moon	91723-01-27 10:05 G	35222223.78	35222223.92	35222224.05	0.0262	0.0218 *
Venus	91723-02-06 10:05 G	35222233.71	35222233.92	35222234.13	0.0262	0.0066
Venus	91723-09-23 08:38 G	35222462.67	35222462.86	35222463.05	0.0264	0.0111
Earth	91724-02-08 02:38 G	35222600.37	35222600.61	35222600.85	0.0265	0.0059
Moon	91724-02-08 03:36 G	35222600.40	35222600.65	35222600.90	0.0265	0.0044 *
Mercury	91730-05-14 19:26 G	35224888.17	35224888.31	35224888.45	0.0294	0.0197
Mercury	91730-08-11 21:07 G	35224977.19	35224977.38	35224977.56	0.0295	0.0024
Mercury	91730-11-08 22:34 G	35225066.33	35225066.44	35225066.54	0.0296	0.0244
Venus	91736-12-07 18:00 G	35227287.05	35227287.25	35227287.46	0.0300	0.0062
Venus	91737-07-25 21:36 G	35227517.25	35227517.40	35227517.57	0.0298	0.0200
Moon	91737-08-04 10:48 G	35227526.71	35227526.95	35227527.20	0.0297	0.0047
Earth	91737-08-04 13:41 G	35227526.83	35227527.07	35227527.32	0.0297	0.0031 *
Mercury	91743-09-20 12:14 G	35229764.91	35229765.01	35229765.11	0.0268	0.0169
Mercury	91743-12-17 22:19 G	35229853.30	35229853.43	35229853.56	0.0268	0.0055
Mars	91744-02-08 23:31 G	35229906.24	35229906.48	35229906.75	0.0267	0.0165
Mercury	91744-03-15 08:24 G	35229941.73	35229941.85	35229941.98	0.0267	0.0059
Mercury	91744-06-11 18:29 G	35230030.18	35230030.27	35230030.38	0.0266	0.0172
Venus	91752-01-02 13:55 G	35232790.96	35232791.08	35232791.19	0.0261	0.0217
Venus	91752-08-18 11:31 G	35233019.77	35233019.98	35233020.19	0.0263	0.0044
Moon	91753-02-02 01:41 G	35233187.34	35233187.57	35233187.80	0.0264	0.0079
Earth	91753-02-02 02:24 G	35233187.36	35233187.60	35233187.84	0.0264	0.0065 *
Venus	91753-04-04 10:05 G	35233248.75	35233248.92	35233249.11	0.0265	0.0135
Earth	91754-02-14 00:58 G	35233564.40	35233564.54	35233564.70	0.0268	0.0210
Moon	91754-02-14 04:34 G	35233564.53	35233564.69	35233564.86	0.0268	0.0195 *
Mercury	91759-10-01 15:22 G	35235620.08	35235620.14	35235620.20	0.0294	0.0278

Mercury	91759-12-29 17:02 G	35235709.03	35235709.21	35235709.39	0.0295	0.0058
Mars	91760-01-31 13:12 G	35235741.82	35235742.05	35235742.29	0.0295	0.0137
Mercury	91760-03-27 18:14 G	35235798.12	35235798.26	35235798.42	0.0296	0.0163
Venus	91765-11-01 15:07 G	35237843.11	35237843.13	35237843.16	0.0301	0.0298
Venus	91766-06-19 20:10 G	35238073.13	35238073.34	35238073.55	0.0299	0.0033
Earth	91766-07-29 02:53 G	35238112.42	35238112.62	35238112.83	0.0299	0.0155
Moon	91766-07-29 06:14 G	35238112.56	35238112.76	35238112.98	0.0299	0.0139 *
Venus	91767-02-04 23:46 G	35238303.36	35238303.49	35238303.63	0.0297	0.0227
Earth	91767-08-12 15:50 G	35238492.02	35238492.16	35238492.33	0.0295	0.0228
Moon	91767-08-12 19:12 G	35238492.17	35238492.30	35238492.45	0.0295	0.0244 *
Mercury	91773-02-06 14:24 G	35240497.02	35240497.10	35240497.19	0.0269	0.0210
Mercury	91773-05-06 00:29 G	35240585.40	35240585.52	35240585.65	0.0269	0.0096
Mercury	91773-08-02 10:48 G	35240673.81	35240673.95	35240674.08	0.0268	0.0021
Mercury	91773-10-29 20:53 G	35240762.25	35240762.37	35240762.48	0.0267	0.0133
Mercury	91774-01-26 06:58 G	35240850.74	35240850.79	35240850.84	0.0266	0.0246
Venus	91781-07-14 16:48 G	35243577.07	35243577.20	35243577.35	0.0261	0.0192
Earth	91782-01-28 06:29 G	35243774.60	35243774.77	35243774.95	0.0263	0.0184
Moon	91782-01-28 07:26 G	35243774.65	35243774.81	35243774.99	0.0263	0.0194 *
Venus	91782-02-28 15:07 G	35243805.91	35243806.13	35243806.34	0.0263	0.0017
Venus	91782-10-15 13:41 G	35244034.91	35244035.07	35244035.25	0.0265	0.0162
Moon	91783-02-08 23:31 G	35244151.24	35244151.48	35244151.73	0.0266	0.0069
Earth	91783-02-09 03:07 G	35244151.40	35244151.63	35244151.87	0.0266	0.0085 *
Mercury	91789-05-17 14:24 G	35246440.94	35246441.10	35246441.28	0.0294	0.0126
Mercury	91789-08-14 16:05 G	35246530.00	35246530.17	35246530.35	0.0295	0.0095
Venus	91795-05-14 21:07 G	35248629.29	35248629.38	35248629.49	0.0301	0.0266
Venus	91795-12-31 02:10 G	35248859.37	35248859.59	35248859.80	0.0299	0.0005
Moon	91796-08-05 10:34 G	35249077.72	35249077.94	35249078.18	0.0297	0.0076
Earth	91796-08-05 13:41 G	35249077.83	35249078.07	35249078.31	0.0297	0.0058 *
Venus	91796-08-17 05:31 G	35249089.63	35249089.73	35249089.83	0.0297	0.0260
Mercury	91802-06-27 17:02 G	35251229.16	35251229.21	35251229.26	0.0269	0.0245

Mercury	91802-09-24 03:07 G	35251317.52	35251317.63	35251317.75	0.0268	0.0130
Mercury	91802-12-21 13:12 G	35251405.92	35251406.05	35251406.19	0.0268	0.0017
Mercury	91803-03-19 23:17 G	35251494.35	35251494.47	35251494.60	0.0267	0.0099
Mercury	91803-06-16 09:22 G	35251582.82	35251582.89	35251582.98	0.0266	0.0212
Venus	91811-01-25 19:41 G	35254363.16	35254363.32	35254363.49	0.0262	0.0167
Venus	91811-09-11 17:46 G	35254592.03	35254592.24	35254592.45	0.0263	0.0008
Earth	91812-02-05 04:48 G	35254738.45	35254738.70	35254738.95	0.0264	0.0038
Moon	91812-02-05 08:10 G	35254738.60	35254738.84	35254739.08	0.0264	0.0053 *
Venus	91812-04-27 16:34 G	35254821.04	35254821.19	35254821.34	0.0265	0.0186
Earth	91813-02-16 03:50 G	35255115.55	35255115.66	35255115.78	0.0268	0.0236
Moon	91813-02-16 06:14 G	35255115.63	35255115.76	35255115.90	0.0268	0.0223 *
Mercury	91818-10-05 11:02 G	35257172.83	35257172.96	35257173.10	0.0294	0.0200
Mercury	91819-01-02 12:43 G	35257261.85	35257262.03	35257262.22	0.0295	0.0020
Mercury	91819-04-01 13:55 G	35257350.98	35257351.08	35257351.19	0.0296	0.0240
Venus	91824-11-25 00:58 G	35259415.42	35259415.54	35259415.68	0.0301	0.0233
Venus	91825-07-13 05:46 G	35259645.53	35259645.74	35259645.95	0.0299	0.0033
Earth	91825-07-31 05:46 G	35259663.52	35259663.74	35259663.97	0.0299	0.0123
Moon	91825-07-31 08:10 G	35259663.61	35259663.84	35259664.07	0.0299	0.0104 *
Venus	91826-02-28 08:53 G	35259875.84	35259875.87	35259875.92	0.0296	0.0292
Moon	91826-08-14 17:46 G	35260043.15	35260043.24	35260043.33	0.0295	0.0273
Earth	91826-08-14 18:14 G	35260043.16	35260043.26	35260043.39	0.0295	0.0258 *
Mercury	91832-02-11 05:31 G	35262049.63	35262049.73	35262049.84	0.0269	0.0168
Mercury	91832-05-09 15:50 G	35262138.03	35262138.16	35262138.29	0.0268	0.0053
Mars	91832-07-05 01:26 G	35262194.27	35262194.56	35262194.86	0.0268	0.0121
Mercury	91832-08-06 01:55 G	35262226.45	35262226.58	35262226.71	0.0268	0.0062
Mercury	91832-11-02 12:00 G	35262314.90	35262315.00	35262315.10	0.0267	0.0176
Venus	91840-08-06 23:31 G	35265149.31	35265149.48	35265149.67	0.0262	0.0141
Moon	91841-01-30 07:12 G	35265325.61	35265325.80	35265326.00	0.0263	0.0168
Earth	91841-01-30 10:05 G	35265325.73	35265325.92	35265326.13	0.0263	0.0156 *
Venus	91841-03-23 22:05 G	35265378.21	35265378.42	35265378.63	0.0263	0.0035

Venus	91841-11-07 21:07 G	35265607.26	35265607.38	35265607.51	0.0265	0.0215
Moon	91842-02-11 05:02 G	35265702.49	35265702.71	35265702.94	0.0266	0.0100
Earth	91842-02-11 07:12 G	35265702.58	35265702.80	35265703.03	0.0266	0.0114 *
Mercury	91848-02-22 09:36 G	35267904.82	35267904.90	35267904.99	0.0293	0.0259
Mercury	91848-05-21 11:17 G	35267993.79	35267993.97	35267994.16	0.0294	0.0039
Mars	91848-06-27 06:00 G	35268030.49	35268030.75	35268031.00	0.0295	0.0074
Mercury	91848-08-18 12:43 G	35268082.88	35268083.03	35268083.18	0.0295	0.0180
Venus	91854-06-07 08:53 G	35270201.72	35270201.87	35270202.04	0.0301	0.0196
Moon	91854-07-25 01:55 G	35270249.50	35270249.58	35270249.67	0.0301	0.0278
Earth	91854-07-25 03:07 G	35270249.59	35270249.63	35270249.68	0.0301	0.0295 *
Venus	91855-01-23 13:26 G	35270431.86	35270432.06	35270432.27	0.0299	0.0070
Earth	91855-08-08 18:58 G	35270629.07	35270629.29	35270629.53	0.0297	0.0093
Moon	91855-08-08 20:38 G	35270629.14	35270629.36	35270629.58	0.0297	0.0111 *
Mercury	91861-06-30 08:38 G	35272781.77	35272781.86	35272781.94	0.0269	0.0200
Mercury	91861-09-26 18:43 G	35272870.15	35272870.28	35272870.40	0.0268	0.0085
Mercury	91861-12-24 04:48 G	35272958.57	35272958.70	35272958.83	0.0268	0.0030
Mercury	91862-03-22 14:53 G	35273047.01	35273047.12	35273047.23	0.0267	0.0144
Mercury	91862-06-19 00:58 G	35273135.52	35273135.54	35273135.58	0.0266	0.0258
Venus	91870-02-17 04:05 G	35275935.48	35275935.67	35275935.86	0.0262	0.0114
Venus	91870-10-04 02:24 G	35276164.39	35276164.60	35276164.81	0.0264	0.0063
Earth	91871-02-06 11:17 G	35276289.72	35276289.97	35276290.22	0.0265	0.0007
Moon	91871-02-06 13:41 G	35276289.82	35276290.07	35276290.33	0.0265	0.0022 *
Venus	91871-05-21 01:26 G	35276393.48	35276393.56	35276393.65	0.0266	0.0243
Moon	91872-02-18 08:24 G	35276666.80	35276666.85	35276666.93	0.0268	0.0259
Earth	91872-02-18 11:17 G	35276666.97	35276666.97	35276666.98	0.0268	0.0268
Mercury	91877-10-08 09:07 G	35278725.71	35278725.88	35278726.06	0.0294	0.0104
Mercury	91878-01-05 10:34 G	35278814.77	35278814.94	35278815.11	0.0295	0.0116
Venus	91883-12-18 14:53 G	35280987.95	35280988.12	35280988.30	0.0300	0.0159
Moon	91884-08-01 12:14 G	35281214.77	35281215.01	35281215.26	0.0298	0.0066
Earth	91884-08-01 14:53 G	35281214.89	35281215.12	35281215.35	0.0298	0.0083 *

Venus	91884-08-04 19:12 G	35281218.10	35281218.30	35281218.49	0.0298	0.0106
Earth	91885-08-16 02:24 G	35281594.59	35281594.60	35281594.63	0.0294	0.0293
Mercury	91890-11-17 11:02 G	35283513.91	35283513.96	35283514.03	0.0270	0.0236
Mercury	91891-02-13 21:22 G	35283602.27	35283602.39	35283602.51	0.0269	0.0119
Mercury	91891-05-13 07:26 G	35283690.68	35283690.81	35283690.94	0.0268	0.0006
Mercury	91891-08-09 17:31 G	35283779.11	35283779.23	35283779.36	0.0267	0.0111
Mercury	91891-11-06 03:36 G	35283867.59	35283867.65	35283867.73	0.0267	0.0225
Venus	91899-01-13 10:48 G	35286492.94	35286492.95	35286492.98	0.0261	0.0259
Venus	91899-08-30 08:38 G	35286721.66	35286721.86	35286722.07	0.0262	0.0086
Moon	91900-02-01 14:38 G	35286876.90	35286877.11	35286877.32	0.0263	0.0137
Earth	91900-02-01 17:31 G	35286877.01	35286877.23	35286877.45	0.0263	0.0123 *
Venus	91900-04-16 07:12 G	35286950.61	35286950.80	35286951.00	0.0264	0.0092
Earth	91901-02-13 15:07 G	35287253.93	35287254.13	35287254.34	0.0266	0.0147
Moon	91901-02-13 17:17 G	35287254.02	35287254.22	35287254.44	0.0266	0.0136 *
Mercury	91907-02-26 08:10 G	35289457.69	35289457.84	35289458.00	0.0294	0.0158
Mercury	91907-05-26 09:36 G	35289546.72	35289546.90	35289547.09	0.0295	0.0062
Mercury	91907-08-23 10:48 G	35289635.91	35289635.95	35289636.02	0.0296	0.0281
Venus	91913-07-01 00:00 G	35291774.31	35291774.50	35291774.69	0.0301	0.0119
Earth	91913-07-27 14:24 G	35291800.98	35291801.10	35291801.24	0.0300	0.0252
Moon	91913-07-27 17:17 G	35291801.08	35291801.22	35291801.37	0.0300	0.0236 *
Venus	91914-02-16 04:05 G	35292004.49	35292004.67	35292004.85	0.0298	0.0145
Earth	91914-08-11 05:31 G	35292180.52	35292180.73	35292180.96	0.0297	0.0134
Moon	91914-08-11 09:22 G	35292180.69	35292180.89	35292181.11	0.0297	0.0151 *
Mercury	91920-04-06 14:24 G	35294246.08	35294246.10	35294246.13	0.0270	0.0264
Mercury	91920-07-04 00:29 G	35294334.41	35294334.52	35294334.63	0.0269	0.0148
Mercury	91920-09-30 10:48 G	35294422.81	35294422.95	35294423.08	0.0268	0.0034
Mars	91920-11-30 02:53 G	35294483.29	35294483.62	35294483.94	0.0268	0.0024
Mercury	91920-12-27 20:53 G	35294511.24	35294511.37	35294511.49	0.0267	0.0082
Mercury	91921-03-26 06:58 G	35294599.70	35294599.79	35294599.88	0.0267	0.0196
Venus	91928-07-26 16:34 G	35297279.09	35297279.19	35297279.28	0.0261	0.0231

Earth	91929-01-28 01:12 G	35297464.46	35297464.55	35297464.67	0.0262	0.0236
Moon	91929-01-28 04:48 G	35297464.62	35297464.70	35297464.79	0.0262	0.0245 *
Venus	91929-03-12 14:24 G	35297507.89	35297508.10	35297508.31	0.0263	0.0057
Venus	91929-10-27 12:58 G	35297736.86	35297737.04	35297737.23	0.0264	0.0122
Moon	91930-02-08 19:26 G	35297841.06	35297841.31	35297841.57	0.0265	0.0015
Earth	91930-02-08 21:07 G	35297841.13	35297841.38	35297841.63	0.0265	0.0028 *
Mercury	91936-07-15 06:58 G	35300189.67	35300189.79	35300189.92	0.0293	0.0215
Mercury	91936-10-12 08:38 G	35300278.68	35300278.86	35300279.05	0.0294	0.0005
Mars	91936-11-22 15:22 G	35300319.87	35300320.14	35300320.40	0.0295	0.0028
Mercury	91937-01-09 09:50 G	35300367.80	35300367.91	35300368.04	0.0295	0.0224
Venus	91943-01-11 08:10 G	35302560.64	35302560.84	35302561.04	0.0300	0.0078
Moon	91943-08-05 02:10 G	35302766.35	35302766.59	35302766.83	0.0298	0.0021
Earth	91943-08-05 05:31 G	35302766.49	35302766.73	35302766.97	0.0298	0.0038 *
Venus	91943-08-29 11:46 G	35302790.83	35302790.99	35302791.16	0.0297	0.0185
Mercury	91949-11-21 03:22 G	35305066.55	35305066.64	35305066.74	0.0270	0.0180
Mercury	91950-02-17 13:41 G	35305154.94	35305155.07	35305155.20	0.0269	0.0064
Mercury	91950-05-16 23:46 G	35305243.36	35305243.49	35305243.62	0.0268	0.0051
Mercury	91950-08-13 10:05 G	35305331.81	35305331.92	35305332.02	0.0267	0.0165
Venus	91958-02-05 21:22 G	35308065.26	35308065.39	35308065.53	0.0262	0.0203
Venus	91958-09-22 19:41 G	35308294.11	35308294.32	35308294.53	0.0263	0.0028
Earth	91959-02-04 04:05 G	35308428.43	35308428.67	35308428.90	0.0264	0.0088
Moon	91959-02-04 04:48 G	35308428.48	35308428.70	35308428.93	0.0264	0.0103 *
Venus	91959-05-09 18:29 G	35308523.10	35308523.27	35308523.45	0.0264	0.0152
Earth	91960-02-16 02:38 G	35308805.43	35308805.61	35308805.79	0.0267	0.0183
Moon	91960-02-16 06:14 G	35308805.57	35308805.76	35308805.95	0.0267	0.0171 *
Mercury	91965-12-02 06:58 G	35310921.71	35310921.79	35310921.87	0.0293	0.0261
Mercury	91966-03-01 08:24 G	35311010.67	35311010.85	35311011.04	0.0294	0.0043
Mercury	91966-05-29 09:50 G	35311099.76	35311099.91	35311100.06	0.0295	0.0177
Venus	91972-07-23 18:29 G	35313347.07	35313347.27	35313347.49	0.0300	0.0036
Earth	91972-07-29 07:55 G	35313352.66	35313352.83	35313353.01	0.0300	0.0203

Moon	91972-07-29 11:02 G	35313352.78	35313352.96	35313353.16	0.0300	0.0186	*
Venus	91973-03-10 22:05 G	35313577.29	35313577.42	35313577.56	0.0298	0.0228	
Earth	91973-08-12 22:05 G	35313732.23	35313732.42	35313732.62	0.0296	0.0179	
Moon	91973-08-12 22:34 G	35313732.26	35313732.44	35313732.64	0.0296	0.0194	*
Mercury	91979-04-10 06:58 G	35315798.71	35315798.79	35315798.87	0.0270	0.0206	
Mercury	91979-07-07 17:02 G	35315887.09	35315887.21	35315887.34	0.0269	0.0090	
Mercury	91979-10-04 03:22 G	35315975.51	35315975.64	35315975.77	0.0268	0.0026	
Mercury	91979-12-31 13:26 G	35316063.95	35316064.06	35316064.17	0.0267	0.0140	
Mercury	91980-03-28 23:31 G	35316152.45	35316152.48	35316152.52	0.0266	0.0254	
Venus	91987-08-19 03:50 G	35318851.50	35318851.66	35318851.82	0.0262	0.0172	
Moon	91988-01-30 12:00 G	35319015.87	35319016.00	35319016.17	0.0263	0.0213	
Earth	91988-01-30 13:12 G	35319015.89	35319016.05	35319016.21	0.0263	0.0200	*
Venus	91988-04-04 02:10 G	35319080.38	35319080.59	35319080.81	0.0263	0.0005	
Venus	91988-11-19 01:12 G	35319309.41	35319309.55	35319309.71	0.0265	0.0184	
Moon	91989-02-10 06:00 G	35319392.51	35319392.75	35319392.99	0.0266	0.0051	
Earth	91989-02-10 09:36 G	35319392.66	35319392.90	35319393.14	0.0266	0.0066	*
Mercury	91995-07-19 07:55 G	35321742.66	35321742.83	35321743.01	0.0294	0.0094	
Mercury	91995-10-16 09:22 G	35321831.73	35321831.89	35321832.06	0.0295	0.0126	

93RD MILLENNIUM CE

This is a list of transits visible from Saturn in the 93rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	92001-06-17 23:02 G	35323903.37	35323903.46	35323903.58	0.0301	0.0259		

Venus	92002-02-03 03:50 G	35324133.45	35324133.66	35324133.87	0.0299	0.0009
Moon	92002-08-06 23:46 G	35324318.26	35324318.49	35324318.73	0.0297	0.0028
Earth	92002-08-07 00:00 G	35324318.26	35324318.50	35324318.75	0.0297	0.0014 *
Venus	92002-09-21 06:58 G	35324363.71	35324363.79	35324363.88	0.0297	0.0268
Mercury	92008-08-27 10:05 G	35326530.86	35326530.92	35326530.99	0.0270	0.0235
Mercury	92008-11-23 20:24 G	35326619.23	35326619.35	35326619.46	0.0269	0.0119
Mercury	92009-02-20 06:29 G	35326707.64	35326707.77	35326707.90	0.0268	0.0004
Mars	92009-04-26 15:22 G	35326772.84	35326773.14	35326773.45	0.0268	0.0091
Mercury	92009-05-19 16:34 G	35326796.07	35326796.19	35326796.31	0.0268	0.0111
Mercury	92009-08-16 02:38 G	35326884.55	35326884.61	35326884.69	0.0267	0.0226
Venus	92017-02-28 09:07 G	35329637.71	35329637.88	35329638.06	0.0262	0.0144
Venus	92017-10-15 07:41 G	35329866.61	35329866.82	35329867.04	0.0263	0.0034
Earth	92018-02-05 16:05 G	35329979.93	35329980.17	35329980.42	0.0264	0.0051
Moon	92018-02-05 19:55 G	35329980.10	35329980.33	35329980.58	0.0264	0.0067 *
Venus	92018-06-01 06:58 G	35330095.67	35330095.79	35330095.92	0.0265	0.0214
Earth	92019-02-17 15:50 G	35330357.03	35330357.16	35330357.31	0.0267	0.0222
Moon	92019-02-17 16:34 G	35330357.04	35330357.19	35330357.35	0.0267	0.0211 *
Mercury	92024-12-05 07:55 G	35332474.67	35332474.83	35332475.00	0.0293	0.0140
Mercury	92025-03-04 09:22 G	35332563.72	35332563.89	35332564.07	0.0294	0.0080
Mars	92025-04-19 16:05 G	35332609.97	35332610.17	35332610.40	0.0295	0.0177
Venus	92030-12-29 10:34 G	35334689.80	35334689.94	35334690.09	0.0301	0.0214
Earth	92031-08-01 04:34 G	35334904.48	35334904.69	35334904.90	0.0299	0.0151
Moon	92031-08-01 04:48 G	35334904.48	35334904.70	35334904.93	0.0299	0.0134 *
Venus	92031-08-16 15:07 G	35334919.92	35334920.13	35334920.34	0.0299	0.0053
Moon	92032-08-14 14:38 G	35335283.97	35335284.11	35335284.25	0.0295	0.0242
Earth	92032-08-14 17:31 G	35335284.09	35335284.23	35335284.39	0.0295	0.0229 *
Mercury	92038-01-14 13:41 G	35337263.04	35337263.07	35337263.11	0.0270	0.0260
Mercury	92038-04-13 00:00 G	35337351.39	35337351.50	35337351.61	0.0269	0.0143
Mercury	92038-07-10 10:05 G	35337439.79	35337439.92	35337440.05	0.0268	0.0028
Mercury	92038-10-06 20:10 G	35337528.22	35337528.34	35337528.47	0.0268	0.0087

Mercury	92039-01-03 06:14 G	35337616.68	35337616.76	35337616.85	0.0267	0.0202
Venus	92046-09-10 16:05 G	35340423.98	35340424.17	35340424.36	0.0262	0.0112
Moon	92047-01-31 21:50 G	35340567.24	35340567.41	35340567.60	0.0263	0.0179
Earth	92047-02-01 01:41 G	35340567.38	35340567.57	35340567.77	0.0263	0.0164 *
Venus	92047-04-27 14:38 G	35340652.91	35340653.11	35340653.32	0.0264	0.0066
Venus	92047-12-12 13:55 G	35340882.02	35340882.08	35340882.17	0.0266	0.0248
Moon	92048-02-12 22:05 G	35340944.20	35340944.42	35340944.65	0.0266	0.0090
Earth	92048-02-12 23:02 G	35340944.24	35340944.46	35340944.69	0.0266	0.0104 *
Mercury	92054-04-24 08:10 G	35343206.70	35343206.84	35343206.98	0.0293	0.0186
Mercury	92054-07-22 09:36 G	35343295.72	35343295.90	35343296.09	0.0295	0.0034
Mercury	92054-10-19 11:02 G	35343384.86	35343384.96	35343385.05	0.0296	0.0253
Venus	92060-07-10 21:22 G	35345476.22	35345476.39	35345476.57	0.0300	0.0168
Venus	92061-02-26 01:26 G	35345706.36	35345706.56	35345706.76	0.0298	0.0098
Earth	92061-08-08 22:19 G	35345870.19	35345870.43	35345870.67	0.0297	0.0066
Moon	92061-08-09 01:12 G	35345870.32	35345870.55	35345870.78	0.0297	0.0083 *
Jupiter	92063-01-08 21:22 G	35346387.94	35346388.39	35346388.85	0.0290	0.0015
Mercury	92067-08-31 03:07 G	35348083.54	35348083.63	35348083.74	0.0270	0.0172
Mercury	92067-11-27 13:26 G	35348171.93	35348172.06	35348172.19	0.0269	0.0055
Mercury	92068-02-23 23:31 G	35348260.35	35348260.48	35348260.61	0.0268	0.0060
Mercury	92068-05-22 09:36 G	35348348.81	35348348.90	35348349.00	0.0267	0.0174
Venus	92075-08-06 22:48 G	35350981.44	35350981.45	35350981.50	0.0261	0.0259
Venus	92076-03-22 21:07 G	35351210.19	35351210.38	35351210.59	0.0263	0.0084
Venus	92076-11-06 20:10 G	35351439.14	35351439.34	35351439.54	0.0264	0.0096
Earth	92077-02-07 04:48 G	35351531.46	35351531.70	35351531.95	0.0265	0.0014
Moon	92077-02-07 06:00 G	35351531.49	35351531.75	35351532.01	0.0265	0.0029 *
Moon	92078-02-19 02:10 G	35351908.52	35351908.59	35351908.69	0.0268	0.0250
Earth	92078-02-19 05:31 G	35351908.68	35351908.73	35351908.80	0.0268	0.0260 *
Mercury	92083-09-11 07:41 G	35353938.71	35353938.82	35353938.94	0.0293	0.0233
Mercury	92083-12-09 09:22 G	35354027.70	35354027.89	35354028.08	0.0294	0.0014
Mercury	92084-03-07 10:48 G	35354116.82	35354116.95	35354117.08	0.0295	0.0205

Venus	92090-01-21 08:24 G	35356262.66	35356262.85	35356263.04	0.0300	0.0123
Moon	92090-08-02 23:17 G	35356456.24	35356456.47	35356456.71	0.0299	0.0080
Earth	92090-08-03 02:38 G	35356456.39	35356456.61	35356456.84	0.0299	0.0098 *
Venus	92090-09-08 12:29 G	35356492.83	35356493.02	35356493.20	0.0298	0.0143
Moon	92091-08-17 11:17 G	35356835.96	35356835.97	35356836.00	0.0295	0.0294
Earth	92091-08-17 14:38 G	35356836.03	35356836.11	35356836.19	0.0295	0.0278
Mercury	92097-01-17 06:58 G	35358815.70	35358815.79	35358815.88	0.0270	0.0195
Mercury	92097-04-15 17:02 G	35358904.09	35358904.21	35358904.34	0.0269	0.0079
Mercury	92097-07-13 03:07 G	35358992.50	35358992.63	35358992.76	0.0268	0.0036
Mars	92097-09-21 18:58 G	35359063.16	35359063.29	35359063.45	0.0267	0.0238
Mercury	92097-10-09 13:12 G	35359080.95	35359081.05	35359081.16	0.0267	0.0151
Mercury	92098-01-05 23:31 G	35359169.47	35359169.48	35359169.49	0.0266	0.0265
Venus	92105-02-17 05:31 G	35361767.64	35361767.73	35361767.85	0.0261	0.0227
Venus	92105-10-04 04:05 G	35361996.46	35361996.67	35361996.88	0.0263	0.0051
Moon	92106-02-03 12:29 G	35362118.82	35362119.02	35362119.22	0.0263	0.0142
Earth	92106-02-03 13:41 G	35362118.86	35362119.07	35362119.30	0.0263	0.0128 *
Venus	92106-05-21 02:53 G	35362225.44	35362225.62	35362225.81	0.0264	0.0129
Earth	92107-02-15 12:00 G	35362495.79	35362496.00	35362496.21	0.0267	0.0141
Moon	92107-02-15 15:22 G	35362495.93	35362496.14	35362496.35	0.0267	0.0128 *
Mercury	92113-01-29 07:41 G	35364670.78	35364670.82	35364670.88	0.0293	0.0281
Mercury	92113-04-28 09:22 G	35364759.71	35364759.89	35364760.07	0.0294	0.0061
Mercury	92113-07-26 10:48 G	35364848.79	35364848.95	35364849.11	0.0295	0.0158
Earth	92119-07-29 05:02 G	35367042.61	35367042.71	35367042.83	0.0300	0.0266
Moon	92119-07-29 08:53 G	35367042.74	35367042.87	35367043.00	0.0300	0.0247 *
Venus	92119-08-04 19:12 G	35367049.10	35367049.30	35367049.50	0.0300	0.0077
Venus	92120-03-21 22:48 G	35367279.29	35367279.45	35367279.62	0.0298	0.0187
Earth	92120-08-11 19:55 G	35367422.12	35367422.33	35367422.56	0.0296	0.0118
Moon	92120-08-11 23:17 G	35367422.26	35367422.47	35367422.70	0.0296	0.0135 *
Mercury	92126-06-07 10:19 G	35369547.86	35369547.93	35369548.00	0.0270	0.0222
Mercury	92126-09-03 20:24 G	35369636.23	35369636.35	35369636.47	0.0269	0.0107

Mercury	92126-12-01 06:29 G	35369724.64	35369724.77	35369724.91	0.0268	0.0011
Mercury	92127-02-27 16:48 G	35369813.08	35369813.20	35369813.31	0.0267	0.0124
Mercury	92127-05-27 02:53 G	35369901.56	35369901.62	35369901.68	0.0266	0.0237
Venus	92134-08-30 10:05 G	35372553.79	35372553.92	35372554.07	0.0262	0.0200
Earth	92135-01-29 19:55 G	35372706.24	35372706.33	35372706.43	0.0263	0.0242
Moon	92135-01-29 21:50 G	35372706.35	35372706.41	35372706.50	0.0263	0.0251 *
Venus	92135-04-16 08:38 G	35372782.64	35372782.86	35372783.07	0.0263	0.0023
Venus	92135-12-01 07:26 G	35373011.65	35373011.81	35373011.99	0.0265	0.0158
Moon	92136-02-10 12:43 G	35373082.78	35373083.03	35373083.29	0.0265	0.0008
Earth	92136-02-10 16:05 G	35373082.92	35373083.17	35373083.42	0.0265	0.0022 *
Mercury	92142-09-15 08:24 G	35375491.69	35375491.85	35375492.03	0.0293	0.0114
Mercury	92142-12-13 10:05 G	35375580.75	35375580.92	35375581.09	0.0295	0.0107
Venus	92148-06-29 00:58 G	35377605.53	35377605.54	35377605.57	0.0302	0.0300
Venus	92149-02-14 06:00 G	35377835.54	35377835.75	35377835.96	0.0300	0.0032
Moon	92149-08-05 21:50 G	35378008.17	35378008.41	35378008.64	0.0298	0.0028
Earth	92149-08-06 00:29 G	35378008.28	35378008.52	35378008.76	0.0298	0.0046 *
Venus	92149-10-02 09:36 G	35378065.77	35378065.90	35378066.03	0.0298	0.0232
Mercury	92155-10-25 13:55 G	35380280.03	35380280.08	35380280.13	0.0270	0.0247
Mercury	92156-01-22 00:00 G	35380368.39	35380368.50	35380368.62	0.0269	0.0131
Mercury	92156-04-19 10:05 G	35380456.79	35380456.92	35380457.06	0.0268	0.0018
Mercury	92156-07-16 20:10 G	35380545.22	35380545.34	35380545.47	0.0267	0.0100
Mercury	92156-10-13 06:14 G	35380633.69	35380633.76	35380633.85	0.0267	0.0214
Venus	92164-03-11 16:19 G	35383340.02	35383340.18	35383340.35	0.0262	0.0168
Venus	92164-10-26 14:53 G	35383568.91	35383569.12	35383569.34	0.0263	0.0010
Earth	92165-02-04 23:46 G	35383670.26	35383670.49	35383670.73	0.0264	0.0095
Moon	92165-02-05 02:24 G	35383670.38	35383670.60	35383670.82	0.0264	0.0109 *
Venus	92165-06-12 13:55 G	35383797.94	35383798.08	35383798.23	0.0265	0.0190
Earth	92166-02-16 22:34 G	35384047.27	35384047.44	35384047.64	0.0267	0.0176
Moon	92166-02-17 01:26 G	35384047.37	35384047.56	35384047.77	0.0267	0.0164 *
Mercury	92172-02-02 08:10 G	35386223.69	35386223.84	35386224.00	0.0294	0.0164

Mercury	92172-05-01 09:50 G	35386312.73	35386312.91	35386313.09	0.0295	0.0057
Mercury	92172-07-29 11:02 G	35386401.90	35386401.96	35386402.03	0.0296	0.0277
Venus	92178-01-09 11:02 G	35388391.86	35388391.96	35388392.07	0.0301	0.0256
Earth	92178-07-31 01:41 G	35388594.41	35388594.57	35388594.74	0.0300	0.0215
Moon	92178-07-31 04:05 G	35388594.48	35388594.67	35388594.86	0.0300	0.0197 *
Venus	92178-08-27 15:36 G	35388621.94	35388622.15	35388622.36	0.0299	0.0013
Venus	92179-04-14 18:58 G	35388852.22	35388852.29	35388852.38	0.0297	0.0274
Moon	92179-08-14 15:07 G	35388973.94	35388974.13	35388974.33	0.0296	0.0182
Earth	92179-08-14 15:50 G	35388973.97	35388974.16	35388974.37	0.0296	0.0167 *
Mercury	92185-06-10 03:07 G	35391100.53	35391100.63	35391100.74	0.0269	0.0160
Mercury	92185-09-06 13:26 G	35391188.93	35391189.06	35391189.19	0.0268	0.0045
Mercury	92185-12-03 23:31 G	35391277.35	35391277.48	35391277.61	0.0267	0.0070
Mercury	92186-03-02 09:36 G	35391365.81	35391365.90	35391365.99	0.0267	0.0185
Venus	92193-09-21 19:55 G	35394126.16	35394126.33	35394126.52	0.0262	0.0142
Moon	92194-01-31 01:55 G	35394257.46	35394257.58	35394257.73	0.0263	0.0223
Earth	92194-01-31 04:19 G	35394257.54	35394257.68	35394257.84	0.0263	0.0211 *
Venus	92194-05-08 18:29 G	35394355.06	35394355.27	35394355.48	0.0263	0.0036
Venus	92194-12-23 17:31 G	35394584.12	35394584.23	35394584.36	0.0265	0.0217
Moon	92195-02-11 22:05 G	35394634.19	35394634.42	35394634.67	0.0265	0.0041
Earth	92195-02-12 00:58 G	35394634.30	35394634.54	35394634.78	0.0265	0.0054 *
Mercury	92201-06-22 06:29 G	35396955.65	35396955.77	35396955.89	0.0293	0.0223
Mercury	92201-09-19 08:10 G	35397044.65	35397044.84	35397045.02	0.0294	0.0004
Mercury	92201-12-17 09:22 G	35397133.77	35397133.89	35397134.02	0.0295	0.0217
Venus	92207-07-23 20:10 G	35399178.20	35399178.34	35399178.50	0.0301	0.0213
Venus	92208-03-10 00:58 G	35399408.33	35399408.54	35399408.75	0.0299	0.0055
Earth	92208-08-08 18:29 G	35399560.03	35399560.27	35399560.51	0.0298	0.0002
Moon	92208-08-08 19:55 G	35399560.10	35399560.33	35399560.57	0.0298	0.0017 *
Mercury	92214-10-29 06:43 G	35401832.69	35401832.78	35401832.87	0.0270	0.0186
Mercury	92215-01-25 16:48 G	35401921.07	35401921.20	35401921.33	0.0269	0.0071
Mercury	92215-04-24 02:53 G	35402009.49	35402009.62	35402009.75	0.0268	0.0044

Mercury	92215-07-21 12:58 G	35402097.94	35402098.04	35402098.15	0.0267	0.0159
Venus	92223-04-05 01:12 G	35404912.36	35404912.55	35404912.75	0.0262	0.0111
Venus	92223-11-19 23:46 G	35405141.29	35405141.49	35405141.70	0.0263	0.0067
Earth	92224-02-08 06:43 G	35405221.54	35405221.78	35405222.02	0.0264	0.0065
Moon	92224-02-08 09:50 G	35405221.67	35405221.91	35405222.15	0.0264	0.0080 *
Venus	92224-07-05 23:02 G	35405370.39	35405370.46	35405370.54	0.0265	0.0247
Moon	92225-02-19 03:50 G	35405598.50	35405598.66	35405598.84	0.0267	0.0198
Earth	92225-02-19 05:46 G	35405598.59	35405598.74	35405598.91	0.0267	0.0206 *
Mercury	92230-11-09 05:17 G	35407687.67	35407687.72	35407687.77	0.0293	0.0281
Mercury	92231-02-06 06:58 G	35407776.61	35407776.79	35407776.97	0.0294	0.0060
Mercury	92231-05-06 08:24 G	35407865.70	35407865.85	35407866.01	0.0295	0.0161
Venus	92237-02-02 05:17 G	35409964.55	35409964.72	35409964.90	0.0301	0.0171
Moon	92237-08-02 16:19 G	35410145.97	35410146.18	35410146.40	0.0299	0.0154
Earth	92237-08-02 18:29 G	35410146.08	35410146.27	35410146.47	0.0299	0.0170 *
Venus	92237-09-20 09:36 G	35410194.71	35410194.90	35410195.11	0.0299	0.0097
Moon	92238-08-17 04:05 G	35410525.53	35410525.67	35410525.84	0.0295	0.0226
Earth	92238-08-17 08:10 G	35410525.67	35410525.84	35410526.01	0.0295	0.0210 *
Mercury	92244-03-17 09:36 G	35412564.83	35412564.90	35412564.98	0.0269	0.0217
Mercury	92244-06-13 19:41 G	35412653.20	35412653.32	35412653.45	0.0268	0.0102
Mercury	92244-09-10 06:00 G	35412741.61	35412741.75	35412741.88	0.0268	0.0015
Mercury	92244-12-07 16:05 G	35412830.05	35412830.17	35412830.28	0.0267	0.0128
Mercury	92245-03-06 02:10 G	35412918.54	35412918.59	35412918.64	0.0266	0.0242
Venus	92252-10-15 04:05 G	35415698.47	35415698.67	35415698.87	0.0262	0.0087
Moon	92253-02-02 05:46 G	35415808.59	35415808.74	35415808.91	0.0263	0.0198
Earth	92253-02-02 09:22 G	35415808.72	35415808.89	35415809.07	0.0263	0.0183 *
Venus	92253-06-01 02:24 G	35415927.40	35415927.60	35415927.80	0.0264	0.0091
Earth	92254-02-14 06:00 G	35416185.52	35416185.75	35416185.99	0.0266	0.0082
Moon	92254-02-14 07:12 G	35416185.57	35416185.80	35416186.04	0.0266	0.0071 *
Mercury	92260-06-25 04:19 G	35418508.52	35418508.68	35418508.85	0.0294	0.0127
Mercury	92260-09-22 06:00 G	35418597.57	35418597.75	35418597.93	0.0295	0.0094

Venus	92266-08-15 12:43 G	35420750.84	35420751.03	35420751.22	0.0301	0.0131
Venus	92267-04-02 17:02 G	35420981.03	35420981.21	35420981.41	0.0299	0.0137
Earth	92267-08-11 07:55 G	35421111.59	35421111.83	35421112.07	0.0298	0.0042
Moon	92267-08-11 11:31 G	35421111.75	35421111.98	35421112.22	0.0298	0.0058 *
Mercury	92273-08-04 12:43 G	35423296.99	35423297.03	35423297.09	0.0270	0.0247
Mercury	92273-10-31 23:02 G	35423385.34	35423385.46	35423385.57	0.0269	0.0131
Mercury	92274-01-28 09:07 G	35423473.75	35423473.88	35423474.01	0.0268	0.0016
Mercury	92274-04-26 19:12 G	35423562.18	35423562.30	35423562.42	0.0267	0.0099
Mercury	92274-07-24 05:17 G	35423650.64	35423650.72	35423650.80	0.0266	0.0213
Venus	92281-09-10 10:34 G	35426255.84	35426255.94	35426256.03	0.0260	0.0232
Venus	92282-04-27 08:10 G	35426484.63	35426484.84	35426485.05	0.0262	0.0058
Venus	92282-12-12 06:29 G	35426713.59	35426713.77	35426713.97	0.0263	0.0122
Moon	92283-02-09 09:22 G	35426772.64	35426772.89	35426773.15	0.0264	0.0054
Earth	92283-02-09 10:05 G	35426772.68	35426772.92	35426773.17	0.0264	0.0039 *
Moon	92284-02-21 05:46 G	35427149.62	35427149.74	35427149.88	0.0267	0.0227
Earth	92284-02-21 09:22 G	35427149.78	35427149.89	35427150.02	0.0267	0.0232 *
Mercury	92289-11-12 02:10 G	35429240.45	35429240.59	35429240.74	0.0294	0.0193
Mercury	92290-02-09 03:50 G	35429329.48	35429329.66	35429329.85	0.0295	0.0029
Mercury	92290-05-09 05:02 G	35429418.63	35429418.71	35429418.82	0.0296	0.0250
Venus	92296-02-25 19:55 G	35431537.13	35431537.33	35431537.53	0.0301	0.0093
Moon	92296-08-04 01:55 G	35431697.36	35431697.58	35431697.81	0.0299	0.0116
Earth	92296-08-04 05:17 G	35431697.51	35431697.72	35431697.95	0.0299	0.0131 *
Venus	92296-10-13 00:00 G	35431767.34	35431767.50	35431767.68	0.0299	0.0175
Moon	92297-08-18 17:17 G	35432077.12	35432077.22	35432077.34	0.0295	0.0260
Earth	92297-08-18 18:29 G	35432077.15	35432077.27	35432077.42	0.0295	0.0248 *
Mercury	92303-03-22 01:41 G	35434117.47	35434117.57	35434117.68	0.0269	0.0164
Mercury	92303-06-18 11:46 G	35434205.87	35434205.99	35434206.12	0.0268	0.0050
Mercury	92303-09-14 22:05 G	35434294.29	35434294.42	35434294.54	0.0267	0.0066
Mercury	92303-12-12 07:55 G	35434382.74	35434382.83	35434382.93	0.0266	0.0180
Venus	92311-03-24 12:00 G	35437041.88	35437042.00	35437042.13	0.0261	0.0210

Venus	92311-11-08 09:50 G	35437270.70	35437270.91	35437271.12	0.0262	0.0035
Earth	92312-02-05 10:48 G	35437359.76	35437359.95	35437360.15	0.0263	0.0159
Moon	92312-02-05 11:17 G	35437359.80	35437359.97	35437360.16	0.0263	0.0175 *
Venus	92312-06-24 08:10 G	35437499.67	35437499.84	35437500.02	0.0264	0.0144
Earth	92313-02-16 07:12 G	35437736.58	35437736.80	35437737.03	0.0266	0.0106
Moon	92313-02-16 11:02 G	35437736.73	35437736.96	35437737.19	0.0266	0.0094 *
Mercury	92319-04-01 22:34 G	35439972.37	35439972.44	35439972.52	0.0293	0.0268
Mercury	92319-06-30 00:14 G	35440061.33	35440061.51	35440061.70	0.0294	0.0048
Mercury	92319-09-27 01:41 G	35440150.43	35440150.57	35440150.73	0.0295	0.0174
Moon	92325-07-30 01:41 G	35442283.53	35442283.57	35442283.63	0.0301	0.0294
Venus	92325-09-08 01:26 G	35442323.35	35442323.56	35442323.77	0.0301	0.0056
Venus	92326-04-26 06:00 G	35442553.60	35442553.75	35442553.90	0.0299	0.0211
Earth	92326-08-13 15:50 G	35442662.93	35442663.16	35442663.40	0.0298	0.0076
Moon	92326-08-13 16:48 G	35442662.96	35442663.20	35442663.44	0.0298	0.0089 *
Mercury	92332-08-08 04:48 G	35444849.61	35444849.70	35444849.79	0.0270	0.0197
Mars	92332-10-19 09:07 G	35444921.75	35444921.88	35444922.05	0.0269	0.0238
Mercury	92332-11-04 14:53 G	35444937.99	35444938.12	35444938.24	0.0269	0.0082
Mercury	92333-02-01 00:58 G	35445026.41	35445026.54	35445026.67	0.0268	0.0034
Mercury	92333-04-30 11:02 G	35445114.85	35445114.96	35445115.07	0.0267	0.0148
Mercury	92333-07-27 20:53 G	35445203.36	35445203.37	35445203.40	0.0266	0.0262
Venus	92340-10-03 15:22 G	35447827.99	35447828.14	35447828.30	0.0260	0.0182
Venus	92341-05-20 13:12 G	35448056.83	35448057.05	35448057.26	0.0262	0.0009
Venus	92342-01-04 11:31 G	35448285.82	35448285.98	35448286.14	0.0263	0.0172
Moon	92342-02-11 06:14 G	35448323.51	35448323.76	35448324.01	0.0264	0.0032
Earth	92342-02-11 10:05 G	35448323.67	35448323.92	35448324.17	0.0264	0.0017 *
Moon	92343-02-23 08:24 G	35448700.79	35448700.85	35448700.95	0.0267	0.0252
Earth	92343-02-23 08:53 G	35448700.81	35448700.87	35448700.96	0.0267	0.0253 *
Mars	92348-10-15 02:38 G	35450761.48	35450761.61	35450761.76	0.0294	0.0248
Mercury	92348-11-15 21:22 G	35450793.22	35450793.39	35450793.57	0.0294	0.0120
Mercury	92349-02-12 23:02 G	35450882.29	35450882.46	35450882.64	0.0295	0.0102

Venus	92354-08-03 01:41 G	35452879.54	35452879.57	35452879.63	0.0302	0.0294
Venus	92355-03-21 07:12 G	35453109.59	35453109.80	35453110.01	0.0301	0.0022
Moon	92355-08-07 10:34 G	35453248.72	35453248.94	35453249.16	0.0299	0.0085
Earth	92355-08-07 10:48 G	35453248.73	35453248.95	35453249.19	0.0299	0.0100 *
Venus	92355-11-06 11:31 G	35453339.86	35453339.98	35453340.10	0.0298	0.0245
Earth	92356-08-21 00:14 G	35453628.44	35453628.51	35453628.60	0.0295	0.0278
Moon	92356-08-21 03:07 G	35453628.59	35453628.63	35453628.69	0.0295	0.0287 *
Mercury	92361-12-26 06:58 G	35455581.74	35455581.79	35455581.86	0.0269	0.0234
Mercury	92362-03-24 17:17 G	35455670.10	35455670.22	35455670.34	0.0269	0.0118
Mercury	92362-06-21 03:22 G	35455758.51	35455758.64	35455758.77	0.0268	0.0003
Mercury	92362-09-17 13:26 G	35455846.94	35455847.06	35455847.18	0.0267	0.0112
Mercury	92362-12-14 23:31 G	35455935.41	35455935.48	35455935.55	0.0266	0.0226
Venus	92370-04-15 16:05 G	35458614.01	35458614.17	35458614.34	0.0261	0.0162
Venus	92370-11-30 13:55 G	35458842.87	35458843.08	35458843.29	0.0262	0.0014
Earth	92371-02-06 09:36 G	35458910.69	35458910.90	35458911.11	0.0263	0.0138
Moon	92371-02-06 13:26 G	35458910.86	35458911.06	35458911.26	0.0263	0.0154 *
Venus	92371-07-17 12:14 G	35459071.87	35459072.01	35459072.15	0.0264	0.0193
Earth	92372-02-18 05:31 G	35459287.52	35459287.73	35459287.96	0.0266	0.0127
Moon	92372-02-18 06:14 G	35459287.54	35459287.76	35459288.00	0.0266	0.0118 *
Mercury	92378-04-04 17:02 G	35461525.08	35461525.21	35461525.35	0.0293	0.0202
Mercury	92378-07-02 18:43 G	35461614.09	35461614.28	35461614.47	0.0294	0.0020
Mercury	92378-09-29 20:10 G	35461703.24	35461703.34	35461703.45	0.0295	0.0241
Venus	92384-02-13 04:48 G	35463665.61	35463665.70	35463665.82	0.0302	0.0262
Moon	92384-07-31 00:14 G	35463834.40	35463834.51	35463834.63	0.0301	0.0267
Earth	92384-07-31 00:29 G	35463834.45	35463834.52	35463834.60	0.0301	0.0283 *
Venus	92384-09-30 10:34 G	35463895.73	35463895.94	35463896.15	0.0301	0.0012
Venus	92385-05-18 15:07 G	35464126.06	35464126.13	35464126.21	0.0298	0.0278
Moon	92385-08-14 15:07 G	35464213.90	35464214.13	35464214.36	0.0298	0.0114
Earth	92385-08-14 18:14 G	35464214.03	35464214.26	35464214.49	0.0298	0.0104 *
Mercury	92391-05-15 09:50 G	35466313.91	35466313.91	35466313.91	0.0270	0.0270

Mercury	92391-08-11 19:41 G	35466402.22	35466402.32	35466402.43	0.0269	0.0155
Mercury	92391-11-08 06:00 G	35466490.62	35466490.75	35466490.88	0.0268	0.0039
Mercury	92392-02-04 16:05 G	35466579.04	35466579.17	35466579.30	0.0268	0.0077
Mercury	92392-05-03 02:10 G	35466667.50	35466667.59	35466667.68	0.0267	0.0191
Venus	92399-10-26 18:43 G	35469400.10	35469400.28	35469400.46	0.0260	0.0135
Earth	92400-02-01 13:12 G	35469498.01	35469498.05	35469498.11	0.0261	0.0255
Venus	92400-06-11 16:19 G	35469628.97	35469629.18	35469629.39	0.0262	0.0040
Venus	92401-01-26 14:24 G	35469857.99	35469858.10	35469858.22	0.0263	0.0219
Moon	92401-02-12 06:29 G	35469874.53	35469874.77	35469875.01	0.0264	0.0010
Earth	92401-02-12 06:58 G	35469874.54	35469874.79	35469875.04	0.0264	0.0004 *
Mercury	92407-08-22 12:58 G	35472257.00	35472257.04	35472257.10	0.0293	0.0282
Mercury	92407-11-19 14:53 G	35472345.94	35472346.12	35472346.31	0.0294	0.0060
Mercury	92408-02-16 16:34 G	35472435.03	35472435.19	35472435.34	0.0295	0.0162
Venus	92413-08-25 09:36 G	35474451.77	35474451.90	35474452.04	0.0302	0.0230
Venus	92414-04-12 15:07 G	35474681.92	35474682.13	35474682.34	0.0301	0.0044
Earth	92414-08-08 11:02 G	35474799.72	35474799.96	35474800.19	0.0299	0.0073
Moon	92414-08-08 14:10 G	35474799.86	35474800.09	35474800.33	0.0299	0.0059 *
Mercury	92420-12-28 22:05 G	35477134.33	35477134.42	35477134.51	0.0269	0.0192
Mars	92421-03-14 12:00 G	35477209.77	35477210.00	35477210.25	0.0268	0.0181
Mercury	92421-03-27 08:10 G	35477222.72	35477222.84	35477222.97	0.0268	0.0077
Mercury	92421-06-23 18:14 G	35477311.13	35477311.26	35477311.40	0.0267	0.0040
Mercury	92421-09-20 04:19 G	35477399.58	35477399.68	35477399.79	0.0267	0.0153
Venus	92429-05-07 18:43 G	35480186.10	35480186.28	35480186.48	0.0261	0.0116
Venus	92429-12-22 16:19 G	35480414.98	35480415.18	35480415.39	0.0262	0.0061
Earth	92430-02-07 05:31 G	35480461.52	35480461.73	35480461.96	0.0262	0.0120
Moon	92430-02-07 06:14 G	35480461.54	35480461.76	35480461.98	0.0262	0.0132 *
Venus	92430-08-08 14:24 G	35480644.02	35480644.10	35480644.20	0.0264	0.0240
Moon	92431-02-18 21:36 G	35480838.20	35480838.40	35480838.62	0.0266	0.0141
Earth	92431-02-19 01:26 G	35480838.35	35480838.56	35480838.77	0.0266	0.0144 *
Mars	92437-03-09 17:17 G	35483049.07	35483049.22	35483049.36	0.0293	0.0245

Mercury	92437-04-07 09:50 G	35483077.76	35483077.91	35483078.08	0.0293	0.0147
Mercury	92437-07-05 11:31 G	35483166.80	35483166.98	35483167.16	0.0295	0.0075
Mercury	92437-10-02 12:58 G	35483256.04	35483256.04	35483256.05	0.0296	0.0296
Venus	92443-03-07 11:31 G	35485237.83	35485237.98	35485238.14	0.0302	0.0199
Moon	92443-08-01 18:14 G	35485385.14	35485385.26	35485385.41	0.0301	0.0247
Earth	92443-08-01 22:05 G	35485385.31	35485385.42	35485385.55	0.0301	0.0260 *
Venus	92443-10-23 17:02 G	35485468.01	35485468.21	35485468.42	0.0301	0.0075
Moon	92444-08-15 13:41 G	35485764.86	35485765.07	35485765.28	0.0298	0.0136
Earth	92444-08-15 16:19 G	35485764.96	35485765.18	35485765.40	0.0298	0.0127 *
Mercury	92450-05-18 00:29 G	35487866.46	35487866.52	35487866.59	0.0270	0.0232
Mercury	92450-08-14 10:34 G	35487954.83	35487954.94	35487955.06	0.0269	0.0116
Mercury	92450-11-10 20:38 G	35488043.23	35488043.36	35488043.50	0.0268	0.0008
Mercury	92451-02-07 06:43 G	35488131.67	35488131.78	35488131.90	0.0267	0.0116
Mercury	92451-05-06 16:48 G	35488220.14	35488220.20	35488220.27	0.0267	0.0230
Venus	92458-11-17 20:53 G	35490972.18	35490972.37	35490972.58	0.0260	0.0091
Moon	92459-02-02 07:55 G	35491048.78	35491048.83	35491048.91	0.0261	0.0251
Earth	92459-02-02 08:53 G	35491048.78	35491048.87	35491048.99	0.0261	0.0237 *
Venus	92459-07-04 18:29 G	35491201.07	35491201.27	35491201.47	0.0262	0.0086
Earth	92460-02-14 02:24 G	35491425.35	35491425.60	35491425.84	0.0263	0.0020
Moon	92460-02-14 06:00 G	35491425.51	35491425.75	35491426.00	0.0263	0.0013 *
Mercury	92466-08-25 06:00 G	35493809.63	35493809.75	35493809.87	0.0293	0.0229
Mercury	92466-11-22 07:41 G	35493898.63	35493898.82	35493899.01	0.0294	0.0007
Mercury	92467-02-19 08:53 G	35493987.76	35493987.87	35493988.01	0.0296	0.0215
Venus	92472-09-16 15:07 G	35496023.96	35496024.13	35496024.31	0.0302	0.0170
Venus	92473-05-04 20:38 G	35496254.17	35496254.36	35496254.57	0.0301	0.0105
Earth	92473-08-09 07:12 G	35496350.56	35496350.80	35496351.04	0.0300	0.0051
Moon	92473-08-09 09:22 G	35496350.64	35496350.89	35496351.14	0.0300	0.0041 *
Mercury	92480-01-01 12:43 G	35498686.93	35498687.03	35498687.14	0.0269	0.0156
Mercury	92480-03-29 22:48 G	35498775.32	35498775.45	35498775.58	0.0268	0.0040
Mercury	92480-06-26 08:53 G	35498863.74	35498863.87	35498864.00	0.0267	0.0075

Mercury	92480-09-22 18:58 G	35498952.20	35498952.29	35498952.38	0.0266	0.0189
Venus	92487-10-14 00:00 G	35501529.44	35501529.50	35501529.58	0.0259	0.0244
Venus	92488-05-29 20:53 G	35501758.17	35501758.37	35501758.58	0.0261	0.0071
Venus	92489-01-13 18:00 G	35501987.06	35501987.25	35501987.45	0.0262	0.0106
Moon	92489-02-07 21:22 G	35502012.16	35502012.39	35502012.62	0.0262	0.0111
Earth	92489-02-08 00:58 G	35502012.31	35502012.54	35502012.77	0.0262	0.0101 *
Moon	92490-02-19 18:14 G	35502389.08	35502389.26	35502389.46	0.0265	0.0164
Earth	92490-02-19 19:55 G	35502389.14	35502389.33	35502389.54	0.0265	0.0161 *
Mercury	92496-04-10 02:10 G	35504630.42	35504630.59	35504630.77	0.0294	0.0100
Mercury	92496-07-08 03:50 G	35504719.49	35504719.66	35504719.83	0.0295	0.0122
Venus	92502-03-30 15:50 G	35506809.97	35506810.16	35506810.34	0.0302	0.0142
Moon	92502-08-03 15:22 G	35506936.00	35506936.14	35506936.29	0.0301	0.0234
Earth	92502-08-03 15:50 G	35506936.03	35506936.16	35506936.32	0.0301	0.0241 *
Venus	92502-11-15 21:22 G	35507040.21	35507040.39	35507040.58	0.0300	0.0132
Earth	92503-08-18 10:34 G	35507315.73	35507315.94	35507316.15	0.0298	0.0146
Moon	92503-08-18 12:14 G	35507315.82	35507316.01	35507316.23	0.0298	0.0151 *
Mercury	92509-05-21 14:53 G	35509419.03	35509419.12	35509419.21	0.0270	0.0198
Mars	92509-08-08 03:50 G	35509497.40	35509497.66	35509497.93	0.0269	0.0156
Mercury	92509-08-18 00:58 G	35509507.42	35509507.54	35509507.67	0.0269	0.0081
Mercury	92509-11-14 11:02 G	35509595.83	35509595.96	35509596.09	0.0268	0.0035
Mercury	92510-02-10 21:07 G	35509684.28	35509684.38	35509684.49	0.0267	0.0150
Mercury	92510-05-10 07:12 G	35509772.79	35509772.80	35509772.82	0.0267	0.0265
Venus	92517-04-26 01:41 G	35512315.47	35512315.57	35512315.69	0.0259	0.0219
Venus	92517-12-10 22:48 G	35512544.24	35512544.45	35512544.66	0.0260	0.0046
Earth	92518-02-04 03:50 G	35512599.54	35512599.66	35512599.80	0.0261	0.0219
Moon	92518-02-04 06:43 G	35512599.69	35512599.78	35512599.91	0.0261	0.0233 *
Venus	92518-07-27 19:55 G	35512773.15	35512773.33	35512773.52	0.0262	0.0131
Earth	92519-02-15 20:53 G	35512976.12	35512976.37	35512976.61	0.0263	0.0037
Moon	92519-02-15 22:19 G	35512976.18	35512976.43	35512976.69	0.0263	0.0036 *
Mars	92525-08-03 03:22 G	35515336.53	35515336.64	35515336.78	0.0293	0.0257

Mercury	92525-08-28 22:05 G	35515362.28	35515362.42	35515362.57	0.0293	0.0182
Mercury	92525-11-25 23:46 G	35515451.30	35515451.49	35515451.67	0.0294	0.0040
Mercury	92526-02-23 00:58 G	35515540.46	35515540.54	35515540.63	0.0295	0.0261
Venus	92531-10-10 19:12 G	35517596.11	35517596.30	35517596.50	0.0302	0.0113
Venus	92532-05-28 00:43 G	35517826.36	35517826.53	35517826.71	0.0301	0.0161
Moon	92532-08-10 22:05 G	35517901.17	35517901.42	35517901.67	0.0300	0.0029
Earth	92532-08-11 00:58 G	35517901.30	35517901.54	35517901.79	0.0300	0.0032 *
Mercury	92538-10-08 16:48 G	35520151.15	35520151.20	35520151.26	0.0270	0.0239
Mercury	92539-01-05 03:07 G	35520239.51	35520239.63	35520239.74	0.0269	0.0123
Mercury	92539-04-03 13:12 G	35520327.92	35520328.05	35520328.18	0.0268	0.0009
Mercury	92539-06-30 23:17 G	35520416.35	35520416.47	35520416.59	0.0267	0.0109
Mercury	92539-09-27 09:22 G	35520504.82	35520504.89	35520504.96	0.0266	0.0224
Venus	92546-11-06 01:41 G	35523101.45	35523101.57	35523101.72	0.0259	0.0201
Venus	92547-06-22 22:48 G	35523330.24	35523330.45	35523330.66	0.0261	0.0027
Venus	92548-02-06 19:55 G	35523559.16	35523559.33	35523559.51	0.0262	0.0151
Moon	92548-02-10 17:46 G	35523563.02	35523563.24	35523563.48	0.0262	0.0091
Earth	92548-02-10 19:55 G	35523563.09	35523563.33	35523563.56	0.0262	0.0084 *
Earth	92549-02-21 14:38 G	35523939.93	35523940.11	35523940.30	0.0265	0.0178
Moon	92549-02-21 17:46 G	35523940.08	35523940.24	35523940.42	0.0265	0.0186 *
Mercury	92555-01-15 16:34 G	35526094.13	35526094.19	35526094.27	0.0292	0.0272
Mercury	92555-04-14 18:29 G	35526183.09	35526183.27	35526183.45	0.0294	0.0051
Mercury	92555-07-12 19:55 G	35526272.18	35526272.33	35526272.48	0.0295	0.0170
Venus	92561-04-21 19:41 G	35528382.12	35528382.32	35528382.53	0.0302	0.0086
Earth	92561-08-04 09:07 G	35528486.73	35528486.88	35528487.06	0.0301	0.0221
Moon	92561-08-04 12:58 G	35528486.88	35528487.04	35528487.21	0.0301	0.0220 *
Venus	92561-12-08 01:12 G	35528612.40	35528612.55	35528612.73	0.0300	0.0189
Earth	92562-08-19 04:05 G	35528866.47	35528866.67	35528866.87	0.0298	0.0165
Moon	92562-08-19 07:26 G	35528866.61	35528866.81	35528867.02	0.0298	0.0164 *
Mercury	92568-05-24 05:02 G	35530971.61	35530971.71	35530971.81	0.0270	0.0166
Mercury	92568-08-20 15:07 G	35531060.01	35531060.13	35531060.26	0.0269	0.0050

Mercury	92568-11-17 01:26 G	35531148.43	35531148.56	35531148.69	0.0268	0.0068
Mercury	92569-02-13 11:31 G	35531236.88	35531236.98	35531237.08	0.0267	0.0183
Venus	92576-05-18 03:36 G	35533887.50	35533887.65	35533887.81	0.0259	0.0176
Venus	92577-01-02 00:43 G	35534116.31	35534116.53	35534116.74	0.0260	0.0005
Earth	92577-02-04 23:17 G	35534150.32	35534150.47	35534150.64	0.0261	0.0200
Moon	92577-02-05 01:55 G	35534150.44	35534150.58	35534150.73	0.0261	0.0212 *
Venus	92577-08-18 21:36 G	35534345.26	35534345.40	35534345.57	0.0262	0.0176
Moon	92578-02-16 12:58 G	35534526.79	35534527.04	35534527.29	0.0263	0.0060
Earth	92578-02-16 16:05 G	35534526.93	35534527.17	35534527.41	0.0263	0.0056 *
Mercury	92584-08-31 14:24 G	35536914.94	35536915.10	35536915.27	0.0293	0.0132
Mercury	92584-11-28 16:05 G	35537003.99	35537004.17	35537004.34	0.0294	0.0089
Venus	92590-11-01 22:48 G	35539168.24	35539168.45	35539168.65	0.0302	0.0058
Venus	92591-06-20 04:19 G	35539398.54	35539398.68	35539398.83	0.0300	0.0217
Moon	92591-08-12 15:22 G	35539451.90	35539452.14	35539452.38	0.0300	0.0016
Earth	92591-08-12 18:00 G	35539452.01	35539452.25	35539452.49	0.0300	0.0012 *
Mercury	92597-10-11 06:58 G	35541703.71	35541703.79	35541703.88	0.0270	0.0208
Mars	92597-12-31 12:00 G	35541784.72	35541785.00	35541785.28	0.0269	0.0136
Mercury	92598-01-07 17:17 G	35541792.10	35541792.22	35541792.34	0.0269	0.0090
Mercury	92598-04-06 03:22 G	35541880.51	35541880.64	35541880.77	0.0268	0.0027
Mercury	92598-07-03 13:26 G	35541968.95	35541969.06	35541969.18	0.0267	0.0143
Mercury	92598-09-29 23:31 G	35542057.46	35542057.48	35542057.52	0.0266	0.0258
Venus	92605-11-29 04:19 G	35544673.52	35544673.68	35544673.86	0.0260	0.0156
Venus	92606-07-16 01:12 G	35544902.33	35544902.55	35544902.76	0.0261	0.0019
Earth	92607-02-12 15:50 G	35545113.92	35545114.16	35545114.40	0.0262	0.0064
Moon	92607-02-12 18:00 G	35545114.03	35545114.25	35545114.49	0.0262	0.0069 *
Venus	92607-03-01 22:05 G	35545131.29	35545131.42	35545131.57	0.0262	0.0197
Earth	92608-02-24 10:19 G	35545490.78	35545490.93	35545491.11	0.0265	0.0196
Moon	92608-02-24 13:12 G	35545490.89	35545491.05	35545491.21	0.0265	0.0207 *
Mars	92613-12-27 12:58 G	35547623.95	35547624.04	35547624.14	0.0292	0.0270
Mercury	92614-01-19 09:22 G	35547646.77	35547646.89	35547647.02	0.0292	0.0220

Mercury	92614-04-18 11:02 G	35547735.77	35547735.96	35547736.15	0.0294	0.0001
Mercury	92614-07-16 12:29 G	35547824.90	35547825.02	35547825.14	0.0295	0.0221
Venus	92620-05-14 23:46 G	35549954.28	35549954.49	35549954.70	0.0302	0.0030
Earth	92620-08-06 02:53 G	35550037.44	35550037.62	35550037.80	0.0301	0.0199
Moon	92620-08-06 04:34 G	35550037.51	35550037.69	35550037.88	0.0301	0.0204 *
Venus	92620-12-31 05:17 G	35550184.60	35550184.72	35550184.85	0.0300	0.0244
Moon	92621-08-20 20:10 G	35550417.14	35550417.34	35550417.55	0.0298	0.0175
Earth	92621-08-20 21:22 G	35550417.21	35550417.39	35550417.59	0.0298	0.0185 *
Mercury	92627-03-01 09:07 G	35552435.83	35552435.88	35552435.93	0.0271	0.0251
Mercury	92627-05-28 19:12 G	35552524.19	35552524.30	35552524.42	0.0270	0.0133
Mercury	92627-08-25 05:31 G	35552612.60	35552612.73	35552612.86	0.0269	0.0016
Mercury	92627-11-21 15:36 G	35552701.03	35552701.15	35552701.27	0.0268	0.0101
Mercury	92628-02-18 01:41 G	35552789.50	35552789.57	35552789.65	0.0268	0.0217
Venus	92635-06-11 06:29 G	35555459.59	35555459.77	35555459.95	0.0259	0.0131
Venus	92636-01-26 03:22 G	35555688.43	35555688.64	35555688.85	0.0261	0.0044
Moon	92636-02-07 17:46 G	35555701.07	35555701.24	35555701.42	0.0261	0.0188
Earth	92636-02-07 19:55 G	35555701.16	35555701.33	35555701.52	0.0261	0.0180 *
Venus	92636-09-11 00:29 G	35555917.41	35555917.52	35555917.64	0.0262	0.0221
Moon	92637-02-18 09:50 G	35556077.69	35556077.91	35556078.15	0.0263	0.0081
Earth	92637-02-18 12:29 G	35556077.79	35556078.02	35556078.27	0.0263	0.0077 *
Mercury	92643-09-05 07:41 G	35558467.64	35558467.82	35558468.00	0.0293	0.0076
Mercury	92643-12-03 09:07 G	35558556.72	35558556.88	35558557.04	0.0294	0.0144
Venus	92649-04-08 21:22 G	35560510.32	35560510.39	35560510.48	0.0304	0.0278
Venus	92649-11-25 03:50 G	35560740.45	35560740.66	35560740.87	0.0302	0.0003
Venus	92650-07-13 09:22 G	35560970.81	35560970.89	35560970.97	0.0300	0.0275
Earth	92650-08-14 13:12 G	35561002.80	35561003.05	35561003.29	0.0300	0.0011
Moon	92650-08-14 15:22 G	35561002.90	35561003.14	35561003.37	0.0300	0.0003 *
Mercury	92656-10-14 21:22 G	35563256.29	35563256.39	35563256.49	0.0270	0.0173
Mercury	92657-01-11 07:41 G	35563344.69	35563344.82	35563344.95	0.0269	0.0056
Mercury	92657-04-09 17:46 G	35563433.11	35563433.24	35563433.37	0.0268	0.0061

Mercury	92657-07-07 03:50 G	35563521.57	35563521.66	35563521.76	0.0267	0.0177
Venus	92664-12-21 07:41 G	35566245.64	35566245.82	35566246.02	0.0260	0.0110
Venus	92665-08-07 04:34 G	35566474.49	35566474.69	35566474.90	0.0261	0.0066
Earth	92666-02-13 13:55 G	35566664.84	35566665.08	35566665.33	0.0262	0.0042
Moon	92666-02-13 17:17 G	35566664.97	35566665.22	35566665.47	0.0262	0.0044 *
Venus	92666-03-24 01:55 G	35566703.51	35566703.58	35566703.66	0.0263	0.0244
Moon	92667-02-25 06:29 G	35567041.66	35567041.77	35567041.91	0.0265	0.0231
Earth	92667-02-25 08:53 G	35567041.73	35567041.87	35567042.01	0.0265	0.0218 *
Mercury	92673-01-22 03:22 G	35569199.48	35569199.64	35569199.80	0.0292	0.0159
Mercury	92673-04-21 04:48 G	35569288.52	35569288.70	35569288.88	0.0294	0.0061
Mercury	92673-07-19 06:00 G	35569377.71	35569377.75	35569377.81	0.0295	0.0282
Venus	92678-10-19 23:17 G	35571296.35	35571296.47	35571296.59	0.0303	0.0248
Venus	92679-06-07 05:31 G	35571526.52	35571526.73	35571526.94	0.0302	0.0030
Moon	92679-08-07 19:55 G	35571588.15	35571588.33	35571588.53	0.0301	0.0186
Earth	92679-08-07 23:02 G	35571588.27	35571588.46	35571588.66	0.0301	0.0175 *
Moon	92680-08-21 13:41 G	35571967.89	35571968.07	35571968.26	0.0298	0.0192
Earth	92680-08-21 17:17 G	35571968.05	35571968.22	35571968.40	0.0298	0.0207 *
Mercury	92686-03-03 23:31 G	35573988.40	35573988.48	35573988.56	0.0271	0.0216
Mars	92686-05-26 22:48 G	35574072.16	35574072.45	35574072.75	0.0270	0.0119
Mercury	92686-05-31 09:36 G	35574076.78	35574076.90	35574077.03	0.0270	0.0098
Mercury	92686-08-27 19:55 G	35574165.20	35574165.33	35574165.46	0.0269	0.0020
Mercury	92686-11-24 06:00 G	35574253.64	35574253.75	35574253.87	0.0269	0.0136
Mercury	92687-02-20 16:05 G	35574342.14	35574342.17	35574342.22	0.0268	0.0253
Venus	92693-11-16 13:41 G	35576803.07	35576803.07	35576803.10	0.0259	0.0258
Venus	92694-07-03 10:34 G	35577031.74	35577031.94	35577032.14	0.0260	0.0085
Moon	92695-02-08 15:22 G	35577251.96	35577252.14	35577252.34	0.0261	0.0163
Earth	92695-02-08 18:58 G	35577252.10	35577252.29	35577252.49	0.0261	0.0157 *
Venus	92695-02-17 07:12 G	35577260.61	35577260.80	35577261.01	0.0261	0.0092
Earth	92696-02-20 12:00 G	35577628.77	35577629.00	35577629.23	0.0263	0.0099
Moon	92696-02-20 13:12 G	35577628.84	35577629.05	35577629.27	0.0263	0.0107 *

Mars	92702-05-23 13:55 G	35579911.95	35579912.08	35579912.23	0.0292	0.0246
Mercury	92702-06-12 00:14 G	35579931.41	35579931.51	35579931.64	0.0292	0.0229
Mercury	92702-09-09 01:55 G	35580020.40	35580020.58	35580020.77	0.0293	0.0011
Mercury	92702-12-07 03:22 G	35580109.51	35580109.64	35580109.77	0.0294	0.0210
Venus	92708-05-02 04:34 G	35582082.54	35582082.69	35582082.84	0.0303	0.0216
Venus	92708-12-18 10:34 G	35582312.74	35582312.94	35582313.15	0.0302	0.0063
Earth	92709-08-16 10:48 G	35582553.71	35582553.95	35582554.19	0.0300	0.0036
Moon	92709-08-16 14:10 G	35582553.85	35582554.09	35582554.34	0.0300	0.0023 *
Mercury	92715-07-23 01:55 G	35584720.54	35584720.58	35584720.62	0.0272	0.0255
Mercury	92715-10-19 12:00 G	35584808.89	35584809.00	35584809.12	0.0271	0.0136
Mercury	92716-01-15 22:19 G	35584897.30	35584897.43	35584897.56	0.0270	0.0019
Mercury	92716-04-13 08:24 G	35584985.73	35584985.85	35584985.98	0.0269	0.0099
Mercury	92716-07-10 18:29 G	35585074.20	35585074.27	35585074.36	0.0268	0.0216
Venus	92723-05-30 16:19 G	35587589.09	35587589.18	35587589.27	0.0259	0.0234
Venus	92724-01-14 12:43 G	35587817.82	35587818.03	35587818.24	0.0260	0.0061
Venus	92724-08-30 09:36 G	35588046.71	35588046.90	35588047.09	0.0261	0.0116
Moon	92725-02-15 13:41 G	35588215.82	35588216.07	35588216.33	0.0262	0.0014
Earth	92725-02-15 14:53 G	35588215.87	35588216.12	35588216.37	0.0262	0.0018 *
Moon	92726-02-27 06:14 G	35588592.71	35588592.76	35588592.83	0.0265	0.0257
Earth	92726-02-27 09:36 G	35588592.82	35588592.90	35588593.01	0.0265	0.0242 *
Mercury	92732-01-26 22:34 G	35590752.26	35590752.44	35590752.62	0.0293	0.0085
Mercury	92732-04-25 00:00 G	35590841.34	35590841.50	35590841.67	0.0294	0.0135
Venus	92737-11-12 08:10 G	35592868.68	35592868.84	35592869.01	0.0303	0.0183
Venus	92738-06-30 14:10 G	35593098.89	35593099.09	35593099.29	0.0301	0.0095
Moon	92738-08-09 21:07 G	35593139.19	35593139.38	35593139.59	0.0301	0.0157
Earth	92738-08-10 00:14 G	35593139.30	35593139.51	35593139.72	0.0301	0.0145 *
Moon	92739-08-24 17:46 G	35593519.10	35593519.24	35593519.41	0.0297	0.0221
Earth	92739-08-24 18:00 G	35593519.11	35593519.25	35593519.40	0.0297	0.0234 *
Mercury	92745-03-07 14:24 G	35595541.00	35595541.10	35595541.20	0.0271	0.0177
Mercury	92745-06-04 00:29 G	35595629.40	35595629.52	35595629.65	0.0270	0.0059

Mercury	92745-08-31 10:48 G	35595717.82	35595717.95	35595718.08	0.0269	0.0060
Mercury	92745-11-27 20:53 G	35595806.28	35595806.37	35595806.47	0.0268	0.0177
Venus	92752-12-09 19:26 G	35598375.19	35598375.31	35598375.44	0.0259	0.0210
Venus	92753-07-26 16:05 G	35598603.96	35598604.17	35598604.39	0.0260	0.0035
Earth	92754-02-10 20:38 G	35598803.16	35598803.36	35598803.59	0.0261	0.0131
Moon	92754-02-10 21:50 G	35598803.21	35598803.41	35598803.62	0.0261	0.0132 *
Venus	92754-03-12 13:12 G	35598832.88	35598833.05	35598833.23	0.0261	0.0143
Earth	92755-02-22 13:55 G	35599179.88	35599180.08	35599180.31	0.0264	0.0126
Moon	92755-02-22 17:46 G	35599180.04	35599180.24	35599180.46	0.0264	0.0136 *
Mercury	92761-06-14 20:38 G	35601484.20	35601484.36	35601484.52	0.0292	0.0147
Mercury	92761-09-11 22:05 G	35601573.24	35601573.42	35601573.60	0.0293	0.0072
Mercury	92761-12-09 23:17 G	35601662.45	35601662.47	35601662.50	0.0294	0.0291
Venus	92767-05-25 14:38 G	35603654.93	35603655.11	35603655.30	0.0303	0.0147
Venus	92768-01-10 20:38 G	35603885.17	35603885.36	35603885.55	0.0301	0.0131
Moon	92768-08-17 13:26 G	35604104.81	35604105.06	35604105.31	0.0300	0.0053
Earth	92768-08-17 13:41 G	35604104.84	35604105.07	35604105.31	0.0300	0.0067 *
Mercury	92774-07-25 16:48 G	35606273.13	35606273.20	35606273.29	0.0272	0.0213
Mars	92774-10-21 01:12 G	35606360.23	35606360.55	35606360.87	0.0271	0.0062
Mercury	92774-10-22 03:07 G	35606361.51	35606361.63	35606361.75	0.0271	0.0094
Mercury	92775-01-18 13:26 G	35606449.93	35606450.06	35606450.19	0.0270	0.0025
Mercury	92775-04-16 23:31 G	35606538.37	35606538.48	35606538.59	0.0269	0.0142
Mercury	92775-07-14 09:36 G	35606626.88	35606626.90	35606626.94	0.0268	0.0259
Venus	92782-06-21 23:02 G	35609161.31	35609161.46	35609161.61	0.0259	0.0184
Venus	92783-02-05 19:41 G	35609390.11	35609390.32	35609390.53	0.0260	0.0009
Moon	92783-02-06 02:53 G	35609390.54	35609390.62	35609390.71	0.0260	0.0245
Earth	92783-02-06 03:36 G	35609390.56	35609390.65	35609390.75	0.0260	0.0240 *
Venus	92783-09-22 16:34 G	35609619.04	35609619.19	35609619.36	0.0262	0.0170
Moon	92784-02-17 15:22 G	35609766.89	35609767.14	35609767.39	0.0263	0.0018
Earth	92784-02-17 19:12 G	35609767.05	35609767.30	35609767.55	0.0263	0.0011 *
Mars	92790-10-17 05:17 G	35612200.52	35612200.72	35612200.93	0.0291	0.0188

Mercury	92790-11-01 18:14 G	35612216.13	35612216.26	35612216.38	0.0292	0.0215
Mercury	92791-01-29 19:41 G	35612305.13	35612305.32	35612305.51	0.0293	0.0004
Mercury	92791-04-28 20:53 G	35612394.25	35612394.37	35612394.49	0.0294	0.0223
Venus	92796-12-04 20:10 G	35614441.15	35614441.34	35614441.54	0.0302	0.0111
Venus	92797-07-23 01:55 G	35614671.41	35614671.58	35614671.76	0.0301	0.0167
Earth	92797-08-11 06:14 G	35614690.54	35614690.76	35614690.99	0.0300	0.0109
Moon	92797-08-11 06:58 G	35614690.59	35614690.79	35614691.01	0.0300	0.0123 *
Earth	92798-08-25 23:17 G	35615070.37	35615070.47	35615070.58	0.0297	0.0267
Moon	92798-08-26 02:38 G	35615070.49	35615070.61	35615070.74	0.0297	0.0251 *
Mercury	92803-12-12 19:26 G	35617005.26	35617005.31	35617005.36	0.0272	0.0250
Mercury	92804-03-10 05:31 G	35617093.62	35617093.73	35617093.85	0.0271	0.0132
Mercury	92804-06-06 15:50 G	35617182.03	35617182.16	35617182.29	0.0270	0.0013
Mercury	92804-09-03 02:10 G	35617270.47	35617270.59	35617270.71	0.0269	0.0106
Mercury	92804-11-30 12:14 G	35617358.94	35617359.01	35617359.09	0.0268	0.0223
Venus	92812-01-02 02:38 G	35619947.45	35619947.61	35619947.78	0.0260	0.0158
Venus	92812-08-17 23:31 G	35620176.27	35620176.48	35620176.70	0.0261	0.0020
Earth	92813-02-12 01:55 G	35620354.35	35620354.58	35620354.81	0.0262	0.0102
Moon	92813-02-12 05:31 G	35620354.51	35620354.73	35620354.97	0.0262	0.0099 *
Venus	92813-04-03 20:53 G	35620405.24	35620405.37	35620405.52	0.0262	0.0197
Earth	92814-02-23 19:41 G	35620731.13	35620731.32	35620731.53	0.0264	0.0156
Moon	92814-02-23 20:10 G	35620731.16	35620731.34	35620731.55	0.0264	0.0168 *
Mercury	92820-03-20 16:48 G	35622948.14	35622948.20	35622948.28	0.0291	0.0270
Mercury	92820-06-17 18:29 G	35623037.09	35623037.27	35623037.45	0.0292	0.0052
Mercury	92820-09-14 19:41 G	35623126.17	35623126.32	35623126.48	0.0293	0.0167
Venus	92826-06-17 04:34 G	35625227.49	35625227.69	35625227.90	0.0303	0.0071
Moon	92826-08-05 00:58 G	35625276.49	35625276.54	35625276.61	0.0302	0.0292
Earth	92826-08-05 02:24 G	35625276.52	35625276.60	35625276.70	0.0302	0.0279 *
Venus	92827-02-02 10:05 G	35625457.78	35625457.92	35625458.08	0.0301	0.0207
Moon	92827-08-19 18:58 G	35625656.07	35625656.29	35625656.53	0.0299	0.0090
Earth	92827-08-19 22:34 G	35625656.22	35625656.44	35625656.67	0.0299	0.0105 *

Mercury	92833-07-28 08:38 G	35627825.75	35627825.86	35627825.96	0.0271	0.0163
Mercury	92833-10-24 18:58 G	35627914.16	35627914.29	35627914.42	0.0270	0.0045
Mercury	92834-01-21 05:02 G	35628002.59	35628002.71	35628002.84	0.0269	0.0074
Mercury	92834-04-19 15:22 G	35628091.05	35628091.14	35628091.23	0.0268	0.0192
Venus	92841-07-14 07:26 G	35630733.63	35630733.81	35630734.00	0.0260	0.0129
Moon	92842-02-07 06:43 G	35630941.65	35630941.78	35630941.93	0.0261	0.0214
Earth	92842-02-07 10:19 G	35630941.80	35630941.93	35630942.09	0.0261	0.0211 *
Venus	92842-02-28 04:34 G	35630962.48	35630962.69	35630962.90	0.0261	0.0047
Venus	92842-10-15 01:55 G	35631191.48	35631191.58	35631191.69	0.0262	0.0226
Moon	92843-02-19 02:10 G	35631318.36	35631318.59	35631318.83	0.0263	0.0053
Earth	92843-02-19 02:38 G	35631318.37	35631318.61	35631318.86	0.0263	0.0042 *
Mercury	92849-11-04 17:02 G	35633769.04	35633769.21	35633769.39	0.0292	0.0111
Mercury	92850-02-01 18:29 G	35633858.10	35633858.27	35633858.44	0.0293	0.0108
Venus	92855-12-28 12:14 G	35636013.81	35636014.01	35636014.22	0.0302	0.0030
Earth	92856-08-12 18:43 G	35636242.05	35636242.28	35636242.52	0.0300	0.0067
Moon	92856-08-12 22:34 G	35636242.21	35636242.44	35636242.67	0.0300	0.0082 *
Venus	92856-08-14 17:31 G	35636244.12	35636244.23	35636244.35	0.0300	0.0246
Moon	92857-08-27 13:12 G	35636622.02	35636622.05	35636622.11	0.0296	0.0291
Mercury	92862-12-15 11:17 G	35638557.89	35638557.97	35638558.07	0.0272	0.0198
Mercury	92863-03-13 21:36 G	35638646.28	35638646.40	35638646.53	0.0271	0.0078
Mars	92863-03-16 19:12 G	35638648.97	35638649.30	35638649.63	0.0271	0.0020
Mercury	92863-06-10 07:55 G	35638734.70	35638734.83	35638734.96	0.0270	0.0041
Mercury	92863-09-06 18:14 G	35638823.15	35638823.26	35638823.36	0.0269	0.0158
Venus	92871-01-24 12:00 G	35641519.81	35641520.00	35641520.20	0.0260	0.0102
Venus	92871-09-10 09:07 G	35641748.68	35641748.88	35641749.09	0.0261	0.0076
Earth	92872-02-14 10:19 G	35641905.70	35641905.93	35641906.18	0.0262	0.0070
Moon	92872-02-14 11:17 G	35641905.73	35641905.97	35641906.23	0.0262	0.0065 *
Venus	92872-04-26 06:43 G	35641977.74	35641977.78	35641977.83	0.0262	0.0256
Moon	92873-02-25 01:26 G	35642282.41	35642282.56	35642282.73	0.0265	0.0204
Earth	92873-02-25 05:17 G	35642282.55	35642282.72	35642282.89	0.0265	0.0188 *

Mars	92879-03-13 17:31 G	35644489.97	35644490.23	35644490.49	0.0291	0.0072
Mercury	92879-03-24 16:34 G	35644501.03	35644501.19	35644501.35	0.0291	0.0161
Mercury	92879-06-21 18:00 G	35644590.06	35644590.25	35644590.43	0.0293	0.0058
Mercury	92879-09-18 18:58 G	35644679.24	35644679.29	35644679.36	0.0294	0.0277
Venus	92884-11-21 15:50 G	35646570.07	35646570.16	35646570.27	0.0303	0.0266
Venus	92885-07-09 21:50 G	35646800.20	35646800.41	35646800.62	0.0302	0.0015
Moon	92885-08-06 13:41 G	35646827.95	35646828.07	35646828.21	0.0302	0.0250
Earth	92885-08-06 17:31 G	35646828.09	35646828.23	35646828.39	0.0302	0.0234 *
Venus	92886-02-25 03:07 G	35647030.58	35647030.63	35647030.69	0.0300	0.0289
Moon	92886-08-21 10:19 G	35647207.73	35647207.93	35647208.15	0.0299	0.0133
Earth	92886-08-21 12:43 G	35647207.82	35647208.03	35647208.24	0.0299	0.0148 *
Mercury	92892-05-03 14:38 G	35649290.04	35649290.11	35649290.18	0.0272	0.0226
Mercury	92892-07-31 00:58 G	35649378.42	35649378.54	35649378.66	0.0271	0.0107
Mercury	92892-10-27 11:17 G	35649466.83	35649466.97	35649467.10	0.0270	0.0015
Mercury	92893-01-23 21:22 G	35649555.28	35649555.39	35649555.51	0.0269	0.0130
Mercury	92893-04-22 07:26 G	35649643.77	35649643.81	35649643.87	0.0268	0.0248
Venus	92899-12-20 20:38 G	35652077.30	35652077.36	35652077.43	0.0259	0.0246
Venus	92900-08-06 17:46 G	35652306.03	35652306.24	35652306.44	0.0260	0.0071
Moon	92901-02-09 18:14 G	35652493.09	35652493.26	35652493.43	0.0261	0.0181
Earth	92901-02-09 19:55 G	35652493.15	35652493.33	35652493.52	0.0261	0.0178 *
Venus	92901-03-23 14:53 G	35652534.93	35652535.12	35652535.32	0.0261	0.0107
Earth	92902-02-21 12:58 G	35652869.80	35652870.04	35652870.28	0.0264	0.0076
Moon	92902-02-21 16:19 G	35652869.95	35652870.18	35652870.41	0.0264	0.0089 *
Mercury	92908-08-11 15:50 G	35655233.04	35655233.16	35655233.29	0.0291	0.0213
Mercury	92908-11-08 17:17 G	35655322.04	35655322.22	35655322.41	0.0293	0.0008
Mercury	92909-02-05 18:29 G	35655411.16	35655411.27	35655411.40	0.0294	0.0224
Venus	92914-06-05 01:41 G	35657356.43	35657356.57	35657356.72	0.0303	0.0220
Venus	92915-01-21 07:26 G	35657586.61	35657586.81	35657587.02	0.0301	0.0059
Earth	92915-08-16 12:43 G	35657793.79	35657794.03	35657794.27	0.0300	0.0019
Moon	92915-08-16 14:24 G	35657793.85	35657794.10	35657794.35	0.0300	0.0035 *

Mercury	92921-09-21 17:46 G	35660022.20	35660022.24	35660022.28	0.0272	0.0257
Mercury	92921-12-19 04:05 G	35660110.56	35660110.67	35660110.78	0.0271	0.0137
Mercury	92922-03-17 14:10 G	35660198.96	35660199.09	35660199.23	0.0270	0.0021
Mercury	92922-06-14 00:29 G	35660287.40	35660287.52	35660287.64	0.0269	0.0100
Mercury	92922-09-10 10:48 G	35660375.87	35660375.95	35660376.02	0.0269	0.0218
Venus	92929-07-03 01:41 G	35662863.46	35662863.57	35662863.69	0.0260	0.0219
Venus	92930-02-16 22:48 G	35663092.24	35663092.45	35663092.66	0.0261	0.0043
Venus	92930-10-03 19:55 G	35663321.16	35663321.33	35663321.52	0.0262	0.0137
Moon	92931-02-16 18:00 G	35663457.00	35663457.25	35663457.51	0.0263	0.0029
Earth	92931-02-16 21:07 G	35663457.13	35663457.38	35663457.63	0.0263	0.0036 *
Moon	92932-02-28 14:24 G	35663834.01	35663834.10	35663834.21	0.0265	0.0239
Earth	92932-02-28 16:34 G	35663834.07	35663834.19	35663834.33	0.0265	0.0223 *
Mercury	92937-12-29 15:36 G	35665965.08	35665965.15	35665965.24	0.0291	0.0259
Mercury	92938-03-28 17:17 G	35666054.04	35666054.22	35666054.41	0.0292	0.0041
Mercury	92938-06-25 18:29 G	35666143.13	35666143.27	35666143.42	0.0293	0.0178
Venus	92943-12-16 12:43 G	35668142.86	35668143.03	35668143.20	0.0303	0.0174
Venus	92944-08-02 18:14 G	35668373.07	35668373.26	35668373.46	0.0301	0.0106
Moon	92944-08-09 13:26 G	35668379.88	35668380.06	35668380.23	0.0301	0.0200
Earth	92944-08-09 13:55 G	35668379.89	35668380.08	35668380.28	0.0301	0.0183 *
Earth	92945-08-24 07:55 G	35668759.66	35668759.83	35668760.02	0.0298	0.0196
Moon	92945-08-24 10:05 G	35668759.74	35668759.92	35668760.11	0.0298	0.0179 *
Mercury	92951-05-08 07:26 G	35670842.71	35670842.81	35670842.92	0.0272	0.0164
Mercury	92951-08-04 17:46 G	35670931.11	35670931.24	35670931.37	0.0271	0.0045
Mars	92951-08-12 13:26 G	35670938.81	35670939.06	35670939.34	0.0271	0.0154
Mercury	92951-11-01 03:50 G	35671019.54	35671019.66	35671019.79	0.0270	0.0075
Mercury	92952-01-28 14:10 G	35671108.00	35671108.09	35671108.18	0.0269	0.0192
Venus	92959-01-13 07:55 G	35673649.69	35673649.83	35673649.98	0.0260	0.0187
Venus	92959-08-30 05:02 G	35673878.50	35673878.71	35673878.93	0.0261	0.0011
Earth	92960-02-12 07:12 G	35674044.61	35674044.80	35674045.02	0.0261	0.0145
Moon	92960-02-12 09:36 G	35674044.71	35674044.90	35674045.11	0.0261	0.0146 *

Venus	92960-04-15 02:24 G	35674107.45	35674107.60	35674107.77	0.0262	0.0169
Earth	92961-02-23 01:12 G	35674421.33	35674421.55	35674421.78	0.0264	0.0111
Moon	92961-02-23 03:50 G	35674421.44	35674421.66	35674421.89	0.0264	0.0123 *
Mars	92967-08-09 17:17 G	35676779.96	35676780.22	35676780.48	0.0292	0.0068
Mercury	92967-08-15 17:17 G	35676786.04	35676786.22	35676786.40	0.0292	0.0088
Mercury	92967-11-12 18:29 G	35676875.11	35676875.27	35676875.44	0.0293	0.0131
Venus	92973-06-27 23:31 G	35678929.29	35678929.48	35678929.67	0.0302	0.0127
Venus	92974-02-13 04:48 G	35679159.52	35679159.70	35679159.89	0.0301	0.0151
Moon	92974-08-18 07:26 G	35679345.57	35679345.81	35679346.06	0.0299	0.0016
Earth	92974-08-18 10:19 G	35679345.69	35679345.93	35679346.17	0.0299	0.0033 *
Mercury	92980-09-24 10:48 G	35681574.86	35681574.95	35681575.04	0.0272	0.0192
Mercury	92980-12-21 21:07 G	35681663.25	35681663.38	35681663.50	0.0271	0.0073
Mercury	92981-03-20 07:12 G	35681751.67	35681751.80	35681751.93	0.0270	0.0046
Mercury	92981-06-16 17:31 G	35681840.13	35681840.23	35681840.33	0.0269	0.0164
Venus	92988-07-25 12:58 G	35684435.88	35684436.04	35684436.21	0.0260	0.0159
Moon	92989-02-06 13:55 G	35684632.05	35684632.08	35684632.13	0.0261	0.0257
Earth	92989-02-06 16:05 G	35684632.13	35684632.17	35684632.25	0.0261	0.0252 *
Venus	92989-03-11 10:19 G	35684664.71	35684664.93	35684665.14	0.0261	0.0019
Venus	92989-10-26 07:55 G	35684893.69	35684893.83	35684893.97	0.0262	0.0199
Moon	92990-02-18 05:46 G	35685008.50	35685008.74	35685008.98	0.0263	0.0006
Earth	92990-02-18 08:53 G	35685008.62	35685008.87	35685009.12	0.0263	0.0001 *
Earth	92991-03-02 05:17 G	35685385.67	35685385.72	35685385.78	0.0266	0.0259
Mercury	92997-01-01 16:48 G	35687518.04	35687518.20	35687518.37	0.0291	0.0136
Mercury	92997-03-31 18:29 G	35687607.09	35687607.27	35687607.45	0.0293	0.0084

94TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 94th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	93003-01-09 10:48	G	35689715.75	35689715.95	35689716.15	0.0302	0.0079	
Earth	93003-08-13 12:43	G	35689931.81	35689932.03	35689932.25	0.0301	0.0131	
Moon	93003-08-13 15:22	G	35689931.95	35689932.14	35689932.36	0.0301	0.0148	*
Venus	93003-08-27 16:05	G	35689946.02	35689946.17	35689946.33	0.0301	0.0199	
Earth	93004-08-27 05:46	G	35690311.61	35690311.74	35690311.88	0.0297	0.0246	
Moon	93004-08-27 09:22	G	35690311.75	35690311.89	35690312.06	0.0297	0.0228	*
Mercury	93010-02-12 14:24	G	35692307.03	35692307.10	35692307.18	0.0272	0.0217	
Mercury	93010-05-12 00:43	G	35692395.41	35692395.53	35692395.65	0.0271	0.0097	
Mercury	93010-08-08 11:02	G	35692483.83	35692483.96	35692484.09	0.0270	0.0022	
Mercury	93010-11-04 21:07	G	35692572.27	35692572.38	35692572.50	0.0269	0.0140	
Mercury	93011-02-01 07:12	G	35692660.77	35692660.80	35692660.84	0.0268	0.0257	
Venus	93018-02-05 19:26	G	35695222.13	35695222.31	35695222.50	0.0260	0.0126	
Venus	93018-09-22 16:48	G	35695450.99	35695451.20	35695451.41	0.0261	0.0052	
Earth	93019-02-14 19:26	G	35695596.08	35695596.31	35695596.53	0.0262	0.0110	
Moon	93019-02-14 22:48	G	35695596.23	35695596.45	35695596.69	0.0262	0.0110	*
Venus	93019-05-09 14:24	G	35695680.01	35695680.10	35695680.20	0.0262	0.0232	
Moon	93020-02-26 12:29	G	35695972.82	35695973.02	35695973.23	0.0264	0.0159	
Earth	93020-02-26 13:41	G	35695972.87	35695973.07	35695973.28	0.0264	0.0147	*
Mercury	93026-05-22 17:17	G	35698250.07	35698250.22	35698250.36	0.0292	0.0181	
Mercury	93026-08-19 18:43	G	35698339.09	35698339.28	35698339.46	0.0293	0.0038	
Mercury	93026-11-16 19:41	G	35698428.25	35698428.32	35698428.42	0.0294	0.0258	
Venus	93032-07-21 22:19	G	35700502.22	35700502.43	35700502.64	0.0302	0.0030	
Earth	93032-08-06 14:10	G	35700518.05	35700518.09	35700518.13	0.0302	0.0296	
Venus	93033-03-09 03:22	G	35700732.53	35700732.64	35700732.76	0.0300	0.0246	
Moon	93033-08-21 06:29	G	35700897.54	35700897.77	35700898.01	0.0299	0.0068	

Earth	93033-08-21 09:50 G	35700897.68	35700897.91	35700898.14	0.0299	0.0086	*
Mercury	93039-07-02 17:46 G	35703039.19	35703039.24	35703039.30	0.0272	0.0244	
Mercury	93039-09-29 04:05 G	35703127.56	35703127.67	35703127.79	0.0271	0.0124	
Mercury	93039-12-26 14:24 G	35703215.97	35703216.10	35703216.23	0.0270	0.0006	
Mercury	93040-03-24 00:29 G	35703304.41	35703304.52	35703304.64	0.0269	0.0113	
Mercury	93040-06-20 10:48 G	35703392.89	35703392.95	35703393.02	0.0268	0.0230	
Venus	93047-08-19 00:29 G	35706008.32	35706008.52	35706008.72	0.0260	0.0098	
Moon	93048-02-10 00:14 G	35706183.39	35706183.51	35706183.65	0.0261	0.0221	
Earth	93048-02-10 03:50 G	35706183.53	35706183.66	35706183.80	0.0261	0.0219	*
Venus	93048-04-03 21:36 G	35706237.21	35706237.40	35706237.61	0.0261	0.0082	
Venus	93048-11-18 19:26 G	35706466.31	35706466.31	35706466.34	0.0263	0.0262	
Earth	93049-02-20 20:38 G	35706560.11	35706560.36	35706560.61	0.0263	0.0033	
Moon	93049-02-20 21:22 G	35706560.15	35706560.39	35706560.63	0.0263	0.0043	*
Mercury	93055-10-09 16:34 G	35708982.09	35708982.19	35708982.31	0.0291	0.0229	
Mars	93056-01-05 17:31 G	35709070.06	35709070.23	35709070.40	0.0292	0.0220	
Mercury	93056-01-06 18:14 G	35709071.07	35709071.26	35709071.45	0.0292	0.0011	
Mercury	93056-04-04 19:26 G	35709160.19	35709160.31	35709160.45	0.0293	0.0209	
Venus	93061-06-16 03:22 G	35711058.54	35711058.64	35711058.75	0.0303	0.0262	
Venus	93062-02-01 09:22 G	35711288.68	35711288.89	35711289.10	0.0302	0.0018	
Earth	93062-08-15 12:14 G	35711483.77	35711484.01	35711484.24	0.0301	0.0079	
Moon	93062-08-15 15:22 G	35711483.91	35711484.14	35711484.38	0.0301	0.0094	*
Venus	93062-09-19 14:24 G	35711519.07	35711519.10	35711519.15	0.0300	0.0294	
Moon	93063-08-30 04:48 G	35711863.63	35711863.70	35711863.80	0.0297	0.0277	
Earth	93063-08-30 04:19 G	35711863.66	35711863.68	35711863.72	0.0297	0.0295	*
Mercury	93068-11-18 21:36 G	35713771.38	35713771.40	35713771.42	0.0272	0.0269	
Mercury	93069-02-15 07:41 G	35713859.72	35713859.82	35713859.94	0.0271	0.0150	
Mercury	93069-05-14 18:00 G	35713948.12	35713948.25	35713948.38	0.0270	0.0030	
Mercury	93069-08-11 04:19 G	35714036.55	35714036.68	35714036.80	0.0269	0.0089	
Mercury	93069-11-07 14:24 G	35714125.02	35714125.10	35714125.18	0.0269	0.0206	
Venus	93076-07-14 09:22 G	35716565.83	35716565.89	35716565.98	0.0259	0.0242	

Venus	93077-02-28 06:43 G	35716794.57	35716794.78	35716794.99	0.0260	0.0065
Venus	93077-10-15 04:05 G	35717023.48	35717023.67	35717023.86	0.0261	0.0114
Moon	93078-02-16 05:46 G	35717147.50	35717147.74	35717147.99	0.0262	0.0072
Earth	93078-02-16 06:14 G	35717147.53	35717147.76	35717148.00	0.0262	0.0078 *
Moon	93079-02-27 21:50 G	35717524.24	35717524.41	35717524.58	0.0265	0.0194
Earth	93079-02-28 01:26 G	35717524.38	35717524.56	35717524.74	0.0265	0.0180 *
Mercury	93085-02-25 16:19 G	35719714.14	35719714.18	35719714.24	0.0291	0.0280
Mercury	93085-05-25 18:00 G	35719803.07	35719803.25	35719803.43	0.0292	0.0061
Mercury	93085-08-22 19:12 G	35719892.15	35719892.30	35719892.46	0.0294	0.0160
Venus	93090-12-27 13:55 G	35721844.95	35721845.08	35721845.24	0.0303	0.0216
Moon	93091-08-09 09:22 G	35722069.78	35722069.89	35722070.01	0.0302	0.0260
Earth	93091-08-09 12:14 G	35722069.89	35722070.01	35722070.16	0.0302	0.0246 *
Venus	93091-08-14 19:55 G	35722075.13	35722075.33	35722075.54	0.0302	0.0065
Moon	93092-08-23 07:26 G	35722449.60	35722449.81	35722450.03	0.0298	0.0120
Earth	93092-08-23 07:41 G	35722449.61	35722449.82	35722450.04	0.0298	0.0135 *
Mercury	93098-07-05 11:02 G	35724591.87	35724591.96	35724592.06	0.0271	0.0177
Mercury	93098-10-01 21:22 G	35724680.26	35724680.39	35724680.52	0.0270	0.0057
Mercury	93098-12-29 07:41 G	35724768.69	35724768.82	35724768.94	0.0269	0.0062
Mercury	93099-03-27 17:46 G	35724857.14	35724857.24	35724857.34	0.0268	0.0179
Venus	93106-01-25 14:10 G	35727351.97	35727352.09	35727352.21	0.0260	0.0214
Venus	93106-09-11 11:02 G	35727580.75	35727580.96	35727581.17	0.0260	0.0037
Earth	93107-02-12 13:41 G	35727734.90	35727735.07	35727735.25	0.0261	0.0187
Moon	93107-02-12 13:55 G	35727734.92	35727735.08	35727735.25	0.0261	0.0188 *
Venus	93107-04-28 08:24 G	35727809.67	35727809.85	35727810.03	0.0262	0.0142
Earth	93108-02-24 06:29 G	35728111.54	35728111.77	35728112.02	0.0264	0.0066
Moon	93108-02-24 10:19 G	35728111.70	35728111.93	35728112.17	0.0264	0.0078 *
Mercury	93114-10-13 16:48 G	35730535.03	35730535.20	35730535.38	0.0292	0.0115
Mercury	93115-01-10 18:14 G	35730624.09	35730624.26	35730624.44	0.0293	0.0105
Venus	93120-07-10 00:14 G	35732631.34	35732631.51	35732631.69	0.0303	0.0169
Venus	93121-02-25 06:14 G	35732861.56	35732861.76	35732861.95	0.0302	0.0112

Earth	93121-08-18 09:07 G	35733035.64	35733035.88	35733036.12	0.0300	0.0030
Moon	93121-08-18 09:07 G	35733035.64	35733035.88	35733036.13	0.0300	0.0045 *
Mercury	93127-11-23 14:38 G	35735324.03	35735324.11	35735324.20	0.0272	0.0203
Mercury	93128-02-20 00:58 G	35735412.42	35735412.54	35735412.66	0.0271	0.0083
Mercury	93128-05-18 11:02 G	35735500.83	35735500.96	35735501.09	0.0270	0.0036
Mercury	93128-08-14 21:22 G	35735589.28	35735589.39	35735589.50	0.0269	0.0153
Venus	93135-08-07 19:26 G	35738138.17	35738138.31	35738138.47	0.0259	0.0182
Venus	93136-03-23 16:34 G	35738366.98	35738367.19	35738367.41	0.0260	0.0007
Venus	93136-11-07 14:10 G	35738595.93	35738596.09	35738596.25	0.0261	0.0174
Moon	93137-02-18 11:17 G	35738698.72	35738698.97	35738699.22	0.0262	0.0038
Earth	93137-02-18 15:07 G	35738698.88	35738699.13	35738699.37	0.0262	0.0047 *
Moon	93138-03-02 09:07 G	35739075.77	35739075.88	35739076.01	0.0265	0.0226
Earth	93138-03-02 10:34 G	35739075.79	35739075.94	35739076.09	0.0265	0.0210 *
Mercury	93144-03-01 16:05 G	35741267.02	35741267.17	35741267.32	0.0292	0.0169
Mercury	93144-05-29 17:31 G	35741356.05	35741356.23	35741356.42	0.0293	0.0051
Mercury	93144-08-26 18:58 G	35741445.22	35741445.29	35741445.36	0.0294	0.0271
Venus	93150-01-20 10:19 G	35743417.74	35743417.93	35743418.12	0.0303	0.0124
Earth	93150-08-12 08:10 G	35743621.66	35743621.84	35743622.02	0.0301	0.0198
Moon	93150-08-12 08:24 G	35743621.70	35743621.85	35743622.02	0.0301	0.0214 *
Venus	93150-09-07 15:50 G	35743647.98	35743648.16	35743648.34	0.0301	0.0156
Earth	93151-08-27 02:53 G	35744001.43	35744001.62	35744001.81	0.0298	0.0181
Moon	93151-08-27 05:46 G	35744001.55	35744001.74	35744001.94	0.0298	0.0165 *
Mercury	93157-04-11 18:00 G	35746056.18	35746056.25	35746056.31	0.0272	0.0232
Mercury	93157-07-09 04:05 G	35746144.55	35746144.67	35746144.79	0.0271	0.0112
Mercury	93157-10-05 14:24 G	35746232.97	35746233.10	35746233.23	0.0270	0.0008
Mercury	93158-01-02 00:29 G	35746321.41	35746321.52	35746321.64	0.0269	0.0124
Mercury	93158-03-31 10:48 G	35746409.89	35746409.95	35746410.00	0.0268	0.0241
Venus	93165-02-16 23:02 G	35748924.30	35748924.46	35748924.64	0.0260	0.0157
Venus	93165-10-03 20:10 G	35749153.13	35749153.34	35749153.55	0.0261	0.0021
Earth	93166-02-13 20:38 G	35749286.18	35749286.36	35749286.57	0.0261	0.0160

Moon	93166-02-14 00:29 G	35749286.32	35749286.52	35749286.72	0.0261	0.0157	*
Venus	93166-05-20 17:17 G	35749382.10	35749382.22	35749382.37	0.0262	0.0201	
Earth	93167-02-25 13:55 G	35749662.85	35749663.08	35749663.32	0.0264	0.0094	
Moon	93167-02-25 15:07 G	35749662.90	35749663.13	35749663.37	0.0264	0.0108	*
Mercury	93173-07-19 13:55 G	35751998.97	35751999.08	35751999.20	0.0291	0.0231	
Mercury	93173-10-16 15:36 G	35752087.96	35752088.15	35752088.33	0.0292	0.0012	
Mercury	93174-01-13 16:48 G	35752177.08	35752177.20	35752177.34	0.0293	0.0209	
Venus	93179-08-02 18:14 G	35754204.06	35754204.26	35754204.46	0.0303	0.0081	
Venus	93180-03-19 23:46 G	35754434.34	35754434.49	35754434.66	0.0301	0.0199	
Moon	93180-08-19 21:50 G	35754587.16	35754587.41	35754587.65	0.0300	0.0007	
Earth	93180-08-20 01:12 G	35754587.31	35754587.55	35754587.79	0.0300	0.0013	*
Mercury	93186-08-29 21:07 G	35756788.35	35756788.38	35756788.42	0.0272	0.0262	
Mercury	93186-11-26 07:26 G	35756876.70	35756876.81	35756876.92	0.0271	0.0142	
Mercury	93187-02-22 17:46 G	35756965.11	35756965.24	35756965.37	0.0270	0.0024	
Mercury	93187-05-22 03:50 G	35757053.54	35757053.66	35757053.78	0.0269	0.0095	
Mercury	93187-08-18 13:55 G	35757142.01	35757142.08	35757142.16	0.0268	0.0213	
Venus	93194-08-30 03:36 G	35759710.47	35759710.65	35759710.85	0.0259	0.0126	
Venus	93195-04-16 00:43 G	35759939.32	35759939.53	35759939.74	0.0260	0.0051	
Venus	93195-11-30 22:05 G	35760168.33	35760168.42	35760168.53	0.0262	0.0231	
Moon	93196-02-20 19:12 G	35760250.06	35760250.30	35760250.54	0.0262	0.0011	
Earth	93196-02-20 20:38 G	35760250.11	35760250.36	35760250.60	0.0262	0.0021	*
Earth	93197-03-03 15:36 G	35760627.06	35760627.15	35760627.28	0.0265	0.0237	
Moon	93197-03-03 19:12 G	35760627.24	35760627.30	35760627.37	0.0265	0.0253	*
Mercury	93203-03-05 13:41 G	35762819.89	35762820.07	35762820.26	0.0292	0.0075	
Mercury	93203-06-02 15:07 G	35762908.98	35762909.13	35762909.30	0.0294	0.0147	
Venus	93209-02-12 02:24 G	35764990.40	35764990.60	35764990.81	0.0303	0.0040	
Earth	93209-08-13 21:36 G	35765173.20	35765173.40	35765173.62	0.0301	0.0158	
Moon	93209-08-14 01:26 G	35765173.37	35765173.56	35765173.76	0.0301	0.0175	*
Venus	93209-09-30 07:55 G	35765220.72	35765220.83	35765220.97	0.0301	0.0240	
Earth	93210-08-28 16:05 G	35765553.02	35765553.17	35765553.34	0.0298	0.0221	

Moon	93210-08-28 19:26 G	35765553.13	35765553.31	35765553.49	0.0298	0.0203	*
Mercury	93216-04-14 10:19 G	35767608.83	35767608.93	35767609.03	0.0271	0.0174	
Mercury	93216-07-11 20:38 G	35767697.23	35767697.36	35767697.49	0.0270	0.0055	
Mercury	93216-10-08 06:43 G	35767785.65	35767785.78	35767785.91	0.0269	0.0064	
Mercury	93217-01-04 16:48 G	35767874.11	35767874.20	35767874.30	0.0268	0.0181	
Venus	93224-03-11 06:29 G	35770496.57	35770496.77	35770496.96	0.0260	0.0102	
Venus	93224-10-26 03:07 G	35770725.43	35770725.63	35770725.84	0.0261	0.0076	
Earth	93225-02-15 00:29 G	35770837.31	35770837.52	35770837.74	0.0261	0.0134	
Moon	93225-02-15 02:38 G	35770837.39	35770837.61	35770837.83	0.0261	0.0131	*
Venus	93225-06-12 00:14 G	35770954.48	35770954.51	35770954.57	0.0262	0.0256	
Moon	93226-02-26 14:10 G	35771213.88	35771214.09	35771214.31	0.0264	0.0134	
Earth	93226-02-26 17:31 G	35771214.01	35771214.23	35771214.46	0.0264	0.0119	*
Mercury	93232-07-22 10:48 G	35773551.79	35773551.95	35773552.12	0.0292	0.0144	
Mercury	93232-10-19 12:29 G	35773640.84	35773641.02	35773641.20	0.0293	0.0077	
Venus	93238-01-07 02:24 G	35775546.53	35775546.60	35775546.68	0.0304	0.0283	
Venus	93238-08-25 08:53 G	35775776.66	35775776.87	35775777.08	0.0303	0.0001	
Venus	93239-04-12 14:24 G	35776007.04	35776007.10	35776007.19	0.0301	0.0280	
Moon	93239-08-22 09:50 G	35776138.68	35776138.91	35776139.15	0.0300	0.0032	
Earth	93239-08-22 12:14 G	35776138.77	35776139.01	35776139.25	0.0300	0.0050	*
Mercury	93245-09-01 13:12 G	35778340.98	35778341.05	35778341.14	0.0272	0.0207	
Mercury	93245-11-28 23:31 G	35778429.36	35778429.48	35778429.61	0.0271	0.0087	
Mercury	93246-02-25 09:50 G	35778517.78	35778517.91	35778518.04	0.0270	0.0033	
Mercury	93246-05-24 19:55 G	35778606.22	35778606.33	35778606.44	0.0269	0.0149	
Mercury	93246-08-21 06:00 G	35778694.74	35778694.75	35778694.76	0.0268	0.0266	
Venus	93253-02-04 13:12 G	35781054.01	35781054.05	35781054.12	0.0258	0.0248	
Venus	93253-09-21 09:50 G	35781282.71	35781282.91	35781283.12	0.0259	0.0073	
Moon	93254-02-10 05:02 G	35781424.65	35781424.71	35781424.79	0.0260	0.0248	
Earth	93254-02-10 07:26 G	35781424.74	35781424.81	35781424.91	0.0260	0.0245	*
Venus	93254-05-08 06:43 G	35781511.59	35781511.78	35781511.98	0.0260	0.0104	
Earth	93255-02-21 22:34 G	35781801.19	35781801.44	35781801.69	0.0262	0.0004	

Moon	93255-02-22 01:12 G	35781801.31	35781801.55	35781801.80	0.0262	0.0015	*
Earth	93256-03-04 17:31 G	35782178.19	35782178.23	35782178.29	0.0265	0.0259	
Mercury	93261-12-09 08:10 G	35784283.72	35784283.84	35784283.97	0.0292	0.0214	
Mercury	93262-03-08 09:50 G	35784372.72	35784372.91	35784373.09	0.0293	0.0008	
Mercury	93262-06-05 11:17 G	35784461.85	35784461.97	35784462.08	0.0294	0.0227	
Venus	93267-07-20 08:38 G	35786332.75	35786332.86	35786332.99	0.0304	0.0247	
Venus	93268-03-06 15:07 G	35786562.92	35786563.13	35786563.34	0.0303	0.0037	
Earth	93268-08-15 05:17 G	35786724.51	35786724.72	35786724.95	0.0301	0.0124	
Moon	93268-08-15 06:58 G	35786724.57	35786724.79	35786725.01	0.0301	0.0141	*
Moon	93269-08-29 22:05 G	35787104.28	35787104.42	35787104.59	0.0298	0.0235	
Earth	93269-08-29 23:46 G	35787104.37	35787104.49	35787104.62	0.0298	0.0253	*
Mercury	93275-01-19 15:50 G	35789073.11	35789073.16	35789073.22	0.0272	0.0243	
Mars	93275-02-03 02:38 G	35789087.38	35789087.61	35789087.85	0.0272	0.0189	
Mercury	93275-04-18 02:10 G	35789161.47	35789161.59	35789161.70	0.0271	0.0123	
Mercury	93275-07-15 12:14 G	35789249.88	35789250.01	35789250.14	0.0270	0.0007	
Mercury	93275-10-11 22:34 G	35789338.32	35789338.44	35789338.56	0.0269	0.0114	
Mercury	93276-01-08 08:38 G	35789426.80	35789426.86	35789426.93	0.0268	0.0231	
Venus	93282-08-17 14:53 G	35791840.03	35791840.12	35791840.23	0.0259	0.0226	
Venus	93283-04-03 11:31 G	35792068.77	35792068.98	35792069.19	0.0259	0.0050	
Venus	93283-11-18 08:10 G	35792297.66	35792297.84	35792298.03	0.0261	0.0128	
Moon	93284-02-16 22:34 G	35792388.20	35792388.44	35792388.67	0.0261	0.0104	
Earth	93284-02-17 00:58 G	35792388.32	35792388.54	35792388.77	0.0261	0.0112	*
Moon	93285-02-27 15:07 G	35792764.94	35792765.13	35792765.33	0.0264	0.0155	
Earth	93285-02-27 17:31 G	35792765.03	35792765.23	35792765.45	0.0264	0.0140	*
Mercury	93291-07-26 05:46 G	35795104.56	35795104.74	35795104.92	0.0292	0.0072	
Mercury	93291-10-23 07:12 G	35795193.64	35795193.80	35795193.96	0.0293	0.0148	
Venus	93297-01-29 12:43 G	35797118.88	35797119.03	35797119.18	0.0304	0.0212	
Venus	93297-09-16 19:12 G	35797349.10	35797349.30	35797349.51	0.0303	0.0073	
Earth	93298-08-23 16:05 G	35797689.94	35797690.17	35797690.41	0.0300	0.0079	
Moon	93298-08-23 18:29 G	35797690.04	35797690.27	35797690.51	0.0300	0.0062	*

Mercury	93304-09-05 04:48 G	35799893.60	35799893.70	35799893.81	0.0272	0.0160
Mercury	93304-12-02 14:53 G	35799982.00	35799982.12	35799982.26	0.0271	0.0042
Mercury	93305-03-01 01:12 G	35800070.42	35800070.55	35800070.68	0.0270	0.0078
Mercury	93305-05-28 11:17 G	35800158.89	35800158.97	35800159.06	0.0269	0.0196
Venus	93312-02-28 17:31 G	35802626.10	35802626.23	35802626.37	0.0258	0.0200
Venus	93312-10-14 14:10 G	35802854.87	35802855.09	35802855.30	0.0259	0.0024
Earth	93313-02-12 06:29 G	35802975.65	35802975.77	35802975.89	0.0260	0.0224
Moon	93313-02-12 08:24 G	35802975.74	35802975.85	35802975.99	0.0260	0.0223 *
Venus	93313-05-31 10:34 G	35803083.78	35803083.94	35803084.12	0.0260	0.0154
Earth	93314-02-23 20:53 G	35803352.13	35803352.37	35803352.62	0.0262	0.0023
Moon	93314-02-24 00:00 G	35803352.25	35803352.50	35803352.75	0.0262	0.0035 *
Mercury	93320-12-13 02:24 G	35805836.44	35805836.60	35805836.76	0.0292	0.0149
Mercury	93321-03-12 03:50 G	35805925.48	35805925.66	35805925.84	0.0293	0.0072
Mercury	93321-06-09 05:17 G	35806014.71	35806014.72	35806014.74	0.0294	0.0292
Venus	93326-08-12 17:46 G	35807905.07	35807905.24	35807905.41	0.0304	0.0178
Venus	93327-03-31 00:14 G	35808135.31	35808135.51	35808135.71	0.0303	0.0107
Moon	93327-08-18 04:19 G	35808275.45	35808275.68	35808275.91	0.0302	0.0113
Earth	93327-08-18 07:26 G	35808275.58	35808275.81	35808276.04	0.0302	0.0096 *
Moon	93328-08-31 22:19 G	35808655.32	35808655.43	35808655.55	0.0298	0.0262
Earth	93328-09-01 02:10 G	35808655.51	35808655.59	35808655.67	0.0298	0.0279 *
Mercury	93334-01-23 07:12 G	35810625.71	35810625.80	35810625.89	0.0271	0.0199
Mercury	93334-04-21 17:17 G	35810714.10	35810714.22	35810714.35	0.0270	0.0079
Mercury	93334-07-19 03:36 G	35810802.52	35810802.65	35810802.78	0.0269	0.0040
Mercury	93334-10-15 13:41 G	35810890.96	35810891.07	35810891.18	0.0268	0.0157
Venus	93341-09-09 18:14 G	35813412.11	35813412.26	35813412.42	0.0259	0.0179
Venus	93342-04-26 14:38 G	35813640.90	35813641.11	35813641.33	0.0259	0.0003
Venus	93342-12-11 11:17 G	35813869.82	35813869.97	35813870.13	0.0261	0.0176
Moon	93343-02-18 18:43 G	35813939.06	35813939.28	35813939.52	0.0261	0.0083
Earth	93343-02-18 22:05 G	35813939.19	35813939.42	35813939.66	0.0261	0.0093 *
Earth	93344-03-01 14:24 G	35814315.90	35814316.10	35814316.30	0.0264	0.0158

Moon	93344-03-01 16:19 G	35814316.00	35814316.18	35814316.36	0.0264	0.0172	*
Mercury	93350-05-01 21:36 G	35816568.30	35816568.40	35816568.52	0.0291	0.0233	
Mercury	93350-07-29 23:17 G	35816657.28	35816657.47	35816657.66	0.0292	0.0013	
Mercury	93350-10-27 00:43 G	35816746.40	35816746.53	35816746.66	0.0293	0.0208	
Venus	93356-02-22 19:55 G	35818691.15	35818691.33	35818691.51	0.0304	0.0147	
Earth	93356-08-10 16:34 G	35818861.12	35818861.19	35818861.29	0.0303	0.0281	
Moon	93356-08-10 19:55 G	35818861.30	35818861.33	35818861.38	0.0303	0.0298	
Venus	93356-10-10 02:24 G	35818921.42	35818921.60	35818921.79	0.0302	0.0138	
Earth	93357-08-25 15:07 G	35819240.90	35819241.13	35819241.36	0.0300	0.0103	
Moon	93357-08-25 18:29 G	35819241.03	35819241.27	35819241.50	0.0300	0.0086	*
Mercury	93363-06-12 09:22 G	35821357.83	35821357.89	35821357.95	0.0272	0.0240	
Mars	93363-06-30 05:02 G	35821375.45	35821375.71	35821376.00	0.0272	0.0142	
Mercury	93363-09-08 19:41 G	35821446.20	35821446.32	35821446.44	0.0271	0.0120	
Mercury	93363-12-06 05:46 G	35821534.61	35821534.74	35821534.87	0.0270	0.0005	
Mercury	93364-03-03 15:50 G	35821623.05	35821623.16	35821623.28	0.0269	0.0119	
Mercury	93364-05-31 02:10 G	35821711.53	35821711.59	35821711.65	0.0268	0.0236	
Venus	93371-03-22 20:10 G	35824198.18	35824198.34	35824198.52	0.0258	0.0154	
Venus	93371-11-06 16:34 G	35824426.98	35824427.19	35824427.41	0.0259	0.0023	
Earth	93372-02-14 02:38 G	35824526.46	35824526.61	35824526.76	0.0260	0.0206	
Moon	93372-02-14 06:00 G	35824526.60	35824526.75	35824526.92	0.0260	0.0198	*
Venus	93372-06-22 13:12 G	35824655.92	35824656.05	35824656.18	0.0260	0.0200	
Moon	93373-02-24 15:22 G	35824902.89	35824903.14	35824903.40	0.0262	0.0055	
Earth	93373-02-24 16:48 G	35824902.96	35824903.20	35824903.45	0.0262	0.0041	*
Mercury	93379-12-16 19:12 G	35827389.13	35827389.30	35827389.48	0.0292	0.0095	
Mercury	93380-03-14 20:38 G	35827478.20	35827478.36	35827478.53	0.0293	0.0126	
Venus	93385-09-03 23:17 G	35829477.28	35829477.47	35829477.67	0.0304	0.0117	
Venus	93386-04-22 06:00 G	35829707.58	35829707.75	35829707.93	0.0303	0.0169	
Moon	93386-08-19 01:12 G	35829826.33	35829826.55	35829826.78	0.0302	0.0090	
Earth	93386-08-19 03:50 G	35829826.43	35829826.66	35829826.90	0.0302	0.0074	*
Moon	93387-09-02 23:02 G	35830206.41	35830206.46	35830206.52	0.0298	0.0288	

Mercury	93393-01-25 21:36 G	35832178.30	35832178.40	35832178.51	0.0271	0.0162
Mercury	93393-04-24 07:55 G	35832266.70	35832266.83	35832266.96	0.0270	0.0042
Mercury	93393-07-21 18:00 G	35832355.13	35832355.25	35832355.38	0.0269	0.0077
Mercury	93393-10-18 04:19 G	35832443.59	35832443.68	35832443.77	0.0268	0.0195
Venus	93400-10-02 20:24 G	35834984.17	35834984.35	35834984.53	0.0258	0.0134
Venus	93401-05-19 16:34 G	35835212.98	35835213.19	35835213.40	0.0259	0.0043
Venus	93402-01-03 12:58 G	35835441.93	35835442.04	35835442.16	0.0261	0.0221
Earth	93402-02-20 17:02 G	35835489.97	35835490.21	35835490.45	0.0261	0.0076
Moon	93402-02-20 18:14 G	35835490.03	35835490.26	35835490.50	0.0261	0.0063 *
Earth	93403-03-04 08:38 G	35835866.69	35835866.86	35835867.06	0.0264	0.0174
Moon	93403-03-04 12:14 G	35835866.84	35835867.01	35835867.19	0.0264	0.0188 *
Mercury	93409-05-05 13:55 G	35838120.94	35838121.08	35838121.23	0.0291	0.0184
Mercury	93409-08-02 15:36 G	35838209.96	35838210.15	35838210.34	0.0292	0.0036
Mercury	93409-10-30 17:02 G	35838299.12	35838299.21	35838299.30	0.0293	0.0257
Venus	93415-03-18 00:29 G	35840263.33	35840263.52	35840263.73	0.0304	0.0088
Earth	93415-08-13 11:31 G	35840411.86	35840411.98	35840412.10	0.0303	0.0260
Moon	93415-08-13 13:41 G	35840411.97	35840412.07	35840412.17	0.0303	0.0275 *
Venus	93415-11-03 07:12 G	35840493.65	35840493.80	35840493.96	0.0302	0.0198
Moon	93416-08-27 08:53 G	35840791.64	35840791.87	35840792.11	0.0300	0.0111
Earth	93416-08-27 10:05 G	35840791.70	35840791.92	35840792.15	0.0300	0.0123 *
Mercury	93422-06-15 23:46 G	35842910.41	35842910.49	35842910.58	0.0272	0.0205
Mercury	93422-09-12 09:50 G	35842998.79	35842998.91	35842999.04	0.0271	0.0086
Mercury	93422-12-09 20:10 G	35843087.21	35843087.34	35843087.47	0.0270	0.0035
Mercury	93423-03-08 06:29 G	35843175.66	35843175.77	35843175.87	0.0269	0.0154
Venus	93430-04-14 21:36 G	35845770.21	35845770.40	35845770.60	0.0258	0.0110
Venus	93430-11-29 18:00 G	35845999.05	35845999.25	35845999.46	0.0259	0.0067
Moon	93431-02-15 19:26 G	35846077.13	35846077.31	35846077.51	0.0259	0.0177
Earth	93431-02-15 21:07 G	35846077.21	35846077.38	35846077.55	0.0259	0.0189 *
Venus	93431-07-16 14:24 G	35846228.04	35846228.10	35846228.18	0.0260	0.0245
Moon	93432-02-27 07:12 G	35846453.57	35846453.80	35846454.04	0.0262	0.0072

Earth	93432-02-27 11:02 G	35846453.72	35846453.96	35846454.20	0.0262	0.0057	*
Mercury	93438-09-22 09:36 G	35848852.84	35848852.90	35848852.98	0.0291	0.0267	
Mercury	93438-12-20 11:17 G	35848941.79	35848941.97	35848942.16	0.0292	0.0048	
Mercury	93439-03-19 12:43 G	35849030.88	35849031.03	35849031.18	0.0293	0.0173	
Venus	93444-09-27 03:36 G	35851049.44	35851049.65	35851049.85	0.0304	0.0058	
Venus	93445-05-15 10:05 G	35851279.79	35851279.92	35851280.07	0.0303	0.0228	
Earth	93445-08-20 21:36 G	35851377.16	35851377.40	35851377.64	0.0302	0.0055	
Moon	93445-08-20 23:17 G	35851377.24	35851377.47	35851377.70	0.0302	0.0067	*
Mercury	93451-11-03 01:26 G	35853642.52	35853642.56	35853642.62	0.0272	0.0250	
Mars	93451-11-23 13:12 G	35853662.76	35853663.05	35853663.35	0.0272	0.0120	
Mercury	93452-01-30 12:00 G	35853730.88	35853731.00	35853731.11	0.0271	0.0129	
Mercury	93452-04-27 22:05 G	35853819.29	35853819.42	35853819.55	0.0270	0.0009	
Mercury	93452-07-25 08:24 G	35853907.73	35853907.85	35853907.97	0.0269	0.0111	
Mercury	93452-10-21 18:29 G	35853996.20	35853996.27	35853996.34	0.0268	0.0228	
Venus	93459-10-25 21:50 G	35856556.21	35856556.41	35856556.61	0.0258	0.0090	
Venus	93460-06-10 17:46 G	35856785.04	35856785.24	35856785.45	0.0259	0.0087	
Earth	93461-02-21 11:17 G	35857040.73	35857040.97	35857041.22	0.0261	0.0059	
Moon	93461-02-21 15:07 G	35857040.88	35857041.13	35857041.38	0.0261	0.0043	*
Moon	93462-03-05 02:10 G	35857417.44	35857417.59	35857417.77	0.0263	0.0200	
Earth	93462-03-05 02:38 G	35857417.45	35857417.61	35857417.79	0.0263	0.0191	*
Mercury	93468-05-08 06:00 G	35859673.59	35859673.75	35859673.92	0.0291	0.0138	
Mercury	93468-08-05 07:26 G	35859762.63	35859762.81	35859762.99	0.0292	0.0082	
Venus	93474-04-09 03:50 G	35861835.45	35861835.66	35861835.87	0.0304	0.0031	
Moon	93474-08-14 01:12 G	35861962.42	35861962.55	35861962.68	0.0303	0.0254	
Earth	93474-08-14 03:36 G	35861962.51	35861962.65	35861962.80	0.0303	0.0242	*
Venus	93474-11-25 10:34 G	35862065.83	35862065.94	35862066.05	0.0302	0.0254	
Moon	93475-08-28 23:02 G	35862342.25	35862342.46	35862342.68	0.0300	0.0132	
Earth	93475-08-29 02:24 G	35862342.39	35862342.60	35862342.82	0.0300	0.0140	*
Mercury	93481-06-18 13:55 G	35864462.98	35864463.08	35864463.18	0.0272	0.0174	
Mercury	93481-09-15 00:00 G	35864551.37	35864551.50	35864551.63	0.0271	0.0053	

Mercury	93481-12-12 10:19 G	35864639.80	35864639.93	35864640.06	0.0270	0.0067
Mercury	93482-03-10 20:24 G	35864728.26	35864728.35	35864728.45	0.0269	0.0186
Venus	93488-09-20 02:53 G	35867113.55	35867113.62	35867113.70	0.0258	0.0242
Venus	93489-05-06 22:48 G	35867342.25	35867342.45	35867342.66	0.0258	0.0067
Venus	93489-12-21 19:12 G	35867571.10	35867571.30	35867571.49	0.0259	0.0110
Moon	93490-02-16 11:31 G	35867627.79	35867627.98	35867628.18	0.0259	0.0157
Earth	93490-02-16 15:07 G	35867627.95	35867628.13	35867628.32	0.0259	0.0172 *
Earth	93491-02-28 04:34 G	35868004.46	35868004.69	35868004.94	0.0262	0.0074
Moon	93491-02-28 05:02 G	35868004.49	35868004.71	35868004.94	0.0262	0.0087 *
Jupiter	93492-03-07 20:10 G	35868377.88	35868378.34	35868378.81	0.0265	0.0045
Mercury	93497-09-25 01:41 G	35870405.45	35870405.57	35870405.70	0.0291	0.0221
Mercury	93497-12-23 03:22 G	35870494.45	35870494.64	35870494.82	0.0292	0.0006
Mercury	93498-03-22 04:34 G	35870583.57	35870583.69	35870583.82	0.0293	0.0218
Venus	93503-03-04 23:17 G	35872391.43	35872391.47	35872391.55	0.0305	0.0291
Venus	93503-10-21 06:43 G	35872621.57	35872621.78	35872621.99	0.0304	0.0005
Venus	93504-06-07 13:26 G	35872851.99	35872852.06	35872852.13	0.0303	0.0284
Earth	93504-08-22 13:41 G	35872927.83	35872928.07	35872928.31	0.0302	0.0037
Moon	93504-08-22 17:02 G	35872927.97	35872928.21	35872928.46	0.0302	0.0048 *
Mercury	93510-11-06 15:36 G	35875195.08	35875195.15	35875195.23	0.0273	0.0218
Mercury	93511-02-03 01:55 G	35875283.46	35875283.58	35875283.70	0.0271	0.0097
Mercury	93511-05-02 12:14 G	35875371.88	35875372.01	35875372.14	0.0270	0.0024
Mercury	93511-07-29 22:19 G	35875460.32	35875460.43	35875460.55	0.0269	0.0143
Mercury	93511-10-26 08:38 G	35875548.83	35875548.86	35875548.89	0.0268	0.0261
Venus	93518-04-03 03:07 G	35877899.53	35877899.63	35877899.75	0.0258	0.0222
Venus	93518-11-17 23:17 G	35878128.26	35878128.47	35878128.68	0.0258	0.0046
Venus	93519-07-04 19:12 G	35878357.12	35878357.30	35878357.49	0.0259	0.0131
Moon	93520-02-24 05:17 G	35878591.47	35878591.72	35878591.98	0.0261	0.0027
Earth	93520-02-24 05:46 G	35878591.50	35878591.74	35878591.99	0.0261	0.0042 *
Moon	93521-03-06 17:02 G	35878968.08	35878968.21	35878968.37	0.0263	0.0214
Earth	93521-03-06 21:07 G	35878968.23	35878968.38	35878968.54	0.0263	0.0207 *

Mercury	93527-05-12 22:19 G	35881226.25	35881226.43	35881226.61	0.0291	0.0090
Mercury	93527-08-09 23:31 G	35881315.32	35881315.48	35881315.65	0.0292	0.0130
Venus	93532-09-14 00:29 G	35883177.42	35883177.52	35883177.63	0.0304	0.0262
Venus	93533-05-02 07:41 G	35883407.61	35883407.82	35883408.02	0.0304	0.0027
Moon	93533-08-15 17:02 G	35883513.07	35883513.21	35883513.37	0.0303	0.0233
Earth	93533-08-15 20:24 G	35883513.19	35883513.35	35883513.51	0.0303	0.0222 *
Moon	93534-08-30 18:43 G	35883893.09	35883893.28	35883893.49	0.0300	0.0155
Earth	93534-08-30 18:58 G	35883893.10	35883893.29	35883893.51	0.0300	0.0159 *
Mercury	93540-03-25 17:31 G	35885927.20	35885927.23	35885927.26	0.0274	0.0264
Mars	93540-04-17 16:05 G	35885949.88	35885950.17	35885950.46	0.0273	0.0119
Mercury	93540-06-22 03:50 G	35886015.55	35886015.66	35886015.77	0.0272	0.0142
Mercury	93540-09-18 14:10 G	35886103.96	35886104.09	35886104.22	0.0271	0.0022
Mercury	93540-12-16 00:14 G	35886192.39	35886192.51	35886192.64	0.0270	0.0099
Mercury	93541-03-14 10:34 G	35886280.87	35886280.94	35886281.02	0.0269	0.0218
Venus	93547-10-14 04:34 G	35888685.56	35888685.69	35888685.83	0.0258	0.0199
Venus	93548-05-30 00:43 G	35888914.32	35888914.53	35888914.74	0.0258	0.0023
Venus	93549-01-13 20:38 G	35889143.20	35889143.36	35889143.54	0.0259	0.0155
Earth	93549-02-18 10:05 G	35889178.74	35889178.92	35889179.14	0.0259	0.0154
Moon	93549-02-18 10:34 G	35889178.74	35889178.94	35889179.14	0.0259	0.0140 *
Earth	93550-03-01 23:46 G	35889555.27	35889555.49	35889555.73	0.0262	0.0092
Moon	93550-03-02 03:50 G	35889555.43	35889555.66	35889555.89	0.0262	0.0102 *
Mercury	93556-09-28 18:29 G	35891958.12	35891958.27	35891958.42	0.0291	0.0169
Mercury	93556-12-26 19:55 G	35892047.14	35892047.33	35892047.51	0.0292	0.0050
Mercury	93557-03-25 20:53 G	35892136.31	35892136.37	35892136.45	0.0293	0.0270
Venus	93562-03-27 03:22 G	35893963.52	35893963.64	35893963.78	0.0305	0.0234
Venus	93562-11-12 10:34 G	35894193.73	35894193.94	35894194.15	0.0304	0.0056
Moon	93563-08-24 06:29 G	35894478.52	35894478.77	35894479.02	0.0302	0.0022
Earth	93563-08-24 06:43 G	35894478.54	35894478.78	35894479.03	0.0302	0.0018 *
Mercury	93569-11-09 05:46 G	35896747.65	35896747.74	35896747.84	0.0273	0.0186
Mercury	93570-02-05 16:05 G	35896836.04	35896836.17	35896836.30	0.0272	0.0064

Mercury	93570-05-05 02:24 G	35896924.47	35896924.60	35896924.72	0.0270	0.0057
Mercury	93570-08-01 12:29 G	35897012.92	35897013.02	35897013.12	0.0269	0.0176
Venus	93577-04-25 05:17 G	35899471.58	35899471.72	35899471.89	0.0258	0.0178
Venus	93577-12-10 01:41 G	35899700.35	35899700.57	35899700.78	0.0258	0.0004
Moon	93578-02-13 14:38 G	35899766.05	35899766.11	35899766.18	0.0259	0.0250
Venus	93578-07-26 21:22 G	35899929.25	35899929.39	35899929.56	0.0259	0.0177
Moon	93579-02-24 22:19 G	35900142.18	35900142.43	35900142.68	0.0261	0.0011
Earth	93579-02-25 01:55 G	35900142.33	35900142.58	35900142.83	0.0261	0.0023 *
Moon	93580-03-07 16:19 G	35900519.07	35900519.18	35900519.31	0.0263	0.0228
Earth	93580-03-07 17:02 G	35900519.09	35900519.21	35900519.35	0.0263	0.0225 *
Mercury	93586-02-15 13:41 G	35902689.98	35902690.07	35902690.16	0.0290	0.0254
Mercury	93586-05-15 15:07 G	35902778.95	35902779.13	35902779.32	0.0291	0.0036
Mercury	93586-08-12 16:34 G	35902868.04	35902868.19	35902868.33	0.0292	0.0184
Venus	93591-10-07 05:02 G	35904749.56	35904749.71	35904749.87	0.0304	0.0204
Venus	93592-05-24 12:00 G	35904979.81	35904980.00	35904980.21	0.0303	0.0086
Earth	93592-08-16 14:24 G	35905063.93	35905064.10	35905064.29	0.0303	0.0201
Moon	93592-08-16 16:05 G	35905064.00	35905064.17	35905064.34	0.0303	0.0205 *
Earth	93593-08-31 13:12 G	35905443.87	35905444.05	35905444.25	0.0300	0.0179
Moon	93593-08-31 16:48 G	35905444.01	35905444.20	35905444.39	0.0300	0.0178 *
Mercury	93599-03-29 07:41 G	35907479.76	35907479.82	35907479.89	0.0274	0.0231
Mercury	93599-06-25 18:00 G	35907568.13	35907568.25	35907568.37	0.0273	0.0109
Mercury	93599-09-22 04:19 G	35907656.55	35907656.68	35907656.81	0.0271	0.0014
Mercury	93599-12-19 14:38 G	35907745.00	35907745.11	35907745.22	0.0270	0.0133
Mercury	93600-03-17 00:58 G	35907833.50	35907833.54	35907833.58	0.0269	0.0253
Venus	93606-11-05 07:26 G	35910257.65	35910257.81	35910257.99	0.0258	0.0154
Venus	93607-06-22 03:36 G	35910486.44	35910486.65	35910486.86	0.0259	0.0023
Venus	93608-02-05 23:31 G	35910715.36	35910715.48	35910715.62	0.0259	0.0201
Earth	93608-02-20 07:12 G	35910729.60	35910729.80	35910730.03	0.0260	0.0133
Moon	93608-02-20 10:48 G	35910729.74	35910729.95	35910730.18	0.0260	0.0118 *
Earth	93609-03-02 21:07 G	35911106.16	35911106.38	35911106.61	0.0262	0.0112

Moon	93609-03-02 21:50 G	35911106.18	35911106.41	35911106.64	0.0262	0.0117	*
Mercury	93615-10-02 12:00 G	35913510.83	35913511.00	35913511.18	0.0290	0.0109	
Mercury	93615-12-30 13:26 G	35913599.89	35913600.06	35913600.23	0.0292	0.0110	
Venus	93621-04-18 09:22 G	35915535.72	35915535.89	35915536.07	0.0305	0.0173	
Venus	93621-12-04 16:19 G	35915765.99	35915766.18	35915766.38	0.0304	0.0118	
Moon	93622-08-24 23:17 G	35916029.23	35916029.47	35916029.72	0.0302	0.0008	
Earth	93622-08-25 03:07 G	35916029.39	35916029.63	35916029.88	0.0302	0.0007	*
Mercury	93628-08-15 09:50 G	35918211.91	35918211.91	35918211.92	0.0274	0.0273	
Mars	93628-09-10 01:12 G	35918237.26	35918237.55	35918237.87	0.0274	0.0096	
Mercury	93628-11-11 20:10 G	35918300.23	35918300.34	35918300.45	0.0273	0.0150	
Mercury	93629-02-08 06:29 G	35918388.64	35918388.77	35918388.90	0.0272	0.0028	
Mercury	93629-05-07 16:48 G	35918477.08	35918477.20	35918477.32	0.0271	0.0093	
Mercury	93629-08-04 02:53 G	35918565.55	35918565.62	35918565.71	0.0270	0.0213	
Venus	93636-05-17 09:22 G	35921043.71	35921043.89	35921044.08	0.0258	0.0131	
Venus	93637-01-01 05:31 G	35921272.52	35921272.73	35921272.94	0.0259	0.0047	
Moon	93637-02-14 09:22 G	35921316.78	35921316.89	35921317.02	0.0259	0.0225	
Earth	93637-02-14 12:43 G	35921316.95	35921317.03	35921317.13	0.0259	0.0240	*
Venus	93637-08-18 01:26 G	35921501.46	35921501.56	35921501.67	0.0260	0.0225	
Moon	93638-02-26 00:00 G	35921693.26	35921693.50	35921693.74	0.0261	0.0010	
Earth	93638-02-26 00:58 G	35921693.29	35921693.54	35921693.79	0.0261	0.0002	*
Earth	93639-03-09 16:19 G	35922070.11	35922070.18	35922070.27	0.0263	0.0248	
Moon	93639-03-09 20:10 G	35922070.25	35922070.34	35922070.43	0.0263	0.0244	*
Mercury	93645-02-18 08:10 G	35924242.71	35924242.84	35924243.00	0.0290	0.0186	
Mercury	93645-05-18 09:50 G	35924331.72	35924331.91	35924332.09	0.0291	0.0033	
Mercury	93645-08-15 11:02 G	35924420.87	35924420.96	35924421.05	0.0292	0.0252	
Venus	93650-10-29 12:43 G	35926321.85	35926322.03	35926322.22	0.0304	0.0140	
Venus	93651-06-16 19:41 G	35926552.14	35926552.32	35926552.50	0.0303	0.0149	
Earth	93651-08-18 13:26 G	35926614.87	35926615.06	35926615.26	0.0303	0.0174	
Moon	93651-08-18 17:02 G	35926615.02	35926615.21	35926615.42	0.0303	0.0172	*
Earth	93652-09-01 11:46 G	35926994.82	35926994.99	35926995.17	0.0300	0.0204	

Moon	93652-09-01 13:55 G	35926994.90	35926995.08	35926995.26	0.0300	0.0207 *
Mercury	93658-03-31 22:19 G	35929032.34	35929032.43	35929032.52	0.0274	0.0193
Mercury	93658-06-28 08:38 G	35929120.73	35929120.86	35929120.99	0.0273	0.0070
Mercury	93658-09-24 18:58 G	35929209.16	35929209.29	35929209.42	0.0271	0.0051
Mercury	93658-12-22 05:17 G	35929297.62	35929297.72	35929297.82	0.0270	0.0172
Venus	93665-11-27 12:00 G	35931829.81	35931830.00	35931830.20	0.0258	0.0106
Venus	93666-07-14 08:10 G	35932058.64	35932058.84	35932059.05	0.0259	0.0072
Earth	93667-02-21 07:26 G	35932280.59	35932280.81	35932281.04	0.0260	0.0109
Moon	93667-02-21 09:22 G	35932280.66	35932280.89	35932281.14	0.0260	0.0095 *
Venus	93667-02-28 04:05 G	35932287.63	35932287.67	35932287.74	0.0260	0.0251
Moon	93668-03-03 18:00 G	35932657.05	35932657.25	35932657.48	0.0262	0.0136
Earth	93668-03-03 21:36 G	35932657.20	35932657.40	35932657.62	0.0262	0.0136 *
Mercury	93674-07-08 05:46 G	35934974.66	35934974.74	35934974.84	0.0289	0.0252
Mercury	93674-10-05 07:12 G	35935063.62	35935063.80	35935063.99	0.0291	0.0035
Mercury	93675-01-02 08:24 G	35935152.71	35935152.85	35935153.00	0.0292	0.0184
Venus	93680-05-10 18:00 G	35937108.06	35937108.25	35937108.45	0.0305	0.0105
Venus	93680-12-27 00:43 G	35937338.37	35937338.53	35937338.70	0.0303	0.0185
Moon	93681-08-26 02:38 G	35937580.38	35937580.61	35937580.84	0.0302	0.0040
Earth	93681-08-26 03:22 G	35937580.40	35937580.64	35937580.88	0.0302	0.0035 *
Mercury	93687-08-19 00:43 G	35939764.46	35939764.53	35939764.60	0.0274	0.0232
Mercury	93687-11-15 11:02 G	35939852.84	35939852.96	35939853.08	0.0273	0.0109
Mercury	93688-02-11 21:22 G	35939941.26	35939941.39	35939941.52	0.0272	0.0013
Mercury	93688-05-10 07:41 G	35940029.71	35940029.82	35940029.93	0.0271	0.0134
Mercury	93688-08-06 18:00 G	35940118.21	35940118.25	35940118.29	0.0270	0.0254
Venus	93694-10-23 18:58 G	35942387.28	35942387.29	35942387.31	0.0258	0.0256
Venus	93695-06-09 15:07 G	35942615.93	35942616.13	35942616.33	0.0258	0.0080
Venus	93696-01-24 11:02 G	35942844.77	35942844.96	35942845.17	0.0259	0.0098
Moon	93696-02-16 12:29 G	35942867.88	35942868.02	35942868.18	0.0259	0.0200
Earth	93696-02-16 14:38 G	35942867.99	35942868.11	35942868.26	0.0259	0.0215 *
Earth	93697-02-27 03:22 G	35943244.39	35943244.64	35943244.89	0.0261	0.0026

Moon	93697-02-27 06:14 G	35943244.52	35943244.76	35943245.00	0.0261	0.0034	*
Mercury	93704-02-23 04:34 G	35945795.52	35945795.69	35945795.87	0.0290	0.0104	
Mercury	93704-05-22 05:46 G	35945884.57	35945884.74	35945884.92	0.0291	0.0114	
Venus	93709-11-21 23:17 G	35947894.27	35947894.47	35947894.68	0.0304	0.0069	
Venus	93710-07-10 06:00 G	35948124.61	35948124.75	35948124.90	0.0303	0.0221	
Moon	93710-08-20 17:02 G	35948165.99	35948166.21	35948166.44	0.0302	0.0134	
Earth	93710-08-20 17:31 G	35948166.02	35948166.23	35948166.45	0.0302	0.0141	*
Moon	93711-09-04 12:14 G	35948545.88	35948546.01	35948546.16	0.0299	0.0244	
Earth	93711-09-04 15:22 G	35948545.99	35948546.14	35948546.29	0.0299	0.0234	*
Mercury	93717-01-06 03:07 G	35950496.62	35950496.63	35950496.64	0.0275	0.0272	
Mars	93717-02-04 00:14 G	35950525.20	35950525.51	35950525.84	0.0274	0.0050	
Mercury	93717-04-04 13:26 G	35950584.95	35950585.06	35950585.17	0.0273	0.0148	
Mercury	93717-07-01 23:46 G	35950673.36	35950673.49	35950673.62	0.0272	0.0026	
Mercury	93717-09-28 10:05 G	35950761.80	35950761.92	35950762.04	0.0271	0.0096	
Mercury	93717-12-25 20:24 G	35950850.27	35950850.35	35950850.43	0.0270	0.0216	
Venus	93724-05-05 22:05 G	35953173.34	35953173.42	35953173.52	0.0258	0.0232	
Venus	93724-12-20 18:29 G	35953402.07	35953402.27	35953402.49	0.0259	0.0054	
Venus	93725-08-06 14:38 G	35953630.93	35953631.11	35953631.30	0.0259	0.0125	
Moon	93726-02-23 08:24 G	35953831.61	35953831.85	35953832.10	0.0260	0.0069	
Earth	93726-02-23 11:02 G	35953831.73	35953831.96	35953832.20	0.0260	0.0082	*
Moon	93727-03-06 23:17 G	35954208.29	35954208.47	35954208.67	0.0262	0.0163	
Earth	93727-03-07 01:41 G	35954208.38	35954208.57	35954208.77	0.0262	0.0163	*
Mars	93733-02-05 12:14 G	35956370.93	35956371.01	35956371.11	0.0287	0.0270	
Mercury	93733-07-12 03:07 G	35956527.47	35956527.63	35956527.79	0.0290	0.0162	
Mercury	93733-10-09 04:19 G	35956616.50	35956616.68	35956616.87	0.0291	0.0056	
Mercury	93734-01-06 05:31 G	35956705.67	35956705.73	35956705.79	0.0292	0.0274	
Venus	93739-06-04 06:43 G	35958680.57	35958680.78	35958680.99	0.0304	0.0029	
Venus	93740-01-20 13:12 G	35958910.95	35958911.05	35958911.17	0.0303	0.0260	
Earth	93740-08-28 10:19 G	35959131.69	35959131.93	35959132.16	0.0301	0.0069	
Moon	93740-08-28 13:41 G	35959131.84	35959132.07	35959132.30	0.0301	0.0080	*

Mercury	93746-08-22 16:05 G	35961317.08	35961317.17	35961317.27	0.0274	0.0184
Mercury	93746-11-19 02:24 G	35961405.48	35961405.60	35961405.73	0.0273	0.0062
Mercury	93747-02-15 12:43 G	35961493.91	35961494.03	35961494.16	0.0272	0.0062
Mercury	93747-05-14 23:02 G	35961582.37	35961582.46	35961582.56	0.0271	0.0182
Venus	93753-11-16 02:24 G	35963959.48	35963959.60	35963959.74	0.0258	0.0203
Venus	93754-07-02 22:48 G	35964188.24	35964188.45	35964188.66	0.0259	0.0026
Venus	93755-02-16 18:58 G	35964417.12	35964417.29	35964417.47	0.0259	0.0153
Earth	93755-02-18 19:55 G	35964419.17	35964419.33	35964419.51	0.0259	0.0188
Moon	93755-02-18 22:34 G	35964419.27	35964419.44	35964419.63	0.0259	0.0172 *
Earth	93756-03-01 09:22 G	35964795.65	35964795.89	35964796.14	0.0261	0.0055
Moon	93756-03-01 12:29 G	35964795.78	35964796.02	35964796.27	0.0261	0.0062 *
Mercury	93762-11-29 01:12 G	35967259.44	35967259.55	35967259.68	0.0289	0.0223
Mercury	93763-02-26 02:38 G	35967348.42	35967348.61	35967348.80	0.0291	0.0007
Mercury	93763-05-26 03:50 G	35967437.54	35967437.66	35967437.79	0.0292	0.0212
Venus	93768-04-28 06:58 G	35969236.72	35969236.79	35969236.88	0.0304	0.0278
Venus	93768-12-14 13:41 G	35969466.86	35969467.07	35969467.28	0.0303	0.0013
Venus	93769-08-01 19:55 G	35969697.32	35969697.33	35969697.37	0.0302	0.0299
Moon	93769-08-21 23:46 G	35969717.26	35969717.49	35969717.72	0.0302	0.0091
Earth	93769-08-22 03:22 G	35969717.42	35969717.64	35969717.87	0.0302	0.0102 *
Moon	93770-09-05 21:36 G	35970097.33	35970097.40	35970097.47	0.0299	0.0284
Earth	93770-09-06 00:14 G	35970097.42	35970097.51	35970097.62	0.0299	0.0271 *
Mercury	93776-01-09 18:58 G	35972049.21	35972049.29	35972049.36	0.0274	0.0221
Mercury	93776-04-07 05:17 G	35972137.60	35972137.72	35972137.84	0.0273	0.0097
Mercury	93776-07-04 15:36 G	35972226.02	35972226.15	35972226.28	0.0272	0.0026
Mercury	93776-10-01 01:55 G	35972314.47	35972314.58	35972314.69	0.0271	0.0147
Mercury	93776-12-28 12:14 G	35972403.00	35972403.01	35972403.02	0.0270	0.0268
Venus	93783-05-29 06:29 G	35974745.62	35974745.77	35974745.93	0.0258	0.0177
Venus	93784-01-13 03:07 G	35974974.41	35974974.63	35974974.84	0.0259	0.0005
Venus	93784-08-28 23:17 G	35975203.33	35975203.47	35975203.63	0.0260	0.0182
Moon	93785-02-24 14:53 G	35975382.88	35975383.12	35975383.36	0.0260	0.0041

Earth	93785-02-24 18:14 G	35975383.01	35975383.26	35975383.50	0.0260	0.0052	*
Earth	93786-03-08 09:07 G	35975759.72	35975759.88	35975760.06	0.0263	0.0194	
Moon	93786-03-08 10:48 G	35975759.80	35975759.95	35975760.12	0.0263	0.0192	*
Mercury	93792-04-17 00:29 G	35977991.47	35977991.52	35977991.58	0.0289	0.0274	
Mercury	93792-07-15 01:55 G	35978080.39	35978080.58	35978080.76	0.0290	0.0058	
Mercury	93792-10-12 02:53 G	35978169.48	35978169.62	35978169.79	0.0291	0.0161	
Venus	93797-11-08 15:50 G	35980023.04	35980023.16	35980023.30	0.0305	0.0235	
Venus	93798-06-26 22:34 G	35980253.24	35980253.44	35980253.65	0.0304	0.0056	
Earth	93798-08-15 22:48 G	35980303.35	35980303.45	35980303.57	0.0304	0.0269	
Moon	93798-08-16 02:24 G	35980303.49	35980303.60	35980303.72	0.0304	0.0262	*
Earth	93799-08-30 22:19 G	35980683.21	35980683.43	35980683.66	0.0301	0.0110	
Moon	93799-08-31 00:58 G	35980683.32	35980683.54	35980683.77	0.0301	0.0121	*
Mercury	93805-05-29 21:50 G	35982781.37	35982781.41	35982781.46	0.0275	0.0253	
Mars	93805-07-01 23:46 G	35982814.17	35982814.49	35982814.81	0.0274	0.0050	
Mercury	93805-08-26 08:10 G	35982869.73	35982869.84	35982869.96	0.0273	0.0129	
Mercury	93805-11-22 18:29 G	35982958.14	35982958.27	35982958.41	0.0272	0.0011	
Mercury	93806-02-19 04:48 G	35983046.59	35983046.70	35983046.82	0.0271	0.0116	
Mercury	93806-05-18 15:07 G	35983135.07	35983135.13	35983135.20	0.0270	0.0237	
Venus	93812-12-09 11:46 G	35985531.82	35985531.99	35985532.17	0.0258	0.0146	
Venus	93813-07-26 08:10 G	35985760.63	35985760.84	35985761.06	0.0259	0.0033	
Earth	93814-02-21 04:19 G	35985970.49	35985970.68	35985970.88	0.0260	0.0157	
Moon	93814-02-21 07:41 G	35985970.62	35985970.82	35985971.04	0.0260	0.0142	*
Venus	93814-03-12 04:34 G	35985989.57	35985989.69	35985989.82	0.0260	0.0212	
Moon	93815-03-04 17:02 G	35986346.98	35986347.21	35986347.46	0.0262	0.0090	
Earth	93815-03-04 18:29 G	35986347.03	35986347.27	35986347.50	0.0262	0.0086	*
Mars	93821-07-03 23:31 G	35988660.27	35988660.48	35988660.71	0.0288	0.0163	
Mercury	93821-12-03 01:12 G	35988812.38	35988812.55	35988812.73	0.0290	0.0111	
Mercury	93822-03-02 02:24 G	35988901.43	35988901.60	35988901.78	0.0291	0.0107	
Venus	93827-05-23 01:26 G	35990809.40	35990809.56	35990809.73	0.0304	0.0189	
Venus	93828-01-08 08:09 G	35991039.64	35991039.84	35991040.04	0.0303	0.0101	

Moon	93828-08-24 17:45 G	35991269.01	35991269.24	35991269.47	0.0302	0.0048
Earth	93828-08-24 19:41 G	35991269.09	35991269.32	35991269.56	0.0302	0.0057 *
Mercury	93835-01-13 11:17 G	35993601.86	35993601.97	35993602.07	0.0274	0.0161
Mercury	93835-04-11 21:36 G	35993690.27	35993690.40	35993690.53	0.0273	0.0038
Mercury	93835-07-09 07:55 G	35993778.71	35993778.83	35993778.96	0.0272	0.0084
Mercury	93835-10-05 18:14 G	35993867.18	35993867.26	35993867.35	0.0271	0.0205
Venus	93842-06-21 16:33 G	35996318.00	35996318.19	35996318.38	0.0259	0.0118
Venus	93843-02-05 13:12 G	35996546.84	35996547.05	35996547.25	0.0259	0.0062
Moon	93843-02-16 11:02 G	35996557.90	35996557.96	35996558.06	0.0259	0.0246
Venus	93843-09-22 09:36 G	35996775.83	35996775.90	35996775.98	0.0260	0.0242
Earth	93844-02-28 03:50 G	35996934.41	35996934.66	35996934.91	0.0261	0.0020
Moon	93844-02-28 04:48 G	35996934.46	35996934.70	35996934.94	0.0261	0.0013 *
Earth	93845-03-10 19:41 G	35997311.20	35997311.32	35997311.45	0.0263	0.0226
Moon	93845-03-10 23:17 G	35997311.35	35997311.47	35997311.61	0.0263	0.0223 *
Mercury	93851-04-22 00:57 G	35999544.38	35999544.54	35999544.70	0.0289	0.0157
Mercury	93851-07-20 02:09 G	35999633.41	35999633.59	35999633.78	0.0290	0.0060
Mercury	93851-10-17 03:21 G	35999722.59	35999722.64	35999722.70	0.0292	0.0278
Venus	93856-12-02 11:31 G	36001595.81	36001595.98	36001596.17	0.0304	0.0143
Venus	93857-07-20 18:00 G	36001826.07	36001826.25	36001826.44	0.0303	0.0148
Earth	93857-08-18 17:31 G	36001855.07	36001855.23	36001855.40	0.0303	0.0222
Moon	93857-08-18 19:41 G	36001855.15	36001855.32	36001855.49	0.0303	0.0216 *
Moon	93858-09-02 14:38 G	36002234.91	36002235.11	36002235.33	0.0301	0.0167
Earth	93858-09-02 16:05 G	36002234.97	36002235.17	36002235.38	0.0301	0.0155 *
Mercury	93864-06-01 14:24 G	36004334.01	36004334.10	36004334.20	0.0274	0.0191
Mercury	93864-08-29 00:43 G	36004422.41	36004422.53	36004422.66	0.0273	0.0068
Mercury	93864-11-25 11:17 G	36004510.84	36004510.97	36004511.10	0.0272	0.0056
Mercury	93865-02-21 21:21 G	36004599.30	36004599.39	36004599.50	0.0271	0.0177
Venus	93872-01-01 22:19 G	36007104.23	36007104.43	36007104.64	0.0259	0.0086
Venus	93872-08-17 18:57 G	36007333.09	36007333.29	36007333.49	0.0259	0.0094
Moon	93873-02-22 14:09 G	36007521.87	36007522.09	36007522.33	0.0260	0.0113

Earth	93873-02-22 14:53 G	36007521.91	36007522.12	36007522.34	0.0260	0.0125	*
Moon	93874-03-06 01:41 G	36007898.36	36007898.57	36007898.80	0.0262	0.0120	
Earth	93874-03-06 05:45 G	36007898.52	36007898.74	36007898.96	0.0262	0.0119	*
Mercury	93880-09-08 00:43 G	36010276.41	36010276.53	36010276.67	0.0289	0.0206	
Mercury	93880-12-06 02:09 G	36010365.40	36010365.59	36010365.78	0.0290	0.0012	
Mercury	93881-03-05 03:07 G	36010454.53	36010454.63	36010454.75	0.0292	0.0230	
Venus	93886-06-14 22:19 G	36012382.24	36012382.43	36012382.63	0.0304	0.0095	
Venus	93887-01-31 04:33 G	36012612.54	36012612.69	36012612.86	0.0303	0.0195	
Earth	93887-08-27 16:05 G	36012820.93	36012821.17	36012821.41	0.0301	0.0008	
Moon	93887-08-27 17:31 G	36012821.00	36012821.23	36012821.47	0.0301	0.0005	*
Mercury	93893-10-19 17:45 G	36015066.17	36015066.24	36015066.32	0.0274	0.0220	
Mars	93893-11-26 15:07 G	36015103.90	36015104.13	36015104.39	0.0274	0.0182	
Mercury	93894-01-16 04:05 G	36015154.55	36015154.67	36015154.80	0.0273	0.0097	
Mercury	93894-04-14 14:24 G	36015242.97	36015243.10	36015243.24	0.0272	0.0028	
Mercury	93894-07-12 00:43 G	36015331.43	36015331.53	36015331.64	0.0271	0.0148	
Mercury	93894-10-08 11:02 G	36015419.96	36015419.96	36015419.98	0.0270	0.0269	
Venus	93900-11-28 06:57 G	36017661.71	36017661.79	36017661.88	0.0259	0.0236	
Venus	93901-07-15 03:36 G	36017890.44	36017890.65	36017890.86	0.0259	0.0057	
Moon	93902-02-19 00:43 G	36018109.41	36018109.53	36018109.68	0.0260	0.0216	
Earth	93902-02-19 00:57 G	36018109.44	36018109.54	36018109.67	0.0260	0.0229	*
Venus	93902-03-01 00:00 G	36018119.32	36018119.50	36018119.70	0.0260	0.0124	
Earth	93903-03-02 14:53 G	36018485.87	36018486.12	36018486.37	0.0261	0.0013	
Moon	93903-03-02 18:43 G	36018486.03	36018486.28	36018486.53	0.0261	0.0018	*
Moon	93904-03-13 08:09 G	36018862.78	36018862.84	36018862.92	0.0264	0.0253	
Earth	93904-03-13 07:26 G	36018862.79	36018862.81	36018862.86	0.0264	0.0260	*
Mars	93909-11-29 23:02 G	36020950.20	36020950.46	36020950.73	0.0288	0.0015	
Mercury	93910-01-27 00:43 G	36021008.44	36021008.53	36021008.63	0.0289	0.0250	
Mercury	93910-04-26 02:09 G	36021097.40	36021097.59	36021097.78	0.0290	0.0033	
Mercury	93910-07-24 03:21 G	36021186.50	36021186.64	36021186.78	0.0291	0.0184	
Venus	93915-12-27 09:50 G	36023168.71	36023168.91	36023169.12	0.0304	0.0045	

Venus	93916-08-13 15:50 G	36023399.05	36023399.16	36023399.30	0.0303	0.0245
Moon	93916-08-21 14:24 G	36023406.89	36023407.10	36023407.31	0.0303	0.0162
Earth	93916-08-21 16:33 G	36023406.99	36023407.19	36023407.39	0.0303	0.0171 *
Moon	93917-09-05 10:33 G	36023786.78	36023786.94	36023787.12	0.0300	0.0216
Earth	93917-09-05 14:09 G	36023786.92	36023787.09	36023787.27	0.0300	0.0204 *
Mercury	93923-03-09 21:21 G	36025798.34	36025798.39	36025798.44	0.0275	0.0247
Mercury	93923-06-06 07:41 G	36025886.70	36025886.82	36025886.94	0.0274	0.0123
Mercury	93923-09-02 18:00 G	36025975.12	36025975.25	36025975.38	0.0272	0.0003
Mercury	93923-11-30 04:19 G	36026063.56	36026063.68	36026063.80	0.0271	0.0122
Mercury	93924-02-26 14:38 G	36026152.06	36026152.11	36026152.17	0.0270	0.0243
Venus	93930-06-10 12:43 G	36028447.92	36028448.03	36028448.18	0.0258	0.0204
Venus	93931-01-25 09:50 G	36028676.69	36028676.91	36028677.12	0.0259	0.0024
Venus	93931-09-11 06:14 G	36028905.60	36028905.76	36028905.94	0.0260	0.0157
Moon	93932-02-25 22:48 G	36029073.22	36029073.45	36029073.70	0.0260	0.0083
Earth	93932-02-26 02:38 G	36029073.37	36029073.61	36029073.84	0.0260	0.0093 *
Moon	93933-03-08 17:02 G	36029450.01	36029450.21	36029450.41	0.0263	0.0151
Earth	93933-03-08 17:45 G	36029450.04	36029450.24	36029450.44	0.0263	0.0153 *
Mercury	93939-09-13 02:24 G	36031829.42	36031829.60	36031829.78	0.0290	0.0079
Mercury	93939-12-11 03:36 G	36031918.49	36031918.65	36031918.82	0.0291	0.0139
Venus	93944-11-20 14:53 G	36033725.05	36033725.12	36033725.19	0.0304	0.0284
Venus	93945-07-08 21:07 G	36033955.17	36033955.38	36033955.59	0.0303	0.0007
Venus	93946-02-24 03:07 G	36034185.59	36034185.63	36034185.69	0.0302	0.0293
Earth	93946-08-30 15:36 G	36034372.91	36034373.15	36034373.39	0.0301	0.0044
Moon	93946-08-30 19:12 G	36034373.07	36034373.30	36034373.54	0.0301	0.0053 *
Mercury	93952-10-23 11:02 G	36036618.85	36036618.96	36036619.07	0.0273	0.0151
Mercury	93953-01-19 21:21 G	36036707.26	36036707.39	36036707.52	0.0272	0.0028
Mercury	93953-04-18 07:41 G	36036795.70	36036795.82	36036795.94	0.0271	0.0094
Mercury	93953-07-15 18:00 G	36036884.17	36036884.25	36036884.33	0.0270	0.0215
Venus	93959-12-21 18:14 G	36039234.11	36039234.26	36039234.42	0.0259	0.0174
Venus	93960-08-06 14:53 G	36039462.91	36039463.12	36039463.34	0.0259	0.0008

Earth	93961-02-20 12:29 G	36039660.86	36039661.02	36039661.18	0.0260	0.0197
Moon	93961-02-20 15:36 G	36039660.98	36039661.15	36039661.33	0.0260	0.0182 *
Venus	93961-03-23 11:17 G	36039691.84	36039691.97	36039692.13	0.0260	0.0187
Earth	93962-03-04 02:38 G	36040037.37	36040037.61	36040037.86	0.0262	0.0045
Moon	93962-03-04 03:50 G	36040037.41	36040037.66	36040037.92	0.0262	0.0049 *
Mercury	93969-01-30 02:09 G	36042561.42	36042561.59	36042561.76	0.0289	0.0125
Mercury	93969-04-29 03:21 G	36042650.46	36042650.64	36042650.82	0.0290	0.0092
Venus	93974-06-03 01:55 G	36044511.46	36044511.58	36044511.72	0.0304	0.0235
Venus	93975-01-19 08:24 G	36044741.65	36044741.85	36044742.06	0.0304	0.0055
Moon	93975-08-24 12:14 G	36044958.79	36044959.01	36044959.23	0.0302	0.0110
Earth	93975-08-24 15:50 G	36044958.95	36044959.16	36044959.39	0.0302	0.0121 *
Moon	93976-09-07 10:48 G	36045338.85	36045338.95	36045339.07	0.0299	0.0265
Earth	93976-09-07 12:57 G	36045338.92	36045339.04	36045339.18	0.0299	0.0253 *
Mercury	93982-03-12 14:38 G	36047351.01	36047351.11	36047351.21	0.0274	0.0177
Mercury	93982-06-09 00:57 G	36047439.41	36047439.54	36047439.67	0.0273	0.0054
Mercury	93982-09-05 11:17 G	36047527.84	36047527.97	36047528.10	0.0272	0.0068
Mercury	93982-12-02 21:36 G	36047616.31	36047616.40	36047616.49	0.0271	0.0190
Venus	93989-07-03 00:00 G	36050020.33	36050020.50	36050020.69	0.0258	0.0142
Venus	93990-02-16 20:53 G	36050249.16	36050249.37	36050249.58	0.0259	0.0039
Venus	93990-10-03 17:31 G	36050478.12	36050478.23	36050478.35	0.0260	0.0219
Moon	93991-02-27 11:17 G	36050624.74	36050624.97	36050625.22	0.0261	0.0052
Earth	93991-02-27 13:26 G	36050624.82	36050625.06	36050625.31	0.0261	0.0062 *
Earth	93992-03-10 05:02 G	36051001.54	36051001.71	36051001.90	0.0263	0.0185
Moon	93992-03-10 08:09 G	36051001.68	36051001.84	36051002.03	0.0263	0.0180 *
Mars	93998-04-27 00:43 G	36053240.30	36053240.53	36053240.78	0.0289	0.0129
Mercury	93998-06-19 01:55 G	36053293.44	36053293.58	36053293.74	0.0290	0.0174
Mercury	93998-09-16 03:21 G	36053382.46	36053382.64	36053382.83	0.0291	0.0045
Mercury	93998-12-14 04:33 G	36053471.62	36053471.69	36053471.77	0.0292	0.0263

95TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 95th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	94003-12-14 13:41	G	36055297.90	36055298.07	36055298.23	0.0304	0.0185	
Venus	94004-07-31 19:55	G	36055528.13	36055528.33	36055528.53	0.0303	0.0105	
Earth	94004-08-17 15:50	G	36055545.09	36055545.16	36055545.25	0.0303	0.0283	
Moon	94004-08-17 19:12	G	36055545.21	36055545.30	36055545.42	0.0303	0.0274	*
Earth	94005-09-01 15:07	G	36055924.90	36055925.13	36055925.36	0.0301	0.0095	
Moon	94005-09-01 16:33	G	36055924.96	36055925.19	36055925.43	0.0301	0.0105	*
Mercury	94011-07-30 18:00	G	36058083.17	36058083.25	36058083.34	0.0274	0.0204	
Mercury	94011-10-27 04:19	G	36058171.56	36058171.68	36058171.81	0.0273	0.0081	
Mercury	94012-01-23 14:38	G	36058259.98	36058260.11	36058260.24	0.0272	0.0042	
Mercury	94012-04-21 00:57	G	36058348.44	36058348.54	36058348.65	0.0271	0.0163	
Venus	94019-01-13 05:02	G	36060806.52	36060806.71	36060806.91	0.0259	0.0112	
Venus	94019-08-30 01:41	G	36061035.37	36061035.57	36061035.78	0.0259	0.0068	
Earth	94020-02-22 22:33	G	36061212.26	36061212.44	36061212.64	0.0260	0.0167	
Moon	94020-02-23 01:41	G	36061212.36	36061212.57	36061212.77	0.0260	0.0152	*
Venus	94020-04-14 22:05	G	36061264.38	36061264.42	36061264.50	0.0260	0.0250	
Moon	94021-03-05 10:19	G	36061588.69	36061588.93	36061589.17	0.0262	0.0077	
Earth	94021-03-05 12:57	G	36061588.81	36061589.04	36061589.29	0.0262	0.0076	*
Mercury	94027-11-06 01:12	G	36064025.44	36064025.55	36064025.68	0.0289	0.0223	
Mercury	94028-02-03 02:53	G	36064114.43	36064114.62	36064114.80	0.0290	0.0008	
Mercury	94028-05-02 03:50	G	36064203.54	36064203.66	36064203.79	0.0291	0.0213	

Venus	94033-06-26 00:00 G	36066084.32	36066084.50	36066084.69	0.0304	0.0136
Venus	94034-02-11 06:29 G	36066314.59	36066314.77	36066314.95	0.0303	0.0155
Moon	94034-08-26 14:24 G	36066510.87	36066511.10	36066511.33	0.0302	0.0060
Earth	94034-08-26 14:53 G	36066510.89	36066511.12	36066511.36	0.0302	0.0071 *
Mercury	94040-12-16 21:36 G	36068815.34	36068815.40	36068815.47	0.0274	0.0232
Mercury	94041-03-15 07:55 G	36068903.71	36068903.83	36068903.95	0.0273	0.0108
Mercury	94041-06-11 18:14 G	36068992.13	36068992.26	36068992.39	0.0272	0.0016
Mercury	94041-09-08 04:33 G	36069080.58	36069080.69	36069080.80	0.0271	0.0136
Mercury	94041-12-05 14:53 G	36069169.08	36069169.12	36069169.16	0.0270	0.0257
Venus	94048-07-25 10:48 G	36071592.75	36071592.95	36071593.15	0.0259	0.0080
Moon	94049-02-17 06:57 G	36071799.76	36071799.79	36071799.84	0.0259	0.0255
Venus	94049-03-11 07:12 G	36071821.61	36071821.80	36071822.00	0.0259	0.0100
Earth	94050-02-28 23:02 G	36072176.21	36072176.46	36072176.71	0.0261	0.0032
Moon	94050-03-01 01:12 G	36072176.30	36072176.55	36072176.79	0.0261	0.0023 *
Earth	94051-03-12 15:07 G	36072552.99	36072553.13	36072553.27	0.0263	0.0215
Moon	94051-03-12 17:45 G	36072553.10	36072553.24	36072553.40	0.0263	0.0209 *
Mercury	94057-03-25 00:29 G	36074757.48	36074757.52	36074757.59	0.0289	0.0276
Mercury	94057-06-22 02:09 G	36074846.41	36074846.59	36074846.78	0.0290	0.0058
Mercury	94057-09-19 03:36 G	36074935.49	36074935.65	36074935.80	0.0291	0.0161
Venus	94063-01-06 10:33 G	36076870.74	36076870.94	36076871.14	0.0304	0.0089
Moon	94063-08-20 13:12 G	36077096.89	36077097.05	36077097.22	0.0303	0.0225
Earth	94063-08-20 13:12 G	36077096.91	36077097.05	36077097.21	0.0303	0.0235 *
Venus	94063-08-24 16:48 G	36077101.05	36077101.20	36077101.36	0.0303	0.0202
Moon	94064-09-03 08:53 G	36077476.67	36077476.87	36077477.10	0.0300	0.0156
Earth	94064-09-03 12:00 G	36077476.79	36077477.00	36077477.22	0.0300	0.0141 *
Mercury	94070-05-06 00:57 G	36079547.50	36079547.54	36079547.58	0.0274	0.0260
Mercury	94070-08-02 11:17 G	36079635.86	36079635.97	36079636.08	0.0273	0.0136
Mercury	94070-10-29 21:36 G	36079724.27	36079724.40	36079724.53	0.0272	0.0014
Mercury	94071-01-26 07:55 G	36079812.71	36079812.83	36079812.95	0.0271	0.0108
Mercury	94071-04-24 18:00 G	36079901.19	36079901.25	36079901.33	0.0270	0.0229

Venus	94077-06-20 18:29 G	36082150.17	36082150.27	36082150.36	0.0258	0.0231
Venus	94078-02-04 14:53 G	36082378.91	36082379.12	36082379.33	0.0259	0.0052
Venus	94078-09-21 11:17 G	36082607.79	36082607.97	36082608.16	0.0260	0.0129
Moon	94079-02-24 04:33 G	36082763.48	36082763.69	36082763.93	0.0260	0.0126
Earth	94079-02-24 06:43 G	36082763.58	36082763.78	36082764.00	0.0260	0.0139 *
Moon	94080-03-06 18:00 G	36083140.02	36083140.25	36083140.47	0.0262	0.0105
Earth	94080-03-06 21:07 G	36083140.15	36083140.38	36083140.61	0.0262	0.0104 *
Mars	94086-09-21 12:57 G	36085529.92	36085530.04	36085530.18	0.0289	0.0250
Mercury	94086-11-09 00:43 G	36085578.36	36085578.53	36085578.70	0.0290	0.0116
Mercury	94087-02-06 01:55 G	36085667.41	36085667.58	36085667.76	0.0291	0.0103
Venus	94092-07-18 19:41 G	36087657.11	36087657.32	36087657.53	0.0304	0.0042
Venus	94093-03-06 01:55 G	36087887.47	36087887.58	36087887.71	0.0303	0.0249
Earth	94093-08-28 10:05 G	36088062.68	36088062.92	36088063.16	0.0302	0.0026
Moon	94093-08-28 13:12 G	36088062.81	36088063.05	36088063.29	0.0302	0.0013 *
Mercury	94099-12-20 14:38 G	36090368.01	36090368.11	36090368.22	0.0274	0.0165
Mercury	94100-03-19 00:57 G	36090456.41	36090456.54	36090456.67	0.0273	0.0042
Mercury	94100-06-15 11:17 G	36090544.85	36090544.97	36090545.10	0.0272	0.0080
Mercury	94100-09-11 21:21 G	36090633.31	36090633.39	36090633.49	0.0271	0.0202
Venus	94107-01-01 23:02 G	36092936.34	36092936.46	36092936.61	0.0258	0.0200
Venus	94107-08-18 19:41 G	36093165.11	36093165.32	36093165.54	0.0258	0.0021
Earth	94108-02-20 16:33 G	36093351.12	36093351.19	36093351.28	0.0259	0.0244
Moon	94108-02-20 18:29 G	36093351.17	36093351.27	36093351.39	0.0259	0.0230 *
Venus	94108-04-03 16:05 G	36093394.01	36093394.17	36093394.34	0.0259	0.0159
Earth	94109-03-03 05:31 G	36093727.48	36093727.73	36093727.98	0.0261	0.0006
Moon	94109-03-03 09:21 G	36093727.64	36093727.89	36093728.14	0.0261	0.0004 *
Moon	94110-03-14 20:24 G	36094104.24	36094104.35	36094104.48	0.0263	0.0232
Earth	94110-03-14 21:36 G	36094104.32	36094104.40	36094104.51	0.0263	0.0241 *
Mercury	94116-03-28 23:17 G	36096310.32	36096310.47	36096310.62	0.0290	0.0175
Mercury	94116-06-26 00:43 G	36096399.34	36096399.53	36096399.71	0.0291	0.0044
Mercury	94116-09-23 01:55 G	36096488.50	36096488.58	36096488.66	0.0292	0.0263

Venus	94121-06-13 22:19 G	36098213.37	36098213.43	36098213.49	0.0305	0.0290
Venus	94122-01-30 04:48 G	36098443.49	36098443.70	36098443.91	0.0304	0.0004
Moon	94122-08-23 03:07 G	36098648.44	36098648.63	36098648.83	0.0303	0.0181
Earth	94122-08-23 06:29 G	36098648.58	36098648.77	36098648.95	0.0303	0.0193 *
Venus	94122-09-17 11:02 G	36098673.92	36098673.96	36098674.02	0.0303	0.0293
Moon	94123-09-07 01:41 G	36099028.40	36099028.57	36099028.76	0.0300	0.0199
Earth	94123-09-07 05:02 G	36099028.52	36099028.71	36099028.90	0.0300	0.0183 *
Mars	94128-12-24 02:53 G	36100963.61	36100963.62	36100963.66	0.0275	0.0274
Mercury	94129-05-09 17:45 G	36101100.15	36101100.24	36101100.33	0.0273	0.0196
Mercury	94129-08-06 04:05 G	36101188.54	36101188.67	36101188.80	0.0272	0.0073
Mercury	94129-11-02 14:24 G	36101276.97	36101277.10	36101277.23	0.0271	0.0049
Mercury	94130-01-30 00:29 G	36101365.42	36101365.52	36101365.63	0.0270	0.0170
Venus	94136-07-14 02:53 G	36103722.46	36103722.62	36103722.78	0.0258	0.0174
Venus	94137-02-27 23:02 G	36103951.25	36103951.46	36103951.68	0.0259	0.0006
Venus	94137-10-14 19:12 G	36104180.16	36104180.30	36104180.45	0.0260	0.0186
Moon	94138-02-26 08:53 G	36104314.64	36104314.87	36104315.10	0.0260	0.0103
Earth	94138-02-26 12:14 G	36104314.79	36104315.01	36104315.24	0.0260	0.0114 *
Earth	94139-03-10 02:24 G	36104691.39	36104691.60	36104691.82	0.0262	0.0129
Moon	94139-03-10 03:07 G	36104691.42	36104691.63	36104691.84	0.0262	0.0128 *
Mercury	94145-08-15 20:53 G	36107042.27	36107042.37	36107042.48	0.0289	0.0239
Mercury	94145-11-12 22:19 G	36107131.24	36107131.43	36107131.62	0.0290	0.0021
Mercury	94146-02-09 23:31 G	36107220.35	36107220.48	36107220.62	0.0291	0.0198
Venus	94150-12-25 05:17 G	36108999.61	36108999.72	36108999.84	0.0304	0.0248
Venus	94151-08-12 12:00 G	36109229.79	36109230.00	36109230.21	0.0304	0.0045
Earth	94152-08-30 23:45 G	36109614.25	36109614.49	36109614.74	0.0302	0.0014
Moon	94152-08-31 02:38 G	36109614.37	36109614.61	36109614.86	0.0302	0.0026 *
Mercury	94158-09-26 20:53 G	36111832.30	36111832.37	36111832.44	0.0274	0.0229
Mercury	94158-12-24 07:12 G	36111920.68	36111920.80	36111920.92	0.0273	0.0105
Mercury	94159-03-22 17:31 G	36112009.10	36112009.23	36112009.36	0.0272	0.0018
Mercury	94159-06-19 03:50 G	36112097.54	36112097.66	36112097.77	0.0271	0.0139

Mercury	94159-09-15 13:55 G	36112186.05	36112186.08	36112186.12	0.0270	0.0260
Venus	94166-01-24 06:43 G	36114508.60	36114508.78	36114508.96	0.0258	0.0144
Venus	94166-09-10 02:53 G	36114737.41	36114737.62	36114737.83	0.0258	0.0035
Earth	94167-02-21 20:53 G	36114902.24	36114902.37	36114902.50	0.0259	0.0219
Moon	94167-02-22 00:00 G	36114902.37	36114902.50	36114902.67	0.0259	0.0206 *
Venus	94167-04-26 23:02 G	36114966.35	36114966.46	36114966.58	0.0259	0.0215
Moon	94168-03-04 08:38 G	36115278.60	36115278.86	36115279.11	0.0261	0.0021
Earth	94168-03-04 09:07 G	36115278.64	36115278.88	36115279.13	0.0261	0.0020 *
Moon	94169-03-15 21:21 G	36115655.34	36115655.39	36115655.47	0.0263	0.0254
Mercury	94175-04-01 19:41 G	36117863.15	36117863.32	36117863.51	0.0290	0.0091
Mercury	94175-06-29 21:07 G	36117952.22	36117952.38	36117952.55	0.0291	0.0130
Venus	94180-07-06 12:14 G	36119785.87	36119786.01	36119786.17	0.0305	0.0209
Venus	94181-02-21 19:12 G	36120016.10	36120016.30	36120016.50	0.0304	0.0085
Moon	94181-08-24 14:24 G	36120199.89	36120200.10	36120200.30	0.0303	0.0146
Earth	94181-08-24 17:02 G	36120200.00	36120200.21	36120200.41	0.0303	0.0157 *
Earth	94182-09-08 15:36 G	36120579.99	36120580.15	36120580.32	0.0300	0.0218
Moon	94182-09-08 15:50 G	36120580.03	36120580.16	36120580.32	0.0300	0.0234 *
Mercury	94188-02-13 23:45 G	36122564.45	36122564.49	36122564.52	0.0274	0.0263
Mercury	94188-05-12 09:50 G	36122652.81	36122652.91	36122653.03	0.0273	0.0140
Mercury	94188-08-08 20:24 G	36122741.21	36122741.35	36122741.48	0.0272	0.0019
Mercury	94188-11-05 06:29 G	36122829.65	36122829.77	36122829.89	0.0271	0.0105
Mercury	94189-02-01 16:48 G	36122918.13	36122918.20	36122918.27	0.0270	0.0226
Venus	94195-08-06 09:21 G	36125294.70	36125294.89	36125295.08	0.0258	0.0120
Venus	94196-03-22 05:17 G	36125523.51	36125523.72	36125523.93	0.0259	0.0060
Venus	94196-11-06 01:12 G	36125752.48	36125752.55	36125752.64	0.0259	0.0241
Earth	94197-02-27 14:24 G	36125865.87	36125866.10	36125866.34	0.0260	0.0091
Moon	94197-02-27 15:07 G	36125865.90	36125866.13	36125866.35	0.0260	0.0084 *
Earth	94198-03-11 04:05 G	36126242.48	36126242.67	36126242.88	0.0262	0.0152
Moon	94198-03-11 08:09 G	36126242.64	36126242.84	36126243.05	0.0262	0.0145 *
Mercury	94204-08-19 16:33 G	36128595.04	36128595.19	36128595.35	0.0289	0.0162

Mercury	94204-11-16 18:00 G	36128684.07	36128684.25	36128684.44	0.0291	0.0057
Mercury	94205-02-13 19:12 G	36128773.25	36128773.30	36128773.36	0.0292	0.0277
Venus	94210-01-17 17:31 G	36130572.07	36130572.23	36130572.41	0.0305	0.0171
Venus	94210-09-05 00:29 G	36130802.33	36130802.52	36130802.72	0.0304	0.0124
Moon	94211-09-03 06:29 G	36131165.53	36131165.77	36131166.02	0.0302	0.0060
Earth	94211-09-03 07:41 G	36131165.58	36131165.82	36131166.06	0.0302	0.0046 *
Mars	94217-05-21 05:31 G	36133252.50	36133252.73	36133252.99	0.0276	0.0179
Mercury	94217-09-30 12:43 G	36133384.94	36133385.03	36133385.13	0.0274	0.0176
Mercury	94217-12-27 23:02 G	36133473.34	36133473.46	36133473.59	0.0273	0.0053
Mercury	94218-03-26 09:21 G	36133561.77	36133561.89	36133562.02	0.0272	0.0070
Mercury	94218-06-22 19:41 G	36133650.23	36133650.32	36133650.41	0.0271	0.0192
Venus	94225-02-16 12:14 G	36136080.81	36136081.01	36136081.21	0.0258	0.0092
Venus	94225-10-03 08:09 G	36136309.64	36136309.84	36136310.05	0.0258	0.0088
Moon	94226-02-23 22:05 G	36136453.24	36136453.42	36136453.60	0.0259	0.0186
Earth	94226-02-23 21:36 G	36136453.25	36136453.40	36136453.57	0.0259	0.0198 *
Moon	94227-03-07 06:00 G	36136829.51	36136829.75	36136830.00	0.0260	0.0037
Earth	94227-03-07 09:50 G	36136829.67	36136829.91	36136830.16	0.0260	0.0040 *
Mercury	94234-01-06 13:26 G	36139326.96	36139327.06	36139327.17	0.0289	0.0235
Mercury	94234-04-05 14:53 G	36139415.94	36139416.12	36139416.31	0.0290	0.0018
Mercury	94234-07-03 16:19 G	36139505.05	36139505.18	36139505.31	0.0292	0.0203
Venus	94239-07-30 23:02 G	36141358.28	36141358.46	36141358.66	0.0305	0.0135
Venus	94240-03-17 06:00 G	36141588.58	36141588.75	36141588.93	0.0304	0.0161
Earth	94240-08-26 21:50 G	36141751.19	36141751.41	36141751.63	0.0303	0.0126
Moon	94240-08-26 23:31 G	36141751.26	36141751.48	36141751.70	0.0303	0.0113 *
Earth	94241-09-10 20:38 G	36142131.23	36142131.36	36142131.50	0.0300	0.0247
Moon	94241-09-11 00:14 G	36142131.40	36142131.51	36142131.62	0.0300	0.0264 *
Mercury	94247-02-17 15:07 G	36144117.06	36144117.13	36144117.21	0.0274	0.0214
Mercury	94247-05-17 01:26 G	36144205.44	36144205.56	36144205.69	0.0273	0.0091
Mercury	94247-08-13 11:45 G	36144293.86	36144293.99	36144294.12	0.0272	0.0033
Mercury	94247-11-09 22:05 G	36144382.31	36144382.42	36144382.53	0.0271	0.0154

Venus	94254-01-12 17:45 G	36146638.19	36146638.24	36146638.30	0.0258	0.0247
Venus	94254-08-29 13:41 G	36146866.87	36146867.07	36146867.28	0.0258	0.0069
Venus	94255-04-15 09:36 G	36147095.71	36147095.90	36147096.10	0.0258	0.0111
Earth	94256-03-01 13:41 G	36147416.83	36147417.07	36147417.31	0.0260	0.0070
Moon	94256-03-01 17:17 G	36147416.98	36147417.22	36147417.46	0.0260	0.0067 *
Earth	94257-03-13 02:53 G	36147793.44	36147793.62	36147793.82	0.0262	0.0171
Moon	94257-03-13 03:21 G	36147793.45	36147793.64	36147793.86	0.0262	0.0161 *
Mercury	94263-08-23 10:48 G	36150147.77	36150147.95	36150148.13	0.0290	0.0098
Mercury	94263-11-20 12:00 G	36150236.83	36150237.00	36150237.18	0.0291	0.0122
Venus	94269-02-09 02:09 G	36152144.39	36152144.59	36152144.79	0.0305	0.0101
Moon	94269-08-20 04:05 G	36152336.61	36152336.67	36152336.75	0.0304	0.0290
Venus	94269-09-27 09:07 G	36152374.72	36152374.88	36152375.04	0.0304	0.0194
Moon	94270-09-04 05:17 G	36152716.49	36152716.72	36152716.95	0.0302	0.0089
Earth	94270-09-04 08:53 G	36152716.64	36152716.87	36152717.11	0.0302	0.0072 *
Mercury	94276-07-06 17:31 G	36154849.19	36154849.23	36154849.28	0.0275	0.0255
Mercury	94276-10-03 03:50 G	36154937.55	36154937.66	36154937.78	0.0274	0.0131
Mercury	94276-12-30 14:24 G	36155025.97	36155026.10	36155026.23	0.0273	0.0010
Mercury	94277-03-29 00:29 G	36155114.41	36155114.52	36155114.64	0.0272	0.0116
Mercury	94277-06-25 10:48 G	36155202.89	36155202.95	36155203.01	0.0270	0.0237
Venus	94283-07-25 20:09 G	36157424.24	36157424.34	36157424.45	0.0257	0.0221
Venus	94284-03-10 16:05 G	36157652.96	36157653.17	36157653.38	0.0258	0.0043
Venus	94284-10-25 11:45 G	36157881.82	36157881.99	36157882.18	0.0258	0.0137
Moon	94285-02-24 16:19 G	36158004.00	36158004.18	36158004.38	0.0258	0.0169
Earth	94285-02-24 19:55 G	36158004.16	36158004.33	36158004.52	0.0258	0.0178 *
Moon	94286-03-08 06:57 G	36158380.56	36158380.79	36158381.03	0.0260	0.0053
Earth	94286-03-08 07:41 G	36158380.58	36158380.82	36158381.06	0.0260	0.0059 *
Mercury	94293-01-09 06:43 G	36160879.64	36160879.78	36160879.94	0.0289	0.0178
Mercury	94293-04-08 08:24 G	36160968.66	36160968.85	36160969.03	0.0291	0.0042
Mercury	94293-07-06 09:21 G	36161057.82	36161057.89	36161057.98	0.0292	0.0262
Venus	94298-08-22 06:14 G	36162930.56	36162930.76	36162930.96	0.0305	0.0069

Venus	94299-04-09 13:12 G	36163160.92	36163161.05	36163161.19	0.0304	0.0228
Earth	94299-08-28 20:24 G	36163302.13	36163302.35	36163302.59	0.0304	0.0103
Moon	94299-08-29 00:29 G	36163302.28	36163302.52	36163302.75	0.0304	0.0085 *
Earth	94300-09-12 19:55 G	36163682.24	36163682.33	36163682.44	0.0300	0.0271
Moon	94300-09-12 21:36 G	36163682.34	36163682.40	36163682.48	0.0300	0.0286 *
Mars	94305-10-15 06:14 G	36165540.48	36165540.76	36165541.06	0.0275	0.0125
Mercury	94306-02-21 06:00 G	36165669.66	36165669.75	36165669.86	0.0274	0.0172
Mercury	94306-05-20 16:19 G	36165758.06	36165758.18	36165758.31	0.0273	0.0049
Mercury	94306-08-17 02:38 G	36165846.49	36165846.61	36165846.74	0.0271	0.0075
Mercury	94306-11-13 12:57 G	36165934.95	36165935.04	36165935.13	0.0270	0.0196
Venus	94313-02-04 20:53 G	36168210.25	36168210.37	36168210.51	0.0257	0.0200
Venus	94313-09-21 16:48 G	36168438.99	36168439.20	36168439.42	0.0258	0.0021
Venus	94314-05-08 12:29 G	36168667.86	36168668.02	36168668.19	0.0258	0.0159
Earth	94315-03-04 10:19 G	36168967.69	36168967.93	36168968.18	0.0260	0.0052
Moon	94315-03-04 11:45 G	36168967.73	36168967.99	36168968.24	0.0260	0.0051 *
Moon	94316-03-14 19:41 G	36169344.14	36169344.32	36169344.51	0.0262	0.0173
Earth	94316-03-14 23:17 G	36169344.31	36169344.47	36169344.65	0.0262	0.0188 *
Mercury	94322-05-30 02:09 G	36171611.52	36171611.59	36171611.68	0.0289	0.0261
Mercury	94322-08-27 03:50 G	36171700.47	36171700.66	36171700.84	0.0290	0.0043
Mercury	94322-11-24 05:02 G	36171789.56	36171789.71	36171789.86	0.0291	0.0177
Venus	94328-03-04 08:09 G	36173716.63	36173716.84	36173717.05	0.0305	0.0037
Moon	94328-08-22 00:57 G	36173887.43	36173887.54	36173887.66	0.0304	0.0266
Earth	94328-08-22 03:50 G	36173887.58	36173887.66	36173887.75	0.0304	0.0284 *
Venus	94328-10-20 15:07 G	36173947.03	36173947.13	36173947.25	0.0304	0.0259
Moon	94329-09-06 05:17 G	36174267.51	36174267.72	36174267.94	0.0302	0.0112
Earth	94329-09-06 05:45 G	36174267.52	36174267.74	36174267.98	0.0302	0.0095 *
Mercury	94335-07-11 08:24 G	36176401.77	36176401.85	36176401.93	0.0275	0.0216
Mercury	94335-10-07 18:43 G	36176490.15	36176490.28	36176490.40	0.0274	0.0092
Mercury	94336-01-04 05:02 G	36176578.58	36176578.71	36176578.84	0.0273	0.0033
Mercury	94336-04-01 15:21 G	36176667.03	36176667.14	36176667.24	0.0271	0.0155

Venus	94342-08-17 22:48 G	36178996.29	36178996.45	36178996.61	0.0257	0.0175
Venus	94343-04-03 18:29 G	36179225.06	36179225.27	36179225.49	0.0257	0.0005
Venus	94343-11-18 14:09 G	36179453.95	36179454.09	36179454.25	0.0258	0.0183
Moon	94344-02-27 13:55 G	36179554.90	36179555.08	36179555.28	0.0258	0.0153
Earth	94344-02-27 15:50 G	36179554.97	36179555.16	36179555.36	0.0258	0.0160 *
Earth	94345-03-10 03:07 G	36179931.40	36179931.63	36179931.88	0.0260	0.0077
Moon	94345-03-10 06:29 G	36179931.54	36179931.77	36179932.01	0.0260	0.0067 *
Mercury	94352-01-13 23:31 G	36182432.31	36182432.48	36182432.65	0.0289	0.0125
Mercury	94352-04-12 00:43 G	36182521.36	36182521.53	36182521.71	0.0291	0.0094
Venus	94357-01-27 03:36 G	36184272.64	36184272.65	36184272.67	0.0305	0.0305
Venus	94357-09-14 10:48 G	36184502.74	36184502.95	36184503.16	0.0305	0.0009
Venus	94358-05-02 18:00 G	36184733.19	36184733.25	36184733.31	0.0304	0.0288
Moon	94358-08-30 14:24 G	36184852.86	36184853.10	36184853.35	0.0304	0.0064
Earth	94358-08-30 15:07 G	36184852.90	36184853.13	36184853.36	0.0304	0.0082 *
Earth	94359-09-14 14:53 G	36185233.06	36185233.12	36185233.18	0.0301	0.0290
Mercury	94364-11-27 10:05 G	36187133.89	36187133.92	36187133.96	0.0275	0.0262
Mercury	94365-02-23 20:24 G	36187222.24	36187222.35	36187222.47	0.0274	0.0137
Mercury	94365-05-23 06:57 G	36187310.66	36187310.79	36187310.92	0.0273	0.0014
Mercury	94365-08-19 17:17 G	36187399.10	36187399.22	36187399.34	0.0271	0.0111
Mercury	94365-11-16 03:21 G	36187487.58	36187487.64	36187487.71	0.0270	0.0232
Venus	94372-02-27 23:17 G	36189782.30	36189782.47	36189782.64	0.0257	0.0154
Venus	94372-10-13 18:57 G	36190011.07	36190011.29	36190011.50	0.0258	0.0025
Moon	94373-02-21 21:50 G	36190142.38	36190142.41	36190142.46	0.0258	0.0254
Venus	94373-05-30 14:09 G	36190239.98	36190240.09	36190240.23	0.0258	0.0205
Moon	94374-03-05 02:38 G	36190518.36	36190518.61	36190518.86	0.0259	0.0039
Earth	94374-03-05 05:45 G	36190518.49	36190518.74	36190518.99	0.0259	0.0034 *
Moon	94375-03-16 16:48 G	36190895.03	36190895.20	36190895.36	0.0262	0.0190
Earth	94375-03-16 18:14 G	36190895.11	36190895.26	36190895.42	0.0262	0.0204 *
Mercury	94381-06-01 18:29 G	36193164.15	36193164.27	36193164.40	0.0289	0.0213
Mercury	94381-08-29 19:55 G	36193253.14	36193253.33	36193253.52	0.0290	0.0005

Mercury	94381-11-26 21:07 G	36193342.27	36193342.38	36193342.50	0.0291	0.0224
Venus	94386-08-09 04:48 G	36195058.61	36195058.70	36195058.79	0.0305	0.0275
Venus	94387-03-27 11:45 G	36195288.78	36195288.99	36195289.20	0.0305	0.0021
Earth	94387-08-23 20:24 G	36195438.25	36195438.35	36195438.48	0.0304	0.0266
Moon	94387-08-23 22:33 G	36195438.31	36195438.44	36195438.58	0.0304	0.0248 *
Earth	94388-09-06 22:48 G	36195818.23	36195818.45	36195818.68	0.0302	0.0113
Moon	94388-09-07 02:38 G	36195818.39	36195818.61	36195818.83	0.0302	0.0131 *
Mars	94394-03-09 14:09 G	36197827.80	36197828.09	36197828.39	0.0276	0.0113
Mercury	94394-07-13 22:19 G	36197954.34	36197954.43	36197954.53	0.0275	0.0183
Mercury	94394-10-10 08:53 G	36198042.74	36198042.87	36198043.00	0.0274	0.0057
Mercury	94395-01-06 19:12 G	36198131.17	36198131.30	36198131.43	0.0273	0.0067
Mercury	94395-04-05 05:17 G	36198219.64	36198219.72	36198219.82	0.0271	0.0190
Venus	94401-09-09 00:14 G	36200568.33	36200568.51	36200568.70	0.0257	0.0132
Venus	94402-04-25 19:55 G	36200797.13	36200797.33	36200797.55	0.0257	0.0049
Venus	94402-12-10 15:50 G	36201026.06	36201026.16	36201026.26	0.0258	0.0227
Earth	94403-02-28 10:19 G	36201105.74	36201105.93	36201106.15	0.0258	0.0143
Moon	94403-02-28 13:12 G	36201105.86	36201106.05	36201106.27	0.0258	0.0141 *
Earth	94404-03-10 21:50 G	36201482.18	36201482.41	36201482.64	0.0260	0.0093
Moon	94404-03-11 00:00 G	36201482.26	36201482.50	36201482.75	0.0260	0.0082 *
Mercury	94411-01-16 15:36 G	36203984.97	36203985.15	36203985.34	0.0289	0.0078
Mercury	94411-04-15 16:48 G	36204074.04	36204074.20	36204074.37	0.0290	0.0142
Venus	94416-02-19 06:57 G	36205844.68	36205844.79	36205844.92	0.0306	0.0248
Venus	94416-10-06 14:09 G	36206074.89	36206075.09	36206075.30	0.0305	0.0051
Moon	94417-08-31 04:05 G	36206403.43	36206403.67	36206403.91	0.0304	0.0046
Earth	94417-08-31 07:55 G	36206403.59	36206403.83	36206404.07	0.0304	0.0063 *
Mercury	94423-12-01 00:14 G	36208686.44	36208686.51	36208686.58	0.0275	0.0229
Mercury	94424-02-27 10:33 G	36208774.82	36208774.94	36208775.06	0.0274	0.0103
Mercury	94424-05-25 20:53 G	36208863.24	36208863.37	36208863.50	0.0273	0.0022
Mercury	94424-08-22 07:12 G	36208951.69	36208951.80	36208951.91	0.0272	0.0144
Mercury	94424-11-18 17:31 G	36209040.21	36209040.23	36209040.25	0.0270	0.0266

Venus	94431-03-22 00:43 G	36211354.34	36211354.53	36211354.73	0.0257	0.0110
Venus	94431-11-05 20:24 G	36211583.15	36211583.35	36211583.56	0.0258	0.0069
Moon	94432-02-23 11:17 G	36211692.90	36211692.97	36211693.07	0.0258	0.0243
Earth	94432-02-23 14:24 G	36211693.05	36211693.10	36211693.18	0.0258	0.0248 *
Venus	94432-06-21 15:50 G	36211812.11	36211812.16	36211812.22	0.0258	0.0249
Moon	94433-03-05 21:50 G	36212069.17	36212069.41	36212069.65	0.0259	0.0024
Earth	94433-03-06 00:29 G	36212069.27	36212069.52	36212069.77	0.0259	0.0017 *
Earth	94434-03-17 12:29 G	36212445.90	36212446.02	36212446.16	0.0262	0.0221
Moon	94434-03-17 15:36 G	36212446.00	36212446.15	36212446.30	0.0262	0.0207 *
Mercury	94440-06-04 10:48 G	36214716.80	36214716.95	36214717.11	0.0289	0.0164
Mercury	94440-09-01 12:00 G	36214805.82	36214806.00	36214806.19	0.0290	0.0054
Mercury	94440-11-29 13:12 G	36214894.99	36214895.05	36214895.12	0.0291	0.0272
Venus	94445-08-31 07:55 G	36216630.69	36216630.83	36216630.98	0.0305	0.0219
Venus	94446-04-18 14:53 G	36216860.92	36216861.12	36216861.33	0.0305	0.0079
Earth	94446-08-24 12:29 G	36216988.89	36216989.02	36216989.17	0.0304	0.0246
Moon	94446-08-24 15:50 G	36216989.01	36216989.16	36216989.33	0.0304	0.0230 *
Earth	94447-09-08 14:38 G	36217368.90	36217369.11	36217369.34	0.0302	0.0131
Moon	94447-09-08 16:05 G	36217368.96	36217369.17	36217369.40	0.0302	0.0145 *
Mercury	94453-07-16 12:14 G	36219506.91	36219507.01	36219507.12	0.0275	0.0152
Mercury	94453-10-12 22:48 G	36219595.32	36219595.45	36219595.58	0.0274	0.0026
Mercury	94454-01-09 09:07 G	36219683.76	36219683.88	36219684.00	0.0273	0.0098
Mercury	94454-04-07 19:26 G	36219772.24	36219772.31	36219772.39	0.0272	0.0221
Venus	94460-10-01 01:55 G	36222140.38	36222140.58	36222140.78	0.0257	0.0088
Venus	94461-05-17 21:21 G	36222369.20	36222369.39	36222369.60	0.0258	0.0093
Earth	94462-03-01 05:17 G	36222656.51	36222656.72	36222656.95	0.0258	0.0124
Moon	94462-03-01 08:24 G	36222656.63	36222656.85	36222657.07	0.0258	0.0127 *
Moon	94463-03-12 14:09 G	36223032.85	36223033.09	36223033.33	0.0260	0.0097
Earth	94463-03-12 16:19 G	36223032.97	36223033.18	36223033.42	0.0260	0.0111 *
Mercury	94469-10-22 06:43 G	36225448.68	36225448.78	36225448.88	0.0288	0.0244
Mercury	94470-01-19 07:55 G	36225537.65	36225537.83	36225538.02	0.0289	0.0028

Mercury	94470-04-18 09:07 G	36225626.74	36225626.88	36225627.02	0.0290	0.0190
Venus	94475-03-13 10:05 G	36227416.76	36227416.92	36227417.08	0.0306	0.0191
Venus	94475-10-29 17:02 G	36227647.02	36227647.21	36227647.42	0.0305	0.0109
Earth	94476-08-31 23:31 G	36227954.24	36227954.48	36227954.72	0.0304	0.0045
Moon	94476-08-31 23:17 G	36227954.24	36227954.47	36227954.71	0.0304	0.0034 *
Mars	94482-08-01 12:29 G	36230114.73	36230115.02	36230115.32	0.0277	0.0111
Mercury	94482-12-03 14:09 G	36230239.00	36230239.09	36230239.18	0.0275	0.0198
Mercury	94483-03-02 00:29 G	36230327.40	36230327.52	36230327.65	0.0274	0.0072
Mercury	94483-05-29 11:02 G	36230415.83	36230415.96	36230416.08	0.0273	0.0053
Mercury	94483-08-25 21:21 G	36230504.29	36230504.39	36230504.49	0.0272	0.0176
Venus	94489-08-27 06:29 G	36232697.71	36232697.77	36232697.84	0.0257	0.0245
Venus	94490-04-13 02:24 G	36232926.40	36232926.60	36232926.81	0.0257	0.0066
Venus	94490-11-27 22:05 G	36233155.23	36233155.42	36233155.62	0.0258	0.0114
Moon	94491-02-24 06:57 G	36233243.69	36233243.79	36233243.90	0.0258	0.0230
Earth	94491-02-24 09:21 G	36233243.80	36233243.89	36233244.02	0.0258	0.0230 *
Earth	94492-03-06 19:26 G	36233620.06	36233620.31	36233620.56	0.0259	0.0004
Moon	94492-03-06 21:36 G	36233620.16	36233620.40	36233620.65	0.0259	0.0011 *
Earth	94493-03-18 07:55 G	36233996.73	36233996.83	36233996.93	0.0262	0.0238
Moon	94493-03-18 10:48 G	36233996.82	36233996.95	36233997.08	0.0262	0.0224 *
Mercury	94499-06-08 03:21 G	36236269.47	36236269.64	36236269.82	0.0288	0.0112
Mercury	94499-09-05 04:33 G	36236358.52	36236358.69	36236358.87	0.0290	0.0105
Venus	94504-09-23 11:45 G	36238202.82	36238202.99	36238203.17	0.0305	0.0161
Venus	94505-05-11 18:57 G	36238433.11	36238433.29	36238433.48	0.0304	0.0138
Moon	94505-08-26 05:02 G	36238539.54	36238539.71	36238539.89	0.0304	0.0214
Earth	94505-08-26 06:00 G	36238539.59	36238539.75	36238539.91	0.0304	0.0226 *
Moon	94506-09-10 04:33 G	36238919.49	36238919.69	36238919.91	0.0302	0.0158
Earth	94506-09-10 08:09 G	36238919.63	36238919.84	36238920.05	0.0302	0.0150 *
Mercury	94512-04-22 15:50 G	36240971.11	36240971.16	36240971.22	0.0276	0.0246
Mercury	94512-07-20 02:24 G	36241059.48	36241059.60	36241059.72	0.0275	0.0119
Mercury	94512-10-16 12:43 G	36241147.90	36241148.03	36241148.17	0.0274	0.0011

Mercury	94513-01-12 23:17 G	36241236.35	36241236.47	36241236.58	0.0273	0.0131
Mercury	94513-04-11 09:36 G	36241324.86	36241324.90	36241324.94	0.0272	0.0254
Venus	94519-03-10 07:41 G	36243483.73	36243483.82	36243483.94	0.0257	0.0224
Venus	94519-10-25 03:50 G	36243712.45	36243712.66	36243712.88	0.0257	0.0043
Venus	94520-06-09 23:31 G	36243941.30	36243941.48	36243941.67	0.0258	0.0137
Moon	94521-03-02 22:48 G	36244207.23	36244207.45	36244207.69	0.0258	0.0114
Earth	94521-03-03 01:26 G	36244207.33	36244207.56	36244207.78	0.0258	0.0105 *
Moon	94522-03-14 09:07 G	36244583.67	36244583.88	36244584.10	0.0260	0.0115
Earth	94522-03-14 12:29 G	36244583.81	36244584.02	36244584.24	0.0260	0.0130 *
Mercury	94528-10-26 00:00 G	36247001.36	36247001.50	36247001.64	0.0288	0.0187
Mercury	94529-01-23 01:12 G	36247090.36	36247090.55	36247090.74	0.0289	0.0030
Mercury	94529-04-22 02:09 G	36247179.50	36247179.59	36247179.69	0.0290	0.0247
Venus	94534-04-05 14:38 G	36248988.93	36248989.11	36248989.31	0.0305	0.0132
Venus	94534-11-21 21:50 G	36249219.24	36249219.41	36249219.59	0.0305	0.0169
Earth	94535-09-03 17:45 G	36249505.00	36249505.24	36249505.48	0.0304	0.0024
Moon	94535-09-03 21:21 G	36249505.15	36249505.39	36249505.63	0.0304	0.0016 *
Mercury	94541-12-07 04:05 G	36251791.57	36251791.67	36251791.78	0.0275	0.0165
Mercury	94542-03-05 14:38 G	36251879.98	36251880.11	36251880.24	0.0274	0.0039
Mercury	94542-06-02 00:57 G	36251968.42	36251968.54	36251968.67	0.0273	0.0086
Mercury	94542-08-29 11:17 G	36252056.89	36252056.97	36252057.06	0.0272	0.0210
Venus	94548-09-19 08:53 G	36254269.75	36254269.87	36254270.02	0.0257	0.0200
Venus	94549-05-06 05:02 G	36254498.50	36254498.71	36254498.93	0.0257	0.0020
Venus	94549-12-21 00:43 G	36254727.37	36254727.53	36254727.71	0.0258	0.0161
Earth	94550-02-26 06:14 G	36254794.63	36254794.76	36254794.92	0.0258	0.0210
Moon	94550-02-26 08:09 G	36254794.72	36254794.84	36254794.99	0.0258	0.0215 *
Earth	94551-03-09 16:33 G	36255170.94	36255171.19	36255171.44	0.0259	0.0021
Moon	94551-03-09 19:55 G	36255171.08	36255171.33	36255171.59	0.0259	0.0009 *
Moon	94552-03-20 03:36 G	36255547.57	36255547.65	36255547.74	0.0262	0.0246
Earth	94552-03-20 05:02 G	36255547.68	36255547.71	36255547.76	0.0262	0.0258 *
Mercury	94558-03-14 19:55 G	36257733.27	36257733.33	36257733.41	0.0287	0.0266

Mercury	94558-06-11 21:21 G	36257822.20	36257822.39	36257822.57	0.0289	0.0051
Mercury	94558-09-08 22:19 G	36257911.28	36257911.43	36257911.59	0.0290	0.0167
Venus	94563-10-16 17:31 G	36259775.04	36259775.23	36259775.43	0.0305	0.0099
Venus	94564-06-03 00:43 G	36260005.38	36260005.53	36260005.69	0.0304	0.0200
Moon	94564-08-26 22:19 G	36260090.25	36260090.43	36260090.62	0.0304	0.0194
Earth	94564-08-27 01:55 G	36260090.41	36260090.58	36260090.77	0.0304	0.0202 *
Moon	94565-09-11 01:26 G	36260470.38	36260470.56	36260470.76	0.0302	0.0177
Earth	94565-09-11 03:36 G	36260470.46	36260470.65	36260470.86	0.0302	0.0173 *
Mars	94570-12-25 15:36 G	36262401.86	36262402.15	36262402.46	0.0278	0.0103
Mercury	94571-04-26 06:00 G	36262523.67	36262523.75	36262523.84	0.0276	0.0211
Mercury	94571-07-23 16:33 G	36262612.07	36262612.19	36262612.32	0.0275	0.0084
Mercury	94571-10-20 03:07 G	36262700.50	36262700.63	36262700.76	0.0274	0.0043
Mercury	94572-01-16 13:26 G	36262788.96	36262789.06	36262789.16	0.0273	0.0166
Venus	94578-04-01 11:02 G	36265055.81	36265055.96	36265056.12	0.0258	0.0177
Venus	94578-11-16 07:12 G	36265284.58	36265284.80	36265285.01	0.0258	0.0005
Venus	94579-07-03 02:38 G	36265513.47	36265513.61	36265513.77	0.0258	0.0185
Moon	94580-03-03 19:55 G	36265758.10	36265758.33	36265758.56	0.0259	0.0097
Earth	94580-03-03 23:17 G	36265758.23	36265758.47	36265758.70	0.0259	0.0084 *
Earth	94581-03-15 10:19 G	36266134.74	36266134.93	36266135.14	0.0260	0.0151
Moon	94581-03-15 11:31 G	36266134.79	36266134.98	36266135.20	0.0260	0.0137 *
Mercury	94587-10-29 18:14 G	36268554.09	36268554.26	36268554.44	0.0288	0.0120
Mercury	94588-01-26 19:26 G	36268643.14	36268643.31	36268643.49	0.0289	0.0097
Venus	94593-04-27 22:05 G	36270561.21	36270561.42	36270561.62	0.0305	0.0065
Venus	94593-12-14 05:02 G	36270791.58	36270791.71	36270791.85	0.0305	0.0235
Earth	94594-09-04 16:05 G	36271055.93	36271056.17	36271056.41	0.0304	0.0002
Moon	94594-09-04 17:45 G	36271055.99	36271056.24	36271056.49	0.0304	0.0008 *
Mercury	94600-09-13 08:09 G	36273255.80	36273255.84	36273255.89	0.0276	0.0254
Mercury	94600-12-10 18:43 G	36273344.17	36273344.28	36273344.40	0.0275	0.0127
Mercury	94601-03-09 05:17 G	36273432.58	36273432.72	36273432.85	0.0274	0.0010
Mercury	94601-06-05 15:36 G	36273521.03	36273521.15	36273521.27	0.0273	0.0125

Mercury	94601-09-02 01:55 G	36273609.53	36273609.58	36273609.63	0.0272	0.0248
Venus	94607-10-13 13:12 G	36275841.88	36275842.05	36275842.23	0.0257	0.0152
Venus	94608-05-29 09:07 G	36276070.67	36276070.88	36276071.10	0.0258	0.0030
Venus	94609-01-13 04:48 G	36276299.59	36276299.70	36276299.84	0.0258	0.0210
Earth	94609-02-28 05:45 G	36276345.58	36276345.74	36276345.92	0.0258	0.0188
Moon	94609-02-28 09:07 G	36276345.73	36276345.88	36276346.06	0.0258	0.0195 *
Moon	94610-03-11 15:07 G	36276721.87	36276722.13	36276722.38	0.0260	0.0029
Earth	94610-03-11 16:19 G	36276721.94	36276722.18	36276722.43	0.0260	0.0044 *
Mercury	94617-03-18 15:07 G	36279286.00	36279286.13	36279286.28	0.0287	0.0192
Mercury	94617-06-15 16:33 G	36279375.00	36279375.19	36279375.38	0.0289	0.0025
Mercury	94617-09-12 17:31 G	36279464.13	36279464.23	36279464.34	0.0290	0.0242
Venus	94622-11-09 02:38 G	36281347.41	36281347.61	36281347.82	0.0305	0.0029
Venus	94623-06-27 09:36 G	36281577.82	36281577.90	36281578.01	0.0304	0.0270
Moon	94623-08-30 02:24 G	36281641.41	36281641.60	36281641.80	0.0304	0.0168
Earth	94623-08-30 03:21 G	36281641.45	36281641.64	36281641.85	0.0304	0.0173 *
Earth	94624-09-13 04:48 G	36282021.52	36282021.70	36282021.89	0.0301	0.0200
Moon	94624-09-13 06:57 G	36282021.62	36282021.79	36282021.97	0.0301	0.0200 *
Mercury	94630-04-29 20:53 G	36284076.27	36284076.37	36284076.47	0.0276	0.0170
Mercury	94630-07-27 07:26 G	36284164.68	36284164.81	36284164.94	0.0275	0.0043
Mercury	94630-10-23 17:45 G	36284253.12	36284253.24	36284253.37	0.0274	0.0084
Mercury	94631-01-20 04:19 G	36284341.59	36284341.68	36284341.76	0.0273	0.0208
Venus	94637-04-24 15:50 G	36286627.98	36286628.16	36286628.35	0.0258	0.0127
Venus	94637-12-09 12:14 G	36286856.80	36286857.01	36286857.22	0.0258	0.0055
Venus	94638-07-26 07:41 G	36287085.75	36287085.82	36287085.92	0.0258	0.0237
Earth	94639-03-07 00:00 G	36287309.27	36287309.50	36287309.75	0.0259	0.0061
Moon	94639-03-07 00:57 G	36287309.32	36287309.54	36287309.78	0.0259	0.0074 *
Earth	94640-03-17 12:00 G	36287685.83	36287686.00	36287686.19	0.0261	0.0175
Moon	94640-03-17 15:50 G	36287685.97	36287686.16	36287686.37	0.0261	0.0161 *
Mercury	94646-08-05 13:26 G	36290017.97	36290018.06	36290018.15	0.0287	0.0252
Mercury	94646-11-02 14:38 G	36290106.92	36290107.11	36290107.30	0.0288	0.0037

Mercury	94647-01-30 15:36 G	36290196.01	36290196.15	36290196.30	0.0289	0.0179
Venus	94651-10-04 01:41 G	36291903.52	36291903.57	36291903.65	0.0305	0.0289
Venus	94652-05-21 08:38 G	36292133.65	36292133.86	36292134.07	0.0305	0.0010
Moon	94653-09-06 17:02 G	36292606.96	36292607.21	36292607.46	0.0303	0.0033
Earth	94653-09-06 19:41 G	36292607.08	36292607.32	36292607.56	0.0303	0.0032 *
Mars	94659-05-21 12:57 G	36294689.73	36294690.04	36294690.37	0.0278	0.0054
Mercury	94659-09-16 23:17 G	36294808.39	36294808.47	36294808.56	0.0276	0.0210
Mercury	94659-12-14 09:50 G	36294896.78	36294896.91	36294897.03	0.0275	0.0082
Mercury	94660-03-11 20:09 G	36294985.21	36294985.34	36294985.47	0.0274	0.0045
Mercury	94660-06-08 06:43 G	36295073.68	36295073.78	36295073.88	0.0273	0.0169
Venus	94666-11-04 19:12 G	36297414.10	36297414.30	36297414.50	0.0258	0.0100
Venus	94667-06-21 15:21 G	36297642.94	36297643.14	36297643.34	0.0258	0.0082
Earth	94668-03-01 08:24 G	36297896.67	36297896.85	36297897.05	0.0258	0.0164
Moon	94668-03-01 08:24 G	36297896.67	36297896.85	36297897.06	0.0258	0.0172 *
Moon	94669-03-12 15:50 G	36298272.92	36298273.16	36298273.41	0.0260	0.0055
Earth	94669-03-12 19:41 G	36298273.08	36298273.32	36298273.56	0.0260	0.0069 *
Mercury	94676-03-21 12:29 G	36300838.84	36300839.02	36300839.20	0.0288	0.0102
Mercury	94676-06-18 13:26 G	36300927.89	36300928.06	36300928.24	0.0289	0.0114
Venus	94681-04-15 08:24 G	36302689.75	36302689.85	36302689.98	0.0305	0.0249
Venus	94681-12-01 15:21 G	36302919.93	36302920.14	36302920.35	0.0304	0.0050
Earth	94682-08-31 10:33 G	36303192.73	36303192.94	36303193.16	0.0304	0.0138
Moon	94682-08-31 13:41 G	36303192.86	36303193.07	36303193.29	0.0304	0.0135 *
Earth	94683-09-15 11:31 G	36303572.84	36303572.98	36303573.14	0.0301	0.0233
Moon	94683-09-15 14:53 G	36303572.98	36303573.12	36303573.29	0.0301	0.0233 *
Mercury	94689-02-03 01:55 G	36305540.52	36305540.58	36305540.63	0.0277	0.0248
Mercury	94689-05-02 12:14 G	36305628.90	36305629.01	36305629.13	0.0276	0.0121
Mercury	94689-07-29 22:48 G	36305717.32	36305717.45	36305717.58	0.0275	0.0007
Mercury	94689-10-26 09:07 G	36305805.77	36305805.88	36305806.00	0.0273	0.0133
Mercury	94690-01-22 19:41 G	36305894.28	36305894.32	36305894.36	0.0272	0.0257
Venus	94695-10-01 02:09 G	36307971.57	36307971.59	36307971.63	0.0258	0.0255

Venus	94696-05-16 22:48 G	36308200.25	36308200.45	36308200.66	0.0258	0.0073
Venus	94696-12-31 19:12 G	36308429.10	36308429.30	36308429.49	0.0258	0.0110
Earth	94698-03-08 04:33 G	36308860.44	36308860.69	36308860.94	0.0259	0.0034
Moon	94698-03-08 08:09 G	36308860.59	36308860.84	36308861.08	0.0259	0.0048 *
Moon	94699-03-19 17:02 G	36309237.05	36309237.21	36309237.39	0.0261	0.0191
Earth	94699-03-19 17:02 G	36309237.06	36309237.21	36309237.37	0.0261	0.0201 *
Mercury	94705-08-09 11:17 G	36311570.82	36311570.97	36311571.13	0.0287	0.0156
Mercury	94705-11-06 12:29 G	36311659.84	36311660.02	36311660.20	0.0288	0.0060
Mercury	94706-02-03 13:12 G	36311749.01	36311749.05	36311749.12	0.0289	0.0277
Venus	94710-10-27 16:33 G	36313476.04	36313476.19	36313476.35	0.0305	0.0206
Venus	94711-06-14 23:17 G	36313706.28	36313706.47	36313706.67	0.0305	0.0093
Moon	94711-08-26 00:00 G	36313778.48	36313778.50	36313778.52	0.0305	0.0303
Earth	94711-08-26 03:36 G	36313778.65	36313778.65	36313778.66	0.0305	0.0304
Moon	94712-09-09 02:38 G	36314158.38	36314158.61	36314158.84	0.0303	0.0069
Earth	94712-09-09 06:00 G	36314158.51	36314158.75	36314158.99	0.0303	0.0070 *
Mercury	94718-09-20 15:07 G	36316361.02	36316361.13	36316361.24	0.0276	0.0156
Mercury	94718-12-18 01:26 G	36316449.43	36316449.56	36316449.69	0.0275	0.0030
Mercury	94719-03-16 12:00 G	36316537.88	36316538.00	36316538.12	0.0274	0.0097
Mercury	94719-06-12 22:19 G	36316626.36	36316626.43	36316626.51	0.0273	0.0222
Venus	94725-04-13 06:14 G	36318757.67	36318757.76	36318757.88	0.0258	0.0226
Venus	94725-11-28 03:21 G	36318986.43	36318986.64	36318986.85	0.0258	0.0043
Venus	94726-07-14 23:17 G	36319215.30	36319215.47	36319215.66	0.0258	0.0139
Moon	94727-03-04 11:02 G	36319447.77	36319447.96	36319448.18	0.0259	0.0148
Earth	94727-03-04 14:53 G	36319447.91	36319448.12	36319448.33	0.0259	0.0136 *
Moon	94728-03-15 01:41 G	36319824.35	36319824.57	36319824.80	0.0260	0.0086
Earth	94728-03-15 02:24 G	36319824.37	36319824.60	36319824.83	0.0260	0.0098 *
Mercury	94734-12-27 10:19 G	36322302.81	36322302.93	36322303.06	0.0287	0.0211
Mercury	94735-03-26 11:31 G	36322391.79	36322391.98	36322392.17	0.0288	0.0005
Mercury	94735-06-23 12:29 G	36322480.90	36322481.02	36322481.14	0.0289	0.0221
Venus	94740-05-09 01:26 G	36324262.39	36324262.56	36324262.74	0.0304	0.0161

Venus	94740-12-25 07:55 G	36324492.65	36324492.83	36324493.02	0.0304	0.0138
Earth	94741-09-03 00:29 G	36324744.30	36324744.52	36324744.76	0.0303	0.0096
Moon	94741-09-03 03:36 G	36324744.42	36324744.65	36324744.89	0.0303	0.0096 *
Earth	94742-09-18 00:43 G	36325124.44	36325124.53	36325124.64	0.0301	0.0273
Moon	94742-09-18 00:57 G	36325124.44	36325124.54	36325124.67	0.0301	0.0269 *
Mars	94747-10-16 09:36 G	36326978.58	36326978.90	36326979.22	0.0278	0.0043
Mercury	94748-02-07 17:45 G	36327093.16	36327093.24	36327093.34	0.0276	0.0192
Mercury	94748-05-06 04:19 G	36327181.56	36327181.68	36327181.81	0.0275	0.0064
Mercury	94748-08-02 14:53 G	36327269.99	36327270.12	36327270.25	0.0274	0.0063
Mercury	94748-10-30 01:12 G	36327358.46	36327358.55	36327358.65	0.0273	0.0189
Venus	94754-10-24 11:02 G	36329543.83	36329543.96	36329544.10	0.0258	0.0198
Venus	94755-06-10 07:41 G	36329772.61	36329772.82	36329773.04	0.0258	0.0015
Venus	94756-01-25 03:50 G	36330001.51	36330001.66	36330001.83	0.0259	0.0169
Earth	94756-02-28 00:57 G	36330035.46	36330035.54	36330035.65	0.0259	0.0237
Moon	94756-02-28 04:33 G	36330035.62	36330035.69	36330035.78	0.0259	0.0244 *
Earth	94757-03-10 12:14 G	36330411.76	36330412.01	36330412.26	0.0260	0.0006
Moon	94757-03-10 13:55 G	36330411.82	36330412.08	36330412.34	0.0260	0.0019 *
Moon	94758-03-21 21:36 G	36330788.29	36330788.40	36330788.54	0.0262	0.0225
Earth	94758-03-22 01:12 G	36330788.45	36330788.55	36330788.68	0.0262	0.0231 *
Mars	94763-10-24 16:05 G	36332831.00	36332831.17	36332831.36	0.0283	0.0209
Mercury	94764-05-15 09:36 G	36333034.83	36333034.90	36333034.98	0.0286	0.0260
Mercury	94764-08-12 10:48 G	36333123.76	36333123.95	36333124.14	0.0287	0.0046
Mercury	94764-11-09 11:45 G	36333212.84	36333212.99	36333213.15	0.0289	0.0170
Venus	94769-11-19 10:48 G	36335048.76	36335048.95	36335049.15	0.0305	0.0114
Venus	94770-07-07 17:31 G	36335279.06	36335279.23	36335279.39	0.0304	0.0185
Moon	94770-08-27 18:00 G	36335330.14	36335330.25	36335330.37	0.0304	0.0263
Earth	94770-08-27 19:55 G	36335330.22	36335330.33	36335330.46	0.0304	0.0261 *
Earth	94771-09-11 21:50 G	36335710.19	36335710.41	36335710.64	0.0302	0.0112
Moon	94771-09-11 22:19 G	36335710.21	36335710.43	36335710.65	0.0302	0.0109 *
Mercury	94777-06-26 21:07 G	36337825.31	36337825.38	36337825.46	0.0277	0.0223

Mercury	94777-09-23 07:41 G	36337913.69	36337913.82	36337913.94	0.0276	0.0095
Mercury	94777-12-20 18:00 G	36338002.12	36338002.25	36338002.38	0.0274	0.0033
Mercury	94778-03-19 04:33 G	36338090.58	36338090.69	36338090.79	0.0273	0.0158
Venus	94784-05-05 16:19 G	36340330.02	36340330.18	36340330.35	0.0258	0.0166
Venus	94784-12-20 13:12 G	36340558.83	36340559.05	36340559.26	0.0258	0.0017
Venus	94785-08-06 09:21 G	36340787.76	36340787.89	36340788.03	0.0258	0.0200
Moon	94786-03-05 21:36 G	36340999.19	36340999.40	36340999.62	0.0259	0.0120
Earth	94786-03-05 23:45 G	36340999.27	36340999.49	36340999.72	0.0259	0.0107 *
Earth	94787-03-17 12:00 G	36341375.79	36341376.00	36341376.22	0.0261	0.0128
Moon	94787-03-17 15:07 G	36341375.91	36341376.13	36341376.35	0.0261	0.0116 *
Mercury	94793-12-30 10:33 G	36343855.77	36343855.94	36343856.12	0.0288	0.0095
Mercury	94794-03-29 11:31 G	36343944.82	36343944.98	36343945.16	0.0289	0.0122
Venus	94799-06-01 21:21 G	36345835.19	36345835.39	36345835.60	0.0304	0.0066
Venus	94800-01-18 04:05 G	36346065.54	36346065.67	36346065.80	0.0304	0.0233
Moon	94800-09-04 18:29 G	36346296.03	36346296.27	36346296.52	0.0303	0.0054
Earth	94800-09-04 19:55 G	36346296.10	36346296.33	36346296.57	0.0303	0.0050 *
Mercury	94806-11-14 00:14 G	36348557.46	36348557.51	36348557.56	0.0277	0.0254
Mercury	94807-02-10 10:48 G	36348645.84	36348645.95	36348646.07	0.0276	0.0125
Mercury	94807-05-09 21:21 G	36348734.26	36348734.39	36348734.52	0.0275	0.0006
Mercury	94807-08-06 07:41 G	36348822.71	36348822.82	36348822.94	0.0274	0.0128
Mercury	94807-11-02 18:00 G	36348911.21	36348911.25	36348911.30	0.0273	0.0253
Venus	94813-11-15 21:50 G	36351116.23	36351116.41	36351116.59	0.0258	0.0136
Venus	94814-07-02 18:14 G	36351345.05	36351345.26	36351345.48	0.0259	0.0048
Venus	94815-02-16 14:24 G	36351574.02	36351574.10	36351574.21	0.0259	0.0231
Earth	94815-03-01 11:02 G	36351586.82	36351586.96	36351587.12	0.0259	0.0207
Moon	94815-03-01 13:26 G	36351586.93	36351587.06	36351587.21	0.0259	0.0216 *
Moon	94816-03-11 20:09 G	36351963.08	36351963.34	36351963.59	0.0260	0.0010
Earth	94816-03-11 22:48 G	36351963.20	36351963.45	36351963.70	0.0260	0.0025 *
Moon	94817-03-23 10:19 G	36352339.89	36352339.93	36352339.98	0.0262	0.0256
Earth	94817-03-23 12:29 G	36352340.02	36352340.02	36352340.03	0.0262	0.0262

Mercury	94823-05-19 10:48 G	36354587.78	36354587.95	36354588.11	0.0287	0.0138
Mercury	94823-08-16 11:45 G	36354676.81	36354676.99	36354677.17	0.0288	0.0077
Venus	94828-12-12 08:24 G	36356621.64	36356621.85	36356622.06	0.0304	0.0015
Venus	94829-07-30 14:53 G	36356852.05	36356852.12	36356852.20	0.0304	0.0284
Earth	94829-08-29 18:14 G	36356882.09	36356882.26	36356882.43	0.0304	0.0212
Moon	94829-08-29 20:09 G	36356882.18	36356882.34	36356882.51	0.0304	0.0216 *
Earth	94830-09-13 19:12 G	36357262.10	36357262.30	36357262.51	0.0302	0.0160
Moon	94830-09-13 23:02 G	36357262.26	36357262.46	36357262.67	0.0302	0.0154 *
Mars	94836-03-12 07:26 G	36359268.58	36359268.81	36359269.06	0.0278	0.0188
Mercury	94836-06-29 14:09 G	36359377.98	36359378.09	36359378.20	0.0276	0.0154
Mercury	94836-09-26 00:43 G	36359466.40	36359466.53	36359466.66	0.0275	0.0028
Mercury	94836-12-23 11:02 G	36359554.84	36359554.96	36359555.08	0.0274	0.0099
Mercury	94837-03-21 21:21 G	36359643.32	36359643.39	36359643.47	0.0273	0.0225
Venus	94843-05-29 03:21 G	36361902.45	36361902.64	36361902.85	0.0258	0.0103
Venus	94844-01-13 00:14 G	36362131.31	36362131.51	36362131.72	0.0258	0.0081
Earth	94845-03-07 10:48 G	36362550.72	36362550.95	36362551.19	0.0259	0.0076
Moon	94845-03-07 13:12 G	36362550.83	36362551.05	36362551.29	0.0259	0.0091 *
Earth	94846-03-18 23:31 G	36362927.29	36362927.48	36362927.68	0.0261	0.0160
Moon	94846-03-19 02:24 G	36362927.41	36362927.60	36362927.82	0.0261	0.0147 *
Mars	94852-03-20 15:36 G	36365120.90	36365121.15	36365121.42	0.0284	0.0073
Mercury	94852-10-05 10:33 G	36365319.81	36365319.94	36365320.09	0.0287	0.0186
Mercury	94853-01-02 11:45 G	36365408.81	36365408.99	36365409.18	0.0288	0.0031
Mercury	94853-04-01 12:57 G	36365497.94	36365498.04	36365498.13	0.0290	0.0247
Venus	94857-11-06 13:12 G	36367177.95	36367178.05	36367178.16	0.0304	0.0262
Venus	94858-06-24 19:26 G	36367408.11	36367408.31	36367408.52	0.0304	0.0037
Moon	94859-09-07 15:07 G	36367847.89	36367848.13	36367848.37	0.0303	0.0007
Earth	94859-09-07 18:43 G	36367848.04	36367848.28	36367848.53	0.0303	0.0005 *
Mercury	94865-11-16 17:31 G	36370110.14	36370110.23	36370110.33	0.0276	0.0182
Mercury	94866-02-13 04:05 G	36370198.54	36370198.67	36370198.80	0.0275	0.0055
Mercury	94866-05-12 14:24 G	36370286.98	36370287.10	36370287.23	0.0274	0.0072

Mercury	94866-08-09 00:57 G	36370375.45	36370375.54	36370375.63	0.0273	0.0197
Venus	94872-04-23 12:00 G	36372459.98	36372460.00	36372460.04	0.0259	0.0256
Venus	94872-12-08 09:21 G	36372688.68	36372688.89	36372689.10	0.0259	0.0072
Venus	94873-07-25 05:45 G	36372917.55	36372917.74	36372917.94	0.0259	0.0112
Moon	94874-03-02 20:09 G	36373138.17	36373138.34	36373138.52	0.0259	0.0188
Earth	94874-03-02 22:33 G	36373138.26	36373138.44	36373138.62	0.0259	0.0176 *
Moon	94875-03-14 07:12 G	36373514.56	36373514.80	36373515.04	0.0260	0.0041
Earth	94875-03-14 10:33 G	36373514.70	36373514.94	36373515.18	0.0260	0.0057 *
Mercury	94882-02-22 10:48 G	36376051.84	36376051.95	36376052.06	0.0286	0.0228
Mercury	94882-05-22 12:00 G	36376140.81	36376141.00	36376141.18	0.0288	0.0015
Mercury	94882-08-19 12:43 G	36376229.91	36376230.03	36376230.17	0.0289	0.0203
Venus	94887-05-20 00:57 G	36377964.39	36377964.54	36377964.69	0.0304	0.0210
Venus	94888-01-05 07:12 G	36378194.60	36378194.80	36378195.00	0.0304	0.0089
Earth	94888-08-31 18:00 G	36378434.06	36378434.25	36378434.46	0.0304	0.0163
Moon	94888-08-31 21:50 G	36378434.20	36378434.41	36378434.61	0.0304	0.0164 *
Earth	94889-09-15 18:43 G	36378814.12	36378814.28	36378814.47	0.0302	0.0209
Moon	94889-09-15 20:53 G	36378814.19	36378814.37	36378814.56	0.0302	0.0202 *
Mercury	94895-04-05 21:07 G	36380842.30	36380842.38	36380842.47	0.0277	0.0210
Mercury	94895-07-03 07:41 G	36380930.69	36380930.82	36380930.94	0.0275	0.0082
Mercury	94895-09-29 18:00 G	36381019.12	36381019.25	36381019.38	0.0274	0.0045
Mercury	94895-12-27 04:33 G	36381107.59	36381107.69	36381107.79	0.0273	0.0171
Venus	94901-11-04 18:29 G	36383246.16	36383246.27	36383246.37	0.0258	0.0222
Venus	94902-06-21 15:21 G	36383474.92	36383475.14	36383475.35	0.0258	0.0038
Venus	94903-02-05 11:45 G	36383703.81	36383703.99	36383704.17	0.0258	0.0145
Earth	94904-03-09 22:19 G	36384102.19	36384102.43	36384102.68	0.0259	0.0046
Moon	94904-03-10 01:55 G	36384102.33	36384102.58	36384102.83	0.0259	0.0061 *
Moon	94905-03-21 10:19 G	36384478.75	36384478.93	36384479.12	0.0261	0.0180
Earth	94905-03-21 11:31 G	36384478.82	36384478.98	36384479.16	0.0261	0.0191 *
Mercury	94911-07-13 11:02 G	36386783.91	36386783.96	36386784.01	0.0287	0.0274
Mercury	94911-10-10 12:00 G	36386872.82	36386873.00	36386873.19	0.0288	0.0060

Mercury	94912-01-07 13:12 G	36386961.89	36386962.05	36386962.21	0.0289	0.0157
Venus	94916-11-30 12:29 G	36388750.85	36388751.02	36388751.20	0.0304	0.0159
Venus	94917-07-18 18:57 G	36388981.10	36388981.29	36388981.47	0.0304	0.0140
Moon	94918-09-10 18:00 G	36389400.02	36389400.25	36389400.49	0.0302	0.0048
Earth	94918-09-10 19:41 G	36389400.08	36389400.32	36389400.56	0.0302	0.0051 *
Mercury	94924-08-24 00:43 G	36391574.46	36391574.53	36391574.59	0.0276	0.0237
Mercury	94924-11-20 11:02 G	36391662.85	36391662.96	36391663.08	0.0275	0.0109
Mercury	94925-02-16 21:36 G	36391751.27	36391751.40	36391751.53	0.0274	0.0018
Mercury	94925-05-16 07:55 G	36391839.72	36391839.83	36391839.94	0.0273	0.0144
Mercury	94925-08-12 18:14 G	36391928.25	36391928.26	36391928.29	0.0272	0.0269
Venus	94931-05-17 23:45 G	36394032.36	36394032.49	36394032.64	0.0259	0.0192
Venus	94932-01-01 20:53 G	36394261.15	36394261.37	36394261.58	0.0259	0.0007
Venus	94932-08-17 17:02 G	36394490.07	36394490.21	36394490.38	0.0259	0.0177
Moon	94933-03-05 06:14 G	36394689.58	36394689.76	36394689.96	0.0259	0.0160
Earth	94933-03-05 09:36 G	36394689.71	36394689.90	36394690.12	0.0259	0.0147 *
Earth	94934-03-16 21:50 G	36395066.18	36395066.41	36395066.65	0.0261	0.0087
Moon	94934-03-16 23:02 G	36395066.23	36395066.46	36395066.69	0.0261	0.0074 *
Mars	94940-08-16 14:38 G	36397410.85	36397411.11	36397411.37	0.0285	0.0074
Mercury	94941-02-26 11:45 G	36397604.82	36397604.99	36397605.17	0.0287	0.0106
Mercury	94941-05-26 12:57 G	36397693.86	36397694.04	36397694.21	0.0288	0.0110
Venus	94946-06-12 23:17 G	36399537.28	36399537.47	36399537.67	0.0304	0.0108
Venus	94947-01-29 05:31 G	36399767.58	36399767.73	36399767.90	0.0304	0.0192
Earth	94947-09-04 18:00 G	36399986.03	36399986.25	36399986.48	0.0304	0.0113
Moon	94947-09-04 19:26 G	36399986.08	36399986.31	36399986.55	0.0304	0.0114 *
Moon	94948-09-18 16:19 G	36400366.05	36400366.18	36400366.33	0.0301	0.0247
Earth	94948-09-18 18:14 G	36400366.15	36400366.26	36400366.40	0.0301	0.0256 *
Mercury	94954-01-11 04:05 G	36402306.64	36402306.67	36402306.71	0.0277	0.0265
Mercury	94954-04-09 14:38 G	36402395.00	36402395.11	36402395.23	0.0276	0.0137
Mercury	94954-07-07 01:12 G	36402483.42	36402483.55	36402483.68	0.0275	0.0010
Mercury	94954-10-03 11:31 G	36402571.86	36402571.98	36402572.10	0.0274	0.0117

Mercury	94954-12-30 21:50 G	36402660.36	36402660.41	36402660.47	0.0273	0.0242
Venus	94960-11-27 06:00 G	36404818.58	36404818.75	36404818.92	0.0258	0.0158
Venus	94961-07-14 02:38 G	36405047.40	36405047.61	36405047.82	0.0258	0.0026
Venus	94962-02-27 22:48 G	36405276.33	36405276.45	36405276.58	0.0258	0.0210
Earth	94962-02-28 21:36 G	36405277.34	36405277.40	36405277.49	0.0258	0.0247
Moon	94962-03-01 01:26 G	36405277.51	36405277.56	36405277.62	0.0258	0.0252
Moon	94963-03-12 08:38 G	36405653.60	36405653.86	36405654.12	0.0260	0.0030
Earth	94963-03-12 09:21 G	36405653.64	36405653.89	36405654.14	0.0260	0.0016 *
Moon	94964-03-22 18:43 G	36406030.14	36406030.28	36406030.43	0.0262	0.0212
Earth	94964-03-22 22:19 G	36406030.31	36406030.43	36406030.58	0.0262	0.0221 *
Mercury	94970-07-16 11:31 G	36408336.82	36408336.98	36408337.14	0.0287	0.0157
Mercury	94970-10-13 12:43 G	36408425.84	36408426.03	36408426.21	0.0289	0.0060
Mercury	94971-01-10 13:41 G	36408515.02	36408515.07	36408515.12	0.0290	0.0277
Venus	94975-12-24 10:19 G	36410323.73	36410323.93	36410324.14	0.0305	0.0059
Venus	94976-08-10 16:48 G	36410554.07	36410554.20	36410554.32	0.0304	0.0242
Moon	94976-08-28 15:21 G	36410572.05	36410572.14	36410572.25	0.0304	0.0274
Earth	94976-08-28 16:19 G	36410572.09	36410572.18	36410572.29	0.0304	0.0274 *
Earth	94977-09-12 18:14 G	36410952.03	36410952.26	36410952.49	0.0302	0.0099
Moon	94977-09-12 20:09 G	36410952.12	36410952.34	36410952.57	0.0302	0.0095 *
Mercury	94983-08-27 18:00 G	36413127.15	36413127.25	36413127.36	0.0276	0.0165
Mercury	94983-11-24 04:33 G	36413215.56	36413215.69	36413215.82	0.0275	0.0037
Mercury	94984-02-20 14:53 G	36413304.00	36413304.12	36413304.25	0.0274	0.0089
Mercury	94984-05-19 01:12 G	36413392.48	36413392.55	36413392.64	0.0272	0.0214
Venus	94990-06-09 10:48 G	36415604.77	36415604.95	36415605.14	0.0258	0.0128
Venus	94991-01-24 07:26 G	36415833.60	36415833.81	36415834.02	0.0258	0.0057
Venus	94991-09-10 03:36 G	36416062.58	36416062.65	36416062.73	0.0259	0.0240
Moon	94992-03-06 18:57 G	36416241.09	36416241.29	36416241.50	0.0259	0.0130
Earth	94992-03-06 19:12 G	36416241.09	36416241.30	36416241.53	0.0259	0.0118 *
Earth	94993-03-18 07:12 G	36416617.59	36416617.80	36416618.03	0.0261	0.0116
Moon	94993-03-18 11:02 G	36416617.74	36416617.96	36416618.19	0.0261	0.0104 *

Mercury	94999-12-03 10:19 G	36419068.81	36419068.93	36419069.07	0.0287	0.0209
Mercury	95000-03-02 11:45 G	36419157.80	36419157.99	36419158.18	0.0288	0.0008
Mercury	95000-05-30 12:43 G	36419246.92	36419247.03	36419247.15	0.0289	0.0225

96TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 96th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	95005-07-06 20:09 G		36421110.14	36421110.34	36421110.55	0.0304	0.0011	
Venus	95006-02-22 02:53 G		36421340.57	36421340.62	36421340.68	0.0304	0.0292	
Moon	95006-09-07 13:12 G		36421537.82	36421538.05	36421538.30	0.0303	0.0070	
Earth	95006-09-07 15:50 G		36421537.93	36421538.16	36421538.40	0.0303	0.0067	*
Moon	95007-09-22 12:00 G		36421917.97	36421918.00	36421918.07	0.0301	0.0294	
Earth	95007-09-22 15:50 G		36421918.16	36421918.16	36421918.18	0.0301	0.0300	
Mercury	95013-01-14 21:36 G		36423859.31	36423859.40	36423859.49	0.0276	0.0194	
Mercury	95013-04-13 07:55 G		36423947.71	36423947.83	36423947.96	0.0275	0.0066	
Mercury	95013-07-10 18:29 G		36424036.14	36424036.27	36424036.39	0.0274	0.0061	
Mercury	95013-10-07 04:48 G		36424124.61	36424124.70	36424124.79	0.0273	0.0186	
Venus	95019-12-21 16:05 G		36426390.97	36426391.17	36426391.37	0.0258	0.0096	
Venus	95020-08-06 12:29 G		36426619.82	36426620.02	36426620.23	0.0258	0.0088	
Earth	95021-03-03 06:14 G		36426828.64	36426828.76	36426828.90	0.0258	0.0219	
Moon	95021-03-03 07:26 G		36426828.70	36426828.81	36426828.94	0.0258	0.0227	*
Moon	95022-03-14 14:09 G		36427204.84	36427205.09	36427205.34	0.0260	0.0003	
Earth	95022-03-14 17:45 G		36427204.99	36427205.24	36427205.49	0.0260	0.0012	*

Moon	95023-03-26 06:29 G	36427581.69	36427581.77	36427581.86	0.0262	0.0243
Earth	95023-03-26 06:57 G	36427581.72	36427581.79	36427581.88	0.0262	0.0247 *
Mars	95029-01-12 03:36 G	36429700.46	36429700.65	36429700.86	0.0285	0.0189
Mercury	95029-04-22 09:36 G	36429800.83	36429800.90	36429800.97	0.0287	0.0264
Mercury	95029-07-20 10:48 G	36429889.76	36429889.95	36429890.13	0.0288	0.0049
Mercury	95029-10-17 11:45 G	36429978.84	36429978.99	36429979.15	0.0289	0.0169
Venus	95034-05-31 23:45 G	36431666.38	36431666.49	36431666.59	0.0305	0.0262
Venus	95035-01-17 05:45 G	36431896.53	36431896.74	36431896.95	0.0305	0.0038
Earth	95035-09-01 11:31 G	36432123.82	36432123.98	36432124.14	0.0304	0.0230
Moon	95035-09-01 14:24 G	36432123.96	36432124.10	36432124.26	0.0304	0.0233 *
Earth	95036-09-15 13:12 G	36432503.84	36432504.05	36432504.27	0.0302	0.0142
Moon	95036-09-15 16:48 G	36432503.99	36432504.20	36432504.42	0.0302	0.0139 *
Mercury	95042-06-04 00:43 G	36434591.46	36434591.53	36434591.60	0.0276	0.0224
Mercury	95042-08-31 11:02 G	36434679.84	36434679.96	36434680.09	0.0275	0.0097
Mercury	95042-11-27 21:36 G	36434768.27	36434768.40	36434768.53	0.0274	0.0030
Mercury	95043-02-24 07:55 G	36434856.72	36434856.83	36434856.94	0.0273	0.0155
Venus	95048-11-15 23:31 G	36436948.43	36436948.48	36436948.53	0.0258	0.0251
Venus	95049-07-02 20:09 G	36437177.14	36437177.34	36437177.55	0.0258	0.0067
Venus	95050-02-16 16:33 G	36437406.00	36437406.19	36437406.38	0.0258	0.0117
Earth	95051-03-10 02:09 G	36437792.37	36437792.59	36437792.84	0.0259	0.0093
Moon	95051-03-10 05:31 G	36437792.52	36437792.73	36437792.96	0.0259	0.0107 *
Earth	95052-03-20 14:09 G	36438168.89	36438169.09	36438169.30	0.0261	0.0141
Moon	95052-03-20 15:07 G	36438168.92	36438169.13	36438169.36	0.0261	0.0132 *
Mercury	95058-12-07 08:53 G	36440621.70	36440621.87	36440622.05	0.0287	0.0109
Mercury	95059-03-06 09:50 G	36440710.75	36440710.91	36440711.09	0.0289	0.0109
Venus	95063-12-12 07:26 G	36442452.66	36442452.81	36442452.95	0.0304	0.0217
Venus	95064-07-29 13:41 G	36442682.87	36442683.07	36442683.27	0.0305	0.0084
Moon	95065-09-09 04:19 G	36443089.45	36443089.68	36443089.92	0.0303	0.0031
Earth	95065-09-09 07:55 G	36443089.59	36443089.83	36443090.07	0.0303	0.0026 *
Mercury	95071-10-22 03:50 G	36445323.62	36445323.66	36445323.71	0.0277	0.0257

Mercury	95072-01-18 14:24 G	36445411.98	36445412.10	36445412.21	0.0276	0.0129
Mercury	95072-04-16 00:43 G	36445500.40	36445500.53	36445500.66	0.0275	0.0005
Mercury	95072-07-13 11:17 G	36445588.85	36445588.97	36445589.08	0.0274	0.0125
Mercury	95072-10-09 21:21 G	36445677.35	36445677.39	36445677.45	0.0272	0.0250
Venus	95078-05-29 03:21 G	36447734.55	36447734.64	36447734.76	0.0258	0.0221
Venus	95079-01-13 00:29 G	36447963.31	36447963.52	36447963.73	0.0258	0.0037
Venus	95079-08-29 20:38 G	36448192.19	36448192.36	36448192.54	0.0258	0.0147
Moon	95080-03-04 08:38 G	36448379.71	36448379.86	36448380.01	0.0258	0.0207
Earth	95080-03-04 11:45 G	36448379.84	36448379.99	36448380.16	0.0258	0.0195 *
Moon	95081-03-15 21:07 G	36448756.14	36448756.38	36448756.62	0.0259	0.0023
Earth	95081-03-15 22:48 G	36448756.20	36448756.45	36448756.70	0.0259	0.0036 *
Mercury	95088-04-25 06:43 G	36451353.64	36451353.78	36451353.94	0.0287	0.0174
Mercury	95088-07-23 08:09 G	36451442.65	36451442.84	36451443.02	0.0289	0.0044
Mercury	95088-10-20 09:07 G	36451531.81	36451531.88	36451531.96	0.0290	0.0262
Venus	95093-06-23 15:07 G	36453238.97	36453239.13	36453239.31	0.0305	0.0176
Venus	95094-02-08 21:36 G	36453469.22	36453469.40	36453469.60	0.0305	0.0127
Earth	95094-09-03 00:57 G	36453675.36	36453675.54	36453675.73	0.0304	0.0192
Moon	95094-09-03 03:50 G	36453675.48	36453675.66	36453675.85	0.0304	0.0197 *
Earth	95095-09-18 02:38 G	36454055.43	36454055.61	36454055.82	0.0302	0.0180
Moon	95095-09-18 03:07 G	36454055.44	36454055.63	36454055.85	0.0302	0.0172 *
Mercury	95101-06-07 17:17 G	36456144.12	36456144.22	36456144.32	0.0276	0.0163
Mercury	95101-09-04 03:36 G	36456232.52	36456232.65	36456232.78	0.0274	0.0036
Mercury	95101-12-01 13:55 G	36456320.96	36456321.08	36456321.21	0.0273	0.0092
Mercury	95102-02-28 00:29 G	36456409.44	36456409.52	36456409.60	0.0272	0.0216
Venus	95107-12-10 06:57 G	36458520.66	36458520.79	36458520.94	0.0258	0.0194
Venus	95108-07-26 03:36 G	36458749.44	36458749.65	36458749.87	0.0258	0.0011
Venus	95109-03-11 23:45 G	36458978.33	36458978.49	36458978.65	0.0258	0.0173
Earth	95110-03-12 06:00 G	36459343.51	36459343.75	36459343.99	0.0259	0.0069
Moon	95110-03-12 08:24 G	36459343.61	36459343.85	36459344.10	0.0259	0.0083 *
Moon	95111-03-23 14:09 G	36459719.91	36459720.09	36459720.31	0.0261	0.0158

Earth	95111-03-23 17:31 G	36459720.04	36459720.23	36459720.43	0.0261	0.0164	*
Mars	95117-06-08 22:33 G	36461989.35	36461989.44	36461989.56	0.0285	0.0260	
Mercury	95117-09-13 04:05 G	36462085.58	36462085.67	36462085.78	0.0287	0.0240	
Mercury	95117-12-11 05:31 G	36462174.54	36462174.73	36462174.92	0.0288	0.0024	
Mercury	95118-03-10 06:29 G	36462263.64	36462263.77	36462263.91	0.0289	0.0194	
Venus	95123-01-04 21:07 G	36464025.20	36464025.38	36464025.57	0.0305	0.0135	
Venus	95123-08-23 03:50 G	36464255.48	36464255.66	36464255.83	0.0305	0.0168	
Earth	95124-09-11 18:00 G	36464641.01	36464641.25	36464641.49	0.0303	0.0009	
Moon	95124-09-11 18:43 G	36464641.05	36464641.28	36464641.51	0.0303	0.0001	*
Mercury	95130-10-25 19:55 G	36466876.25	36466876.33	36466876.42	0.0277	0.0200	
Mercury	95131-01-22 06:29 G	36466964.64	36466964.77	36466964.90	0.0275	0.0072	
Mercury	95131-04-20 16:48 G	36467053.08	36467053.20	36467053.33	0.0274	0.0056	
Mercury	95131-07-18 03:07 G	36467141.54	36467141.63	36467141.73	0.0273	0.0181	
Venus	95137-06-21 10:19 G	36469306.77	36469306.93	36469307.10	0.0258	0.0166	
Venus	95138-02-05 06:43 G	36469535.57	36469535.78	36469536.00	0.0258	0.0019	
Venus	95138-09-22 02:38 G	36469764.49	36469764.61	36469764.75	0.0258	0.0202	
Moon	95139-03-07 11:45 G	36469930.83	36469930.99	36469931.17	0.0258	0.0187	
Earth	95139-03-07 14:09 G	36469930.91	36469931.09	36469931.28	0.0258	0.0172	*
Earth	95140-03-18 00:43 G	36470307.28	36470307.53	36470307.77	0.0259	0.0058	
Moon	95140-03-18 03:07 G	36470307.39	36470307.63	36470307.87	0.0259	0.0045	*
Mercury	95147-04-30 02:38 G	36472906.43	36472906.61	36472906.79	0.0288	0.0096	
Mercury	95147-07-28 03:36 G	36472995.48	36472995.65	36472995.83	0.0289	0.0122	
Venus	95152-07-17 02:53 G	36474811.43	36474811.62	36474811.82	0.0305	0.0098	
Venus	95153-03-04 09:36 G	36475041.75	36475041.90	36475042.06	0.0305	0.0206	
Moon	95153-09-05 05:31 G	36475226.54	36475226.73	36475226.95	0.0304	0.0171	
Earth	95153-09-05 07:26 G	36475226.61	36475226.81	36475227.02	0.0304	0.0160	*
Moon	95154-09-20 05:45 G	36475606.57	36475606.74	36475606.94	0.0302	0.0197	
Earth	95154-09-20 09:36 G	36475606.73	36475606.90	36475607.08	0.0302	0.0210	*
Mars	95159-09-04 13:41 G	36477416.86	36477417.07	36477417.32	0.0279	0.0196	
Mercury	95160-03-13 22:33 G	36477608.38	36477608.44	36477608.50	0.0276	0.0238	

Mercury	95160-06-10 08:53 G	36477696.75	36477696.87	36477696.99	0.0275	0.0110
Mercury	95160-09-06 19:26 G	36477785.18	36477785.31	36477785.44	0.0274	0.0018
Mercury	95160-12-04 05:45 G	36477873.63	36477873.74	36477873.85	0.0273	0.0143
Mercury	95161-03-02 16:05 G	36477962.15	36477962.17	36477962.19	0.0272	0.0267
Venus	95167-01-01 12:43 G	36480092.85	36480093.03	36480093.21	0.0258	0.0141
Venus	95167-08-18 08:53 G	36480321.66	36480321.87	36480322.08	0.0258	0.0043
Venus	95168-04-03 04:33 G	36480550.60	36480550.69	36480550.80	0.0258	0.0226
Moon	95169-03-13 03:36 G	36480894.40	36480894.65	36480894.90	0.0259	0.0063
Earth	95169-03-13 06:14 G	36480894.51	36480894.76	36480895.00	0.0259	0.0048 *
Moon	95170-03-24 14:24 G	36481270.94	36481271.10	36481271.29	0.0261	0.0179
Earth	95170-03-24 17:31 G	36481271.05	36481271.23	36481271.40	0.0261	0.0183 *
Mercury	95176-09-15 22:48 G	36483638.30	36483638.45	36483638.61	0.0287	0.0172
Mercury	95176-12-14 00:00 G	36483727.32	36483727.50	36483727.69	0.0288	0.0045
Mercury	95177-03-13 00:57 G	36483816.48	36483816.54	36483816.63	0.0289	0.0264
Venus	95182-01-27 06:57 G	36485597.59	36485597.79	36485598.00	0.0305	0.0061
Venus	95182-09-14 13:55 G	36485827.96	36485828.08	36485828.21	0.0305	0.0243
Earth	95183-09-13 21:50 G	36486192.17	36486192.41	36486192.65	0.0303	0.0038
Moon	95183-09-14 01:41 G	36486192.33	36486192.57	36486192.81	0.0303	0.0025 *
Mercury	95189-10-28 11:31 G	36488428.87	36488428.98	36488429.09	0.0276	0.0150
Mercury	95190-01-24 21:50 G	36488517.28	36488517.41	36488517.55	0.0275	0.0024
Mercury	95190-04-23 08:24 G	36488605.73	36488605.85	36488605.97	0.0274	0.0105
Mercury	95190-07-20 18:43 G	36488694.21	36488694.28	36488694.35	0.0273	0.0230
Venus	95196-07-13 15:07 G	36490878.94	36490879.13	36490879.33	0.0257	0.0114
Venus	95197-02-27 11:17 G	36491107.76	36491107.97	36491108.18	0.0257	0.0069
Venus	95197-10-14 06:43 G	36491336.75	36491336.78	36491336.83	0.0258	0.0252
Earth	95198-03-08 13:12 G	36491481.86	36491482.05	36491482.26	0.0258	0.0152
Moon	95198-03-08 15:50 G	36491481.98	36491482.16	36491482.34	0.0258	0.0167 *
Earth	95199-03-19 23:17 G	36491858.23	36491858.47	36491858.70	0.0259	0.0077
Moon	95199-03-20 02:24 G	36491858.36	36491858.60	36491858.85	0.0259	0.0066 *
Mercury	95206-02-02 19:26 G	36494370.21	36494370.31	36494370.40	0.0287	0.0248

Mercury	95206-05-02 20:24 G	36494459.17	36494459.35	36494459.54	0.0288	0.0033
Mercury	95206-07-30 21:36 G	36494548.26	36494548.40	36494548.55	0.0289	0.0186
Venus	95211-08-09 11:17 G	36496383.76	36496383.97	36496384.18	0.0305	0.0027
Venus	95212-03-26 18:00 G	36496614.18	36496614.25	36496614.34	0.0305	0.0278
Moon	95212-09-06 05:17 G	36496777.52	36496777.72	36496777.93	0.0305	0.0148
Earth	95212-09-06 08:38 G	36496777.65	36496777.86	36496778.08	0.0305	0.0134 *
Moon	95213-09-21 09:07 G	36497157.73	36497157.88	36497158.05	0.0302	0.0221
Earth	95213-09-21 11:02 G	36497157.82	36497157.96	36497158.12	0.0302	0.0236 *
Mercury	95219-03-17 13:41 G	36499160.98	36499161.07	36499161.16	0.0276	0.0193
Mercury	95219-06-14 00:00 G	36499249.38	36499249.50	36499249.63	0.0275	0.0065
Mercury	95219-09-10 10:33 G	36499337.81	36499337.94	36499338.07	0.0274	0.0062
Mercury	95219-12-07 20:53 G	36499426.28	36499426.37	36499426.47	0.0273	0.0188
Venus	95226-01-23 16:19 G	36501664.99	36501665.18	36501665.39	0.0257	0.0091
Venus	95226-09-09 12:29 G	36501893.82	36501894.02	36501894.22	0.0257	0.0093
Earth	95227-03-03 18:29 G	36502069.25	36502069.27	36502069.32	0.0258	0.0255
Moon	95228-03-14 00:29 G	36502445.28	36502445.52	36502445.77	0.0259	0.0043
Earth	95228-03-14 03:36 G	36502445.41	36502445.65	36502445.90	0.0259	0.0030 *
Earth	95229-03-25 14:24 G	36502821.95	36502822.10	36502822.26	0.0261	0.0201
Moon	95229-03-25 16:05 G	36502822.03	36502822.17	36502822.33	0.0261	0.0201 *
Mercury	95235-09-19 16:05 G	36505191.00	36505191.17	36505191.35	0.0287	0.0114
Mercury	95235-12-17 17:31 G	36505280.05	36505280.23	36505280.40	0.0288	0.0104
Venus	95240-07-03 07:26 G	36506939.77	36506939.81	36506939.86	0.0305	0.0296
Venus	95241-02-18 13:41 G	36507169.86	36507170.07	36507170.28	0.0305	0.0006
Earth	95242-09-14 20:09 G	36507743.10	36507743.34	36507743.58	0.0303	0.0061
Moon	95242-09-14 20:53 G	36507743.13	36507743.37	36507743.62	0.0303	0.0047 *
Mars	95248-01-28 13:12 G	36509704.78	36509705.05	36509705.32	0.0280	0.0153
Mercury	95248-08-03 15:50 G	36509893.10	36509893.16	36509893.22	0.0277	0.0238
Mercury	95248-10-31 02:09 G	36509981.48	36509981.59	36509981.72	0.0276	0.0109
Mercury	95249-01-27 12:43 G	36510069.90	36510070.03	36510070.16	0.0275	0.0020
Mercury	95249-04-25 23:02 G	36510158.36	36510158.46	36510158.58	0.0274	0.0147

Mercury	95249-07-23 09:21 G	36510246.89	36510246.89	36510246.91	0.0273	0.0272
Venus	95254-12-19 21:36 G	36512222.36	36512222.40	36512222.45	0.0258	0.0251
Venus	95255-08-05 18:14 G	36512451.05	36512451.26	36512451.47	0.0257	0.0067
Venus	95256-03-21 13:55 G	36512679.89	36512680.08	36512680.28	0.0257	0.0117
Earth	95257-03-09 09:36 G	36513032.70	36513032.90	36513033.12	0.0258	0.0134
Moon	95257-03-09 12:57 G	36513032.83	36513033.04	36513033.25	0.0258	0.0148 *
Moon	95258-03-20 17:17 G	36513408.99	36513409.22	36513409.47	0.0259	0.0090
Earth	95258-03-20 19:12 G	36513409.08	36513409.30	36513409.54	0.0259	0.0094 *
Mercury	95265-02-05 12:00 G	36515922.87	36515923.00	36515923.14	0.0287	0.0195
Mercury	95265-05-05 13:12 G	36516011.86	36516012.05	36516012.24	0.0288	0.0021
Mercury	95265-08-02 14:09 G	36516100.99	36516101.09	36516101.20	0.0289	0.0238
Venus	95270-01-13 09:50 G	36517725.82	36517725.91	36517726.01	0.0305	0.0268
Venus	95270-08-31 16:19 G	36517955.98	36517956.18	36517956.39	0.0306	0.0037
Earth	95271-09-08 04:33 G	36518328.47	36518328.69	36518328.91	0.0305	0.0113
Moon	95271-09-08 04:33 G	36518328.48	36518328.69	36518328.90	0.0305	0.0127 *
Earth	95272-09-22 07:12 G	36518708.68	36518708.80	36518708.94	0.0302	0.0256
Moon	95272-09-22 10:05 G	36518708.78	36518708.92	36518709.07	0.0302	0.0240 *
Mercury	95278-03-20 04:05 G	36520713.57	36520713.67	36520713.78	0.0276	0.0154
Mercury	95278-06-16 14:38 G	36520801.98	36520802.11	36520802.24	0.0275	0.0026
Mercury	95278-09-13 01:12 G	36520890.43	36520890.55	36520890.67	0.0274	0.0102
Mercury	95278-12-10 11:31 G	36520978.91	36520978.98	36520979.05	0.0273	0.0227
Venus	95284-06-30 22:19 G	36523008.35	36523008.43	36523008.54	0.0257	0.0229
Venus	95285-02-14 18:57 G	36523237.08	36523237.29	36523237.50	0.0257	0.0044
Venus	95285-10-01 14:38 G	36523465.93	36523466.11	36523466.29	0.0257	0.0139
Moon	95286-03-04 11:17 G	36523619.92	36523619.97	36523620.03	0.0257	0.0251
Earth	95286-03-04 14:24 G	36523620.02	36523620.10	36523620.21	0.0257	0.0237 *
Earth	95287-03-15 23:02 G	36523996.21	36523996.46	36523996.71	0.0259	0.0013
Moon	95287-03-16 00:43 G	36523996.29	36523996.53	36523996.78	0.0259	0.0021 *
Earth	95288-03-26 09:21 G	36524372.76	36524372.89	36524373.04	0.0260	0.0217
Moon	95288-03-26 13:12 G	36524372.92	36524373.05	36524373.19	0.0260	0.0219 *

Mars	95294-03-27 13:55 G	36526565.06	36526565.08	36526565.13	0.0285	0.0282
Mercury	95294-06-25 07:26 G	36526654.78	36526654.81	36526654.85	0.0286	0.0279
Mercury	95294-09-22 08:38 G	36526743.68	36526743.86	36526744.05	0.0287	0.0064
Mercury	95294-12-20 09:36 G	36526832.75	36526832.90	36526833.07	0.0288	0.0153
Venus	95299-07-26 11:31 G	36528511.86	36528511.98	36528512.12	0.0305	0.0237
Venus	95300-03-13 18:00 G	36528742.05	36528742.25	36528742.46	0.0305	0.0068
Earth	95300-09-01 10:05 G	36528913.86	36528913.92	36528914.00	0.0305	0.0290
Moon	95300-09-01 09:21 G	36528913.88	36528913.89	36528913.91	0.0305	0.0304 *
Moon	95301-09-16 11:17 G	36529293.73	36529293.97	36529294.21	0.0303	0.0064
Earth	95301-09-16 14:38 G	36529293.88	36529294.11	36529294.34	0.0303	0.0081 *
Mercury	95307-08-08 06:00 G	36531445.67	36531445.75	36531445.84	0.0277	0.0202
Mercury	95307-11-04 16:33 G	36531534.07	36531534.19	36531534.32	0.0276	0.0072
Mercury	95308-02-01 03:07 G	36531622.50	36531622.63	36531622.76	0.0275	0.0056
Mercury	95308-04-29 13:26 G	36531710.97	36531711.06	36531711.16	0.0274	0.0183
Venus	95314-01-11 23:45 G	36533794.37	36533794.49	36533794.63	0.0258	0.0205
Venus	95314-08-28 20:09 G	36534023.13	36534023.34	36534023.56	0.0257	0.0021
Venus	95315-04-14 15:36 G	36534252.00	36534252.15	36534252.33	0.0257	0.0163
Moon	95316-03-11 03:21 G	36534583.43	36534583.64	36534583.88	0.0258	0.0128
Earth	95316-03-11 05:02 G	36534583.49	36534583.71	36534583.93	0.0258	0.0116 *
Moon	95317-03-22 10:48 G	36534959.73	36534959.95	36534960.17	0.0259	0.0111
Earth	95317-03-22 14:09 G	36534959.88	36534960.09	36534960.32	0.0259	0.0111 *
Mercury	95324-02-10 04:19 G	36537475.52	36537475.68	36537475.85	0.0286	0.0145
Mercury	95324-05-09 05:31 G	36537564.55	36537564.73	36537564.91	0.0288	0.0070
Mercury	95324-08-06 06:14 G	36537653.76	36537653.76	36537653.79	0.0289	0.0288
Venus	95329-02-05 13:26 G	36539297.91	36539298.06	36539298.21	0.0305	0.0209
Venus	95329-09-23 20:09 G	36539528.14	36539528.34	36539528.54	0.0306	0.0097
Earth	95330-09-09 21:21 G	36539879.17	36539879.39	36539879.63	0.0305	0.0094
Moon	95330-09-10 00:57 G	36539879.32	36539879.54	36539879.76	0.0305	0.0111 *
Earth	95331-09-25 00:43 G	36540259.43	36540259.53	36540259.63	0.0303	0.0274
Moon	95331-09-25 03:21 G	36540259.52	36540259.64	36540259.78	0.0303	0.0257 *

Mars	95336-06-22 16:19 G	36541991.90	36541992.18	36541992.46	0.0280	0.0142
Mercury	95336-12-25 07:41 G	36542177.77	36542177.82	36542177.88	0.0278	0.0250
Mercury	95337-03-23 18:14 G	36542266.15	36542266.26	36542266.38	0.0276	0.0120
Mercury	95337-06-20 04:48 G	36542354.57	36542354.70	36542354.83	0.0275	0.0009
Mercury	95337-09-16 15:21 G	36542443.02	36542443.14	36542443.25	0.0274	0.0136
Mercury	95337-12-14 01:41 G	36542531.54	36542531.57	36542531.60	0.0273	0.0262
Venus	95343-07-25 00:14 G	36544580.37	36544580.51	36544580.67	0.0257	0.0184
Venus	95344-03-09 20:38 G	36544809.14	36544809.36	36544809.57	0.0257	0.0002
Venus	95344-10-24 16:05 G	36545038.03	36545038.17	36545038.33	0.0257	0.0185
Earth	95345-03-06 09:21 G	36545170.77	36545170.89	36545171.03	0.0257	0.0219
Moon	95345-03-06 09:50 G	36545170.82	36545170.91	36545171.02	0.0257	0.0234 *
Earth	95346-03-17 17:45 G	36545546.99	36545547.24	36545547.49	0.0258	0.0005
Moon	95346-03-17 21:21 G	36545547.14	36545547.39	36545547.64	0.0258	0.0002 *
Moon	95347-03-29 02:53 G	36545923.54	36545923.62	36545923.72	0.0260	0.0241
Earth	95347-03-29 03:50 G	36545923.56	36545923.66	36545923.78	0.0260	0.0232 *
Mercury	95353-06-28 23:31 G	36548207.37	36548207.48	36548207.59	0.0286	0.0232
Mercury	95353-09-26 00:43 G	36548296.34	36548296.53	36548296.72	0.0287	0.0018
Mercury	95353-12-24 01:41 G	36548385.43	36548385.57	36548385.70	0.0288	0.0200
Venus	95358-08-18 14:24 G	36550083.94	36550084.10	36550084.28	0.0305	0.0180
Venus	95359-04-05 21:07 G	36550314.19	36550314.38	36550314.57	0.0305	0.0126
Moon	95359-09-02 22:19 G	36550464.37	36550464.43	36550464.51	0.0305	0.0290
Earth	95359-09-03 01:55 G	36550464.49	36550464.58	36550464.70	0.0305	0.0272 *
Moon	95360-09-17 04:33 G	36550844.46	36550844.69	36550844.92	0.0303	0.0083
Earth	95360-09-17 06:29 G	36550844.55	36550844.77	36550845.01	0.0303	0.0099 *
Mercury	95366-08-10 20:09 G	36552998.24	36552998.34	36552998.44	0.0277	0.0168
Mercury	95366-11-07 06:43 G	36553086.65	36553086.78	36553086.91	0.0276	0.0038
Mercury	95367-02-03 17:17 G	36553175.09	36553175.22	36553175.34	0.0275	0.0090
Mercury	95367-05-03 03:36 G	36553263.57	36553263.65	36553263.73	0.0274	0.0217
Venus	95373-02-03 01:26 G	36555366.40	36555366.56	36555366.74	0.0257	0.0161
Venus	95373-09-19 21:50 G	36555595.19	36555595.41	36555595.62	0.0257	0.0025

Venus	95374-05-06 17:02 G	36555824.10	36555824.21	36555824.35	0.0257	0.0209
Moon	95375-03-12 20:09 G	36556134.12	36556134.34	36556134.56	0.0258	0.0109
Earth	95375-03-12 23:31 G	36556134.26	36556134.48	36556134.72	0.0258	0.0099 *
Earth	95376-03-23 08:53 G	36556510.65	36556510.87	36556511.09	0.0259	0.0127
Moon	95376-03-23 09:36 G	36556510.70	36556510.90	36556511.11	0.0259	0.0133 *
Mars	95382-08-21 01:12 G	36558852.51	36558852.55	36558852.62	0.0284	0.0277
Mercury	95383-02-12 20:24 G	36559028.18	36559028.35	36559028.54	0.0286	0.0098
Mercury	95383-05-12 21:36 G	36559117.23	36559117.40	36559117.57	0.0288	0.0119
Venus	95388-02-28 16:19 G	36560870.00	36560870.18	36560870.36	0.0305	0.0152
Venus	95388-10-15 23:02 G	36561100.29	36561100.46	36561100.64	0.0306	0.0155
Earth	95389-09-10 13:26 G	36561429.83	36561430.06	36561430.29	0.0305	0.0075
Moon	95389-09-10 14:53 G	36561429.88	36561430.12	36561430.36	0.0305	0.0092 *
Moon	95390-09-25 14:53 G	36561810.03	36561810.12	36561810.23	0.0303	0.0276
Earth	95390-09-25 16:33 G	36561810.15	36561810.19	36561810.27	0.0303	0.0292 *
Mercury	95395-12-28 21:50 G	36563730.33	36563730.41	36563730.49	0.0278	0.0217
Mercury	95396-03-26 08:24 G	36563818.72	36563818.85	36563818.97	0.0276	0.0087
Mercury	95396-06-22 18:43 G	36563907.16	36563907.28	36563907.41	0.0275	0.0044
Mercury	95396-09-19 05:17 G	36563995.62	36563995.72	36563995.82	0.0274	0.0170
Venus	95402-08-17 02:09 G	36566152.41	36566152.59	36566152.77	0.0257	0.0138
Venus	95403-04-02 22:19 G	36566381.22	36566381.43	36566381.64	0.0257	0.0046
Venus	95403-11-17 18:00 G	36566610.16	36566610.25	36566610.34	0.0257	0.0230
Earth	95404-03-08 04:19 G	36566721.53	36566721.68	36566721.84	0.0257	0.0201
Moon	95404-03-08 07:55 G	36566721.71	36566721.83	36566721.98	0.0257	0.0216 *
Moon	95405-03-19 12:29 G	36567097.76	36567098.02	36567098.28	0.0258	0.0022
Earth	95405-03-19 12:57 G	36567097.79	36567098.04	36567098.29	0.0258	0.0023 *
Earth	95406-03-30 22:48 G	36567474.39	36567474.45	36567474.53	0.0260	0.0249
Mercury	95412-07-02 16:05 G	36569760.03	36569760.17	36569760.32	0.0286	0.0180
Mercury	95412-09-29 17:17 G	36569849.03	36569849.22	36569849.40	0.0287	0.0035
Mercury	95412-12-27 18:00 G	36569938.17	36569938.25	36569938.35	0.0288	0.0251
Venus	95417-09-10 18:14 G	36571656.07	36571656.26	36571656.45	0.0305	0.0121

Venus	95418-04-29 00:57 G	36571886.38	36571886.54	36571886.71	0.0305	0.0185
Earth	95418-09-04 18:57 G	36572015.17	36572015.29	36572015.43	0.0305	0.0252
Moon	95418-09-04 18:57 G	36572015.19	36572015.29	36572015.40	0.0305	0.0270 *
Earth	95419-09-19 23:17 G	36572395.26	36572395.47	36572395.70	0.0303	0.0119
Moon	95419-09-20 01:55 G	36572395.36	36572395.58	36572395.80	0.0303	0.0102 *
Mars	95424-11-15 14:09 G	36574278.83	36574279.09	36574279.38	0.0281	0.0147
Mercury	95425-05-17 23:31 G	36574462.45	36574462.48	36574462.52	0.0279	0.0267
Mercury	95425-08-14 10:05 G	36574550.81	36574550.92	36574551.04	0.0277	0.0136
Mercury	95425-11-10 20:38 G	36574639.23	36574639.36	36574639.49	0.0276	0.0006
Mercury	95426-02-07 07:12 G	36574727.68	36574727.80	36574727.91	0.0275	0.0123
Mercury	95426-05-06 17:31 G	36574816.18	36574816.23	36574816.29	0.0274	0.0250
Venus	95432-02-27 03:21 G	36576938.46	36576938.64	36576938.84	0.0258	0.0116
Venus	95432-10-12 23:31 G	36577167.28	36577167.48	36577167.69	0.0257	0.0070
Venus	95433-05-29 18:57 G	36577396.27	36577396.29	36577396.34	0.0257	0.0254
Moon	95434-03-14 18:43 G	36577685.06	36577685.28	36577685.51	0.0258	0.0087
Earth	95434-03-14 18:57 G	36577685.06	36577685.29	36577685.54	0.0258	0.0081 *
Earth	95435-03-26 04:05 G	36578061.47	36578061.67	36578061.88	0.0259	0.0145
Moon	95435-03-26 07:55 G	36578061.63	36578061.83	36578062.03	0.0259	0.0155 *
Mercury	95441-11-19 12:14 G	36580491.94	36580492.01	36580492.10	0.0285	0.0256
Mercury	95442-02-16 13:26 G	36580580.87	36580581.06	36580581.25	0.0286	0.0043
Mercury	95442-05-16 14:09 G	36580669.95	36580670.09	36580670.25	0.0287	0.0173
Venus	95447-03-23 19:55 G	36582442.13	36582442.33	36582442.53	0.0305	0.0092
Venus	95447-11-09 02:53 G	36582672.47	36582672.62	36582672.76	0.0306	0.0215
Moon	95448-09-12 02:53 G	36582980.38	36582980.62	36582980.86	0.0305	0.0073
Earth	95448-09-12 06:14 G	36582980.52	36582980.76	36582981.00	0.0305	0.0056 *
Moon	95449-09-27 06:14 G	36583360.71	36583360.76	36583360.81	0.0303	0.0295
Mercury	95455-01-01 11:45 G	36585282.89	36585282.99	36585283.09	0.0278	0.0185
Mercury	95455-03-30 22:19 G	36585371.30	36585371.43	36585371.56	0.0277	0.0054
Mercury	95455-06-27 08:53 G	36585459.74	36585459.87	36585459.99	0.0275	0.0076
Mercury	95455-09-23 19:26 G	36585548.22	36585548.31	36585548.39	0.0274	0.0203

Venus	95461-09-08 04:19 G	36587724.49	36587724.68	36587724.89	0.0257	0.0092
Venus	95462-04-25 00:29 G	36587953.33	36587953.52	36587953.73	0.0257	0.0093
Earth	95463-03-10 00:43 G	36588272.36	36588272.53	36588272.71	0.0257	0.0182
Moon	95463-03-10 01:12 G	36588272.40	36588272.55	36588272.73	0.0257	0.0194 *
Moon	95464-03-20 05:45 G	36588648.50	36588648.74	36588648.99	0.0258	0.0045
Earth	95464-03-20 09:21 G	36588648.65	36588648.89	36588649.14	0.0258	0.0042 *
Mars	95471-01-14 18:29 G	36591140.26	36591140.27	36591140.30	0.0283	0.0282
Mercury	95471-07-06 09:21 G	36591312.72	36591312.89	36591313.07	0.0286	0.0122
Mercury	95471-10-03 10:19 G	36591401.75	36591401.93	36591402.11	0.0287	0.0093
Venus	95476-10-02 22:48 G	36593228.25	36593228.45	36593228.66	0.0305	0.0060
Venus	95477-05-21 05:45 G	36593458.62	36593458.74	36593458.86	0.0305	0.0247
Earth	95477-09-05 13:41 G	36593565.91	36593566.07	36593566.22	0.0305	0.0230
Moon	95477-09-05 17:02 G	36593566.09	36593566.21	36593566.37	0.0305	0.0247 *
Earth	95478-09-20 17:45 G	36593946.03	36593946.24	36593946.46	0.0303	0.0139
Moon	95478-09-20 21:07 G	36593946.16	36593946.38	36593946.61	0.0303	0.0124 *
Mercury	95484-05-20 13:26 G	36596015.00	36596015.06	36596015.14	0.0279	0.0233
Mercury	95484-08-17 00:14 G	36596103.39	36596103.51	36596103.63	0.0277	0.0101
Mercury	95484-11-13 10:48 G	36596191.82	36596191.95	36596192.08	0.0276	0.0030
Mercury	95485-02-09 21:21 G	36596280.28	36596280.39	36596280.49	0.0275	0.0158
Venus	95490-08-04 09:21 G	36598281.87	36598281.89	36598281.93	0.0258	0.0255
Venus	95491-03-21 06:14 G	36598510.56	36598510.76	36598510.97	0.0258	0.0068
Venus	95491-11-05 02:24 G	36598739.41	36598739.60	36598739.79	0.0257	0.0117
Earth	95493-03-15 16:19 G	36599235.94	36599236.18	36599236.42	0.0258	0.0061
Moon	95493-03-15 19:55 G	36599236.09	36599236.33	36599236.57	0.0258	0.0065 *
Earth	95494-03-27 01:26 G	36599612.38	36599612.56	36599612.76	0.0259	0.0166
Moon	95494-03-27 02:09 G	36599612.41	36599612.59	36599612.79	0.0259	0.0176 *
Mercury	95500-11-23 06:29 G	36602044.63	36602044.77	36602044.91	0.0285	0.0191
Mercury	95501-02-20 07:26 G	36602133.62	36602133.81	36602134.00	0.0286	0.0022
Mercury	95501-05-20 08:24 G	36602222.74	36602222.85	36602222.95	0.0287	0.0237
Venus	95506-04-16 02:24 G	36604014.39	36604014.60	36604014.80	0.0305	0.0027

Venus	95506-12-02 09:07 G	36604244.80	36604244.88	36604244.96	0.0305	0.0281
Moon	95507-09-15 00:57 G	36604531.31	36604531.54	36604531.77	0.0305	0.0046
Earth	95507-09-15 03:07 G	36604531.39	36604531.63	36604531.87	0.0305	0.0033 *
Mars	95513-04-10 17:02 G	36606565.94	36606566.21	36606566.50	0.0282	0.0135
Mercury	95514-01-05 02:09 G	36606835.48	36606835.59	36606835.70	0.0278	0.0148
Mercury	95514-04-03 12:43 G	36606923.90	36606924.03	36606924.16	0.0277	0.0017
Mercury	95514-06-30 23:17 G	36607012.35	36607012.47	36607012.59	0.0275	0.0113
Mercury	95514-09-27 09:36 G	36607100.85	36607100.90	36607100.97	0.0274	0.0241
Venus	95520-02-15 11:02 G	36609067.87	36609067.96	36609068.06	0.0258	0.0230
Venus	95520-10-01 07:55 G	36609296.62	36609296.83	36609297.04	0.0257	0.0043
Venus	95521-05-18 03:50 G	36609525.49	36609525.66	36609525.85	0.0257	0.0143
Moon	95522-03-11 19:26 G	36609823.12	36609823.31	36609823.50	0.0258	0.0169
Earth	95522-03-11 23:17 G	36609823.28	36609823.47	36609823.66	0.0258	0.0162 *
Moon	95523-03-23 06:43 G	36610199.55	36610199.78	36610200.02	0.0259	0.0069
Earth	95523-03-23 07:55 G	36610199.60	36610199.83	36610200.08	0.0259	0.0063 *
Mercury	95530-04-12 03:07 G	36612776.57	36612776.63	36612776.71	0.0285	0.0264
Mercury	95530-07-10 04:19 G	36612865.49	36612865.68	36612865.86	0.0286	0.0051
Mercury	95530-10-07 05:02 G	36612954.56	36612954.71	36612954.87	0.0287	0.0163
Venus	95535-03-11 00:28 G	36614570.47	36614570.52	36614570.57	0.0304	0.0294
Venus	95535-10-27 06:14 G	36614800.55	36614800.76	36614800.97	0.0305	0.0010
Earth	95536-09-07 12:14 G	36615116.84	36615117.01	36615117.20	0.0305	0.0205
Moon	95536-09-07 13:12 G	36615116.88	36615117.05	36615117.24	0.0305	0.0215 *
Moon	95537-09-22 14:52 G	36615496.91	36615497.12	36615497.33	0.0303	0.0154
Earth	95537-09-22 16:19 G	36615496.99	36615497.18	36615497.39	0.0303	0.0164 *
Mercury	95543-05-25 04:04 G	36617567.58	36617567.67	36617567.77	0.0279	0.0193
Mercury	95543-08-21 14:38 G	36617655.99	36617656.11	36617656.24	0.0277	0.0062
Mercury	95543-11-18 01:12 G	36617744.43	36617744.55	36617744.68	0.0276	0.0070
Mercury	95544-02-14 11:45 G	36617832.90	36617832.99	36617833.08	0.0275	0.0198
Venus	95549-08-27 13:26 G	36619853.94	36619854.06	36619854.20	0.0258	0.0206
Venus	95550-04-13 10:33 G	36620082.72	36620082.94	36620083.15	0.0258	0.0018

Venus	95550-11-28 06:43 G	36620311.62	36620311.78	36620311.95	0.0258	0.0168
Earth	95552-03-17 16:04 G	36620786.93	36620787.17	36620787.42	0.0258	0.0040
Moon	95552-03-17 18:00 G	36620786.99	36620787.25	36620787.50	0.0258	0.0037 *
Moon	95553-03-28 22:33 G	36621163.29	36621163.44	36621163.61	0.0259	0.0201
Earth	95553-03-29 01:40 G	36621163.42	36621163.57	36621163.76	0.0259	0.0188 *
Mercury	95559-11-27 01:55 G	36623597.41	36623597.58	36623597.76	0.0285	0.0115
Mercury	95560-02-24 02:52 G	36623686.44	36623686.62	36623686.80	0.0286	0.0099
Venus	95564-09-20 05:16 G	36625356.62	36625356.72	36625356.83	0.0304	0.0259
Venus	95565-05-08 11:16 G	36625586.76	36625586.97	36625587.18	0.0305	0.0046
Earth	95566-09-16 04:04 G	36626082.43	36626082.67	36626082.92	0.0305	0.0007
Moon	95566-09-16 06:57 G	36626082.55	36626082.79	36626083.02	0.0305	0.0012 *
Mercury	95572-10-11 06:14 G	36628299.69	36628299.76	36628299.83	0.0279	0.0237
Mercury	95573-01-07 16:48 G	36628388.08	36628388.20	36628388.32	0.0278	0.0105
Mercury	95573-04-06 03:21 G	36628476.51	36628476.64	36628476.77	0.0277	0.0028
Mercury	95573-07-03 13:55 G	36628564.98	36628565.08	36628565.19	0.0275	0.0156
Venus	95579-03-09 15:50 G	36630640.02	36630640.16	36630640.33	0.0258	0.0179
Venus	95579-10-24 12:57 G	36630868.83	36630869.04	36630869.26	0.0258	0.0010
Venus	95580-06-09 09:07 G	36631097.75	36631097.88	36631098.03	0.0258	0.0194
Moon	95581-03-12 22:33 G	36631374.25	36631374.44	36631374.65	0.0258	0.0142
Earth	95581-03-13 00:00 G	36631374.31	36631374.50	36631374.72	0.0258	0.0140 *
Earth	95582-03-24 09:36 G	36631750.66	36631750.90	36631751.13	0.0259	0.0085
Moon	95582-03-24 12:28 G	36631750.80	36631751.02	36631751.26	0.0259	0.0096 *
Mercury	95589-04-14 23:45 G	36634329.34	36634329.49	36634329.64	0.0285	0.0180
Mercury	95589-07-13 00:43 G	36634418.34	36634418.53	36634418.71	0.0286	0.0033
Mercury	95589-10-10 01:26 G	36634507.47	36634507.56	36634507.66	0.0287	0.0248
Venus	95594-04-02 11:31 G	36636142.84	36636142.98	36636143.13	0.0304	0.0219
Venus	95594-11-18 17:31 G	36636373.03	36636373.23	36636373.43	0.0305	0.0086
Moon	95595-09-09 14:09 G	36636667.90	36636668.09	36636668.30	0.0304	0.0178
Earth	95595-09-09 17:45 G	36636668.04	36636668.24	36636668.44	0.0304	0.0173 *
Moon	95596-09-23 17:31 G	36637048.05	36637048.23	36637048.42	0.0303	0.0191

Earth	95596-09-23 21:07 G	36637048.21	36637048.38	36637048.58	0.0303	0.0195	*
Mars	95601-09-03 13:55 G	36638853.78	36638854.08	36638854.39	0.0282	0.0085	
Mercury	95602-02-28 08:38 G	36639031.85	36639031.86	36639031.86	0.0279	0.0279	
Mercury	95602-05-27 19:12 G	36639120.19	36639120.30	36639120.41	0.0278	0.0146	
Mercury	95602-08-24 05:45 G	36639208.61	36639208.74	36639208.87	0.0277	0.0016	
Mercury	95602-11-20 16:19 G	36639297.07	36639297.18	36639297.30	0.0276	0.0116	
Mercury	95603-02-17 02:52 G	36639385.57	36639385.62	36639385.68	0.0275	0.0245	
Venus	95608-09-18 19:26 G	36641426.14	36641426.31	36641426.49	0.0259	0.0152	
Venus	95609-05-05 16:19 G	36641654.97	36641655.18	36641655.40	0.0258	0.0037	
Venus	95609-12-20 12:43 G	36641883.93	36641884.03	36641884.14	0.0258	0.0222	
Earth	95610-03-08 09:21 G	36641961.81	36641961.89	36641962.00	0.0258	0.0238	
Moon	95610-03-08 11:16 G	36641961.91	36641961.97	36641962.06	0.0258	0.0246	*
Moon	95611-03-19 15:50 G	36642337.90	36642338.16	36642338.41	0.0258	0.0009	
Earth	95611-03-19 18:57 G	36642338.04	36642338.29	36642338.54	0.0258	0.0015	*
Moon	95612-03-30 02:52 G	36642714.51	36642714.62	36642714.75	0.0260	0.0226	
Earth	95612-03-30 05:31 G	36642714.58	36642714.73	36642714.87	0.0260	0.0211	*
Mercury	95618-09-01 22:19 G	36645061.33	36645061.43	36645061.54	0.0284	0.0235	
Mercury	95618-11-29 23:16 G	36645150.28	36645150.47	36645150.66	0.0285	0.0023	
Mercury	95619-02-27 00:00 G	36645239.36	36645239.50	36645239.64	0.0287	0.0191	
Venus	95623-10-13 18:14 G	36646929.09	36646929.26	36646929.43	0.0304	0.0177	
Venus	95624-05-31 00:14 G	36647159.32	36647159.51	36647159.70	0.0305	0.0128	
Earth	95625-09-17 11:31 G	36647633.74	36647633.98	36647634.23	0.0304	0.0029	
Moon	95625-09-17 14:52 G	36647633.87	36647634.12	36647634.36	0.0304	0.0026	*
Mercury	95631-10-14 21:36 G	36649852.31	36649852.40	36649852.50	0.0279	0.0187	
Mercury	95632-01-11 08:09 G	36649940.72	36649940.84	36649940.97	0.0278	0.0056	
Mercury	95632-04-08 18:57 G	36650029.16	36650029.29	36650029.41	0.0276	0.0076	
Mercury	95632-07-06 05:16 G	36650117.64	36650117.72	36650117.81	0.0275	0.0206	
Venus	95638-03-31 22:48 G	36652212.27	36652212.45	36652212.65	0.0258	0.0124	
Venus	95638-11-15 20:09 G	36652441.13	36652441.34	36652441.54	0.0258	0.0065	
Venus	95639-07-02 16:04 G	36652670.14	36652670.17	36652670.23	0.0258	0.0251	

Earth	95640-03-14 04:19 G	36652925.47	36652925.68	36652925.91	0.0258	0.0115
Moon	95640-03-14 07:12 G	36652925.59	36652925.80	36652926.03	0.0258	0.0114 *
Earth	95641-03-25 14:24 G	36653301.88	36653302.10	36653302.33	0.0259	0.0111
Moon	95641-03-25 17:02 G	36653302.00	36653302.21	36653302.45	0.0259	0.0124 *
Mercury	95648-04-17 21:50 G	36655882.23	36655882.41	36655882.59	0.0285	0.0081
Mercury	95648-07-15 22:33 G	36655971.28	36655971.44	36655971.61	0.0287	0.0133
Venus	95653-04-25 02:09 G	36657715.41	36657715.59	36657715.78	0.0304	0.0134
Venus	95653-12-11 08:09 G	36657945.67	36657945.84	36657946.02	0.0305	0.0172
Moon	95654-09-11 01:55 G	36658219.38	36658219.58	36658219.79	0.0304	0.0140
Earth	95654-09-11 04:33 G	36658219.47	36658219.69	36658219.90	0.0304	0.0136 *
Earth	95655-09-26 07:40 G	36658599.66	36658599.82	36658599.97	0.0303	0.0230
Moon	95655-09-26 07:40 G	36658599.67	36658599.82	36658599.97	0.0303	0.0231 *
Mercury	95661-03-03 00:14 G	36660584.44	36660584.51	36660584.59	0.0279	0.0224
Mercury	95661-05-30 11:02 G	36660672.84	36660672.96	36660673.08	0.0278	0.0091
Mercury	95661-08-26 21:36 G	36660761.27	36660761.40	36660761.53	0.0277	0.0040
Mercury	95661-11-23 08:09 G	36660849.74	36660849.84	36660849.94	0.0276	0.0170
Venus	95667-10-12 03:21 G	36662998.44	36662998.64	36662998.84	0.0259	0.0094
Venus	95668-05-28 00:00 G	36663227.31	36663227.50	36663227.71	0.0258	0.0095
Moon	95669-03-09 12:28 G	36663512.89	36663513.02	36663513.16	0.0258	0.0217
Earth	95669-03-09 14:38 G	36663512.99	36663513.11	36663513.26	0.0258	0.0214 *
Moon	95670-03-20 22:04 G	36663889.18	36663889.42	36663889.66	0.0259	0.0021
Earth	95670-03-21 00:43 G	36663889.28	36663889.53	36663889.78	0.0259	0.0011 *
Earth	95671-04-01 11:16 G	36664265.89	36664265.97	36664266.09	0.0260	0.0238
Moon	95671-04-01 13:55 G	36664266.03	36664266.08	36664266.13	0.0260	0.0254 *
Mercury	95677-09-04 21:07 G	36666614.22	36666614.38	36666614.55	0.0284	0.0131
Mercury	95677-12-02 22:04 G	36666703.24	36666703.42	36666703.60	0.0286	0.0082
Venus	95682-11-05 11:02 G	36668501.76	36668501.96	36668502.16	0.0304	0.0087
Venus	95683-06-23 17:02 G	36668732.07	36668732.21	36668732.36	0.0305	0.0219
Earth	95683-09-04 22:04 G	36668805.38	36668805.42	36668805.47	0.0305	0.0299
Moon	95684-09-19 00:57 G	36669185.30	36669185.54	36669185.79	0.0304	0.0068

Earth	95684-09-19 01:55 G	36669185.34	36669185.58	36669185.81	0.0304	0.0068	*
Mars	95690-01-28 12:14 G	36671142.69	36671143.01	36671143.33	0.0282	0.0014	
Mercury	95690-07-21 03:07 G	36671316.59	36671316.63	36671316.68	0.0280	0.0261	
Mercury	95690-10-17 13:55 G	36671404.96	36671405.08	36671405.19	0.0278	0.0127	
Mercury	95691-01-14 00:28 G	36671493.39	36671493.52	36671493.65	0.0277	0.0005	
Mercury	95691-04-12 11:02 G	36671581.85	36671581.96	36671582.07	0.0276	0.0135	
Mercury	95691-07-09 21:36 G	36671670.37	36671670.40	36671670.43	0.0275	0.0264	
Venus	95696-09-06 10:04 G	36673555.88	36673555.92	36673555.97	0.0259	0.0252	
Venus	95697-04-23 07:40 G	36673784.62	36673784.82	36673785.04	0.0258	0.0063	
Venus	95697-12-08 04:48 G	36674013.52	36674013.70	36674013.89	0.0258	0.0125	
Earth	95699-03-16 11:31 G	36674476.76	36674476.98	36674477.22	0.0258	0.0089	
Moon	95699-03-16 14:52 G	36674476.88	36674477.12	36674477.36	0.0258	0.0085	*
Moon	95700-03-27 19:55 G	36674853.13	36674853.33	36674853.55	0.0259	0.0153	
Earth	95700-03-27 22:19 G	36674853.22	36674853.43	36674853.64	0.0259	0.0138	*
Mars	95706-02-13 18:43 G	36677002.12	36677002.28	36677002.43	0.0280	0.0226	
Mercury	95707-01-23 20:52 G	36677346.22	36677346.37	36677346.51	0.0285	0.0181	
Mercury	95707-04-22 21:36 G	36677435.21	36677435.40	36677435.59	0.0286	0.0032	
Mercury	95707-07-20 22:19 G	36677524.34	36677524.43	36677524.53	0.0287	0.0246	
Venus	95712-05-18 20:52 G	36679288.17	36679288.37	36679288.58	0.0304	0.0039	
Venus	95713-01-04 02:52 G	36679518.53	36679518.62	36679518.72	0.0304	0.0267	
Earth	95713-09-13 21:50 G	36679771.18	36679771.41	36679771.64	0.0304	0.0093	
Moon	95713-09-13 23:02 G	36679771.24	36679771.46	36679771.68	0.0304	0.0095	*
Earth	95714-09-29 00:14 G	36680151.41	36680151.51	36680151.62	0.0302	0.0271	
Moon	95714-09-29 03:36 G	36680151.56	36680151.65	36680151.76	0.0302	0.0275	*
Mercury	95720-03-06 16:48 G	36682137.10	36682137.20	36682137.31	0.0278	0.0161	
Mercury	95720-06-03 03:36 G	36682225.52	36682225.65	36682225.78	0.0277	0.0029	
Mercury	95720-08-30 14:09 G	36682313.97	36682314.09	36682314.21	0.0276	0.0102	
Mercury	95720-11-27 00:43 G	36682402.46	36682402.53	36682402.60	0.0275	0.0232	
Venus	95726-03-20 15:07 G	36684342.03	36684342.13	36684342.25	0.0259	0.0222	
Venus	95726-11-04 12:57 G	36684570.82	36684571.04	36684571.25	0.0259	0.0032	

Venus	95727-06-21 09:36 G	36684799.74	36684799.90	36684800.08	0.0258	0.0156
Moon	95728-03-11 19:40 G	36685064.16	36685064.32	36685064.49	0.0258	0.0191
Earth	95728-03-11 23:16 G	36685064.30	36685064.47	36685064.64	0.0258	0.0186 *
Earth	95729-03-23 09:21 G	36685440.65	36685440.89	36685441.14	0.0259	0.0039
Moon	95729-03-23 11:02 G	36685440.73	36685440.96	36685441.20	0.0259	0.0051 *
Mercury	95736-06-11 20:38 G	36688078.25	36688078.36	36688078.48	0.0284	0.0226
Mercury	95736-09-08 21:36 G	36688167.21	36688167.40	36688167.59	0.0285	0.0016
Mercury	95736-12-06 22:04 G	36688256.29	36688256.42	36688256.56	0.0286	0.0200
Venus	95741-04-13 01:55 G	36689844.53	36689844.58	36689844.64	0.0303	0.0290
Venus	95741-11-29 06:57 G	36690074.58	36690074.79	36690075.00	0.0304	0.0012
Moon	95742-09-07 16:19 G	36690357.05	36690357.18	36690357.31	0.0305	0.0258
Earth	95742-09-07 17:45 G	36690357.12	36690357.24	36690357.39	0.0305	0.0255 *
Moon	95743-09-22 17:31 G	36690737.01	36690737.23	36690737.46	0.0303	0.0113
Earth	95743-09-22 21:07 G	36690737.16	36690737.38	36690737.61	0.0303	0.0112 *
Mercury	95749-07-24 19:55 G	36692869.24	36692869.33	36692869.43	0.0279	0.0193
Mercury	95749-10-21 06:43 G	36692957.65	36692957.78	36692957.91	0.0278	0.0060
Mercury	95750-01-17 17:16 G	36693046.09	36693046.22	36693046.35	0.0277	0.0071
Mercury	95750-04-16 03:50 G	36693134.57	36693134.66	36693134.75	0.0276	0.0200
Venus	95755-09-30 20:24 G	36695128.21	36695128.35	36695128.50	0.0259	0.0189
Venus	95756-05-16 18:14 G	36695357.04	36695357.26	36695357.47	0.0258	0.0005
Venus	95756-12-31 15:07 G	36695585.99	36695586.13	36695586.28	0.0258	0.0188
Moon	95758-03-18 20:09 G	36696028.09	36696028.34	36696028.60	0.0259	0.0055
Earth	95758-03-18 21:07 G	36696028.14	36696028.38	36696028.63	0.0259	0.0060 *
Moon	95759-03-30 04:33 G	36696404.53	36696404.69	36696404.88	0.0260	0.0183
Earth	95759-03-30 08:09 G	36696404.66	36696404.84	36696405.04	0.0260	0.0167 *
Mercury	95765-10-29 20:38 G	36698810.31	36698810.36	36698810.41	0.0284	0.0273
Mercury	95766-01-26 21:21 G	36698899.21	36698899.39	36698899.58	0.0285	0.0062
Mercury	95766-04-25 22:04 G	36698988.27	36698988.42	36698988.59	0.0287	0.0152
Venus	95770-10-24 12:43 G	36700630.91	36700631.03	36700631.16	0.0304	0.0240
Venus	95771-06-11 18:14 G	36700861.05	36700861.26	36700861.46	0.0304	0.0063

Earth	95772-09-15 19:40 G	36701323.08	36701323.32	36701323.56	0.0304	0.0045
Moon	95772-09-15 23:16 G	36701323.23	36701323.47	36701323.71	0.0304	0.0049 *
Mars	95778-06-26 10:04 G	36703432.66	36703432.92	36703433.18	0.0281	0.0165
Mercury	95778-12-11 23:16 G	36703601.40	36703601.47	36703601.55	0.0279	0.0222
Mercury	95779-03-10 10:04 G	36703689.80	36703689.92	36703690.04	0.0278	0.0089
Mercury	95779-06-06 20:38 G	36703778.23	36703778.36	36703778.49	0.0277	0.0042
Mercury	95779-09-03 07:12 G	36703866.70	36703866.80	36703866.90	0.0276	0.0172
Venus	95785-04-12 02:09 G	36705914.43	36705914.59	36705914.77	0.0259	0.0158
Venus	95785-11-27 00:00 G	36706143.28	36706143.50	36706143.71	0.0259	0.0033
Venus	95786-07-13 20:38 G	36706372.25	36706372.36	36706372.47	0.0259	0.0221
Earth	95787-03-14 09:21 G	36706615.70	36706615.89	36706616.09	0.0259	0.0158
Moon	95787-03-14 09:21 G	36706615.71	36706615.89	36706616.09	0.0259	0.0160 *
Earth	95788-03-24 19:55 G	36706992.09	36706992.33	36706992.57	0.0259	0.0068
Moon	95788-03-24 23:31 G	36706992.24	36706992.48	36706992.72	0.0259	0.0080 *
Mars	95794-07-11 16:04 G	36709291.92	36709292.17	36709292.43	0.0280	0.0085
Mercury	95795-06-15 21:36 G	36709631.22	36709631.40	36709631.58	0.0285	0.0104
Mercury	95795-09-12 22:33 G	36709720.26	36709720.44	36709720.61	0.0286	0.0109
Venus	95800-05-07 00:00 G	36711417.34	36711417.50	36711417.67	0.0304	0.0187
Venus	95800-12-23 05:16 G	36711647.53	36711647.72	36711647.92	0.0304	0.0118
Moon	95801-09-10 13:55 G	36711908.92	36711909.08	36711909.27	0.0304	0.0211
Earth	95801-09-10 17:45 G	36711909.08	36711909.24	36711909.43	0.0304	0.0207 *
Moon	95802-09-25 18:14 G	36712289.07	36712289.26	36712289.47	0.0303	0.0159
Earth	95802-09-25 20:38 G	36712289.16	36712289.36	36712289.57	0.0303	0.0160 *
Mercury	95808-05-01 02:38 G	36714333.57	36714333.61	36714333.67	0.0279	0.0253
Mercury	95808-07-28 13:26 G	36714421.95	36714422.06	36714422.18	0.0278	0.0119
Mercury	95808-10-25 00:00 G	36714510.37	36714510.50	36714510.63	0.0277	0.0014
Mercury	95809-01-21 10:33 G	36714598.83	36714598.94	36714599.05	0.0276	0.0143
Mercury	95809-04-19 21:07 G	36714687.37	36714687.38	36714687.40	0.0275	0.0272
Venus	95814-10-24 07:55 G	36716700.65	36716700.83	36716701.03	0.0259	0.0124
Venus	95815-06-10 05:31 G	36716929.52	36716929.73	36716929.94	0.0258	0.0066

Venus	95816-01-25 02:24 G	36717158.56	36717158.60	36717158.64	0.0258	0.0254
Earth	95816-03-09 21:36 G	36717203.37	36717203.40	36717203.45	0.0258	0.0255
Moon	95817-03-21 04:33 G	36717579.44	36717579.69	36717579.94	0.0259	0.0024
Earth	95817-03-21 08:09 G	36717579.60	36717579.84	36717580.09	0.0259	0.0031 *
Earth	95818-04-01 19:40 G	36717956.16	36717956.32	36717956.48	0.0260	0.0196
Moon	95818-04-01 19:26 G	36717956.18	36717956.31	36717956.46	0.0260	0.0211 *
Mercury	95824-11-02 21:50 G	36720363.25	36720363.41	36720363.57	0.0285	0.0150
Mercury	95825-01-30 22:33 G	36720452.26	36720452.44	36720452.63	0.0286	0.0064
Mercury	95825-04-29 23:16 G	36720541.44	36720541.47	36720541.52	0.0287	0.0279
Venus	95829-11-17 11:31 G	36722203.79	36722203.98	36722204.16	0.0304	0.0136
Venus	95830-07-05 16:48 G	36722434.04	36722434.20	36722434.38	0.0304	0.0170
Earth	95831-09-19 20:09 G	36722875.10	36722875.34	36722875.58	0.0304	0.0003
Moon	95831-09-19 22:04 G	36722875.17	36722875.42	36722875.67	0.0304	0.0002 *
Mercury	95837-12-15 16:48 G	36725154.10	36725154.20	36725154.32	0.0278	0.0148
Mercury	95838-03-14 03:36 G	36725242.52	36725242.65	36725242.78	0.0277	0.0015
Mercury	95838-06-10 14:09 G	36725330.97	36725331.09	36725331.21	0.0276	0.0116
Mercury	95838-09-07 00:28 G	36725419.47	36725419.52	36725419.59	0.0275	0.0245
Venus	95844-05-05 13:55 G	36727486.88	36727487.08	36727487.29	0.0259	0.0091
Venus	95844-12-20 11:16 G	36727715.78	36727715.97	36727716.18	0.0259	0.0100
Earth	95846-03-16 20:24 G	36728167.13	36728167.35	36728167.56	0.0259	0.0129
Moon	95846-03-17 00:00 G	36728167.29	36728167.50	36728167.72	0.0259	0.0128 *
Earth	95847-03-28 06:57 G	36728543.57	36728543.79	36728544.03	0.0260	0.0097
Moon	95847-03-28 07:55 G	36728543.60	36728543.83	36728544.07	0.0260	0.0109 *
Mercury	95854-03-22 21:36 G	36731095.27	36731095.40	36731095.54	0.0284	0.0195
Mercury	95854-06-19 22:33 G	36731184.25	36731184.44	36731184.63	0.0285	0.0018
Mercury	95854-09-16 23:16 G	36731273.37	36731273.47	36731273.58	0.0287	0.0232
Venus	95859-05-30 22:33 G	36732990.24	36732990.44	36732990.64	0.0304	0.0083
Venus	95860-01-16 04:04 G	36733220.54	36733220.67	36733220.82	0.0304	0.0224
Moon	95860-09-12 17:31 G	36733461.04	36733461.23	36733461.44	0.0304	0.0160
Earth	95860-09-12 18:28 G	36733461.07	36733461.27	36733461.48	0.0304	0.0158 *

Earth	95861-09-27 21:07 G	36733841.22	36733841.38	36733841.57	0.0303	0.0208
Moon	95861-09-27 23:02 G	36733841.29	36733841.46	36733841.63	0.0303	0.0208 *
Mercury	95867-05-04 20:38 G	36735886.26	36735886.36	36735886.46	0.0279	0.0175
Mercury	95867-08-01 07:12 G	36735974.67	36735974.80	36735974.93	0.0278	0.0043
Mercury	95867-10-28 17:45 G	36736063.11	36736063.24	36736063.36	0.0276	0.0088
Mercury	95868-01-25 04:19 G	36736151.60	36736151.68	36736151.75	0.0275	0.0218
Venus	95873-03-31 21:50 G	36738044.36	36738044.41	36738044.48	0.0259	0.0248
Venus	95873-11-15 19:55 G	36738273.12	36738273.33	36738273.55	0.0259	0.0057
Venus	95874-07-02 17:02 G	36738502.03	36738502.21	36738502.40	0.0258	0.0133
Moon	95875-03-12 05:02 G	36738754.60	36738754.71	36738754.83	0.0258	0.0229
Earth	95875-03-12 08:38 G	36738754.75	36738754.86	36738754.99	0.0258	0.0226 *
Moon	95876-03-22 17:31 G	36739130.99	36739131.23	36739131.48	0.0259	0.0008
Earth	95876-03-22 19:12 G	36739131.05	36739131.30	36739131.55	0.0259	0.0002 *
Earth	95877-04-03 06:14 G	36739507.65	36739507.76	36739507.90	0.0260	0.0225
Moon	95877-04-03 09:36 G	36739507.82	36739507.90	36739508.01	0.0260	0.0240 *
Mars	95882-12-07 13:40 G	36741581.81	36741582.07	36741582.34	0.0281	0.0047
Mercury	95883-08-09 21:36 G	36741827.30	36741827.40	36741827.50	0.0284	0.0243
Mercury	95883-11-06 22:33 G	36741916.25	36741916.44	36741916.63	0.0286	0.0030
Mercury	95884-02-03 23:16 G	36742005.33	36742005.47	36742005.62	0.0287	0.0185
Venus	95888-12-10 09:50 G	36743776.71	36743776.91	36743777.12	0.0304	0.0032
Venus	95889-07-28 15:36 G	36744007.07	36744007.15	36744007.24	0.0305	0.0276
Moon	95890-09-21 18:14 G	36744427.02	36744427.26	36744427.51	0.0304	0.0053
Earth	95890-09-21 20:52 G	36744427.13	36744427.37	36744427.61	0.0304	0.0052 *
Mercury	95896-09-21 00:00 G	36746618.41	36746618.50	36746618.59	0.0278	0.0202
Mercury	95896-12-18 10:33 G	36746706.82	36746706.94	36746707.07	0.0277	0.0070
Mercury	95897-03-16 21:07 G	36746795.26	36746795.38	36746795.51	0.0276	0.0061
Mercury	95897-06-13 07:40 G	36746883.73	36746883.82	36746883.91	0.0275	0.0190
Venus	95902-10-13 03:36 G	36748830.55	36748830.65	36748830.78	0.0259	0.0216
Venus	95903-05-30 01:40 G	36749059.36	36749059.57	36749059.79	0.0259	0.0024
Venus	95904-01-13 22:48 G	36749288.29	36749288.45	36749288.62	0.0258	0.0165

Earth	95905-03-19 06:43 G	36749718.56	36749718.78	36749719.02	0.0259	0.0101
Moon	95905-03-19 08:38 G	36749718.63	36749718.86	36749719.10	0.0259	0.0096 *
Moon	95906-03-30 14:24 G	36750094.89	36750095.10	36750095.32	0.0260	0.0139
Earth	95906-03-30 17:31 G	36750095.02	36750095.23	36750095.45	0.0260	0.0125 *
Mercury	95913-03-26 22:04 G	36752648.24	36752648.42	36752648.60	0.0285	0.0078
Mercury	95913-06-23 23:02 G	36752737.29	36752737.46	36752737.62	0.0286	0.0136
Venus	95917-11-05 15:07 G	36754333.06	36754333.13	36754333.21	0.0303	0.0283
Venus	95918-06-23 20:24 G	36754563.14	36754563.35	36754563.55	0.0304	0.0021
Earth	95919-09-16 18:00 G	36755013.03	36755013.25	36755013.48	0.0304	0.0110
Moon	95919-09-16 20:52 G	36755013.16	36755013.37	36755013.60	0.0304	0.0110 *
Earth	95920-09-30 20:38 G	36755393.24	36755393.36	36755393.50	0.0303	0.0254
Moon	95920-10-01 00:28 G	36755393.40	36755393.52	36755393.66	0.0303	0.0255 *
Mercury	95926-02-09 03:21 G	36757350.58	36757350.64	36757350.72	0.0279	0.0232
Mercury	95926-05-08 14:09 G	36757438.97	36757439.09	36757439.21	0.0278	0.0099
Mercury	95926-08-05 00:43 G	36757527.40	36757527.53	36757527.66	0.0277	0.0032
Mercury	95926-11-01 11:02 G	36757615.86	36757615.96	36757616.07	0.0276	0.0163
Venus	95932-04-24 09:21 G	36759616.75	36759616.89	36759617.05	0.0259	0.0182
Venus	95932-12-09 07:12 G	36759845.59	36759845.80	36759846.02	0.0258	0.0010
Venus	95933-07-26 04:04 G	36760074.54	36760074.67	36760074.81	0.0258	0.0197
Moon	95934-03-14 16:33 G	36760306.05	36760306.19	36760306.35	0.0258	0.0200
Earth	95934-03-14 18:28 G	36760306.13	36760306.27	36760306.44	0.0258	0.0199 *
Earth	95935-03-26 04:48 G	36760682.46	36760682.70	36760682.95	0.0259	0.0026
Moon	95935-03-26 07:55 G	36760682.59	36760682.83	36760683.07	0.0259	0.0037 *
Earth	95936-04-05 16:04 G	36761059.12	36761059.17	36761059.24	0.0260	0.0252
Mercury	95942-08-13 21:07 G	36763380.21	36763380.38	36763380.55	0.0285	0.0133
Mercury	95942-11-10 22:04 G	36763469.24	36763469.42	36763469.60	0.0286	0.0082
Venus	95947-05-19 00:57 G	36765119.42	36765119.54	36765119.67	0.0304	0.0237
Venus	95948-01-04 06:14 G	36765349.56	36765349.76	36765349.96	0.0305	0.0069
Moon	95948-09-09 10:48 G	36765598.85	36765598.95	36765599.08	0.0305	0.0269
Earth	95948-09-09 14:09 G	36765598.99	36765599.09	36765599.21	0.0305	0.0269 *

Moon	95949-09-24 14:24 G	36765978.88	36765979.10	36765979.33	0.0304	0.0100
Earth	95949-09-24 17:45 G	36765979.02	36765979.24	36765979.48	0.0304	0.0097 *
Mercury	95955-06-29 06:57 G	36768082.74	36768082.79	36768082.83	0.0279	0.0261
Mercury	95955-09-25 17:31 G	36768171.11	36768171.23	36768171.34	0.0278	0.0128
Mercury	95955-12-23 04:04 G	36768259.54	36768259.67	36768259.80	0.0277	0.0004
Mercury	95956-03-20 14:38 G	36768348.00	36768348.11	36768348.22	0.0275	0.0133
Mercury	95956-06-17 00:57 G	36768436.51	36768436.54	36768436.58	0.0274	0.0262
Venus	95961-11-04 14:52 G	36770402.95	36770403.12	36770403.30	0.0259	0.0150
Venus	95962-06-21 12:28 G	36770631.80	36770632.02	36770632.23	0.0258	0.0041
Venus	95963-02-05 09:07 G	36770860.78	36770860.88	36770860.98	0.0258	0.0229
Moon	95964-03-20 12:57 G	36771269.79	36771270.04	36771270.29	0.0259	0.0065
Earth	95964-03-20 15:50 G	36771269.92	36771270.16	36771270.40	0.0259	0.0074 *
Moon	95965-03-31 23:02 G	36771646.28	36771646.46	36771646.65	0.0260	0.0167
Earth	95965-04-01 02:09 G	36771646.39	36771646.59	36771646.79	0.0260	0.0151 *
Mars	95971-05-05 02:09 G	36773871.38	36773871.59	36773871.82	0.0281	0.0159
Mercury	95971-12-31 20:09 G	36774112.19	36774112.34	36774112.48	0.0284	0.0187
Mercury	95972-03-29 20:52 G	36774201.19	36774201.37	36774201.56	0.0286	0.0028
Mercury	95972-06-26 21:36 G	36774290.32	36774290.40	36774290.51	0.0287	0.0243
Venus	95976-11-28 09:36 G	36775905.75	36775905.90	36775906.07	0.0304	0.0189
Venus	95977-07-16 15:07 G	36776135.95	36776136.13	36776136.33	0.0304	0.0119
Earth	95978-09-18 12:57 G	36776564.81	36776565.04	36776565.28	0.0304	0.0068
Moon	95978-09-18 16:19 G	36776564.94	36776565.18	36776565.42	0.0304	0.0067 *
Earth	95979-10-03 15:36 G	36776945.12	36776945.15	36776945.22	0.0302	0.0296
Moon	95979-10-03 16:33 G	36776945.17	36776945.19	36776945.24	0.0302	0.0299 *
Mercury	95985-02-11 20:52 G	36778903.26	36778903.37	36778903.47	0.0279	0.0160
Mercury	95985-05-11 07:26 G	36778991.68	36778991.81	36778991.94	0.0277	0.0028
Mercury	95985-08-07 18:00 G	36779080.13	36779080.25	36779080.37	0.0276	0.0103
Mercury	95985-11-04 04:19 G	36779168.62	36779168.68	36779168.75	0.0275	0.0232
Venus	95991-05-17 19:40 G	36781189.13	36781189.32	36781189.52	0.0258	0.0118
Venus	95992-01-01 17:02 G	36781418.01	36781418.21	36781418.42	0.0258	0.0072

Earth	95993-03-16 02:09 G	36781857.42	36781857.59	36781857.79	0.0258	0.0173
Moon	95993-03-16 04:19 G	36781857.51	36781857.68	36781857.86	0.0258	0.0172 *
Earth	95994-03-27 12:14 G	36782233.77	36782234.01	36782234.25	0.0259	0.0051
Moon	95994-03-27 15:21 G	36782233.89	36782234.14	36782234.39	0.0259	0.0065 *

97TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 97th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	96001-05-19 18:28 G		36784844.18	36784844.27	36784844.37	0.0284	0.0246	
Mercury	96001-08-16 19:26 G		36784933.12	36784933.31	36784933.50	0.0286	0.0033	
Mercury	96001-11-13 20:24 G		36785022.21	36785022.35	36785022.50	0.0287	0.0182	
Venus	96006-06-10 18:28 G		36786692.08	36786692.27	36786692.45	0.0304	0.0145	
Venus	96007-01-26 23:45 G		36786922.32	36786922.49	36786922.67	0.0305	0.0164	
Moon	96007-09-12 03:50 G		36787150.52	36787150.66	36787150.82	0.0305	0.0231	
Earth	96007-09-12 06:43 G		36787150.63	36787150.78	36787150.95	0.0305	0.0228 *	
Earth	96008-09-26 10:33 G		36787530.73	36787530.94	36787531.16	0.0304	0.0138	
Moon	96008-09-26 10:19 G		36787530.73	36787530.93	36787531.15	0.0304	0.0141 *	
Mercury	96014-07-01 23:45 G		36789635.40	36789635.49	36789635.59	0.0278	0.0193	
Mercury	96014-09-28 10:19 G		36789723.81	36789723.93	36789724.06	0.0277	0.0061	
Mercury	96014-12-25 20:52 G		36789812.25	36789812.37	36789812.50	0.0276	0.0071	
Mercury	96015-03-24 07:26 G		36789900.72	36789900.81	36789900.90	0.0275	0.0200	
Venus	96020-11-27 00:14 G		36791975.31	36791975.51	36791975.72	0.0258	0.0089	
Venus	96021-07-13 21:21 G		36792204.19	36792204.39	36792204.59	0.0258	0.0101	

Moon	96023-03-22 18:28 G	36792821.03	36792821.27	36792821.52	0.0258	0.0040
Earth	96023-03-22 21:36 G	36792821.16	36792821.40	36792821.65	0.0258	0.0049 *
Earth	96024-04-02 07:26 G	36793197.64	36793197.81	36793198.00	0.0260	0.0175
Moon	96024-04-02 09:07 G	36793197.73	36793197.88	36793198.05	0.0260	0.0191 *
Mercury	96031-01-03 17:16 G	36795665.05	36795665.22	36795665.40	0.0285	0.0096
Mercury	96031-04-02 18:14 G	36795754.09	36795754.26	36795754.43	0.0286	0.0119
Venus	96035-12-22 00:57 G	36797478.34	36797478.54	36797478.73	0.0304	0.0101
Venus	96036-08-08 06:28 G	36797708.63	36797708.77	36797708.93	0.0305	0.0208
Moon	96037-09-20 01:40 G	36798116.32	36798116.57	36798116.82	0.0304	0.0029
Earth	96037-09-20 01:55 G	36798116.34	36798116.58	36798116.82	0.0304	0.0030 *
Mercury	96043-11-19 02:38 G	36800367.54	36800367.61	36800367.69	0.0279	0.0229
Mercury	96044-02-15 13:26 G	36800455.94	36800456.06	36800456.18	0.0278	0.0096
Mercury	96044-05-14 00:00 G	36800544.37	36800544.50	36800544.63	0.0277	0.0036
Mercury	96044-08-10 10:33 G	36800632.83	36800632.94	36800633.04	0.0276	0.0166
Venus	96049-10-23 06:14 G	36802532.72	36802532.76	36802532.83	0.0259	0.0250
Venus	96050-06-09 04:04 G	36802761.47	36802761.67	36802761.89	0.0258	0.0059
Venus	96051-01-24 00:57 G	36802990.36	36802990.54	36802990.73	0.0258	0.0131
Earth	96052-03-17 06:57 G	36803408.59	36803408.79	36803409.00	0.0258	0.0149
Moon	96052-03-17 10:19 G	36803408.74	36803408.93	36803409.15	0.0258	0.0148 *
Moon	96053-03-28 14:52 G	36803784.88	36803785.12	36803785.36	0.0259	0.0088
Earth	96053-03-28 16:19 G	36803784.95	36803785.18	36803785.42	0.0259	0.0074 *
Mars	96059-09-28 20:52 G	36806160.21	36806160.37	36806160.53	0.0281	0.0227
Mercury	96060-05-22 14:38 G	36806396.97	36806397.11	36806397.28	0.0285	0.0164
Mercury	96060-08-19 15:50 G	36806485.97	36806486.16	36806486.35	0.0286	0.0051
Mercury	96060-11-16 16:48 G	36806575.13	36806575.20	36806575.26	0.0287	0.0267
Venus	96065-07-03 07:26 G	36808264.61	36808264.81	36808265.01	0.0305	0.0062
Venus	96066-02-18 13:12 G	36808494.94	36808495.05	36808495.18	0.0305	0.0248
Earth	96066-09-13 16:19 G	36808702.00	36808702.18	36808702.37	0.0305	0.0194
Moon	96066-09-13 17:02 G	36808702.04	36808702.21	36808702.39	0.0305	0.0195 *
Earth	96067-09-28 20:24 G	36809082.16	36809082.35	36809082.56	0.0304	0.0171

Moon	96067-09-28 23:31 G	36809082.29	36809082.48	36809082.68	0.0304	0.0176 *
Mercury	96073-04-07 05:16 G	36811099.69	36811099.72	36811099.76	0.0279	0.0267
Mercury	96073-07-04 16:04 G	36811188.06	36811188.17	36811188.28	0.0278	0.0133
Mercury	96073-10-01 02:38 G	36811276.48	36811276.61	36811276.74	0.0277	0.0001
Mercury	96073-12-28 13:12 G	36811364.93	36811365.05	36811365.16	0.0276	0.0129
Mercury	96074-03-26 23:45 G	36811453.44	36811453.49	36811453.53	0.0274	0.0258
Venus	96079-05-05 09:50 G	36813318.80	36813318.91	36813319.02	0.0259	0.0222
Venus	96079-12-20 07:26 G	36813547.60	36813547.81	36813548.03	0.0258	0.0031
Venus	96080-08-05 04:04 G	36813776.50	36813776.67	36813776.84	0.0258	0.0158
Moon	96081-03-12 11:31 G	36813995.93	36813995.98	36813996.03	0.0258	0.0251
Earth	96081-03-12 15:07 G	36813996.08	36813996.13	36813996.21	0.0258	0.0247
Earth	96082-03-24 00:14 G	36814372.26	36814372.51	36814372.75	0.0258	0.0027
Moon	96082-03-24 00:43 G	36814372.29	36814372.53	36814372.77	0.0258	0.0017 *
Earth	96083-04-04 09:36 G	36814748.74	36814748.90	36814749.06	0.0260	0.0196
Moon	96083-04-04 13:12 G	36814748.91	36814749.05	36814749.20	0.0260	0.0211 *
Mercury	96089-10-09 12:00 G	36817128.89	36817129.00	36817129.11	0.0284	0.0233
Mercury	96090-01-06 12:57 G	36817217.85	36817218.04	36817218.23	0.0285	0.0019
Mercury	96090-04-05 13:40 G	36817306.94	36817307.07	36817307.21	0.0287	0.0197
Venus	96095-01-13 12:43 G	36819050.82	36819051.03	36819051.23	0.0304	0.0023
Venus	96095-08-31 18:28 G	36819281.21	36819281.27	36819281.35	0.0305	0.0288
Moon	96096-09-21 05:45 G	36819667.50	36819667.74	36819667.98	0.0304	0.0006
Earth	96096-09-21 09:07 G	36819667.64	36819667.88	36819668.13	0.0304	0.0007 *
Mars	96101-12-18 20:24 G	36821581.19	36821581.35	36821581.54	0.0284	0.0238
Mercury	96102-11-22 18:43 G	36821920.18	36821920.28	36821920.38	0.0279	0.0173
Mercury	96103-02-19 05:16 G	36822008.59	36822008.72	36822008.85	0.0278	0.0041
Mercury	96103-05-18 15:50 G	36822097.04	36822097.16	36822097.28	0.0277	0.0091
Mercury	96103-08-15 02:24 G	36822185.52	36822185.60	36822185.68	0.0275	0.0221
Venus	96108-11-15 12:57 G	36824104.91	36824105.04	36824105.19	0.0259	0.0195
Venus	96109-07-02 10:19 G	36824333.72	36824333.93	36824334.15	0.0258	0.0006
Venus	96110-02-16 06:43 G	36824562.64	36824562.78	36824562.94	0.0257	0.0186

Moon	96111-03-20 08:38 G	36824959.63	36824959.86	36824960.09	0.0257	0.0122
Earth	96111-03-20 08:24 G	36824959.64	36824959.85	36824960.07	0.0257	0.0127 *
Moon	96112-03-30 13:26 G	36825335.84	36825336.06	36825336.29	0.0258	0.0110
Earth	96112-03-30 17:16 G	36825335.99	36825336.22	36825336.45	0.0258	0.0095 *
Mercury	96119-05-27 09:36 G	36827949.72	36827949.90	36827950.08	0.0285	0.0093
Mercury	96119-08-24 10:33 G	36828038.77	36828038.94	36828039.11	0.0286	0.0122
Venus	96123-12-09 11:31 G	36829606.94	36829606.98	36829607.04	0.0304	0.0294
Venus	96124-07-26 16:48 G	36829836.99	36829837.20	36829837.41	0.0305	0.0013
Earth	96125-09-15 19:12 G	36830253.11	36830253.30	36830253.51	0.0305	0.0167
Moon	96125-09-15 23:02 G	36830253.26	36830253.46	36830253.67	0.0305	0.0164 *
Earth	96126-09-30 23:31 G	36830633.31	36830633.48	36830633.68	0.0304	0.0199
Moon	96126-10-01 02:24 G	36830633.42	36830633.60	36830633.79	0.0304	0.0203 *
Mercury	96132-04-10 20:52 G	36832652.29	36832652.37	36832652.45	0.0279	0.0217
Mercury	96132-07-08 07:26 G	36832740.69	36832740.81	36832740.94	0.0278	0.0084
Mercury	96132-10-04 18:00 G	36832829.12	36832829.25	36832829.38	0.0277	0.0049
Mercury	96133-01-01 04:33 G	36832917.59	36832917.69	36832917.79	0.0275	0.0179
Venus	96138-05-28 14:52 G	36834890.97	36834891.12	36834891.29	0.0258	0.0170
Venus	96139-01-12 12:28 G	36835119.81	36835120.02	36835120.24	0.0258	0.0022
Venus	96139-08-29 08:38 G	36835348.75	36835348.86	36835348.99	0.0257	0.0210
Moon	96140-03-14 14:38 G	36835547.00	36835547.11	36835547.23	0.0257	0.0227
Earth	96140-03-14 14:52 G	36835547.02	36835547.12	36835547.25	0.0257	0.0227 *
Earth	96141-03-25 23:31 G	36835923.23	36835923.48	36835923.73	0.0258	0.0008
Moon	96141-03-26 03:07 G	36835923.38	36835923.63	36835923.87	0.0258	0.0007 *
Moon	96142-04-06 08:09 G	36836299.73	36836299.84	36836299.98	0.0259	0.0226
Earth	96142-04-06 08:38 G	36836299.73	36836299.86	36836300.00	0.0259	0.0215 *
Mars	96148-02-22 23:45 G	36838448.40	36838448.49	36838448.61	0.0281	0.0257
Mercury	96148-10-13 06:00 G	36838681.60	36838681.75	36838681.90	0.0284	0.0170
Mercury	96149-01-10 06:57 G	36838770.60	36838770.79	36838770.97	0.0286	0.0044
Mercury	96149-04-09 07:40 G	36838859.75	36838859.82	36838859.90	0.0287	0.0260
Venus	96153-06-20 14:52 G	36840393.02	36840393.12	36840393.24	0.0304	0.0259

Venus	96154-02-05 20:09 G	36840623.14	36840623.34	36840623.55	0.0305	0.0048
Moon	96155-09-24 07:26 G	36841218.58	36841218.81	36841219.04	0.0304	0.0034
Earth	96155-09-24 09:21 G	36841218.65	36841218.89	36841219.13	0.0304	0.0028 *
Mercury	96161-08-28 23:02 G	36843384.42	36843384.46	36843384.51	0.0280	0.0262
Mercury	96161-11-25 09:36 G	36843472.79	36843472.90	36843473.02	0.0279	0.0128
Mercury	96162-02-21 20:24 G	36843561.22	36843561.35	36843561.48	0.0278	0.0007
Mercury	96162-05-21 06:57 G	36843649.68	36843649.79	36843649.90	0.0276	0.0137
Mercury	96162-08-17 17:16 G	36843738.20	36843738.22	36843738.26	0.0275	0.0267
Venus	96167-12-08 17:16 G	36845677.05	36845677.22	36845677.41	0.0258	0.0144
Venus	96168-07-24 14:24 G	36845905.89	36845906.10	36845906.32	0.0258	0.0048
Venus	96169-03-10 10:33 G	36846134.86	36846134.94	36846135.03	0.0257	0.0235
Moon	96170-03-21 02:38 G	36846510.38	36846510.61	36846510.85	0.0257	0.0098
Earth	96170-03-21 06:28 G	36846510.55	36846510.77	36846511.00	0.0257	0.0108 *
Moon	96171-04-01 14:09 G	36846886.88	36846887.09	36846887.30	0.0258	0.0126
Earth	96171-04-01 14:38 G	36846886.89	36846887.11	36846887.34	0.0258	0.0113 *
Mercury	96178-03-02 02:09 G	36849413.50	36849413.59	36849413.68	0.0284	0.0247
Mercury	96178-05-30 03:07 G	36849502.44	36849502.63	36849502.82	0.0285	0.0035
Mercury	96178-08-27 03:50 G	36849591.52	36849591.66	36849591.81	0.0286	0.0180
Venus	96182-12-31 17:31 G	36851179.11	36851179.23	36851179.38	0.0304	0.0230
Venus	96183-08-18 23:02 G	36851409.26	36851409.46	36851409.66	0.0305	0.0080
Earth	96184-09-16 17:02 G	36851804.01	36851804.21	36851804.43	0.0305	0.0144
Moon	96184-09-16 18:00 G	36851804.03	36851804.25	36851804.47	0.0305	0.0134 *
Moon	96185-10-01 20:09 G	36852184.18	36852184.34	36852184.50	0.0304	0.0231
Earth	96185-10-01 21:50 G	36852184.26	36852184.41	36852184.59	0.0304	0.0221 *
Mars	96190-05-13 14:09 G	36853868.86	36853869.09	36853869.32	0.0284	0.0197
Mercury	96191-04-14 11:31 G	36854204.88	36854204.98	36854205.08	0.0279	0.0175
Mercury	96191-07-11 22:19 G	36854293.30	36854293.43	36854293.55	0.0278	0.0042
Mercury	96191-10-08 08:38 G	36854381.74	36854381.86	36854381.99	0.0277	0.0092
Mercury	96192-01-04 19:12 G	36854470.23	36854470.30	36854470.38	0.0275	0.0221
Venus	96197-06-19 18:28 G	36856463.08	36856463.27	36856463.46	0.0258	0.0120

Venus	96198-02-03 15:36 G	36856691.94	36856692.15	36856692.36	0.0258	0.0071
Earth	96199-03-16 12:00 G	36857097.86	36857098.00	36857098.15	0.0257	0.0208
Moon	96199-03-16 15:36 G	36857098.01	36857098.15	36857098.31	0.0257	0.0202 *
Earth	96200-03-27 19:55 G	36857474.08	36857474.33	36857474.58	0.0258	0.0011
Moon	96200-03-27 21:07 G	36857474.13	36857474.38	36857474.64	0.0258	0.0025 *
Moon	96201-04-08 01:12 G	36857850.46	36857850.55	36857850.65	0.0259	0.0239
Earth	96201-04-08 04:48 G	36857850.60	36857850.70	36857850.81	0.0259	0.0232 *
Mercury	96207-10-17 22:48 G	36860234.28	36860234.45	36860234.63	0.0284	0.0115
Mercury	96208-01-14 23:31 G	36860323.31	36860323.48	36860323.67	0.0286	0.0099
Venus	96212-07-13 19:55 G	36861965.17	36861965.33	36861965.49	0.0304	0.0197
Venus	96213-03-01 01:12 G	36862195.36	36862195.55	36862195.74	0.0305	0.0112
Moon	96213-09-11 00:14 G	36862389.50	36862389.51	36862389.52	0.0305	0.0304
Earth	96214-09-26 04:33 G	36862769.46	36862769.69	36862769.93	0.0304	0.0049
Moon	96214-09-26 07:26 G	36862769.58	36862769.81	36862770.05	0.0304	0.0062 *
Mercury	96220-09-01 13:26 G	36864936.99	36864937.06	36864937.14	0.0280	0.0223
Mercury	96220-11-29 00:14 G	36865025.38	36865025.51	36865025.63	0.0279	0.0089
Mercury	96221-02-25 10:48 G	36865113.82	36865113.95	36865114.08	0.0278	0.0044
Mercury	96221-05-24 21:21 G	36865202.29	36865202.39	36865202.49	0.0276	0.0175
Venus	96226-12-31 20:09 G	36867249.14	36867249.34	36867249.54	0.0258	0.0096
Venus	96227-08-17 16:48 G	36867478.01	36867478.20	36867478.41	0.0258	0.0095
Moon	96229-03-23 00:43 G	36868061.30	36868061.53	36868061.76	0.0257	0.0078
Earth	96229-03-23 02:09 G	36868061.36	36868061.59	36868061.83	0.0257	0.0090 *
Earth	96230-04-03 10:04 G	36868437.71	36868437.92	36868438.14	0.0258	0.0130
Moon	96230-04-03 13:12 G	36868437.86	36868438.05	36868438.27	0.0258	0.0144 *
Mars	96236-07-18 14:38 G	36870736.02	36870736.11	36870736.21	0.0280	0.0261
Mercury	96237-03-05 18:43 G	36870966.14	36870966.28	36870966.41	0.0284	0.0196
Mercury	96237-06-02 19:26 G	36871055.12	36871055.31	36871055.50	0.0285	0.0016
Mercury	96237-08-30 20:09 G	36871144.23	36871144.34	36871144.45	0.0286	0.0231
Venus	96242-01-23 21:07 G	36872751.21	36872751.38	36872751.56	0.0304	0.0170
Venus	96242-09-11 02:38 G	36872981.43	36872981.61	36872981.80	0.0305	0.0141

Moon	96243-09-19 06:43 G	36873354.56	36873354.78	36873355.01	0.0305	0.0109
Earth	96243-09-19 10:19 G	36873354.72	36873354.93	36873355.16	0.0305	0.0125 *
Moon	96244-10-03 11:45 G	36873734.88	36873734.99	36873735.13	0.0304	0.0255
Earth	96244-10-03 15:21 G	36873735.00	36873735.14	36873735.30	0.0304	0.0239 *
Mercury	96250-01-19 15:07 G	36875669.11	36875669.13	36875669.15	0.0280	0.0274
Mercury	96250-04-18 01:40 G	36875757.46	36875757.57	36875757.69	0.0279	0.0139
Mercury	96250-07-15 12:28 G	36875845.89	36875846.02	36875846.15	0.0278	0.0007
Mercury	96250-10-11 23:02 G	36875934.34	36875934.46	36875934.57	0.0277	0.0127
Mercury	96251-01-08 09:36 G	36876022.86	36876022.90	36876022.94	0.0275	0.0257
Venus	96256-07-12 20:24 G	36878035.15	36878035.35	36878035.56	0.0258	0.0073
Venus	96257-02-26 17:16 G	36878264.03	36878264.22	36878264.41	0.0257	0.0117
Earth	96258-03-18 06:28 G	36878648.62	36878648.77	36878648.95	0.0257	0.0192
Moon	96258-03-18 08:09 G	36878648.67	36878648.84	36878649.03	0.0257	0.0181 *
Moon	96259-03-29 11:02 G	36879024.71	36879024.96	36879025.21	0.0258	0.0043
Earth	96259-03-29 14:24 G	36879024.86	36879025.10	36879025.35	0.0258	0.0028 *
Moon	96260-04-08 21:21 G	36879401.35	36879401.39	36879401.45	0.0259	0.0254
Earth	96260-04-08 22:48 G	36879401.39	36879401.45	36879401.54	0.0259	0.0247 *
Mercury	96266-07-23 13:55 G	36881698.06	36881698.08	36881698.12	0.0283	0.0279
Mercury	96266-10-20 14:52 G	36881786.94	36881787.12	36881787.31	0.0284	0.0068
Mercury	96267-01-17 15:36 G	36881875.99	36881876.15	36881876.32	0.0286	0.0146
Venus	96271-08-05 22:48 G	36883537.27	36883537.45	36883537.64	0.0304	0.0139
Venus	96272-03-23 04:19 G	36883767.51	36883767.68	36883767.86	0.0305	0.0172
Earth	96272-09-11 15:50 G	36883940.11	36883940.16	36883940.22	0.0305	0.0296
Moon	96272-09-11 19:26 G	36883940.22	36883940.31	36883940.41	0.0305	0.0280 *
Earth	96273-09-26 21:07 G	36884320.15	36884320.38	36884320.62	0.0304	0.0067
Moon	96273-09-27 00:00 G	36884320.26	36884320.50	36884320.74	0.0304	0.0083 *
Mars	96278-10-06 14:24 G	36886155.88	36886156.10	36886156.34	0.0285	0.0198
Mercury	96279-09-05 03:36 G	36886489.55	36886489.65	36886489.74	0.0280	0.0189
Mercury	96279-12-02 14:09 G	36886577.97	36886578.09	36886578.22	0.0279	0.0055
Mercury	96280-02-29 00:43 G	36886666.41	36886666.53	36886666.66	0.0278	0.0080

Mercury	96280-05-27 11:16 G	36886754.89	36886754.97	36886755.06	0.0276	0.0211
Venus	96285-06-08 00:00 G	36888592.43	36888592.50	36888592.57	0.0259	0.0242
Venus	96286-01-22 21:36 G	36888821.19	36888821.40	36888821.62	0.0258	0.0050
Venus	96286-09-08 18:14 G	36889050.09	36889050.26	36889050.45	0.0257	0.0141
Earth	96288-03-23 20:24 G	36889612.11	36889612.35	36889612.59	0.0257	0.0073
Moon	96288-03-23 23:45 G	36889612.25	36889612.49	36889612.73	0.0257	0.0058 *
Earth	96289-04-04 04:19 G	36889988.48	36889988.68	36889988.89	0.0258	0.0146
Moon	96289-04-04 06:28 G	36889988.58	36889988.77	36889988.98	0.0258	0.0157 *
Mercury	96296-03-08 10:48 G	36892518.79	36892518.95	36892519.11	0.0283	0.0147
Mercury	96296-06-05 11:31 G	36892607.80	36892607.98	36892608.17	0.0285	0.0065
Mercury	96296-09-02 12:14 G	36892696.98	36892697.01	36892697.05	0.0286	0.0279
Venus	96301-02-15 23:45 G	36894323.30	36894323.49	36894323.69	0.0304	0.0112
Venus	96301-10-04 05:31 G	36894553.58	36894553.73	36894553.89	0.0305	0.0200
Moon	96302-09-21 00:43 G	36894905.31	36894905.53	36894905.75	0.0306	0.0090
Earth	96302-09-21 02:09 G	36894905.36	36894905.59	36894905.82	0.0306	0.0107 *
Earth	96303-10-06 07:26 G	36895285.68	36895285.81	36895285.94	0.0304	0.0255
Moon	96303-10-06 08:24 G	36895285.76	36895285.85	36895285.95	0.0304	0.0274 *
Mercury	96309-01-23 04:48 G	36897221.64	36897221.70	36897221.77	0.0280	0.0243
Mercury	96309-04-21 15:36 G	36897310.03	36897310.15	36897310.27	0.0279	0.0107
Mercury	96309-07-19 02:09 G	36897398.46	36897398.59	36897398.72	0.0278	0.0028
Mercury	96309-10-15 12:57 G	36897486.93	36897487.04	36897487.14	0.0277	0.0159
Venus	96314-12-20 00:00 G	36899378.40	36899378.50	36899378.62	0.0259	0.0220
Venus	96315-08-05 21:50 G	36899607.20	36899607.41	36899607.63	0.0258	0.0027
Venus	96316-03-21 18:28 G	36899836.11	36899836.27	36899836.44	0.0257	0.0163
Moon	96317-03-19 21:50 G	36900199.22	36900199.41	36900199.61	0.0257	0.0161
Earth	96317-03-20 00:57 G	36900199.37	36900199.54	36900199.73	0.0257	0.0174 *
Moon	96318-03-31 06:28 G	36900575.54	36900575.77	36900576.01	0.0258	0.0058
Earth	96318-03-31 08:38 G	36900575.62	36900575.86	36900576.11	0.0258	0.0044 *
Mars	96324-12-12 02:24 G	36903023.51	36903023.60	36903023.72	0.0280	0.0256
Mercury	96325-07-27 06:14 G	36903250.66	36903250.76	36903250.88	0.0283	0.0230

Mercury	96325-10-24 07:12 G	36903339.61	36903339.80	36903339.99	0.0284	0.0019
Mercury	96326-01-21 07:55 G	36903428.69	36903428.83	36903428.97	0.0286	0.0195
Venus	96330-08-29 01:26 G	36905109.36	36905109.56	36905109.76	0.0304	0.0081
Venus	96331-04-16 06:57 G	36905339.66	36905339.79	36905339.93	0.0305	0.0231
Moon	96331-09-14 07:40 G	36905490.70	36905490.82	36905490.96	0.0305	0.0262
Earth	96331-09-14 07:12 G	36905490.72	36905490.80	36905490.91	0.0305	0.0279 *
Moon	96332-09-28 10:04 G	36905870.69	36905870.92	36905871.16	0.0304	0.0102
Earth	96332-09-28 12:43 G	36905870.80	36905871.03	36905871.26	0.0304	0.0084 *
Mercury	96338-09-08 17:16 G	36908042.11	36908042.22	36908042.33	0.0280	0.0158
Mercury	96338-12-06 04:04 G	36908130.54	36908130.67	36908130.80	0.0279	0.0025
Mercury	96339-03-04 14:38 G	36908218.99	36908219.11	36908219.23	0.0278	0.0110
Mercury	96339-06-01 01:12 G	36908307.49	36908307.55	36908307.61	0.0276	0.0242
Venus	96344-07-01 01:12 G	36910164.42	36910164.55	36910164.70	0.0259	0.0197
Venus	96345-02-14 22:48 G	36910393.24	36910393.45	36910393.67	0.0258	0.0006
Venus	96345-10-01 19:12 G	36910622.17	36910622.30	36910622.46	0.0258	0.0187
Earth	96347-03-26 14:24 G	36911162.86	36911163.10	36911163.35	0.0257	0.0057
Moon	96347-03-26 16:48 G	36911162.95	36911163.20	36911163.46	0.0257	0.0042 *
Moon	96348-04-05 19:26 G	36911539.13	36911539.31	36911539.51	0.0258	0.0169
Earth	96348-04-05 22:19 G	36911539.25	36911539.43	36911539.64	0.0258	0.0163 *
Mercury	96355-03-13 03:07 G	36914071.45	36914071.63	36914071.81	0.0283	0.0097
Mercury	96355-06-10 03:36 G	36914160.49	36914160.65	36914160.83	0.0285	0.0116
Venus	96360-03-10 02:38 G	36915895.41	36915895.61	36915895.82	0.0305	0.0053
Venus	96360-10-26 08:09 G	36916125.75	36916125.84	36916125.96	0.0305	0.0261
Earth	96361-09-21 17:45 G	36916456.01	36916456.24	36916456.47	0.0305	0.0089
Moon	96361-09-21 20:52 G	36916456.14	36916456.37	36916456.60	0.0305	0.0072 *
Earth	96362-10-06 23:02 G	36916836.36	36916836.46	36916836.57	0.0304	0.0272
Moon	96362-10-07 02:38 G	36916836.56	36916836.61	36916836.69	0.0304	0.0291 *
Mars	96367-03-01 05:31 G	36918442.53	36918442.73	36918442.95	0.0285	0.0212
Mercury	96368-01-26 18:43 G	36918774.20	36918774.28	36918774.36	0.0281	0.0211
Mercury	96368-04-24 05:31 G	36918862.60	36918862.73	36918862.85	0.0279	0.0075

Mercury	96368-07-21 16:04 G	36918951.04	36918951.17	36918951.30	0.0278	0.0059
Mercury	96368-10-18 02:38 G	36919039.52	36919039.61	36919039.71	0.0277	0.0192
Venus	96374-01-11 01:40 G	36920950.41	36920950.57	36920950.73	0.0259	0.0174
Venus	96374-08-27 23:16 G	36921179.26	36921179.47	36921179.69	0.0258	0.0019
Venus	96375-04-13 19:55 G	36921408.21	36921408.33	36921408.46	0.0257	0.0208
Moon	96376-03-20 17:02 G	36921750.02	36921750.21	36921750.42	0.0257	0.0144
Earth	96376-03-20 19:40 G	36921750.13	36921750.32	36921750.52	0.0257	0.0157 *
Earth	96377-04-01 03:21 G	36922126.40	36922126.64	36922126.89	0.0258	0.0061
Moon	96377-04-01 06:14 G	36922126.53	36922126.76	36922126.99	0.0258	0.0072 *
Mercury	96384-07-29 23:02 G	36924803.32	36924803.46	36924803.61	0.0283	0.0176
Mercury	96384-10-26 23:45 G	36924892.30	36924892.49	36924892.68	0.0284	0.0036
Mercury	96385-01-24 00:28 G	36924981.43	36924981.52	36924981.61	0.0286	0.0248
Venus	96389-09-20 05:16 G	36926681.51	36926681.72	36926681.93	0.0304	0.0020
Venus	96390-05-08 11:02 G	36926911.91	36926911.96	36926912.02	0.0305	0.0292
Moon	96390-09-14 21:07 G	36927041.25	36927041.38	36927041.54	0.0305	0.0242
Earth	96390-09-15 00:43 G	36927041.41	36927041.53	36927041.66	0.0305	0.0259 *
Moon	96391-09-30 02:52 G	36927421.41	36927421.62	36927421.84	0.0304	0.0120
Earth	96391-09-30 06:00 G	36927421.52	36927421.75	36927421.98	0.0304	0.0103 *
Mercury	96397-06-14 20:24 G	36929506.31	36929506.35	36929506.40	0.0281	0.0261
Mercury	96397-09-11 07:12 G	36929594.68	36929594.80	36929594.92	0.0280	0.0125
Mercury	96397-12-08 18:00 G	36929683.12	36929683.25	36929683.38	0.0279	0.0012
Mercury	96398-03-07 04:33 G	36929771.58	36929771.69	36929771.80	0.0278	0.0144
Mercury	96398-06-03 15:07 G	36929860.13	36929860.13	36929860.14	0.0276	0.0275
Venus	96403-07-24 03:07 G	36931736.46	36931736.63	36931736.81	0.0259	0.0151
Venus	96404-03-09 00:43 G	36931965.32	36931965.53	36931965.74	0.0258	0.0043
Venus	96404-10-23 21:07 G	36932194.30	36932194.38	36932194.48	0.0258	0.0233
Earth	96405-03-16 01:55 G	36932337.57	36932337.58	36932337.62	0.0257	0.0256
Moon	96405-03-16 05:16 G	36932337.66	36932337.72	36932337.80	0.0257	0.0246
Moon	96406-03-27 07:40 G	36932713.57	36932713.82	36932714.08	0.0257	0.0027
Earth	96406-03-27 10:04 G	36932713.68	36932713.92	36932714.17	0.0257	0.0039 *

Moon	96407-04-07 15:07 G	36933089.97	36933090.13	36933090.31	0.0258	0.0182
Earth	96407-04-07 18:14 G	36933090.09	36933090.26	36933090.44	0.0258	0.0180 *
Mars	96413-05-06 20:52 G	36935311.35	36935311.37	36935311.44	0.0279	0.0275
Mercury	96413-12-16 19:40 G	36935535.24	36935535.32	36935535.42	0.0282	0.0247
Mercury	96414-03-15 20:24 G	36935624.16	36935624.35	36935624.54	0.0283	0.0038
Mercury	96414-06-12 20:52 G	36935713.23	36935713.37	36935713.53	0.0285	0.0175
Venus	96418-08-15 02:52 G	36937237.59	36937237.62	36937237.67	0.0303	0.0296
Venus	96419-04-02 07:26 G	36937467.60	36937467.81	36937468.01	0.0304	0.0013
Earth	96420-09-22 12:00 G	36938006.77	36938007.00	36938007.24	0.0305	0.0069
Moon	96420-09-22 14:52 G	36938006.87	36938007.12	36938007.36	0.0305	0.0052 *
Earth	96421-10-07 17:16 G	36938387.16	36938387.22	36938387.29	0.0304	0.0291
Mercury	96427-01-29 08:38 G	36940326.77	36940326.86	36940326.96	0.0281	0.0177
Mercury	96427-04-27 19:26 G	36940415.18	36940415.31	36940415.44	0.0279	0.0041
Mercury	96427-07-25 06:14 G	36940503.64	36940503.76	36940503.88	0.0278	0.0094
Mercury	96427-10-21 16:48 G	36940592.13	36940592.20	36940592.28	0.0277	0.0226
Venus	96433-02-02 04:04 G	36942522.48	36942522.67	36942522.86	0.0259	0.0126
Venus	96433-09-19 01:40 G	36942751.36	36942751.57	36942751.78	0.0258	0.0067
Venus	96434-05-05 22:04 G	36942980.42	36942980.42	36942980.45	0.0257	0.0257
Earth	96435-03-22 15:50 G	36943300.96	36943301.16	36943301.38	0.0257	0.0139
Moon	96435-03-22 17:31 G	36943301.03	36943301.23	36943301.45	0.0257	0.0126 *
Earth	96436-04-02 00:00 G	36943677.27	36943677.50	36943677.74	0.0258	0.0080
Moon	96436-04-02 02:52 G	36943677.39	36943677.62	36943677.87	0.0258	0.0087 *
Mercury	96443-08-02 17:02 G	36946356.03	36946356.21	36946356.38	0.0283	0.0113
Mercury	96443-10-30 17:31 G	36946445.06	36946445.23	36946445.41	0.0284	0.0098
Venus	96448-02-25 06:14 G	36948023.66	36948023.76	36948023.87	0.0303	0.0262
Venus	96448-10-12 10:48 G	36948253.75	36948253.95	36948254.16	0.0304	0.0046
Moon	96449-09-15 18:57 G	36948592.13	36948592.29	36948592.45	0.0305	0.0221
Earth	96449-09-15 20:52 G	36948592.23	36948592.37	36948592.53	0.0305	0.0237 *
Earth	96450-10-01 02:09 G	36948972.37	36948972.59	36948972.81	0.0304	0.0125
Moon	96450-10-01 03:07 G	36948972.43	36948972.63	36948972.84	0.0304	0.0139 *

Mars	96455-07-24 06:57 G	36950729.57	36950729.79	36950730.01	0.0286	0.0204
Mercury	96456-06-17 10:33 G	36951058.87	36951058.94	36951059.02	0.0281	0.0224
Mercury	96456-09-13 21:21 G	36951147.27	36951147.39	36951147.52	0.0280	0.0087
Mercury	96456-12-11 08:09 G	36951235.71	36951235.84	36951235.97	0.0279	0.0048
Mercury	96457-03-09 18:43 G	36951324.19	36951324.28	36951324.38	0.0278	0.0182
Venus	96462-08-15 06:14 G	36953308.57	36953308.76	36953308.97	0.0259	0.0102
Venus	96463-04-01 03:50 G	36953537.46	36953537.66	36953537.87	0.0258	0.0093
Moon	96464-03-16 22:33 G	36953888.32	36953888.44	36953888.57	0.0258	0.0223
Earth	96464-03-16 23:31 G	36953888.40	36953888.48	36953888.59	0.0258	0.0237 *
Moon	96465-03-28 04:48 G	36954264.46	36954264.70	36954264.95	0.0258	0.0008
Earth	96465-03-28 08:09 G	36954264.59	36954264.84	36954265.09	0.0258	0.0020 *
Earth	96466-04-08 16:04 G	36954641.03	36954641.17	36954641.34	0.0258	0.0200
Moon	96466-04-08 18:14 G	36954641.11	36954641.26	36954641.41	0.0258	0.0197 *
Mercury	96472-12-19 14:24 G	36957087.96	36957088.10	36957088.25	0.0282	0.0178
Mercury	96473-03-18 15:07 G	36957176.94	36957177.13	36957177.32	0.0283	0.0032
Mercury	96473-06-15 15:36 G	36957266.06	36957266.15	36957266.25	0.0285	0.0244
Venus	96477-09-06 10:04 G	36958809.80	36958809.92	36958810.07	0.0303	0.0228
Venus	96478-04-24 14:52 G	36959039.92	36959040.12	36959040.32	0.0304	0.0082
Moon	96479-09-24 09:36 G	36959557.65	36959557.90	36959558.15	0.0305	0.0030
Earth	96479-09-24 11:16 G	36959557.73	36959557.97	36959558.21	0.0305	0.0044 *
Mercury	96485-11-04 12:28 G	36961790.99	36961791.02	36961791.05	0.0282	0.0273
Mercury	96486-01-31 23:16 G	36961879.36	36961879.47	36961879.58	0.0281	0.0135
Mercury	96486-04-30 10:04 G	36961967.79	36961967.92	36961968.05	0.0279	0.0006
Mercury	96486-07-27 20:38 G	36962056.25	36962056.36	36962056.48	0.0278	0.0135
Mercury	96486-10-24 07:26 G	36962144.78	36962144.81	36962144.84	0.0277	0.0267
Venus	96492-02-25 08:09 G	36964094.63	36964094.84	36964095.05	0.0259	0.0075
Venus	96492-10-11 05:45 G	36964323.55	36964323.74	36964323.93	0.0258	0.0118
Earth	96494-03-23 15:07 G	36964851.91	36964852.13	36964852.35	0.0257	0.0119
Moon	96494-03-23 18:43 G	36964852.06	36964852.28	36964852.52	0.0257	0.0104 *
Moon	96495-04-03 22:04 G	36965228.19	36965228.42	36965228.66	0.0258	0.0102

Earth	96495-04-03 23:45 G	36965228.26	36965228.49	36965228.72	0.0258	0.0100	*
Mercury	96502-05-09 11:45 G	36967819.91	36967819.99	36967820.10	0.0282	0.0245	
Mercury	96502-08-06 12:28 G	36967908.84	36967909.02	36967909.21	0.0283	0.0036	
Mercury	96502-11-03 12:57 G	36967997.90	36967998.04	36967998.20	0.0285	0.0177	
Venus	96507-03-20 15:36 G	36969595.99	36969596.15	36969596.31	0.0303	0.0189	
Venus	96507-11-05 20:09 G	36969826.15	36969826.34	36969826.53	0.0304	0.0121	
Earth	96508-09-17 23:02 G	36970143.29	36970143.46	36970143.64	0.0305	0.0209	
Moon	96508-09-18 01:12 G	36970143.38	36970143.55	36970143.74	0.0305	0.0194	*
Earth	96509-10-03 04:04 G	36970523.47	36970523.67	36970523.88	0.0304	0.0153	
Moon	96509-10-03 07:40 G	36970523.62	36970523.82	36970524.02	0.0304	0.0167	*
Mercury	96515-06-22 01:26 G	36972611.46	36972611.56	36972611.66	0.0281	0.0180	
Mercury	96515-09-18 12:14 G	36972699.88	36972700.01	36972700.14	0.0280	0.0043	
Mercury	96515-12-15 22:48 G	36972788.33	36972788.45	36972788.58	0.0279	0.0093	
Mercury	96516-03-13 09:36 G	36972876.83	36972876.90	36972876.98	0.0277	0.0225	
Venus	96521-01-21 12:28 G	36974651.96	36974652.02	36974652.10	0.0260	0.0244	
Venus	96521-09-07 11:16 G	36974880.76	36974880.97	36974881.18	0.0259	0.0047	
Venus	96522-04-24 08:38 G	36975109.69	36975109.86	36975110.04	0.0258	0.0146	
Moon	96523-03-19 20:09 G	36975439.20	36975439.34	36975439.50	0.0258	0.0201	
Earth	96523-03-20 00:00 G	36975439.38	36975439.50	36975439.64	0.0258	0.0216	*
Earth	96524-03-30 08:52 G	36975815.62	36975815.87	36975816.12	0.0258	0.0002	
Moon	96524-03-30 09:21 G	36975815.65	36975815.89	36975816.13	0.0258	0.0012	*
Earth	96525-04-10 17:31 G	36976192.11	36976192.23	36976192.36	0.0259	0.0221	
Moon	96525-04-10 20:52 G	36976192.25	36976192.37	36976192.52	0.0259	0.0215	*
Mercury	96531-12-24 10:48 G	36978640.77	36978640.95	36978641.13	0.0282	0.0095	
Mercury	96532-03-22 11:16 G	36978729.80	36978729.97	36978730.14	0.0284	0.0116	
Venus	96536-09-29 20:52 G	36980382.19	36980382.37	36980382.56	0.0303	0.0150	
Venus	96537-05-18 01:26 G	36980612.39	36980612.56	36980612.74	0.0304	0.0161	
Moon	96538-09-26 12:14 G	36981108.77	36981109.01	36981109.25	0.0305	0.0001	
Earth	96538-09-26 15:50 G	36981108.92	36981109.16	36981109.40	0.0305	0.0014	*
Mars	96543-12-18 02:52 G	36983017.37	36983017.62	36983017.90	0.0286	0.0159	

Mercury	96544-11-08 03:36 G	36983343.58	36983343.65	36983343.73	0.0282	0.0225
Mercury	96545-02-04 14:24 G	36983431.98	36983432.10	36983432.23	0.0280	0.0087
Mercury	96545-05-04 01:12 G	36983520.42	36983520.55	36983520.68	0.0279	0.0049
Mercury	96545-07-31 11:45 G	36983608.90	36983608.99	36983609.09	0.0278	0.0183
Venus	96550-08-03 15:36 G	36985438.03	36985438.15	36985438.27	0.0260	0.0215
Venus	96551-03-20 14:09 G	36985666.88	36985667.09	36985667.31	0.0259	0.0019
Venus	96551-11-04 11:31 G	36985895.83	36985895.98	36985896.15	0.0258	0.0174
Moon	96553-03-25 17:45 G	36986403.00	36986403.24	36986403.49	0.0258	0.0082
Earth	96553-03-25 17:45 G	36986403.01	36986403.24	36986403.47	0.0258	0.0096 *
Moon	96554-04-05 22:48 G	36986779.25	36986779.45	36986779.68	0.0258	0.0125
Earth	96554-04-06 02:38 G	36986779.39	36986779.61	36986779.83	0.0258	0.0123 *
Mercury	96561-05-12 09:07 G	36989372.72	36989372.88	36989373.04	0.0282	0.0154
Mercury	96561-08-09 09:50 G	36989461.72	36989461.91	36989462.09	0.0284	0.0056
Mercury	96561-11-06 10:04 G	36989550.87	36989550.92	36989550.99	0.0285	0.0268
Venus	96566-04-12 04:19 G	36991168.48	36991168.68	36991168.87	0.0303	0.0106
Venus	96566-11-28 08:52 G	36991398.73	36991398.87	36991399.03	0.0304	0.0204
Earth	96567-09-20 07:26 G	36991694.62	36991694.81	36991695.01	0.0305	0.0176
Moon	96567-09-20 11:02 G	36991694.75	36991694.96	36991695.17	0.0305	0.0160 *
Earth	96568-10-04 12:14 G	36992074.82	36992075.01	36992075.20	0.0304	0.0185
Moon	96568-10-04 13:26 G	36992074.88	36992075.06	36992075.26	0.0304	0.0197 *
Mercury	96574-03-28 06:14 G	36994075.72	36994075.76	36994075.80	0.0282	0.0264
Mercury	96574-06-24 17:02 G	36994164.09	36994164.21	36994164.33	0.0281	0.0126
Mercury	96574-09-21 03:50 G	36994252.53	36994252.66	36994252.79	0.0279	0.0011
Mercury	96574-12-18 14:24 G	36994340.99	36994341.10	36994341.22	0.0278	0.0145
Venus	96580-02-13 19:26 G	36996224.17	36996224.31	36996224.47	0.0260	0.0186
Venus	96580-09-29 18:14 G	36996453.04	36996453.26	36996453.48	0.0259	0.0011
Venus	96581-05-16 15:50 G	36996682.03	36996682.16	36996682.29	0.0259	0.0204
Moon	96582-03-21 03:50 G	36996990.49	36996990.66	36996990.83	0.0258	0.0178
Earth	96582-03-21 03:50 G	36996990.50	36996990.66	36996990.83	0.0258	0.0193 *
Earth	96583-04-01 13:12 G	36997366.80	36997367.05	36997367.30	0.0258	0.0026

Moon	96583-04-01 16:48 G	36997366.96	36997367.20	36997367.45	0.0258	0.0035 *
Moon	96584-04-11 22:19 G	36997743.34	36997743.43	36997743.54	0.0259	0.0237
Earth	96584-04-11 22:19 G	36997743.36	36997743.43	36997743.52	0.0259	0.0245 *
Mercury	96590-09-29 08:09 G	37000104.72	37000104.84	37000104.98	0.0281	0.0205
Mercury	96590-12-27 08:52 G	37000193.68	37000193.87	37000194.06	0.0283	0.0005
Mercury	96591-03-26 09:21 G	37000282.77	37000282.89	37000283.02	0.0284	0.0216
Venus	96595-10-23 12:00 G	37001954.80	37001955.00	37001955.21	0.0303	0.0061
Venus	96596-06-09 16:48 G	37002185.09	37002185.20	37002185.32	0.0304	0.0250
Moon	96597-09-28 03:07 G	37002660.40	37002660.63	37002660.87	0.0305	0.0035
Earth	96597-09-28 03:50 G	37002660.41	37002660.66	37002660.90	0.0305	0.0023 *
Mercury	96603-11-12 19:40 G	37004896.21	37004896.32	37004896.42	0.0281	0.0167
Mercury	96604-02-09 06:14 G	37004984.64	37004984.76	37004984.89	0.0280	0.0031
Mercury	96604-05-07 17:02 G	37005073.09	37005073.21	37005073.33	0.0279	0.0106
Mercury	96604-08-04 03:36 G	37005161.59	37005161.65	37005161.72	0.0278	0.0240
Venus	96609-08-26 23:31 G	37007010.32	37007010.48	37007010.66	0.0260	0.0155
Venus	96610-04-12 22:04 G	37007239.21	37007239.42	37007239.64	0.0259	0.0042
Venus	96610-11-27 19:40 G	37007468.24	37007468.32	37007468.42	0.0258	0.0234
Moon	96612-03-27 19:40 G	37007954.08	37007954.32	37007954.57	0.0258	0.0059
Earth	96612-03-27 23:45 G	37007954.25	37007954.49	37007954.73	0.0258	0.0071 *
Moon	96613-04-08 07:55 G	37008330.64	37008330.83	37008331.03	0.0259	0.0149
Earth	96613-04-08 08:52 G	37008330.67	37008330.87	37008331.08	0.0259	0.0149 *
Mercury	96620-02-17 07:26 G	37010836.74	37010836.81	37010836.89	0.0282	0.0257
Mercury	96620-05-16 08:09 G	37010925.65	37010925.84	37010926.03	0.0283	0.0049
Mercury	96620-08-13 08:38 G	37011014.71	37011014.86	37011015.02	0.0284	0.0162
Venus	96625-05-05 20:52 G	37012741.16	37012741.37	37012741.57	0.0303	0.0015
Venus	96625-12-22 01:40 G	37012971.53	37012971.57	37012971.62	0.0304	0.0297
Moon	96626-09-22 21:21 G	37013246.16	37013246.39	37013246.61	0.0305	0.0125
Earth	96626-09-22 21:50 G	37013246.19	37013246.41	37013246.63	0.0305	0.0137 *
Moon	96627-10-07 23:02 G	37013626.31	37013626.46	37013626.62	0.0304	0.0233
Earth	96627-10-08 02:09 G	37013626.42	37013626.59	37013626.75	0.0304	0.0223 *

Mars	96632-05-14 02:52 G	37015306.31	37015306.62	37015306.94	0.0286	0.0048
Mercury	96633-03-31 22:19 G	37015628.35	37015628.43	37015628.52	0.0281	0.0202
Mercury	96633-06-28 09:07 G	37015716.76	37015716.88	37015717.01	0.0280	0.0065
Mercury	96633-09-24 19:55 G	37015805.21	37015805.33	37015805.46	0.0279	0.0071
Mercury	96633-12-22 06:43 G	37015893.69	37015893.78	37015893.87	0.0278	0.0205
Venus	96639-03-09 04:48 G	37017796.51	37017796.70	37017796.89	0.0260	0.0123
Venus	96639-10-24 03:21 G	37018025.43	37018025.64	37018025.84	0.0259	0.0073
Earth	96641-03-23 11:02 G	37018541.78	37018541.96	37018542.15	0.0258	0.0168
Moon	96641-03-23 14:24 G	37018541.92	37018542.10	37018542.31	0.0258	0.0154 *
Earth	96642-04-03 20:38 G	37018918.12	37018918.36	37018918.61	0.0259	0.0052
Moon	96642-04-03 22:19 G	37018918.18	37018918.43	37018918.68	0.0259	0.0058 *
Mars	96648-06-05 23:45 G	37021173.33	37021173.49	37021173.68	0.0276	0.0210
Mercury	96649-10-03 07:55 G	37021657.65	37021657.83	37021658.01	0.0282	0.0094
Mercury	96649-12-31 08:24 G	37021746.68	37021746.85	37021747.02	0.0283	0.0116
Venus	96654-03-31 02:52 G	37023297.53	37023297.62	37023297.71	0.0302	0.0268
Venus	96654-11-16 06:14 G	37023527.56	37023527.76	37023527.97	0.0303	0.0037
Earth	96655-09-16 17:02 G	37023832.16	37023832.21	37023832.27	0.0304	0.0295
Moon	96655-09-16 18:14 G	37023832.20	37023832.26	37023832.36	0.0304	0.0286 *
Earth	96656-09-30 20:52 G	37024212.14	37024212.37	37024212.61	0.0304	0.0063
Moon	96656-10-01 00:14 G	37024212.29	37024212.51	37024212.75	0.0304	0.0074 *
Mercury	96662-08-19 01:26 G	37026360.49	37026360.56	37026360.63	0.0282	0.0238
Mercury	96662-11-15 12:14 G	37026448.89	37026449.01	37026449.13	0.0281	0.0100
Mercury	96663-02-11 23:02 G	37026537.33	37026537.46	37026537.59	0.0280	0.0037
Mercury	96663-05-11 09:36 G	37026625.80	37026625.90	37026626.01	0.0278	0.0171
Venus	96668-09-18 09:36 G	37028582.70	37028582.90	37028583.11	0.0260	0.0091
Venus	96669-05-05 07:55 G	37028811.64	37028811.83	37028812.03	0.0259	0.0106
Moon	96670-03-18 18:57 G	37029129.22	37029129.29	37029129.35	0.0258	0.0249
Moon	96671-03-30 06:43 G	37029505.54	37029505.78	37029506.02	0.0258	0.0036
Earth	96671-03-30 08:09 G	37029505.60	37029505.84	37029506.09	0.0258	0.0045 *
Earth	96672-04-09 17:45 G	37029882.07	37029882.24	37029882.43	0.0259	0.0176

Moon	96672-04-09 20:52 G	37029882.20	37029882.37	37029882.56	0.0259	0.0173	*
Mercury	96679-02-20 07:55 G	37032389.66	37032389.83	37032389.99	0.0282	0.0142	
Mercury	96679-05-20 08:24 G	37032478.66	37032478.85	37032479.03	0.0284	0.0068	
Mercury	96679-08-17 08:38 G	37032567.84	37032567.86	37032567.90	0.0285	0.0281	
Venus	96683-10-11 13:12 G	37034083.91	37034084.05	37034084.20	0.0302	0.0220	
Venus	96684-05-28 17:02 G	37034314.01	37034314.21	37034314.41	0.0304	0.0088	
Moon	96685-09-24 14:38 G	37034797.88	37034798.11	37034798.35	0.0304	0.0084	
Earth	96685-09-24 18:28 G	37034798.04	37034798.27	37034798.50	0.0304	0.0092	*
Moon	96686-10-09 18:43 G	37035178.20	37035178.28	37035178.39	0.0303	0.0275	
Earth	96686-10-09 22:04 G	37035178.32	37035178.42	37035178.55	0.0303	0.0267	*
Mercury	96692-01-06 04:33 G	37037092.66	37037092.69	37037092.73	0.0282	0.0269	
Mercury	96692-04-03 15:21 G	37037181.03	37037181.14	37037181.26	0.0281	0.0132	
Mercury	96692-07-01 02:09 G	37037269.46	37037269.59	37037269.72	0.0279	0.0011	
Mercury	96692-09-27 12:57 G	37037357.93	37037358.04	37037358.15	0.0278	0.0140	
Mercury	96692-12-24 23:45 G	37037446.47	37037446.49	37037446.50	0.0277	0.0274	
Venus	96697-08-14 16:04 G	37039140.14	37039140.17	37039140.22	0.0261	0.0256	
Venus	96698-03-31 15:36 G	37039368.94	37039369.15	37039369.36	0.0260	0.0057	
Venus	96698-11-15 13:40 G	37039597.90	37039598.07	37039598.26	0.0259	0.0140	
Earth	96700-03-25 20:38 G	37040093.15	37040093.36	37040093.57	0.0258	0.0140	
Moon	96700-03-25 22:33 G	37040093.23	37040093.44	37040093.68	0.0258	0.0128	*
Moon	96701-04-06 03:07 G	37040469.40	37040469.63	37040469.88	0.0259	0.0081	
Earth	96701-04-06 06:28 G	37040469.54	37040469.77	37040470.01	0.0259	0.0080	*
Mercury	96708-07-10 07:55 G	37043121.69	37043121.83	37043121.98	0.0282	0.0183	
Mercury	96708-10-07 08:38 G	37043210.67	37043210.86	37043211.05	0.0283	0.0026	
Mercury	96709-01-04 09:07 G	37043299.78	37043299.88	37043299.98	0.0284	0.0237	
Venus	96713-04-23 23:31 G	37044870.32	37044870.48	37044870.66	0.0302	0.0167	
Venus	96713-12-10 03:21 G	37045100.46	37045100.64	37045100.83	0.0304	0.0141	
Earth	96714-09-19 15:21 G	37045384.01	37045384.14	37045384.28	0.0304	0.0251	
Moon	96714-09-19 18:57 G	37045384.15	37045384.29	37045384.44	0.0304	0.0239	*
Earth	96715-10-04 18:57 G	37045764.07	37045764.29	37045764.52	0.0304	0.0109	

Moon	96715-10-04 21:36 G	37045764.18	37045764.40	37045764.64	0.0304	0.0117 *
Mars	96720-10-10 02:38 G	37047596.32	37047596.61	37047596.91	0.0286	0.0104
Mercury	96721-08-22 18:43 G	37047913.18	37047913.28	37047913.38	0.0281	0.0164
Mercury	96721-11-19 05:31 G	37048001.60	37048001.73	37048001.86	0.0280	0.0027
Mercury	96722-02-15 16:04 G	37048090.06	37048090.17	37048090.29	0.0279	0.0109
Mercury	96722-05-15 02:52 G	37048178.56	37048178.62	37048178.68	0.0278	0.0242
Venus	96727-02-25 21:36 G	37049926.30	37049926.40	37049926.52	0.0261	0.0222
Venus	96727-10-12 21:07 G	37050155.16	37050155.38	37050155.59	0.0260	0.0023
Venus	96728-05-28 18:57 G	37050384.14	37050384.29	37050384.46	0.0259	0.0173
Moon	96729-03-21 05:31 G	37050680.61	37050680.73	37050680.85	0.0258	0.0222
Earth	96729-03-21 08:09 G	37050680.75	37050680.84	37050680.95	0.0258	0.0236 *
Earth	96730-04-01 18:43 G	37051057.03	37051057.28	37051057.53	0.0258	0.0017
Moon	96730-04-01 21:21 G	37051057.15	37051057.39	37051057.63	0.0258	0.0011 *
Earth	96731-04-13 04:48 G	37051433.55	37051433.70	37051433.85	0.0259	0.0203
Moon	96731-04-13 07:40 G	37051433.66	37051433.82	37051433.99	0.0259	0.0197 *
Mars	96736-11-01 20:09 G	37053463.09	37053463.34	37053463.61	0.0277	0.0081
Mercury	96737-11-27 07:55 G	37053853.73	37053853.83	37053853.95	0.0282	0.0230
Mercury	96738-02-24 08:38 G	37053942.67	37053942.86	37053943.05	0.0283	0.0021
Mercury	96738-05-24 09:07 G	37054031.75	37054031.88	37054032.03	0.0284	0.0192
Venus	96742-11-04 10:33 G	37055656.75	37055656.94	37055657.14	0.0303	0.0116
Venus	96743-06-22 14:52 G	37055886.96	37055887.12	37055887.28	0.0304	0.0194
Moon	96744-09-27 15:50 G	37056349.92	37056350.16	37056350.39	0.0304	0.0037
Earth	96744-09-27 17:45 G	37056350.01	37056350.24	37056350.48	0.0304	0.0046 *
Mercury	96751-01-09 22:04 G	37058645.33	37058645.42	37058645.52	0.0281	0.0192
Mercury	96751-04-08 08:52 G	37058733.75	37058733.87	37058734.00	0.0280	0.0055
Mercury	96751-07-05 19:40 G	37058822.19	37058822.32	37058822.44	0.0279	0.0081
Mercury	96751-10-02 06:14 G	37058910.68	37058910.76	37058910.85	0.0278	0.0215
Venus	96756-09-07 04:04 G	37060712.53	37060712.67	37060712.83	0.0261	0.0188
Venus	96757-04-24 03:21 G	37060941.42	37060941.64	37060941.86	0.0260	0.0011
Venus	96757-12-09 01:12 G	37061170.43	37061170.55	37061170.69	0.0259	0.0207

Moon	96759-03-28 05:16 G	37061644.50	37061644.72	37061644.97	0.0259	0.0102
Earth	96759-03-28 07:26 G	37061644.59	37061644.81	37061645.04	0.0259	0.0113 *
Moon	96760-04-07 14:24 G	37062020.88	37062021.10	37062021.33	0.0259	0.0106
Earth	96760-04-07 17:31 G	37062021.00	37062021.23	37062021.46	0.0259	0.0107 *
Mercury	96767-04-16 08:09 G	37064585.81	37064585.84	37064585.90	0.0281	0.0271
Mercury	96767-07-14 08:52 G	37064674.69	37064674.87	37064675.06	0.0282	0.0062
Mercury	96767-10-11 09:36 G	37064763.74	37064763.90	37064764.06	0.0284	0.0149
Venus	96772-05-16 21:50 G	37066443.21	37066443.41	37066443.62	0.0303	0.0061
Venus	96773-01-02 02:09 G	37066673.47	37066673.59	37066673.71	0.0304	0.0249
Earth	96773-09-21 16:33 G	37066936.01	37066936.19	37066936.37	0.0304	0.0203
Moon	96773-09-21 18:14 G	37066936.08	37066936.26	37066936.47	0.0304	0.0191 *
Moon	96774-10-06 18:57 G	37067316.08	37067316.29	37067316.50	0.0304	0.0162
Earth	96774-10-06 20:09 G	37067316.13	37067316.34	37067316.55	0.0304	0.0156 *
Mercury	96780-05-29 01:26 G	37069377.49	37069377.56	37069377.64	0.0282	0.0223
Mercury	96780-08-25 12:28 G	37069465.89	37069466.02	37069466.14	0.0281	0.0085
Mercury	96780-11-21 23:02 G	37069554.34	37069554.46	37069554.59	0.0279	0.0051
Mercury	96781-02-18 09:50 G	37069642.81	37069642.91	37069643.00	0.0278	0.0185
Venus	96786-03-20 10:04 G	37071498.75	37071498.92	37071499.10	0.0260	0.0153
Venus	96786-11-04 09:07 G	37071727.67	37071727.88	37071728.09	0.0259	0.0046
Venus	96787-06-21 06:57 G	37071956.72	37071956.79	37071956.87	0.0259	0.0240
Earth	96788-03-22 19:26 G	37072232.17	37072232.31	37072232.46	0.0258	0.0208
Moon	96788-03-22 20:24 G	37072232.20	37072232.35	37072232.52	0.0258	0.0195 *
Jupiter	96789-01-14 02:38 G	37072529.21	37072529.61	37072530.06	0.0258	0.0115
Earth	96789-04-03 05:45 G	37072608.49	37072608.74	37072608.99	0.0258	0.0012
Moon	96789-04-03 08:52 G	37072608.62	37072608.87	37072609.13	0.0258	0.0018 *
Moon	96790-04-14 14:09 G	37072984.96	37072985.09	37072985.23	0.0259	0.0221
Earth	96790-04-14 15:50 G	37072985.06	37072985.16	37072985.28	0.0259	0.0231 *
Mercury	96796-11-30 08:52 G	37075406.70	37075406.87	37075407.05	0.0283	0.0109
Mercury	96797-02-27 09:36 G	37075495.72	37075495.90	37075496.08	0.0284	0.0102
Venus	96801-11-27 08:52 G	37077229.67	37077229.87	37077230.08	0.0303	0.0011

Venus	96802-07-15 13:12 G	37077460.04	37077460.05	37077460.09	0.0304	0.0303
Earth	96803-09-30 18:43 G	37077902.03	37077902.28	37077902.52	0.0304	0.0005
Moon	96803-09-30 19:55 G	37077902.10	37077902.33	37077902.57	0.0304	0.0011 *
Mercury	96809-10-16 05:02 G	37080109.66	37080109.71	37080109.77	0.0281	0.0251
Mercury	96810-01-12 15:50 G	37080198.04	37080198.16	37080198.28	0.0280	0.0113
Mercury	96810-04-11 02:38 G	37080286.48	37080286.61	37080286.74	0.0279	0.0023
Mercury	96810-07-08 13:12 G	37080374.95	37080375.05	37080375.16	0.0278	0.0157
Venus	96815-09-30 16:19 G	37082284.99	37082285.18	37082285.38	0.0260	0.0118
Venus	96816-05-16 15:07 G	37082513.93	37082514.13	37082514.34	0.0259	0.0080
Moon	96818-03-29 14:52 G	37083195.88	37083196.12	37083196.35	0.0259	0.0073
Earth	96818-03-29 18:14 G	37083196.03	37083196.26	37083196.50	0.0259	0.0085 *
Earth	96819-04-10 04:04 G	37083572.47	37083572.67	37083572.89	0.0259	0.0135
Moon	96819-04-10 05:31 G	37083572.52	37083572.73	37083572.94	0.0259	0.0131 *
Mars	96825-03-29 18:28 G	37085753.00	37085753.27	37085753.54	0.0277	0.0055
Mercury	96826-04-19 08:52 G	37086138.71	37086138.87	37086139.03	0.0282	0.0154
Mercury	96826-07-17 09:21 G	37086227.71	37086227.89	37086228.08	0.0283	0.0058
Mercury	96826-10-14 09:50 G	37086316.86	37086316.91	37086316.98	0.0284	0.0270
Venus	96830-10-22 16:04 G	37087786.08	37087786.17	37087786.28	0.0302	0.0262
Venus	96831-06-09 19:26 G	37088016.11	37088016.31	37088016.52	0.0303	0.0045
Moon	96832-09-23 14:24 G	37088487.89	37088488.10	37088488.33	0.0304	0.0145
Earth	96832-09-23 16:19 G	37088487.98	37088488.18	37088488.39	0.0304	0.0156 *
Moon	96833-10-08 16:33 G	37088868.02	37088868.19	37088868.37	0.0304	0.0210
Earth	96833-10-08 20:09 G	37088868.16	37088868.34	37088868.52	0.0304	0.0202 *
Mercury	96839-03-05 08:38 G	37090841.86	37090841.86	37090841.86	0.0282	0.0282
Mercury	96839-06-01 19:12 G	37090930.20	37090930.30	37090930.42	0.0281	0.0144
Mercury	96839-08-29 06:00 G	37091018.62	37091018.75	37091018.88	0.0280	0.0011
Mercury	96839-11-25 16:48 G	37091107.08	37091107.20	37091107.31	0.0279	0.0128
Mercury	96840-02-22 03:21 G	37091195.60	37091195.64	37091195.68	0.0277	0.0262
Venus	96845-04-11 22:04 G	37093071.22	37093071.42	37093071.63	0.0260	0.0084
Venus	96845-11-26 20:38 G	37093300.17	37093300.36	37093300.56	0.0259	0.0114

Earth	96847-03-25 05:45 G	37093783.57	37093783.74	37093783.93	0.0258	0.0181
Moon	96847-03-25 09:50 G	37093783.72	37093783.91	37093784.10	0.0258	0.0165 *
Moon	96848-04-04 15:36 G	37094159.90	37094160.15	37094160.41	0.0258	0.0042
Earth	96848-04-04 15:50 G	37094159.92	37094160.16	37094160.41	0.0258	0.0038 *
Moon	96849-04-15 22:04 G	37094536.36	37094536.42	37094536.51	0.0259	0.0246
Earth	96849-04-16 01:55 G	37094536.56	37094536.58	37094536.62	0.0259	0.0257
Mercury	96855-09-06 08:24 G	37096870.72	37096870.85	37096870.98	0.0282	0.0205
Mercury	96855-12-04 08:52 G	37096959.68	37096959.87	37096960.06	0.0283	0.0007
Mercury	96856-03-02 09:36 G	37097048.78	37097048.90	37097049.02	0.0285	0.0218
Venus	96860-05-04 02:24 G	37098572.46	37098572.60	37098572.75	0.0302	0.0214
Venus	96860-12-20 06:00 G	37098802.55	37098802.75	37098802.95	0.0304	0.0095
Moon	96861-09-17 16:33 G	37099074.14	37099074.19	37099074.24	0.0304	0.0296
Earth	96862-10-02 17:31 G	37099454.00	37099454.23	37099454.47	0.0304	0.0048
Moon	96862-10-02 21:07 G	37099454.15	37099454.38	37099454.62	0.0304	0.0060 *
Mercury	96868-10-18 22:48 G	37101662.35	37101662.45	37101662.55	0.0281	0.0172
Mercury	96869-01-15 09:36 G	37101750.77	37101750.90	37101751.03	0.0279	0.0036
Mercury	96869-04-13 20:09 G	37101839.22	37101839.34	37101839.46	0.0278	0.0100
Mercury	96869-07-11 06:43 G	37101927.72	37101927.78	37101927.85	0.0277	0.0233
Venus	96874-03-08 04:33 G	37103628.64	37103628.69	37103628.76	0.0261	0.0250
Venus	96874-10-23 04:04 G	37103857.46	37103857.67	37103857.88	0.0260	0.0050
Venus	96875-06-09 02:24 G	37104086.43	37104086.60	37104086.78	0.0259	0.0147
Moon	96877-03-31 03:07 G	37104747.40	37104747.63	37104747.87	0.0258	0.0049
Earth	96877-03-31 03:50 G	37104747.42	37104747.66	37104747.90	0.0258	0.0058 *
Earth	96878-04-11 13:12 G	37105123.87	37105124.05	37105124.26	0.0259	0.0161
Moon	96878-04-11 17:02 G	37105124.02	37105124.21	37105124.41	0.0259	0.0156 *
Mercury	96885-01-23 07:40 G	37107602.75	37107602.82	37107602.90	0.0282	0.0255
Mercury	96885-04-22 08:24 G	37107691.66	37107691.85	37107692.04	0.0283	0.0045
Mercury	96885-07-20 09:07 G	37107780.72	37107780.88	37107781.03	0.0284	0.0167
Venus	96889-11-14 11:45 G	37109358.82	37109358.99	37109359.17	0.0302	0.0163
Venus	96890-07-02 15:36 G	37109588.97	37109589.15	37109589.33	0.0303	0.0146

Moon	96891-09-26 09:50 G	37110039.69	37110039.91	37110040.14	0.0304	0.0100
Earth	96891-09-26 13:40 G	37110039.85	37110040.07	37110040.29	0.0304	0.0112 *
Moon	96892-10-10 15:21 G	37110420.02	37110420.14	37110420.27	0.0303	0.0255
Earth	96892-10-10 17:31 G	37110420.10	37110420.23	37110420.38	0.0303	0.0245 *
Mercury	96898-03-08 01:55 G	37112394.50	37112394.58	37112394.67	0.0281	0.0206
Mercury	96898-06-04 12:43 G	37112482.91	37112483.03	37112483.16	0.0280	0.0068
Mercury	96898-08-31 23:31 G	37112571.35	37112571.48	37112571.61	0.0279	0.0068
Mercury	96898-11-28 10:04 G	37112659.84	37112659.92	37112660.01	0.0278	0.0202
Venus	96903-09-19 09:50 G	37114414.80	37114414.91	37114415.04	0.0261	0.0217
Venus	96904-05-05 09:21 G	37114643.67	37114643.89	37114644.10	0.0260	0.0018
Venus	96904-12-20 07:12 G	37114872.66	37114872.80	37114872.97	0.0259	0.0180
Earth	96906-03-27 14:38 G	37115334.92	37115335.11	37115335.32	0.0258	0.0155
Moon	96906-03-27 15:36 G	37115334.93	37115335.15	37115335.36	0.0258	0.0140 *
Moon	96907-04-07 20:38 G	37115711.13	37115711.36	37115711.61	0.0258	0.0067
Earth	96907-04-08 00:14 G	37115711.28	37115711.51	37115711.76	0.0258	0.0064 *
Mars	96913-08-25 03:07 G	37118042.41	37118042.63	37118042.85	0.0277	0.0157
Mercury	96914-09-10 06:57 G	37118423.62	37118423.79	37118423.97	0.0283	0.0103
Mercury	96914-12-08 07:40 G	37118512.65	37118512.82	37118513.00	0.0284	0.0109
Venus	96919-05-28 20:24 G	37120145.16	37120145.35	37120145.54	0.0303	0.0119
Venus	96920-01-14 00:14 G	37120375.36	37120375.51	37120375.68	0.0304	0.0193
Earth	96920-09-20 07:55 G	37120625.73	37120625.83	37120625.96	0.0305	0.0268
Moon	96920-09-20 11:31 G	37120625.86	37120625.98	37120626.12	0.0305	0.0256 *
Earth	96921-10-05 12:14 G	37121005.78	37121006.01	37121006.24	0.0304	0.0090
Moon	96921-10-05 13:55 G	37121005.84	37121006.08	37121006.32	0.0304	0.0099 *
Mercury	96927-07-27 05:02 G	37123126.65	37123126.71	37123126.78	0.0281	0.0238
Mercury	96927-10-23 15:50 G	37123215.04	37123215.16	37123215.28	0.0280	0.0100
Mercury	96928-01-20 02:38 G	37123303.48	37123303.61	37123303.74	0.0279	0.0036
Mercury	96928-04-17 13:12 G	37123391.95	37123392.05	37123392.16	0.0278	0.0171
Venus	96933-03-31 15:07 G	37125200.99	37125201.13	37125201.29	0.0260	0.0185
Venus	96933-11-15 14:24 G	37125429.88	37125430.10	37125430.32	0.0259	0.0015

Venus	96934-07-02 12:14 G	37125658.89	37125659.01	37125659.14	0.0259	0.0211
Moon	96935-03-23 00:14 G	37125922.42	37125922.51	37125922.61	0.0258	0.0236
Earth	96935-03-23 01:26 G	37125922.50	37125922.56	37125922.62	0.0258	0.0250 *
Earth	96936-04-02 10:48 G	37126298.70	37126298.95	37126299.20	0.0258	0.0033
Moon	96936-04-02 14:24 G	37126298.86	37126299.10	37126299.35	0.0258	0.0025 *
Earth	96937-04-13 19:55 G	37126675.17	37126675.33	37126675.51	0.0259	0.0185
Moon	96937-04-13 21:21 G	37126675.21	37126675.39	37126675.58	0.0259	0.0179 *
Mercury	96944-01-28 05:31 G	37129155.57	37129155.73	37129155.89	0.0282	0.0160
Mercury	96944-04-26 06:14 G	37129244.57	37129244.76	37129244.94	0.0283	0.0051
Mercury	96944-07-24 06:28 G	37129333.72	37129333.77	37129333.85	0.0285	0.0265
Venus	96948-12-08 04:04 G	37130931.47	37130931.67	37130931.87	0.0303	0.0072
Venus	96949-07-26 08:09 G	37131161.72	37131161.84	37131161.98	0.0304	0.0240
Moon	96950-09-29 04:48 G	37131591.47	37131591.70	37131591.93	0.0305	0.0064
Earth	96950-09-29 05:16 G	37131591.49	37131591.72	37131591.96	0.0305	0.0072 *
Earth	96951-10-14 09:36 G	37131971.82	37131971.90	37131971.99	0.0303	0.0284
Moon	96951-10-14 11:31 G	37131971.92	37131971.98	37131972.05	0.0303	0.0292 *
Mercury	96956-12-13 08:09 G	37133858.82	37133858.84	37133858.87	0.0282	0.0273
Mercury	96957-03-11 18:57 G	37133947.18	37133947.29	37133947.41	0.0281	0.0135
Mercury	96957-06-08 05:45 G	37134035.61	37134035.74	37134035.87	0.0280	0.0004
Mercury	96957-09-04 16:19 G	37134124.07	37134124.18	37134124.30	0.0278	0.0138
Mercury	96957-12-02 03:07 G	37134212.61	37134212.63	37134212.66	0.0277	0.0270
Venus	96962-10-11 19:55 G	37135987.16	37135987.33	37135987.51	0.0260	0.0153
Venus	96963-05-28 18:43 G	37136216.07	37136216.28	37136216.50	0.0259	0.0046
Venus	96964-01-12 16:19 G	37136445.12	37136445.18	37136445.27	0.0258	0.0242
Moon	96965-03-28 17:02 G	37136886.00	37136886.21	37136886.45	0.0258	0.0120
Earth	96965-03-28 20:52 G	37136886.16	37136886.37	37136886.59	0.0258	0.0130 *
Moon	96966-04-09 03:50 G	37137262.44	37137262.66	37137262.90	0.0258	0.0088
Earth	96966-04-09 06:00 G	37137262.51	37137262.75	37137262.98	0.0258	0.0088 *
Mercury	96973-06-16 03:21 G	37139887.53	37139887.64	37139887.76	0.0282	0.0224
Mercury	96973-09-13 04:04 G	37139976.48	37139976.67	37139976.86	0.0283	0.0013

Mercury	96973-12-11 04:48 G	37140065.57	37140065.70	37140065.83	0.0284	0.0200
Venus	96978-06-20 11:02 G	37141717.75	37141717.96	37141718.17	0.0303	0.0031
Venus	96979-02-05 15:36 G	37141948.08	37141948.15	37141948.22	0.0304	0.0283
Moon	96979-09-22 20:09 G	37142177.18	37142177.34	37142177.52	0.0305	0.0224
Earth	96979-09-22 20:38 G	37142177.22	37142177.36	37142177.53	0.0305	0.0232 *
Moon	96980-10-06 22:33 G	37142557.22	37142557.44	37142557.66	0.0305	0.0131
Earth	96980-10-07 01:26 G	37142557.34	37142557.56	37142557.78	0.0305	0.0126 *
Mercury	96986-07-29 21:50 G	37144679.31	37144679.41	37144679.51	0.0281	0.0172
Mercury	96986-10-26 08:38 G	37144767.73	37144767.86	37144767.99	0.0280	0.0035
Mercury	96987-01-22 19:12 G	37144856.18	37144856.30	37144856.42	0.0278	0.0101
Mercury	96987-04-21 06:00 G	37144944.68	37144944.75	37144944.81	0.0277	0.0234
Venus	96992-04-23 00:00 G	37146773.32	37146773.50	37146773.70	0.0260	0.0123
Venus	96992-12-07 22:48 G	37147002.25	37147002.45	37147002.66	0.0259	0.0076
Earth	96994-03-24 05:45 G	37147473.64	37147473.74	37147473.88	0.0258	0.0226
Moon	96994-03-24 09:07 G	37147473.75	37147473.88	37147474.02	0.0258	0.0212 *
Earth	96995-04-04 15:07 G	37147849.88	37147850.13	37147850.38	0.0258	0.0010
Moon	96995-04-04 17:16 G	37147849.96	37147850.22	37147850.47	0.0258	0.0007 *
Moon	96996-04-14 20:52 G	37148226.21	37148226.37	37148226.54	0.0259	0.0196
Earth	96996-04-14 23:45 G	37148226.35	37148226.49	37148226.64	0.0259	0.0207 *

98TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 98th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Mars	97002-01-19 22:19 G	37150331.28	37150331.43	37150331.59	0.0277	0.0226
Mercury	97003-02-01 01:55 G	37150708.39	37150708.58	37150708.76	0.0283	0.0078
Mercury	97003-05-01 02:24 G	37150797.44	37150797.60	37150797.77	0.0284	0.0135
Venus	97007-05-16 13:55 G	37152274.05	37152274.08	37152274.13	0.0301	0.0295
Venus	97008-01-01 17:02 G	37152504.00	37152504.21	37152504.42	0.0303	0.0011
Earth	97009-10-01 15:07 G	37153142.89	37153143.13	37153143.37	0.0305	0.0038
Moon	97009-10-01 18:28 G	37153143.03	37153143.27	37153143.51	0.0305	0.0034 *
Mercury	97015-12-18 00:28 G	37155411.44	37155411.52	37155411.61	0.0282	0.0212
Mercury	97016-03-15 11:16 G	37155499.85	37155499.97	37155500.10	0.0281	0.0074
Mercury	97016-06-11 22:04 G	37155588.29	37155588.42	37155588.55	0.0279	0.0063
Mercury	97016-09-08 08:38 G	37155676.77	37155676.86	37155676.95	0.0278	0.0198
Venus	97021-11-04 03:50 G	37157559.46	37157559.66	37157559.87	0.0260	0.0093
Venus	97022-06-21 02:09 G	37157788.40	37157788.59	37157788.79	0.0259	0.0105
Moon	97024-03-30 21:36 G	37158437.18	37158437.40	37158437.63	0.0257	0.0099
Earth	97024-03-30 23:45 G	37158437.27	37158437.49	37158437.72	0.0257	0.0107 *
Earth	97025-04-11 08:09 G	37158813.62	37158813.84	37158814.07	0.0258	0.0109
Moon	97025-04-11 11:02 G	37158813.74	37158813.96	37158814.19	0.0258	0.0104 *
Mercury	97032-06-19 22:48 G	37161440.29	37161440.45	37161440.62	0.0282	0.0149
Mercury	97032-09-16 23:31 G	37161529.29	37161529.48	37161529.66	0.0283	0.0062
Mercury	97032-12-15 00:00 G	37161618.46	37161618.50	37161618.55	0.0285	0.0276
Venus	97036-11-25 18:14 G	37163060.16	37163060.26	37163060.36	0.0302	0.0262
Venus	97037-07-13 21:36 G	37163290.20	37163290.40	37163290.61	0.0304	0.0048
Moon	97038-09-24 22:48 G	37163728.28	37163728.45	37163728.64	0.0305	0.0200
Earth	97038-09-25 02:38 G	37163728.43	37163728.61	37163728.79	0.0305	0.0202 *
Moon	97039-10-10 04:48 G	37164108.50	37164108.70	37164108.90	0.0305	0.0157
Earth	97039-10-10 07:40 G	37164108.62	37164108.82	37164109.03	0.0305	0.0156 *
Mercury	97045-05-06 02:52 G	37166143.57	37166143.62	37166143.67	0.0282	0.0254
Mercury	97045-08-02 13:40 G	37166231.95	37166232.07	37166232.19	0.0281	0.0115
Mercury	97045-10-30 00:28 G	37166320.39	37166320.52	37166320.65	0.0279	0.0022
Mercury	97046-01-26 11:02 G	37166408.86	37166408.96	37166409.07	0.0278	0.0157

Venus	97051-05-17 06:43 G	37168345.58	37168345.78	37168346.00	0.0259	0.0066
Venus	97052-01-01 05:02 G	37168574.54	37168574.71	37168574.90	0.0259	0.0133
Earth	97053-03-26 07:40 G	37169024.68	37169024.82	37169024.98	0.0258	0.0204
Moon	97053-03-26 10:48 G	37169024.78	37169024.95	37169025.12	0.0258	0.0190 *
Moon	97054-04-06 13:26 G	37169400.80	37169401.06	37169401.31	0.0258	0.0009
Earth	97054-04-06 16:19 G	37169400.93	37169401.18	37169401.43	0.0258	0.0011 *
Moon	97055-04-17 21:36 G	37169777.27	37169777.40	37169777.54	0.0259	0.0214
Earth	97055-04-18 00:14 G	37169777.40	37169777.51	37169777.64	0.0259	0.0227 *
Mercury	97061-11-06 19:40 G	37172172.21	37172172.32	37172172.45	0.0282	0.0220
Mercury	97062-02-03 20:24 G	37172261.16	37172261.35	37172261.54	0.0283	0.0009
Mercury	97062-05-03 20:52 G	37172350.25	37172350.37	37172350.51	0.0284	0.0204
Venus	97066-06-07 22:48 G	37173846.32	37173846.45	37173846.59	0.0302	0.0224
Venus	97067-01-24 02:24 G	37174076.40	37174076.60	37174076.80	0.0303	0.0086
Earth	97068-10-02 18:28 G	37174694.03	37174694.27	37174694.52	0.0305	0.0011
Moon	97068-10-02 20:52 G	37174694.12	37174694.37	37174694.62	0.0305	0.0009 *
Mercury	97074-12-20 16:04 G	37176964.06	37176964.17	37176964.28	0.0282	0.0158
Mercury	97075-03-19 02:52 G	37177052.49	37177052.62	37177052.75	0.0280	0.0021
Mercury	97075-06-15 13:26 G	37177140.95	37177141.06	37177141.18	0.0279	0.0116
Mercury	97075-09-12 00:14 G	37177229.46	37177229.51	37177229.57	0.0278	0.0250
Venus	97080-04-11 10:33 G	37178902.86	37178902.94	37178903.03	0.0261	0.0239
Venus	97080-11-26 09:50 G	37179131.70	37179131.91	37179132.13	0.0259	0.0038
Venus	97081-07-13 07:40 G	37179360.66	37179360.82	37179361.00	0.0258	0.0160
Earth	97083-04-02 00:00 G	37179988.27	37179988.50	37179988.74	0.0257	0.0086
Moon	97083-04-02 02:24 G	37179988.37	37179988.60	37179988.82	0.0257	0.0082 *
Earth	97084-04-12 07:55 G	37180364.62	37180364.83	37180365.05	0.0258	0.0129
Moon	97084-04-12 10:48 G	37180364.73	37180364.95	37180365.18	0.0258	0.0119 *
Mars	97090-06-15 00:43 G	37182619.44	37182619.53	37182619.63	0.0277	0.0258
Mercury	97091-06-23 16:48 G	37182993.03	37182993.20	37182993.39	0.0282	0.0084
Mercury	97091-09-20 17:31 G	37183082.06	37183082.23	37183082.40	0.0283	0.0128
Venus	97095-12-19 01:26 G	37184632.41	37184632.56	37184632.72	0.0303	0.0193

Venus	97096-08-05 05:16 G	37184862.53	37184862.72	37184862.91	0.0304	0.0120
Moon	97097-09-26 01:40 G	37185279.38	37185279.57	37185279.76	0.0305	0.0176
Earth	97097-09-26 02:52 G	37185279.43	37185279.62	37185279.83	0.0305	0.0176 *
Earth	97098-10-11 08:24 G	37185659.66	37185659.85	37185660.05	0.0305	0.0182
Moon	97098-10-11 10:04 G	37185659.73	37185659.92	37185660.11	0.0305	0.0178 *
Mercury	97104-05-09 18:00 G	37187696.16	37187696.25	37187696.34	0.0282	0.0206
Mercury	97104-08-06 04:48 G	37187784.57	37187784.70	37187784.83	0.0281	0.0068
Mercury	97104-11-02 15:36 G	37187873.02	37187873.15	37187873.27	0.0279	0.0069
Mercury	97105-01-30 02:09 G	37187961.51	37187961.59	37187961.68	0.0278	0.0204
Venus	97109-10-23 12:28 G	37189688.90	37189689.02	37189689.15	0.0260	0.0212
Venus	97110-06-09 11:31 G	37189917.77	37189917.98	37189918.20	0.0259	0.0014
Venus	97111-01-24 09:21 G	37190146.76	37190146.89	37190147.05	0.0258	0.0186
Moon	97112-03-28 05:02 G	37190575.52	37190575.71	37190575.90	0.0257	0.0173
Earth	97112-03-28 06:43 G	37190575.60	37190575.78	37190575.95	0.0257	0.0184 *
Moon	97113-04-08 11:45 G	37190951.75	37190951.99	37190952.23	0.0258	0.0026
Earth	97113-04-08 14:38 G	37190951.86	37190952.11	37190952.36	0.0258	0.0031 *
Earth	97114-04-19 22:19 G	37191328.36	37191328.43	37191328.51	0.0259	0.0245
Moon	97114-04-20 00:14 G	37191328.42	37191328.51	37191328.63	0.0259	0.0231 *
Mercury	97120-11-10 13:12 G	37193724.89	37193725.05	37193725.21	0.0282	0.0161
Mercury	97121-02-07 13:40 G	37193813.89	37193814.07	37193814.26	0.0283	0.0050
Mercury	97121-05-07 14:09 G	37193903.03	37193903.09	37193903.17	0.0284	0.0263
Venus	97125-07-01 04:19 G	37195418.51	37195418.68	37195418.86	0.0302	0.0159
Venus	97126-02-16 08:09 G	37195648.66	37195648.84	37195649.02	0.0304	0.0153
Moon	97127-10-05 13:40 G	37196244.82	37196245.07	37196245.32	0.0305	0.0008
Earth	97127-10-05 16:04 G	37196244.93	37196245.17	37196245.41	0.0305	0.0013 *
Mars	97132-08-27 03:07 G	37198032.59	37198032.63	37198032.69	0.0288	0.0284
Mercury	97133-09-26 20:09 G	37198428.28	37198428.34	37198428.39	0.0283	0.0254
Mercury	97133-12-24 06:57 G	37198516.67	37198516.79	37198516.91	0.0281	0.0114
Mercury	97134-03-22 17:45 G	37198605.11	37198605.24	37198605.37	0.0280	0.0024
Mercury	97134-06-19 04:19 G	37198693.58	37198693.68	37198693.79	0.0279	0.0160

Venus	97139-05-05 14:52 G	37200474.97	37200475.12	37200475.27	0.0260	0.0186
Venus	97139-12-20 13:55 G	37200703.87	37200704.08	37200704.30	0.0259	0.0015
Venus	97140-08-05 11:45 G	37200932.87	37200932.99	37200933.11	0.0258	0.0211
Earth	97142-04-03 21:36 G	37201539.16	37201539.40	37201539.65	0.0257	0.0067
Moon	97142-04-04 01:12 G	37201539.30	37201539.55	37201539.79	0.0257	0.0064 *
Moon	97143-04-15 02:52 G	37201915.41	37201915.62	37201915.85	0.0258	0.0134
Earth	97143-04-15 05:16 G	37201915.51	37201915.72	37201915.92	0.0258	0.0147 *
Mercury	97150-03-30 09:21 G	37204456.79	37204456.89	37204456.99	0.0281	0.0237
Mercury	97150-06-27 09:50 G	37204545.72	37204545.91	37204546.10	0.0282	0.0029
Mercury	97150-09-24 10:19 G	37204634.79	37204634.93	37204635.08	0.0283	0.0183
Venus	97155-01-11 06:00 G	37206204.56	37206204.75	37206204.94	0.0303	0.0130
Venus	97155-08-29 09:50 G	37206434.75	37206434.91	37206435.08	0.0304	0.0184
Earth	97156-09-27 22:04 G	37206830.22	37206830.42	37206830.64	0.0306	0.0156
Moon	97156-09-28 00:57 G	37206830.35	37206830.54	37206830.75	0.0306	0.0160 *
Earth	97157-10-13 04:04 G	37207210.49	37207210.67	37207210.85	0.0305	0.0202
Moon	97157-10-13 07:26 G	37207210.63	37207210.81	37207211.01	0.0305	0.0194 *
Mercury	97163-05-13 08:24 G	37209248.75	37209248.85	37209248.96	0.0282	0.0166
Mercury	97163-08-09 19:26 G	37209337.18	37209337.31	37209337.44	0.0281	0.0028
Mercury	97163-11-06 06:00 G	37209425.63	37209425.75	37209425.87	0.0279	0.0110
Mercury	97164-02-02 16:48 G	37209514.14	37209514.20	37209514.26	0.0278	0.0245
Venus	97168-11-14 15:50 G	37211261.00	37211261.16	37211261.33	0.0260	0.0162
Venus	97169-07-01 14:52 G	37211489.91	37211490.12	37211490.33	0.0259	0.0038
Venus	97170-02-15 12:28 G	37211718.94	37211719.02	37211719.11	0.0258	0.0234
Moon	97171-03-29 23:16 G	37212126.29	37212126.47	37212126.68	0.0257	0.0157
Earth	97171-03-30 03:07 G	37212126.44	37212126.63	37212126.82	0.0257	0.0165 *
Earth	97172-04-09 10:33 G	37212502.70	37212502.94	37212503.19	0.0257	0.0049
Moon	97172-04-09 12:14 G	37212502.77	37212503.01	37212503.24	0.0257	0.0041 *
Moon	97173-04-20 21:36 G	37212879.34	37212879.40	37212879.49	0.0258	0.0246
Mars	97178-11-08 18:00 G	37214907.20	37214907.25	37214907.33	0.0277	0.0268
Mercury	97179-11-14 06:00 G	37215277.57	37215277.75	37215277.93	0.0282	0.0107

Mercury	97180-02-11 06:28 G	37215366.59	37215366.77	37215366.95	0.0283	0.0103
Venus	97184-07-23 08:24 G	37216990.65	37216990.85	37216991.05	0.0303	0.0097
Venus	97185-03-10 12:14 G	37217220.87	37217221.01	37217221.16	0.0304	0.0217
Moon	97186-10-06 07:26 G	37217795.58	37217795.81	37217796.05	0.0305	0.0026
Earth	97186-10-06 10:33 G	37217795.70	37217795.94	37217796.19	0.0305	0.0034 *
Mercury	97192-09-29 10:19 G	37219980.85	37219980.93	37219981.01	0.0283	0.0216
Mercury	97192-12-26 21:07 G	37220069.26	37220069.38	37220069.51	0.0281	0.0076
Mercury	97193-03-25 07:55 G	37220157.71	37220157.83	37220157.96	0.0280	0.0062
Mercury	97193-06-21 18:43 G	37220246.19	37220246.28	37220246.37	0.0279	0.0198
Venus	97198-05-27 17:31 G	37222047.06	37222047.23	37222047.42	0.0260	0.0137
Venus	97199-01-11 16:33 G	37222275.98	37222276.19	37222276.40	0.0259	0.0063
Moon	97200-03-24 12:57 G	37222713.99	37222714.04	37222714.11	0.0258	0.0250
Moon	97201-04-04 16:48 G	37223089.94	37223090.20	37223090.45	0.0257	0.0051
Earth	97201-04-04 17:16 G	37223089.98	37223090.22	37223090.47	0.0257	0.0050 *
Moon	97202-04-15 21:21 G	37223466.20	37223466.39	37223466.59	0.0258	0.0150
Earth	97202-04-16 00:28 G	37223466.34	37223466.52	37223466.72	0.0258	0.0165 *
Mercury	97209-04-02 01:55 G	37226009.44	37226009.58	37226009.72	0.0281	0.0185
Mercury	97209-06-30 02:24 G	37226098.41	37226098.60	37226098.79	0.0282	0.0024
Mercury	97209-09-27 02:52 G	37226187.51	37226187.62	37226187.72	0.0283	0.0235
Venus	97214-02-02 08:52 G	37227776.67	37227776.87	37227777.07	0.0303	0.0070
Venus	97214-09-20 12:57 G	37228006.92	37228007.04	37228007.16	0.0304	0.0245
Earth	97215-09-29 14:24 G	37228380.89	37228381.10	37228381.32	0.0306	0.0138
Moon	97215-09-29 17:16 G	37228381.01	37228381.22	37228381.44	0.0306	0.0145 *
Moon	97216-10-13 20:24 G	37228761.17	37228761.35	37228761.54	0.0305	0.0207
Earth	97216-10-13 20:38 G	37228761.19	37228761.36	37228761.53	0.0305	0.0219 *
Mars	97221-01-19 00:28 G	37230319.51	37230319.52	37230319.54	0.0289	0.0288
Mercury	97222-02-16 11:31 G	37230712.95	37230712.98	37230713.02	0.0283	0.0272
Mercury	97222-05-15 22:33 G	37230801.32	37230801.44	37230801.55	0.0282	0.0131
Mercury	97222-08-12 09:21 G	37230889.76	37230889.89	37230890.02	0.0281	0.0009
Mercury	97222-11-08 20:09 G	37230978.23	37230978.34	37230978.45	0.0279	0.0145

Venus	97227-12-07 18:14 G	37232833.07	37232833.26	37232833.46	0.0260	0.0113
Venus	97228-07-23 17:02 G	37233062.00	37233062.21	37233062.41	0.0259	0.0087
Earth	97230-03-30 22:19 G	37233677.23	37233677.43	37233677.64	0.0257	0.0148
Moon	97230-03-30 22:48 G	37233677.26	37233677.45	37233677.66	0.0257	0.0146 *
Earth	97231-04-11 05:45 G	37234053.50	37234053.74	37234053.98	0.0257	0.0065
Moon	97231-04-11 09:21 G	37234053.65	37234053.89	37234054.14	0.0257	0.0055 *
Mercury	97238-08-19 21:50 G	37236741.35	37236741.41	37236741.47	0.0280	0.0265
Mercury	97238-11-16 22:19 G	37236830.24	37236830.43	37236830.61	0.0282	0.0057
Mercury	97239-02-13 22:48 G	37236919.29	37236919.45	37236919.61	0.0283	0.0153
Venus	97243-08-15 11:02 G	37238562.75	37238562.96	37238563.16	0.0303	0.0038
Venus	97244-04-01 14:52 G	37238793.05	37238793.12	37238793.22	0.0304	0.0277
Earth	97244-09-21 21:07 G	37238966.37	37238966.38	37238966.42	0.0305	0.0303
Earth	97245-10-07 02:24 G	37239346.36	37239346.60	37239346.84	0.0305	0.0052
Moon	97245-10-07 03:21 G	37239346.41	37239346.64	37239346.88	0.0305	0.0040 *
Mercury	97251-10-03 00:14 G	37241533.41	37241533.51	37241533.61	0.0283	0.0182
Mercury	97251-12-30 11:02 G	37241621.83	37241621.96	37241622.09	0.0282	0.0042
Mercury	97252-03-27 21:50 G	37241710.29	37241710.41	37241710.54	0.0280	0.0096
Mercury	97252-06-24 08:38 G	37241798.79	37241798.86	37241798.93	0.0279	0.0232
Venus	97257-06-18 19:40 G	37243619.12	37243619.32	37243619.53	0.0260	0.0089
Venus	97258-02-02 18:28 G	37243848.07	37243848.27	37243848.46	0.0259	0.0111
Moon	97259-03-26 03:35 G	37244264.56	37244264.65	37244264.75	0.0258	0.0238
Earth	97259-03-26 03:50 G	37244264.61	37244264.66	37244264.75	0.0258	0.0246 *
Moon	97260-04-05 08:38 G	37244640.61	37244640.86	37244641.10	0.0257	0.0040
Earth	97260-04-05 12:14 G	37244640.77	37244641.01	37244641.26	0.0257	0.0033 *
Earth	97261-04-16 19:26 G	37245017.14	37245017.31	37245017.49	0.0258	0.0181
Moon	97261-04-16 20:09 G	37245017.16	37245017.34	37245017.52	0.0258	0.0168 *
Mercury	97268-04-04 18:28 G	37247562.10	37247562.27	37247562.44	0.0281	0.0133
Mercury	97268-07-02 18:57 G	37247651.10	37247651.29	37247651.47	0.0282	0.0076
Venus	97273-02-24 11:45 G	37249348.79	37249348.99	37249349.20	0.0303	0.0012
Moon	97274-09-30 04:19 G	37249931.47	37249931.68	37249931.91	0.0306	0.0135

Earth	97274-09-30 06:43 G	37249931.56	37249931.78	37249932.01	0.0306	0.0119	*
Moon	97275-10-15 09:07 G	37250311.72	37250311.88	37250312.06	0.0305	0.0221	
Earth	97275-10-15 12:43 G	37250311.89	37250312.03	37250312.19	0.0305	0.0237	*
Mercury	97281-02-19 01:26 G	37252265.49	37252265.56	37252265.63	0.0283	0.0239	
Mercury	97281-05-18 12:14 G	37252353.90	37252354.01	37252354.14	0.0282	0.0099	
Mercury	97281-08-14 23:16 G	37252442.34	37252442.47	37252442.60	0.0281	0.0042	
Mercury	97281-11-11 10:04 G	37252530.82	37252530.92	37252531.02	0.0280	0.0179	
Venus	97286-12-29 19:55 G	37254405.13	37254405.33	37254405.55	0.0260	0.0066	
Venus	97287-08-15 18:28 G	37254634.10	37254634.27	37254634.46	0.0259	0.0135	
Earth	97289-03-31 17:02 G	37255228.00	37255228.21	37255228.43	0.0257	0.0132	
Moon	97289-03-31 21:07 G	37255228.17	37255228.38	37255228.59	0.0257	0.0134	*
Moon	97290-04-12 00:43 G	37255604.29	37255604.53	37255604.79	0.0257	0.0069	
Earth	97290-04-12 00:43 G	37255604.30	37255604.53	37255604.77	0.0257	0.0082	*
Mercury	97297-08-22 14:38 G	37258293.99	37258294.11	37258294.24	0.0280	0.0210	
Mercury	97297-11-19 15:07 G	37258382.94	37258383.13	37258383.32	0.0281	0.0005	
Mercury	97298-02-16 15:07 G	37258472.02	37258472.13	37258472.27	0.0283	0.0208	
Venus	97302-01-20 11:31 G	37259904.93	37259904.98	37259905.05	0.0301	0.0285	
Venus	97302-09-07 14:09 G	37260134.88	37260135.09	37260135.30	0.0303	0.0023	
Earth	97303-09-24 13:26 G	37260516.99	37260517.06	37260517.16	0.0305	0.0285	
Moon	97303-09-24 17:02 G	37260517.18	37260517.21	37260517.24	0.0305	0.0301	
Earth	97304-10-08 18:43 G	37260897.05	37260897.28	37260897.52	0.0305	0.0069	
Moon	97304-10-08 22:33 G	37260897.20	37260897.44	37260897.68	0.0305	0.0053	*
Mercury	97310-10-06 13:55 G	37263085.97	37263086.08	37263086.19	0.0283	0.0150	
Mercury	97311-01-03 00:57 G	37263174.41	37263174.54	37263174.67	0.0282	0.0011	
Mercury	97311-04-01 11:45 G	37263262.87	37263262.99	37263263.10	0.0280	0.0129	
Mercury	97311-06-28 22:33 G	37263351.40	37263351.44	37263351.47	0.0279	0.0265	
Venus	97315-11-25 21:21 G	37264962.33	37264962.39	37264962.48	0.0262	0.0245	
Venus	97316-07-11 21:35 G	37265191.19	37265191.40	37265191.61	0.0260	0.0040	
Venus	97317-02-25 19:55 G	37265420.17	37265420.33	37265420.51	0.0259	0.0160	
Moon	97318-03-27 19:26 G	37265815.21	37265815.31	37265815.44	0.0258	0.0228	

Earth	97318-03-27 23:16 G	37265815.36	37265815.47	37265815.59	0.0258	0.0229	*
Moon	97319-04-08 07:11 G	37266191.56	37266191.80	37266192.04	0.0257	0.0027	
Earth	97319-04-08 07:26 G	37266191.56	37266191.81	37266192.06	0.0257	0.0016	*
Earth	97320-04-18 14:52 G	37266567.97	37266568.12	37266568.28	0.0258	0.0197	
Moon	97320-04-18 18:28 G	37266568.10	37266568.27	37266568.45	0.0258	0.0183	*
Mercury	97327-04-09 11:31 G	37269114.80	37269114.98	37269115.17	0.0280	0.0076	
Mercury	97327-07-07 11:45 G	37269203.83	37269203.99	37269204.16	0.0282	0.0133	
Venus	97331-08-02 13:11 G	37270690.94	37270691.05	37270691.15	0.0301	0.0256	
Venus	97332-03-19 15:21 G	37270920.94	37270921.14	37270921.35	0.0303	0.0053	
Moon	97333-10-01 20:24 G	37271482.14	37271482.35	37271482.57	0.0305	0.0120	
Earth	97333-10-01 23:45 G	37271482.26	37271482.49	37271482.72	0.0305	0.0101	*
Moon	97334-10-17 04:33 G	37271862.55	37271862.69	37271862.84	0.0305	0.0238	
Earth	97334-10-17 05:45 G	37271862.61	37271862.74	37271862.87	0.0305	0.0254	*
Mercury	97340-02-23 15:21 G	37273818.05	37273818.14	37273818.23	0.0283	0.0205	
Mercury	97340-05-22 02:09 G	37273906.47	37273906.59	37273906.72	0.0282	0.0064	
Mercury	97340-08-18 12:57 G	37273994.92	37273995.04	37273995.17	0.0281	0.0076	
Mercury	97340-11-15 00:00 G	37274083.41	37274083.50	37274083.58	0.0280	0.0213	
Venus	97345-06-06 21:50 G	37275748.30	37275748.41	37275748.53	0.0261	0.0220	
Venus	97346-01-21 22:04 G	37275977.20	37275977.42	37275977.63	0.0260	0.0016	
Venus	97346-09-07 20:38 G	37276206.21	37276206.36	37276206.51	0.0259	0.0183	
Earth	97348-04-02 12:28 G	37276778.81	37276779.02	37276779.25	0.0257	0.0115	
Moon	97348-04-02 12:57 G	37276778.81	37276779.04	37276779.27	0.0257	0.0122	*
Moon	97349-04-13 16:48 G	37277154.97	37277155.20	37277155.44	0.0257	0.0084	
Earth	97349-04-13 20:24 G	37277155.13	37277155.35	37277155.59	0.0257	0.0100	*
Mercury	97356-08-26 08:09 G	37279846.68	37279846.84	37279847.00	0.0280	0.0150	
Mercury	97356-11-23 08:24 G	37279935.67	37279935.85	37279936.04	0.0282	0.0058	
Mercury	97357-02-20 08:38 G	37280024.81	37280024.86	37280024.93	0.0283	0.0268	
Venus	97361-02-11 16:19 G	37281477.04	37281477.18	37281477.32	0.0301	0.0222	
Venus	97361-09-29 18:57 G	37281707.09	37281707.29	37281707.49	0.0303	0.0088	
Earth	97362-09-25 09:07 G	37282067.76	37282067.88	37282068.00	0.0305	0.0264	

Moon	97362-09-25 11:16 G	37282067.89	37282067.97	37282068.07	0.0305	0.0282	*
Moon	97363-10-10 13:55 G	37282447.84	37282448.08	37282448.32	0.0305	0.0072	
Earth	97363-10-10 13:55 G	37282447.85	37282448.08	37282448.32	0.0305	0.0090	*
Mercury	97369-07-12 17:02 G	37284550.16	37284550.21	37284550.26	0.0284	0.0256	
Mercury	97369-10-09 04:04 G	37284638.55	37284638.67	37284638.79	0.0283	0.0114	
Mercury	97370-01-05 14:52 G	37284726.99	37284727.12	37284727.25	0.0282	0.0027	
Mercury	97370-04-04 01:40 G	37284815.47	37284815.57	37284815.68	0.0280	0.0165	
Venus	97374-12-18 00:00 G	37286534.37	37286534.50	37286534.65	0.0262	0.0195	
Venus	97375-08-04 00:00 G	37286763.29	37286763.50	37286763.72	0.0260	0.0011	
Venus	97376-03-19 22:33 G	37286992.32	37286992.44	37286992.57	0.0259	0.0209	
Moon	97377-03-28 18:43 G	37287366.16	37287366.28	37287366.42	0.0258	0.0214	
Earth	97377-03-28 19:26 G	37287366.18	37287366.31	37287366.46	0.0258	0.0212	*
Earth	97378-04-09 04:04 G	37287742.42	37287742.67	37287742.92	0.0258	0.0005	
Moon	97378-04-09 07:40 G	37287742.58	37287742.82	37287743.07	0.0258	0.0013	*
Earth	97379-04-20 11:31 G	37288118.85	37288118.98	37288119.13	0.0258	0.0215	
Moon	97379-04-20 12:28 G	37288118.87	37288119.02	37288119.19	0.0258	0.0202	*
Mercury	97386-01-13 05:16 G	37290578.61	37290578.72	37290578.85	0.0279	0.0215	
Mercury	97386-04-12 05:45 G	37290667.55	37290667.74	37290667.93	0.0280	0.0009	
Mercury	97386-07-10 05:45 G	37290756.62	37290756.74	37290756.88	0.0282	0.0200	
Venus	97390-08-24 18:57 G	37292263.14	37292263.29	37292263.46	0.0301	0.0189	
Venus	97391-04-11 21:35 G	37292493.21	37292493.40	37292493.59	0.0303	0.0122	
Earth	97392-10-02 20:52 G	37293033.14	37293033.37	37293033.60	0.0305	0.0079	
Moon	97392-10-02 22:19 G	37293033.21	37293033.43	37293033.66	0.0305	0.0098	*
Earth	97393-10-18 02:24 G	37293413.50	37293413.60	37293413.70	0.0305	0.0275	
Moon	97393-10-18 05:45 G	37293413.61	37293413.74	37293413.87	0.0305	0.0257	*
Mercury	97399-02-26 05:31 G	37295370.63	37295370.73	37295370.83	0.0283	0.0167	
Mercury	97399-05-25 16:19 G	37295459.06	37295459.18	37295459.31	0.0282	0.0028	
Mercury	97399-08-22 03:21 G	37295547.52	37295547.64	37295547.76	0.0281	0.0113	
Mercury	97399-11-18 14:09 G	37295636.03	37295636.09	37295636.14	0.0280	0.0251	
Venus	97404-06-30 00:57 G	37297320.38	37297320.54	37297320.71	0.0261	0.0169	

Venus	97405-02-14 00:57 G	37297549.33	37297549.54	37297549.76	0.0260	0.0036
Venus	97405-09-30 23:31 G	37297778.40	37297778.48	37297778.57	0.0259	0.0234
Moon	97407-04-05 06:28 G	37298329.54	37298329.77	37298330.00	0.0258	0.0109
Earth	97407-04-05 09:50 G	37298329.69	37298329.91	37298330.15	0.0258	0.0097 *
Moon	97408-04-15 17:16 G	37298706.00	37298706.22	37298706.44	0.0258	0.0104
Earth	97408-04-15 18:28 G	37298706.05	37298706.27	37298706.49	0.0258	0.0118 *
Mercury	97415-08-31 02:52 G	37301399.44	37301399.62	37301399.81	0.0280	0.0079
Mercury	97415-11-28 03:07 G	37301488.47	37301488.63	37301488.81	0.0282	0.0130
Venus	97420-03-06 23:31 G	37303049.30	37303049.48	37303049.66	0.0301	0.0152
Venus	97420-10-23 02:09 G	37303279.42	37303279.59	37303279.77	0.0303	0.0159
Moon	97421-09-27 05:45 G	37303618.61	37303618.74	37303618.87	0.0304	0.0257
Earth	97421-09-27 08:09 G	37303618.70	37303618.84	37303619.00	0.0304	0.0240 *
Moon	97422-10-12 09:07 G	37303998.66	37303998.88	37303999.12	0.0305	0.0096
Earth	97422-10-12 12:57 G	37303998.82	37303999.04	37303999.27	0.0305	0.0114 *
Mercury	97428-07-16 07:26 G	37306102.73	37306102.81	37306102.90	0.0284	0.0215
Mercury	97428-10-12 18:28 G	37306191.15	37306191.27	37306191.40	0.0283	0.0073
Mercury	97429-01-09 05:16 G	37306279.60	37306279.72	37306279.85	0.0281	0.0069
Mercury	97429-04-07 16:04 G	37306368.09	37306368.17	37306368.26	0.0280	0.0207
Venus	97434-01-10 03:50 G	37308106.49	37308106.66	37308106.85	0.0262	0.0142
Venus	97434-08-27 03:50 G	37308335.45	37308335.66	37308335.87	0.0260	0.0063
Earth	97436-03-30 17:45 G	37308917.09	37308917.24	37308917.42	0.0258	0.0194
Moon	97436-03-30 20:52 G	37308917.23	37308917.37	37308917.54	0.0258	0.0200 *
Earth	97437-04-11 02:52 G	37309293.37	37309293.62	37309293.87	0.0258	0.0021
Moon	97437-04-11 04:04 G	37309293.41	37309293.67	37309293.93	0.0258	0.0006 *
Moon	97438-04-22 07:11 G	37309669.69	37309669.80	37309669.94	0.0258	0.0224
Earth	97438-04-22 10:33 G	37309669.86	37309669.94	37309670.06	0.0258	0.0235 *
Mercury	97445-01-17 00:57 G	37312131.38	37312131.54	37312131.71	0.0279	0.0139
Mercury	97445-04-16 01:11 G	37312220.37	37312220.55	37312220.74	0.0281	0.0068
Mercury	97445-07-14 01:11 G	37312309.53	37312309.55	37312309.59	0.0282	0.0277
Venus	97449-09-17 04:04 G	37313835.48	37313835.67	37313835.87	0.0301	0.0113

Venus	97450-05-05 06:43 G	37314065.63	37314065.78	37314065.94	0.0303	0.0199
Earth	97451-10-05 23:02 G	37314584.23	37314584.46	37314584.71	0.0305	0.0053
Moon	97451-10-06 02:52 G	37314584.38	37314584.62	37314584.86	0.0305	0.0070 *
Earth	97452-10-20 04:04 G	37314964.64	37314964.67	37314964.72	0.0304	0.0300
Moon	97452-10-20 06:14 G	37314964.69	37314964.76	37314964.86	0.0304	0.0284 *
Mercury	97457-12-03 09:21 G	37316834.85	37316834.89	37316834.94	0.0284	0.0264
Mercury	97458-03-01 20:24 G	37316923.23	37316923.35	37316923.47	0.0283	0.0121
Mercury	97458-05-29 07:11 G	37317011.67	37317011.80	37317011.93	0.0282	0.0021
Mercury	97458-08-25 18:14 G	37317100.15	37317100.26	37317100.36	0.0281	0.0159
Venus	97463-07-23 06:00 G	37318892.56	37318892.75	37318892.95	0.0261	0.0114
Venus	97464-03-08 05:45 G	37319121.54	37319121.74	37319121.95	0.0260	0.0090
Moon	97466-04-06 08:38 G	37319880.64	37319880.86	37319881.09	0.0258	0.0089
Earth	97466-04-06 10:04 G	37319880.69	37319880.92	37319881.17	0.0258	0.0077 *
Earth	97467-04-17 18:57 G	37320257.08	37320257.29	37320257.50	0.0258	0.0138
Moon	97467-04-17 22:04 G	37320257.22	37320257.42	37320257.65	0.0258	0.0126 *
Mercury	97474-06-05 23:16 G	37322863.33	37322863.47	37322863.60	0.0280	0.0200
Mercury	97474-09-02 23:16 G	37322952.28	37322952.47	37322952.67	0.0281	0.0009
Mercury	97474-11-30 23:31 G	37323041.36	37323041.48	37323041.61	0.0282	0.0215
Venus	97479-03-30 10:33 G	37324621.74	37324621.94	37324622.14	0.0301	0.0072
Venus	97479-11-15 13:11 G	37324851.93	37324852.05	37324852.18	0.0303	0.0241
Moon	97480-09-28 10:33 G	37325169.80	37325169.94	37325170.11	0.0304	0.0228
Earth	97480-09-28 13:55 G	37325169.91	37325170.08	37325170.26	0.0304	0.0211 *
Moon	97481-10-13 17:16 G	37325550.02	37325550.22	37325550.44	0.0304	0.0129
Earth	97481-10-13 18:28 G	37325550.06	37325550.27	37325550.48	0.0304	0.0143 *
Mars	97486-04-01 14:38 G	37327180.95	37327181.11	37327181.28	0.0290	0.0244
Mercury	97487-07-19 22:48 G	37327655.34	37327655.45	37327655.55	0.0283	0.0165
Mercury	97487-10-16 09:35 G	37327743.77	37327743.90	37327744.03	0.0282	0.0023
Mercury	97488-01-12 20:24 G	37327832.24	37327832.35	37327832.47	0.0281	0.0117
Mercury	97488-04-10 07:11 G	37327920.75	37327920.80	37327920.86	0.0280	0.0255
Venus	97493-02-01 09:50 G	37329678.70	37329678.91	37329679.11	0.0262	0.0084

Venus	97493-09-18 09:21 G	37329907.71	37329907.89	37329908.09	0.0260	0.0121
Earth	97495-04-01 19:26 G	37330468.13	37330468.31	37330468.50	0.0258	0.0173
Moon	97495-04-01 21:50 G	37330468.24	37330468.41	37330468.60	0.0258	0.0179 *
Moon	97496-04-12 01:40 G	37330844.32	37330844.57	37330844.82	0.0258	0.0028
Earth	97496-04-12 05:02 G	37330844.46	37330844.71	37330844.95	0.0258	0.0042 *
Moon	97497-04-23 11:31 G	37331220.92	37331220.98	37331221.04	0.0259	0.0250
Earth	97497-04-23 13:40 G	37331221.03	37331221.07	37331221.10	0.0259	0.0255 *
Mars	97502-05-03 02:38 G	37333055.57	37333055.61	37333055.65	0.0272	0.0268
Mercury	97503-10-24 22:04 G	37333595.34	37333595.42	37333595.50	0.0279	0.0252
Mercury	97504-01-21 22:04 G	37333684.24	37333684.42	37333684.61	0.0280	0.0048
Mercury	97504-04-19 22:19 G	37333773.28	37333773.43	37333773.59	0.0281	0.0160
Venus	97508-10-10 17:02 G	37335408.00	37335408.21	37335408.41	0.0301	0.0028
Venus	97509-05-28 19:40 G	37335638.26	37335638.32	37335638.40	0.0303	0.0285
Earth	97510-10-08 07:40 G	37336135.58	37336135.82	37336136.06	0.0305	0.0021
Moon	97510-10-08 07:55 G	37336135.58	37336135.83	37336136.08	0.0305	0.0034 *
Mercury	97516-12-07 00:43 G	37338387.45	37338387.53	37338387.62	0.0284	0.0211
Mercury	97517-03-05 11:45 G	37338475.87	37338475.99	37338476.12	0.0283	0.0068
Mercury	97517-06-01 22:48 G	37338564.32	37338564.45	37338564.57	0.0282	0.0073
Mercury	97517-08-29 09:35 G	37338652.82	37338652.90	37338652.99	0.0280	0.0212
Venus	97521-12-29 11:31 G	37340235.98	37340235.98	37340236.00	0.0263	0.0262
Venus	97522-08-15 12:57 G	37340464.83	37340465.04	37340465.25	0.0261	0.0054
Venus	97523-04-01 12:28 G	37340693.85	37340694.02	37340694.20	0.0260	0.0150
Earth	97525-04-08 13:40 G	37341431.83	37341432.07	37341432.31	0.0258	0.0054
Moon	97525-04-08 16:04 G	37341431.94	37341432.17	37341432.41	0.0258	0.0068 *
Earth	97526-04-19 22:33 G	37341808.25	37341808.44	37341808.64	0.0258	0.0160
Moon	97526-04-20 00:57 G	37341808.34	37341808.54	37341808.75	0.0258	0.0150 *
Mercury	97533-06-09 20:52 G	37344416.20	37344416.37	37344416.55	0.0280	0.0104
Mercury	97533-09-06 21:07 G	37344505.21	37344505.38	37344505.56	0.0281	0.0104
Venus	97537-09-04 23:45 G	37345964.44	37345964.49	37345964.55	0.0300	0.0287
Venus	97538-04-23 00:57 G	37346194.33	37346194.54	37346194.75	0.0302	0.0018

Earth	97539-10-02 01:26 G	37346721.37	37346721.56	37346721.76	0.0304	0.0176
Moon	97539-10-02 01:55 G	37346721.40	37346721.58	37346721.76	0.0304	0.0191 *
Earth	97540-10-16 05:31 G	37347101.54	37347101.73	37347101.94	0.0304	0.0177
Moon	97540-10-16 08:52 G	37347101.67	37347101.87	37347102.07	0.0304	0.0165 *
Mercury	97546-04-26 03:35 G	37349119.59	37349119.65	37349119.72	0.0284	0.0248
Mercury	97546-07-23 14:38 G	37349207.99	37349208.11	37349208.23	0.0283	0.0105
Mercury	97546-10-20 01:40 G	37349296.44	37349296.57	37349296.70	0.0282	0.0037
Mercury	97547-01-16 12:28 G	37349384.92	37349385.02	37349385.12	0.0281	0.0176
Venus	97551-07-11 16:33 G	37351022.10	37351022.19	37351022.30	0.0263	0.0230
Venus	97552-02-25 17:45 G	37351251.03	37351251.24	37351251.46	0.0262	0.0021
Venus	97552-10-11 17:16 G	37351480.07	37351480.22	37351480.38	0.0260	0.0183
Moon	97554-04-03 22:19 G	37352019.23	37352019.43	37352019.63	0.0259	0.0161
Earth	97554-04-04 00:28 G	37352019.32	37352019.52	37352019.72	0.0259	0.0150 *
Moon	97555-04-15 07:26 G	37352395.58	37352395.81	37352396.06	0.0258	0.0053
Earth	97555-04-15 10:04 G	37352395.69	37352395.92	37352396.17	0.0258	0.0066 *
Mercury	97562-10-27 20:24 G	37355148.20	37355148.35	37355148.52	0.0279	0.0151
Mercury	97563-01-24 20:52 G	37355237.18	37355237.37	37355237.56	0.0280	0.0056
Mercury	97563-04-23 21:07 G	37355326.32	37355326.38	37355326.44	0.0282	0.0265
Venus	97567-03-18 08:09 G	37356750.72	37356750.84	37356750.97	0.0300	0.0239
Venus	97567-11-03 09:35 G	37356980.70	37356980.90	37356981.10	0.0302	0.0067
Moon	97569-10-09 19:55 G	37357687.08	37357687.33	37357687.57	0.0305	0.0005
Earth	97569-10-09 23:16 G	37357687.22	37357687.47	37357687.71	0.0305	0.0018 *
Mars	97574-08-27 15:21 G	37359469.87	37359470.14	37359470.41	0.0290	0.0142
Mercury	97575-12-10 17:16 G	37359940.11	37359940.22	37359940.33	0.0284	0.0145
Mercury	97576-03-08 04:19 G	37360028.55	37360028.68	37360028.81	0.0282	0.0003
Mercury	97576-06-04 15:07 G	37360117.02	37360117.13	37360117.25	0.0281	0.0137
Mercury	97576-09-01 01:55 G	37360205.56	37360205.58	37360205.61	0.0280	0.0275
Venus	97581-01-20 20:52 G	37361808.24	37361808.37	37361808.52	0.0263	0.0197
Venus	97581-09-06 22:04 G	37362037.20	37362037.42	37362037.63	0.0261	0.0011
Venus	97582-04-23 21:21 G	37362266.28	37362266.39	37362266.52	0.0260	0.0214

Earth	97583-03-30 09:21 G	37362606.83	37362606.89	37362606.98	0.0259	0.0246
Moon	97583-03-30 11:31 G	37362606.95	37362606.98	37362607.04	0.0259	0.0254 *
Earth	97584-04-09 20:24 G	37362983.11	37362983.35	37362983.60	0.0258	0.0030
Moon	97584-04-09 23:45 G	37362983.24	37362983.49	37362983.74	0.0258	0.0044 *
Moon	97585-04-21 03:21 G	37363359.47	37363359.64	37363359.84	0.0258	0.0179
Earth	97585-04-21 06:00 G	37363359.58	37363359.75	37363359.92	0.0258	0.0185 *
Mars	97590-09-27 11:02 G	37365344.75	37365344.96	37365345.19	0.0273	0.0166
Mercury	97592-03-15 20:09 G	37365880.21	37365880.34	37365880.48	0.0279	0.0200
Mercury	97592-06-12 20:24 G	37365969.16	37365969.35	37365969.55	0.0281	0.0009
Mercury	97592-09-09 20:38 G	37366058.24	37366058.36	37366058.49	0.0282	0.0215
Venus	97596-09-27 17:31 G	37367537.08	37367537.23	37367537.39	0.0300	0.0192
Venus	97597-05-15 19:11 G	37367767.11	37367767.30	37367767.49	0.0302	0.0116
Earth	97598-10-03 19:11 G	37368273.10	37368273.30	37368273.53	0.0304	0.0137
Moon	97598-10-03 22:48 G	37368273.25	37368273.45	37368273.66	0.0304	0.0151 *
Earth	97599-10-18 23:16 G	37368653.31	37368653.47	37368653.65	0.0304	0.0217
Moon	97599-10-19 02:24 G	37368653.42	37368653.60	37368653.79	0.0304	0.0204 *
Mercury	97605-04-28 20:24 G	37370672.25	37370672.35	37370672.45	0.0284	0.0178
Mercury	97605-07-26 07:26 G	37370760.68	37370760.81	37370760.94	0.0282	0.0036
Mercury	97605-10-22 18:14 G	37370849.14	37370849.26	37370849.38	0.0281	0.0104
Mercury	97606-01-19 05:02 G	37370937.65	37370937.71	37370937.78	0.0280	0.0243
Venus	97610-08-03 02:52 G	37372594.46	37372594.62	37372594.80	0.0263	0.0163
Venus	97611-03-20 03:50 G	37372823.45	37372823.66	37372823.87	0.0261	0.0046
Venus	97611-11-04 03:07 G	37373052.58	37373052.63	37373052.70	0.0260	0.0248
Moon	97613-04-05 04:48 G	37373570.50	37373570.70	37373570.91	0.0259	0.0139
Earth	97613-04-05 08:24 G	37373570.64	37373570.85	37373571.07	0.0259	0.0125 *
Earth	97614-04-16 18:14 G	37373947.03	37373947.26	37373947.50	0.0259	0.0091
Moon	97614-04-16 19:40 G	37373947.09	37373947.32	37373947.55	0.0259	0.0079 *
Mercury	97621-08-02 20:09 G	37376612.26	37376612.34	37376612.44	0.0279	0.0243
Mercury	97621-10-30 20:38 G	37376701.17	37376701.36	37376701.55	0.0280	0.0037
Mercury	97622-01-27 20:38 G	37376790.22	37376790.36	37376790.52	0.0281	0.0171

Venus	97626-04-10 03:07 G	37378323.45	37378323.63	37378323.82	0.0300	0.0140
Venus	97626-11-26 05:02 G	37378553.54	37378553.71	37378553.88	0.0302	0.0169
Earth	97627-09-27 16:19 G	37378859.12	37378859.18	37378859.26	0.0304	0.0290
Moon	97628-10-11 16:33 G	37379238.96	37379239.19	37379239.43	0.0304	0.0046
Earth	97628-10-11 19:11 G	37379239.07	37379239.30	37379239.54	0.0304	0.0061 *
Mercury	97634-09-15 23:31 G	37381404.40	37381404.48	37381404.56	0.0284	0.0213
Mercury	97634-12-13 10:33 G	37381492.81	37381492.94	37381493.06	0.0283	0.0071
Mercury	97635-03-11 21:21 G	37381581.27	37381581.39	37381581.52	0.0282	0.0070
Mercury	97635-06-08 08:09 G	37381669.76	37381669.84	37381669.93	0.0281	0.0209
Venus	97640-02-13 08:24 G	37383380.66	37383380.85	37383381.04	0.0262	0.0128
Venus	97640-09-29 08:52 G	37383609.67	37383609.87	37383610.08	0.0261	0.0080
Earth	97642-03-31 18:57 G	37384158.17	37384158.29	37384158.43	0.0259	0.0220
Moon	97642-03-31 22:33 G	37384158.34	37384158.44	37384158.57	0.0259	0.0230 *
Moon	97643-04-12 05:16 G	37384534.46	37384534.72	37384534.98	0.0258	0.0019
Earth	97643-04-12 06:00 G	37384534.50	37384534.75	37384535.00	0.0258	0.0004 *
Moon	97644-04-22 12:14 G	37384910.87	37384911.01	37384911.16	0.0259	0.0206
Earth	97644-04-22 15:35 G	37384911.01	37384911.15	37384911.30	0.0259	0.0211 *
Mercury	97651-03-19 20:24 G	37387433.17	37387433.35	37387433.54	0.0280	0.0084
Mercury	97651-06-16 20:38 G	37387522.20	37387522.36	37387522.54	0.0281	0.0125
Venus	97655-10-21 13:40 G	37389109.88	37389110.07	37389110.27	0.0301	0.0090
Venus	97656-06-07 15:50 G	37389340.03	37389340.16	37389340.31	0.0302	0.0222
Earth	97657-10-05 18:00 G	37389825.02	37389825.25	37389825.48	0.0304	0.0091
Moon	97657-10-05 20:24 G	37389825.13	37389825.35	37389825.59	0.0304	0.0107 *
Moon	97658-10-20 21:21 G	37390205.26	37390205.39	37390205.55	0.0304	0.0249
Earth	97658-10-20 22:04 G	37390205.30	37390205.42	37390205.54	0.0304	0.0260 *
Mars	97663-01-22 19:55 G	37391760.03	37391760.33	37391760.65	0.0289	0.0031
Mercury	97664-02-03 02:52 G	37392136.56	37392136.62	37392136.69	0.0284	0.0243
Mercury	97664-05-01 13:55 G	37392224.96	37392225.08	37392225.20	0.0283	0.0100
Mercury	97664-07-29 00:43 G	37392313.41	37392313.53	37392313.66	0.0282	0.0041
Mercury	97664-10-25 11:31 G	37392401.89	37392401.98	37392402.08	0.0280	0.0180

Venus	97669-08-25 15:07 G	37394166.93	37394167.13	37394167.34	0.0262	0.0092
Venus	97670-04-11 15:35 G	37394395.96	37394396.15	37394396.34	0.0261	0.0115
Earth	97672-04-06 18:57 G	37395122.06	37395122.29	37395122.52	0.0259	0.0098
Moon	97672-04-06 19:26 G	37395122.09	37395122.31	37395122.53	0.0259	0.0113 *
Earth	97673-04-18 04:33 G	37395498.48	37395498.69	37395498.92	0.0259	0.0118
Moon	97673-04-18 08:24 G	37395498.63	37395498.85	37395499.08	0.0259	0.0105 *
Mars	97679-02-22 08:52 G	37397634.60	37397634.87	37397635.15	0.0273	0.0032
Mercury	97680-08-05 20:52 G	37398165.20	37398165.37	37398165.55	0.0279	0.0124
Mercury	97680-11-02 21:21 G	37398254.20	37398254.39	37398254.57	0.0281	0.0084
Venus	97685-05-03 00:28 G	37399896.32	37399896.52	37399896.73	0.0301	0.0035
Venus	97685-12-19 02:52 G	37400126.54	37400126.62	37400126.70	0.0302	0.0277
Moon	97686-09-29 15:07 G	37400411.02	37400411.13	37400411.26	0.0304	0.0260
Earth	97686-09-29 16:48 G	37400411.06	37400411.20	37400411.35	0.0304	0.0244 *
Earth	97687-10-14 19:40 G	37400791.10	37400791.32	37400791.55	0.0304	0.0107
Moon	97687-10-14 20:38 G	37400791.14	37400791.36	37400791.59	0.0304	0.0094 *
Mercury	97693-06-22 06:14 G	37402868.73	37402868.76	37402868.79	0.0285	0.0276
Mercury	97693-09-18 17:16 G	37402957.10	37402957.22	37402957.33	0.0283	0.0133
Mercury	97693-12-16 04:04 G	37403045.54	37403045.67	37403045.80	0.0282	0.0012
Mercury	97694-03-14 14:52 G	37403134.02	37403134.12	37403134.24	0.0281	0.0149
Venus	97699-03-07 20:52 G	37404953.16	37404953.37	37404953.59	0.0262	0.0056
Venus	97699-10-22 21:07 G	37405182.21	37405182.38	37405182.56	0.0261	0.0150
Earth	97701-04-03 06:00 G	37405709.60	37405709.75	37405709.93	0.0259	0.0193
Moon	97701-04-03 06:14 G	37405709.60	37405709.76	37405709.92	0.0259	0.0203 *
Moon	97702-04-14 13:11 G	37406085.80	37406086.05	37406086.30	0.0258	0.0008
Earth	97702-04-14 17:02 G	37406085.96	37406086.21	37406086.46	0.0258	0.0023 *
Moon	97703-04-26 02:24 G	37406462.51	37406462.60	37406462.71	0.0259	0.0235
Earth	97703-04-26 02:24 G	37406462.52	37406462.60	37406462.71	0.0259	0.0238 *
Mercury	97709-12-24 20:52 G	37408897.22	37408897.37	37408897.52	0.0280	0.0171
Mercury	97710-03-23 21:07 G	37408986.19	37408986.38	37408986.57	0.0281	0.0037
Mercury	97710-06-20 21:21 G	37409075.30	37409075.39	37409075.49	0.0282	0.0246

Venus	97714-03-29 10:33 G	37410452.88	37410452.94	37410452.99	0.0299	0.0288
Venus	97714-11-14 11:02 G	37410682.76	37410682.96	37410683.17	0.0301	0.0017
Moon	97716-10-08 16:19 G	37411376.94	37411377.18	37411377.42	0.0304	0.0058
Earth	97716-10-08 18:14 G	37411377.02	37411377.26	37411377.50	0.0304	0.0045 *
Moon	97717-10-23 18:28 G	37411757.22	37411757.27	37411757.34	0.0304	0.0293
Mercury	97723-02-06 20:38 G	37413689.26	37413689.36	37413689.47	0.0283	0.0161
Mercury	97723-05-06 07:40 G	37413777.69	37413777.82	37413777.95	0.0282	0.0019
Mercury	97723-08-02 18:28 G	37413866.16	37413866.27	37413866.39	0.0281	0.0121
Mercury	97723-10-30 05:16 G	37413954.68	37413954.72	37413954.77	0.0280	0.0259
Venus	97728-02-02 02:24 G	37415510.51	37415510.60	37415510.72	0.0263	0.0229
Venus	97728-09-18 04:04 G	37415739.46	37415739.67	37415739.89	0.0262	0.0019
Venus	97729-05-05 04:04 G	37415968.52	37415968.67	37415968.82	0.0261	0.0187
Earth	97731-04-10 06:14 G	37416673.53	37416673.76	37416674.01	0.0259	0.0070
Moon	97731-04-10 10:04 G	37416673.69	37416673.92	37416674.16	0.0259	0.0086 *
Earth	97732-04-20 16:04 G	37417049.97	37417050.17	37417050.38	0.0259	0.0145
Moon	97732-04-20 17:02 G	37417050.00	37417050.21	37417050.44	0.0259	0.0134 *
Mercury	97739-05-13 21:07 G	37419629.26	37419629.38	37419629.51	0.0279	0.0213
Mercury	97739-08-10 21:35 G	37419718.21	37419718.40	37419718.59	0.0280	0.0007
Mercury	97739-11-07 21:35 G	37419807.28	37419807.40	37419807.54	0.0281	0.0204
Venus	97743-10-09 21:07 G	37421239.25	37421239.38	37421239.50	0.0299	0.0235
Venus	97744-05-26 22:04 G	37421469.22	37421469.42	37421469.62	0.0301	0.0072
Earth	97745-10-02 17:02 G	37421963.04	37421963.21	37421963.40	0.0304	0.0198
Moon	97745-10-02 19:40 G	37421963.16	37421963.32	37421963.49	0.0304	0.0211 *
Earth	97746-10-17 20:24 G	37422343.15	37422343.35	37422343.57	0.0304	0.0153
Moon	97746-10-18 00:14 G	37422343.31	37422343.51	37422343.73	0.0304	0.0140 *
Mars	97751-06-21 10:33 G	37424050.74	37424050.94	37424051.17	0.0289	0.0213
Mercury	97752-06-26 00:14 G	37424421.42	37424421.51	37424421.61	0.0284	0.0192
Mercury	97752-09-22 11:16 G	37424509.84	37424509.97	37424510.09	0.0283	0.0050
Mercury	97752-12-19 22:04 G	37424598.30	37424598.42	37424598.54	0.0281	0.0091
Mercury	97753-03-18 08:52 G	37424686.80	37424686.87	37424686.94	0.0280	0.0229

Venus	97757-08-14 08:52 G	37426296.73	37426296.87	37426297.02	0.0263	0.0193
Venus	97758-03-31 10:04 G	37426525.70	37426525.92	37426526.14	0.0261	0.0016
Venus	97758-11-15 09:35 G	37426754.80	37426754.90	37426755.02	0.0260	0.0221
Moon	97760-04-04 14:24 G	37427260.92	37427261.10	37427261.29	0.0258	0.0177
Earth	97760-04-04 17:45 G	37427261.06	37427261.24	37427261.44	0.0258	0.0164 *
Moon	97761-04-16 03:21 G	37427637.40	37427637.64	37427637.88	0.0258	0.0038
Earth	97761-04-16 04:04 G	37427637.43	37427637.67	37427637.92	0.0258	0.0051 *
Mars	97767-07-21 02:52 G	37429924.36	37429924.62	37429924.88	0.0274	0.0091
Mercury	97768-09-29 21:07 G	37430361.31	37430361.38	37430361.44	0.0279	0.0261
Mercury	97768-12-27 21:21 G	37430450.20	37430450.39	37430450.57	0.0280	0.0055
Mercury	97769-03-26 21:35 G	37430539.24	37430539.40	37430539.56	0.0282	0.0155
Venus	97773-04-21 06:57 G	37432025.64	37432025.79	37432025.96	0.0300	0.0186
Venus	97773-12-07 08:24 G	37432255.66	37432255.85	37432256.04	0.0302	0.0123
Moon	97775-10-11 14:52 G	37432928.88	37432929.12	37432929.36	0.0304	0.0011
Earth	97775-10-11 18:43 G	37432929.03	37432929.28	37432929.52	0.0304	0.0004 *
Mercury	97781-11-13 03:35 G	37435153.58	37435153.65	37435153.73	0.0284	0.0221
Mercury	97782-02-09 14:38 G	37435241.99	37435242.11	37435242.23	0.0282	0.0078
Mercury	97782-05-09 01:26 G	37435330.44	37435330.56	37435330.69	0.0281	0.0063
Mercury	97782-08-05 12:14 G	37435418.93	37435419.01	37435419.10	0.0280	0.0201
Venus	97787-02-24 15:50 G	37437082.99	37437083.16	37437083.34	0.0263	0.0156
Venus	97787-10-11 16:48 G	37437311.99	37437312.20	37437312.41	0.0261	0.0053
Venus	97788-05-27 16:04 G	37437541.15	37437541.17	37437541.21	0.0260	0.0257
Earth	97789-03-31 05:45 G	37437848.73	37437848.74	37437848.79	0.0259	0.0258
Earth	97790-04-11 17:16 G	37438224.97	37438225.22	37438225.46	0.0259	0.0043
Moon	97790-04-11 18:43 G	37438225.03	37438225.28	37438225.53	0.0259	0.0057 *
Moon	97791-04-22 23:02 G	37438601.28	37438601.46	37438601.67	0.0259	0.0165
Earth	97791-04-23 02:52 G	37438601.44	37438601.62	37438601.81	0.0259	0.0171 *
Mercury	97798-05-16 21:07 G	37441182.20	37441182.38	37441182.56	0.0280	0.0100
Mercury	97798-08-13 21:21 G	37441271.22	37441271.39	37441271.57	0.0281	0.0108
Venus	97802-11-02 16:33 G	37442812.01	37442812.19	37442812.38	0.0300	0.0135

Venus	97803-06-20 18:14 G	37443042.10	37443042.26	37443042.44	0.0302	0.0176
Earth	97804-10-05 15:21 G	37443514.94	37443515.14	37443515.35	0.0304	0.0153
Moon	97804-10-05 18:43 G	37443515.08	37443515.28	37443515.49	0.0304	0.0166 *
Earth	97805-10-20 19:11 G	37443895.12	37443895.30	37443895.49	0.0304	0.0197
Moon	97805-10-20 20:52 G	37443895.18	37443895.37	37443895.57	0.0304	0.0186 *
Mercury	97811-04-03 06:57 G	37445885.74	37445885.79	37445885.85	0.0284	0.0254
Mercury	97811-06-30 18:00 G	37445974.13	37445974.25	37445974.37	0.0283	0.0111
Mercury	97811-09-27 04:48 G	37446062.57	37446062.70	37446062.83	0.0282	0.0031
Mercury	97811-12-24 15:35 G	37446151.05	37446151.15	37446151.26	0.0281	0.0170
Venus	97816-09-06 21:35 G	37447869.22	37447869.40	37447869.60	0.0262	0.0122
Venus	97817-04-23 22:33 G	37448098.23	37448098.44	37448098.64	0.0261	0.0087
Moon	97819-04-08 02:09 G	37448812.39	37448812.59	37448812.79	0.0258	0.0150
Earth	97819-04-08 04:33 G	37448812.47	37448812.69	37448812.90	0.0258	0.0137 *
Earth	97820-04-18 14:09 G	37449188.86	37449189.09	37449189.33	0.0258	0.0078
Moon	97820-04-18 17:31 G	37449188.99	37449189.23	37449189.46	0.0258	0.0067 *
Mercury	97827-10-04 20:09 G	37451914.18	37451914.34	37451914.50	0.0280	0.0155
Mercury	97828-01-01 20:24 G	37452003.16	37452003.35	37452003.54	0.0281	0.0053
Mercury	97828-03-30 20:38 G	37452092.30	37452092.36	37452092.43	0.0282	0.0264
Venus	97832-05-15 01:26 G	37453598.37	37453598.56	37453598.76	0.0301	0.0088
Venus	97832-12-31 03:21 G	37453828.51	37453828.64	37453828.78	0.0303	0.0224
Earth	97833-09-29 11:45 G	37454100.99	37454100.99	37454101.02	0.0304	0.0303
Moon	97834-10-14 14:09 G	37454480.86	37454481.09	37454481.32	0.0305	0.0034
Earth	97834-10-14 14:52 G	37454480.88	37454481.12	37454481.36	0.0305	0.0044 *
Mercury	97840-11-16 21:21 G	37456706.27	37456706.39	37456706.50	0.0283	0.0142
Mercury	97841-02-13 08:09 G	37456794.71	37456794.84	37456794.97	0.0282	0.0001
Mercury	97841-05-12 18:57 G	37456883.18	37456883.29	37456883.40	0.0281	0.0139
Mercury	97841-08-09 05:45 G	37456971.73	37456971.74	37456971.76	0.0279	0.0277
Venus	97846-03-20 03:50 G	37458655.46	37458655.66	37458655.87	0.0262	0.0086
Venus	97846-11-04 04:19 G	37458884.49	37458884.68	37458884.87	0.0261	0.0122
Earth	97848-04-02 15:35 G	37459400.04	37459400.15	37459400.26	0.0259	0.0230

Moon	97848-04-02 18:14 G	37459400.18	37459400.26	37459400.37	0.0259	0.0239	*
Moon	97849-04-13 23:16 G	37459776.22	37459776.47	37459776.73	0.0258	0.0030	
Earth	97849-04-14 01:55 G	37459776.34	37459776.58	37459776.83	0.0258	0.0017	*
Moon	97850-04-25 08:38 G	37460152.71	37460152.86	37460153.03	0.0259	0.0194	
Earth	97850-04-25 11:16 G	37460152.81	37460152.97	37460153.13	0.0259	0.0196	*
Mars	97855-12-16 14:24 G	37462213.91	37462214.10	37462214.29	0.0274	0.0197	
Mercury	97857-02-20 19:11 G	37462646.18	37462646.30	37462646.44	0.0279	0.0206	
Mercury	97857-05-20 19:40 G	37462735.13	37462735.32	37462735.51	0.0280	0.0002	
Mercury	97857-08-17 19:55 G	37462824.21	37462824.33	37462824.46	0.0282	0.0211	
Venus	97861-11-25 10:04 G	37464384.72	37464384.92	37464385.13	0.0301	0.0040	
Venus	97862-07-13 12:14 G	37464614.94	37464615.01	37464615.11	0.0302	0.0274	
Earth	97863-10-08 09:50 G	37465066.69	37465066.91	37465067.14	0.0304	0.0112	
Moon	97863-10-08 10:19 G	37465066.70	37465066.93	37465067.16	0.0304	0.0123	*
Moon	97864-10-22 11:31 G	37465446.83	37465446.98	37465447.15	0.0304	0.0231	
Earth	97864-10-22 14:09 G	37465446.95	37465447.09	37465447.25	0.0304	0.0239	*
Mercury	97870-04-06 00:28 G	37467438.42	37467438.52	37467438.62	0.0284	0.0177	
Mercury	97870-07-03 11:16 G	37467526.85	37467526.97	37467527.10	0.0283	0.0036	
Mercury	97870-09-29 22:04 G	37467615.31	37467615.42	37467615.55	0.0281	0.0107	
Mercury	97870-12-27 08:52 G	37467703.82	37467703.87	37467703.94	0.0280	0.0244	
Venus	97875-09-30 09:07 G	37469441.67	37469441.88	37469442.10	0.0262	0.0053	
Venus	97876-05-16 09:07 G	37469670.72	37469670.88	37469671.06	0.0260	0.0155	
Earth	97878-04-09 12:14 G	37470363.79	37470364.01	37470364.24	0.0258	0.0111	
Moon	97878-04-09 14:09 G	37470363.88	37470364.09	37470364.31	0.0258	0.0125	*
Earth	97879-04-20 21:35 G	37470740.18	37470740.40	37470740.63	0.0258	0.0102	
Moon	97879-04-21 00:28 G	37470740.28	37470740.52	37470740.76	0.0258	0.0093	*
Mercury	97886-07-10 17:45 G	37473378.18	37473378.24	37473378.30	0.0279	0.0265	
Mercury	97886-10-07 18:00 G	37473467.06	37473467.25	37473467.44	0.0280	0.0059	
Mercury	97887-01-04 18:14 G	37473556.10	37473556.26	37473556.42	0.0281	0.0150	
Venus	97891-06-07 17:02 G	37475171.01	37475171.21	37475171.42	0.0301	0.0006	
Earth	97892-10-01 02:38 G	37475652.50	37475652.61	37475652.73	0.0304	0.0266	

Moon	97892-10-01 02:38 G	37475652.53	37475652.61	37475652.71	0.0304	0.0279 *
Earth	97893-10-16 06:00 G	37476032.53	37476032.75	37476032.99	0.0305	0.0083
Moon	97893-10-16 09:07 G	37476032.65	37476032.88	37476033.11	0.0305	0.0074 *
Mercury	97899-08-24 03:07 G	37478170.55	37478170.63	37478170.72	0.0284	0.0215
Mercury	97899-11-20 14:09 G	37478258.96	37478259.09	37478259.22	0.0283	0.0072
Mercury	97900-02-17 00:57 G	37478347.42	37478347.54	37478347.67	0.0281	0.0069
Mercury	97900-05-16 11:45 G	37478435.91	37478435.99	37478436.08	0.0280	0.0208
Venus	97904-08-26 12:28 G	37479998.93	37479999.02	37479999.13	0.0263	0.0231
Venus	97905-04-12 14:09 G	37480227.87	37480228.09	37480228.30	0.0261	0.0020
Venus	97905-11-27 13:55 G	37480456.94	37480457.08	37480457.24	0.0260	0.0187
Moon	97907-04-05 20:09 G	37480951.22	37480951.34	37480951.49	0.0258	0.0217
Earth	97907-04-05 22:19 G	37480951.28	37480951.43	37480951.58	0.0258	0.0205 *
Moon	97908-04-16 04:48 G	37481327.45	37481327.70	37481327.95	0.0258	0.0006
Earth	97908-04-16 08:09 G	37481327.59	37481327.84	37481328.09	0.0258	0.0009 *
Earth	97909-04-27 16:19 G	37481704.07	37481704.18	37481704.33	0.0258	0.0220
Moon	97909-04-27 18:28 G	37481704.16	37481704.27	37481704.41	0.0258	0.0221 *
Mercury	97916-02-25 16:19 G	37484199.01	37484199.18	37484199.35	0.0280	0.0119
Mercury	97916-05-24 16:33 G	37484288.01	37484288.19	37484288.37	0.0281	0.0090
Venus	97920-05-02 23:16 G	37485727.37	37485727.47	37485727.57	0.0299	0.0260
Venus	97920-12-18 23:45 G	37485957.29	37485957.49	37485957.70	0.0301	0.0048
Moon	97922-10-10 18:28 G	37486618.04	37486618.27	37486618.51	0.0304	0.0087
Earth	97922-10-10 21:35 G	37486618.17	37486618.40	37486618.64	0.0304	0.0077 *
Moon	97923-10-25 23:16 G	37486998.36	37486998.47	37486998.58	0.0304	0.0266
Earth	97923-10-26 02:24 G	37486998.50	37486998.60	37486998.71	0.0304	0.0273 *
Mercury	97929-01-11 06:00 G	37488902.70	37488902.75	37488902.81	0.0285	0.0254
Mercury	97929-04-09 17:02 G	37488991.09	37488991.21	37488991.33	0.0283	0.0110
Mercury	97929-07-07 03:50 G	37489079.53	37489079.66	37489079.79	0.0282	0.0033
Mercury	97929-10-03 14:38 G	37489168.01	37489168.11	37489168.22	0.0281	0.0172
Venus	97934-03-08 17:16 G	37490785.09	37490785.22	37490785.36	0.0263	0.0199
Venus	97934-10-23 18:28 G	37491014.05	37491014.27	37491014.48	0.0261	0.0012

Venus	97935-06-09 17:45 G	37491243.14	37491243.24	37491243.37	0.0260	0.0217
Earth	97937-04-11 17:02 G	37491914.98	37491915.21	37491915.45	0.0258	0.0087
Moon	97937-04-11 20:38 G	37491915.14	37491915.36	37491915.60	0.0258	0.0103 *
Moon	97938-04-23 00:14 G	37492291.29	37492291.51	37492291.75	0.0258	0.0119
Earth	97938-04-23 01:40 G	37492291.36	37492291.57	37492291.80	0.0258	0.0125 *
Mars	97944-05-12 07:26 G	37494502.76	37494502.81	37494502.89	0.0274	0.0265
Mercury	97945-07-14 13:40 G	37494930.93	37494931.07	37494931.22	0.0279	0.0185
Mercury	97945-10-11 13:55 G	37495019.89	37495020.08	37495020.28	0.0280	0.0023
Mercury	97946-01-08 14:24 G	37495108.99	37495109.10	37495109.20	0.0282	0.0232
Venus	97949-11-13 03:35 G	37496513.52	37496513.65	37496513.80	0.0300	0.0224
Venus	97950-07-01 05:02 G	37496743.51	37496743.71	37496743.91	0.0302	0.0086
Earth	97951-10-04 11:02 G	37497203.81	37497203.96	37497204.11	0.0305	0.0234
Moon	97951-10-04 14:24 G	37497203.97	37497204.10	37497204.25	0.0305	0.0247 *
Earth	97952-10-18 15:07 G	37497583.91	37497584.13	37497584.36	0.0305	0.0115
Moon	97952-10-18 18:28 G	37497584.04	37497584.27	37497584.50	0.0305	0.0105 *
Mercury	97958-08-27 19:26 G	37499723.20	37499723.31	37499723.42	0.0284	0.0153
Mercury	97958-11-24 06:14 G	37499811.63	37499811.76	37499811.89	0.0282	0.0012
Mercury	97959-02-20 17:02 G	37499900.10	37499900.21	37499900.33	0.0281	0.0131
Mercury	97959-05-20 03:50 G	37499988.64	37499988.66	37499988.70	0.0280	0.0269
Venus	97963-09-18 20:52 G	37501571.21	37501571.37	37501571.54	0.0262	0.0168
Venus	97964-05-04 22:04 G	37501800.20	37501800.42	37501800.63	0.0261	0.0042
Venus	97964-12-19 21:35 G	37502029.34	37502029.40	37502029.47	0.0260	0.0246
Moon	97966-04-06 21:35 G	37502502.25	37502502.40	37502502.57	0.0258	0.0197
Earth	97966-04-07 01:11 G	37502502.39	37502502.55	37502502.74	0.0258	0.0182 *
Earth	97967-04-18 10:33 G	37502878.69	37502878.94	37502879.19	0.0258	0.0030
Moon	97967-04-18 11:16 G	37502878.73	37502878.97	37502879.21	0.0258	0.0018 *
Earth	97968-04-28 18:28 G	37503255.19	37503255.27	37503255.37	0.0258	0.0240
Moon	97968-04-28 22:04 G	37503255.34	37503255.42	37503255.51	0.0258	0.0242 *
Mercury	97974-12-01 11:16 G	37505662.89	37505662.97	37505663.06	0.0279	0.0250
Mercury	97975-02-28 11:31 G	37505751.79	37505751.98	37505752.17	0.0280	0.0044

Mercury	97975-05-28 11:45 G	37505840.84	37505840.99	37505841.15	0.0281	0.0165
Venus	97979-05-26 09:07 G	37507299.72	37507299.88	37507300.04	0.0300	0.0184
Venus	97980-01-11 10:19 G	37507529.74	37507529.93	37507530.12	0.0302	0.0127
Moon	97981-10-12 00:57 G	37508169.31	37508169.54	37508169.77	0.0304	0.0055
Earth	97981-10-12 03:35 G	37508169.41	37508169.65	37508169.89	0.0304	0.0046 *
Moon	97982-10-27 08:38 G	37508549.82	37508549.86	37508549.91	0.0304	0.0298
Earth	97982-10-27 08:24 G	37508549.84	37508549.85	37508549.88	0.0304	0.0302 *
Mercury	97988-01-14 21:50 G	37510455.32	37510455.41	37510455.50	0.0284	0.0196
Mercury	97988-04-12 08:52 G	37510543.74	37510543.87	37510543.99	0.0283	0.0053
Mercury	97988-07-09 19:40 G	37510632.20	37510632.32	37510632.44	0.0282	0.0089
Mercury	97988-10-06 06:28 G	37510720.70	37510720.77	37510720.85	0.0281	0.0228
Venus	97993-03-31 00:28 G	37512357.34	37512357.52	37512357.71	0.0262	0.0139
Venus	97993-11-15 01:11 G	37512586.35	37512586.55	37512586.76	0.0261	0.0071
Moon	97996-04-12 17:45 G	37513466.01	37513466.24	37513466.50	0.0258	0.0081
Earth	97996-04-12 18:28 G	37513466.03	37513466.27	37513466.51	0.0258	0.0066 *
Moon	97997-04-23 22:48 G	37513842.26	37513842.45	37513842.67	0.0258	0.0141
Earth	97997-04-24 02:24 G	37513842.41	37513842.60	37513842.82	0.0258	0.0146 *

99TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 99th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	98004-07-17 08:09 G	37516483.67	37516483.84	37516484.02	0.0279	0.0116		
Mercury	98004-10-14 08:38 G	37516572.68	37516572.86	37516573.04	0.0281	0.0092		

Venus	98008-12-05 11:31 G	37518085.81	37518085.98	37518086.16	0.0300	0.0153
Venus	98009-07-23 13:11 G	37518315.88	37518316.05	37518316.23	0.0302	0.0160
Earth	98010-10-05 12:43 G	37518754.86	37518755.03	37518755.21	0.0305	0.0208
Moon	98010-10-05 14:38 G	37518754.94	37518755.11	37518755.29	0.0305	0.0215 *
Moon	98011-10-20 16:33 G	37519134.97	37519135.19	37519135.42	0.0305	0.0136
Earth	98011-10-20 17:31 G	37519135.02	37519135.23	37519135.45	0.0305	0.0141 *
Mercury	98017-06-02 23:45 G	37521187.43	37521187.49	37521187.55	0.0285	0.0245
Mercury	98017-08-30 10:48 G	37521275.83	37521275.95	37521276.07	0.0283	0.0101
Mercury	98017-11-26 21:35 G	37521364.28	37521364.40	37521364.53	0.0282	0.0042
Mercury	98018-02-23 08:24 G	37521452.76	37521452.85	37521452.96	0.0281	0.0182
Venus	98022-10-11 02:52 G	37523143.43	37523143.62	37523143.82	0.0262	0.0111
Venus	98023-05-28 03:21 G	37523372.45	37523372.64	37523372.85	0.0261	0.0098
Earth	98025-04-08 00:43 G	37524053.35	37524053.53	37524053.74	0.0258	0.0162
Moon	98025-04-08 00:57 G	37524053.38	37524053.54	37524053.73	0.0258	0.0177 *
Earth	98026-04-19 09:35 G	37524429.66	37524429.90	37524430.15	0.0258	0.0050
Moon	98026-04-19 13:40 G	37524429.82	37524430.07	37524430.31	0.0258	0.0038 *
Earth	98027-04-30 17:31 G	37524806.22	37524806.23	37524806.24	0.0258	0.0258
Mercury	98033-12-04 05:02 G	37527215.58	37527215.71	37527215.86	0.0279	0.0188
Mercury	98034-03-03 05:16 G	37527304.53	37527304.72	37527304.91	0.0280	0.0019
Mercury	98034-05-31 05:31 G	37527393.63	37527393.73	37527393.85	0.0281	0.0228
Venus	98038-06-17 15:35 G	37528871.96	37528872.15	37528872.34	0.0300	0.0116
Venus	98039-02-02 17:16 G	37529102.06	37529102.22	37529102.38	0.0302	0.0197
Earth	98040-10-13 03:21 G	37529720.40	37529720.64	37529720.88	0.0305	0.0021
Moon	98040-10-13 05:16 G	37529720.49	37529720.72	37529720.95	0.0305	0.0025 *
Mercury	98047-01-17 12:57 G	37532007.93	37532008.04	37532008.15	0.0284	0.0148
Mercury	98047-04-16 00:00 G	37532096.37	37532096.50	37532096.63	0.0283	0.0009
Mercury	98047-07-13 10:48 G	37532184.84	37532184.95	37532185.06	0.0282	0.0137
Mercury	98047-10-09 21:35 G	37532273.38	37532273.40	37532273.42	0.0280	0.0276
Venus	98052-04-22 05:45 G	37533929.54	37533929.74	37533929.95	0.0262	0.0083
Venus	98052-12-07 06:00 G	37534158.57	37534158.75	37534158.95	0.0261	0.0126

Earth	98054-04-03 07:26 G	37534640.79	37534640.81	37534640.84	0.0258	0.0257
Moon	98055-04-14 12:57 G	37535016.80	37535017.04	37535017.29	0.0257	0.0059
Earth	98055-04-14 16:48 G	37535016.96	37535017.20	37535017.45	0.0257	0.0047 *
Moon	98056-04-25 00:00 G	37535393.31	37535393.50	37535393.69	0.0257	0.0163
Earth	98056-04-25 00:14 G	37535393.33	37535393.51	37535393.71	0.0257	0.0164 *
Mercury	98063-04-23 01:26 G	37537947.51	37537947.56	37537947.63	0.0278	0.0262
Mercury	98063-07-21 01:40 G	37538036.38	37538036.57	37538036.76	0.0279	0.0057
Mercury	98063-10-18 01:55 G	37538125.42	37538125.58	37538125.74	0.0281	0.0151
Venus	98067-12-28 16:48 G	37539658.01	37539658.20	37539658.40	0.0301	0.0087
Venus	98068-08-14 18:43 G	37539888.15	37539888.28	37539888.42	0.0303	0.0228
Moon	98069-10-06 06:43 G	37540305.59	37540305.78	37540305.98	0.0305	0.0186
Earth	98069-10-06 10:04 G	37540305.73	37540305.92	37540306.11	0.0305	0.0186 *
Moon	98070-10-21 11:16 G	37540685.77	37540685.97	37540686.17	0.0305	0.0163
Earth	98070-10-21 15:07 G	37540685.93	37540686.13	37540686.33	0.0305	0.0163 *
Mercury	98076-06-05 14:24 G	37542740.01	37542740.10	37542740.19	0.0285	0.0201
Mercury	98076-09-02 01:26 G	37542828.43	37542828.56	37542828.69	0.0283	0.0057
Mercury	98076-11-29 12:14 G	37542916.89	37542917.01	37542917.14	0.0282	0.0085
Mercury	98077-02-25 23:16 G	37543005.39	37543005.47	37543005.54	0.0281	0.0225
Venus	98081-11-02 06:43 G	37544715.57	37544715.78	37544716.00	0.0262	0.0058
Venus	98082-06-19 06:57 G	37544944.62	37544944.79	37544944.97	0.0260	0.0151
Earth	98084-04-08 21:50 G	37545604.21	37545604.41	37545604.62	0.0258	0.0144
Moon	98084-04-09 01:26 G	37545604.37	37545604.56	37545604.76	0.0258	0.0158 *
Earth	98085-04-20 06:14 G	37545980.53	37545980.76	37545981.01	0.0257	0.0068
Moon	98085-04-20 06:57 G	37545980.55	37545980.79	37545981.05	0.0257	0.0062 *
Mercury	98092-12-06 22:04 G	37548768.25	37548768.42	37548768.59	0.0279	0.0133
Mercury	98093-03-05 22:04 G	37548857.24	37548857.42	37548857.61	0.0280	0.0075
Venus	98097-07-09 19:40 G	37550444.11	37550444.32	37550444.52	0.0300	0.0053
Venus	98098-02-24 21:35 G	37550674.30	37550674.40	37550674.50	0.0302	0.0261
Earth	98099-10-14 22:33 G	37551271.19	37551271.44	37551271.68	0.0305	0.0006
Moon	98099-10-15 01:55 G	37551271.34	37551271.58	37551271.83	0.0305	0.0004 *

Mercury	98105-10-24 16:19 G	37553472.12	37553472.18	37553472.23	0.0285	0.0253
Mercury	98106-01-21 03:21 G	37553560.52	37553560.64	37553560.76	0.0284	0.0108
Mercury	98106-04-19 14:09 G	37553648.96	37553649.09	37553649.22	0.0283	0.0037
Mercury	98106-07-17 01:11 G	37553737.45	37553737.55	37553737.65	0.0282	0.0177
Venus	98110-09-29 07:11 G	37555272.73	37555272.80	37555272.88	0.0264	0.0245
Venus	98111-05-16 08:52 G	37555501.66	37555501.87	37555502.09	0.0262	0.0032
Venus	98111-12-31 09:21 G	37555730.73	37555730.89	37555731.04	0.0260	0.0177
Moon	98113-04-05 00:14 G	37556191.47	37556191.51	37556191.57	0.0258	0.0253
Earth	98113-04-05 03:35 G	37556191.57	37556191.65	37556191.75	0.0258	0.0239 *
Moon	98114-04-16 12:00 G	37556567.77	37556568.00	37556568.24	0.0257	0.0039
Earth	98114-04-16 12:57 G	37556567.79	37556568.04	37556568.29	0.0257	0.0029 *
Earth	98115-04-27 20:09 G	37556944.17	37556944.34	37556944.52	0.0257	0.0180
Moon	98115-04-27 23:45 G	37556944.32	37556944.49	37556944.67	0.0257	0.0184 *
Mercury	98122-04-26 18:00 G	37559500.13	37559500.25	37559500.38	0.0278	0.0210
Mercury	98122-07-24 18:14 G	37559589.07	37559589.26	37559589.45	0.0279	0.0005
Mercury	98122-10-21 18:14 G	37559678.14	37559678.26	37559678.40	0.0280	0.0203
Venus	98127-01-20 19:55 G	37561230.13	37561230.33	37561230.54	0.0301	0.0026
Venus	98127-09-07 22:04 G	37561460.36	37561460.42	37561460.47	0.0303	0.0290
Moon	98128-10-08 00:28 G	37561856.33	37561856.52	37561856.73	0.0305	0.0163
Earth	98128-10-08 02:52 G	37561856.43	37561856.62	37561856.83	0.0305	0.0168 *
Earth	98129-10-23 08:09 G	37562236.65	37562236.84	37562237.04	0.0305	0.0182
Moon	98129-10-23 08:09 G	37562236.66	37562236.84	37562237.02	0.0305	0.0189 *
Mercury	98135-06-10 04:33 G	37564292.59	37564292.69	37564292.80	0.0285	0.0164
Mercury	98135-09-06 15:35 G	37564381.02	37564381.15	37564381.28	0.0283	0.0020
Mercury	98135-12-04 02:24 G	37564469.49	37564469.60	37564469.72	0.0282	0.0123
Mercury	98136-03-01 13:26 G	37564558.02	37564558.06	37564558.10	0.0281	0.0263
Venus	98140-04-10 07:26 G	37566058.71	37566058.81	37566058.94	0.0263	0.0221
Venus	98140-11-25 09:35 G	37566287.68	37566287.90	37566288.11	0.0261	0.0008
Venus	98141-07-12 09:35 G	37566516.76	37566516.90	37566517.04	0.0260	0.0200
Earth	98143-04-11 17:02 G	37567155.01	37567155.21	37567155.44	0.0258	0.0127

Moon	98143-04-11 18:43 G	37567155.07	37567155.28	37567155.50	0.0258	0.0139	*
Moon	98144-04-21 21:50 G	37567531.17	37567531.41	37567531.65	0.0257	0.0084	
Earth	98144-04-22 01:26 G	37567531.33	37567531.56	37567531.80	0.0257	0.0084	*
Mercury	98151-12-11 14:24 G	37570320.92	37570321.10	37570321.28	0.0279	0.0082	
Mercury	98152-03-09 14:24 G	37570409.94	37570410.10	37570410.28	0.0280	0.0125	
Venus	98156-08-01 22:19 G	37572016.22	37572016.43	37572016.64	0.0301	0.0007	
Moon	98158-10-16 14:09 G	37572821.84	37572822.09	37572822.34	0.0305	0.0027	
Earth	98158-10-16 15:21 G	37572821.90	37572822.14	37572822.38	0.0305	0.0018	*
Mercury	98164-10-27 06:14 G	37575024.68	37575024.76	37575024.84	0.0285	0.0217	
Mercury	98165-01-23 17:16 G	37575113.10	37575113.22	37575113.35	0.0284	0.0071	
Mercury	98165-04-22 04:19 G	37575201.55	37575201.68	37575201.80	0.0283	0.0072	
Mercury	98165-07-19 15:07 G	37575290.05	37575290.13	37575290.22	0.0282	0.0214	
Venus	98169-10-21 09:21 G	37576844.76	37576844.89	37576845.05	0.0264	0.0195	
Venus	98170-06-07 11:02 G	37577073.75	37577073.96	37577074.18	0.0262	0.0020	
Venus	98171-01-22 11:02 G	37577302.87	37577302.96	37577303.08	0.0260	0.0227	
Moon	98172-04-05 20:38 G	37577742.27	37577742.36	37577742.45	0.0258	0.0238	
Earth	98172-04-05 22:48 G	37577742.33	37577742.45	37577742.57	0.0258	0.0223	*
Earth	98173-04-17 07:40 G	37578118.58	37578118.82	37578119.07	0.0257	0.0014	
Moon	98173-04-17 11:02 G	37578118.72	37578118.96	37578119.21	0.0257	0.0018	*
Earth	98174-04-28 15:07 G	37578494.97	37578495.13	37578495.29	0.0257	0.0196	
Moon	98174-04-28 16:48 G	37578495.05	37578495.20	37578495.36	0.0257	0.0204	*
Mercury	98181-04-29 10:33 G	37581052.79	37581052.94	37581053.10	0.0278	0.0157	
Mercury	98181-07-27 10:48 G	37581141.76	37581141.95	37581142.14	0.0279	0.0048	
Mercury	98181-10-24 10:48 G	37581230.88	37581230.95	37581231.03	0.0280	0.0255	
Venus	98185-06-26 22:33 G	37582572.36	37582572.44	37582572.53	0.0299	0.0272	
Venus	98186-02-11 22:48 G	37582802.24	37582802.45	37582802.65	0.0301	0.0035	
Earth	98187-10-09 18:57 G	37583407.09	37583407.29	37583407.51	0.0305	0.0151	
Moon	98187-10-09 21:07 G	37583407.18	37583407.38	37583407.60	0.0305	0.0141	*
Earth	98188-10-24 00:14 G	37583787.33	37583787.51	37583787.70	0.0305	0.0198	
Moon	98188-10-24 03:50 G	37583787.50	37583787.66	37583787.84	0.0305	0.0212	*

Mercury	98194-03-16 07:11 G	37585756.78	37585756.80	37585756.84	0.0286	0.0277
Mercury	98194-06-12 18:28 G	37585845.15	37585845.27	37585845.38	0.0285	0.0130
Mercury	98194-09-09 05:31 G	37585933.60	37585933.73	37585933.86	0.0284	0.0016
Mercury	98194-12-06 16:19 G	37586022.08	37586022.18	37586022.29	0.0282	0.0157
Venus	98199-05-03 09:35 G	37587630.74	37587630.90	37587631.07	0.0263	0.0170
Venus	98199-12-18 11:16 G	37587859.76	37587859.97	37587860.19	0.0261	0.0043
Venus	98200-08-04 11:16 G	37588088.92	37588088.97	37588089.03	0.0260	0.0249
Moon	98202-04-13 08:52 G	37588705.65	37588705.87	37588706.10	0.0258	0.0121
Earth	98202-04-13 11:45 G	37588705.78	37588705.99	37588706.23	0.0258	0.0111 *
Moon	98203-04-24 18:14 G	37589082.05	37589082.26	37589082.49	0.0257	0.0104
Earth	98203-04-24 19:55 G	37589082.11	37589082.33	37589082.57	0.0257	0.0100 *
Mercury	98210-09-17 06:43 G	37591784.69	37591784.78	37591784.89	0.0278	0.0235
Mercury	98210-12-15 06:57 G	37591873.60	37591873.79	37591873.98	0.0279	0.0031
Mercury	98211-03-14 06:57 G	37591962.64	37591962.79	37591962.94	0.0280	0.0176
Venus	98215-01-08 00:28 G	37593358.40	37593358.52	37593358.64	0.0299	0.0241
Venus	98215-08-26 00:43 G	37593588.33	37593588.53	37593588.73	0.0301	0.0067
Moon	98216-10-03 00:28 G	37593992.49	37593992.52	37593992.57	0.0304	0.0298
Moon	98217-10-18 03:21 G	37594372.41	37594372.64	37594372.88	0.0305	0.0049
Earth	98217-10-18 06:57 G	37594372.55	37594372.79	37594373.03	0.0305	0.0035 *
Mercury	98223-10-31 19:55 G	37596577.24	37596577.33	37596577.43	0.0285	0.0183
Mercury	98224-01-28 07:11 G	37596665.67	37596665.80	37596665.92	0.0284	0.0038
Mercury	98224-04-25 18:00 G	37596754.13	37596754.25	37596754.37	0.0283	0.0107
Mercury	98224-07-23 05:02 G	37596842.65	37596842.71	37596842.77	0.0282	0.0248
Venus	98228-11-13 11:45 G	37598416.81	37598416.99	37598417.17	0.0263	0.0144
Venus	98229-06-30 13:11 G	37598645.84	37598646.05	37598646.26	0.0262	0.0069
Earth	98231-04-08 17:31 G	37599293.09	37599293.23	37599293.38	0.0258	0.0207
Moon	98231-04-08 19:55 G	37599293.22	37599293.33	37599293.47	0.0258	0.0222 *
Earth	98232-04-19 02:38 G	37599669.36	37599669.61	37599669.86	0.0258	0.0005
Moon	98232-04-19 05:02 G	37599669.46	37599669.71	37599669.97	0.0258	0.0004 *
Moon	98233-04-30 06:43 G	37600045.67	37600045.78	37600045.91	0.0257	0.0225

Earth	98233-04-30 10:04 G	37600045.79	37600045.92	37600046.07	0.0257	0.0212	*
Mercury	98240-05-03 03:21 G	37602605.46	37602605.64	37602605.82	0.0278	0.0103	
Mercury	98240-07-31 03:21 G	37602694.46	37602694.64	37602694.82	0.0279	0.0102	
Venus	98244-07-20 01:26 G	37604144.42	37604144.56	37604144.71	0.0299	0.0212	
Venus	98245-03-07 01:40 G	37604374.38	37604374.57	37604374.77	0.0301	0.0097	
Earth	98246-10-11 11:45 G	37604957.77	37604957.99	37604958.21	0.0305	0.0133	
Moon	98246-10-11 14:52 G	37604957.90	37604958.12	37604958.35	0.0305	0.0120	*
Earth	98247-10-26 16:48 G	37605338.04	37605338.20	37605338.38	0.0305	0.0215	
Moon	98247-10-26 17:45 G	37605338.09	37605338.24	37605338.42	0.0305	0.0231	*
Mercury	98253-03-19 21:07 G	37607309.32	37607309.38	37607309.45	0.0286	0.0242	
Mercury	98253-06-16 08:09 G	37607397.72	37607397.84	37607397.97	0.0285	0.0096	
Mercury	98253-09-12 19:11 G	37607486.18	37607486.30	37607486.43	0.0284	0.0050	
Mercury	98253-12-10 06:14 G	37607574.67	37607574.76	37607574.86	0.0282	0.0192	
Venus	98258-05-26 11:45 G	37609202.80	37609202.99	37609203.18	0.0263	0.0119	
Venus	98259-01-10 13:11 G	37609431.86	37609432.05	37609432.26	0.0261	0.0094	
Moon	98261-04-14 04:04 G	37610256.46	37610256.67	37610256.90	0.0258	0.0104	
Earth	98261-04-14 07:11 G	37610256.57	37610256.80	37610257.03	0.0258	0.0094	*
Earth	98262-04-25 15:21 G	37610632.92	37610633.14	37610633.36	0.0257	0.0116	
Moon	98262-04-25 18:00 G	37610633.04	37610633.25	37610633.47	0.0257	0.0124	*
Mercury	98269-09-20 00:00 G	37613337.36	37613337.50	37613337.65	0.0278	0.0176	
Mercury	98269-12-18 00:00 G	37613426.31	37613426.50	37613426.69	0.0279	0.0029	
Mercury	98270-03-17 00:00 G	37613515.40	37613515.50	37613515.61	0.0280	0.0235	
Venus	98274-01-30 04:33 G	37614930.52	37614930.69	37614930.85	0.0299	0.0178	
Venus	98274-09-17 04:33 G	37615160.51	37615160.69	37615160.89	0.0301	0.0132	
Moon	98275-10-04 18:43 G	37615543.20	37615543.28	37615543.38	0.0304	0.0280	
Earth	98275-10-04 21:35 G	37615543.34	37615543.40	37615543.48	0.0304	0.0291	*
Earth	98276-10-19 00:57 G	37615923.31	37615923.54	37615923.78	0.0305	0.0054	
Moon	98276-10-19 00:57 G	37615923.31	37615923.54	37615923.77	0.0305	0.0068	*
Mercury	98282-11-03 09:50 G	37618129.81	37618129.91	37618130.03	0.0285	0.0148	
Mercury	98283-01-30 21:07 G	37618218.25	37618218.38	37618218.51	0.0284	0.0006	

Mercury	98283-04-29 08:09 G	37618306.73	37618306.84	37618306.95	0.0283	0.0142
Venus	98287-12-06 13:55 G	37619988.88	37619989.08	37619989.29	0.0263	0.0093
Venus	98288-07-22 15:21 G	37620217.95	37620218.14	37620218.34	0.0262	0.0121
Earth	98290-04-09 13:11 G	37620843.89	37620844.05	37620844.22	0.0259	0.0190
Moon	98290-04-09 16:19 G	37620844.03	37620844.18	37620844.34	0.0259	0.0203 *
Moon	98291-04-20 20:24 G	37621220.10	37621220.35	37621220.61	0.0258	0.0022
Earth	98291-04-20 22:33 G	37621220.20	37621220.44	37621220.69	0.0258	0.0021 *
Moon	98292-05-01 03:35 G	37621596.58	37621596.65	37621596.74	0.0258	0.0243
Earth	98292-05-01 06:14 G	37621596.65	37621596.76	37621596.88	0.0258	0.0228 *
Mercury	98299-02-06 20:52 G	37624069.29	37624069.37	37624069.47	0.0276	0.0243
Mercury	98299-05-06 21:07 G	37624158.19	37624158.38	37624158.57	0.0278	0.0040
Mercury	98299-08-03 20:52 G	37624247.22	37624247.37	37624247.53	0.0279	0.0165
Venus	98303-08-13 06:14 G	37625716.58	37625716.76	37625716.94	0.0299	0.0146
Venus	98304-03-30 06:28 G	37625946.60	37625946.77	37625946.94	0.0301	0.0164
Moon	98305-10-13 06:14 G	37626508.52	37626508.76	37626509.00	0.0305	0.0099
Earth	98305-10-13 06:57 G	37626508.57	37626508.79	37626509.01	0.0305	0.0114 *
Moon	98306-10-28 08:24 G	37626888.72	37626888.85	37626889.00	0.0305	0.0251
Earth	98306-10-28 11:45 G	37626888.84	37626888.99	37626889.15	0.0305	0.0234 *
Mercury	98312-03-23 11:16 G	37628861.88	37628861.97	37628862.06	0.0286	0.0205
Mercury	98312-06-19 22:19 G	37628950.31	37628950.43	37628950.56	0.0285	0.0059
Mercury	98312-09-16 09:21 G	37629038.77	37629038.89	37629039.02	0.0284	0.0087
Mercury	98312-12-13 20:24 G	37629127.28	37629127.35	37629127.42	0.0282	0.0229
Venus	98317-06-18 14:38 G	37630774.90	37630775.11	37630775.32	0.0263	0.0067
Venus	98318-02-02 16:04 G	37631004.00	37631004.17	37631004.36	0.0261	0.0146
Earth	98320-04-16 03:50 G	37631807.42	37631807.66	37631807.90	0.0258	0.0077
Moon	98320-04-16 05:31 G	37631807.51	37631807.73	37631807.96	0.0258	0.0082 *
Earth	98321-04-27 12:14 G	37632183.81	37632184.01	37632184.23	0.0258	0.0133
Moon	98321-04-27 15:21 G	37632183.94	37632184.14	37632184.36	0.0258	0.0142 *
Mercury	98328-09-23 18:14 G	37634890.09	37634890.26	37634890.44	0.0278	0.0109
Mercury	98328-12-21 18:14 G	37634979.08	37634979.26	37634979.44	0.0279	0.0095

Venus	98333-02-22 10:04 G	37636502.73	37636502.92	37636503.12	0.0299	0.0110
Venus	98333-10-10 10:33 G	37636732.79	37636732.94	37636733.10	0.0301	0.0201
Earth	98334-10-06 18:57 G	37637094.19	37637094.29	37637094.40	0.0304	0.0270
Moon	98334-10-06 20:09 G	37637094.23	37637094.34	37637094.47	0.0304	0.0256 *
Earth	98335-10-21 22:19 G	37637474.20	37637474.43	37637474.67	0.0305	0.0075
Moon	98335-10-22 01:40 G	37637474.34	37637474.57	37637474.80	0.0305	0.0092 *
Mercury	98341-08-10 12:57 G	37639593.99	37639594.04	37639594.11	0.0287	0.0255
Mercury	98341-11-07 00:14 G	37639682.39	37639682.51	37639682.63	0.0285	0.0107
Mercury	98342-02-03 11:16 G	37639770.85	37639770.97	37639771.10	0.0284	0.0040
Mercury	98342-05-02 22:19 G	37639859.34	37639859.43	37639859.53	0.0283	0.0182
Venus	98346-05-14 14:09 G	37641332.05	37641332.09	37641332.15	0.0265	0.0257
Venus	98346-12-29 17:31 G	37641561.02	37641561.23	37641561.45	0.0263	0.0038
Venus	98347-08-15 18:43 G	37641790.13	37641790.28	37641790.45	0.0262	0.0175
Moon	98349-04-11 08:52 G	37642394.70	37642394.87	37642395.07	0.0259	0.0182
Earth	98349-04-11 10:48 G	37642394.78	37642394.95	37642395.15	0.0259	0.0174 *
Moon	98350-04-22 17:02 G	37642770.98	37642771.21	37642771.46	0.0258	0.0042
Earth	98350-04-22 20:38 G	37642771.12	37642771.36	37642771.61	0.0258	0.0038 *
Earth	98351-05-04 04:19 G	37643147.62	37643147.68	37643147.77	0.0258	0.0246
Mercury	98358-02-10 16:19 G	37645622.03	37645622.18	37645622.33	0.0277	0.0169
Mercury	98358-05-10 16:04 G	37645710.98	37645711.17	37645711.36	0.0278	0.0034
Mercury	98358-08-07 16:04 G	37645800.08	37645800.17	37645800.27	0.0279	0.0239
Venus	98362-09-04 14:09 G	37647288.89	37647289.09	37647289.29	0.0299	0.0072
Venus	98363-04-22 14:24 G	37647518.98	37647519.10	37647519.23	0.0301	0.0239
Moon	98364-10-14 04:04 G	37648059.43	37648059.67	37648059.90	0.0304	0.0073
Earth	98364-10-14 07:40 G	37648059.59	37648059.82	37648060.05	0.0304	0.0090 *
Moon	98365-10-29 09:35 G	37648439.81	37648439.90	37648440.01	0.0305	0.0274
Earth	98365-10-29 12:14 G	37648439.88	37648440.01	37648440.14	0.0305	0.0257 *
Mercury	98371-03-27 01:55 G	37650414.47	37650414.58	37650414.68	0.0286	0.0161
Mercury	98371-06-23 12:57 G	37650502.91	37650503.04	37650503.17	0.0285	0.0014
Mercury	98371-09-20 00:00 G	37650591.39	37650591.50	37650591.61	0.0284	0.0130

Mercury	98371-12-17 10:48 G	37650679.93	37650679.95	37650679.99	0.0282	0.0273
Venus	98375-11-24 15:35 G	37652118.06	37652118.15	37652118.27	0.0265	0.0229
Venus	98376-07-10 18:57 G	37652347.08	37652347.29	37652347.51	0.0263	0.0011
Venus	98377-02-24 20:09 G	37652576.22	37652576.34	37652576.49	0.0261	0.0202
Earth	98379-04-18 02:52 G	37653358.38	37653358.62	37653358.86	0.0258	0.0058
Moon	98379-04-18 06:28 G	37653358.53	37653358.77	37653359.02	0.0258	0.0059 *
Moon	98380-04-28 10:33 G	37653734.76	37653734.94	37653735.15	0.0258	0.0164
Earth	98380-04-28 12:00 G	37653734.80	37653735.00	37653735.20	0.0258	0.0152 *
Mercury	98387-06-30 14:09 G	37656353.99	37656354.09	37656354.20	0.0277	0.0232
Mercury	98387-09-27 14:09 G	37656442.90	37656443.09	37656443.28	0.0278	0.0030
Mercury	98387-12-25 13:55 G	37656531.94	37656532.08	37656532.23	0.0279	0.0175
Venus	98392-03-16 19:11 G	37658075.09	37658075.30	37658075.51	0.0299	0.0033
Venus	98392-11-01 19:40 G	37658305.25	37658305.32	37658305.41	0.0301	0.0279
Earth	98393-10-07 21:35 G	37658645.27	37658645.40	37658645.55	0.0303	0.0245
Moon	98393-10-08 01:26 G	37658645.41	37658645.56	37658645.73	0.0303	0.0227 *
Earth	98394-10-23 00:43 G	37659025.31	37659025.53	37659025.76	0.0304	0.0101
Moon	98394-10-23 03:07 G	37659025.40	37659025.63	37659025.86	0.0304	0.0117 *
Mercury	98400-08-13 03:50 G	37661146.58	37661146.66	37661146.75	0.0286	0.0207
Mercury	98400-11-09 15:07 G	37661235.00	37661235.13	37661235.26	0.0285	0.0060
Mercury	98401-02-06 02:09 G	37661323.47	37661323.59	37661323.72	0.0284	0.0086
Mercury	98401-05-05 13:11 G	37661411.98	37661412.05	37661412.13	0.0283	0.0229
Venus	98405-06-05 19:26 G	37662904.18	37662904.31	37662904.46	0.0265	0.0198
Venus	98406-01-20 22:48 G	37663133.24	37663133.45	37663133.67	0.0263	0.0021
Venus	98406-09-06 23:45 G	37663362.41	37663362.49	37663362.60	0.0262	0.0233
Moon	98408-04-12 07:55 G	37663945.64	37663945.83	37663946.02	0.0259	0.0159
Earth	98408-04-12 11:16 G	37663945.78	37663945.97	37663946.18	0.0259	0.0155 *
Earth	98409-04-23 21:21 G	37664322.15	37664322.39	37664322.64	0.0258	0.0058
Moon	98409-04-23 22:04 G	37664322.19	37664322.42	37664322.66	0.0258	0.0066 *
Mercury	98417-02-13 12:43 G	37667174.85	37667175.03	37667175.21	0.0277	0.0084
Mercury	98417-05-13 12:28 G	37667263.85	37667264.02	37667264.20	0.0278	0.0120

Venus	98421-02-09 02:24 G	37668631.57	37668631.60	37668631.64	0.0297	0.0292
Venus	98421-09-27 00:57 G	37668861.33	37668861.54	37668861.74	0.0299	0.0012
Moon	98423-10-16 12:00 G	37669610.77	37669611.00	37669611.23	0.0304	0.0044
Earth	98423-10-16 13:26 G	37669610.82	37669611.06	37669611.29	0.0304	0.0062 *
Earth	98424-10-30 17:16 G	37669991.15	37669991.22	37669991.32	0.0305	0.0284
Moon	98424-10-30 18:43 G	37669991.26	37669991.28	37669991.32	0.0305	0.0302 *
Mercury	98429-12-31 06:00 G	37671878.69	37671878.75	37671878.80	0.0287	0.0257
Mercury	98430-03-29 17:02 G	37671967.10	37671967.21	37671967.33	0.0286	0.0109
Mercury	98430-06-26 04:19 G	37672055.55	37672055.68	37672055.80	0.0285	0.0038
Mercury	98430-09-22 15:07 G	37672144.04	37672144.13	37672144.23	0.0283	0.0182
Venus	98434-12-16 22:19 G	37673690.26	37673690.43	37673690.60	0.0265	0.0168
Venus	98435-08-03 01:11 G	37673919.34	37673919.55	37673919.77	0.0263	0.0050
Venus	98436-03-19 02:24 G	37674148.59	37674148.60	37674148.61	0.0261	0.0261
Earth	98437-04-07 16:48 G	37674533.16	37674533.20	37674533.28	0.0259	0.0252
Moon	98438-04-19 04:04 G	37674909.42	37674909.67	37674909.93	0.0258	0.0034
Earth	98438-04-19 04:48 G	37674909.46	37674909.70	37674909.95	0.0258	0.0039 *
Moon	98439-04-30 10:19 G	37675285.77	37675285.93	37675286.11	0.0258	0.0187
Earth	98439-04-30 14:09 G	37675285.92	37675286.09	37675286.28	0.0258	0.0172 *
Mars	98444-08-22 15:50 G	37677226.98	37677227.16	37677227.36	0.0269	0.0197
Mercury	98446-07-03 11:16 G	37677906.81	37677906.97	37677907.14	0.0277	0.0141
Mercury	98446-09-30 11:16 G	37677995.79	37677995.97	37677996.16	0.0278	0.0063
Mercury	98446-12-28 11:02 G	37678084.92	37678084.96	37678085.02	0.0280	0.0269
Venus	98450-08-22 09:21 G	37679417.78	37679417.89	37679418.00	0.0297	0.0250
Venus	98451-04-09 07:55 G	37679647.63	37679647.83	37679648.04	0.0300	0.0054
Moon	98452-10-09 07:26 G	37680196.62	37680196.81	37680197.00	0.0303	0.0194
Earth	98452-10-09 06:57 G	37680196.63	37680196.79	37680196.97	0.0303	0.0214 *
Moon	98453-10-24 07:40 G	37680576.61	37680576.82	37680577.04	0.0304	0.0149
Earth	98453-10-24 10:04 G	37680576.70	37680576.92	37680577.14	0.0304	0.0132 *
Mercury	98459-08-16 19:40 G	37682699.21	37682699.32	37682699.43	0.0286	0.0149
Mercury	98459-11-13 06:57 G	37682787.66	37682787.79	37682787.91	0.0285	0.0010

Mercury	98460-02-09 17:45 G	37682876.13	37682876.24	37682876.36	0.0283	0.0142
Venus	98464-06-28 02:52 G	37684476.44	37684476.62	37684476.82	0.0265	0.0135
Venus	98465-02-12 06:00 G	37684705.55	37684705.75	37684705.96	0.0263	0.0084
Earth	98467-04-14 14:24 G	37685496.90	37685497.10	37685497.33	0.0259	0.0135
Moon	98467-04-14 14:52 G	37685496.92	37685497.12	37685497.33	0.0259	0.0135 *
Earth	98468-04-25 01:11 G	37685873.31	37685873.55	37685873.79	0.0258	0.0079
Moon	98468-04-25 05:02 G	37685873.48	37685873.71	37685873.95	0.0258	0.0091 *
Mercury	98475-11-20 11:02 G	37688638.82	37688638.96	37688639.10	0.0276	0.0188
Mercury	98476-02-17 10:48 G	37688727.76	37688727.95	37688728.14	0.0277	0.0015
Mercury	98476-05-16 10:33 G	37688816.83	37688816.94	37688817.06	0.0279	0.0220
Venus	98480-03-03 16:33 G	37690204.05	37690204.19	37690204.35	0.0297	0.0204
Venus	98480-10-19 15:21 G	37690433.95	37690434.14	37690434.34	0.0299	0.0102
Earth	98482-10-18 01:55 G	37691162.34	37691162.58	37691162.82	0.0304	0.0027
Moon	98482-10-18 04:48 G	37691162.47	37691162.70	37691162.94	0.0304	0.0011 *
Mercury	98489-01-02 22:04 G	37693431.33	37693431.42	37693431.51	0.0287	0.0195
Mercury	98489-04-01 09:07 G	37693519.75	37693519.88	37693520.01	0.0285	0.0048
Mercury	98489-06-28 20:09 G	37693608.22	37693608.34	37693608.46	0.0284	0.0098
Mercury	98489-09-25 07:11 G	37693696.74	37693696.80	37693696.87	0.0283	0.0241
Venus	98494-01-08 06:43 G	37695262.58	37695262.78	37695262.98	0.0265	0.0103
Venus	98494-08-25 09:21 G	37695491.70	37695491.89	37695492.09	0.0263	0.0115
Earth	98496-04-08 21:50 G	37696084.31	37696084.41	37696084.54	0.0259	0.0230
Moon	98496-04-08 22:48 G	37696084.35	37696084.45	37696084.55	0.0259	0.0237 *
Moon	98497-04-20 06:14 G	37696460.51	37696460.76	37696461.01	0.0258	0.0008
Earth	98497-04-20 10:04 G	37696460.67	37696460.92	37696461.17	0.0258	0.0016 *
Earth	98498-05-01 19:40 G	37696837.16	37696837.32	37696837.49	0.0258	0.0194
Moon	98498-05-01 18:57 G	37696837.17	37696837.29	37696837.44	0.0258	0.0210 *
Mercury	98505-04-09 10:04 G	37699370.84	37699370.92	37699371.02	0.0277	0.0240
Mercury	98505-07-07 10:04 G	37699459.73	37699459.92	37699460.11	0.0278	0.0038
Mercury	98505-10-04 10:04 G	37699548.77	37699548.92	37699549.07	0.0279	0.0167
Venus	98509-09-15 00:57 G	37700990.37	37700990.54	37700990.72	0.0298	0.0158

Venus	98510-05-03 00:00 G	37701220.33	37701220.50	37701220.68	0.0300	0.0149
Moon	98511-10-12 18:28 G	37701748.07	37701748.27	37701748.48	0.0303	0.0159
Earth	98511-10-12 22:04 G	37701748.23	37701748.42	37701748.62	0.0303	0.0177 *
Moon	98512-10-26 21:21 G	37702128.20	37702128.39	37702128.58	0.0304	0.0186
Earth	98512-10-27 00:43 G	37702128.33	37702128.53	37702128.74	0.0304	0.0168 *
Mars	98516-12-10 06:28 G	37703633.61	37703633.77	37703633.93	0.0293	0.0248
Mercury	98518-05-24 00:57 G	37704163.47	37704163.54	37704163.62	0.0286	0.0231
Mercury	98518-08-20 12:00 G	37704251.88	37704252.00	37704252.13	0.0285	0.0084
Mercury	98518-11-16 23:16 G	37704340.34	37704340.47	37704340.59	0.0284	0.0063
Mercury	98519-02-13 10:04 G	37704428.84	37704428.92	37704429.01	0.0283	0.0207
Venus	98523-07-22 12:43 G	37706048.82	37706049.03	37706049.24	0.0265	0.0066
Venus	98524-03-07 15:07 G	37706277.96	37706278.13	37706278.31	0.0263	0.0151
Earth	98526-04-16 21:07 G	37707048.15	37707048.38	37707048.60	0.0259	0.0111
Moon	98526-04-17 00:14 G	37707048.30	37707048.51	37707048.74	0.0259	0.0111 *
Earth	98527-04-28 07:40 G	37707424.60	37707424.82	37707425.06	0.0259	0.0102
Moon	98527-04-28 08:24 G	37707424.63	37707424.85	37707425.09	0.0259	0.0115 *
Mars	98533-01-18 04:04 G	37709516.42	37709516.67	37709516.95	0.0269	0.0084
Mercury	98534-11-24 10:04 G	37710191.74	37710191.92	37710192.11	0.0277	0.0081
Mercury	98535-02-21 10:04 G	37710280.75	37710280.92	37710281.09	0.0278	0.0123
Venus	98539-03-28 10:04 G	37711776.73	37711776.92	37711777.12	0.0298	0.0107
Venus	98539-11-13 09:21 G	37712006.74	37712006.89	37712007.05	0.0300	0.0201
Earth	98541-10-20 20:24 G	37712714.11	37712714.35	37712714.59	0.0304	0.0013
Moon	98541-10-20 23:16 G	37712714.23	37712714.47	37712714.72	0.0304	0.0031 *
Mercury	98547-10-11 03:50 G	37714895.62	37714895.66	37714895.70	0.0287	0.0270
Mercury	98548-01-07 14:52 G	37714984.01	37714984.12	37714984.24	0.0286	0.0122
Mercury	98548-04-05 01:55 G	37715072.46	37715072.58	37715072.71	0.0285	0.0026
Mercury	98548-07-02 12:57 G	37715160.94	37715161.04	37715161.15	0.0284	0.0169
Venus	98552-06-16 12:57 G	37716605.99	37716606.04	37716606.11	0.0266	0.0255
Venus	98553-01-31 17:16 G	37716835.01	37716835.22	37716835.44	0.0264	0.0033
Venus	98553-09-17 19:40 G	37717064.17	37717064.32	37717064.48	0.0263	0.0183

Moon	98555-04-12 02:24 G	37717635.47	37717635.60	37717635.76	0.0260	0.0212
Earth	98555-04-12 05:45 G	37717635.60	37717635.74	37717635.90	0.0260	0.0206 *
Moon	98556-04-22 16:48 G	37718011.96	37718012.20	37718012.44	0.0259	0.0017
Earth	98556-04-22 18:00 G	37718012.00	37718012.25	37718012.50	0.0259	0.0008 *
Earth	98557-05-04 03:50 G	37718388.53	37718388.66	37718388.80	0.0258	0.0218
Moon	98557-05-04 07:11 G	37718388.72	37718388.80	37718388.92	0.0258	0.0235 *
Mercury	98564-04-12 10:04 G	37720923.75	37720923.92	37720924.09	0.0277	0.0128
Mercury	98564-07-10 09:50 G	37721012.73	37721012.91	37721013.10	0.0278	0.0076
Venus	98568-10-07 19:40 G	37722563.12	37722563.32	37722563.53	0.0298	0.0058
Venus	98569-05-25 19:11 G	37722793.20	37722793.30	37722793.42	0.0300	0.0253
Moon	98570-10-14 16:19 G	37723299.97	37723300.18	37723300.40	0.0303	0.0120
Earth	98570-10-14 18:43 G	37723300.07	37723300.28	37723300.50	0.0303	0.0136 *
Earth	98571-10-29 21:21 G	37723680.22	37723680.39	37723680.57	0.0304	0.0208
Moon	98571-10-29 21:21 G	37723680.25	37723680.39	37723680.56	0.0304	0.0225 *
Mercury	98577-05-26 18:14 G	37725716.15	37725716.26	37725716.37	0.0286	0.0154
Mercury	98577-08-23 05:16 G	37725804.59	37725804.72	37725804.85	0.0285	0.0008
Mercury	98577-11-19 16:19 G	37725893.07	37725893.18	37725893.29	0.0283	0.0137
Mercury	98578-02-16 03:21 G	37725981.62	37725981.64	37725981.65	0.0282	0.0279
Venus	98581-12-27 19:55 G	37727392.22	37727392.33	37727392.47	0.0266	0.0217
Venus	98582-08-14 00:14 G	37727621.29	37727621.51	37727621.72	0.0264	0.0006
Venus	98583-03-31 02:09 G	37727850.48	37727850.59	37727850.71	0.0263	0.0221
Earth	98585-04-18 06:14 G	37728599.52	37728599.76	37728599.99	0.0259	0.0086
Moon	98585-04-18 08:09 G	37728599.61	37728599.84	37728600.09	0.0259	0.0085 *
Moon	98586-04-29 13:40 G	37728975.86	37728976.07	37728976.28	0.0259	0.0141
Earth	98586-04-29 16:48 G	37728975.99	37728976.20	37728976.43	0.0259	0.0127 *
Mercury	98593-08-30 10:19 G	37731655.78	37731655.93	37731656.09	0.0277	0.0169
Mercury	98593-11-27 10:19 G	37731744.74	37731744.93	37731745.12	0.0278	0.0035
Mercury	98594-02-24 10:19 G	37731833.83	37731833.93	37731834.02	0.0279	0.0240
Venus	98598-04-20 05:45 G	37733349.53	37733349.74	37733349.95	0.0298	0.0004
Earth	98599-10-08 17:45 G	37733886.17	37733886.24	37733886.33	0.0302	0.0284

Moon	98599-10-08 19:55 G	37733886.22	37733886.33	37733886.45	0.0302	0.0267	*
Moon	98600-10-23 17:31 G	37734265.99	37734266.23	37734266.48	0.0304	0.0071	
Earth	98600-10-23 18:43 G	37734266.04	37734266.28	37734266.52	0.0304	0.0056	*
Mars	98605-05-08 06:43 G	37735923.50	37735923.78	37735924.08	0.0293	0.0094	
Mercury	98606-10-14 21:21 G	37736448.29	37736448.39	37736448.48	0.0286	0.0190	
Mercury	98607-01-11 08:24 G	37736536.72	37736536.85	37736536.98	0.0285	0.0043	
Mercury	98607-04-09 19:26 G	37736625.19	37736625.31	37736625.43	0.0284	0.0103	
Mercury	98607-07-07 06:28 G	37736713.71	37736713.77	37736713.83	0.0283	0.0246	
Venus	98611-07-11 01:55 G	37738178.42	37738178.58	37738178.74	0.0266	0.0181	
Venus	98612-02-25 05:31 G	37738407.52	37738407.73	37738407.95	0.0264	0.0041	
Venus	98612-10-11 07:11 G	37738636.77	37738636.80	37738636.86	0.0262	0.0255	
Moon	98614-04-14 13:11 G	37739186.89	37739187.05	37739187.23	0.0259	0.0184	
Earth	98614-04-14 15:50 G	37739186.99	37739187.16	37739187.35	0.0259	0.0180	*
Earth	98615-04-26 04:04 G	37739563.42	37739563.67	37739563.91	0.0259	0.0034	
Moon	98615-04-26 06:43 G	37739563.54	37739563.78	37739564.02	0.0259	0.0045	*
Earth	98616-05-06 13:40 G	37739940.00	37739940.07	37739940.17	0.0258	0.0244	
Moon	98616-05-06 16:04 G	37739940.15	37739940.17	37739940.20	0.0258	0.0257	*
Mars	98621-06-15 20:24 G	37741806.08	37741806.35	37741806.63	0.0270	0.0035	
Mercury	98623-01-18 10:19 G	37742387.81	37742387.93	37742388.05	0.0277	0.0216	
Mercury	98623-04-17 10:19 G	37742476.73	37742476.93	37742477.12	0.0278	0.0014	
Mercury	98623-07-15 09:50 G	37742565.79	37742565.91	37742566.06	0.0279	0.0194	
Venus	98627-03-16 17:45 G	37743906.15	37743906.24	37743906.35	0.0297	0.0257	
Venus	98627-11-01 16:04 G	37744135.96	37744136.17	37744136.37	0.0299	0.0047	
Earth	98629-10-17 18:00 G	37744852.02	37744852.25	37744852.48	0.0304	0.0092	
Moon	98629-10-17 19:26 G	37744852.08	37744852.31	37744852.54	0.0304	0.0077	*
Earth	98630-11-01 20:52 G	37745232.24	37745232.37	37745232.51	0.0304	0.0252	
Moon	98630-11-02 00:28 G	37745232.41	37745232.52	37745232.63	0.0304	0.0267	*
Mercury	98636-03-03 00:43 G	37747180.45	37747180.53	37747180.62	0.0286	0.0219	
Mercury	98636-05-30 12:00 G	37747268.87	37747269.00	37747269.12	0.0285	0.0072	
Mercury	98636-08-26 23:02 G	37747357.33	37747357.46	37747357.58	0.0284	0.0074	

Mercury	98636-11-23 09:50 G	37747445.83	37747445.91	37747446.00	0.0283	0.0217
Venus	98641-01-20 09:21 G	37748964.72	37748964.89	37748965.08	0.0265	0.0142
Venus	98641-09-06 12:57 G	37749193.83	37749194.04	37749194.25	0.0264	0.0079
Moon	98644-04-20 14:38 G	37750150.86	37750151.11	37750151.36	0.0259	0.0053
Earth	98644-04-20 16:48 G	37750150.96	37750151.20	37750151.45	0.0259	0.0059 *
Moon	98645-05-02 00:57 G	37750527.36	37750527.54	37750527.73	0.0259	0.0167
Earth	98645-05-02 03:21 G	37750527.45	37750527.64	37750527.85	0.0259	0.0153 *
Mercury	98652-06-06 10:48 G	37753119.88	37753119.95	37753120.02	0.0276	0.0256
Mercury	98652-09-03 10:48 G	37753208.76	37753208.95	37753209.14	0.0277	0.0053
Mercury	98652-12-01 10:33 G	37753297.79	37753297.94	37753298.11	0.0279	0.0153
Venus	98656-09-26 04:19 G	37754692.54	37754692.68	37754692.84	0.0296	0.0203
Venus	98657-05-14 02:38 G	37754922.42	37754922.61	37754922.81	0.0299	0.0102
Moon	98658-10-11 16:33 G	37755438.03	37755438.19	37755438.37	0.0303	0.0222
Earth	98658-10-11 18:14 G	37755438.12	37755438.26	37755438.41	0.0303	0.0239 *
Moon	98659-10-26 16:04 G	37755817.95	37755818.17	37755818.40	0.0304	0.0117
Earth	98659-10-26 19:40 G	37755818.09	37755818.32	37755818.55	0.0304	0.0102 *
Mercury	98665-07-21 04:04 G	37757912.61	37757912.67	37757912.73	0.0287	0.0253
Mercury	98665-10-17 15:07 G	37758001.02	37758001.13	37758001.25	0.0286	0.0105
Mercury	98666-01-14 02:24 G	37758089.47	37758089.60	37758089.72	0.0284	0.0042
Mercury	98666-04-12 13:11 G	37758177.96	37758178.05	37758178.15	0.0283	0.0185
Venus	98670-08-02 15:35 G	37759750.96	37759751.15	37759751.36	0.0265	0.0105
Venus	98671-03-19 18:43 G	37759980.09	37759980.28	37759980.48	0.0263	0.0115
Earth	98673-04-16 03:07 G	37760738.43	37760738.63	37760738.84	0.0259	0.0152
Moon	98673-04-16 05:16 G	37760738.53	37760738.72	37760738.92	0.0259	0.0152 *
Earth	98674-04-27 14:52 G	37761114.88	37761115.12	37761115.36	0.0259	0.0060
Moon	98674-04-27 18:14 G	37761115.01	37761115.26	37761115.50	0.0259	0.0072 *
Mercury	98682-01-21 10:33 G	37763940.76	37763940.94	37763941.12	0.0278	0.0101
Mercury	98682-04-20 10:33 G	37764029.76	37764029.94	37764030.11	0.0279	0.0104
Venus	98686-04-08 13:55 G	37765478.91	37765479.08	37765479.26	0.0297	0.0155
Venus	98686-11-24 12:43 G	37765708.85	37765709.03	37765709.21	0.0300	0.0153

Earth	98688-10-19 18:00 G	37766404.02	37766404.25	37766404.49	0.0304	0.0047
Moon	98688-10-19 21:35 G	37766404.16	37766404.40	37766404.64	0.0304	0.0029 *
Earth	98689-11-03 21:07 G	37766784.34	37766784.38	37766784.44	0.0304	0.0296
Mars	98693-10-03 23:31 G	37768214.20	37768214.48	37768214.78	0.0292	0.0107
Mercury	98694-12-08 07:26 G	37768644.80	37768644.81	37768644.83	0.0287	0.0282
Mercury	98695-03-06 18:43 G	37768733.17	37768733.28	37768733.39	0.0285	0.0134
Mercury	98695-06-03 05:45 G	37768821.61	37768821.74	37768821.87	0.0284	0.0013
Mercury	98695-08-30 16:48 G	37768910.09	37768910.20	37768910.31	0.0283	0.0156
Venus	98700-02-12 23:16 G	37770537.26	37770537.47	37770537.68	0.0265	0.0065
Venus	98700-09-30 01:55 G	37770766.41	37770766.58	37770766.76	0.0263	0.0154
Moon	98702-04-12 13:11 G	37771325.97	37771326.05	37771326.13	0.0260	0.0247
Earth	98702-04-12 14:52 G	37771326.05	37771326.12	37771326.22	0.0260	0.0245 *
Moon	98703-04-24 00:14 G	37771702.27	37771702.51	37771702.76	0.0259	0.0024
Earth	98703-04-24 03:50 G	37771702.42	37771702.66	37771702.91	0.0259	0.0032 *
Earth	98704-05-04 13:55 G	37772078.91	37772079.08	37772079.27	0.0259	0.0179
Moon	98704-05-04 15:21 G	37772078.99	37772079.14	37772079.31	0.0259	0.0193 *
Mars	98709-11-11 15:35 G	37774095.94	37774096.15	37774096.38	0.0270	0.0159
Mercury	98711-06-11 10:33 G	37774672.78	37774672.94	37774673.11	0.0277	0.0145
Mercury	98711-09-08 10:33 G	37774761.75	37774761.94	37774762.13	0.0278	0.0059
Mercury	98711-12-06 10:19 G	37774850.89	37774850.93	37774851.00	0.0279	0.0267
Venus	98715-10-20 23:45 G	37776265.30	37776265.49	37776265.69	0.0297	0.0103
Venus	98716-06-06 22:48 G	37776495.31	37776495.45	37776495.61	0.0300	0.0207
Moon	98717-10-14 13:40 G	37776989.88	37776990.07	37776990.27	0.0303	0.0176
Earth	98717-10-14 17:16 G	37776990.04	37776990.22	37776990.41	0.0303	0.0195 *
Moon	98718-10-29 17:02 G	37777370.02	37777370.21	37777370.42	0.0304	0.0163
Earth	98718-10-29 19:26 G	37777370.10	37777370.31	37777370.52	0.0304	0.0147 *
Mercury	98724-07-24 22:04 G	37779465.32	37779465.42	37779465.53	0.0286	0.0166
Mercury	98724-10-21 09:07 G	37779553.76	37779553.88	37779554.01	0.0285	0.0022
Mercury	98725-01-17 20:09 G	37779642.23	37779642.34	37779642.46	0.0284	0.0126
Mercury	98725-04-16 07:11 G	37779730.76	37779730.80	37779730.84	0.0282	0.0268

Venus	98729-01-09 01:26 G	37781094.50	37781094.56	37781094.63	0.0266	0.0253
Venus	98729-08-26 05:45 G	37781323.52	37781323.74	37781323.96	0.0264	0.0028
Venus	98730-04-12 07:55 G	37781552.69	37781552.83	37781552.99	0.0263	0.0189
Earth	98732-04-18 14:24 G	37782289.88	37782290.10	37782290.32	0.0259	0.0124
Moon	98732-04-18 18:00 G	37782290.03	37782290.25	37782290.48	0.0259	0.0120 *
Moon	98733-04-30 00:28 G	37782666.29	37782666.52	37782666.77	0.0258	0.0101
Earth	98733-04-30 01:26 G	37782666.33	37782666.56	37782666.80	0.0258	0.0087 *
Mercury	98740-10-28 09:50 G	37785404.78	37785404.91	37785405.05	0.0277	0.0196
Mercury	98741-01-25 09:50 G	37785493.72	37785493.91	37785494.10	0.0278	0.0009
Mercury	98741-04-24 09:50 G	37785582.79	37785582.91	37785583.03	0.0279	0.0214
Venus	98745-05-02 08:38 G	37787051.66	37787051.86	37787052.06	0.0298	0.0055
Venus	98745-12-18 07:55 G	37787281.73	37787281.83	37787281.94	0.0300	0.0257
Earth	98747-10-23 16:19 G	37787955.94	37787956.18	37787956.42	0.0304	0.0003
Moon	98747-10-23 18:14 G	37787956.01	37787956.26	37787956.51	0.0304	0.0015 *
Mercury	98753-12-12 01:26 G	37790197.47	37790197.56	37790197.65	0.0286	0.0198
Mercury	98754-03-10 12:28 G	37790285.90	37790286.02	37790286.15	0.0285	0.0052
Mercury	98754-06-06 23:31 G	37790374.36	37790374.48	37790374.61	0.0283	0.0095
Mercury	98754-09-03 10:33 G	37790462.87	37790462.94	37790463.01	0.0282	0.0238
Venus	98758-07-22 08:38 G	37791880.74	37791880.86	37791880.99	0.0266	0.0213
Venus	98759-03-08 12:28 G	37792109.81	37792110.02	37792110.24	0.0264	0.0011
Venus	98759-10-23 14:24 G	37792339.01	37792339.10	37792339.22	0.0262	0.0226
Moon	98761-04-13 22:04 G	37792877.30	37792877.42	37792877.57	0.0260	0.0219
Earth	98761-04-14 01:40 G	37792877.45	37792877.57	37792877.72	0.0260	0.0217 *
Earth	98762-04-25 13:55 G	37793253.83	37793254.08	37793254.33	0.0259	0.0005
Moon	98762-04-25 14:38 G	37793253.87	37793254.11	37793254.35	0.0259	0.0006 *
Earth	98763-05-06 23:31 G	37793630.34	37793630.48	37793630.64	0.0259	0.0205
Moon	98763-05-07 03:21 G	37793630.52	37793630.64	37793630.78	0.0259	0.0220 *
Mercury	98770-03-17 09:35 G	37796136.82	37796136.90	37796137.00	0.0277	0.0243
Mercury	98770-06-14 09:35 G	37796225.71	37796225.90	37796226.09	0.0278	0.0040
Mercury	98770-09-11 09:35 G	37796314.75	37796314.90	37796315.06	0.0279	0.0166

Venus	98774-11-12 17:45 G	37797838.04	37797838.24	37797838.45	0.0298	0.0006
Moon	98776-10-16 12:43 G	37798541.82	37798542.03	37798542.24	0.0303	0.0135
Earth	98776-10-16 13:26 G	37798541.86	37798542.06	37798542.28	0.0303	0.0152 *
Earth	98777-10-31 16:04 G	37798921.99	37798922.17	37798922.37	0.0304	0.0190
Moon	98777-10-31 17:45 G	37798922.08	37798922.24	37798922.42	0.0304	0.0206 *
Mars	98782-03-02 09:21 G	37800504.83	37800504.89	37800504.98	0.0292	0.0282
Mercury	98783-05-01 04:33 G	37800929.62	37800929.69	37800929.77	0.0287	0.0233
Mercury	98783-07-28 15:50 G	37801018.04	37801018.16	37801018.28	0.0285	0.0085
Mercury	98783-10-25 02:52 G	37801106.49	37801106.62	37801106.75	0.0284	0.0061
Mercury	98784-01-21 13:55 G	37801194.99	37801195.08	37801195.17	0.0283	0.0205
Venus	98788-02-01 14:52 G	37802666.97	37802667.12	37802667.29	0.0266	0.0178
Venus	98788-09-17 18:28 G	37802896.06	37802896.27	37802896.49	0.0264	0.0045
Venus	98789-05-04 20:09 G	37803125.32	37803125.34	37803125.37	0.0262	0.0260
Moon	98791-04-20 23:45 G	37803841.25	37803841.49	37803841.74	0.0259	0.0091
Earth	98791-04-21 00:14 G	37803841.28	37803841.51	37803841.74	0.0259	0.0097 *
Moon	98792-05-01 06:28 G	37804217.57	37804217.77	37804218.00	0.0258	0.0129
Earth	98792-05-01 10:33 G	37804217.72	37804217.94	37804218.17	0.0258	0.0113 *
Mars	98798-04-07 22:33 G	37806385.37	37806385.44	37806385.53	0.0270	0.0258
Mercury	98799-11-01 08:09 G	37806957.66	37806957.84	37806958.02	0.0277	0.0098
Mercury	98800-01-29 08:09 G	37807046.66	37807046.84	37807047.02	0.0279	0.0108
Venus	98803-10-08 02:38 G	37808394.53	37808394.61	37808394.71	0.0297	0.0267
Venus	98804-05-25 00:43 G	37808624.32	37808624.53	37808624.73	0.0299	0.0038
Moon	98805-10-10 08:24 G	37809127.76	37809127.85	37809127.93	0.0303	0.0282
Earth	98805-10-10 08:09 G	37809127.82	37809127.84	37809127.88	0.0303	0.0300 *
Moon	98806-10-25 06:57 G	37809507.55	37809507.79	37809508.03	0.0304	0.0053
Earth	98806-10-25 09:35 G	37809507.66	37809507.90	37809508.14	0.0304	0.0037 *
Mercury	98812-09-17 07:40 G	37811661.78	37811661.82	37811661.86	0.0287	0.0269
Mercury	98812-12-14 18:43 G	37811750.17	37811750.28	37811750.40	0.0285	0.0120
Mercury	98813-03-13 05:45 G	37811838.62	37811838.74	37811838.87	0.0284	0.0028
Mercury	98813-06-09 16:48 G	37811927.10	37811927.20	37811927.31	0.0283	0.0171

Venus	98817-08-13 21:07 G	37813453.20	37813453.38	37813453.57	0.0265	0.0140
Venus	98818-03-31 00:14 G	37813682.31	37813682.51	37813682.73	0.0263	0.0082
Moon	98820-04-15 09:50 G	37814428.76	37814428.91	37814429.08	0.0259	0.0191
Earth	98820-04-15 10:33 G	37814428.78	37814428.94	37814429.11	0.0259	0.0190 *
Earth	98821-04-26 21:50 G	37814805.16	37814805.41	37814805.66	0.0258	0.0021
Moon	98821-04-27 01:40 G	37814805.32	37814805.57	37814805.82	0.0258	0.0035 *
Earth	98822-05-08 06:57 G	37815181.69	37815181.79	37815181.92	0.0258	0.0229
Moon	98822-05-08 07:40 G	37815181.74	37815181.82	37815181.92	0.0258	0.0242 *
Mercury	98829-03-20 07:11 G	37817689.64	37817689.80	37817689.96	0.0277	0.0151
Mercury	98829-06-17 07:11 G	37817778.61	37817778.80	37817778.99	0.0278	0.0054
Mercury	98829-09-14 06:57 G	37817867.73	37817867.79	37817867.87	0.0279	0.0261
Venus	98833-04-19 10:19 G	37819180.80	37819180.93	37819181.08	0.0296	0.0221
Venus	98833-12-05 08:38 G	37819410.66	37819410.86	37819411.06	0.0299	0.0086
Earth	98835-10-19 04:04 G	37820093.45	37820093.67	37820093.90	0.0304	0.0114
Moon	98835-10-19 07:26 G	37820093.59	37820093.81	37820094.04	0.0304	0.0098 *
Earth	98836-11-02 07:40 G	37820473.66	37820473.82	37820473.98	0.0304	0.0228
Moon	98836-11-02 11:31 G	37820473.83	37820473.98	37820474.12	0.0304	0.0244 *
Mercury	98842-05-03 21:50 G	37822482.30	37822482.41	37822482.52	0.0286	0.0157
Mercury	98842-07-31 08:52 G	37822570.74	37822570.87	37822571.00	0.0285	0.0011
Mercury	98842-10-27 19:55 G	37822659.22	37822659.33	37822659.45	0.0284	0.0135
Mercury	98843-01-24 06:43 G	37822747.77	37822747.78	37822747.81	0.0283	0.0279
Venus	98847-02-24 02:38 G	37824239.42	37824239.61	37824239.82	0.0265	0.0106
Venus	98847-10-11 05:45 G	37824468.54	37824468.74	37824468.93	0.0263	0.0115
Moon	98850-04-22 03:50 G	37825392.42	37825392.66	37825392.91	0.0258	0.0062
Earth	98850-04-22 07:26 G	37825392.57	37825392.81	37825393.05	0.0258	0.0072 *
Moon	98851-05-03 16:19 G	37825768.99	37825769.18	37825769.38	0.0258	0.0153
Earth	98851-05-03 17:02 G	37825769.01	37825769.21	37825769.43	0.0258	0.0137 *
Mercury	98858-08-07 05:02 G	37828421.60	37828421.71	37828421.84	0.0277	0.0212
Mercury	98858-11-04 05:02 G	37828510.52	37828510.71	37828510.90	0.0278	0.0009
Mercury	98859-02-01 05:02 G	37828599.58	37828599.71	37828599.85	0.0279	0.0197

Venus	98862-10-30 15:21 G	37829966.98	37829967.14	37829967.31	0.0297	0.0183
Venus	98863-06-17 13:55 G	37830196.90	37830197.08	37830197.27	0.0300	0.0126
Moon	98864-10-11 16:04 G	37830679.05	37830679.17	37830679.32	0.0303	0.0252
Earth	98864-10-11 19:40 G	37830679.22	37830679.32	37830679.45	0.0303	0.0266 *
Moon	98865-10-26 18:43 G	37831059.05	37831059.28	37831059.51	0.0305	0.0087
Earth	98865-10-26 21:50 G	37831059.18	37831059.41	37831059.65	0.0305	0.0073 *
Mercury	98871-09-21 00:14 G	37833214.42	37833214.51	37833214.61	0.0286	0.0199
Mercury	98871-12-18 11:31 G	37833302.85	37833302.98	37833303.11	0.0285	0.0051
Mercury	98872-03-15 22:33 G	37833391.32	37833391.44	37833391.56	0.0284	0.0095
Mercury	98872-06-12 09:21 G	37833479.83	37833479.89	37833479.96	0.0283	0.0239
Venus	98876-09-05 07:26 G	37835025.60	37835025.81	37835026.02	0.0264	0.0072
Venus	98877-04-22 10:04 G	37835254.75	37835254.92	37835255.10	0.0263	0.0147
Earth	98879-04-17 16:04 G	37835979.99	37835980.17	37835980.37	0.0259	0.0165
Moon	98879-04-17 19:26 G	37835980.12	37835980.31	37835980.50	0.0259	0.0163 *
Earth	98880-04-28 02:52 G	37836356.38	37836356.62	37836356.87	0.0258	0.0045
Moon	98880-04-28 03:50 G	37836356.41	37836356.66	37836356.92	0.0258	0.0059 *
Earth	98881-05-09 11:16 G	37836732.93	37836732.97	37836733.04	0.0258	0.0251
Mercury	98887-12-25 03:21 G	37839153.61	37839153.64	37839153.67	0.0276	0.0273
Mercury	98888-03-23 03:07 G	37839242.45	37839242.63	37839242.82	0.0277	0.0070
Mercury	98888-06-20 03:07 G	37839331.47	37839331.63	37839331.80	0.0279	0.0135
Venus	98892-05-11 21:07 G	37840753.21	37840753.38	37840753.57	0.0297	0.0142
Venus	98892-12-27 19:55 G	37840983.16	37840983.33	37840983.51	0.0299	0.0168
Earth	98894-10-20 12:28 G	37841644.79	37841645.02	37841645.25	0.0304	0.0082
Moon	98894-10-20 14:52 G	37841644.89	37841645.12	37841645.37	0.0304	0.0069 *
Earth	98895-11-04 16:04 G	37842025.06	37842025.17	37842025.31	0.0304	0.0261
Moon	98895-11-04 16:19 G	37842025.08	37842025.18	37842025.30	0.0304	0.0270 *
Mercury	98901-02-08 02:52 G	37843946.56	37843946.62	37843946.69	0.0287	0.0241
Mercury	98901-05-07 14:09 G	37844034.97	37844035.09	37844035.21	0.0286	0.0092
Mercury	98901-08-04 01:11 G	37844123.43	37844123.55	37844123.68	0.0285	0.0055
Mercury	98901-10-31 12:14 G	37844211.92	37844212.01	37844212.10	0.0283	0.0199

Venus	98905-08-02 07:55 G	37845582.82	37845582.83	37845582.85	0.0267	0.0265
Venus	98906-03-19 12:14 G	37845811.79	37845812.01	37845812.22	0.0265	0.0040
Venus	98906-11-03 14:38 G	37846040.95	37846041.11	37846041.26	0.0263	0.0179
Earth	98908-04-12 23:45 G	37846567.47	37846567.49	37846567.52	0.0260	0.0258
Moon	98909-04-24 09:35 G	37846943.67	37846943.90	37846944.14	0.0258	0.0039
Earth	98909-04-24 11:31 G	37846943.73	37846943.98	37846944.22	0.0258	0.0048 *
Earth	98910-05-05 20:09 G	37847320.16	37847320.34	37847320.55	0.0258	0.0160
Moon	98910-05-06 00:00 G	37847320.32	37847320.50	37847320.68	0.0258	0.0173 *
Mercury	98917-08-11 00:28 G	37849974.36	37849974.52	37849974.69	0.0277	0.0137
Mercury	98917-11-08 00:14 G	37850063.33	37850063.51	37850063.70	0.0278	0.0067
Mercury	98918-02-05 00:14 G	37850152.48	37850152.51	37850152.55	0.0279	0.0273
Venus	98921-11-23 00:14 G	37851539.32	37851539.51	37851539.71	0.0298	0.0108
Venus	98922-07-10 23:31 G	37851769.33	37851769.48	37851769.63	0.0300	0.0204
Moon	98923-10-14 22:33 G	37852230.29	37852230.44	37852230.60	0.0304	0.0226
Earth	98923-10-15 00:14 G	37852230.37	37852230.51	37852230.66	0.0304	0.0237 *
Earth	98924-10-29 02:52 G	37852610.40	37852610.62	37852610.85	0.0305	0.0102
Moon	98924-10-29 04:04 G	37852610.46	37852610.67	37852610.89	0.0305	0.0112 *
Mercury	98930-09-24 16:04 G	37854767.06	37854767.17	37854767.29	0.0286	0.0140
Mercury	98930-12-22 03:21 G	37854855.51	37854855.64	37854855.77	0.0285	0.0009
Mercury	98931-03-20 14:09 G	37854943.99	37854944.09	37854944.21	0.0284	0.0154
Venus	98935-02-12 11:16 G	37856368.87	37856368.97	37856369.07	0.0266	0.0233
Venus	98935-09-29 15:21 G	37856597.92	37856598.14	37856598.36	0.0264	0.0009
Venus	98936-05-15 17:31 G	37856827.11	37856827.23	37856827.36	0.0262	0.0209
Earth	98938-04-19 18:14 G	37857531.07	37857531.26	37857531.48	0.0259	0.0143
Moon	98938-04-19 20:52 G	37857531.16	37857531.37	37857531.59	0.0259	0.0138 *
Moon	98939-05-01 01:26 G	37857907.32	37857907.56	37857907.81	0.0258	0.0080
Earth	98939-05-01 04:48 G	37857907.45	37857907.70	37857907.94	0.0258	0.0066 *
Mercury	98946-12-28 21:50 G	37860706.29	37860706.41	37860706.55	0.0276	0.0204
Mercury	98947-03-27 21:50 G	37860795.22	37860795.41	37860795.61	0.0278	0.0006
Mercury	98947-06-24 21:50 G	37860884.28	37860884.41	37860884.54	0.0279	0.0206

Venus	98951-06-05 05:16 G	37862325.52	37862325.72	37862325.92	0.0298	0.0069
Venus	98952-01-21 04:19 G	37862555.57	37862555.68	37862555.81	0.0300	0.0243
Moon	98953-10-22 13:26 G	37863195.82	37863196.06	37863196.31	0.0304	0.0047
Earth	98953-10-22 15:35 G	37863195.91	37863196.15	37863196.39	0.0304	0.0054 *
Moon	98954-11-06 15:50 G	37863576.11	37863576.16	37863576.24	0.0304	0.0292
Earth	98954-11-06 19:26 G	37863576.25	37863576.31	37863576.41	0.0304	0.0288
Mercury	98960-02-11 18:28 G	37865499.17	37865499.27	37865499.37	0.0287	0.0186
Mercury	98960-05-10 05:31 G	37865587.61	37865587.73	37865587.86	0.0286	0.0038
Mercury	98960-08-06 16:33 G	37865676.08	37865676.19	37865676.32	0.0284	0.0110
Mercury	98960-11-03 03:35 G	37865764.60	37865764.65	37865764.71	0.0283	0.0254
Venus	98964-08-24 15:07 G	37867155.00	37867155.13	37867155.27	0.0266	0.0203
Venus	98965-04-10 18:57 G	37867384.08	37867384.29	37867384.51	0.0264	0.0022
Venus	98965-11-25 20:52 G	37867613.29	37867613.37	37867613.47	0.0262	0.0238
Moon	98967-04-14 22:33 G	37868118.35	37868118.44	37868118.54	0.0259	0.0236
Earth	98967-04-15 00:57 G	37868118.45	37868118.54	37868118.64	0.0259	0.0236 *
Earth	98968-04-25 11:59 G	37868494.76	37868495.00	37868495.25	0.0258	0.0028
Moon	98968-04-25 14:38 G	37868494.87	37868495.11	37868495.35	0.0258	0.0015 *
Earth	98969-05-06 20:23 G	37868871.18	37868871.35	37868871.54	0.0258	0.0180
Moon	98969-05-06 22:33 G	37868871.28	37868871.44	37868871.62	0.0258	0.0190 *
Mercury	98976-05-16 18:43 G	37871438.26	37871438.28	37871438.31	0.0275	0.0273
Mercury	98976-08-13 18:28 G	37871527.09	37871527.27	37871527.46	0.0277	0.0072
Mercury	98976-11-10 18:28 G	37871616.10	37871616.27	37871616.44	0.0278	0.0133
Venus	98980-12-15 06:28 G	37873111.57	37873111.77	37873111.98	0.0298	0.0039
Venus	98981-08-02 05:45 G	37873341.67	37873341.74	37873341.83	0.0300	0.0275
Earth	98982-10-15 23:31 G	37873781.31	37873781.48	37873781.65	0.0304	0.0214
Moon	98982-10-16 01:40 G	37873781.41	37873781.57	37873781.75	0.0304	0.0206 *
Earth	98983-10-31 02:09 G	37874161.38	37874161.59	37874161.82	0.0305	0.0126
Moon	98983-10-31 05:59 G	37874161.53	37874161.75	37874161.97	0.0305	0.0131 *
Mercury	98989-06-30 19:55 G	37876231.26	37876231.33	37876231.40	0.0287	0.0241
Mercury	98989-09-27 07:11 G	37876319.67	37876319.80	37876319.92	0.0286	0.0092

Mercury	98989-12-24 18:14 G	37876408.13	37876408.26	37876408.39	0.0285	0.0056
Mercury	98990-03-23 05:16 G	37876496.63	37876496.72	37876496.81	0.0284	0.0202
Venus	98994-03-06 16:47 G	37877941.04	37877941.20	37877941.37	0.0266	0.0175
Venus	98994-10-21 20:38 G	37878170.15	37878170.36	37878170.58	0.0264	0.0049
Moon	98997-04-20 14:38 G	37879081.89	37879082.11	37879082.35	0.0258	0.0113
Earth	98997-04-20 17:16 G	37879082.02	37879082.22	37879082.45	0.0258	0.0124 *
Moon	98998-05-02 00:43 G	37879458.31	37879458.53	37879458.76	0.0258	0.0099
Earth	98998-05-02 03:21 G	37879458.41	37879458.64	37879458.88	0.0258	0.0085 *

100TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 100th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	99006-01-01 15:35 G	37882258.99	37882259.15	37882259.31	0.0276	0.0143		
Mercury	99006-03-31 15:21 G	37882347.95	37882348.14	37882348.33	0.0278	0.0060		
Mercury	99006-06-28 15:07 G	37882437.08	37882437.13	37882437.19	0.0279	0.0266		
Venus	99010-06-28 10:04 G	37883897.71	37883897.92	37883898.12	0.0298	0.0005		
Moon	99012-10-24 09:21 G	37884746.65	37884746.89	37884747.12	0.0304	0.0027		
Earth	99012-10-24 12:28 G	37884746.78	37884747.02	37884747.26	0.0304	0.0033 *		
Mercury	99019-02-15 09:07 G	37887051.77	37887051.88	37887051.99	0.0287	0.0141		
Mercury	99019-05-14 20:23 G	37887140.22	37887140.35	37887140.48	0.0286	0.0010		
Mercury	99019-08-11 07:26 G	37887228.70	37887228.81	37887228.92	0.0284	0.0154		
Venus	99023-09-17 19:55 G	37888727.15	37888727.33	37888727.51	0.0266	0.0146		
Venus	99024-05-03 23:31 G	37888956.28	37888956.48	37888956.69	0.0264	0.0078		

Earth	99026-04-16 22:47 G	37889669.33	37889669.45	37889669.60	0.0259	0.0218
Moon	99026-04-17 01:40 G	37889669.43	37889669.57	37889669.71	0.0259	0.0211 *
Earth	99027-04-28 09:50 G	37890045.66	37890045.91	37890046.16	0.0258	0.0009
Moon	99027-04-28 12:57 G	37890045.79	37890046.04	37890046.30	0.0258	0.0007 *
Moon	99028-05-08 15:07 G	37890421.99	37890422.13	37890422.30	0.0257	0.0204
Earth	99028-05-08 17:59 G	37890422.10	37890422.25	37890422.41	0.0257	0.0197 *
Mercury	99035-05-21 11:45 G	37892990.88	37892990.99	37892991.12	0.0275	0.0216
Mercury	99035-08-18 11:45 G	37893079.80	37893079.99	37893080.18	0.0277	0.0014
Mercury	99035-11-15 11:31 G	37893168.84	37893168.98	37893169.12	0.0278	0.0190
Venus	99039-05-23 13:11 G	37894453.99	37894454.05	37894454.13	0.0296	0.0278
Venus	99040-01-08 10:33 G	37894683.74	37894683.94	37894684.15	0.0298	0.0026
Earth	99041-10-17 18:43 G	37895332.10	37895332.28	37895332.46	0.0304	0.0194
Moon	99041-10-17 21:50 G	37895332.22	37895332.41	37895332.60	0.0304	0.0187 *
Earth	99042-11-01 21:50 G	37895712.20	37895712.41	37895712.62	0.0305	0.0146
Moon	99042-11-01 22:04 G	37895712.21	37895712.42	37895712.65	0.0305	0.0146 *
Mercury	99048-07-04 10:19 G	37897783.84	37897783.93	37897784.02	0.0287	0.0200
Mercury	99048-09-30 21:35 G	37897872.27	37897872.40	37897872.53	0.0286	0.0050
Mercury	99048-12-28 08:38 G	37897960.74	37897960.86	37897960.98	0.0285	0.0098
Mercury	99049-03-26 19:40 G	37898049.26	37898049.32	37898049.39	0.0284	0.0243
Venus	99053-03-29 20:38 G	37899513.17	37899513.36	37899513.56	0.0265	0.0120
Venus	99053-11-13 23:59 G	37899742.31	37899742.50	37899742.71	0.0263	0.0104
Moon	99056-04-22 11:02 G	37900632.73	37900632.96	37900633.19	0.0258	0.0092
Earth	99056-04-22 13:55 G	37900632.86	37900633.08	37900633.31	0.0258	0.0106 *
Earth	99057-05-03 23:16 G	37901009.25	37901009.47	37901009.71	0.0258	0.0103
Moon	99057-05-04 01:11 G	37901009.34	37901009.55	37901009.77	0.0258	0.0116 *
Mercury	99065-01-04 08:23 G	37903811.67	37903811.85	37903812.03	0.0276	0.0088
Mercury	99065-04-03 08:09 G	37903900.67	37903900.84	37903901.02	0.0278	0.0115
Venus	99068-12-02 15:21 G	37905240.04	37905240.14	37905240.27	0.0296	0.0246
Venus	99069-07-20 13:11 G	37905469.85	37905470.05	37905470.25	0.0298	0.0059
Earth	99071-10-26 06:14 G	37906297.52	37906297.76	37906298.00	0.0304	0.0014

Moon	99071-10-26 06:43 G	37906297.55	37906297.78	37906298.01	0.0304	0.0013	*
Mercury	99077-11-21 11:59 G	37908515.94	37908516.00	37908516.06	0.0288	0.0254	
Mercury	99078-02-17 23:16 G	37908604.35	37908604.47	37908604.59	0.0287	0.0103	
Mercury	99078-05-17 10:19 G	37908692.81	37908692.93	37908693.06	0.0286	0.0047	
Mercury	99078-08-13 21:35 G	37908781.30	37908781.40	37908781.49	0.0284	0.0193	
Venus	99082-10-09 22:47 G	37910299.25	37910299.45	37910299.66	0.0266	0.0092	
Venus	99083-05-27 02:09 G	37910528.41	37910528.59	37910528.78	0.0264	0.0132	
Earth	99085-04-17 18:43 G	37911220.13	37911220.28	37911220.44	0.0259	0.0202	
Moon	99085-04-17 21:50 G	37911220.24	37911220.41	37911220.58	0.0259	0.0191	*
Moon	99086-04-29 03:35 G	37911596.40	37911596.65	37911596.91	0.0258	0.0023	
Earth	99086-04-29 05:31 G	37911596.49	37911596.73	37911596.98	0.0258	0.0009	*
Moon	99087-05-10 10:19 G	37911972.81	37911972.93	37911973.07	0.0257	0.0219	
Earth	99087-05-10 13:26 G	37911972.93	37911973.06	37911973.21	0.0257	0.0213	*
Mercury	99094-05-24 04:33 G	37914543.54	37914543.69	37914543.85	0.0275	0.0161	
Mercury	99094-08-21 04:33 G	37914632.50	37914632.69	37914632.88	0.0276	0.0041	
Mercury	99094-11-18 04:19 G	37914721.59	37914721.68	37914721.77	0.0278	0.0244	
Venus	99098-06-14 15:50 G	37916026.02	37916026.16	37916026.30	0.0296	0.0218	
Venus	99099-01-30 13:11 G	37916255.85	37916256.05	37916256.25	0.0298	0.0087	
Moon	99100-10-19 09:07 G	37916882.69	37916882.88	37916883.09	0.0304	0.0179	
Earth	99100-10-19 10:47 G	37916882.76	37916882.95	37916883.15	0.0304	0.0178	*
Moon	99101-11-03 10:33 G	37917262.73	37917262.94	37917263.15	0.0305	0.0156	
Earth	99101-11-03 13:40 G	37917262.88	37917263.07	37917263.29	0.0305	0.0163	*
Mercury	99107-07-09 00:14 G	37919336.40	37919336.51	37919336.61	0.0288	0.0164	
Mercury	99107-10-05 11:31 G	37919424.85	37919424.98	37919425.11	0.0286	0.0016	
Mercury	99108-01-01 22:33 G	37919513.33	37919513.44	37919513.55	0.0285	0.0133	
Mercury	99108-03-30 09:35 G	37919601.88	37919601.90	37919601.92	0.0284	0.0279	
Venus	99112-04-21 22:47 G	37921085.25	37921085.45	37921085.66	0.0265	0.0067	
Venus	99112-12-07 02:09 G	37921314.42	37921314.59	37921314.77	0.0263	0.0156	
Earth	99115-04-25 08:38 G	37922183.63	37922183.86	37922184.09	0.0258	0.0090	
Moon	99115-04-25 10:33 G	37922183.71	37922183.94	37922184.17	0.0258	0.0075	*

Earth	99116-05-05 17:59 G	37922560.03	37922560.25	37922560.47	0.0258	0.0118
Moon	99116-05-05 21:21 G	37922560.18	37922560.39	37922560.62	0.0258	0.0130 *
Mars	99121-09-30 08:52 G	37924533.79	37924533.87	37924533.97	0.0267	0.0252
Mercury	99123-10-12 01:11 G	37925275.46	37925275.55	37925275.65	0.0275	0.0235
Mercury	99124-01-09 00:57 G	37925364.35	37925364.54	37925364.73	0.0276	0.0035
Mercury	99124-04-07 00:28 G	37925453.37	37925453.52	37925453.68	0.0277	0.0168
Venus	99127-12-26 17:45 G	37926812.09	37926812.24	37926812.41	0.0296	0.0187
Venus	99128-08-12 15:35 G	37927041.96	37927042.15	37927042.34	0.0298	0.0120
Earth	99130-10-27 22:19 G	37927848.19	37927848.43	37927848.68	0.0304	0.0007
Moon	99130-10-28 02:09 G	37927848.35	37927848.59	37927848.83	0.0304	0.0001 *
Mercury	99136-11-25 01:40 G	37930068.49	37930068.57	37930068.66	0.0288	0.0219
Mercury	99137-02-21 12:57 G	37930156.92	37930157.04	37930157.17	0.0287	0.0068
Mercury	99137-05-21 00:14 G	37930245.39	37930245.51	37930245.63	0.0286	0.0081
Mercury	99137-08-17 11:16 G	37930333.90	37930333.97	37930334.05	0.0284	0.0228
Venus	99141-11-02 00:57 G	37931871.32	37931871.54	37931871.75	0.0266	0.0039
Venus	99142-06-19 04:19 G	37932100.52	37932100.68	37932100.83	0.0264	0.0183
Moon	99144-04-19 11:31 G	37932770.80	37932770.98	37932771.18	0.0259	0.0174
Earth	99144-04-19 13:11 G	37932770.89	37932771.05	37932771.23	0.0259	0.0187 *
Moon	99145-04-30 20:38 G	37933147.12	37933147.36	37933147.61	0.0258	0.0036
Earth	99145-05-01 00:14 G	37933147.26	37933147.51	37933147.76	0.0258	0.0022 *
Earth	99146-05-12 08:09 G	37933523.73	37933523.84	37933523.96	0.0258	0.0228
Moon	99146-05-12 09:07 G	37933523.79	37933523.88	37933524.00	0.0258	0.0230 *
Mercury	99153-05-27 21:21 G	37936096.22	37936096.39	37936096.57	0.0275	0.0106
Mercury	99153-08-24 21:07 G	37936185.20	37936185.38	37936185.56	0.0276	0.0095
Venus	99157-07-07 18:28 G	37937598.10	37937598.27	37937598.45	0.0296	0.0157
Venus	99158-02-22 16:04 G	37937827.99	37937828.17	37937828.35	0.0299	0.0150
Moon	99159-10-20 23:45 G	37938433.30	37938433.49	37938433.69	0.0304	0.0170
Earth	99159-10-21 03:21 G	37938433.44	37938433.64	37938433.85	0.0304	0.0161 *
Moon	99160-11-04 04:33 G	37938813.51	37938813.69	37938813.89	0.0305	0.0170
Earth	99160-11-04 06:14 G	37938813.57	37938813.76	37938813.96	0.0305	0.0179 *

Mercury	99166-04-14 02:38 G	37940800.59	37940800.61	37940800.63	0.0289	0.0283
Mercury	99166-07-11 13:55 G	37940888.97	37940889.08	37940889.20	0.0288	0.0131
Mercury	99166-10-08 01:11 G	37940977.42	37940977.55	37940977.68	0.0286	0.0020
Mercury	99167-01-04 12:14 G	37941065.91	37941066.01	37941066.12	0.0285	0.0168
Venus	99170-09-27 19:11 G	37942428.22	37942428.30	37942428.39	0.0268	0.0245
Venus	99171-05-15 00:28 G	37942657.31	37942657.52	37942657.74	0.0265	0.0016
Venus	99171-12-30 03:50 G	37942886.54	37942886.66	37942886.80	0.0263	0.0207
Earth	99174-04-26 02:52 G	37943734.38	37943734.62	37943734.86	0.0258	0.0075
Moon	99174-04-26 06:14 G	37943734.52	37943734.76	37943735.01	0.0258	0.0060 *
Moon	99175-05-07 11:16 G	37944110.75	37944110.97	37944111.19	0.0258	0.0138
Earth	99175-05-07 12:28 G	37944110.81	37944111.02	37944111.23	0.0258	0.0133 *
Mercury	99182-10-14 18:14 G	37946828.11	37946828.26	37946828.40	0.0275	0.0179
Mercury	99183-01-11 17:45 G	37946917.05	37946917.24	37946917.43	0.0276	0.0021
Mercury	99183-04-10 17:16 G	37947006.12	37947006.22	37947006.34	0.0277	0.0224
Venus	99187-01-17 20:38 G	37948384.18	37948384.36	37948384.55	0.0296	0.0125
Venus	99187-09-04 18:28 G	37948614.11	37948614.27	37948614.44	0.0299	0.0183
Earth	99189-10-28 15:07 G	37949398.89	37949399.13	37949399.37	0.0304	0.0020
Moon	99189-10-28 15:35 G	37949398.90	37949399.15	37949399.40	0.0304	0.0009 *
Mercury	99195-11-28 15:35 G	37951621.05	37951621.15	37951621.25	0.0288	0.0185
Mercury	99196-02-25 02:52 G	37951709.49	37951709.62	37951709.75	0.0287	0.0034
Mercury	99196-05-23 13:55 G	37951797.97	37951798.08	37951798.20	0.0286	0.0116
Mercury	99196-08-20 01:11 G	37951886.50	37951886.55	37951886.60	0.0284	0.0262
Venus	99200-04-08 21:21 G	37953214.27	37953214.39	37953214.52	0.0268	0.0217
Venus	99200-11-24 02:38 G	37953443.40	37953443.61	37953443.83	0.0266	0.0015
Venus	99201-07-11 05:45 G	37953672.66	37953672.74	37953672.85	0.0264	0.0235
Moon	99203-04-21 04:19 G	37954321.49	37954321.68	37954321.88	0.0260	0.0158
Earth	99203-04-21 07:55 G	37954321.65	37954321.83	37954322.02	0.0260	0.0172 *
Earth	99204-05-01 18:43 G	37954698.04	37954698.28	37954698.53	0.0258	0.0038
Moon	99204-05-01 19:55 G	37954698.10	37954698.33	37954698.57	0.0258	0.0047 *
Earth	99205-05-13 02:52 G	37955074.55	37955074.62	37955074.72	0.0258	0.0243

Moon	99205-05-13 06:43 G	37955074.70	37955074.78	37955074.88	0.0258	0.0240	*
Mars	99210-02-23 06:57 G	37956821.63	37956821.79	37956821.95	0.0266	0.0216	
Mercury	99212-03-02 15:07 G	37957560.05	37957560.13	37957560.21	0.0274	0.0246	
Mercury	99212-05-30 14:38 G	37957648.92	37957649.11	37957649.30	0.0275	0.0048	
Mercury	99212-08-27 14:09 G	37957737.94	37957738.09	37957738.26	0.0276	0.0154	
Venus	99216-07-29 22:04 G	37959170.23	37959170.42	37959170.62	0.0296	0.0093	
Venus	99217-03-16 19:55 G	37959400.18	37959400.33	37959400.47	0.0299	0.0215	
Earth	99218-10-21 21:21 G	37959984.18	37959984.39	37959984.61	0.0303	0.0144	
Moon	99218-10-21 22:19 G	37959984.24	37959984.43	37959984.63	0.0303	0.0158	*
Earth	99219-11-06 00:14 G	37960364.33	37960364.51	37960364.70	0.0305	0.0196	
Moon	99219-11-06 03:07 G	37960364.45	37960364.63	37960364.83	0.0305	0.0182	*
Mercury	99225-04-16 16:33 G	37962353.13	37962353.19	37962353.26	0.0289	0.0247	
Mercury	99225-07-14 03:50 G	37962441.54	37962441.66	37962441.79	0.0288	0.0095	
Mercury	99225-10-10 15:07 G	37962530.00	37962530.13	37962530.26	0.0286	0.0056	
Mercury	99226-01-07 02:23 G	37962618.51	37962618.60	37962618.69	0.0285	0.0204	
Venus	99229-10-19 21:21 G	37964000.25	37964000.39	37964000.55	0.0267	0.0191	
Venus	99230-06-06 02:52 G	37964229.40	37964229.62	37964229.83	0.0265	0.0038	
Venus	99231-01-21 05:59 G	37964458.72	37964458.75	37964458.80	0.0263	0.0259	
Moon	99232-04-15 12:28 G	37964909.00	37964909.02	37964909.06	0.0260	0.0258	
Moon	99233-04-26 21:21 G	37965285.14	37965285.39	37965285.65	0.0259	0.0048	
Earth	99233-04-26 22:19 G	37965285.19	37965285.43	37965285.67	0.0259	0.0060	*
Moon	99234-05-08 04:04 G	37965661.47	37965661.67	37965661.88	0.0258	0.0148	
Earth	99234-05-08 07:40 G	37965661.63	37965661.82	37965662.04	0.0258	0.0149	*
Mercury	99241-10-17 11:45 G	37968380.82	37968380.99	37968381.17	0.0275	0.0118	
Mercury	99242-01-14 11:16 G	37968469.79	37968469.97	37968470.16	0.0276	0.0084	
Venus	99246-02-09 01:26 G	37969956.36	37969956.56	37969956.76	0.0296	0.0059	
Venus	99246-09-26 23:16 G	37970186.36	37970186.47	37970186.58	0.0299	0.0251	
Earth	99247-10-15 10:33 G	37970569.89	37970569.94	37970569.99	0.0302	0.0294	
Moon	99248-10-29 06:57 G	37970949.55	37970949.79	37970950.04	0.0304	0.0023	
Earth	99248-10-29 10:47 G	37970949.71	37970949.95	37970950.19	0.0304	0.0039	*

Mercury	99254-12-01 05:31 G	37973173.62	37973173.73	37973173.84	0.0288	0.0147
Mercury	99255-02-27 16:47 G	37973262.07	37973262.20	37973262.33	0.0287	0.0008
Mercury	99255-05-27 04:04 G	37973350.56	37973350.67	37973350.78	0.0286	0.0153
Venus	99259-05-01 23:59 G	37974786.34	37974786.50	37974786.68	0.0268	0.0162
Venus	99259-12-17 05:31 G	37975015.52	37975015.73	37975015.94	0.0265	0.0068
Moon	99262-04-22 03:50 G	37975872.46	37975872.66	37975872.86	0.0260	0.0143
Earth	99262-04-22 03:50 G	37975872.47	37975872.66	37975872.86	0.0260	0.0157 *
Earth	99263-05-03 15:07 G	37976248.89	37976249.13	37976249.38	0.0258	0.0054
Moon	99263-05-03 18:43 G	37976249.04	37976249.28	37976249.53	0.0258	0.0059 *
Moon	99264-05-13 23:16 G	37976625.42	37976625.47	37976625.55	0.0258	0.0249
Mercury	99271-03-06 09:21 G	37979112.75	37979112.89	37979113.04	0.0274	0.0179
Mercury	99271-06-03 09:07 G	37979201.69	37979201.88	37979202.07	0.0275	0.0021
Mercury	99271-08-31 08:38 G	37979290.75	37979290.86	37979290.97	0.0276	0.0222
Venus	99275-08-22 04:04 G	37980742.47	37980742.67	37980742.88	0.0296	0.0023
Venus	99276-04-08 01:55 G	37980972.53	37980972.58	37980972.64	0.0299	0.0287
Earth	99277-10-22 19:11 G	37981535.09	37981535.30	37981535.53	0.0303	0.0124
Moon	99277-10-22 23:02 G	37981535.25	37981535.46	37981535.68	0.0303	0.0140 *
Earth	99278-11-06 21:50 G	37981915.25	37981915.41	37981915.58	0.0305	0.0216
Moon	99278-11-07 00:14 G	37981915.34	37981915.51	37981915.71	0.0305	0.0199 *
Mercury	99284-04-19 06:57 G	37983905.70	37983905.79	37983905.88	0.0289	0.0206
Mercury	99284-07-16 18:14 G	37983994.13	37983994.26	37983994.38	0.0288	0.0054
Mercury	99284-10-13 05:16 G	37984082.60	37984082.72	37984082.85	0.0286	0.0097
Mercury	99285-01-09 16:33 G	37984171.12	37984171.19	37984171.25	0.0285	0.0243
Venus	99288-11-11 00:43 G	37985572.35	37985572.53	37985572.73	0.0267	0.0136
Venus	99289-06-28 05:59 G	37985801.55	37985801.75	37985801.96	0.0265	0.0094
Moon	99291-04-17 05:59 G	37986459.66	37986459.75	37986459.86	0.0260	0.0240
Earth	99291-04-17 05:45 G	37986459.70	37986459.74	37986459.79	0.0260	0.0255 *
Jupiter	99291-05-17 00:43 G	37986489.34	37986489.53	37986489.74	0.0260	0.0236
Moon	99292-04-27 15:50 G	37986835.91	37986836.16	37986836.41	0.0259	0.0033
Earth	99292-04-27 19:26 G	37986836.06	37986836.31	37986836.56	0.0259	0.0043 *

Earth	99293-05-09 05:16 G	37987212.54	37987212.72	37987212.92	0.0258	0.0165
Moon	99293-05-09 05:31 G	37987212.55	37987212.73	37987212.93	0.0258	0.0161 *
Mars	99298-07-19 10:33 G	37989109.74	37989109.94	37989110.16	0.0266	0.0175
Mercury	99300-07-24 06:57 G	37989844.71	37989844.79	37989844.88	0.0274	0.0245
Mercury	99300-10-21 06:28 G	37989933.59	37989933.77	37989933.96	0.0275	0.0046
Mercury	99301-01-18 05:59 G	37990022.60	37990022.75	37990022.92	0.0277	0.0156
Venus	99304-07-17 12:43 G	37991298.99	37991299.03	37991299.09	0.0294	0.0285
Venus	99305-03-04 08:23 G	37991528.65	37991528.85	37991529.06	0.0297	0.0016
Moon	99306-10-17 06:57 G	37992120.74	37992120.79	37992120.87	0.0302	0.0290
Earth	99306-10-17 10:19 G	37992120.84	37992120.93	37992121.04	0.0302	0.0273 *
Moon	99307-11-01 09:21 G	37992500.66	37992500.89	37992501.12	0.0304	0.0044
Earth	99307-11-01 10:33 G	37992500.71	37992500.94	37992501.18	0.0304	0.0062 *
Mercury	99313-09-07 08:52 G	37994637.81	37994637.87	37994637.93	0.0289	0.0254
Mercury	99313-12-04 20:09 G	37994726.22	37994726.34	37994726.46	0.0288	0.0102
Mercury	99314-03-03 07:26 G	37994814.69	37994814.81	37994814.94	0.0287	0.0050
Mercury	99314-05-30 18:43 G	37994903.19	37994903.28	37994903.37	0.0285	0.0198
Venus	99318-05-25 04:33 G	37996358.50	37996358.69	37996358.90	0.0267	0.0103
Venus	99319-01-09 09:35 G	37996587.72	37996587.90	37996588.10	0.0265	0.0127
Earth	99321-04-24 02:09 G	37997423.39	37997423.59	37997423.81	0.0260	0.0140
Moon	99321-04-24 05:59 G	37997423.54	37997423.75	37997423.97	0.0260	0.0125 *
Earth	99322-05-05 13:55 G	37997799.85	37997800.08	37997800.32	0.0259	0.0071
Moon	99322-05-05 14:23 G	37997799.85	37997800.10	37997800.35	0.0259	0.0072 *
Mercury	99330-03-10 05:02 G	38000665.54	38000665.71	38000665.89	0.0274	0.0101
Mercury	99330-06-07 04:33 G	38000754.51	38000754.69	38000754.87	0.0276	0.0099
Venus	99334-01-27 17:31 G	38002085.12	38002085.23	38002085.35	0.0294	0.0244
Venus	99334-09-14 13:11 G	38002314.85	38002315.05	38002315.25	0.0296	0.0056
Earth	99336-10-24 23:02 G	38003086.23	38003086.46	38003086.69	0.0303	0.0098
Moon	99336-10-24 23:16 G	38003086.25	38003086.47	38003086.71	0.0303	0.0114 *
Moon	99337-11-08 22:47 G	38003466.29	38003466.45	38003466.63	0.0304	0.0222
Earth	99337-11-09 01:11 G	38003466.41	38003466.55	38003466.70	0.0304	0.0241 *

Mercury	99343-04-23 21:50 G	38005458.31	38005458.41	38005458.52	0.0289	0.0156
Mercury	99343-07-21 09:07 G	38005546.75	38005546.88	38005547.01	0.0287	0.0010
Mercury	99343-10-17 20:23 G	38005635.24	38005635.35	38005635.46	0.0286	0.0145
Venus	99347-12-05 06:28 G	38007144.56	38007144.77	38007144.98	0.0267	0.0074
Venus	99348-07-21 11:16 G	38007373.80	38007373.97	38007374.15	0.0265	0.0154
Moon	99350-04-19 01:55 G	38008010.45	38008010.58	38008010.71	0.0260	0.0221
Earth	99350-04-19 05:45 G	38008010.64	38008010.74	38008010.84	0.0260	0.0237 *
Moon	99351-04-30 18:14 G	38008387.02	38008387.26	38008387.50	0.0259	0.0018
Earth	99351-04-30 19:26 G	38008387.06	38008387.31	38008387.56	0.0259	0.0025 *
Earth	99352-05-11 05:59 G	38008763.58	38008763.75	38008763.92	0.0258	0.0183
Moon	99352-05-11 09:21 G	38008763.72	38008763.89	38008764.08	0.0258	0.0175 *
Mercury	99359-07-28 03:21 G	38011397.49	38011397.64	38011397.80	0.0275	0.0161
Mercury	99359-10-25 03:07 G	38011486.44	38011486.63	38011486.82	0.0276	0.0039
Mercury	99360-01-22 02:38 G	38011575.52	38011575.61	38011575.70	0.0277	0.0241
Venus	99363-08-09 23:16 G	38012871.33	38012871.47	38012871.62	0.0294	0.0205
Venus	99364-03-26 19:11 G	38013101.11	38013101.30	38013101.50	0.0297	0.0097
Earth	99365-10-18 16:47 G	38013672.07	38013672.20	38013672.35	0.0302	0.0245
Moon	99365-10-18 17:02 G	38013672.10	38013672.21	38013672.33	0.0302	0.0261 *
Earth	99366-11-02 16:47 G	38014051.98	38014052.20	38014052.44	0.0304	0.0090
Moon	99366-11-02 19:55 G	38014052.10	38014052.33	38014052.56	0.0304	0.0072 *
Mercury	99372-09-10 00:14 G	38016190.42	38016190.51	38016190.60	0.0289	0.0200
Mercury	99372-12-07 11:31 G	38016278.85	38016278.98	38016279.11	0.0287	0.0048
Mercury	99373-03-05 22:47 G	38016367.33	38016367.45	38016367.57	0.0286	0.0102
Mercury	99373-06-02 09:50 G	38016455.86	38016455.91	38016455.98	0.0285	0.0250
Venus	99377-06-16 11:16 G	38017930.75	38017930.97	38017931.18	0.0267	0.0040
Venus	99378-01-31 16:04 G	38018160.02	38018160.17	38018160.32	0.0265	0.0188
Earth	99380-04-25 04:04 G	38018974.45	38018974.67	38018974.89	0.0260	0.0120
Moon	99380-04-25 05:45 G	38018974.50	38018974.74	38018974.97	0.0260	0.0107 *
Moon	99381-05-06 12:28 G	38019350.79	38019351.02	38019351.26	0.0259	0.0088
Earth	99381-05-06 15:50 G	38019350.93	38019351.16	38019351.40	0.0259	0.0090 *

Mars	99386-12-14 09:07 G	38021398.62	38021398.88	38021399.15	0.0266	0.0091
Mercury	99388-12-14 02:38 G	38022129.49	38022129.61	38022129.74	0.0274	0.0210
Mercury	99389-03-13 02:09 G	38022218.40	38022218.59	38022218.78	0.0275	0.0012
Mercury	99389-06-10 01:26 G	38022307.43	38022307.56	38022307.71	0.0276	0.0190
Venus	99393-02-19 05:31 G	38023657.56	38023657.73	38023657.90	0.0294	0.0160
Venus	99393-10-07 01:26 G	38023887.38	38023887.56	38023887.74	0.0297	0.0142
Moon	99395-10-27 05:02 G	38024637.48	38024637.71	38024637.95	0.0303	0.0084
Earth	99395-10-27 08:23 G	38024637.61	38024637.85	38024638.08	0.0303	0.0067 *
Moon	99396-11-10 06:43 G	38025017.66	38025017.78	38025017.93	0.0304	0.0253
Earth	99396-11-10 10:19 G	38025017.83	38025017.93	38025018.04	0.0304	0.0270 *
Mercury	99402-01-29 02:09 G	38026922.54	38026922.59	38026922.66	0.0289	0.0250
Mercury	99402-04-27 13:40 G	38027010.95	38027011.07	38027011.19	0.0288	0.0096
Mercury	99402-07-25 00:57 G	38027099.41	38027099.54	38027099.67	0.0287	0.0055
Mercury	99402-10-21 11:59 G	38027187.91	38027188.00	38027188.09	0.0286	0.0204
Venus	99406-05-13 07:26 G	38028487.73	38028487.81	38028487.91	0.0269	0.0243
Venus	99406-12-28 14:23 G	38028716.88	38028717.10	38028717.32	0.0267	0.0008
Venus	99407-08-14 18:57 G	38028946.18	38028946.29	38028946.42	0.0265	0.0219
Moon	99409-04-21 07:40 G	38029561.67	38029561.82	38029561.97	0.0261	0.0203
Earth	99409-04-21 09:07 G	38029561.75	38029561.88	38029562.02	0.0261	0.0217 *
Earth	99410-05-02 23:02 G	38029938.21	38029938.46	38029938.71	0.0259	0.0004
Moon	99410-05-03 02:09 G	38029938.34	38029938.59	38029938.83	0.0259	0.0003 *
Earth	99411-05-14 09:35 G	38030314.76	38030314.90	38030315.06	0.0258	0.0204
Moon	99411-05-14 11:16 G	38030314.81	38030314.97	38030315.15	0.0258	0.0195 *
Mercury	99418-05-04 01:40 G	38032861.53	38032861.57	38032861.63	0.0274	0.0263
Mercury	99418-08-01 01:11 G	38032950.36	38032950.55	38032950.74	0.0275	0.0065
Mercury	99418-10-29 00:43 G	38033039.37	38033039.53	38033039.70	0.0276	0.0136
Venus	99422-09-02 12:43 G	38034443.85	38034444.03	38034444.23	0.0295	0.0117
Venus	99423-04-20 09:07 G	38034673.72	38034673.88	38034674.04	0.0297	0.0189
Earth	99424-10-21 04:47 G	38035223.54	38035223.70	38035223.88	0.0302	0.0213
Moon	99424-10-21 08:09 G	38035223.69	38035223.84	38035224.00	0.0302	0.0230 *

Earth	99425-11-05 05:02 G	38035603.49	38035603.71	38035603.94	0.0304	0.0122
Moon	99425-11-05 08:09 G	38035603.61	38035603.84	38035604.07	0.0304	0.0105 *
Mercury	99431-06-18 05:02 G	38037654.70	38037654.71	38037654.72	0.0289	0.0288
Mercury	99431-09-14 16:19 G	38037743.07	38037743.18	38037743.30	0.0288	0.0135
Mercury	99431-12-12 03:50 G	38037831.53	38037831.66	38037831.79	0.0287	0.0019
Mercury	99432-03-09 14:52 G	38037920.02	38037920.12	38037920.23	0.0286	0.0166
Venus	99435-11-23 13:26 G	38039273.93	38039274.06	38039274.21	0.0269	0.0206
Venus	99436-07-09 20:09 G	38039503.13	38039503.34	38039503.56	0.0267	0.0030
Venus	99437-02-24 00:28 G	38039732.48	38039732.52	38039732.59	0.0265	0.0256
Moon	99439-04-28 05:45 G	38040525.51	38040525.74	38040525.98	0.0260	0.0089
Earth	99439-04-28 08:52 G	38040525.65	38040525.87	38040526.11	0.0260	0.0099 *
Moon	99440-05-08 18:43 G	38040902.07	38040902.28	38040902.51	0.0259	0.0109
Earth	99440-05-08 21:07 G	38040902.16	38040902.38	38040902.61	0.0259	0.0112 *
Mercury	99447-12-19 01:11 G	38043682.38	38043682.55	38043682.73	0.0274	0.0109
Mercury	99448-03-17 00:43 G	38043771.35	38043771.53	38043771.71	0.0275	0.0092
Venus	99452-03-14 21:07 G	38045230.18	38045230.38	38045230.58	0.0295	0.0067
Venus	99452-10-30 17:31 G	38045460.12	38045460.23	38045460.36	0.0297	0.0239
Moon	99454-10-29 21:50 G	38046189.18	38046189.41	38046189.64	0.0303	0.0047
Earth	99454-10-30 00:28 G	38046189.28	38046189.52	38046189.76	0.0303	0.0030 *
Moon	99455-11-14 02:38 G	38046569.55	38046569.61	38046569.68	0.0304	0.0291
Mercury	99461-01-31 18:57 G	38048475.19	38048475.29	38048475.39	0.0289	0.0178
Mercury	99461-04-30 06:14 G	38048563.63	38048563.76	38048563.89	0.0288	0.0027
Mercury	99461-07-27 17:31 G	38048652.11	38048652.23	38048652.35	0.0286	0.0124
Mercury	99461-10-24 04:33 G	38048740.66	38048740.69	38048740.73	0.0285	0.0272
Venus	99465-06-04 17:59 G	38050060.09	38050060.25	38050060.42	0.0269	0.0171
Venus	99466-01-20 00:28 G	38050289.31	38050289.52	38050289.73	0.0267	0.0063
Earth	99468-04-22 15:50 G	38051112.99	38051113.16	38051113.33	0.0261	0.0194
Moon	99468-04-22 18:43 G	38051113.11	38051113.28	38051113.46	0.0261	0.0182 *
Earth	99469-05-04 05:45 G	38051489.49	38051489.74	38051489.99	0.0259	0.0019
Moon	99469-05-04 08:38 G	38051489.61	38051489.86	38051490.11	0.0259	0.0021 *

Moon	99470-05-15 13:55 G	38051865.95	38051866.08	38051866.23	0.0258	0.0214
Earth	99470-05-15 16:33 G	38051866.08	38051866.19	38051866.32	0.0258	0.0227 *
Mars	99475-05-11 17:16 G	38053687.94	38053688.22	38053688.50	0.0267	0.0010
Mercury	99477-05-07 00:43 G	38054414.38	38054414.53	38054414.69	0.0275	0.0158
Mercury	99477-08-04 00:14 G	38054503.32	38054503.51	38054503.70	0.0276	0.0042
Mercury	99477-10-31 23:45 G	38054592.41	38054592.49	38054592.58	0.0277	0.0244
Venus	99481-09-25 05:31 G	38056016.52	38056016.73	38056016.94	0.0295	0.0020
Venus	99482-05-13 02:09 G	38056246.55	38056246.59	38056246.65	0.0298	0.0288
Earth	99483-10-23 22:33 G	38056775.25	38056775.44	38056775.64	0.0302	0.0176
Moon	99483-10-24 01:11 G	38056775.36	38056775.55	38056775.74	0.0302	0.0192 *
Moon	99484-11-06 22:04 G	38057155.21	38057155.42	38057155.65	0.0304	0.0144
Earth	99484-11-06 22:47 G	38057155.25	38057155.45	38057155.66	0.0304	0.0160 *
Mercury	99490-06-20 22:04 G	38059207.34	38059207.42	38059207.51	0.0289	0.0212
Mercury	99490-09-17 09:21 G	38059295.77	38059295.89	38059296.02	0.0287	0.0061
Mercury	99490-12-14 20:38 G	38059384.24	38059384.36	38059384.48	0.0286	0.0090
Mercury	99491-03-13 07:40 G	38059472.76	38059472.82	38059472.90	0.0285	0.0238
Venus	99494-12-16 01:11 G	38060846.37	38060846.55	38060846.75	0.0269	0.0131
Venus	99495-08-02 07:26 G	38061075.61	38061075.81	38061076.01	0.0266	0.0103
Moon	99498-04-29 14:23 G	38062076.87	38062077.10	38062077.34	0.0260	0.0069
Earth	99498-04-29 17:16 G	38062076.98	38062077.22	38062077.46	0.0260	0.0074 *
Earth	99499-05-11 05:16 G	38062453.52	38062453.72	38062453.94	0.0259	0.0136
Moon	99499-05-11 07:11 G	38062453.60	38062453.80	38062454.02	0.0259	0.0130 *
Mercury	99506-09-25 01:11 G	38065146.42	38065146.55	38065146.69	0.0274	0.0198
Mercury	99506-12-23 00:43 G	38065235.34	38065235.53	38065235.73	0.0275	0.0004
Mercury	99507-03-22 00:14 G	38065324.39	38065324.51	38065324.65	0.0276	0.0203
Venus	99510-08-21 20:09 G	38066573.26	38066573.34	38066573.43	0.0292	0.0265
Venus	99511-04-08 15:07 G	38066802.92	38066803.13	38066803.33	0.0295	0.0033
Earth	99513-11-01 20:52 G	38067741.13	38067741.37	38067741.61	0.0303	0.0011
Moon	99513-11-01 21:35 G	38067741.17	38067741.40	38067741.64	0.0303	0.0009 *
Mercury	99519-11-09 00:57 G	38069939.48	38069939.54	38069939.61	0.0289	0.0252

Mercury	99520-02-05 12:28 G	38070027.90	38070028.02	38070028.14	0.0288	0.0098
Mercury	99520-05-03 23:31 G	38070116.36	38070116.48	38070116.61	0.0287	0.0054
Mercury	99520-07-31 10:47 G	38070204.86	38070204.95	38070205.04	0.0286	0.0202
Venus	99524-06-28 06:57 G	38071632.59	38071632.79	38071632.99	0.0268	0.0094
Venus	99525-02-12 12:43 G	38071861.85	38071862.03	38071862.22	0.0266	0.0138
Earth	99527-04-26 01:11 G	38072664.37	38072664.55	38072664.74	0.0261	0.0169
Moon	99527-04-26 04:19 G	38072664.48	38072664.68	38072664.89	0.0261	0.0157 *
Moon	99528-05-06 13:11 G	38073040.79	38073041.05	38073041.30	0.0259	0.0041
Earth	99528-05-06 15:07 G	38073040.89	38073041.13	38073041.38	0.0259	0.0044 *
Moon	99529-05-17 22:47 G	38073417.36	38073417.45	38073417.54	0.0259	0.0238
Earth	99529-05-18 01:55 G	38073417.53	38073417.58	38073417.65	0.0259	0.0251 *
Mercury	99536-02-12 00:57 G	38075878.47	38075878.54	38075878.63	0.0274	0.0245
Mercury	99536-05-11 00:43 G	38075967.34	38075967.53	38075967.72	0.0275	0.0046
Mercury	99536-08-08 00:14 G	38076056.35	38076056.51	38076056.67	0.0276	0.0156
Venus	99540-03-03 05:31 G	38077359.59	38077359.73	38077359.87	0.0293	0.0218
Venus	99540-10-19 00:28 G	38077589.33	38077589.52	38077589.73	0.0296	0.0083
Moon	99542-10-26 19:11 G	38078327.09	38078327.30	38078327.52	0.0302	0.0151
Earth	99542-10-26 20:52 G	38078327.16	38078327.37	38078327.59	0.0302	0.0133 *
Moon	99543-11-10 17:59 G	38078707.06	38078707.25	38078707.45	0.0304	0.0184
Earth	99543-11-10 21:35 G	38078707.22	38078707.40	38078707.58	0.0304	0.0202 *
Mars	99547-08-22 05:31 G	38080087.54	38080087.73	38080087.95	0.0296	0.0214
Mercury	99549-03-28 04:19 G	38080671.66	38080671.68	38080671.71	0.0289	0.0282
Mercury	99549-06-24 15:50 G	38080760.04	38080760.16	38080760.27	0.0288	0.0129
Mercury	99549-09-21 03:07 G	38080848.50	38080848.63	38080848.76	0.0287	0.0023
Mercury	99549-12-18 14:09 G	38080936.99	38080937.09	38080937.20	0.0285	0.0171
Venus	99554-01-08 14:52 G	38082418.91	38082419.12	38082419.33	0.0268	0.0052
Venus	99554-08-25 20:09 G	38082648.19	38082648.34	38082648.51	0.0266	0.0179
Moon	99556-04-20 08:23 G	38083251.78	38083251.85	38083251.94	0.0262	0.0247
Earth	99556-04-20 11:59 G	38083252.00	38083252.00	38083252.01	0.0262	0.0261
Earth	99557-05-02 03:35 G	38083628.40	38083628.65	38083628.89	0.0260	0.0048

Moon	99557-05-02 05:02 G	38083628.47	38083628.71	38083628.95	0.0260	0.0045	*
Earth	99558-05-13 15:21 G	38084004.96	38084005.14	38084005.34	0.0259	0.0162	
Moon	99558-05-13 18:57 G	38084005.10	38084005.29	38084005.51	0.0259	0.0152	*
Mars	99563-10-07 12:43 G	38085977.80	38085978.03	38085978.29	0.0267	0.0136	
Mercury	99565-09-28 01:11 G	38086699.37	38086699.55	38086699.74	0.0275	0.0085	
Mercury	99565-12-26 00:43 G	38086788.36	38086788.53	38086788.71	0.0276	0.0117	
Venus	99569-09-13 15:07 G	38088145.97	38088146.13	38088146.31	0.0293	0.0165	
Venus	99570-05-01 10:33 G	38088375.76	38088375.94	38088376.13	0.0296	0.0137	
Earth	99571-10-20 22:04 G	38088913.33	38088913.42	38088913.53	0.0301	0.0275	
Moon	99571-10-21 00:28 G	38088913.48	38088913.52	38088913.58	0.0301	0.0293	*
Earth	99572-11-03 20:09 G	38089293.11	38089293.34	38089293.58	0.0303	0.0055	
Moon	99572-11-03 23:59 G	38089293.26	38089293.50	38089293.74	0.0303	0.0036	*
Mercury	99578-11-11 18:57 G	38091492.18	38091492.29	38091492.39	0.0289	0.0165	
Mercury	99579-02-08 06:14 G	38091580.63	38091580.76	38091580.89	0.0287	0.0014	
Mercury	99579-05-07 17:16 G	38091669.11	38091669.22	38091669.34	0.0286	0.0137	
Mercury	99579-08-04 04:33 G	38091757.68	38091757.69	38091757.70	0.0285	0.0284	
Venus	99582-12-04 13:40 G	38092976.01	38092976.07	38092976.15	0.0270	0.0253	
Venus	99583-07-21 21:07 G	38093205.16	38093205.38	38093205.59	0.0268	0.0015	
Venus	99584-03-07 02:09 G	38093434.47	38093434.59	38093434.72	0.0265	0.0215	
Moon	99586-04-27 11:31 G	38094215.77	38094215.98	38094216.22	0.0260	0.0133	
Earth	99586-04-27 12:28 G	38094215.82	38094216.02	38094216.23	0.0260	0.0141	*
Moon	99587-05-08 22:33 G	38094592.20	38094592.44	38094592.68	0.0259	0.0064	
Earth	99587-05-09 02:09 G	38094592.35	38094592.59	38094592.83	0.0259	0.0070	*
Mercury	99595-02-15 01:11 G	38097431.38	38097431.55	38097431.71	0.0275	0.0132	
Mercury	99595-05-15 00:43 G	38097520.34	38097520.53	38097520.71	0.0276	0.0069	
Mercury	99595-08-12 00:14 G	38097609.48	38097609.51	38097609.55	0.0277	0.0272	
Venus	99599-03-27 00:14 G	38098932.32	38098932.51	38098932.70	0.0294	0.0117	
Venus	99599-11-11 20:09 G	38099162.18	38099162.34	38099162.50	0.0297	0.0188	
Moon	99601-10-28 16:19 G	38099878.96	38099879.18	38099879.40	0.0303	0.0109	
Earth	99601-10-28 20:09 G	38099879.11	38099879.34	38099879.57	0.0303	0.0090	*

Moon	99602-11-12 18:28 G	38100259.12	38100259.27	38100259.43	0.0304	0.0228
Earth	99602-11-12 21:07 G	38100259.24	38100259.38	38100259.52	0.0304	0.0245 *
Mercury	99608-03-30 22:19 G	38102224.34	38102224.43	38102224.53	0.0288	0.0195
Mercury	99608-06-27 09:35 G	38102312.78	38102312.90	38102313.03	0.0287	0.0044
Mercury	99608-09-23 20:52 G	38102401.25	38102401.37	38102401.49	0.0286	0.0107
Mercury	99608-12-21 07:55 G	38102489.78	38102489.83	38102489.89	0.0285	0.0255
Venus	99612-06-15 21:50 G	38103762.29	38103762.41	38103762.56	0.0269	0.0210
Venus	99613-01-31 05:02 G	38103991.50	38103991.71	38103991.93	0.0267	0.0027
Venus	99613-09-17 09:35 G	38104220.86	38104220.90	38104220.97	0.0265	0.0255
Moon	99615-04-22 23:31 G	38104803.36	38104803.48	38104803.62	0.0261	0.0220
Earth	99615-04-22 23:31 G	38104803.38	38104803.48	38104803.60	0.0261	0.0234 *
Earth	99616-05-03 14:38 G	38105179.86	38105180.11	38105180.36	0.0260	0.0021
Moon	99616-05-03 18:14 G	38105180.01	38105180.26	38105180.51	0.0260	0.0019 *
Moon	99617-05-15 01:40 G	38105556.40	38105556.57	38105556.78	0.0259	0.0175
Earth	99617-05-15 02:23 G	38105556.43	38105556.60	38105556.77	0.0259	0.0187 *
Mercury	99624-07-04 01:26 G	38108163.42	38108163.56	38108163.72	0.0274	0.0173
Mercury	99624-10-01 01:11 G	38108252.36	38108252.55	38108252.74	0.0276	0.0028
Mercury	99624-12-29 00:57 G	38108341.43	38108341.54	38108341.64	0.0277	0.0231
Venus	99628-10-06 10:33 G	38109718.74	38109718.94	38109719.14	0.0294	0.0064
Venus	99629-05-24 06:43 G	38109948.66	38109948.78	38109948.90	0.0297	0.0242
Earth	99630-10-22 21:35 G	38110465.26	38110465.40	38110465.56	0.0301	0.0231
Moon	99630-10-23 01:11 G	38110465.42	38110465.55	38110465.69	0.0301	0.0249 *
Earth	99631-11-06 20:38 G	38110845.13	38110845.36	38110845.59	0.0303	0.0100
Moon	99631-11-06 22:19 G	38110845.20	38110845.43	38110845.67	0.0303	0.0082 *
Mars	99636-01-17 19:11 G	38112378.00	38112378.30	38112378.60	0.0296	0.0029
Mercury	99637-08-18 01:40 G	38112956.50	38112956.57	38112956.65	0.0289	0.0229
Mercury	99637-11-14 12:57 G	38113044.92	38113045.04	38113045.17	0.0288	0.0077
Mercury	99638-02-11 00:14 G	38113133.39	38113133.51	38113133.64	0.0287	0.0075
Mercury	99638-05-10 11:16 G	38113221.90	38113221.97	38113222.06	0.0285	0.0223
Venus	99641-12-27 05:16 G	38114548.55	38114548.72	38114548.89	0.0269	0.0171

Venus	99642-08-13 11:31 G	38114777.78	38114777.98	38114778.20	0.0267	0.0065
Moon	99645-04-28 20:38 G	38115767.13	38115767.36	38115767.59	0.0260	0.0104
Earth	99645-04-29 00:14 G	38115767.29	38115767.51	38115767.74	0.0260	0.0113 *
Earth	99646-05-10 13:11 G	38116143.82	38116144.05	38116144.28	0.0259	0.0097
Moon	99646-05-10 13:11 G	38116143.82	38116144.05	38116144.27	0.0259	0.0090 *
Mars	99652-03-03 03:21 G	38118267.56	38118267.64	38118267.74	0.0267	0.0253
Mercury	99653-11-21 01:11 G	38118895.44	38118895.55	38118895.66	0.0274	0.0221
Mercury	99654-02-18 00:43 G	38118984.34	38118984.53	38118984.72	0.0275	0.0022
Mercury	99654-05-18 00:14 G	38119073.37	38119073.51	38119073.66	0.0277	0.0181
Venus	99658-04-18 18:57 G	38120505.08	38120505.29	38120505.49	0.0295	0.0018
Venus	99658-12-04 15:21 G	38120735.11	38120735.14	38120735.18	0.0298	0.0292
Moon	99660-10-30 17:45 G	38121431.02	38121431.24	38121431.47	0.0303	0.0063
Earth	99660-10-30 18:28 G	38121431.04	38121431.27	38121431.52	0.0303	0.0047 *
Earth	99661-11-14 20:09 G	38121811.27	38121811.34	38121811.42	0.0304	0.0288
Moon	99661-11-14 21:50 G	38121811.32	38121811.41	38121811.53	0.0304	0.0272 *
Mercury	99667-01-05 05:02 G	38123688.66	38123688.71	38123688.76	0.0289	0.0261
Mercury	99667-04-03 16:19 G	38123777.06	38123777.18	38123777.30	0.0288	0.0108
Mercury	99667-07-01 03:35 G	38123865.52	38123865.65	38123865.78	0.0286	0.0043
Mercury	99667-09-27 14:38 G	38123954.02	38123954.11	38123954.21	0.0285	0.0191
Venus	99671-07-09 12:43 G	38125334.85	38125335.03	38125335.22	0.0268	0.0130
Venus	99672-02-23 18:57 G	38125564.09	38125564.29	38125564.49	0.0266	0.0105
Earth	99674-04-24 11:02 G	38126354.81	38126354.96	38126355.11	0.0261	0.0205
Moon	99674-04-24 14:52 G	38126354.95	38126355.12	38126355.28	0.0261	0.0191 *
Earth	99675-05-06 01:26 G	38126731.31	38126731.56	38126731.81	0.0260	0.0008
Moon	99675-05-06 02:38 G	38126731.35	38126731.61	38126731.87	0.0260	0.0008 *
Moon	99676-05-16 08:52 G	38127107.72	38127107.87	38127108.04	0.0259	0.0199
Earth	99676-05-16 12:43 G	38127107.90	38127108.03	38127108.17	0.0259	0.0213 *
Mercury	99683-04-10 01:11 G	38129627.51	38129627.55	38129627.60	0.0274	0.0266
Mercury	99683-07-08 00:43 G	38129716.35	38129716.53	38129716.72	0.0275	0.0067
Mercury	99683-10-05 00:28 G	38129805.35	38129805.52	38129805.69	0.0276	0.0136

Venus	99687-03-14 09:35 G	38131061.83	38131061.90	38131062.00	0.0292	0.0265
Venus	99687-10-30 04:19 G	38131291.48	38131291.68	38131291.89	0.0295	0.0034
Earth	99689-10-24 18:28 G	38132017.09	38132017.27	38132017.46	0.0302	0.0189
Moon	99689-10-24 18:43 G	38132017.11	38132017.28	38132017.48	0.0302	0.0205 *
Moon	99690-11-08 15:21 G	38132396.92	38132397.14	38132397.37	0.0303	0.0127
Earth	99690-11-08 18:14 G	38132397.05	38132397.26	38132397.47	0.0303	0.0143 *
Mercury	99696-08-20 19:40 G	38134509.21	38134509.32	38134509.43	0.0288	0.0143
Mercury	99696-11-17 06:57 G	38134597.66	38134597.79	38134597.92	0.0287	0.0012
Mercury	99697-02-13 17:59 G	38134686.15	38134686.25	38134686.36	0.0286	0.0159
Venus	99701-01-19 19:40 G	38136121.12	38136121.32	38136121.53	0.0268	0.0092
Venus	99701-09-06 01:26 G	38136350.38	38136350.56	38136350.75	0.0266	0.0142
Moon	99704-05-01 09:07 G	38137318.66	38137318.88	38137319.12	0.0260	0.0080
Earth	99704-05-01 10:47 G	38137318.72	38137318.95	38137319.19	0.0260	0.0086 *
Earth	99705-05-12 23:02 G	38137695.24	38137695.46	38137695.68	0.0259	0.0123
Moon	99705-05-13 02:09 G	38137695.38	38137695.59	38137695.82	0.0259	0.0115 *
Mercury	99712-11-24 23:31 G	38140448.32	38140448.48	38140448.66	0.0275	0.0121
Mercury	99713-02-21 23:16 G	38140537.29	38140537.47	38140537.65	0.0276	0.0081
Venus	99716-09-24 16:19 G	38141848.05	38141848.18	38141848.32	0.0293	0.0223
Venus	99717-05-12 11:16 G	38142077.77	38142077.97	38142078.17	0.0296	0.0079
Earth	99719-11-03 13:40 G	38142982.83	38142983.07	38142983.31	0.0303	0.0006
Moon	99719-11-03 16:33 G	38142982.96	38142983.19	38142983.43	0.0303	0.0021 *
Mars	99724-06-15 01:26 G	38144668.30	38144668.56	38144668.82	0.0296	0.0148
Mercury	99726-01-08 22:33 G	38145241.34	38145241.44	38145241.55	0.0288	0.0178
Mercury	99726-04-07 09:50 G	38145329.79	38145329.91	38145330.04	0.0287	0.0028
Mercury	99726-07-04 21:07 G	38145418.27	38145418.38	38145418.50	0.0286	0.0124
Mercury	99726-10-01 08:09 G	38145506.81	38145506.84	38145506.88	0.0285	0.0272
Venus	99730-08-02 02:38 G	38146907.39	38146907.61	38146907.82	0.0268	0.0052
Venus	99731-03-19 07:40 G	38147136.68	38147136.82	38147136.99	0.0266	0.0181
Earth	99733-04-26 20:38 G	38147906.19	38147906.36	38147906.55	0.0261	0.0178
Moon	99733-04-26 22:19 G	38147906.25	38147906.43	38147906.64	0.0261	0.0167 *

Moon	99734-05-08 07:26 G	38148282.56	38148282.81	38148283.06	0.0259	0.0030
Earth	99734-05-08 10:33 G	38148282.69	38148282.94	38148283.19	0.0259	0.0033 *
Moon	99735-05-19 19:26 G	38148659.20	38148659.31	38148659.44	0.0259	0.0225
Earth	99735-05-19 21:07 G	38148659.29	38148659.38	38148659.48	0.0259	0.0238 *
Mercury	99742-04-13 23:02 G	38151180.32	38151180.46	38151180.62	0.0275	0.0170
Mercury	99742-07-11 22:47 G	38151269.26	38151269.45	38151269.64	0.0276	0.0031
Mercury	99742-10-08 22:19 G	38151358.34	38151358.43	38151358.54	0.0277	0.0235
Venus	99746-04-07 00:28 G	38152634.36	38152634.52	38152634.69	0.0293	0.0176
Venus	99746-11-22 19:55 G	38152864.14	38152864.33	38152864.52	0.0296	0.0128
Moon	99748-10-27 07:55 G	38153568.64	38153568.83	38153569.05	0.0302	0.0167
Earth	99748-10-27 11:16 G	38153568.76	38153568.97	38153569.18	0.0302	0.0150 *
Moon	99749-11-11 08:23 G	38153948.66	38153948.85	38153949.05	0.0304	0.0167
Earth	99749-11-11 11:31 G	38153948.80	38153948.98	38153949.18	0.0304	0.0183 *
Mercury	99755-05-29 01:40 G	38155973.49	38155973.57	38155973.66	0.0289	0.0216
Mercury	99755-08-25 12:57 G	38156061.92	38156062.04	38156062.17	0.0288	0.0063
Mercury	99755-11-22 00:14 G	38156150.39	38156150.51	38156150.63	0.0287	0.0088
Mercury	99756-02-18 11:16 G	38156238.91	38156238.97	38156239.05	0.0285	0.0237
Venus	99759-06-28 01:40 G	38157464.50	38157464.57	38157464.64	0.0270	0.0254
Venus	99760-02-12 08:38 G	38157693.65	38157693.86	38157694.08	0.0268	0.0017
Venus	99760-09-28 13:40 G	38157922.95	38157923.07	38157923.20	0.0265	0.0215
Moon	99762-04-22 02:38 G	38158493.57	38158493.61	38158493.64	0.0261	0.0258
Earth	99763-05-03 19:11 G	38158870.06	38158870.30	38158870.55	0.0259	0.0060
Moon	99763-05-03 22:19 G	38158870.19	38158870.43	38158870.67	0.0259	0.0056 *
Earth	99764-05-14 06:28 G	38159246.58	38159246.77	38159246.99	0.0258	0.0149
Moon	99764-05-14 09:21 G	38159246.67	38159246.89	38159247.10	0.0258	0.0139 *
Mercury	99771-08-31 21:21 G	38161912.29	38161912.39	38161912.50	0.0274	0.0228
Mercury	99771-11-28 21:07 G	38162001.19	38162001.38	38162001.57	0.0275	0.0028
Mercury	99772-02-25 20:38 G	38162090.21	38162090.36	38162090.51	0.0276	0.0174
Venus	99775-10-18 05:16 G	38163420.55	38163420.72	38163420.91	0.0294	0.0138
Venus	99776-06-04 01:11 G	38163650.38	38163650.55	38163650.72	0.0297	0.0168

Earth	99777-10-21 05:02 G	38164154.67	38164154.71	38164154.76	0.0302	0.0295
Earth	99778-11-05 03:21 G	38164534.40	38164534.64	38164534.88	0.0304	0.0031
Moon	99778-11-05 06:28 G	38164534.53	38164534.77	38164535.02	0.0304	0.0015 *
Mercury	99784-10-15 04:19 G	38166705.62	38166705.68	38166705.73	0.0289	0.0258
Mercury	99785-01-11 15:35 G	38166794.03	38166794.15	38166794.27	0.0288	0.0104
Mercury	99785-04-10 02:52 G	38166882.49	38166882.62	38166882.75	0.0287	0.0047
Mercury	99785-07-07 13:55 G	38166970.99	38166971.08	38166971.18	0.0285	0.0197
Venus	99789-01-07 06:57 G	38168250.68	38168250.79	38168250.93	0.0269	0.0217
Venus	99789-08-24 14:09 G	38168479.87	38168480.09	38168480.30	0.0267	0.0021
Venus	99790-04-10 18:43 G	38168709.22	38168709.28	38168709.36	0.0265	0.0250
Moon	99792-04-28 00:28 G	38169457.32	38169457.52	38169457.75	0.0260	0.0146
Earth	99792-04-28 03:35 G	38169457.46	38169457.65	38169457.86	0.0260	0.0152 *
Moon	99793-05-09 13:55 G	38169833.84	38169834.08	38169834.32	0.0259	0.0052
Earth	99793-05-09 16:47 G	38169833.95	38169834.20	38169834.44	0.0259	0.0057 *
Moon	99794-05-21 04:47 G	38170210.65	38170210.70	38170210.79	0.0258	0.0248
Mars	99798-11-06 17:31 G	38171841.19	38171841.23	38171841.30	0.0266	0.0260
Mercury	99801-04-17 19:40 G	38172733.14	38172733.32	38172733.51	0.0275	0.0085
Mercury	99801-07-15 19:26 G	38172822.13	38172822.31	38172822.48	0.0276	0.0117
Venus	99805-04-30 11:59 G	38174206.81	38174207.00	38174207.20	0.0294	0.0094
Venus	99805-12-16 08:09 G	38174436.70	38174436.84	38174436.98	0.0297	0.0213
Moon	99807-10-30 19:11 G	38175120.09	38175120.30	38175120.52	0.0302	0.0133
Earth	99807-10-30 22:04 G	38175120.20	38175120.42	38175120.64	0.0302	0.0116 *
Earth	99808-11-13 23:02 G	38175500.30	38175500.46	38175500.64	0.0304	0.0217
Moon	99808-11-13 23:02 G	38175500.30	38175500.46	38175500.65	0.0304	0.0205 *
Mars	99812-11-10 13:40 G	38176958.00	38176958.07	38176958.18	0.0296	0.0283
Mercury	99814-06-01 18:28 G	38177526.16	38177526.27	38177526.38	0.0289	0.0144
Mercury	99814-08-29 05:45 G	38177614.61	38177614.74	38177614.87	0.0287	0.0009
Mercury	99814-11-25 16:47 G	38177703.10	38177703.20	38177703.31	0.0286	0.0159
Venus	99818-07-21 12:57 G	38179036.89	38179037.04	38179037.21	0.0269	0.0181
Venus	99819-03-07 19:26 G	38179266.11	38179266.31	38179266.53	0.0267	0.0057

Earth	99821-04-24 10:33 G	38180044.86	38180044.94	38180045.03	0.0261	0.0245
Moon	99821-04-24 13:11 G	38180044.94	38180045.05	38180045.15	0.0261	0.0234 *
Earth	99822-05-06 00:57 G	38180421.29	38180421.54	38180421.79	0.0259	0.0035
Moon	99822-05-06 03:50 G	38180421.41	38180421.66	38180421.92	0.0259	0.0036 *
Moon	99823-05-17 09:35 G	38180797.70	38180797.90	38180798.10	0.0258	0.0158
Earth	99823-05-17 11:31 G	38180797.81	38180797.98	38180798.18	0.0258	0.0171 *
Mercury	99830-09-04 17:16 G	38183465.07	38183465.22	38183465.39	0.0274	0.0148
Mercury	99830-12-02 17:02 G	38183554.02	38183554.21	38183554.40	0.0275	0.0052
Mercury	99831-03-01 16:19 G	38183643.12	38183643.18	38183643.26	0.0276	0.0256
Venus	99834-11-10 15:35 G	38184992.94	38184993.15	38184993.35	0.0295	0.0059
Venus	99835-06-28 11:31 G	38185222.88	38185222.98	38185223.10	0.0297	0.0251
Earth	99836-10-23 12:28 G	38185705.91	38185706.02	38185706.14	0.0302	0.0265
Moon	99836-10-23 14:38 G	38185706.03	38185706.11	38185706.20	0.0302	0.0282 *
Moon	99837-11-07 10:47 G	38186085.70	38186085.95	38186086.20	0.0304	0.0048
Earth	99837-11-07 11:31 G	38186085.75	38186085.98	38186086.22	0.0304	0.0063 *
Mercury	99843-10-19 20:23 G	38188258.26	38188258.35	38188258.45	0.0289	0.0193
Mercury	99844-01-16 07:40 G	38188346.70	38188346.82	38188346.95	0.0288	0.0041
Mercury	99844-04-13 18:57 G	38188435.17	38188435.29	38188435.41	0.0286	0.0112
Mercury	99844-07-11 06:14 G	38188523.71	38188523.76	38188523.81	0.0285	0.0260
Venus	99848-01-31 16:47 G	38189823.03	38189823.20	38189823.39	0.0269	0.0148
Venus	99848-09-16 23:16 G	38190052.27	38190052.47	38190052.68	0.0266	0.0089
Moon	99851-05-01 04:47 G	38191008.49	38191008.70	38191008.92	0.0260	0.0125
Earth	99851-05-01 07:26 G	38191008.61	38191008.81	38191009.04	0.0260	0.0129 *
Earth	99852-05-11 19:55 G	38191385.09	38191385.33	38191385.57	0.0259	0.0080
Moon	99852-05-11 21:50 G	38191385.18	38191385.41	38191385.65	0.0259	0.0070 *
Mercury	99860-01-22 15:35 G	38194197.03	38194197.15	38194197.27	0.0274	0.0209
Mercury	99860-04-20 15:07 G	38194285.93	38194286.13	38194286.32	0.0275	0.0011
Mercury	99860-07-18 14:38 G	38194374.97	38194375.11	38194375.25	0.0276	0.0193
Venus	99864-05-22 20:52 G	38195779.16	38195779.37	38195779.57	0.0295	0.0019
Venus	99865-01-07 17:02 G	38196009.18	38196009.21	38196009.26	0.0297	0.0291

Earth	99866-11-01 03:07 G	38196671.40	38196671.63	38196671.86	0.0303	0.0087
Moon	99866-11-01 04:33 G	38196671.48	38196671.69	38196671.92	0.0303	0.0103 *
Earth	99867-11-16 04:33 G	38197051.56	38197051.69	38197051.84	0.0304	0.0246
Moon	99867-11-16 08:09 G	38197051.69	38197051.84	38197052.00	0.0304	0.0233 *
Mercury	99873-03-07 22:47 G	38198990.38	38198990.45	38198990.53	0.0290	0.0238
Mercury	99873-06-04 10:19 G	38199078.80	38199078.93	38199079.05	0.0288	0.0084
Mercury	99873-08-31 21:35 G	38199167.27	38199167.40	38199167.52	0.0287	0.0069
Mercury	99873-11-28 08:38 G	38199255.78	38199255.86	38199255.95	0.0286	0.0218
Venus	99877-08-12 21:50 G	38200609.22	38200609.41	38200609.61	0.0269	0.0113
Venus	99878-03-30 03:50 G	38200838.47	38200838.66	38200838.85	0.0266	0.0122
Earth	99880-04-25 13:26 G	38201595.94	38201596.06	38201596.20	0.0261	0.0223
Moon	99880-04-25 16:47 G	38201596.06	38201596.20	38201596.36	0.0261	0.0212 *
Moon	99881-05-07 01:11 G	38201972.30	38201972.55	38201972.81	0.0259	0.0020
Earth	99881-05-07 03:21 G	38201972.39	38201972.64	38201972.89	0.0259	0.0013 *
Moon	99882-05-18 09:50 G	38202348.74	38202348.91	38202349.10	0.0258	0.0177
Earth	99882-05-18 13:11 G	38202348.90	38202349.05	38202349.23	0.0258	0.0192 *
Mars	99887-04-03 03:07 G	38204129.45	38204129.63	38204129.82	0.0265	0.0199
Mercury	99889-09-07 11:59 G	38205017.82	38205018.00	38205018.18	0.0274	0.0079
Mercury	99889-12-05 11:31 G	38205106.81	38205106.98	38205107.15	0.0275	0.0122
Venus	99893-04-17 04:04 G	38206335.64	38206335.67	38206335.72	0.0292	0.0285
Venus	99893-12-02 22:19 G	38206565.22	38206565.43	38206565.64	0.0295	0.0013
Moon	99895-10-25 10:47 G	38207256.82	38207256.95	38207257.08	0.0302	0.0254
Earth	99895-10-25 13:26 G	38207256.93	38207257.06	38207257.21	0.0302	0.0241 *
Moon	99896-11-08 09:35 G	38207636.67	38207636.90	38207637.13	0.0304	0.0075
Earth	99896-11-08 13:11 G	38207636.83	38207637.05	38207637.29	0.0304	0.0089 *
Mercury	99902-10-23 11:59 G	38209810.88	38209811.00	38209811.11	0.0289	0.0137
Mercury	99903-01-19 23:16 G	38209899.34	38209899.47	38209899.60	0.0288	0.0016
Mercury	99903-04-18 10:33 G	38209987.83	38209987.94	38209988.04	0.0286	0.0167
Venus	99907-02-24 00:28 G	38211395.31	38211395.52	38211395.73	0.0268	0.0082
Venus	99907-10-11 06:14 G	38211624.59	38211624.76	38211624.94	0.0266	0.0152

Earth	99910-05-03 08:23 G	38212559.63	38212559.85	38212560.08	0.0260	0.0108
Moon	99910-05-03 09:50 G	38212559.69	38212559.91	38212560.13	0.0260	0.0108 *
Earth	99911-05-14 20:09 G	38212936.11	38212936.34	38212936.57	0.0258	0.0100
Moon	99911-05-14 23:45 G	38212936.25	38212936.49	38212936.73	0.0258	0.0086 *
Mercury	99919-01-26 09:21 G	38215749.73	38215749.89	38215750.06	0.0274	0.0145
Mercury	99919-04-25 08:52 G	38215838.69	38215838.87	38215839.06	0.0275	0.0055
Mercury	99919-07-23 08:23 G	38215927.79	38215927.85	38215927.92	0.0276	0.0258
Venus	99922-10-29 08:09 G	38217121.73	38217121.84	38217121.94	0.0292	0.0250
Venus	99923-06-16 02:38 G	38217351.40	38217351.61	38217351.81	0.0295	0.0051
Earth	99925-11-03 02:38 G	38218222.38	38218222.61	38218222.85	0.0303	0.0063
Moon	99925-11-03 06:14 G	38218222.53	38218222.76	38218223.00	0.0303	0.0076 *
Earth	99926-11-18 04:33 G	38218602.59	38218602.69	38218602.81	0.0304	0.0270
Moon	99926-11-18 06:43 G	38218602.65	38218602.78	38218602.91	0.0304	0.0259 *
Mercury	99932-03-11 13:55 G	38220542.99	38220543.08	38220543.18	0.0289	0.0186
Mercury	99932-06-08 01:26 G	38220631.43	38220631.56	38220631.69	0.0288	0.0032
Mercury	99932-09-04 12:43 G	38220719.91	38220720.03	38220720.15	0.0287	0.0120
Mercury	99932-12-01 23:45 G	38220808.46	38220808.49	38220808.54	0.0286	0.0269
Venus	99936-09-05 04:19 G	38222181.47	38222181.68	38222181.89	0.0268	0.0051
Venus	99937-04-22 09:50 G	38222410.76	38222410.91	38222411.07	0.0266	0.0183
Moon	99939-04-28 12:43 G	38223146.87	38223147.03	38223147.21	0.0261	0.0196
Earth	99939-04-28 13:26 G	38223146.91	38223147.06	38223147.22	0.0261	0.0203 *
Moon	99940-05-08 23:31 G	38223523.23	38223523.48	38223523.72	0.0259	0.0005
Earth	99940-05-09 02:52 G	38223523.37	38223523.62	38223523.87	0.0259	0.0006 *
Earth	99941-05-20 12:28 G	38223899.88	38223900.02	38223900.16	0.0258	0.0210
Moon	99941-05-20 13:26 G	38223899.91	38223900.06	38223900.22	0.0258	0.0196 *
Mercury	99948-06-14 06:14 G	38226481.65	38226481.76	38226481.88	0.0273	0.0214
Mercury	99948-09-11 05:45 G	38226570.55	38226570.74	38226570.93	0.0274	0.0016
Mercury	99948-12-09 05:02 G	38226659.58	38226659.71	38226659.86	0.0275	0.0185
Venus	99952-05-10 08:38 G	38227907.74	38227907.86	38227908.00	0.0292	0.0221
Venus	99952-12-26 03:21 G	38228137.44	38228137.64	38228137.84	0.0295	0.0081

Moon	99954-10-27 08:09 G	38228807.69	38228807.84	38228807.99	0.0302	0.0229
Earth	99954-10-27 10:47 G	38228807.79	38228807.95	38228808.12	0.0302	0.0220 *
Moon	99955-11-11 10:19 G	38229187.71	38229187.93	38229188.15	0.0304	0.0103
Earth	99955-11-11 10:33 G	38229187.73	38229187.94	38229188.18	0.0304	0.0111 *
Mercury	99961-07-29 15:07 G	38231275.07	38231275.13	38231275.20	0.0290	0.0246
Mercury	99961-10-26 02:38 G	38231363.49	38231363.61	38231363.73	0.0289	0.0091
Mercury	99962-01-22 13:55 G	38231451.95	38231452.08	38231452.21	0.0288	0.0062
Mercury	99962-04-21 01:11 G	38231540.46	38231540.55	38231540.63	0.0286	0.0213
Venus	99965-07-31 21:21 G	38232738.36	38232738.39	38232738.44	0.0270	0.0265
Venus	99966-03-18 05:31 G	38232967.51	38232967.73	38232967.94	0.0268	0.0023
Venus	99966-11-02 10:47 G	38233196.83	38233196.95	38233197.09	0.0266	0.0211
Earth	99969-05-04 06:14 G	38234110.53	38234110.76	38234111.00	0.0259	0.0090
Moon	99969-05-04 10:04 G	38234110.68	38234110.92	38234111.15	0.0259	0.0091 *
Moon	99970-05-15 16:47 G	38234486.97	38234487.20	38234487.44	0.0258	0.0103
Earth	99970-05-15 17:59 G	38234487.03	38234487.25	38234487.47	0.0258	0.0118 *
Mars	99975-08-28 03:21 G	38236417.43	38236417.64	38236417.88	0.0265	0.0164
Mercury	99978-01-29 02:38 G	38237302.43	38237302.61	38237302.80	0.0274	0.0087
Mercury	99978-04-28 02:09 G	38237391.42	38237391.59	38237391.76	0.0275	0.0113
Venus	99981-11-20 11:16 G	38238693.81	38238693.97	38238694.13	0.0293	0.0188
Venus	99982-07-08 06:14 G	38238923.57	38238923.76	38238923.95	0.0295	0.0115
Moon	99984-11-03 20:52 G	38239773.12	38239773.37	38239773.62	0.0303	0.0048
Earth	99984-11-03 21:50 G	38239773.17	38239773.41	38239773.65	0.0303	0.0044 *
Moon	99985-11-18 20:52 G	38240153.30	38240153.37	38240153.46	0.0304	0.0286
Earth	99985-11-18 23:59 G	38240153.44	38240153.50	38240153.58	0.0304	0.0289 *
Mercury	99991-03-15 04:33 G	38242095.57	38242095.69	38242095.80	0.0289	0.0143
Mercury	99991-06-11 15:50 G	38242184.03	38242184.16	38242184.29	0.0288	0.0012
Mercury	99991-09-08 03:07 G	38242272.52	38242272.63	38242272.73	0.0287	0.0163
Venus	99995-02-11 00:43 G	38243524.43	38243524.53	38243524.65	0.0271	0.0234
Venus	99995-09-28 08:38 G	38243753.64	38243753.86	38243754.08	0.0268	0.0009
Venus	99996-05-14 13:55 G	38243983.00	38243983.08	38243983.18	0.0266	0.0241

Moon	99998-04-29 07:11 G	38244697.63	38244697.80	38244697.99	0.0261	0.0182
Earth	99998-04-29 11:02 G	38244697.79	38244697.96	38244698.14	0.0261	0.0185 *
Earth	99999-05-10 23:59 G	38245074.26	38245074.50	38245074.75	0.0259	0.0024
Moon	99999-05-11 00:28 G	38245074.28	38245074.52	38245074.76	0.0259	0.0013 *
Earth	100000-05-21 09:21 G	38245450.78	38245450.89	38245451.01	0.0258	0.0227
Moon	100000-05-21 12:57 G	38245450.91	38245451.04	38245451.19	0.0258	0.0213 *

101ST MILLENNIUM CE

This is a list of transits visible from Saturn in the 101st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	100007-06-17 23:16 G		38248034.32	38248034.47	38248034.63	0.0273	0.0157	
Mercury	100007-09-14 22:47 G		38248123.26	38248123.45	38248123.64	0.0274	0.0041	
Mercury	100007-12-12 21:50 G		38248212.33	38248212.41	38248212.51	0.0275	0.0242	
Venus	100011-06-02 11:45 G		38249479.82	38249479.99	38249480.16	0.0293	0.0159	
Venus	100012-01-18 06:28 G		38249709.59	38249709.77	38249709.95	0.0296	0.0144	
Earth	100013-10-28 04:47 G		38250358.52	38250358.70	38250358.87	0.0302	0.0203	
Moon	100013-10-28 06:28 G		38250358.61	38250358.77	38250358.95	0.0302	0.0205 *	
Earth	100014-11-12 04:33 G		38250738.47	38250738.69	38250738.91	0.0304	0.0128	
Moon	100014-11-12 08:09 G		38250738.63	38250738.84	38250739.07	0.0304	0.0128 *	
Mercury	100020-08-01 05:16 G		38252827.64	38252827.72	38252827.82	0.0290	0.0206	
Mercury	100020-10-28 16:47 G		38252916.07	38252916.20	38252916.33	0.0289	0.0051	
Mercury	100021-01-25 04:04 G		38253004.55	38253004.67	38253004.79	0.0288	0.0102	
Mercury	100021-04-23 15:21 G		38253093.08	38253093.14	38253093.20	0.0286	0.0253	

Venus	100024-08-23 00:57 G	38254310.42	38254310.54	38254310.69	0.0270	0.0208
Venus	100025-04-09 08:52 G	38254539.66	38254539.87	38254540.09	0.0268	0.0034
Earth	100028-05-05 02:23 G	38255661.36	38255661.60	38255661.84	0.0259	0.0073
Moon	100028-05-05 02:38 G	38255661.37	38255661.61	38255661.86	0.0259	0.0079 *
Moon	100029-05-16 10:04 G	38256037.71	38256037.92	38256038.15	0.0258	0.0120
Earth	100029-05-16 13:40 G	38256037.87	38256038.07	38256038.29	0.0258	0.0134 *
Mercury	100036-11-03 20:23 G	38258766.24	38258766.35	38258766.45	0.0273	0.0227
Mercury	100037-01-31 19:40 G	38258855.13	38258855.32	38258855.51	0.0274	0.0030
Mercury	100037-04-30 18:43 G	38258944.14	38258944.28	38258944.44	0.0275	0.0170
Venus	100040-12-12 14:09 G	38260265.90	38260266.09	38260266.27	0.0293	0.0126
Venus	100041-07-30 09:07 G	38260495.72	38260495.88	38260496.05	0.0296	0.0178
Moon	100043-11-05 11:45 G	38261323.75	38261323.99	38261324.23	0.0303	0.0023
Earth	100043-11-05 15:21 G	38261323.90	38261324.14	38261324.38	0.0303	0.0027 *
Mercury	100049-12-19 06:57 G	38263559.74	38263559.79	38263559.85	0.0291	0.0261
Mercury	100050-03-17 18:28 G	38263648.15	38263648.27	38263648.39	0.0289	0.0104
Mercury	100050-06-14 05:45 G	38263736.62	38263736.74	38263736.87	0.0288	0.0051
Mercury	100050-09-10 17:02 G	38263825.12	38263825.21	38263825.31	0.0287	0.0202
Venus	100054-03-05 03:50 G	38265096.50	38265096.66	38265096.83	0.0270	0.0177
Venus	100054-10-20 11:31 G	38265325.77	38265325.98	38265326.19	0.0268	0.0065
Moon	100057-04-30 06:14 G	38266248.59	38266248.76	38266248.95	0.0261	0.0173
Earth	100057-04-30 06:28 G	38266248.60	38266248.77	38266248.97	0.0261	0.0170 *
Earth	100058-05-11 19:40 G	38266625.08	38266625.32	38266625.57	0.0259	0.0040
Moon	100058-05-11 23:16 G	38266625.23	38266625.47	38266625.72	0.0259	0.0026 *
Moon	100059-05-23 04:47 G	38267001.60	38267001.70	38267001.82	0.0258	0.0232
Earth	100059-05-23 05:02 G	38267001.63	38267001.71	38267001.80	0.0258	0.0242 *
Mars	100064-01-21 01:26 G	38268705.31	38268705.56	38268705.81	0.0264	0.0126
Mercury	100066-06-20 16:19 G	38269587.00	38269587.18	38269587.36	0.0273	0.0100
Mercury	100066-09-17 15:35 G	38269675.97	38269676.15	38269676.33	0.0274	0.0098
Venus	100070-06-24 14:23 G	38271051.90	38271052.10	38271052.30	0.0293	0.0097
Venus	100071-02-09 09:07 G	38271281.74	38271281.88	38271282.03	0.0296	0.0207

Earth	100072-10-28 21:07 G	38271909.20	38271909.38	38271909.58	0.0302	0.0187
Moon	100072-10-29 00:28 G	38271909.33	38271909.52	38271909.72	0.0302	0.0184 *
Earth	100073-11-12 21:07 G	38272289.17	38272289.38	38272289.59	0.0304	0.0143
Moon	100073-11-12 22:04 G	38272289.21	38272289.42	38272289.64	0.0304	0.0150 *
Mercury	100079-08-04 19:11 G	38274380.20	38274380.30	38274380.41	0.0290	0.0170
Mercury	100079-11-01 06:43 G	38274468.65	38274468.78	38274468.91	0.0289	0.0015
Mercury	100080-01-28 17:59 G	38274557.14	38274557.25	38274557.36	0.0288	0.0138
Venus	100083-09-15 03:50 G	38275882.48	38275882.66	38275882.84	0.0270	0.0152
Venus	100084-05-01 11:16 G	38276111.77	38276111.97	38276112.18	0.0268	0.0089
Moon	100087-05-06 17:59 G	38277212.01	38277212.25	38277212.49	0.0259	0.0069
Earth	100087-05-06 21:35 G	38277212.16	38277212.40	38277212.65	0.0259	0.0058 *
Moon	100088-05-17 08:23 G	38277588.66	38277588.85	38277589.06	0.0258	0.0137
Earth	100088-05-17 08:52 G	38277588.68	38277588.87	38277589.08	0.0258	0.0149 *
Mercury	100095-11-07 13:11 G	38280318.91	38280319.05	38280319.20	0.0273	0.0171
Mercury	100096-02-04 12:28 G	38280407.83	38280408.02	38280408.21	0.0274	0.0027
Mercury	100096-05-03 11:45 G	38280496.89	38280496.99	38280497.10	0.0275	0.0226
Venus	100100-01-04 16:33 G	38281837.99	38281838.19	38281838.40	0.0293	0.0065
Venus	100100-08-22 11:31 G	38282067.87	38282067.98	38282068.11	0.0296	0.0241
Earth	100102-11-07 07:55 G	38282874.59	38282874.83	38282875.07	0.0303	0.0011
Moon	100102-11-07 07:55 G	38282874.60	38282874.83	38282875.06	0.0303	0.0004 *
Mercury	100108-12-22 20:52 G	38285112.29	38285112.37	38285112.45	0.0291	0.0225
Mercury	100109-03-21 08:23 G	38285200.72	38285200.85	38285200.97	0.0289	0.0069
Mercury	100109-06-17 19:40 G	38285289.20	38285289.32	38285289.44	0.0288	0.0086
Mercury	100109-09-14 06:57 G	38285377.72	38285377.79	38285377.86	0.0287	0.0238
Venus	100113-03-28 06:28 G	38286668.58	38286668.77	38286668.96	0.0270	0.0121
Venus	100113-11-12 13:55 G	38286897.88	38286898.08	38286898.27	0.0268	0.0120
Earth	100116-05-02 01:40 G	38287799.38	38287799.57	38287799.78	0.0261	0.0155
Moon	100116-05-02 05:45 G	38287799.54	38287799.74	38287799.93	0.0261	0.0163 *
Earth	100117-05-13 15:07 G	38288175.89	38288176.13	38288176.37	0.0259	0.0054
Moon	100117-05-13 16:19 G	38288175.93	38288176.18	38288176.44	0.0259	0.0040 *

Moon	100118-05-24 20:52 G	38288552.33	38288552.37	38288552.43	0.0258	0.0251
Earth	100118-05-25 00:28 G	38288552.51	38288552.52	38288552.55	0.0258	0.0257
Mercury	100125-03-27 10:19 G	38291050.85	38291050.93	38291051.03	0.0272	0.0236
Mercury	100125-06-24 09:35 G	38291139.71	38291139.90	38291140.09	0.0273	0.0041
Mercury	100125-09-21 08:52 G	38291228.72	38291228.87	38291229.03	0.0274	0.0158
Venus	100129-07-17 17:59 G	38292624.04	38292624.25	38292624.46	0.0293	0.0032
Venus	100130-03-04 12:43 G	38292853.96	38292854.03	38292854.12	0.0296	0.0273
Moon	100131-10-31 14:52 G	38293459.91	38293460.12	38293460.34	0.0302	0.0162
Earth	100131-10-31 15:35 G	38293459.96	38293460.15	38293460.36	0.0302	0.0170 *
Moon	100132-11-14 11:45 G	38293839.80	38293839.99	38293840.20	0.0304	0.0174
Earth	100132-11-14 15:07 G	38293839.93	38293840.13	38293840.34	0.0304	0.0160 *
Mercury	100138-05-11 21:35 G	38295844.40	38295844.40	38295844.41	0.0291	0.0291
Mercury	100138-08-08 09:07 G	38295932.77	38295932.88	38295933.00	0.0290	0.0133
Mercury	100138-11-04 20:38 G	38296021.23	38296021.36	38296021.49	0.0289	0.0022
Mercury	100139-02-01 07:55 G	38296109.73	38296109.83	38296109.93	0.0288	0.0175
Venus	100142-10-08 05:59 G	38297454.56	38297454.75	38297454.96	0.0270	0.0096
Venus	100143-05-25 13:40 G	38297683.89	38297684.07	38297684.25	0.0268	0.0145
Moon	100145-04-26 21:07 G	38298386.37	38298386.38	38298386.42	0.0262	0.0260
Earth	100145-04-27 00:57 G	38298386.49	38298386.54	38298386.60	0.0262	0.0254
Moon	100146-05-08 15:50 G	38298762.92	38298763.16	38298763.39	0.0260	0.0057
Earth	100146-05-08 16:47 G	38298762.96	38298763.20	38298763.45	0.0260	0.0043 *
Earth	100147-05-20 04:04 G	38299139.49	38299139.67	38299139.87	0.0258	0.0165
Moon	100147-05-20 07:40 G	38299139.63	38299139.82	38299140.02	0.0258	0.0152 *
Mars	100152-06-15 23:02 G	38300993.20	38300993.46	38300993.73	0.0264	0.0096
Mercury	100154-11-11 06:57 G	38301871.61	38301871.79	38301871.96	0.0273	0.0109
Mercury	100155-02-08 05:59 G	38301960.57	38301960.75	38301960.94	0.0274	0.0089
Venus	100159-01-27 20:38 G	38303410.16	38303410.36	38303410.57	0.0293	0.0004
Earth	100161-11-08 02:23 G	38304425.36	38304425.60	38304425.85	0.0303	0.0008
Moon	100161-11-08 05:59 G	38304425.51	38304425.75	38304425.99	0.0303	0.0019 *
Mercury	100167-12-26 10:47 G	38306664.85	38306664.95	38306665.05	0.0290	0.0187

Mercury	100168-03-23 22:19 G	38306753.30	38306753.43	38306753.56	0.0289	0.0032
Mercury	100168-06-20 09:35 G	38306841.78	38306841.90	38306842.02	0.0288	0.0123
Mercury	100168-09-16 20:52 G	38306930.34	38306930.37	38306930.41	0.0287	0.0274
Venus	100172-04-19 09:07 G	38308240.67	38308240.88	38308241.09	0.0270	0.0064
Venus	100172-12-04 16:33 G	38308470.02	38308470.19	38308470.35	0.0268	0.0176
Earth	100175-05-03 21:21 G	38309350.19	38309350.39	38309350.61	0.0261	0.0140
Moon	100175-05-03 22:33 G	38309350.24	38309350.44	38309350.66	0.0261	0.0152 *
Moon	100176-05-14 07:40 G	38309726.57	38309726.82	38309727.07	0.0259	0.0054
Earth	100176-05-14 11:02 G	38309726.72	38309726.96	38309727.20	0.0259	0.0070 *
Mercury	100184-03-30 04:19 G	38312603.54	38312603.68	38312603.84	0.0272	0.0171
Mercury	100184-06-27 03:35 G	38312692.46	38312692.65	38312692.85	0.0273	0.0026
Mercury	100184-09-24 02:38 G	38312781.52	38312781.61	38312781.73	0.0274	0.0224
Venus	100187-12-23 05:59 G	38313966.67	38313966.75	38313966.86	0.0290	0.0258
Venus	100188-08-08 22:47 G	38314196.25	38314196.45	38314196.66	0.0293	0.0037
Moon	100190-11-01 08:38 G	38315010.65	38315010.86	38315011.08	0.0302	0.0140
Earth	100190-11-01 12:14 G	38315010.81	38315011.01	38315011.22	0.0302	0.0152 *
Moon	100191-11-16 09:21 G	38315390.72	38315390.89	38315391.08	0.0304	0.0193
Earth	100191-11-16 11:16 G	38315390.79	38315390.97	38315391.18	0.0304	0.0179 *
Mercury	100197-05-14 11:45 G	38317396.93	38317396.99	38317397.06	0.0291	0.0251
Mercury	100197-08-10 23:16 G	38317485.35	38317485.47	38317485.60	0.0290	0.0094
Mercury	100197-11-07 10:47 G	38317573.82	38317573.95	38317574.08	0.0289	0.0062
Mercury	100198-02-03 22:04 G	38317662.34	38317662.42	38317662.51	0.0288	0.0215
Venus	100201-10-31 09:21 G	38319026.67	38319026.89	38319027.10	0.0270	0.0038
Venus	100202-06-17 16:33 G	38319256.05	38319256.19	38319256.33	0.0267	0.0202
Moon	100204-04-28 19:40 G	38319937.25	38319937.32	38319937.40	0.0262	0.0248
Earth	100204-04-28 20:52 G	38319937.28	38319937.37	38319937.48	0.0262	0.0240 *
Earth	100205-05-10 13:11 G	38320313.81	38320314.05	38320314.30	0.0260	0.0028
Moon	100205-05-10 16:47 G	38320313.96	38320314.20	38320314.44	0.0260	0.0043 *
Earth	100206-05-22 00:43 G	38320690.37	38320690.53	38320690.72	0.0258	0.0180
Moon	100206-05-22 02:52 G	38320690.44	38320690.62	38320690.82	0.0258	0.0170 *

Mercury	100213-08-18 01:55 G	38323335.50	38323335.58	38323335.69	0.0272	0.0236
Mercury	100213-11-15 01:11 G	38323424.36	38323424.55	38323424.74	0.0273	0.0041
Mercury	100214-02-12 00:28 G	38323513.37	38323513.52	38323513.68	0.0274	0.0157
Venus	100217-07-05 09:50 G	38324752.79	38324752.91	38324753.05	0.0291	0.0223
Venus	100218-02-20 02:38 G	38324982.42	38324982.61	38324982.82	0.0294	0.0074
Earth	100219-10-27 05:02 G	38325596.68	38325596.71	38325596.75	0.0300	0.0296
Moon	100219-10-27 08:38 G	38325596.80	38325596.86	38325596.94	0.0300	0.0285
Earth	100220-11-10 01:11 G	38325976.31	38325976.55	38325976.79	0.0303	0.0027
Moon	100220-11-10 02:52 G	38325976.38	38325976.62	38325976.87	0.0303	0.0040 *
Mercury	100226-12-30 01:11 G	38328217.44	38328217.55	38328217.66	0.0290	0.0144
Mercury	100227-03-28 12:43 G	38328305.90	38328306.03	38328306.16	0.0289	0.0012
Mercury	100227-06-24 23:59 G	38328394.40	38328394.50	38328394.61	0.0288	0.0166
Venus	100230-09-26 03:21 G	38329583.57	38329583.64	38329583.72	0.0273	0.0253
Venus	100231-05-13 12:57 G	38329812.82	38329813.04	38329813.26	0.0270	0.0004
Venus	100231-12-28 20:09 G	38330042.24	38330042.34	38330042.45	0.0268	0.0235
Moon	100234-05-05 15:21 G	38330900.93	38330901.14	38330901.36	0.0261	0.0139
Earth	100234-05-05 18:57 G	38330901.07	38330901.29	38330901.51	0.0261	0.0124 *
Moon	100235-05-17 06:28 G	38331277.54	38331277.77	38331278.01	0.0259	0.0073
Earth	100235-05-17 08:38 G	38331277.63	38331277.86	38331278.10	0.0259	0.0085 *
Mars	100240-11-10 08:52 G	38333281.59	38333281.87	38333282.16	0.0264	0.0037
Mercury	100243-04-03 23:45 G	38334156.31	38334156.49	38334156.67	0.0272	0.0096
Mercury	100243-07-01 22:47 G	38334245.28	38334245.45	38334245.63	0.0273	0.0100
Venus	100247-01-15 13:40 G	38335538.92	38335539.07	38335539.24	0.0290	0.0185
Venus	100247-09-02 06:28 G	38335768.58	38335768.77	38335768.97	0.0293	0.0113
Moon	100249-11-03 12:57 G	38336561.82	38336562.04	38336562.25	0.0301	0.0116
Earth	100249-11-03 13:55 G	38336561.86	38336562.08	38336562.30	0.0301	0.0129 *
Earth	100250-11-18 12:28 G	38336941.85	38336942.02	38336942.21	0.0304	0.0201
Moon	100250-11-18 14:52 G	38336941.96	38336942.12	38336942.29	0.0304	0.0217 *
Mercury	100256-05-18 02:23 G	38338949.52	38338949.60	38338949.70	0.0291	0.0204
Mercury	100256-08-14 13:55 G	38339037.96	38339038.08	38339038.21	0.0290	0.0048

Mercury	100256-11-11 01:26 G	38339126.44	38339126.56	38339126.68	0.0289	0.0108
Mercury	100257-02-07 12:43 G	38339214.98	38339215.03	38339215.08	0.0288	0.0260
Venus	100260-04-07 04:19 G	38340369.57	38340369.68	38340369.80	0.0272	0.0226
Venus	100260-11-22 13:55 G	38340598.86	38340599.08	38340599.29	0.0270	0.0023
Venus	100261-07-09 20:52 G	38340828.34	38340828.37	38340828.42	0.0267	0.0262
Earth	100263-04-30 18:57 G	38341488.18	38341488.29	38341488.43	0.0262	0.0224
Moon	100263-04-30 21:50 G	38341488.32	38341488.41	38341488.53	0.0262	0.0235 *
Earth	100264-05-11 11:45 G	38341864.75	38341864.99	38341865.24	0.0260	0.0012
Moon	100264-05-11 13:55 G	38341864.83	38341865.08	38341865.34	0.0260	0.0025 *
Moon	100265-05-22 21:07 G	38342241.22	38342241.38	38342241.56	0.0259	0.0191
Earth	100265-05-22 23:59 G	38342241.35	38342241.50	38342241.67	0.0259	0.0196 *
Mercury	100272-08-20 21:50 G	38344888.26	38344888.41	38344888.57	0.0272	0.0157
Mercury	100272-11-17 20:52 G	38344977.18	38344977.37	38344977.57	0.0273	0.0039
Mercury	100273-02-14 20:09 G	38345066.25	38345066.34	38345066.44	0.0274	0.0238
Venus	100276-07-27 18:28 G	38346325.10	38346325.27	38346325.45	0.0291	0.0147
Venus	100277-03-14 11:31 G	38346554.81	38346554.98	38346555.16	0.0294	0.0152
Moon	100278-10-28 08:23 G	38347147.74	38347147.85	38347147.99	0.0300	0.0257
Earth	100278-10-28 08:38 G	38347147.77	38347147.86	38347147.97	0.0300	0.0272 *
Moon	100279-11-12 01:55 G	38347527.34	38347527.58	38347527.82	0.0303	0.0067
Earth	100279-11-12 04:33 G	38347527.46	38347527.69	38347527.94	0.0303	0.0052 *
Mercury	100285-10-05 04:33 G	38349681.63	38349681.69	38349681.76	0.0291	0.0251
Mercury	100286-01-01 16:04 G	38349770.05	38349770.17	38349770.30	0.0290	0.0094
Mercury	100286-03-31 03:35 G	38349858.52	38349858.65	38349858.78	0.0289	0.0062
Mercury	100286-06-27 14:52 G	38349947.04	38349947.12	38349947.21	0.0288	0.0216
Venus	100289-10-18 08:52 G	38351155.73	38351155.87	38351156.04	0.0272	0.0190
Venus	100290-06-04 18:28 G	38351385.06	38351385.27	38351385.48	0.0270	0.0059
Moon	100293-05-06 16:19 G	38352451.97	38352452.18	38352452.40	0.0261	0.0122
Earth	100293-05-06 18:43 G	38352452.05	38352452.28	38352452.51	0.0261	0.0107 *
Earth	100294-05-18 08:38 G	38352828.63	38352828.86	38352829.09	0.0260	0.0103
Moon	100294-05-18 11:31 G	38352828.76	38352828.98	38352829.21	0.0260	0.0094 *

Mercury	100302-01-08 20:52 G	38355620.25	38355620.37	38355620.50	0.0271	0.0208
Mercury	100302-04-07 20:09 G	38355709.14	38355709.34	38355709.53	0.0272	0.0014
Mercury	100302-07-05 18:57 G	38355798.16	38355798.29	38355798.44	0.0273	0.0186
Venus	100306-02-07 23:59 G	38357111.31	38357111.50	38357111.70	0.0291	0.0104
Venus	100306-09-25 17:02 G	38357341.07	38357341.21	38357341.37	0.0294	0.0196
Earth	100308-11-05 20:52 G	38358113.15	38358113.37	38358113.60	0.0301	0.0102
Moon	100308-11-06 00:14 G	38358113.28	38358113.51	38358113.74	0.0301	0.0084 *
Earth	100309-11-20 19:40 G	38358493.17	38358493.32	38358493.49	0.0303	0.0228
Moon	100309-11-20 23:16 G	38358493.33	38358493.47	38358493.61	0.0303	0.0245 *
Mercury	100315-05-22 17:59 G	38360502.14	38360502.25	38360502.36	0.0291	0.0147
Mercury	100315-08-19 05:31 G	38360590.60	38360590.73	38360590.86	0.0290	0.0010
Mercury	100315-11-15 16:47 G	38360679.10	38360679.20	38360679.31	0.0288	0.0164
Venus	100319-05-01 11:45 G	38361941.81	38361941.99	38361942.16	0.0272	0.0158
Venus	100319-12-16 20:38 G	38362171.16	38362171.36	38362171.57	0.0269	0.0090
Earth	100322-05-02 20:38 G	38363039.21	38363039.36	38363039.52	0.0262	0.0205
Moon	100322-05-02 23:16 G	38363039.35	38363039.47	38363039.63	0.0262	0.0217 *
Moon	100323-05-14 10:33 G	38363415.69	38363415.94	38363416.20	0.0260	0.0006
Earth	100323-05-14 13:26 G	38363415.81	38363416.06	38363416.31	0.0260	0.0008 *
Moon	100324-05-24 23:02 G	38363792.33	38363792.46	38363792.60	0.0259	0.0215
Earth	100324-05-25 01:55 G	38363792.45	38363792.58	38363792.72	0.0259	0.0214 *
Mars	100329-04-07 02:09 G	38365570.31	38365570.59	38365570.87	0.0264	0.0033
Mercury	100331-05-28 19:40 G	38366352.28	38366352.32	38366352.37	0.0272	0.0263
Mercury	100331-08-25 18:43 G	38366441.10	38366441.28	38366441.47	0.0273	0.0069
Mercury	100331-11-22 17:59 G	38366530.08	38366530.25	38366530.42	0.0274	0.0129
Venus	100335-08-21 06:28 G	38367897.57	38367897.77	38367897.97	0.0292	0.0062
Venus	100336-04-06 23:59 G	38368127.38	38368127.50	38368127.62	0.0294	0.0240
Moon	100337-10-30 14:23 G	38368698.96	38368699.10	38368699.27	0.0300	0.0226
Earth	100337-10-30 18:14 G	38368699.13	38368699.26	38368699.41	0.0300	0.0243 *
Moon	100338-11-14 11:31 G	38369078.76	38369078.98	38369079.20	0.0303	0.0099
Earth	100338-11-14 14:38 G	38369078.87	38369079.11	38369079.34	0.0303	0.0081 *

Mercury	100344-10-08 20:38 G	38371234.26	38371234.36	38371234.46	0.0291	0.0189
Mercury	100345-01-05 08:09 G	38371322.71	38371322.84	38371322.96	0.0289	0.0033
Mercury	100345-04-03 19:26 G	38371411.19	38371411.31	38371411.43	0.0288	0.0123
Mercury	100345-07-01 06:43 G	38371499.75	38371499.78	38371499.82	0.0287	0.0275
Venus	100348-11-10 17:16 G	38372728.03	38372728.22	38372728.42	0.0272	0.0120
Venus	100349-06-28 02:09 G	38372957.41	38372957.59	38372957.79	0.0269	0.0128
Earth	100352-05-08 21:35 G	38374003.17	38374003.40	38374003.64	0.0261	0.0088
Moon	100352-05-08 23:31 G	38374003.26	38374003.48	38374003.71	0.0261	0.0102 *
Earth	100353-05-20 11:59 G	38374379.78	38374380.00	38374380.22	0.0260	0.0122
Moon	100353-05-20 14:38 G	38374379.90	38374380.11	38374380.35	0.0260	0.0118 *
Mercury	100361-01-11 18:28 G	38377173.10	38377173.27	38377173.45	0.0272	0.0114
Mercury	100361-04-10 17:45 G	38377262.06	38377262.24	38377262.43	0.0273	0.0083
Venus	100365-03-02 13:40 G	38378683.86	38378684.07	38378684.27	0.0291	0.0015
Venus	100365-10-18 07:11 G	38378913.76	38378913.80	38378913.84	0.0294	0.0287
Earth	100367-11-08 09:50 G	38379664.68	38379664.91	38379665.15	0.0301	0.0069
Moon	100367-11-08 12:14 G	38379664.77	38379665.01	38379665.26	0.0301	0.0051 *
Earth	100368-11-22 08:38 G	38380044.74	38380044.86	38380044.99	0.0303	0.0260
Moon	100368-11-22 08:23 G	38380044.75	38380044.85	38380044.96	0.0303	0.0276 *
Mercury	100374-02-25 22:47 G	38381966.38	38381966.45	38381966.53	0.0291	0.0237
Mercury	100374-05-25 10:19 G	38382054.81	38382054.93	38382055.06	0.0290	0.0080
Mercury	100374-08-21 21:50 G	38382143.28	38382143.41	38382143.53	0.0289	0.0076
Mercury	100374-11-18 09:07 G	38382231.80	38382231.88	38382231.95	0.0288	0.0229
Venus	100378-05-23 21:07 G	38383514.18	38383514.38	38383514.59	0.0272	0.0087
Venus	100379-01-08 05:59 G	38383743.58	38383743.75	38383743.93	0.0269	0.0160
Moon	100381-05-03 23:45 G	38384590.33	38384590.49	38384590.66	0.0262	0.0198
Earth	100381-05-04 01:26 G	38384590.39	38384590.56	38384590.74	0.0262	0.0184 *
Moon	100382-05-15 15:07 G	38384966.89	38384967.13	38384967.38	0.0260	0.0020
Earth	100382-05-15 18:14 G	38384967.01	38384967.26	38384967.51	0.0260	0.0029 *
Earth	100383-05-27 06:57 G	38385343.69	38385343.79	38385343.89	0.0259	0.0234
Moon	100383-05-27 08:52 G	38385343.79	38385343.87	38385343.96	0.0259	0.0240 *

Mercury	100390-05-31 17:45 G	38387905.09	38387905.24	38387905.39	0.0272	0.0166
Mercury	100390-08-28 17:02 G	38387994.02	38387994.21	38387994.40	0.0273	0.0031
Mercury	100390-11-25 16:04 G	38388083.07	38388083.17	38388083.28	0.0274	0.0229
Venus	100394-01-26 05:16 G	38389240.64	38389240.72	38389240.81	0.0289	0.0262
Venus	100394-09-12 20:52 G	38389470.17	38389470.37	38389470.58	0.0292	0.0031
Moon	100396-11-01 07:40 G	38390250.65	38390250.82	38390251.01	0.0300	0.0192
Earth	100396-11-01 09:07 G	38390250.72	38390250.88	38390251.06	0.0300	0.0209 *
Earth	100397-11-16 05:31 G	38390630.51	38390630.73	38390630.96	0.0303	0.0116
Moon	100397-11-16 06:57 G	38390630.58	38390630.79	38390631.00	0.0303	0.0134 *
Mercury	100403-07-16 01:55 G	38392698.54	38392698.58	38392698.62	0.0291	0.0274
Mercury	100403-10-12 13:11 G	38392786.94	38392787.05	38392787.17	0.0290	0.0116
Mercury	100404-01-09 00:43 G	38392875.40	38392875.53	38392875.66	0.0289	0.0040
Mercury	100404-04-06 11:59 G	38392963.91	38392964.00	38392964.10	0.0288	0.0194
Venus	100407-12-04 04:33 G	38394300.47	38394300.69	38394300.90	0.0271	0.0044
Venus	100408-07-20 12:57 G	38394529.90	38394530.04	38394530.18	0.0269	0.0200
Earth	100411-05-11 04:04 G	38395554.43	38395554.67	38395554.91	0.0261	0.0065
Moon	100411-05-11 07:26 G	38395554.58	38395554.81	38395555.06	0.0261	0.0080 *
Moon	100412-05-21 16:33 G	38395930.99	38395931.19	38395931.42	0.0260	0.0145
Earth	100412-05-21 18:14 G	38395931.07	38395931.26	38395931.48	0.0260	0.0145 *
Mars	100417-09-01 11:59 G	38397859.76	38397860.00	38397860.25	0.0265	0.0139
Mercury	100419-10-18 17:59 G	38398637.14	38398637.25	38398637.39	0.0272	0.0207
Mercury	100420-01-15 17:16 G	38398726.03	38398726.22	38398726.42	0.0273	0.0012
Mercury	100420-04-13 16:33 G	38398815.05	38398815.19	38398815.33	0.0274	0.0188
Venus	100423-08-08 13:55 G	38400026.95	38400027.08	38400027.23	0.0289	0.0213
Venus	100424-03-25 05:45 G	38400256.55	38400256.74	38400256.94	0.0292	0.0081
Moon	100426-11-10 02:09 G	38401216.34	38401216.59	38401216.84	0.0301	0.0013
Earth	100426-11-10 04:19 G	38401216.45	38401216.68	38401216.93	0.0301	0.0031 *
Earth	100427-11-25 03:35 G	38401596.61	38401596.65	38401596.70	0.0303	0.0297
Mercury	100433-02-28 15:50 G	38403519.06	38403519.16	38403519.27	0.0291	0.0159
Mercury	100433-05-28 03:21 G	38403607.51	38403607.64	38403607.77	0.0290	0.0007

Mercury	100433-08-24 14:38 G	38403696.01	38403696.11	38403696.22	0.0288	0.0153
Venus	100436-10-28 23:02 G	38404857.41	38404857.46	38404857.53	0.0273	0.0262
Venus	100437-06-15 09:35 G	38405086.68	38405086.90	38405087.11	0.0271	0.0009
Venus	100438-01-30 17:45 G	38405316.14	38405316.24	38405316.34	0.0269	0.0235
Moon	100440-05-05 05:45 G	38406141.57	38406141.74	38406141.93	0.0262	0.0176
Earth	100440-05-05 09:35 G	38406141.71	38406141.90	38406142.10	0.0262	0.0160 *
Earth	100441-05-17 02:09 G	38406518.34	38406518.59	38406518.83	0.0260	0.0052
Moon	100441-05-17 02:52 G	38406518.39	38406518.62	38406518.86	0.0260	0.0046 *
Earth	100442-05-28 14:38 G	38406895.09	38406895.11	38406895.14	0.0259	0.0257
Mercury	100449-03-06 17:45 G	38409369.18	38409369.24	38409369.31	0.0272	0.0255
Mercury	100449-06-03 17:02 G	38409458.02	38409458.21	38409458.40	0.0273	0.0059
Mercury	100449-08-31 16:19 G	38409547.01	38409547.18	38409547.34	0.0274	0.0139
Venus	100453-02-17 22:04 G	38410813.25	38410813.42	38410813.59	0.0290	0.0168
Venus	100453-10-05 14:09 G	38411042.91	38411043.09	38411043.28	0.0293	0.0130
Earth	100455-11-04 05:16 G	38411802.52	38411802.72	38411802.91	0.0301	0.0170
Moon	100455-11-04 07:40 G	38411802.62	38411802.82	38411803.02	0.0301	0.0153 *
Earth	100456-11-18 01:55 G	38412182.37	38412182.58	38412182.79	0.0303	0.0155
Moon	100456-11-18 05:31 G	38412182.54	38412182.73	38412182.94	0.0303	0.0174 *
Mercury	100462-07-18 19:11 G	38414251.21	38414251.30	38414251.40	0.0290	0.0191
Mercury	100462-10-15 06:43 G	38414339.65	38414339.78	38414339.91	0.0289	0.0035
Mercury	100463-01-11 17:59 G	38414428.14	38414428.25	38414428.37	0.0288	0.0120
Mercury	100463-04-10 05:16 G	38414516.69	38414516.72	38414516.76	0.0287	0.0272
Venus	100466-05-11 07:11 G	38415643.68	38415643.80	38415643.94	0.0273	0.0217
Venus	100466-12-26 17:31 G	38415873.02	38415873.23	38415873.45	0.0270	0.0035
Earth	100469-04-30 18:14 G	38416729.21	38416729.26	38416729.34	0.0263	0.0254
Moon	100470-05-12 12:57 G	38417105.78	38417106.04	38417106.29	0.0261	0.0052
Earth	100470-05-12 13:11 G	38417105.81	38417106.05	38417106.30	0.0261	0.0040 *
Moon	100471-05-23 23:59 G	38417482.32	38417482.50	38417482.69	0.0260	0.0171
Earth	100471-05-24 03:21 G	38417482.46	38417482.64	38417482.84	0.0260	0.0169 *
Mercury	100478-10-21 17:31 G	38420190.05	38420190.23	38420190.41	0.0272	0.0099

Mercury	100479-01-18 16:47 G	38420279.02	38420279.20	38420279.38	0.0273	0.0099
Venus	100482-08-31 07:26 G	38421599.62	38421599.81	38421600.00	0.0290	0.0116
Venus	100483-04-17 23:45 G	38421829.33	38421829.49	38421829.66	0.0293	0.0182
Moon	100484-10-28 05:59 G	38422388.69	38422388.75	38422388.81	0.0299	0.0287
Moon	100485-11-11 22:47 G	38422768.21	38422768.45	38422768.69	0.0302	0.0029
Earth	100485-11-12 02:09 G	38422768.35	38422768.59	38422768.83	0.0302	0.0012 *
Mercury	100491-12-05 22:19 G	38424983.35	38424983.43	38424983.51	0.0291	0.0229
Mercury	100492-03-03 09:50 G	38425071.78	38425071.91	38425072.03	0.0290	0.0072
Mercury	100492-05-30 21:07 G	38425160.26	38425160.38	38425160.51	0.0289	0.0084
Mercury	100492-08-27 08:23 G	38425248.78	38425248.85	38425248.93	0.0288	0.0237
Venus	100495-11-21 14:09 G	38426429.93	38426430.09	38426430.26	0.0273	0.0178
Venus	100496-07-07 23:45 G	38426659.29	38426659.49	38426659.70	0.0270	0.0074
Earth	100499-05-07 20:23 G	38427693.14	38427693.35	38427693.57	0.0262	0.0133
Moon	100499-05-07 20:38 G	38427693.17	38427693.36	38427693.57	0.0262	0.0148 *
Earth	100500-05-19 12:28 G	38428069.78	38428070.02	38428070.26	0.0260	0.0078
Moon	100500-05-19 16:19 G	38428069.94	38428070.18	38428070.42	0.0260	0.0072 *
Mars	100506-01-28 00:14 G	38430149.44	38430149.51	38430149.61	0.0265	0.0252
Mercury	100508-03-10 17:16 G	38430922.06	38430922.22	38430922.39	0.0272	0.0146
Mercury	100508-06-07 16:33 G	38431011.00	38431011.19	38431011.38	0.0273	0.0052
Mercury	100508-09-04 15:50 G	38431100.09	38431100.16	38431100.24	0.0275	0.0251
Venus	100512-03-13 15:50 G	38432385.96	38432386.16	38432386.36	0.0291	0.0069
Venus	100512-10-29 08:52 G	38432615.74	38432615.87	38432615.99	0.0294	0.0232
Earth	100514-11-07 03:21 G	38433354.43	38433354.64	38433354.87	0.0301	0.0128
Moon	100514-11-07 06:43 G	38433354.56	38433354.78	38433355.02	0.0301	0.0111 *
Earth	100515-11-22 00:57 G	38433734.36	38433734.54	38433734.73	0.0303	0.0198
Moon	100515-11-22 01:55 G	38433734.41	38433734.58	38433734.76	0.0303	0.0213 *
Mercury	100521-04-25 01:40 G	38435715.52	38435715.57	38435715.63	0.0291	0.0260
Mercury	100521-07-22 13:11 G	38435803.93	38435804.05	38435804.17	0.0290	0.0103
Mercury	100521-10-19 00:43 G	38435892.40	38435892.53	38435892.65	0.0289	0.0053
Mercury	100522-01-15 11:59 G	38435980.91	38435981.00	38435981.09	0.0287	0.0206

Venus	100525-06-03 22:47 G	38437216.26	38437216.45	38437216.64	0.0272	0.0132
Venus	100526-01-19 08:23 G	38437445.65	38437445.85	38437446.04	0.0270	0.0117
Earth	100528-05-03 06:14 G	38438280.64	38438280.76	38438280.90	0.0263	0.0225
Moon	100528-05-03 06:14 G	38438280.66	38438280.76	38438280.87	0.0263	0.0239 *
Moon	100529-05-14 20:38 G	38438657.11	38438657.36	38438657.61	0.0261	0.0023
Earth	100529-05-15 00:28 G	38438657.27	38438657.52	38438657.77	0.0261	0.0012 *
Moon	100530-05-26 13:11 G	38439033.91	38439034.05	38439034.22	0.0260	0.0199
Earth	100530-05-26 13:55 G	38439033.93	38439034.08	38439034.26	0.0260	0.0195 *
Mercury	100537-07-28 17:59 G	38441654.12	38441654.25	38441654.40	0.0272	0.0184
Mercury	100537-10-25 17:16 G	38441743.03	38441743.22	38441743.42	0.0273	0.0015
Mercury	100538-01-22 16:33 G	38441832.08	38441832.19	38441832.32	0.0274	0.0213
Venus	100541-09-24 01:55 G	38443172.37	38443172.58	38443172.79	0.0291	0.0016
Venus	100542-05-11 18:57 G	38443402.26	38443402.29	38443402.34	0.0294	0.0287
Moon	100543-11-01 04:19 G	38443940.55	38443940.68	38443940.82	0.0299	0.0245
Earth	100543-11-01 07:26 G	38443940.71	38443940.81	38443940.94	0.0299	0.0262 *
Moon	100544-11-15 01:26 G	38444320.34	38444320.56	38444320.79	0.0302	0.0072
Earth	100544-11-15 02:09 G	38444320.35	38444320.59	38444320.83	0.0302	0.0056 *
Mercury	100550-12-09 16:33 G	38446536.08	38446536.19	38446536.30	0.0290	0.0138
Mercury	100551-03-08 03:50 G	38446624.53	38446624.66	38446624.79	0.0289	0.0020
Mercury	100551-06-04 15:21 G	38446713.03	38446713.14	38446713.24	0.0288	0.0173
Venus	100554-12-15 06:14 G	38448002.56	38448002.76	38448002.97	0.0272	0.0092
Venus	100555-08-01 14:52 G	38448231.96	38448232.12	38448232.31	0.0269	0.0157
Earth	100558-05-10 08:23 G	38449244.63	38449244.85	38449245.09	0.0261	0.0105
Moon	100558-05-10 12:14 G	38449244.79	38449245.01	38449245.24	0.0261	0.0118 *
Earth	100559-05-21 23:59 G	38449621.28	38449621.50	38449621.73	0.0260	0.0106
Moon	100559-05-22 01:11 G	38449621.32	38449621.55	38449621.79	0.0260	0.0103 *
Mercury	100566-12-15 17:45 G	38452386.14	38452386.24	38452386.34	0.0272	0.0232
Mercury	100567-03-14 16:47 G	38452475.01	38452475.20	38452475.40	0.0273	0.0037
Mercury	100567-06-11 16:04 G	38452564.02	38452564.17	38452564.33	0.0274	0.0163
Venus	100570-08-19 18:14 G	38453729.18	38453729.26	38453729.34	0.0289	0.0263

Venus	100571-04-06 09:35 G	38453958.69	38453958.90	38453959.10	0.0292	0.0030
Moon	100573-11-09 01:40 G	38454906.33	38454906.57	38454906.82	0.0301	0.0070
Earth	100573-11-09 01:40 G	38454906.34	38454906.57	38454906.80	0.0301	0.0086 *
Moon	100574-11-23 20:52 G	38455286.25	38455286.37	38455286.51	0.0303	0.0255
Earth	100574-11-23 23:45 G	38455286.35	38455286.49	38455286.65	0.0303	0.0241 *
Mars	100578-05-03 01:11 G	38456542.32	38456542.55	38456542.81	0.0299	0.0172
Mercury	100580-04-27 19:40 G	38457268.22	38457268.32	38457268.43	0.0290	0.0170
Mercury	100580-07-25 07:11 G	38457356.67	38457356.80	38457356.93	0.0289	0.0015
Mercury	100580-10-21 18:43 G	38457445.16	38457445.28	38457445.39	0.0288	0.0141
Venus	100584-06-26 14:38 G	38458788.90	38458789.11	38458789.33	0.0271	0.0047
Venus	100585-02-10 23:16 G	38459018.33	38459018.47	38459018.62	0.0269	0.0199
Moon	100587-05-05 15:21 G	38459832.00	38459832.14	38459832.30	0.0262	0.0210
Earth	100587-05-05 18:57 G	38459832.13	38459832.29	38459832.46	0.0262	0.0196 *
Moon	100588-05-16 11:02 G	38460208.72	38460208.96	38460209.20	0.0261	0.0009
Earth	100588-05-16 12:14 G	38460208.76	38460209.01	38460209.26	0.0261	0.0016 *
Earth	100589-05-28 01:26 G	38460585.43	38460585.56	38460585.69	0.0260	0.0221
Moon	100589-05-28 04:33 G	38460585.58	38460585.69	38460585.81	0.0260	0.0228 *
Mercury	100596-07-31 17:16 G	38463207.04	38463207.22	38463207.41	0.0273	0.0078
Mercury	100596-10-28 16:33 G	38463296.02	38463296.19	38463296.37	0.0274	0.0122
Venus	100600-03-02 03:35 G	38464515.52	38464515.65	38464515.80	0.0289	0.0213
Venus	100600-10-17 19:26 G	38464745.11	38464745.31	38464745.51	0.0292	0.0082
Earth	100602-11-04 04:47 G	38465492.55	38465492.70	38465492.87	0.0300	0.0221
Moon	100602-11-04 05:02 G	38465492.55	38465492.71	38465492.89	0.0300	0.0204 *
Earth	100603-11-19 00:14 G	38465872.29	38465872.51	38465872.75	0.0302	0.0100
Moon	100603-11-19 03:07 G	38465872.42	38465872.63	38465872.86	0.0302	0.0117 *
Mercury	100609-09-15 23:16 G	38468000.38	38468000.47	38468000.56	0.0291	0.0204
Mercury	100609-12-13 10:33 G	38468088.82	38468088.94	38468089.07	0.0290	0.0047
Mercury	100610-03-11 22:04 G	38468177.30	38468177.42	38468177.54	0.0289	0.0108
Mercury	100610-06-08 09:21 G	38468265.84	38468265.89	38468265.94	0.0287	0.0261
Venus	100613-05-23 11:45 G	38469345.94	38469345.99	38469346.07	0.0274	0.0261

Venus	100614-01-07 22:19 G	38469575.22	38469575.43	38469575.65	0.0271	0.0008
Venus	100614-08-25 06:14 G	38469804.67	38469804.76	38469804.87	0.0269	0.0239
Earth	100617-05-12 20:38 G	38470796.12	38470796.36	38470796.60	0.0261	0.0076
Moon	100617-05-12 22:04 G	38470796.18	38470796.42	38470796.67	0.0261	0.0086 *
Moon	100618-05-24 07:40 G	38471172.62	38471172.82	38471173.05	0.0260	0.0136
Earth	100618-05-24 11:16 G	38471172.76	38471172.97	38471173.19	0.0260	0.0133 *
Mercury	100625-12-19 16:33 G	38473939.02	38473939.19	38473939.36	0.0272	0.0128
Mercury	100626-03-18 15:50 G	38474027.98	38474028.16	38474028.35	0.0273	0.0070
Mercury	100626-06-15 14:52 G	38474117.10	38474117.12	38474117.17	0.0275	0.0271
Venus	100629-09-12 10:04 G	38475301.76	38475301.92	38475302.10	0.0290	0.0171
Venus	100630-04-30 02:23 G	38475531.41	38475531.60	38475531.78	0.0293	0.0127
Moon	100632-11-11 18:43 G	38476458.04	38476458.28	38476458.53	0.0302	0.0026
Earth	100632-11-11 22:19 G	38476458.19	38476458.43	38476458.67	0.0302	0.0044 *
Moon	100633-11-26 18:14 G	38476838.22	38476838.26	38476838.31	0.0303	0.0298
Earth	100633-11-26 21:07 G	38476838.31	38476838.38	38476838.48	0.0303	0.0283 *
Mercury	100639-02-03 02:09 G	38478732.52	38478732.59	38478732.67	0.0291	0.0240
Mercury	100639-05-02 13:40 G	38478820.95	38478821.07	38478821.20	0.0290	0.0082
Mercury	100639-07-30 01:11 G	38478909.42	38478909.55	38478909.67	0.0289	0.0073
Mercury	100639-10-26 12:28 G	38478997.94	38478998.02	38478998.10	0.0287	0.0227
Venus	100642-12-03 19:40 G	38480132.20	38480132.32	38480132.46	0.0273	0.0217
Venus	100643-07-21 05:45 G	38480361.53	38480361.74	38480361.96	0.0270	0.0037
Moon	100646-05-08 04:04 G	38481383.51	38481383.67	38481383.85	0.0262	0.0181
Earth	100646-05-08 06:14 G	38481383.57	38481383.76	38481383.96	0.0262	0.0167 *
Earth	100647-05-19 22:47 G	38481760.21	38481760.45	38481760.70	0.0260	0.0044
Moon	100647-05-20 02:09 G	38481760.34	38481760.59	38481760.83	0.0260	0.0042 *
Earth	100648-05-30 11:02 G	38482136.90	38482136.96	38482137.05	0.0259	0.0247
Moon	100648-05-30 13:26 G	38482137.04	38482137.06	38482137.12	0.0259	0.0257 *
Mars	100652-10-03 04:33 G	38483723.55	38483723.69	38483723.87	0.0264	0.0218
Mercury	100655-05-08 16:33 G	38484671.05	38484671.19	38484671.34	0.0272	0.0173
Mercury	100655-08-05 15:50 G	38484759.97	38484760.16	38484760.35	0.0273	0.0024

Mercury	100655-11-02 15:07 G	38484849.03	38484849.13	38484849.24	0.0274	0.0224
Venus	100659-03-25 18:42 G	38486088.10	38486088.28	38486088.47	0.0290	0.0123
Venus	100659-11-10 11:02 G	38486317.80	38486317.96	38486318.13	0.0293	0.0177
Earth	100661-11-05 22:47 G	38487044.26	38487044.45	38487044.64	0.0300	0.0181
Moon	100661-11-06 02:23 G	38487044.41	38487044.60	38487044.81	0.0300	0.0163 *
Earth	100662-11-20 19:11 G	38487424.09	38487424.30	38487424.51	0.0302	0.0141
Moon	100662-11-20 22:18 G	38487424.22	38487424.43	38487424.64	0.0302	0.0158 *
Mars	100666-09-29 09:06 G	38488832.58	38488832.88	38488833.18	0.0298	0.0008
Mercury	100668-06-22 05:16 G	38489464.69	38489464.72	38489464.76	0.0291	0.0277
Mercury	100668-09-18 17:02 G	38489553.09	38489553.21	38489553.32	0.0290	0.0118
Mercury	100668-12-16 04:18 G	38489641.55	38489641.68	38489641.81	0.0289	0.0038
Mercury	100669-03-14 15:35 G	38489730.06	38489730.15	38489730.25	0.0288	0.0192
Venus	100672-06-15 03:21 G	38490918.48	38490918.64	38490918.81	0.0273	0.0176
Venus	100673-01-30 12:57 G	38491147.84	38491148.04	38491148.26	0.0270	0.0077
Earth	100675-05-03 12:42 G	38491971.01	38491971.03	38491971.09	0.0263	0.0260
Moon	100676-05-14 04:33 G	38492347.44	38492347.69	38492347.94	0.0261	0.0055
Earth	100676-05-14 07:26 G	38492347.56	38492347.81	38492348.05	0.0261	0.0048 *
Moon	100677-05-25 18:42 G	38492724.10	38492724.28	38492724.47	0.0259	0.0166
Earth	100677-05-25 21:06 G	38492724.18	38492724.38	38492724.58	0.0259	0.0159 *
Mercury	100684-09-24 15:21 G	38495403.04	38495403.14	38495403.24	0.0272	0.0228
Mercury	100684-12-22 14:23 G	38495491.91	38495492.10	38495492.30	0.0273	0.0032
Mercury	100685-03-21 13:40 G	38495580.92	38495581.07	38495581.23	0.0274	0.0167
Venus	100688-10-04 23:45 G	38496874.30	38496874.49	38496874.69	0.0291	0.0083
Venus	100689-05-22 16:18 G	38497104.05	38497104.18	38497104.33	0.0294	0.0219
Moon	100691-11-14 11:16 G	38498009.74	38498009.97	38498010.21	0.0302	0.0011
Earth	100691-11-14 13:40 G	38498009.83	38498010.07	38498010.31	0.0302	0.0007 *
Mercury	100698-02-05 19:26 G	38500285.21	38500285.31	38500285.42	0.0291	0.0160
Mercury	100698-05-05 06:57 G	38500373.67	38500373.79	38500373.92	0.0289	0.0009
Mercury	100698-08-01 18:14 G	38500462.16	38500462.26	38500462.38	0.0288	0.0154
Venus	100701-12-27 09:50 G	38501704.73	38501704.91	38501705.10	0.0272	0.0135

Venus	100702-08-13 19:11 G	38501934.11	38501934.30	38501934.50	0.0270	0.0115
Earth	100705-05-10 15:21 G	38502934.93	38502935.14	38502935.35	0.0262	0.0140
Moon	100705-05-10 17:16 G	38502935.04	38502935.22	38502935.43	0.0262	0.0154 *
Earth	100706-05-22 07:11 G	38503311.56	38503311.80	38503312.04	0.0260	0.0069
Moon	100706-05-22 09:50 G	38503311.66	38503311.91	38503312.16	0.0260	0.0069 *
Mercury	100714-05-12 13:54 G	38506223.90	38506224.08	38506224.26	0.0273	0.0083
Mercury	100714-08-09 13:11 G	38506312.87	38506313.05	38506313.22	0.0274	0.0116
Venus	100718-04-18 07:11 G	38507660.60	38507660.80	38507661.01	0.0291	0.0038
Venus	100718-12-04 00:14 G	38507890.43	38507890.51	38507890.60	0.0294	0.0266
Earth	100720-11-08 12:14 G	38508595.80	38508596.01	38508596.22	0.0300	0.0145
Moon	100720-11-08 13:40 G	38508595.85	38508596.07	38508596.30	0.0300	0.0129 *
Moon	100721-11-23 07:54 G	38508975.65	38508975.83	38508976.03	0.0303	0.0192
Earth	100721-11-23 09:21 G	38508975.71	38508975.89	38508976.10	0.0303	0.0178 *
Mercury	100727-06-26 22:33 G	38511017.35	38511017.44	38511017.53	0.0291	0.0198
Mercury	100727-09-23 10:04 G	38511105.79	38511105.92	38511106.05	0.0290	0.0040
Mercury	100727-12-20 21:21 G	38511194.27	38511194.39	38511194.51	0.0289	0.0116
Mercury	100728-03-18 08:38 G	38511282.82	38511282.86	38511282.91	0.0288	0.0268
Venus	100731-07-09 16:33 G	38512490.99	38512491.19	38512491.40	0.0272	0.0096
Venus	100732-02-24 01:40 G	38512720.40	38512720.57	38512720.75	0.0270	0.0154
Moon	100734-05-05 19:26 G	38513522.23	38513522.31	38513522.40	0.0263	0.0248
Earth	100734-05-05 21:35 G	38513522.30	38513522.40	38513522.52	0.0263	0.0233 *
Moon	100735-05-17 11:59 G	38513898.76	38513899.00	38513899.25	0.0260	0.0029
Earth	100735-05-17 15:06 G	38513898.88	38513899.13	38513899.38	0.0260	0.0022 *
Earth	100736-05-28 03:50 G	38514275.49	38514275.66	38514275.84	0.0259	0.0183
Moon	100736-05-28 06:28 G	38514275.61	38514275.77	38514275.93	0.0259	0.0194 *
Mars	100741-02-28 03:06 G	38516012.39	38516012.63	38516012.90	0.0263	0.0127
Mercury	100743-09-29 11:59 G	38516955.83	38516956.00	38516956.16	0.0272	0.0142
Mercury	100743-12-27 11:02 G	38517044.77	38517044.96	38517045.15	0.0273	0.0055
Mercury	100744-03-25 10:18 G	38517133.87	38517133.93	38517134.00	0.0274	0.0254
Venus	100747-10-29 10:47 G	38518446.74	38518446.95	38518447.16	0.0291	0.0003

Moon	100749-11-02 04:33 G	38519181.62	38519181.69	38519181.79	0.0300	0.0276
Earth	100749-11-02 05:16 G	38519181.66	38519181.72	38519181.78	0.0300	0.0289 *
Earth	100750-11-16 23:30 G	38519561.24	38519561.48	38519561.73	0.0302	0.0027
Moon	100750-11-17 02:09 G	38519561.36	38519561.59	38519561.82	0.0302	0.0040 *
Mars	100755-02-24 13:26 G	38521121.79	38521122.06	38521122.34	0.0299	0.0126
Mercury	100756-11-13 00:28 G	38521749.46	38521749.52	38521749.59	0.0291	0.0247
Mercury	100757-02-09 11:59 G	38521837.88	38521838.00	38521838.13	0.0290	0.0089
Mercury	100757-05-08 23:30 G	38521926.36	38521926.48	38521926.61	0.0289	0.0068
Mercury	100757-08-05 10:47 G	38522014.87	38522014.95	38522015.04	0.0288	0.0222
Venus	100761-01-18 21:21 G	38523277.18	38523277.39	38523277.60	0.0271	0.0059
Venus	100761-09-05 05:59 G	38523506.61	38523506.75	38523506.91	0.0269	0.0189
Earth	100764-05-11 21:06 G	38524486.17	38524486.38	38524486.61	0.0261	0.0116
Moon	100764-05-12 00:42 G	38524486.31	38524486.53	38524486.76	0.0261	0.0127 *
Moon	100765-05-23 10:18 G	38524862.70	38524862.93	38524863.18	0.0260	0.0098
Earth	100765-05-23 12:14 G	38524862.78	38524863.01	38524863.25	0.0260	0.0093 *
Mercury	100773-02-15 10:18 G	38527687.81	38527687.93	38527688.07	0.0272	0.0199
Mercury	100773-05-15 09:50 G	38527776.71	38527776.91	38527777.10	0.0273	0.0007
Mercury	100773-08-12 08:52 G	38527865.74	38527865.87	38527866.01	0.0274	0.0197
Venus	100776-09-23 01:26 G	38529003.46	38529003.56	38529003.66	0.0289	0.0253
Venus	100777-05-10 16:33 G	38529232.98	38529233.19	38529233.39	0.0292	0.0041
Moon	100779-11-10 15:50 G	38530146.93	38530147.16	38530147.40	0.0301	0.0104
Earth	100779-11-10 18:57 G	38530147.08	38530147.29	38530147.52	0.0301	0.0116 *
Moon	100780-11-24 13:11 G	38530526.90	38530527.05	38530527.23	0.0303	0.0219
Earth	100780-11-24 17:02 G	38530527.04	38530527.21	38530527.39	0.0303	0.0208 *
Mercury	100786-04-02 03:06 G	38532481.63	38532481.63	38532481.64	0.0292	0.0291
Mercury	100786-06-29 14:38 G	38532570.00	38532570.11	38532570.23	0.0291	0.0132
Mercury	100786-09-26 02:09 G	38532658.46	38532658.59	38532658.72	0.0290	0.0027
Mercury	100786-12-23 13:26 G	38532746.97	38532747.06	38532747.17	0.0288	0.0182
Venus	100790-08-01 03:06 G	38534063.41	38534063.63	38534063.85	0.0272	0.0022
Venus	100791-03-18 11:30 G	38534292.87	38534292.98	38534293.10	0.0269	0.0225

Moon	100793-05-06 23:16 G	38535073.35	38535073.47	38535073.60	0.0262	0.0224
Earth	100793-05-07 02:38 G	38535073.47	38535073.61	38535073.77	0.0262	0.0209 *
Earth	100794-05-18 19:26 G	38535450.06	38535450.31	38535450.56	0.0260	0.0001
Moon	100794-05-18 20:38 G	38535450.12	38535450.36	38535450.60	0.0260	0.0003 *
Earth	100795-05-30 07:26 G	38535826.67	38535826.81	38535826.97	0.0259	0.0205
Moon	100795-05-30 11:02 G	38535826.82	38535826.96	38535827.10	0.0259	0.0216 *
Mercury	100802-07-05 08:09 G	38538419.79	38538419.84	38538419.89	0.0271	0.0261
Mercury	100802-10-02 07:11 G	38538508.61	38538508.80	38538508.99	0.0272	0.0067
Mercury	100802-12-30 06:14 G	38538597.60	38538597.76	38538597.93	0.0273	0.0130
Venus	100806-04-05 03:21 G	38539789.51	38539789.64	38539789.78	0.0289	0.0221
Venus	100806-11-20 18:42 G	38540019.08	38540019.28	38540019.48	0.0292	0.0074
Earth	100808-11-03 08:52 G	38540732.76	38540732.87	38540732.99	0.0300	0.0263
Moon	100808-11-03 11:59 G	38540732.89	38540733.00	38540733.14	0.0300	0.0251 *
Earth	100809-11-18 04:04 G	38541112.43	38541112.67	38541112.91	0.0303	0.0054
Moon	100809-11-18 07:11 G	38541112.56	38541112.80	38541113.04	0.0303	0.0064 *
Mercury	100815-11-16 16:18 G	38543302.09	38543302.18	38543302.28	0.0291	0.0186
Mercury	100816-02-13 03:50 G	38543390.54	38543390.66	38543390.79	0.0290	0.0029
Mercury	100816-05-11 15:21 G	38543479.02	38543479.14	38543479.26	0.0289	0.0128
Mercury	100816-08-08 02:38 G	38543567.59	38543567.61	38543567.63	0.0288	0.0282
Venus	100819-06-26 19:11 G	38544620.22	38544620.30	38544620.40	0.0274	0.0246
Venus	100820-02-11 06:14 G	38544849.54	38544849.76	38544849.98	0.0271	0.0011
Venus	100820-09-27 14:09 G	38545079.05	38545079.09	38545079.17	0.0268	0.0257
Moon	100823-05-13 22:18 G	38546037.20	38546037.43	38546037.68	0.0261	0.0100
Earth	100823-05-13 23:45 G	38546037.26	38546037.49	38546037.72	0.0261	0.0093 *
Moon	100824-05-24 10:33 G	38546413.73	38546413.94	38546414.16	0.0259	0.0121
Earth	100824-05-24 14:09 G	38546413.87	38546414.09	38546414.31	0.0259	0.0114 *
Mars	100829-07-24 15:35 G	38548300.87	38548301.15	38548301.43	0.0263	0.0065
Mercury	100832-02-19 05:02 G	38549240.55	38549240.71	38549240.89	0.0272	0.0129
Mercury	100832-05-18 04:18 G	38549329.50	38549329.68	38549329.87	0.0273	0.0068
Mercury	100832-08-15 03:35 G	38549418.61	38549418.65	38549418.69	0.0274	0.0267

Venus	100835-10-16 07:40 G	38550575.66	38550575.82	38550575.98	0.0289	0.0184
Venus	100836-06-01 23:16 G	38550805.28	38550805.47	38550805.66	0.0292	0.0113
Moon	100838-11-11 18:14 G	38551698.04	38551698.26	38551698.49	0.0301	0.0083
Earth	100838-11-11 20:38 G	38551698.14	38551698.36	38551698.60	0.0301	0.0091 *
Earth	100839-11-26 19:11 G	38552078.15	38552078.30	38552078.46	0.0303	0.0233
Moon	100839-11-26 19:26 G	38552078.18	38552078.31	38552078.46	0.0303	0.0239 *
Mars	100843-07-20 22:47 G	38553410.24	38553410.45	38553410.68	0.0299	0.0204
Mercury	100845-04-04 18:28 G	38554034.20	38554034.27	38554034.35	0.0292	0.0235
Mercury	100845-07-02 05:59 G	38554122.63	38554122.75	38554122.88	0.0291	0.0076
Mercury	100845-09-28 17:30 G	38554211.11	38554211.23	38554211.36	0.0290	0.0082
Mercury	100845-12-26 04:47 G	38554299.63	38554299.70	38554299.78	0.0288	0.0237
Venus	100849-01-06 00:14 G	38555406.37	38555406.51	38555406.65	0.0274	0.0210
Venus	100849-08-23 10:33 G	38555635.73	38555635.94	38555636.16	0.0271	0.0046
Earth	100852-05-08 03:35 G	38556624.49	38556624.65	38556624.84	0.0262	0.0190
Moon	100852-05-08 05:02 G	38556624.57	38556624.71	38556624.88	0.0262	0.0199 *
Earth	100853-05-19 20:09 G	38557001.09	38557001.34	38557001.59	0.0260	0.0021
Moon	100853-05-19 23:59 G	38557001.25	38557001.50	38557001.75	0.0260	0.0022 *
Moon	100854-05-31 06:57 G	38557377.70	38557377.79	38557377.91	0.0259	0.0236
Earth	100854-05-31 07:54 G	38557377.72	38557377.83	38557377.96	0.0259	0.0224 *
Mercury	100861-07-08 02:23 G	38559972.47	38559972.60	38559972.73	0.0271	0.0195
Mercury	100861-10-05 01:26 G	38560061.36	38560061.56	38560061.75	0.0272	0.0005
Mercury	100862-01-02 00:28 G	38560150.39	38560150.52	38560150.65	0.0273	0.0197
Venus	100865-04-27 08:09 G	38561361.68	38561361.84	38561362.03	0.0289	0.0155
Venus	100865-12-12 23:59 G	38561591.32	38561591.50	38561591.68	0.0292	0.0144
Earth	100867-11-05 07:11 G	38562283.67	38562283.80	38562283.95	0.0300	0.0242
Moon	100867-11-05 09:06 G	38562283.74	38562283.88	38562284.05	0.0300	0.0232 *
Moon	100868-11-19 01:11 G	38562663.31	38562663.55	38562663.80	0.0303	0.0079
Earth	100868-11-19 02:52 G	38562663.39	38562663.62	38562663.85	0.0303	0.0077 *
Mercury	100874-11-19 07:11 G	38564854.69	38564854.80	38564854.92	0.0291	0.0136
Mercury	100875-02-15 18:42 G	38564943.16	38564943.28	38564943.41	0.0290	0.0024

Mercury	100875-05-15 06:14 G	38565031.66	38565031.76	38565031.86	0.0289	0.0178
Venus	100878-07-19 01:40 G	38566192.41	38566192.57	38566192.74	0.0273	0.0180
Venus	100879-03-05 12:14 G	38566421.80	38566422.01	38566422.22	0.0271	0.0075
Moon	100882-05-14 18:57 G	38567588.06	38567588.29	38567588.53	0.0261	0.0076
Earth	100882-05-14 22:47 G	38567588.21	38567588.45	38567588.69	0.0261	0.0075 *
Earth	100883-05-26 12:28 G	38567964.82	38567965.02	38567965.25	0.0259	0.0132
Moon	100883-05-26 13:11 G	38567964.85	38567965.05	38567965.25	0.0259	0.0143 *
Mercury	100890-11-24 23:45 G	38570704.45	38570704.49	38570704.54	0.0271	0.0261
Mercury	100891-02-21 22:33 G	38570793.26	38570793.44	38570793.63	0.0272	0.0068
Mercury	100891-05-21 21:50 G	38570882.24	38570882.41	38570882.58	0.0273	0.0129
Venus	100894-11-07 11:30 G	38572147.79	38572147.98	38572148.17	0.0289	0.0120
Venus	100895-06-25 03:21 G	38572377.48	38572377.64	38572377.80	0.0292	0.0179
Earth	100897-11-12 17:30 G	38573248.99	38573249.23	38573249.46	0.0301	0.0071
Moon	100897-11-12 19:26 G	38573249.08	38573249.31	38573249.54	0.0301	0.0068 *
Earth	100898-11-27 16:18 G	38573629.06	38573629.18	38573629.31	0.0303	0.0254
Moon	100898-11-27 20:09 G	38573629.21	38573629.34	38573629.47	0.0303	0.0253 *
Mercury	100904-04-08 09:06 G	38575586.79	38575586.88	38575586.98	0.0292	0.0187
Mercury	100904-07-05 20:52 G	38575675.24	38575675.37	38575675.49	0.0291	0.0029
Mercury	100904-10-02 08:09 G	38575763.73	38575763.84	38575763.96	0.0289	0.0130
Mercury	100904-12-29 19:40 G	38575852.30	38575852.32	38575852.34	0.0288	0.0283
Venus	100908-01-30 05:30 G	38576978.56	38576978.73	38576978.93	0.0273	0.0147
Venus	100908-09-15 15:50 G	38577207.97	38577208.16	38577208.37	0.0271	0.0109
Earth	100911-05-11 02:09 G	38578175.41	38578175.59	38578175.78	0.0262	0.0171
Moon	100911-05-11 05:59 G	38578175.56	38578175.75	38578175.93	0.0262	0.0177 *
Moon	100912-05-21 17:45 G	38578551.99	38578552.24	38578552.50	0.0260	0.0046
Earth	100912-05-21 18:14 G	38578552.01	38578552.26	38578552.51	0.0260	0.0038 *
Moon	100913-06-02 02:09 G	38578928.56	38578928.59	38578928.63	0.0259	0.0255
Earth	100913-06-02 05:30 G	38578928.66	38578928.73	38578928.83	0.0259	0.0241
Mars	100917-12-18 16:47 G	38580588.91	38580589.20	38580589.49	0.0262	0.0019
Mercury	100920-07-11 19:40 G	38581525.15	38581525.32	38581525.49	0.0271	0.0135

Mercury	100920-10-08 18:42 G	38581614.09	38581614.28	38581614.47	0.0272	0.0060
Mercury	100921-01-05 17:30 G	38581703.18	38581703.23	38581703.30	0.0273	0.0257
Venus	100924-05-20 11:45 G	38582933.80	38582933.99	38582934.19	0.0289	0.0090
Venus	100925-01-05 03:21 G	38583163.51	38583163.64	38583163.80	0.0292	0.0210
Moon	100926-11-06 23:59 G	38583834.34	38583834.50	38583834.67	0.0300	0.0220
Earth	100926-11-07 02:38 G	38583834.46	38583834.61	38583834.77	0.0300	0.0224 *
Moon	100927-11-21 18:42 G	38584214.06	38584214.28	38584214.52	0.0303	0.0093
Earth	100927-11-21 22:18 G	38584214.20	38584214.43	38584214.66	0.0303	0.0095 *
Mars	100931-12-14 00:42 G	38585697.32	38585697.53	38585697.77	0.0300	0.0199
Mercury	100933-08-26 10:04 G	38586318.86	38586318.92	38586318.98	0.0292	0.0254
Mercury	100933-11-22 21:35 G	38586407.28	38586407.40	38586407.53	0.0291	0.0093
Mercury	100934-02-19 09:06 G	38586495.76	38586495.88	38586496.01	0.0290	0.0065
Mercury	100934-05-18 20:38 G	38586584.28	38586584.36	38586584.44	0.0289	0.0221
Venus	100937-08-11 05:59 G	38587764.56	38587764.75	38587764.94	0.0273	0.0119
Venus	100938-03-28 16:04 G	38587993.98	38587994.17	38587994.36	0.0270	0.0135
Earth	100941-05-16 19:11 G	38589139.06	38589139.30	38589139.54	0.0261	0.0058
Moon	100941-05-16 19:40 G	38589139.09	38589139.32	38589139.56	0.0261	0.0054 *
Earth	100942-05-28 08:52 G	38589515.67	38589515.87	38589516.08	0.0259	0.0148
Moon	100942-05-28 12:42 G	38589515.84	38589516.03	38589516.23	0.0259	0.0162 *
Mercury	100949-11-28 16:47 G	38592257.08	38592257.20	38592257.33	0.0271	0.0204
Mercury	100950-02-25 15:50 G	38592345.96	38592346.16	38592346.35	0.0272	0.0010
Mercury	100950-05-25 14:38 G	38592434.98	38592435.11	38592435.26	0.0273	0.0187
Venus	100953-11-30 14:09 G	38593719.89	38593720.09	38593720.29	0.0290	0.0058
Venus	100954-07-18 05:59 G	38593949.65	38593949.75	38593949.88	0.0293	0.0244
Earth	100956-11-14 11:16 G	38594799.73	38594799.97	38594800.21	0.0301	0.0054
Moon	100956-11-14 14:38 G	38594799.87	38594800.11	38594800.35	0.0301	0.0053 *
Earth	100957-11-29 10:18 G	38595179.83	38595179.93	38595180.04	0.0303	0.0271
Moon	100957-11-29 10:47 G	38595179.84	38595179.95	38595180.08	0.0303	0.0264 *
Mercury	100963-04-11 23:16 G	38597139.36	38597139.47	38597139.58	0.0292	0.0147
Mercury	100963-07-09 10:47 G	38597227.83	38597227.95	38597228.08	0.0291	0.0015

Mercury	100963-10-05 22:18 G	38597316.33	38597316.43	38597316.54	0.0289	0.0169
Venus	100967-02-21 09:06 G	38598550.68	38598550.88	38598551.09	0.0273	0.0086
Venus	100967-10-08 18:57 G	38598780.13	38598780.29	38598780.47	0.0271	0.0168
Moon	100970-05-11 21:35 G	38599726.21	38599726.40	38599726.62	0.0262	0.0156
Earth	100970-05-11 21:50 G	38599726.22	38599726.41	38599726.62	0.0262	0.0156 *
Moon	100971-05-23 10:04 G	38600102.68	38600102.92	38600103.17	0.0260	0.0067
Earth	100971-05-23 14:09 G	38600102.84	38600103.09	38600103.33	0.0260	0.0053 *
Earth	100972-06-03 01:26 G	38600479.53	38600479.56	38600479.60	0.0259	0.0255
Mercury	100979-07-15 12:28 G	38603077.84	38603078.02	38603078.21	0.0271	0.0079
Mercury	100979-10-12 11:30 G	38603166.81	38603166.98	38603167.16	0.0272	0.0116
Venus	100983-06-12 14:09 G	38604505.89	38604506.09	38604506.30	0.0290	0.0029
Venus	100984-01-28 05:59 G	38604735.69	38604735.75	38604735.83	0.0293	0.0273
Moon	100985-11-07 17:02 G	38605385.05	38605385.21	38605385.38	0.0300	0.0210
Earth	100985-11-07 19:40 G	38605385.15	38605385.32	38605385.50	0.0300	0.0208 *
Earth	100986-11-22 15:06 G	38605764.91	38605765.13	38605765.36	0.0303	0.0111
Moon	100986-11-22 15:21 G	38605764.93	38605765.14	38605765.36	0.0303	0.0105 *
Mercury	100992-08-28 23:59 G	38607871.42	38607871.50	38607871.59	0.0293	0.0215
Mercury	100992-11-25 11:45 G	38607959.86	38607959.99	38607960.11	0.0291	0.0056
Mercury	100993-02-21 23:02 G	38608048.34	38608048.46	38608048.58	0.0290	0.0104
Mercury	100993-05-21 10:33 G	38608136.89	38608136.94	38608137.00	0.0289	0.0259
Venus	100996-09-02 08:52 G	38609336.66	38609336.87	38609337.09	0.0273	0.0061
Venus	100997-04-19 18:42 G	38609566.14	38609566.28	38609566.44	0.0270	0.0193
Earth	100999-05-06 18:57 G	38610313.25	38610313.29	38610313.36	0.0263	0.0256
Moon	100999-05-06 18:57 G	38610313.28	38610313.29	38610313.31	0.0263	0.0262 *
Earth	101000-05-18 14:09 G	38610689.85	38610690.09	38610690.34	0.0261	0.0044
Moon	101000-05-18 17:59 G	38610690.00	38610690.25	38610690.50	0.0261	0.0034 *

102ND MILLENNIUM CE

This is a list of transits visible from Saturn in the 102nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	101001-05-30 04:04	G	38611066.48	38611066.67	38611066.87	0.0259	0.0162	
Moon	101001-05-30 04:18	G	38611066.50	38611066.68	38611066.88	0.0259	0.0177	*
Mars	101006-05-14 12:14	G	38612876.72	38612877.01	38612877.30	0.0262	0.0007	
Mercury	101008-12-02 09:35	G	38613809.74	38613809.90	38613810.06	0.0271	0.0149	
Mercury	101009-03-01 08:38	G	38613898.67	38613898.86	38613899.05	0.0272	0.0046	
Mercury	101009-05-29 07:26	G	38613987.73	38613987.81	38613987.90	0.0273	0.0243	
Venus	101012-05-08 02:52	G	38615062.60	38615062.62	38615062.64	0.0287	0.0284	
Venus	101012-12-23 16:33	G	38615291.98	38615292.19	38615292.39	0.0290	0.0007	
Moon	101015-11-17 03:21	G	38616350.39	38616350.64	38616350.88	0.0301	0.0045	
Earth	101015-11-17 04:18	G	38616350.44	38616350.68	38616350.92	0.0301	0.0038	*
Moon	101016-11-30 23:59	G	38616730.41	38616730.50	38616730.61	0.0303	0.0274	
Earth	101016-12-01 03:21	G	38616730.57	38616730.64	38616730.72	0.0303	0.0287	*
Mars	101020-05-08 01:40	G	38617984.35	38617984.57	38617984.79	0.0299	0.0200	
Mercury	101022-01-17 01:26	G	38618603.52	38618603.56	38618603.61	0.0293	0.0272	
Mercury	101022-04-15 13:11	G	38618691.93	38618692.05	38618692.17	0.0292	0.0110	
Mercury	101022-07-13 00:42	G	38618780.40	38618780.53	38618780.66	0.0291	0.0049	
Mercury	101022-10-09 12:14	G	38618868.92	38618869.01	38618869.10	0.0289	0.0206	
Venus	101026-03-16 11:45	G	38620122.78	38620122.99	38620123.21	0.0273	0.0028	
Venus	101026-10-31 21:35	G	38620352.29	38620352.40	38620352.52	0.0270	0.0225	
Moon	101029-05-13 13:26	G	38621276.85	38621277.06	38621277.28	0.0262	0.0137	
Earth	101029-05-13 16:47	G	38621277.00	38621277.20	38621277.42	0.0262	0.0142	*

Moon	101030-05-25 08:52 G	38621653.64	38621653.87	38621654.10	0.0260	0.0082
Earth	101030-05-25 09:06 G	38621653.64	38621653.88	38621654.12	0.0260	0.0068 *
Mercury	101038-04-21 06:57 G	38624541.67	38624541.79	38624541.91	0.0270	0.0213
Mercury	101038-07-19 05:45 G	38624630.55	38624630.74	38624630.93	0.0271	0.0021
Mercury	101038-10-16 04:33 G	38624719.55	38624719.69	38624719.84	0.0272	0.0174
Venus	101041-11-18 03:21 G	38625848.56	38625848.64	38625848.75	0.0287	0.0254
Venus	101042-07-05 17:16 G	38626078.01	38626078.22	38626078.43	0.0290	0.0036
Earth	101044-11-09 13:11 G	38626935.88	38626936.05	38626936.25	0.0300	0.0193
Moon	101044-11-09 15:21 G	38626935.98	38626936.14	38626936.33	0.0300	0.0202 *
Earth	101045-11-24 08:38 G	38627315.64	38627315.86	38627316.08	0.0303	0.0127
Moon	101045-11-24 12:14 G	38627315.79	38627316.01	38627316.23	0.0303	0.0116 *
Mercury	101051-09-02 13:54 G	38629423.98	38629424.08	38629424.18	0.0293	0.0179
Mercury	101051-11-30 01:26 G	38629512.43	38629512.56	38629512.69	0.0291	0.0019
Mercury	101052-02-26 12:57 G	38629600.93	38629601.04	38629601.15	0.0290	0.0140
Venus	101055-02-08 23:02 G	38630679.41	38630679.46	38630679.51	0.0276	0.0266
Venus	101055-09-26 11:16 G	38630908.76	38630908.97	38630909.19	0.0273	0.0004
Venus	101056-05-12 21:06 G	38631138.30	38631138.38	38631138.47	0.0270	0.0249
Earth	101058-05-08 13:26 G	38631863.98	38631864.06	38631864.17	0.0263	0.0242
Moon	101058-05-08 17:16 G	38631864.13	38631864.22	38631864.31	0.0263	0.0245 *
Earth	101059-05-20 08:52 G	38632240.63	38632240.87	38632241.12	0.0261	0.0030
Moon	101059-05-20 09:35 G	38632240.64	38632240.90	38632241.16	0.0261	0.0018 *
Moon	101060-05-30 19:11 G	38632617.13	38632617.30	38632617.47	0.0259	0.0191
Earth	101060-05-30 23:02 G	38632617.28	38632617.46	38632617.64	0.0259	0.0177 *
Mercury	101067-12-06 02:38 G	38635362.44	38635362.61	38635362.80	0.0271	0.0091
Mercury	101068-03-04 01:40 G	38635451.39	38635451.57	38635451.75	0.0272	0.0104
Venus	101071-05-31 05:16 G	38636634.60	38636634.72	38636634.86	0.0287	0.0223
Venus	101072-01-15 19:26 G	38636864.11	38636864.31	38636864.51	0.0290	0.0068
Moon	101074-11-17 17:59 G	38637901.01	38637901.25	38637901.49	0.0301	0.0035
Earth	101074-11-17 21:50 G	38637901.17	38637901.41	38637901.65	0.0301	0.0023 *
Moon	101075-12-02 18:42 G	38638281.23	38638281.28	38638281.36	0.0303	0.0289

Earth	101075-12-02 20:38 G	38638281.36	38638281.36	38638281.39	0.0303	0.0302	*
Mercury	101081-01-19 15:21 G	38640156.07	38640156.14	38640156.22	0.0293	0.0234	
Mercury	101081-04-18 03:06 G	38640244.51	38640244.63	38640244.76	0.0292	0.0073	
Mercury	101081-07-15 14:38 G	38640332.99	38640333.11	38640333.24	0.0291	0.0087	
Mercury	101081-10-12 02:09 G	38640421.52	38640421.59	38640421.66	0.0289	0.0243	
Venus	101084-08-21 02:23 G	38641465.49	38641465.60	38641465.72	0.0276	0.0232	
Venus	101085-04-07 14:38 G	38641694.89	38641695.11	38641695.32	0.0273	0.0031	
Moon	101088-05-14 11:02 G	38642827.75	38642827.96	38642828.17	0.0262	0.0121	
Earth	101088-05-14 11:59 G	38642827.79	38642828.00	38642828.23	0.0262	0.0128	*
Earth	101089-05-26 04:18 G	38643204.45	38643204.68	38643204.93	0.0260	0.0083	
Moon	101089-05-26 07:54 G	38643204.61	38643204.83	38643205.07	0.0260	0.0098	*
Mars	101094-10-07 12:57 G	38645164.75	38645165.04	38645165.32	0.0262	0.0049	
Mercury	101097-04-24 00:28 G	38646094.36	38646094.52	38646094.68	0.0270	0.0151	
Mercury	101097-07-21 23:16 G	38646183.28	38646183.47	38646183.66	0.0271	0.0042	
Mercury	101097-10-18 22:04 G	38646272.34	38646272.42	38646272.52	0.0272	0.0237	
Venus	101100-12-11 07:11 G	38647420.65	38647420.80	38647420.96	0.0287	0.0189	
Venus	101101-07-28 21:06 G	38647650.19	38647650.38	38647650.58	0.0290	0.0103	
Earth	101103-11-12 08:52 G	38648486.69	38648486.87	38648487.08	0.0300	0.0176	
Moon	101103-11-12 12:14 G	38648486.83	38648487.01	38648487.21	0.0300	0.0190	*
Earth	101104-11-26 04:04 G	38648866.46	38648866.67	38648866.89	0.0302	0.0144	
Moon	101104-11-26 05:02 G	38648866.48	38648866.71	38648866.94	0.0302	0.0129	*
Mars	101108-09-30 18:14 G	38650271.03	38650271.26	38650271.52	0.0300	0.0171	
Mercury	101110-09-06 03:50 G	38650976.55	38650976.66	38650976.78	0.0292	0.0140	
Mercury	101110-12-03 15:35 G	38651065.02	38651065.15	38651065.28	0.0291	0.0021	
Mercury	101111-03-02 03:06 G	38651153.53	38651153.63	38651153.73	0.0290	0.0179	
Venus	101114-03-04 01:54 G	38652251.45	38652251.58	38652251.73	0.0275	0.0207	
Venus	101114-10-19 14:09 G	38652480.88	38652481.09	38652481.31	0.0273	0.0057	
Earth	101117-05-10 08:52 G	38653414.76	38653414.87	38653415.01	0.0263	0.0229	
Moon	101117-05-10 10:18 G	38653414.81	38653414.93	38653415.07	0.0263	0.0224	*
Moon	101118-05-22 01:11 G	38653791.30	38653791.55	38653791.81	0.0261	0.0005	

Earth	101118-05-22 04:47 G	38653791.45	38653791.70	38653791.95	0.0261	0.0015	*
Moon	101119-06-02 17:45 G	38654168.09	38654168.24	38654168.39	0.0259	0.0202	
Earth	101119-06-02 18:28 G	38654168.12	38654168.27	38654168.45	0.0259	0.0192	*
Mercury	101126-09-11 21:50 G	38656826.31	38656826.41	38656826.53	0.0270	0.0217	
Mercury	101126-12-09 20:52 G	38656915.18	38656915.37	38656915.56	0.0271	0.0025	
Mercury	101127-03-08 19:40 G	38657004.17	38657004.32	38657004.47	0.0272	0.0170	
Venus	101130-06-23 10:18 G	38658206.76	38658206.93	38658207.11	0.0287	0.0156	
Venus	101131-02-08 00:28 G	38658436.34	38658436.52	38658436.70	0.0290	0.0138	
Earth	101133-11-19 18:57 G	38659452.05	38659452.29	38659452.53	0.0301	0.0004	
Moon	101133-11-19 19:11 G	38659452.07	38659452.30	38659452.53	0.0301	0.0020	*
Mercury	101140-01-24 05:45 G	38661708.64	38661708.74	38661708.83	0.0293	0.0192	
Mercury	101140-04-21 17:16 G	38661797.10	38661797.22	38661797.35	0.0291	0.0032	
Mercury	101140-07-19 04:47 G	38661885.59	38661885.70	38661885.82	0.0290	0.0128	
Mercury	101140-10-15 16:18 G	38661974.16	38661974.18	38661974.20	0.0289	0.0284	
Venus	101143-09-14 05:59 G	38663037.58	38663037.75	38663037.92	0.0275	0.0171	
Venus	101144-04-30 17:59 G	38663267.05	38663267.25	38663267.46	0.0273	0.0091	
Earth	101147-05-17 08:23 G	38664378.63	38664378.85	38664379.08	0.0263	0.0113	
Moon	101147-05-17 11:45 G	38664378.76	38664378.99	38664379.21	0.0263	0.0102	*
Earth	101148-05-28 00:57 G	38664755.32	38664755.54	38664755.78	0.0260	0.0098	
Moon	101148-05-28 02:38 G	38664755.38	38664755.61	38664755.85	0.0260	0.0110	*
Mercury	101156-04-27 19:11 G	38667647.11	38667647.30	38667647.48	0.0270	0.0082	
Mercury	101156-07-25 17:45 G	38667736.07	38667736.24	38667736.42	0.0271	0.0112	
Venus	101160-01-03 13:11 G	38668992.87	38668993.05	38668993.24	0.0287	0.0119	
Venus	101160-08-20 03:06 G	38669222.48	38669222.63	38669222.81	0.0290	0.0175	
Moon	101162-11-13 06:42 G	38670037.59	38670037.78	38670037.99	0.0299	0.0172	
Earth	101162-11-13 08:23 G	38670037.65	38670037.85	38670038.06	0.0299	0.0155	*
Moon	101163-11-27 23:30 G	38670417.27	38670417.48	38670417.70	0.0302	0.0145	
Earth	101163-11-28 03:06 G	38670417.43	38670417.63	38670417.84	0.0302	0.0164	*
Mercury	101169-06-12 06:42 G	38672440.72	38672440.78	38672440.84	0.0293	0.0256	
Mercury	101169-09-08 18:28 G	38672529.15	38672529.27	38672529.39	0.0292	0.0094	

Mercury	101169-12-06 05:59 G	38672617.63	38672617.75	38672617.88	0.0291	0.0066
Mercury	101170-03-04 17:30 G	38672706.15	38672706.23	38672706.31	0.0290	0.0224
Venus	101173-03-26 06:28 G	38673823.59	38673823.77	38673823.96	0.0275	0.0144
Venus	101173-11-10 18:28 G	38674053.08	38674053.27	38674053.47	0.0273	0.0118
Moon	101176-05-11 02:52 G	38674965.47	38674965.62	38674965.79	0.0264	0.0203
Earth	101176-05-11 06:28 G	38674965.63	38674965.77	38674965.92	0.0264	0.0214 *
Moon	101177-05-23 00:28 G	38675342.28	38675342.52	38675342.76	0.0261	0.0014
Earth	101177-05-23 02:23 G	38675342.35	38675342.60	38675342.85	0.0261	0.0003 *
Earth	101178-06-03 16:33 G	38675719.05	38675719.19	38675719.35	0.0259	0.0207
Moon	101178-06-03 19:54 G	38675719.20	38675719.33	38675719.48	0.0259	0.0213 *
Mars	101183-03-03 17:45 G	38677452.98	38677453.24	38677453.52	0.0262	0.0097
Mercury	101185-09-14 17:02 G	38678379.05	38678379.21	38678379.37	0.0270	0.0144
Mercury	101185-12-12 15:50 G	38678467.97	38678468.16	38678468.35	0.0271	0.0049
Mercury	101186-03-11 14:23 G	38678557.03	38678557.10	38678557.20	0.0272	0.0246
Venus	101189-07-15 17:30 G	38679779.03	38679779.23	38679779.43	0.0288	0.0082
Venus	101190-03-02 07:26 G	38680008.68	38680008.81	38680008.96	0.0291	0.0214
Earth	101191-11-07 05:02 G	38680623.67	38680623.71	38680623.75	0.0298	0.0293
Earth	101192-11-20 20:09 G	38681003.10	38681003.34	38681003.58	0.0301	0.0018
Moon	101192-11-20 23:59 G	38681003.26	38681003.50	38681003.74	0.0301	0.0001 *
Mars	101197-02-23 13:11 G	38682558.85	38682559.05	38682559.27	0.0300	0.0212
Mercury	101199-01-26 20:38 G	38683261.24	38683261.36	38683261.47	0.0292	0.0143
Mercury	101199-04-25 08:09 G	38683349.71	38683349.84	38683349.97	0.0291	0.0018
Mercury	101199-07-22 19:40 G	38683438.22	38683438.32	38683438.42	0.0290	0.0176
Venus	101202-10-06 11:30 G	38684609.78	38684609.98	38684610.18	0.0275	0.0105
Venus	101203-05-23 23:02 G	38684839.29	38684839.46	38684839.65	0.0272	0.0156
Earth	101206-05-18 07:26 G	38685929.58	38685929.81	38685930.04	0.0263	0.0097
Moon	101206-05-18 09:50 G	38685929.67	38685929.91	38685930.15	0.0263	0.0083 *
Moon	101207-05-29 21:21 G	38686306.17	38686306.39	38686306.62	0.0261	0.0124
Earth	101207-05-30 00:14 G	38686306.29	38686306.51	38686306.74	0.0261	0.0113 *
Mercury	101215-02-01 16:04 G	38689111.04	38689111.17	38689111.31	0.0269	0.0195

Mercury	101215-05-01 14:52 G	38689199.93	38689200.12	38689200.31	0.0270	0.0003
Mercury	101215-07-29 13:40 G	38689288.94	38689289.07	38689289.21	0.0271	0.0192
Venus	101219-01-25 22:18 G	38690565.22	38690565.43	38690565.63	0.0287	0.0041
Venus	101219-09-12 12:14 G	38690794.93	38690795.01	38690795.12	0.0290	0.0256
Moon	101221-11-14 09:50 G	38691588.71	38691588.91	38691589.13	0.0299	0.0149
Earth	101221-11-14 13:26 G	38691588.85	38691589.06	38691589.28	0.0299	0.0130 *
Moon	101222-11-29 06:14 G	38691968.57	38691968.76	38691968.96	0.0302	0.0171
Earth	101222-11-29 08:09 G	38691968.66	38691968.84	38691969.04	0.0302	0.0189 *
Mercury	101228-06-14 22:04 G	38693993.33	38693993.42	38693993.51	0.0293	0.0201
Mercury	101228-09-11 09:35 G	38694081.78	38694081.90	38694082.03	0.0292	0.0041
Mercury	101228-12-08 21:21 G	38694170.27	38694170.39	38694170.50	0.0291	0.0120
Mercury	101229-03-07 08:38 G	38694258.83	38694258.86	38694258.90	0.0290	0.0277
Venus	101232-04-17 13:11 G	38695395.85	38695396.05	38695396.26	0.0275	0.0076
Venus	101232-12-03 00:57 G	38695625.38	38695625.54	38695625.70	0.0272	0.0185
Moon	101235-05-13 04:18 G	38696516.52	38696516.68	38696516.86	0.0264	0.0184
Earth	101235-05-13 06:42 G	38696516.62	38696516.78	38696516.95	0.0264	0.0196 *
Earth	101236-05-24 02:38 G	38696893.36	38696893.61	38696893.86	0.0261	0.0018
Moon	101236-05-24 05:02 G	38696893.47	38696893.71	38696893.96	0.0261	0.0033 *
Earth	101237-06-04 17:30 G	38697270.11	38697270.23	38697270.35	0.0260	0.0224
Moon	101237-06-04 19:54 G	38697270.21	38697270.33	38697270.45	0.0260	0.0228 *
Mercury	101244-06-20 14:38 G	38699843.05	38699843.11	38699843.18	0.0270	0.0252
Mercury	101244-09-17 13:26 G	38699931.87	38699932.06	38699932.25	0.0270	0.0060
Mercury	101244-12-15 11:59 G	38700020.84	38700021.00	38700021.18	0.0271	0.0135
Venus	101248-08-07 03:21 G	38701351.44	38701351.64	38701351.85	0.0288	0.0004
Earth	101250-11-08 11:30 G	38702174.89	38702174.98	38702175.10	0.0298	0.0268
Moon	101250-11-08 15:06 G	38702175.06	38702175.13	38702175.21	0.0298	0.0284 *
Earth	101251-11-23 02:52 G	38702554.38	38702554.62	38702554.86	0.0301	0.0044
Moon	101251-11-23 04:04 G	38702554.42	38702554.67	38702554.92	0.0301	0.0027 *
Mercury	101257-11-02 00:28 G	38704725.45	38704725.52	38704725.59	0.0293	0.0246
Mercury	101258-01-29 11:59 G	38704813.88	38704814.00	38704814.13	0.0292	0.0085

Mercury	101258-04-27 23:45 G	38704902.36	38704902.49	38704902.61	0.0291	0.0076
Mercury	101258-07-25 11:02 G	38704990.89	38704990.96	38704991.04	0.0290	0.0233
Venus	101261-10-28 18:57 G	38706182.08	38706182.29	38706182.51	0.0275	0.0035
Venus	101262-06-15 06:14 G	38706411.65	38706411.76	38706411.89	0.0272	0.0224
Moon	101265-05-19 06:42 G	38707480.53	38707480.78	38707481.03	0.0263	0.0063
Earth	101265-05-19 09:06 G	38707480.65	38707480.88	38707481.13	0.0263	0.0079 *
Moon	101266-05-30 23:02 G	38707857.27	38707857.46	38707857.67	0.0261	0.0143
Earth	101266-05-31 02:09 G	38707857.39	38707857.59	38707857.81	0.0261	0.0132 *
Mars	101271-07-28 16:18 G	38709741.99	38709742.18	38709742.41	0.0262	0.0180
Mercury	101274-02-04 13:11 G	38710663.87	38710664.05	38710664.22	0.0270	0.0106
Mercury	101274-05-04 11:59 G	38710752.82	38710753.00	38710753.18	0.0271	0.0087
Venus	101277-07-02 21:35 G	38711908.29	38711908.40	38711908.51	0.0285	0.0241
Venus	101278-02-17 09:50 G	38712137.71	38712137.91	38712138.12	0.0288	0.0044
Moon	101280-11-15 22:47 G	38713140.24	38713140.45	38713140.67	0.0299	0.0117
Earth	101280-11-15 23:30 G	38713140.26	38713140.48	38713140.71	0.0299	0.0100 *
Earth	101281-11-30 18:14 G	38713520.10	38713520.26	38713520.43	0.0302	0.0218
Moon	101281-11-30 20:52 G	38713520.19	38713520.37	38713520.54	0.0302	0.0202 *
Mars	101285-07-19 21:06 G	38714847.28	38714847.38	38714847.51	0.0300	0.0274
Mercury	101287-06-18 13:54 G	38715545.97	38715546.08	38715546.20	0.0293	0.0137
Mercury	101287-09-15 01:40 G	38715634.44	38715634.57	38715634.70	0.0292	0.0025
Mercury	101287-12-12 13:11 G	38715722.95	38715723.05	38715723.15	0.0290	0.0183
Venus	101290-09-23 08:38 G	38716738.83	38716738.86	38716738.91	0.0277	0.0272
Venus	101291-05-10 22:18 G	38716968.22	38716968.43	38716968.65	0.0274	0.0005
Venus	101291-12-26 09:21 G	38717197.83	38717197.89	38717197.97	0.0272	0.0256
Earth	101294-05-14 09:50 G	38718067.74	38718067.91	38718068.11	0.0264	0.0177
Moon	101294-05-14 12:14 G	38718067.83	38718068.01	38718068.21	0.0264	0.0163 *
Earth	101295-05-26 05:59 G	38718444.51	38718444.75	38718445.00	0.0261	0.0038
Moon	101295-05-26 09:35 G	38718444.65	38718444.90	38718445.15	0.0261	0.0053 *
Moon	101296-06-05 19:11 G	38718821.23	38718821.30	38718821.40	0.0260	0.0244
Earth	101296-06-05 21:06 G	38718821.30	38718821.38	38718821.47	0.0260	0.0243 *

Mercury	101303-06-25 12:14 G	38721395.85	38721396.01	38721396.16	0.0270	0.0159
Mercury	101303-09-22 11:02 G	38721484.76	38721484.96	38721485.15	0.0271	0.0034
Mercury	101303-12-20 09:50 G	38721573.81	38721573.91	38721574.01	0.0272	0.0229
Venus	101307-01-14 03:35 G	38722694.51	38722694.65	38722694.80	0.0286	0.0201
Venus	101307-08-31 16:18 G	38722923.99	38722924.18	38722924.38	0.0289	0.0088
Earth	101309-11-11 00:28 G	38723726.38	38723726.52	38723726.67	0.0298	0.0236
Moon	101309-11-11 00:57 G	38723726.42	38723726.54	38723726.68	0.0298	0.0251 *
Moon	101310-11-25 13:11 G	38724105.81	38724106.05	38724106.30	0.0301	0.0060
Earth	101310-11-25 16:04 G	38724105.94	38724106.17	38724106.40	0.0301	0.0077 *
Mercury	101316-11-05 16:47 G	38726278.10	38726278.20	38726278.30	0.0292	0.0176
Mercury	101317-02-02 04:33 G	38726366.56	38726366.69	38726366.81	0.0291	0.0017
Mercury	101317-05-01 16:04 G	38726455.05	38726455.17	38726455.28	0.0290	0.0144
Venus	101320-04-05 15:50 G	38727525.05	38727525.16	38727525.29	0.0277	0.0228
Venus	101320-11-21 05:16 G	38727754.51	38727754.72	38727754.94	0.0274	0.0040
Moon	101323-05-10 13:11 G	38728655.03	38728655.05	38728655.10	0.0265	0.0263
Moon	101324-05-21 10:47 G	38729031.71	38729031.95	38729032.19	0.0263	0.0041
Earth	101324-05-21 14:09 G	38729031.85	38729032.09	38729032.34	0.0263	0.0057 *
Earth	101325-06-02 07:11 G	38729408.60	38729408.80	38729409.01	0.0261	0.0153
Moon	101325-06-02 08:09 G	38729408.66	38729408.84	38729409.03	0.0261	0.0162 *
Mercury	101332-11-11 12:14 G	38732127.89	38732128.01	38732128.15	0.0270	0.0201
Mercury	101333-02-08 11:16 G	38732216.78	38732216.97	38732217.16	0.0270	0.0008
Mercury	101333-05-08 10:04 G	38732305.79	38732305.92	38732306.06	0.0271	0.0187
Venus	101336-07-26 11:30 G	38733480.81	38733480.98	38733481.16	0.0286	0.0153
Venus	101337-03-13 00:28 G	38733710.34	38733710.52	38733710.70	0.0289	0.0137
Earth	101339-11-19 15:21 G	38734691.90	38734692.14	38734692.38	0.0299	0.0065
Moon	101339-11-19 17:59 G	38734692.02	38734692.25	38734692.48	0.0299	0.0082 *
Earth	101340-12-03 10:18 G	38735071.80	38735071.93	38735072.06	0.0302	0.0253
Moon	101340-12-03 13:40 G	38735071.93	38735072.07	38735072.23	0.0302	0.0237 *
Mercury	101346-03-25 19:11 G	38737010.22	38737010.30	38737010.38	0.0293	0.0223
Mercury	101346-06-22 06:57 G	38737098.66	38737098.79	38737098.91	0.0292	0.0062

Mercury	101346-09-18 18:28 G	38737187.15	38737187.27	38737187.39	0.0291	0.0098
Mercury	101346-12-16 05:45 G	38737275.69	38737275.74	38737275.80	0.0290	0.0256
Venus	101349-10-16 20:52 G	38738311.22	38738311.37	38738311.53	0.0277	0.0191
Venus	101350-06-03 09:50 G	38738540.71	38738540.91	38738541.12	0.0274	0.0076
Earth	101353-05-16 16:33 G	38739619.00	38739619.19	38739619.41	0.0264	0.0154
Moon	101353-05-16 20:09 G	38739619.14	38739619.34	38739619.56	0.0264	0.0139 *
Moon	101354-05-28 11:30 G	38739995.74	38739995.98	38739996.24	0.0261	0.0073
Earth	101354-05-28 12:28 G	38739995.79	38739996.02	38739996.27	0.0261	0.0061 *
Mercury	101362-03-31 11:45 G	38742859.93	38742859.99	38742860.07	0.0270	0.0250
Mercury	101362-06-28 10:33 G	38742948.76	38742948.94	38742949.13	0.0271	0.0058
Mercury	101362-09-25 09:21 G	38743037.73	38743037.89	38743038.06	0.0272	0.0137
Venus	101366-02-05 18:28 G	38744267.08	38744267.27	38744267.46	0.0287	0.0110
Venus	101366-09-23 07:26 G	38744496.66	38744496.81	38744496.98	0.0290	0.0184
Moon	101368-11-12 14:09 G	38745277.94	38745278.09	38745278.27	0.0298	0.0219
Earth	101368-11-12 17:30 G	38745278.05	38745278.23	38745278.41	0.0298	0.0201 *
Moon	101369-11-27 05:59 G	38745657.53	38745657.75	38745657.98	0.0301	0.0096
Earth	101369-11-27 09:21 G	38745657.67	38745657.89	38745658.12	0.0301	0.0113 *
Mercury	101375-08-12 22:18 G	38747742.37	38747742.43	38747742.49	0.0293	0.0258
Mercury	101375-11-09 10:04 G	38747830.80	38747830.92	38747831.04	0.0292	0.0097
Mercury	101376-02-05 21:35 G	38747919.27	38747919.40	38747919.53	0.0291	0.0064
Mercury	101376-05-04 08:52 G	38748007.80	38748007.87	38748007.96	0.0290	0.0222
Venus	101379-04-29 05:02 G	38749097.53	38749097.71	38749097.90	0.0276	0.0145
Venus	101379-12-14 17:59 G	38749327.05	38749327.25	38749327.44	0.0273	0.0121
Moon	101382-05-11 19:40 G	38750206.23	38750206.32	38750206.44	0.0265	0.0238
Earth	101382-05-11 23:30 G	38750206.40	38750206.48	38750206.57	0.0265	0.0248 *
Earth	101383-05-23 22:04 G	38750583.17	38750583.42	38750583.67	0.0263	0.0033
Moon	101383-05-23 22:33 G	38750583.20	38750583.44	38750583.68	0.0263	0.0019 *
Earth	101384-06-03 14:52 G	38750959.95	38750960.12	38750960.31	0.0261	0.0176
Moon	101384-06-03 18:57 G	38750960.12	38750960.29	38750960.47	0.0261	0.0183 *
Mercury	101391-11-15 11:16 G	38753680.79	38753680.97	38753681.15	0.0270	0.0097

Mercury	101392-02-12 10:04 G	38753769.75	38753769.92	38753770.10	0.0271	0.0097
Venus	101395-08-19 03:21 G	38755053.44	38755053.64	38755053.85	0.0287	0.0060
Venus	101396-04-04 17:02 G	38755283.09	38755283.21	38755283.33	0.0290	0.0235
Earth	101398-11-21 11:30 G	38756243.74	38756243.98	38756244.22	0.0300	0.0025
Moon	101398-11-21 14:52 G	38756243.88	38756244.12	38756244.37	0.0300	0.0044 *
Earth	101399-12-06 07:11 G	38756623.74	38756623.80	38756623.86	0.0302	0.0292
Moon	101399-12-06 08:09 G	38756623.74	38756623.84	38756623.94	0.0302	0.0276 *
Mercury	101405-03-29 12:57 G	38758562.92	38758563.04	38758563.15	0.0292	0.0137
Mercury	101405-06-26 00:28 G	38758651.39	38758651.52	38758651.65	0.0291	0.0023
Mercury	101405-09-22 11:59 G	38758739.90	38758740.00	38758740.10	0.0290	0.0182
Venus	101408-11-09 11:45 G	38759883.79	38759883.99	38759884.19	0.0276	0.0105
Venus	101409-06-26 23:45 G	38760113.32	38760113.49	38760113.67	0.0273	0.0159
Earth	101412-05-19 02:38 G	38761170.40	38761170.61	38761170.83	0.0263	0.0127
Moon	101412-05-19 03:06 G	38761170.40	38761170.63	38761170.86	0.0263	0.0114 *
Moon	101413-05-30 18:14 G	38761547.02	38761547.26	38761547.49	0.0261	0.0095
Earth	101413-05-30 21:50 G	38761547.18	38761547.41	38761547.65	0.0261	0.0085 *
Mercury	101421-04-04 10:47 G	38764412.80	38764412.95	38764413.12	0.0270	0.0145
Mercury	101421-07-02 09:50 G	38764501.72	38764501.91	38764502.10	0.0271	0.0049
Mercury	101421-09-29 08:52 G	38764590.79	38764590.87	38764590.95	0.0272	0.0246
Venus	101425-03-01 11:02 G	38765839.75	38765839.96	38765840.17	0.0288	0.0014
Venus	101425-10-17 00:42 G	38766069.50	38766069.53	38766069.59	0.0291	0.0284
Moon	101427-11-16 10:47 G	38766829.77	38766829.95	38766830.15	0.0299	0.0180
Earth	101427-11-16 13:54 G	38766829.89	38766830.08	38766830.30	0.0299	0.0162 *
Moon	101428-11-30 05:59 G	38767209.55	38767209.75	38767209.97	0.0301	0.0138
Earth	101428-11-30 06:42 G	38767209.58	38767209.78	38767209.99	0.0301	0.0153 *
Mercury	101434-08-16 16:04 G	38769295.07	38769295.17	38769295.27	0.0292	0.0171
Mercury	101434-11-13 03:35 G	38769383.53	38769383.65	38769383.78	0.0291	0.0013
Mercury	101435-02-09 15:06 G	38769472.02	38769472.13	38769472.24	0.0290	0.0149
Venus	101438-05-22 20:09 G	38770670.13	38770670.34	38770670.55	0.0275	0.0059
Venus	101439-01-07 08:09 G	38770899.70	38770899.84	38770899.99	0.0272	0.0204

Moon	101441-05-14 08:52 G	38771757.74	38771757.87	38771758.03	0.0265	0.0211
Earth	101441-05-14 10:18 G	38771757.80	38771757.93	38771758.07	0.0265	0.0221 *
Earth	101442-05-26 08:09 G	38772134.59	38772134.84	38772135.09	0.0262	0.0006
Moon	101442-05-26 11:30 G	38772134.74	38772134.98	38772135.23	0.0262	0.0009 *
Earth	101443-06-07 00:57 G	38772511.38	38772511.54	38772511.70	0.0261	0.0201
Moon	101443-06-07 01:40 G	38772511.43	38772511.57	38772511.75	0.0261	0.0205 *
Mercury	101450-08-22 11:45 G	38775144.85	38775144.99	38775145.14	0.0270	0.0183
Mercury	101450-11-19 10:47 G	38775233.75	38775233.95	38775234.14	0.0271	0.0012
Mercury	101451-02-16 09:35 G	38775322.78	38775322.90	38775323.03	0.0272	0.0207
Venus	101454-01-25 08:38 G	38776396.76	38776396.86	38776396.96	0.0285	0.0248
Venus	101454-09-11 20:38 G	38776626.15	38776626.36	38776626.56	0.0288	0.0039
Earth	101456-11-09 20:23 G	38777416.31	38777416.35	38777416.42	0.0297	0.0289
Earth	101457-11-24 09:35 G	38777795.66	38777795.90	38777796.15	0.0300	0.0018
Moon	101457-11-24 09:50 G	38777795.66	38777795.91	38777796.16	0.0300	0.0004 *
Mercury	101464-01-03 19:11 G	38780027.21	38780027.30	38780027.39	0.0293	0.0208
Mercury	101464-04-01 06:57 G	38780115.66	38780115.79	38780115.91	0.0292	0.0048
Mercury	101464-06-28 18:28 G	38780204.15	38780204.27	38780204.38	0.0291	0.0113
Mercury	101464-09-25 05:45 G	38780292.70	38780292.74	38780292.79	0.0290	0.0270
Venus	101467-12-03 03:35 G	38781456.44	38781456.65	38781456.87	0.0275	0.0017
Venus	101468-07-19 14:52 G	38781686.04	38781686.12	38781686.23	0.0272	0.0245
Moon	101471-05-21 11:02 G	38782721.72	38782721.96	38782722.20	0.0263	0.0084
Earth	101471-05-21 14:09 G	38782721.86	38782722.09	38782722.33	0.0263	0.0100 *
Moon	101472-06-01 07:11 G	38783098.59	38783098.80	38783099.02	0.0261	0.0121
Earth	101472-06-01 08:52 G	38783098.64	38783098.87	38783099.09	0.0261	0.0112 *
Mercury	101480-01-09 11:16 G	38785876.88	38785876.97	38785877.07	0.0270	0.0231
Mercury	101480-04-07 10:04 G	38785965.73	38785965.92	38785966.11	0.0271	0.0038
Mercury	101480-07-05 08:52 G	38786054.72	38786054.87	38786055.04	0.0272	0.0158
Venus	101483-08-07 15:21 G	38787183.00	38787183.14	38787183.29	0.0286	0.0206
Venus	101484-03-24 03:50 G	38787412.46	38787412.66	38787412.86	0.0289	0.0084
Earth	101486-11-18 11:30 G	38788381.77	38788381.98	38788382.21	0.0299	0.0120

Moon	101486-11-18 11:59 G	38788381.80	38788382.00	38788382.22	0.0299	0.0139	*
Earth	101487-12-03 05:02 G	38788761.54	38788761.71	38788761.91	0.0302	0.0196	
Moon	101487-12-03 08:09 G	38788761.66	38788761.84	38788762.04	0.0302	0.0178	*
Mercury	101493-05-22 22:18 G	38790759.37	38790759.43	38790759.51	0.0293	0.0242	
Mercury	101493-08-19 10:04 G	38790847.80	38790847.92	38790848.05	0.0292	0.0080	
Mercury	101493-11-15 21:50 G	38790936.28	38790936.41	38790936.53	0.0291	0.0081	
Mercury	101494-02-12 09:06 G	38791024.81	38791024.88	38791024.96	0.0289	0.0238	
Venus	101496-10-27 22:47 G	38792013.35	38792013.45	38792013.57	0.0277	0.0240	
Venus	101497-06-14 12:28 G	38792242.81	38792243.02	38792243.24	0.0274	0.0030	
Earth	101500-05-16 22:47 G	38793309.28	38793309.45	38793309.62	0.0264	0.0192	
Moon	101500-05-17 01:54 G	38793309.40	38793309.58	38793309.75	0.0264	0.0179	*
Earth	101501-05-28 19:40 G	38793686.07	38793686.32	38793686.57	0.0262	0.0022	
Moon	101501-05-28 22:18 G	38793686.17	38793686.43	38793686.68	0.0262	0.0036	*
Moon	101502-06-09 08:23 G	38794062.74	38794062.85	38794062.99	0.0261	0.0227	
Earth	101502-06-09 11:30 G	38794062.87	38794062.98	38794063.11	0.0261	0.0227	*
Mars	101506-08-29 21:50 G	38795605.22	38795605.41	38795605.61	0.0262	0.0193	
Mercury	101509-05-29 11:59 G	38796609.00	38796609.00	38796609.01	0.0270	0.0270	
Mercury	101509-08-26 11:02 G	38796697.77	38796697.96	38796698.14	0.0271	0.0077	
Mercury	101509-11-23 09:50 G	38796786.74	38796786.91	38796787.08	0.0272	0.0119	
Venus	101513-02-18 00:42 G	38797969.37	38797969.53	38797969.71	0.0286	0.0155	
Venus	101513-10-05 13:40 G	38798198.89	38798199.07	38798199.25	0.0289	0.0137	
Moon	101515-11-13 17:02 G	38798968.11	38798968.21	38798968.33	0.0297	0.0264	
Earth	101515-11-13 17:45 G	38798968.13	38798968.24	38798968.39	0.0297	0.0249	*
Moon	101516-11-27 04:47 G	38799347.46	38799347.70	38799347.94	0.0300	0.0042	
Earth	101516-11-27 08:23 G	38799347.61	38799347.85	38799348.08	0.0300	0.0060	*
Mercury	101522-10-11 01:40 G	38801491.54	38801491.57	38801491.62	0.0293	0.0277	
Mercury	101523-01-07 13:26 G	38801579.94	38801580.06	38801580.18	0.0292	0.0115	
Mercury	101523-04-06 00:57 G	38801668.42	38801668.54	38801668.67	0.0291	0.0047	
Mercury	101523-07-03 12:28 G	38801756.93	38801757.02	38801757.11	0.0290	0.0204	
Venus	101526-05-11 07:26 G	38802799.65	38802799.81	38802799.96	0.0277	0.0196	

Venus	101526-12-26 20:09 G	38803029.14	38803029.34	38803029.56	0.0274	0.0073
Moon	101530-05-23 23:30 G	38804273.24	38804273.48	38804273.72	0.0263	0.0055
Earth	101530-05-24 02:23 G	38804273.37	38804273.60	38804273.85	0.0263	0.0071 *
Earth	101531-06-04 20:09 G	38804650.14	38804650.34	38804650.56	0.0261	0.0139
Moon	101531-06-04 22:18 G	38804650.24	38804650.43	38804650.64	0.0261	0.0147 *
Mercury	101539-01-13 10:18 G	38807429.76	38807429.93	38807430.10	0.0270	0.0127
Mercury	101539-04-12 09:06 G	38807518.70	38807518.88	38807519.07	0.0271	0.0068
Mercury	101539-07-10 07:54 G	38807607.80	38807607.83	38807607.88	0.0272	0.0265
Venus	101542-08-31 06:57 G	38808755.60	38808755.79	38808755.98	0.0287	0.0113
Venus	101543-04-17 20:09 G	38808985.18	38808985.34	38808985.50	0.0290	0.0181
Earth	101545-11-21 07:54 G	38809933.60	38809933.83	38809934.07	0.0300	0.0079
Moon	101545-11-21 11:30 G	38809933.76	38809933.98	38809934.21	0.0300	0.0097 *
Earth	101546-12-06 02:38 G	38810313.47	38810313.61	38810313.76	0.0302	0.0237
Moon	101546-12-06 05:59 G	38810313.58	38810313.75	38810313.92	0.0302	0.0218 *
Mercury	101552-05-26 16:33 G	38812312.08	38812312.19	38812312.30	0.0292	0.0151
Mercury	101552-08-23 04:04 G	38812400.54	38812400.67	38812400.80	0.0291	0.0013
Mercury	101552-11-19 15:35 G	38812489.05	38812489.15	38812489.26	0.0290	0.0169
Venus	101555-11-21 15:50 G	38813585.98	38813586.16	38813586.34	0.0276	0.0149
Venus	101556-07-08 04:18 G	38813815.49	38813815.68	38813815.88	0.0273	0.0118
Earth	101559-05-19 10:33 G	38814860.76	38814860.94	38814861.15	0.0264	0.0163
Moon	101559-05-19 13:40 G	38814860.87	38814861.07	38814861.30	0.0264	0.0148 *
Moon	101560-05-30 05:16 G	38815237.47	38815237.72	38815237.97	0.0262	0.0063
Earth	101560-05-30 06:57 G	38815237.54	38815237.79	38815238.03	0.0262	0.0050 *
Moon	101561-06-10 18:42 G	38815614.24	38815614.28	38815614.34	0.0260	0.0254
Earth	101561-06-10 21:50 G	38815614.37	38815614.41	38815614.48	0.0260	0.0254
Mercury	101568-06-01 10:33 G	38818161.80	38818161.94	38818162.09	0.0270	0.0169
Mercury	101568-08-29 09:21 G	38818250.70	38818250.89	38818251.09	0.0271	0.0026
Mercury	101568-11-26 08:09 G	38818339.74	38818339.84	38818339.96	0.0272	0.0222
Venus	101572-03-12 15:35 G	38819541.95	38819542.15	38819542.36	0.0287	0.0065
Venus	101572-10-28 05:02 G	38819771.60	38819771.71	38819771.84	0.0290	0.0232

Moon	101574-11-15 09:06 G	38820519.73	38820519.88	38820520.05	0.0298	0.0226
Earth	101574-11-15 12:42 G	38820519.86	38820520.03	38820520.20	0.0298	0.0209 *
Moon	101575-11-30 01:26 G	38820899.33	38820899.56	38820899.79	0.0301	0.0084
Earth	101575-11-30 04:04 G	38820899.44	38820899.67	38820899.90	0.0301	0.0101 *
Mercury	101581-10-13 19:54 G	38823044.23	38823044.33	38823044.43	0.0293	0.0185
Mercury	101582-01-10 07:26 G	38823132.68	38823132.81	38823132.94	0.0292	0.0024
Mercury	101582-04-08 18:57 G	38823221.18	38823221.29	38823221.41	0.0291	0.0136
Venus	101585-06-03 00:14 G	38824372.31	38824372.51	38824372.71	0.0276	0.0105
Venus	101586-01-18 12:28 G	38824601.85	38824602.02	38824602.20	0.0273	0.0160
Moon	101588-05-13 12:57 G	38825447.96	38825448.04	38825448.14	0.0265	0.0245
Earth	101588-05-13 16:18 G	38825448.12	38825448.18	38825448.24	0.0265	0.0255 *
Earth	101589-05-25 14:09 G	38825824.85	38825825.09	38825825.34	0.0262	0.0042
Moon	101589-05-25 15:35 G	38825824.91	38825825.15	38825825.39	0.0262	0.0026 *
Earth	101590-06-06 06:57 G	38826201.60	38826201.79	38826201.99	0.0260	0.0166
Moon	101590-06-06 10:18 G	38826201.76	38826201.93	38826202.13	0.0260	0.0176 *
Mars	101595-01-24 05:59 G	38827894.47	38827894.75	38827895.03	0.0262	0.0083
Mercury	101597-10-19 09:21 G	38828893.79	38828893.89	38828894.01	0.0270	0.0222
Mercury	101598-01-16 08:23 G	38828982.66	38828982.85	38828983.04	0.0271	0.0028
Mercury	101598-04-15 07:11 G	38829071.65	38829071.80	38829071.96	0.0272	0.0167
Venus	101601-09-22 20:52 G	38830328.16	38830328.37	38830328.58	0.0287	0.0024
Venus	101602-05-10 10:18 G	38830557.88	38830557.93	38830558.01	0.0290	0.0275
Earth	101604-11-23 01:11 G	38831485.31	38831485.55	38831485.79	0.0300	0.0041
Moon	101604-11-23 03:35 G	38831485.41	38831485.65	38831485.90	0.0300	0.0057 *
Moon	101605-12-07 20:09 G	38831865.22	38831865.34	38831865.48	0.0302	0.0259
Earth	101605-12-07 20:52 G	38831865.29	38831865.37	38831865.48	0.0302	0.0276 *
Mars	101609-01-12 22:47 G	38832997.22	38832997.45	38832997.70	0.0301	0.0164
Mercury	101611-03-02 22:33 G	38833776.36	38833776.44	38833776.52	0.0293	0.0226
Mercury	101611-05-30 10:04 G	38833864.80	38833864.92	38833865.05	0.0292	0.0065
Mercury	101611-08-26 21:50 G	38833953.29	38833953.41	38833953.53	0.0291	0.0096
Mercury	101611-11-23 09:06 G	38834041.83	38834041.88	38834041.95	0.0290	0.0254

Venus	101614-12-14 07:11 G	38835158.60	38835158.80	38835159.02	0.0275	0.0063
Venus	101615-07-31 19:11 G	38835388.16	38835388.30	38835388.45	0.0272	0.0202
Moon	101618-05-20 20:09 G	38836412.12	38836412.34	38836412.58	0.0263	0.0119
Earth	101618-05-20 21:21 G	38836412.18	38836412.39	38836412.61	0.0263	0.0134 *
Moon	101619-06-01 12:42 G	38836788.80	38836789.03	38836789.27	0.0261	0.0090
Earth	101619-06-01 16:33 G	38836788.96	38836789.19	38836789.43	0.0261	0.0077 *
Mercury	101627-03-08 09:21 G	38839625.88	38839625.89	38839625.92	0.0270	0.0267
Mercury	101627-06-05 08:09 G	38839714.66	38839714.84	38839715.03	0.0271	0.0075
Mercury	101627-09-02 07:11 G	38839803.63	38839803.80	38839803.97	0.0272	0.0121
Venus	101630-08-18 16:47 G	38840885.13	38840885.20	38840885.28	0.0285	0.0264
Venus	101631-04-05 04:47 G	38841114.49	38841114.70	38841114.90	0.0288	0.0024
Moon	101633-11-17 01:11 G	38842071.38	38842071.55	38842071.74	0.0298	0.0189
Earth	101633-11-17 03:35 G	38842071.46	38842071.65	38842071.86	0.0298	0.0173 *
Earth	101634-12-01 20:09 G	38842451.12	38842451.34	38842451.55	0.0301	0.0139
Moon	101634-12-01 21:06 G	38842451.17	38842451.38	38842451.59	0.0301	0.0124 *
Mercury	101640-07-20 01:26 G	38844508.51	38844508.56	38844508.62	0.0293	0.0265
Mercury	101640-10-16 13:26 G	38844596.93	38844597.06	38844597.18	0.0292	0.0102
Mercury	101641-01-13 00:57 G	38844685.41	38844685.54	38844685.66	0.0291	0.0060
Mercury	101641-04-11 12:14 G	38844773.93	38844774.01	38844774.10	0.0290	0.0218
Venus	101644-06-25 15:06 G	38845944.91	38845945.13	38845945.35	0.0275	0.0019
Venus	101645-02-10 02:38 G	38846174.52	38846174.61	38846174.71	0.0272	0.0244
Earth	101647-05-16 02:38 G	38846999.49	38846999.61	38846999.75	0.0265	0.0228
Moon	101647-05-16 02:52 G	38846999.50	38846999.62	38846999.77	0.0265	0.0218 *
Earth	101648-05-26 23:45 G	38847376.24	38847376.49	38847376.74	0.0262	0.0015
Moon	101648-05-27 03:35 G	38847376.40	38847376.65	38847376.90	0.0262	0.0003 *
Earth	101649-06-07 15:35 G	38847752.99	38847753.15	38847753.32	0.0260	0.0191
Moon	101649-06-07 16:04 G	38847753.01	38847753.17	38847753.34	0.0260	0.0197 *
Mercury	101656-10-22 06:28 G	38850446.61	38850446.77	38850446.94	0.0270	0.0132
Mercury	101657-01-19 05:16 G	38850535.54	38850535.72	38850535.91	0.0271	0.0062
Mercury	101657-04-18 04:18 G	38850624.62	38850624.68	38850624.74	0.0272	0.0258

Venus	101660-02-28 20:09 G	38851671.22	38851671.34	38851671.47	0.0285	0.0229
Venus	101660-10-15 08:09 G	38851900.64	38851900.84	38851901.04	0.0288	0.0060
Moon	101663-11-25 11:30 G	38853036.74	38853036.98	38853037.24	0.0301	0.0024
Earth	101663-11-25 12:57 G	38853036.80	38853037.04	38853037.29	0.0301	0.0008 *
Moon	101664-12-09 05:59 G	38853416.71	38853416.75	38853416.82	0.0303	0.0295
Mercury	101670-03-05 15:35 G	38855329.04	38855329.15	38855329.26	0.0293	0.0148
Mercury	101670-06-02 03:06 G	38855417.51	38855417.63	38855417.76	0.0292	0.0017
Mercury	101670-08-29 14:52 G	38855506.01	38855506.12	38855506.22	0.0290	0.0173
Venus	101673-05-21 06:57 G	38856501.71	38856501.79	38856501.89	0.0277	0.0251
Venus	101674-01-05 20:52 G	38856731.16	38856731.37	38856731.59	0.0274	0.0022
Moon	101677-05-22 02:09 G	38857963.36	38857963.59	38857963.82	0.0263	0.0092
Earth	101677-05-22 05:45 G	38857963.51	38857963.74	38857963.97	0.0263	0.0107 *
Moon	101678-06-02 23:30 G	38858340.26	38858340.48	38858340.69	0.0261	0.0113
Earth	101678-06-02 23:59 G	38858340.27	38858340.50	38858340.73	0.0261	0.0102 *
Mars	101683-06-20 09:35 G	38860183.61	38860183.90	38860184.19	0.0262	0.0012
Mercury	101686-03-11 05:45 G	38861178.61	38861178.74	38861178.89	0.0270	0.0183
Mercury	101686-06-08 04:33 G	38861267.50	38861267.69	38861267.89	0.0271	0.0012
Mercury	101686-09-05 03:35 G	38861356.53	38861356.65	38861356.77	0.0272	0.0206
Venus	101689-09-10 02:23 G	38862457.44	38862457.60	38862457.76	0.0285	0.0186
Venus	101690-04-27 14:38 G	38862686.92	38862687.11	38862687.31	0.0288	0.0105
Earth	101692-11-18 12:57 G	38863622.83	38863623.04	38863623.26	0.0299	0.0141
Moon	101692-11-18 14:38 G	38863622.91	38863623.11	38863623.31	0.0299	0.0159 *
Earth	101693-12-03 06:14 G	38864002.57	38864002.76	38864002.97	0.0301	0.0173
Moon	101693-12-03 09:50 G	38864002.71	38864002.91	38864003.12	0.0301	0.0156 *
Mars	101697-06-09 10:04 G	38865286.63	38865286.92	38865287.22	0.0301	0.0025
Mercury	101699-07-23 18:28 G	38866061.17	38866061.27	38866061.37	0.0293	0.0189
Mercury	101699-10-20 05:59 G	38866149.63	38866149.75	38866149.88	0.0292	0.0028
Mercury	101700-01-16 17:30 G	38866238.12	38866238.23	38866238.35	0.0291	0.0134
Venus	101702-12-02 14:09 G	38867287.96	38867288.09	38867288.24	0.0277	0.0208
Venus	101703-07-20 03:50 G	38867517.45	38867517.66	38867517.87	0.0274	0.0063

Earth	101706-05-18 10:33 G	38868550.78	38868550.94	38868551.10	0.0264	0.0202
Moon	101706-05-18 13:40 G	38868550.91	38868551.07	38868551.25	0.0264	0.0190 *
Earth	101707-05-30 06:42 G	38868927.53	38868927.78	38868928.03	0.0262	0.0011
Moon	101707-05-30 07:40 G	38868927.56	38868927.82	38868928.08	0.0262	0.0024 *
Moon	101708-06-09 18:14 G	38869304.12	38869304.26	38869304.40	0.0260	0.0217
Earth	101708-06-09 21:35 G	38869304.28	38869304.40	38869304.55	0.0260	0.0215 *
Mercury	101715-07-30 03:50 G	38871910.58	38871910.66	38871910.75	0.0269	0.0242
Mercury	101715-10-27 02:38 G	38871999.42	38871999.61	38871999.80	0.0270	0.0050
Mercury	101716-01-24 01:26 G	38872088.40	38872088.56	38872088.72	0.0271	0.0144
Venus	101719-03-24 04:47 G	38873243.53	38873243.70	38873243.88	0.0286	0.0153
Venus	101719-11-08 17:16 G	38873473.04	38873473.22	38873473.40	0.0289	0.0139
Earth	101721-11-13 06:14 G	38874208.69	38874208.76	38874208.84	0.0297	0.0282
Moon	101722-11-27 16:33 G	38874587.95	38874588.19	38874588.43	0.0301	0.0006
Earth	101722-11-27 20:09 G	38874588.10	38874588.34	38874588.58	0.0301	0.0023 *
Mercury	101728-12-10 20:09 G	38876793.27	38876793.34	38876793.41	0.0294	0.0244
Mercury	101729-03-09 07:54 G	38876881.70	38876881.83	38876881.95	0.0292	0.0081
Mercury	101729-06-05 19:26 G	38876970.19	38876970.31	38876970.43	0.0291	0.0081
Mercury	101729-09-02 06:57 G	38877058.72	38877058.79	38877058.86	0.0290	0.0239
Venus	101732-06-13 18:14 G	38878074.09	38878074.26	38878074.43	0.0277	0.0172
Venus	101733-01-29 07:40 G	38878303.62	38878303.82	38878304.03	0.0274	0.0098
Moon	101736-05-24 08:52 G	38879514.64	38879514.87	38879515.11	0.0263	0.0070
Earth	101736-05-24 10:33 G	38879514.70	38879514.94	38879515.18	0.0263	0.0084 *
Earth	101737-06-05 04:04 G	38879891.45	38879891.67	38879891.89	0.0261	0.0125
Moon	101737-06-05 07:26 G	38879891.61	38879891.81	38879892.03	0.0261	0.0133 *
Mercury	101745-03-15 01:11 G	38882731.37	38882731.55	38882731.73	0.0270	0.0107
Mercury	101745-06-11 23:45 G	38882820.32	38882820.49	38882820.68	0.0271	0.0087
Venus	101748-10-03 09:21 G	38884029.70	38884029.89	38884030.08	0.0286	0.0114
Venus	101749-05-20 22:04 G	38884259.26	38884259.42	38884259.59	0.0289	0.0179
Earth	101751-11-21 16:33 G	38885173.97	38885174.19	38885174.41	0.0299	0.0115
Moon	101751-11-21 20:09 G	38885174.13	38885174.34	38885174.56	0.0299	0.0134 *

Earth	101752-12-05 10:33 G	38885553.77	38885553.94	38885554.13	0.0302	0.0200
Moon	101752-12-05 12:28 G	38885553.83	38885554.02	38885554.23	0.0302	0.0183 *
Mercury	101758-04-29 22:18 G	38887525.42	38887525.43	38887525.45	0.0294	0.0290
Mercury	101758-07-27 10:04 G	38887613.81	38887613.92	38887614.04	0.0293	0.0126
Mercury	101758-10-23 21:50 G	38887702.28	38887702.41	38887702.54	0.0292	0.0037
Mercury	101759-01-20 09:21 G	38887790.80	38887790.89	38887790.99	0.0291	0.0196
Venus	101761-12-25 00:14 G	38888860.33	38888860.51	38888860.71	0.0277	0.0132
Venus	101762-08-11 13:11 G	38889089.87	38889090.05	38889090.25	0.0274	0.0138
Earth	101765-05-19 14:23 G	38890101.93	38890102.10	38890102.29	0.0264	0.0179
Moon	101765-05-19 16:47 G	38890102.01	38890102.20	38890102.41	0.0264	0.0166 *
Moon	101766-05-31 07:26 G	38890478.56	38890478.81	38890479.06	0.0261	0.0044
Earth	101766-05-31 10:18 G	38890478.69	38890478.93	38890479.18	0.0261	0.0032 *
Moon	101767-06-11 22:33 G	38890855.35	38890855.44	38890855.55	0.0260	0.0236
Earth	101767-06-12 00:57 G	38890855.44	38890855.54	38890855.64	0.0260	0.0235 *
Mars	101771-11-14 22:33 G	38892472.17	38892472.44	38892472.72	0.0261	0.0085
Mercury	101774-08-01 22:33 G	38893463.30	38893463.44	38893463.60	0.0269	0.0170
Mercury	101774-10-29 21:21 G	38893552.20	38893552.39	38893552.58	0.0270	0.0022
Mercury	101775-01-26 19:54 G	38893641.23	38893641.33	38893641.46	0.0271	0.0217
Venus	101778-04-15 10:47 G	38894815.75	38894815.95	38894816.15	0.0286	0.0082
Venus	101778-11-30 23:16 G	38895045.34	38895045.47	38895045.62	0.0289	0.0212
Moon	101780-11-14 03:50 G	38895759.58	38895759.66	38895759.75	0.0298	0.0278
Earth	101780-11-14 06:57 G	38895759.68	38895759.79	38895759.92	0.0298	0.0260 *
Moon	101781-11-28 20:23 G	38896139.12	38896139.35	38896139.59	0.0301	0.0032
Earth	101781-11-28 21:21 G	38896139.15	38896139.39	38896139.63	0.0301	0.0047 *
Mars	101785-11-03 10:33 G	38897574.65	38897574.94	38897575.23	0.0301	0.0021
Mercury	101787-12-14 11:30 G	38898345.88	38898345.98	38898346.08	0.0294	0.0186
Mercury	101788-03-11 23:16 G	38898434.34	38898434.47	38898434.60	0.0292	0.0023
Mercury	101788-06-08 10:47 G	38898522.84	38898522.95	38898523.06	0.0291	0.0138
Venus	101791-07-07 02:38 G	38899646.41	38899646.61	38899646.81	0.0276	0.0099
Venus	101792-02-21 15:50 G	38899875.99	38899876.16	38899876.33	0.0273	0.0169

Earth	101795-05-26 11:59 G	38901065.76	38901066.00	38901066.24	0.0262	0.0063
Moon	101795-05-26 14:23 G	38901065.86	38901066.10	38901066.34	0.0262	0.0049 *
Earth	101796-06-06 05:02 G	38901442.51	38901442.71	38901442.92	0.0260	0.0144
Moon	101796-06-06 07:26 G	38901442.61	38901442.81	38901443.03	0.0260	0.0150 *
Mercury	101803-12-20 20:38 G	38904195.27	38904195.36	38904195.47	0.0269	0.0231
Mercury	101804-03-18 19:26 G	38904284.12	38904284.31	38904284.50	0.0270	0.0039
Mercury	101804-06-15 17:59 G	38904373.10	38904373.25	38904373.42	0.0271	0.0155
Venus	101807-10-27 14:23 G	38905601.90	38905602.10	38905602.31	0.0286	0.0047
Venus	101808-06-13 03:35 G	38905831.55	38905831.65	38905831.75	0.0289	0.0250
Moon	101810-11-23 15:50 G	38906724.93	38906725.16	38906725.40	0.0299	0.0110
Earth	101810-11-23 16:04 G	38906724.94	38906725.17	38906725.40	0.0299	0.0093 *
Moon	101811-12-08 07:54 G	38907104.66	38907104.83	38907105.02	0.0302	0.0207
Earth	101811-12-08 10:47 G	38907104.79	38907104.95	38907105.11	0.0302	0.0222 *
Mercury	101817-05-03 13:40 G	38909077.99	38909078.07	38909078.14	0.0294	0.0236
Mercury	101817-07-31 01:11 G	38909166.43	38909166.55	38909166.68	0.0293	0.0073
Mercury	101817-10-27 12:57 G	38909254.92	38909255.04	38909255.16	0.0292	0.0090
Mercury	101818-01-24 00:28 G	38909343.46	38909343.52	38909343.59	0.0291	0.0249
Venus	101821-01-17 07:40 G	38910432.61	38910432.82	38910433.03	0.0276	0.0061
Venus	101821-09-03 20:09 G	38910662.21	38910662.34	38910662.50	0.0274	0.0207
Moon	101824-05-21 12:14 G	38911652.81	38911653.01	38911653.24	0.0264	0.0145
Earth	101824-05-21 15:06 G	38911652.93	38911653.13	38911653.32	0.0264	0.0160 *
Moon	101825-06-02 07:26 G	38912029.58	38912029.81	38912030.06	0.0261	0.0063
Earth	101825-06-02 10:18 G	38912029.69	38912029.93	38912030.18	0.0261	0.0052 *
Earth	101826-06-14 00:42 G	38912406.48	38912406.53	38912406.58	0.0260	0.0253
Moon	101826-06-14 03:06 G	38912406.57	38912406.63	38912406.70	0.0260	0.0249 *
Mercury	101833-08-05 16:47 G	38915016.02	38915016.20	38915016.38	0.0269	0.0104
Mercury	101833-11-02 15:21 G	38915104.96	38915105.14	38915105.32	0.0270	0.0088
Venus	101837-05-08 15:06 G	38916387.92	38916388.13	38916388.33	0.0286	0.0016
Venus	101837-12-24 03:50 G	38916617.62	38916617.66	38916617.72	0.0289	0.0280
Earth	101839-11-17 04:04 G	38917310.53	38917310.67	38917310.81	0.0298	0.0241

Moon	101839-11-17 05:02 G	38917310.61	38917310.71	38917310.84	0.0298	0.0257	*
Earth	101840-11-30 18:28 G	38917690.04	38917690.27	38917690.51	0.0301	0.0067	
Moon	101840-11-30 22:04 G	38917690.19	38917690.42	38917690.65	0.0301	0.0053	*
Mercury	101846-12-18 02:09 G	38919898.48	38919898.59	38919898.70	0.0294	0.0139	
Mercury	101847-03-16 13:54 G	38919986.95	38919987.08	38919987.21	0.0292	0.0025	
Mercury	101847-06-13 01:26 G	38920075.46	38920075.56	38920075.66	0.0291	0.0185	
Venus	101850-07-30 08:23 G	38921218.63	38921218.85	38921219.06	0.0276	0.0033	
Venus	101851-03-16 20:52 G	38921448.27	38921448.37	38921448.49	0.0273	0.0235	
Earth	101853-05-16 11:16 G	38922239.94	38922239.97	38922240.03	0.0265	0.0261	
Moon	101853-05-16 14:09 G	38922240.01	38922240.09	38922240.18	0.0265	0.0246	*
Earth	101854-05-28 10:18 G	38922616.69	38922616.93	38922617.18	0.0262	0.0046	
Moon	101854-05-28 13:40 G	38922616.82	38922617.07	38922617.33	0.0262	0.0031	*
Moon	101855-06-09 01:11 G	38922993.35	38922993.55	38922993.75	0.0260	0.0162	
Earth	101855-06-09 03:21 G	38922993.45	38922993.64	38922993.84	0.0260	0.0162	*
Mars	101860-04-10 02:09 G	38924760.35	38924760.59	38924760.85	0.0261	0.0131	
Mercury	101862-12-23 14:23 G	38925747.95	38925748.10	38925748.25	0.0269	0.0169	
Mercury	101863-03-22 12:57 G	38925836.85	38925837.04	38925837.23	0.0270	0.0022	
Mercury	101863-06-19 11:45 G	38925925.87	38925925.99	38925926.10	0.0271	0.0216	
Venus	101866-04-03 06:42 G	38926944.72	38926944.78	38926944.86	0.0284	0.0266	
Venus	101866-11-18 17:45 G	38927174.03	38927174.24	38927174.45	0.0287	0.0019	
Moon	101869-11-24 07:26 G	38928275.58	38928275.81	38928276.05	0.0299	0.0088	
Earth	101869-11-24 11:16 G	38928275.74	38928275.97	38928276.21	0.0299	0.0076	*
Moon	101870-12-09 03:06 G	38928655.48	38928655.63	38928655.79	0.0302	0.0230	
Earth	101870-12-09 05:59 G	38928655.61	38928655.75	38928655.90	0.0302	0.0240	*
Mars	101874-03-30 00:14 G	38929862.23	38929862.51	38929862.80	0.0301	0.0052	
Mercury	101876-05-06 03:50 G	38930630.57	38930630.66	38930630.76	0.0294	0.0192	
Mercury	101876-08-02 15:35 G	38930719.03	38930719.15	38930719.28	0.0293	0.0029	
Mercury	101876-10-30 03:21 G	38930807.53	38930807.64	38930807.75	0.0292	0.0134	
Venus	101879-06-24 21:21 G	38931775.35	38931775.39	38931775.43	0.0279	0.0273	
Venus	101880-02-09 12:42 G	38932004.81	38932005.03	38932005.24	0.0276	0.0006	

Venus	101880-09-26 00:57 G	38932234.52	38932234.54	38932234.58	0.0273	0.0270
Moon	101883-05-23 09:21 G	38933203.68	38933203.89	38933204.11	0.0264	0.0129
Earth	101883-05-23 12:28 G	38933203.82	38933204.02	38933204.24	0.0264	0.0144 *
Earth	101884-06-03 07:54 G	38933580.59	38933580.83	38933581.07	0.0261	0.0067
Moon	101884-06-03 09:21 G	38933580.66	38933580.89	38933581.12	0.0261	0.0075 *
Mercury	101892-05-11 11:30 G	38936479.90	38936479.98	38936480.08	0.0268	0.0233
Mercury	101892-08-08 10:04 G	38936568.74	38936568.92	38936569.12	0.0269	0.0044
Mercury	101892-11-05 08:38 G	38936657.71	38936657.86	38936658.03	0.0270	0.0149
Venus	101895-10-14 07:11 G	38937730.70	38937730.80	38937730.93	0.0283	0.0235
Venus	101896-05-30 18:14 G	38937960.05	38937960.26	38937960.46	0.0286	0.0049
Earth	101898-11-17 22:47 G	38938861.30	38938861.45	38938861.61	0.0298	0.0225
Moon	101898-11-18 02:23 G	38938861.46	38938861.60	38938861.75	0.0298	0.0236 *
Earth	101899-12-02 13:11 G	38939240.83	38939241.05	38939241.29	0.0301	0.0084
Moon	101899-12-02 15:06 G	38939240.89	38939241.13	38939241.38	0.0301	0.0075 *
Mercury	101905-09-24 04:33 G	38941362.63	38941362.69	38941362.75	0.0295	0.0262
Mercury	101905-12-21 16:18 G	38941451.06	38941451.18	38941451.30	0.0294	0.0097
Mercury	101906-03-20 04:04 G	38941539.54	38941539.67	38941539.79	0.0292	0.0067
Mercury	101906-06-16 15:35 G	38941628.07	38941628.15	38941628.23	0.0291	0.0227
Venus	101909-01-04 21:21 G	38942561.29	38942561.39	38942561.48	0.0279	0.0247
Venus	101909-08-22 12:14 G	38942790.80	38942791.01	38942791.23	0.0276	0.0031
Earth	101912-05-18 07:26 G	38943790.73	38943790.81	38943790.91	0.0265	0.0246
Moon	101912-05-18 10:33 G	38943790.82	38943790.94	38943791.07	0.0265	0.0229 *
Moon	101913-05-30 05:02 G	38944167.45	38944167.71	38944167.97	0.0262	0.0019
Earth	101913-05-30 06:42 G	38944167.53	38944167.78	38944168.03	0.0262	0.0031 *
Moon	101914-06-10 19:54 G	38944544.16	38944544.33	38944544.52	0.0260	0.0176
Earth	101914-06-10 23:30 G	38944544.30	38944544.48	38944544.67	0.0260	0.0176 *
Mercury	101921-12-27 07:40 G	38947300.64	38947300.82	38947300.99	0.0269	0.0110
Mercury	101922-03-26 05:59 G	38947389.57	38947389.75	38947389.94	0.0270	0.0082
Venus	101925-04-26 09:21 G	38948516.75	38948516.89	38948517.04	0.0284	0.0204
Venus	101925-12-11 20:23 G	38948746.15	38948746.35	38948746.55	0.0287	0.0083

Moon	101928-11-26 04:04 G	38949826.45	38949826.67	38949826.90	0.0299	0.0069
Earth	101928-11-26 05:02 G	38949826.47	38949826.71	38949826.95	0.0299	0.0061 *
Earth	101929-12-10 23:30 G	38950206.36	38950206.48	38950206.62	0.0302	0.0255
Moon	101929-12-11 01:54 G	38950206.45	38950206.58	38950206.71	0.0302	0.0252 *
Mercury	101935-05-10 17:59 G	38952183.14	38952183.25	38952183.36	0.0294	0.0153
Mercury	101935-08-07 05:45 G	38952271.61	38952271.74	38952271.86	0.0293	0.0015
Mercury	101935-11-03 17:16 G	38952360.12	38952360.22	38952360.33	0.0292	0.0173
Venus	101938-07-18 00:28 G	38953347.39	38953347.52	38953347.67	0.0279	0.0212
Venus	101939-03-04 15:35 G	38953576.95	38953577.15	38953577.37	0.0276	0.0066
Earth	101942-05-25 07:54 G	38954754.62	38954754.83	38954755.05	0.0264	0.0130
Moon	101942-05-25 09:35 G	38954754.69	38954754.90	38954755.12	0.0264	0.0117 *
Earth	101943-06-06 03:35 G	38955131.41	38955131.65	38955131.89	0.0261	0.0081
Moon	101943-06-06 07:11 G	38955131.57	38955131.80	38955132.04	0.0261	0.0087 *
Mars	101948-09-04 02:09 G	38957048.38	38957048.59	38957048.81	0.0261	0.0173
Mercury	101951-05-16 04:47 G	38958032.56	38958032.70	38958032.85	0.0268	0.0174
Mercury	101951-08-13 03:21 G	38958121.45	38958121.64	38958121.84	0.0269	0.0017
Mercury	101951-11-10 01:54 G	38958210.47	38958210.58	38958210.71	0.0270	0.0209
Venus	101954-11-06 10:04 G	38959302.76	38959302.92	38959303.09	0.0283	0.0173
Venus	101955-06-23 20:52 G	38959532.18	38959532.37	38959532.56	0.0286	0.0113
Earth	101957-11-19 16:47 G	38960412.03	38960412.20	38960412.37	0.0297	0.0209
Moon	101957-11-19 16:33 G	38960412.03	38960412.19	38960412.38	0.0297	0.0217 *
Moon	101958-12-04 03:35 G	38960791.42	38960791.65	38960791.89	0.0301	0.0099
Earth	101958-12-04 06:42 G	38960791.56	38960791.78	38960792.02	0.0301	0.0099 *
Mars	101962-08-22 15:50 G	38962148.87	38962149.16	38962149.45	0.0302	0.0014
Mercury	101964-09-26 18:28 G	38962915.19	38962915.27	38962915.35	0.0295	0.0224
Mercury	101964-12-24 06:14 G	38963003.64	38963003.76	38963003.89	0.0294	0.0059
Mercury	101965-03-22 17:59 G	38963092.13	38963092.25	38963092.37	0.0293	0.0104
Mercury	101965-06-19 05:30 G	38963180.68	38963180.73	38963180.78	0.0291	0.0265
Venus	101968-01-27 23:59 G	38964133.35	38964133.50	38964133.67	0.0279	0.0187
Venus	101968-09-13 14:52 G	38964362.92	38964363.12	38964363.33	0.0276	0.0091

Moon	101971-05-20 00:14 G	38965341.38	38965341.51	38965341.67	0.0265	0.0219
Earth	101971-05-20 02:09 G	38965341.48	38965341.59	38965341.72	0.0265	0.0232 *
Moon	101972-05-30 21:50 G	38965718.16	38965718.41	38965718.66	0.0262	0.0010
Earth	101972-05-31 01:26 G	38965718.31	38965718.56	38965718.81	0.0262	0.0017 *
Earth	101973-06-11 18:14 G	38966095.10	38966095.26	38966095.44	0.0260	0.0190
Moon	101973-06-11 18:57 G	38966095.13	38966095.29	38966095.46	0.0260	0.0185 *
Mercury	101980-10-02 02:09 G	38968764.51	38968764.59	38968764.68	0.0268	0.0241
Mercury	101980-12-30 00:42 G	38968853.34	38968853.53	38968853.72	0.0269	0.0052
Mercury	101981-03-28 23:16 G	38968942.31	38968942.47	38968942.63	0.0270	0.0140
Venus	101984-05-18 11:59 G	38970088.83	38970089.00	38970089.18	0.0284	0.0141
Venus	101985-01-02 23:02 G	38970318.29	38970318.46	38970318.64	0.0287	0.0147
Earth	101987-11-27 22:47 G	38971377.21	38971377.45	38971377.69	0.0299	0.0046
Moon	101987-11-28 02:09 G	38971377.35	38971377.59	38971377.82	0.0299	0.0048 *
Earth	101988-12-11 17:16 G	38971757.12	38971757.22	38971757.34	0.0302	0.0270
Moon	101988-12-11 20:52 G	38971757.27	38971757.37	38971757.47	0.0302	0.0272 *
Mercury	101994-02-13 19:54 G	38973647.30	38973647.33	38973647.37	0.0295	0.0281
Mercury	101994-05-13 07:54 G	38973735.71	38973735.83	38973735.95	0.0294	0.0114
Mercury	101994-08-09 19:40 G	38973824.19	38973824.32	38973824.44	0.0293	0.0050
Mercury	101994-11-06 07:11 G	38973912.71	38973912.80	38973912.89	0.0292	0.0211
Venus	101997-08-09 03:35 G	38974919.47	38974919.65	38974919.84	0.0279	0.0150
Venus	101998-03-26 18:28 G	38975149.08	38975149.27	38975149.46	0.0276	0.0126

103RD MILLENNIUM CE

This is a list of transits visible from Saturn in the 103rd millennium CE.

PLANET	MAX-	C	START	MAX	END	SUNRAD	DEPTH	S
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TRANSIT

TIME

Earth	102001-05-26 02:52 G	38976305.40	38976305.62	38976305.84	0.0264	0.0117
Moon	102001-05-26 06:14 G	38976305.54	38976305.76	38976306.00	0.0264	0.0106 *
Moon	102002-06-06 22:18 G	38976682.19	38976682.43	38976682.67	0.0262	0.0093
Earth	102002-06-06 22:47 G	38976682.22	38976682.45	38976682.68	0.0262	0.0095 *
Mercury	102010-05-18 22:33 G	38979585.26	38979585.44	38979585.61	0.0268	0.0113
Mercury	102010-08-15 20:52 G	38979674.19	38979674.37	38979674.56	0.0269	0.0078
Venus	102013-11-28 13:26 G	38980874.88	38980875.06	38980875.26	0.0284	0.0109
Venus	102014-07-16 00:42 G	38981104.37	38981104.53	38981104.69	0.0287	0.0180
Moon	102016-11-20 08:52 G	38981962.69	38981962.87	38981963.05	0.0297	0.0197
Earth	102016-11-20 12:14 G	38981962.83	38981963.01	38981963.20	0.0297	0.0193 *
Moon	102017-12-04 23:16 G	38982342.26	38982342.47	38982342.70	0.0301	0.0119
Earth	102017-12-05 01:54 G	38982342.36	38982342.58	38982342.81	0.0301	0.0115 *
Mercury	102023-09-30 08:23 G	38984467.75	38984467.85	38984467.95	0.0295	0.0186
Mercury	102023-12-27 20:09 G	38984556.21	38984556.34	38984556.47	0.0294	0.0021
Mercury	102024-03-25 07:54 G	38984644.72	38984644.83	38984644.94	0.0292	0.0142
Venus	102027-02-19 02:52 G	38985705.43	38985705.62	38985705.82	0.0279	0.0126
Venus	102027-10-06 17:30 G	38985935.06	38985935.23	38985935.42	0.0276	0.0151
Moon	102030-05-20 17:16 G	38986892.07	38986892.22	38986892.38	0.0265	0.0206
Earth	102030-05-20 20:38 G	38986892.23	38986892.36	38986892.51	0.0265	0.0219 *
Earth	102031-06-01 20:09 G	38987269.09	38987269.34	38987269.59	0.0263	0.0005
Moon	102031-06-01 20:52 G	38987269.13	38987269.37	38987269.62	0.0263	0.0005 *
Earth	102032-06-12 13:26 G	38987645.91	38987646.06	38987646.22	0.0260	0.0204
Moon	102032-06-12 17:16 G	38987646.06	38987646.22	38987646.39	0.0260	0.0194 *
Mars	102037-01-27 22:47 G	38989336.27	38989336.45	38989336.63	0.0261	0.0204
Mercury	102039-10-05 19:54 G	38990317.19	38990317.33	38990317.47	0.0268	0.0179
Mercury	102040-01-02 18:28 G	38990406.07	38990406.27	38990406.46	0.0269	0.0012
Mercury	102040-03-31 16:47 G	38990495.08	38990495.20	38990495.33	0.0270	0.0203
Venus	102043-06-10 15:50 G	38991660.96	38991661.16	38991661.36	0.0284	0.0076

Venus	102044-01-26 02:52 G	38991890.50	38991890.62	38991890.77	0.0287	0.0215
Earth	102046-11-28 18:28 G	38992928.03	38992928.27	38992928.51	0.0299	0.0029
Moon	102046-11-28 20:52 G	38992928.12	38992928.37	38992928.62	0.0299	0.0029 *
Moon	102047-12-13 11:45 G	38993307.94	38993307.99	38993308.05	0.0302	0.0293
Earth	102047-12-13 12:42 G	38993307.97	38993308.03	38993308.12	0.0302	0.0286 *
Mars	102051-01-14 23:02 G	38994436.17	38994436.46	38994436.75	0.0301	0.0023
Mercury	102053-02-16 10:04 G	38995199.85	38995199.92	38995199.99	0.0295	0.0241
Mercury	102053-05-15 21:50 G	38995288.29	38995288.41	38995288.54	0.0294	0.0075
Mercury	102053-08-12 09:35 G	38995376.78	38995376.90	38995377.02	0.0293	0.0089
Mercury	102053-11-08 21:06 G	38995465.32	38995465.38	38995465.45	0.0291	0.0250
Venus	102056-08-31 06:42 G	38996491.58	38996491.78	38996491.99	0.0278	0.0089
Venus	102057-04-17 21:21 G	38996721.24	38996721.39	38996721.55	0.0276	0.0187
Moon	102060-05-26 21:35 G	38997856.17	38997856.40	38997856.65	0.0264	0.0097
Earth	102060-05-26 22:04 G	38997856.19	38997856.42	38997856.65	0.0264	0.0103 *
Moon	102061-06-07 14:23 G	38998232.87	38998233.10	38998233.33	0.0262	0.0101
Earth	102061-06-07 18:14 G	38998233.04	38998233.26	38998233.49	0.0262	0.0109 *
Mercury	102069-02-21 17:59 G	39001049.17	39001049.25	39001049.35	0.0267	0.0236
Mercury	102069-05-21 16:33 G	39001138.00	39001138.19	39001138.38	0.0268	0.0048
Mercury	102069-08-18 15:06 G	39001226.97	39001227.13	39001227.29	0.0269	0.0143
Venus	102072-12-20 18:14 G	39002447.06	39002447.26	39002447.47	0.0284	0.0041
Venus	102073-08-07 05:30 G	39002676.64	39002676.73	39002676.84	0.0287	0.0250
Moon	102075-11-22 08:23 G	39003513.67	39003513.85	39003514.04	0.0297	0.0176
Earth	102075-11-22 10:18 G	39003513.74	39003513.93	39003514.13	0.0297	0.0175 *
Earth	102076-12-05 23:45 G	39003893.28	39003893.49	39003893.71	0.0300	0.0133
Moon	102076-12-06 01:26 G	39003893.36	39003893.56	39003893.77	0.0300	0.0141 *
Mercury	102082-10-02 22:47 G	39006020.34	39006020.45	39006020.56	0.0294	0.0142
Mercury	102082-12-30 10:33 G	39006108.81	39006108.94	39006109.07	0.0293	0.0023
Mercury	102083-03-28 22:04 G	39006197.33	39006197.42	39006197.52	0.0292	0.0186
Venus	102086-03-13 06:57 G	39007277.58	39007277.79	39007278.00	0.0278	0.0062
Venus	102086-10-28 21:21 G	39007507.26	39007507.39	39007507.53	0.0275	0.0213

Moon	102089-05-21 16:33 G	39008443.04	39008443.19	39008443.37	0.0266	0.0196
Earth	102089-05-21 16:33 G	39008443.05	39008443.19	39008443.36	0.0266	0.0206 *
Earth	102090-06-02 16:33 G	39008819.94	39008820.19	39008820.44	0.0263	0.0011
Moon	102090-06-02 20:23 G	39008820.10	39008820.35	39008820.59	0.0263	0.0009 *
Earth	102091-06-14 09:50 G	39009196.79	39009196.91	39009197.06	0.0261	0.0218
Moon	102091-06-14 10:33 G	39009196.79	39009196.94	39009197.10	0.0261	0.0204 *
Mercury	102098-10-08 14:09 G	39011869.92	39011870.09	39011870.27	0.0268	0.0111
Mercury	102099-01-05 12:42 G	39011958.85	39011959.03	39011959.22	0.0269	0.0080
Venus	102102-07-03 21:50 G	39013233.20	39013233.41	39013233.61	0.0285	0.0008
Venus	102103-02-18 09:06 G	39013462.87	39013462.88	39013462.90	0.0288	0.0287
Moon	102105-11-30 16:04 G	39014478.92	39014479.17	39014479.42	0.0299	0.0005
Earth	102105-11-30 18:14 G	39014479.02	39014479.26	39014479.50	0.0299	0.0010 *
Mercury	102112-02-21 00:42 G	39016752.43	39016752.53	39016752.62	0.0294	0.0194
Mercury	102112-05-19 12:28 G	39016840.89	39016841.02	39016841.15	0.0293	0.0028
Mercury	102112-08-16 00:14 G	39016929.39	39016929.51	39016929.62	0.0292	0.0135
Venus	102115-09-24 11:30 G	39018063.76	39018063.98	39018064.20	0.0278	0.0023
Venus	102116-05-11 01:40 G	39018293.49	39018293.57	39018293.66	0.0275	0.0251
Moon	102119-05-29 15:35 G	39019406.92	39019407.15	39019407.39	0.0264	0.0085
Earth	102119-05-29 19:11 G	39019407.07	39019407.30	39019407.54	0.0264	0.0088 *
Moon	102120-06-09 14:52 G	39019783.91	39019784.12	39019784.35	0.0262	0.0114
Earth	102120-06-09 15:35 G	39019783.93	39019784.15	39019784.37	0.0262	0.0124 *
Mars	102125-06-24 08:23 G	39021624.85	39021624.85	39021624.86	0.0261	0.0261
Mercury	102128-02-26 13:11 G	39022601.90	39022602.05	39022602.21	0.0268	0.0163
Mercury	102128-05-25 11:45 G	39022690.80	39022690.99	39022691.18	0.0268	0.0027
Mercury	102128-08-22 10:04 G	39022779.82	39022779.92	39022780.04	0.0269	0.0219
Venus	102131-05-29 16:18 G	39023790.09	39023790.18	39023790.29	0.0281	0.0245
Venus	102132-01-14 01:40 G	39024019.36	39024019.57	39024019.77	0.0284	0.0034
Earth	102134-11-24 12:42 G	39025064.83	39025065.03	39025065.24	0.0297	0.0153
Moon	102134-11-24 15:21 G	39025064.94	39025065.14	39025065.35	0.0297	0.0149 *
Earth	102135-12-09 02:09 G	39025444.39	39025444.59	39025444.80	0.0300	0.0156

Moon	102135-12-09 05:59 G	39025444.54	39025444.75	39025444.95	0.0300	0.0164 *
Mars	102139-06-10 08:38 G	39026723.57	39026723.86	39026724.15	0.0301	0.0028
Mercury	102141-07-10 01:54 G	39027484.52	39027484.58	39027484.64	0.0295	0.0257
Mercury	102141-10-06 13:40 G	39027572.95	39027573.07	39027573.19	0.0294	0.0091
Mercury	102142-01-03 01:26 G	39027661.43	39027661.56	39027661.68	0.0293	0.0073
Mercury	102142-04-01 12:57 G	39027749.97	39027750.04	39027750.12	0.0292	0.0235
Venus	102144-08-18 19:54 G	39028620.32	39028620.33	39028620.35	0.0281	0.0280
Venus	102145-04-05 12:42 G	39028849.81	39028850.03	39028850.25	0.0278	0.0006
Earth	102148-05-23 14:52 G	39029993.96	39029994.12	39029994.31	0.0266	0.0190
Moon	102148-05-23 18:28 G	39029994.10	39029994.27	39029994.46	0.0266	0.0180 *
Earth	102149-06-04 15:06 G	39030370.88	39030371.13	39030371.38	0.0263	0.0027
Moon	102149-06-04 16:04 G	39030370.91	39030371.17	39030371.43	0.0263	0.0022 *
Moon	102150-06-16 04:47 G	39030747.58	39030747.70	39030747.85	0.0261	0.0218
Earth	102150-06-16 08:38 G	39030747.76	39030747.86	39030747.98	0.0261	0.0234 *
Mercury	102157-07-15 11:30 G	39033333.87	39033333.98	39033334.08	0.0268	0.0223
Mercury	102157-10-12 09:50 G	39033422.72	39033422.91	39033423.10	0.0269	0.0034
Mercury	102158-01-09 08:09 G	39033511.69	39033511.84	39033512.00	0.0270	0.0158
Venus	102160-12-08 20:09 G	39034576.21	39034576.34	39034576.48	0.0282	0.0210
Venus	102161-07-26 05:45 G	39034805.54	39034805.74	39034805.94	0.0285	0.0072
Moon	102163-11-18 09:21 G	39035650.82	39035650.89	39035650.97	0.0295	0.0280
Earth	102163-11-18 12:28 G	39035650.98	39035651.02	39035651.10	0.0295	0.0286
Moon	102164-12-01 18:42 G	39036030.05	39036030.28	39036030.52	0.0299	0.0023
Earth	102164-12-01 22:18 G	39036030.19	39036030.43	39036030.67	0.0299	0.0014 *
Mercury	102171-02-23 15:50 G	39038305.05	39038305.16	39038305.28	0.0294	0.0138
Mercury	102171-05-23 03:50 G	39038393.53	39038393.66	39038393.78	0.0293	0.0029
Mercury	102171-08-19 15:21 G	39038482.04	39038482.14	39038482.24	0.0292	0.0190
Venus	102174-03-01 01:40 G	39039406.47	39039406.57	39039406.70	0.0280	0.0238
Venus	102174-10-16 18:28 G	39039636.06	39039636.27	39039636.48	0.0278	0.0047
Moon	102178-05-30 17:45 G	39040958.01	39040958.24	39040958.48	0.0264	0.0069
Earth	102178-05-30 19:26 G	39040958.07	39040958.31	39040958.55	0.0264	0.0070 *

Earth	102179-06-11 15:50 G	39041334.95	39041335.16	39041335.37	0.0262	0.0141
Moon	102179-06-11 19:11 G	39041335.09	39041335.30	39041335.52	0.0262	0.0128 *
Mercury	102187-03-01 09:21 G	39044154.71	39044154.89	39044155.07	0.0268	0.0082
Mercury	102187-05-29 07:40 G	39044243.65	39044243.82	39044244.00	0.0269	0.0109
Venus	102190-06-21 01:40 G	39045362.41	39045362.57	39045362.75	0.0282	0.0168
Venus	102191-02-05 11:30 G	39045591.79	39045591.98	39045592.17	0.0285	0.0115
Earth	102193-11-25 20:38 G	39046616.14	39046616.36	39046616.58	0.0297	0.0125
Moon	102193-11-25 23:45 G	39046616.27	39046616.49	39046616.72	0.0297	0.0117 *
Earth	102194-12-10 10:04 G	39046995.74	39046995.92	39046996.12	0.0300	0.0184
Moon	102194-12-10 11:02 G	39046995.77	39046995.96	39046996.15	0.0300	0.0193 *
Mercury	102200-07-13 17:30 G	39049037.14	39049037.23	39049037.33	0.0295	0.0195
Mercury	102200-10-10 05:30 G	39049125.60	39049125.73	39049125.85	0.0294	0.0030
Mercury	102201-01-06 17:02 G	39049214.10	39049214.21	39049214.33	0.0293	0.0135
Venus	102203-09-12 05:02 G	39050192.56	39050192.71	39050192.86	0.0280	0.0205
Venus	102204-04-28 21:06 G	39050422.17	39050422.38	39050422.59	0.0277	0.0079
Earth	102207-05-26 16:47 G	39051545.02	39051545.20	39051545.40	0.0266	0.0170
Moon	102207-05-26 18:42 G	39051545.09	39051545.28	39051545.49	0.0266	0.0164 *
Moon	102208-06-06 13:40 G	39051921.82	39051922.07	39051922.33	0.0263	0.0037
Earth	102208-06-06 16:47 G	39051921.96	39051922.20	39051922.45	0.0263	0.0046 *
Moon	102209-06-18 08:52 G	39052298.78	39052298.87	39052298.98	0.0261	0.0237
Earth	102209-06-18 10:33 G	39052298.89	39052298.94	39052299.02	0.0261	0.0252 *
Mercury	102216-07-19 07:54 G	39054886.67	39054886.83	39054887.00	0.0268	0.0137
Mercury	102216-10-16 06:28 G	39054975.58	39054975.77	39054975.96	0.0269	0.0054
Mercury	102217-01-13 05:02 G	39055064.64	39055064.71	39055064.79	0.0270	0.0246
Venus	102220-01-02 06:42 G	39056148.60	39056148.78	39056148.97	0.0283	0.0129
Venus	102220-08-18 16:47 G	39056378.03	39056378.20	39056378.38	0.0286	0.0157
Moon	102222-11-20 19:54 G	39057202.22	39057202.33	39057202.46	0.0296	0.0250
Earth	102222-11-20 22:47 G	39057202.33	39057202.45	39057202.57	0.0296	0.0257 *
Earth	102223-12-05 08:38 G	39057581.62	39057581.86	39057582.09	0.0299	0.0044
Moon	102223-12-05 08:38 G	39057581.63	39057581.86	39057582.09	0.0299	0.0055 *

Mars	102227-11-05 04:47 G	39059012.45	39059012.70	39059012.97	0.0301	0.0128
Mercury	102229-11-30 20:09 G	39059769.27	39059769.34	39059769.42	0.0294	0.0237
Mercury	102230-02-27 08:09 G	39059857.71	39059857.84	39059857.96	0.0293	0.0072
Mercury	102230-05-26 19:40 G	39059946.20	39059946.32	39059946.45	0.0292	0.0093
Mercury	102230-08-23 07:11 G	39060034.75	39060034.80	39060034.87	0.0291	0.0255
Venus	102233-03-24 11:45 G	39060978.82	39060978.99	39060979.18	0.0280	0.0160
Venus	102233-11-09 03:50 G	39061208.47	39061208.66	39061208.86	0.0277	0.0123
Moon	102236-05-20 17:45 G	39062132.20	39062132.24	39062132.30	0.0267	0.0260
Earth	102237-06-01 22:47 G	39062509.21	39062509.45	39062509.70	0.0264	0.0050
Moon	102237-06-02 01:26 G	39062509.32	39062509.56	39062509.80	0.0264	0.0052 *
Earth	102238-06-13 18:57 G	39062886.11	39062886.29	39062886.50	0.0262	0.0162
Moon	102238-06-13 21:35 G	39062886.20	39062886.40	39062886.62	0.0262	0.0148 *
Mercury	102245-12-06 08:09 G	39065618.70	39065618.84	39065618.98	0.0268	0.0180
Mercury	102246-03-05 06:42 G	39065707.58	39065707.78	39065707.97	0.0269	0.0011
Mercury	102246-06-02 05:02 G	39065796.59	39065796.71	39065796.84	0.0269	0.0202
Venus	102249-07-14 13:54 G	39066934.88	39066935.08	39066935.28	0.0283	0.0084
Venus	102250-02-28 23:59 G	39067164.35	39067164.50	39067164.64	0.0285	0.0203
Moon	102252-11-28 08:09 G	39068167.60	39068167.84	39068168.08	0.0297	0.0082
Earth	102252-11-28 09:21 G	39068167.66	39068167.89	39068168.12	0.0297	0.0093 *
Moon	102253-12-12 19:54 G	39068547.18	39068547.33	39068547.49	0.0300	0.0229
Earth	102253-12-12 23:16 G	39068547.31	39068547.47	39068547.65	0.0300	0.0215 *
Mercury	102259-04-19 22:18 G	39070501.41	39070501.43	39070501.46	0.0295	0.0288
Mercury	102259-07-17 10:18 G	39070589.81	39070589.93	39070590.04	0.0294	0.0121
Mercury	102259-10-13 22:04 G	39070678.29	39070678.42	39070678.54	0.0293	0.0044
Mercury	102260-01-10 09:35 G	39070766.81	39070766.90	39070766.99	0.0292	0.0206
Venus	102262-10-04 16:47 G	39071765.01	39071765.20	39071765.39	0.0280	0.0123
Venus	102263-05-22 08:09 G	39071994.67	39071994.84	39071995.02	0.0277	0.0159
Moon	102266-05-27 19:26 G	39073096.11	39073096.31	39073096.53	0.0266	0.0147
Earth	102266-05-27 22:33 G	39073096.24	39073096.44	39073096.65	0.0266	0.0148 *
Moon	102267-06-08 19:11 G	39073473.07	39073473.30	39073473.54	0.0263	0.0059

Earth	102267-06-08 22:04 G	39073473.19	39073473.42	39073473.67	0.0263	0.0068	*
Moon	102268-06-19 18:28 G	39073850.25	39073850.27	39073850.30	0.0261	0.0259	
Mercury	102275-04-25 07:11 G	39076350.72	39076350.80	39076350.90	0.0268	0.0232	
Mercury	102275-07-23 05:45 G	39076439.55	39076439.74	39076439.93	0.0269	0.0042	
Mercury	102275-10-20 04:18 G	39076528.52	39076528.68	39076528.84	0.0270	0.0150	
Venus	102279-01-24 19:40 G	39077721.12	39077721.32	39077721.53	0.0284	0.0042	
Venus	102279-09-11 06:14 G	39077950.66	39077950.76	39077950.87	0.0286	0.0247	
Earth	102281-11-22 12:57 G	39078753.89	39078754.04	39078754.21	0.0296	0.0224	
Moon	102281-11-22 14:23 G	39078753.95	39078754.10	39078754.27	0.0296	0.0216	*
Earth	102282-12-06 23:45 G	39079133.25	39079133.49	39079133.72	0.0299	0.0078	
Moon	102282-12-07 03:21 G	39079133.41	39079133.64	39079133.87	0.0299	0.0092	*
Mercury	102288-12-03 13:11 G	39081321.94	39081322.05	39081322.16	0.0294	0.0159	
Mercury	102289-03-02 00:57 G	39081410.41	39081410.54	39081410.67	0.0293	0.0007	
Mercury	102289-05-29 12:42 G	39081498.92	39081499.03	39081499.13	0.0292	0.0169	
Venus	102292-04-16 00:57 G	39082551.33	39082551.54	39082551.75	0.0279	0.0075	
Venus	102292-12-01 16:04 G	39082781.03	39082781.17	39082781.32	0.0276	0.0204	
Earth	102295-05-23 02:52 G	39083683.53	39083683.62	39083683.72	0.0267	0.0244	
Moon	102295-05-23 05:30 G	39083683.63	39083683.73	39083683.85	0.0267	0.0239	*
Earth	102296-06-03 05:45 G	39084060.49	39084060.74	39084060.99	0.0264	0.0026	
Moon	102296-06-03 08:52 G	39084060.62	39084060.87	39084061.13	0.0264	0.0032	*
Moon	102297-06-15 00:14 G	39084437.32	39084437.51	39084437.71	0.0262	0.0169	
Earth	102297-06-15 01:40 G	39084437.41	39084437.57	39084437.76	0.0262	0.0184	*
Mercury	102304-12-10 06:28 G	39087171.59	39087171.77	39087171.96	0.0268	0.0081	
Mercury	102305-03-09 05:02 G	39087260.54	39087260.71	39087260.89	0.0269	0.0111	
Venus	102307-12-21 19:26 G	39088278.27	39088278.31	39088278.37	0.0281	0.0271	
Venus	102308-08-07 04:18 G	39088507.48	39088507.68	39088507.89	0.0283	0.0009	
Moon	102311-12-01 23:45 G	39089719.26	39089719.49	39089719.73	0.0297	0.0043	
Earth	102311-12-02 03:35 G	39089719.41	39089719.65	39089719.88	0.0297	0.0056	*
Moon	102312-12-15 15:35 G	39090099.05	39090099.15	39090099.26	0.0300	0.0269	
Earth	102312-12-15 17:59 G	39090099.13	39090099.25	39090099.39	0.0300	0.0253	*

Mars	102316-04-01 17:30 G	39091302.10	39091302.23	39091302.38	0.0301	0.0261
Mercury	102318-04-23 15:50 G	39092054.07	39092054.16	39092054.25	0.0294	0.0203
Mercury	102318-07-21 03:35 G	39092142.52	39092142.65	39092142.78	0.0294	0.0037
Mercury	102318-10-17 15:21 G	39092231.02	39092231.14	39092231.25	0.0293	0.0126
Mercury	102319-01-14 02:52 G	39092319.60	39092319.62	39092319.64	0.0292	0.0287
Venus	102321-10-28 07:11 G	39093337.58	39093337.80	39093338.01	0.0279	0.0035
Venus	102322-06-14 21:50 G	39093567.32	39093567.41	39093567.52	0.0276	0.0243
Moon	102325-05-30 04:18 G	39094647.48	39094647.68	39094647.91	0.0265	0.0126
Earth	102325-05-30 07:26 G	39094647.60	39094647.81	39094648.04	0.0265	0.0122 *
Earth	102326-06-11 06:28 G	39095024.54	39095024.77	39095025.01	0.0263	0.0092
Moon	102326-06-11 07:54 G	39095024.60	39095024.83	39095025.06	0.0263	0.0080 *
Mercury	102334-04-29 05:45 G	39097903.58	39097903.74	39097903.92	0.0268	0.0131
Mercury	102334-07-27 04:18 G	39097992.50	39097992.68	39097992.87	0.0269	0.0062
Mercury	102334-10-24 03:06 G	39098081.57	39098081.63	39098081.69	0.0270	0.0255
Venus	102337-07-03 01:26 G	39099064.46	39099064.56	39099064.69	0.0281	0.0231
Venus	102338-02-17 10:33 G	39099293.74	39099293.94	39099294.15	0.0284	0.0051
Earth	102340-11-25 07:11 G	39100305.62	39100305.80	39100305.99	0.0296	0.0187
Moon	102340-11-25 10:33 G	39100305.76	39100305.94	39100306.14	0.0296	0.0179 *
Earth	102341-12-09 18:28 G	39100685.05	39100685.27	39100685.50	0.0300	0.0116
Moon	102341-12-09 20:38 G	39100685.14	39100685.36	39100685.59	0.0300	0.0130 *
Mercury	102347-09-10 18:57 G	39102786.22	39102786.29	39102786.36	0.0294	0.0239
Mercury	102347-12-08 06:42 G	39102874.66	39102874.78	39102874.91	0.0293	0.0073
Mercury	102348-03-05 18:28 G	39102963.15	39102963.27	39102963.39	0.0292	0.0091
Mercury	102348-06-02 05:59 G	39103051.69	39103051.75	39103051.82	0.0291	0.0253
Venus	102350-09-22 22:47 G	39103894.42	39103894.45	39103894.51	0.0281	0.0274
Venus	102351-05-10 16:04 G	39104123.95	39104124.17	39104124.38	0.0278	0.0014
Earth	102354-05-25 13:26 G	39105234.92	39105235.06	39105235.21	0.0267	0.0217
Moon	102354-05-25 16:33 G	39105235.05	39105235.19	39105235.35	0.0267	0.0212 *
Moon	102355-06-06 14:09 G	39105611.83	39105612.09	39105612.35	0.0264	0.0009
Earth	102355-06-06 15:35 G	39105611.90	39105612.15	39105612.40	0.0264	0.0001 *

Moon	102356-06-17 07:54 G	39105988.66	39105988.83	39105988.99	0.0262	0.0193
Earth	102356-06-17 11:16 G	39105988.83	39105988.97	39105989.13	0.0262	0.0209 *
Mars	102360-07-24 07:26 G	39107486.58	39107486.81	39107487.05	0.0261	0.0162
Mercury	102363-09-16 06:42 G	39108635.64	39108635.78	39108635.94	0.0268	0.0168
Mercury	102363-12-14 05:16 G	39108724.53	39108724.72	39108724.92	0.0269	0.0025
Mercury	102364-03-12 03:50 G	39108813.56	39108813.66	39108813.78	0.0270	0.0217
Venus	102367-01-13 10:33 G	39109850.79	39109850.94	39109851.10	0.0282	0.0181
Venus	102367-08-30 19:54 G	39110080.14	39110080.33	39110080.53	0.0284	0.0103
Moon	102370-12-03 22:18 G	39111271.19	39111271.43	39111271.66	0.0298	0.0006
Earth	102370-12-03 23:59 G	39111271.26	39111271.50	39111271.74	0.0298	0.0015 *
Earth	102371-12-18 15:21 G	39111651.10	39111651.14	39111651.20	0.0300	0.0293
Mercury	102377-01-27 21:49 G	39113518.38	39113518.41	39113518.46	0.0295	0.0278
Mercury	102377-04-26 09:49 G	39113606.79	39113606.91	39113607.03	0.0294	0.0111
Mercury	102377-07-23 21:35 G	39113695.27	39113695.40	39113695.53	0.0293	0.0053
Mercury	102377-10-20 09:06 G	39113783.80	39113783.88	39113783.97	0.0292	0.0215
Venus	102380-04-04 06:57 G	39114680.68	39114680.79	39114680.92	0.0281	0.0229
Venus	102380-11-19 23:30 G	39114910.27	39114910.48	39114910.70	0.0278	0.0058
Earth	102384-05-31 19:11 G	39116199.07	39116199.30	39116199.54	0.0265	0.0094
Moon	102384-05-31 20:23 G	39116199.13	39116199.35	39116199.58	0.0265	0.0099 *
Earth	102385-06-12 17:16 G	39116576.01	39116576.22	39116576.45	0.0263	0.0119
Moon	102385-06-12 21:21 G	39116576.16	39116576.39	39116576.62	0.0263	0.0104 *
Mercury	102393-02-02 06:13 G	39119367.66	39119367.76	39119367.89	0.0268	0.0215
Mercury	102393-05-02 05:01 G	39119456.52	39119456.71	39119456.90	0.0269	0.0025
Mercury	102393-07-30 03:21 G	39119545.50	39119545.64	39119545.80	0.0270	0.0169
Venus	102396-07-25 17:01 G	39120637.03	39120637.21	39120637.39	0.0282	0.0138
Venus	102397-03-12 02:37 G	39120866.44	39120866.61	39120866.79	0.0285	0.0148
Earth	102399-11-28 03:49 G	39121857.46	39121857.66	39121857.88	0.0297	0.0148
Moon	102399-11-28 05:45 G	39121857.52	39121857.74	39121857.96	0.0297	0.0139 *
Moon	102400-12-11 14:23 G	39122236.90	39122237.10	39122237.31	0.0300	0.0171
Earth	102400-12-11 16:18 G	39122236.98	39122237.18	39122237.39	0.0300	0.0157 *

Mercury	102406-09-13 12:57 G	39124338.93	39124339.04	39124339.16	0.0294	0.0146
Mercury	102406-12-11 00:42 G	39124427.41	39124427.53	39124427.66	0.0293	0.0022
Mercury	102407-03-09 12:28 G	39124515.92	39124516.02	39124516.12	0.0292	0.0182
Venus	102409-10-15 16:18 G	39125467.02	39125467.18	39125467.35	0.0280	0.0179
Venus	102410-06-02 08:37 G	39125696.66	39125696.86	39125697.06	0.0277	0.0106
Moon	102413-05-27 01:11 G	39126786.38	39126786.55	39126786.75	0.0266	0.0185
Earth	102413-05-27 01:54 G	39126786.41	39126786.58	39126786.76	0.0266	0.0187 *
Moon	102414-06-07 23:16 G	39127163.23	39127163.47	39127163.72	0.0264	0.0016
Earth	102414-06-08 03:06 G	39127163.38	39127163.63	39127163.88	0.0264	0.0029 *
Moon	102415-06-19 21:49 G	39127540.30	39127540.41	39127540.55	0.0262	0.0221
Earth	102415-06-19 22:18 G	39127540.33	39127540.43	39127540.54	0.0262	0.0235 *
Mercury	102422-06-22 07:25 G	39130099.75	39130099.81	39130099.88	0.0268	0.0251
Mercury	102422-09-19 05:59 G	39130188.56	39130188.75	39130188.94	0.0269	0.0061
Mercury	102422-12-17 04:33 G	39130277.52	39130277.69	39130277.86	0.0270	0.0131
Venus	102426-02-05 02:09 G	39131423.40	39131423.59	39131423.79	0.0283	0.0088
Venus	102426-09-22 12:13 G	39131652.87	39131653.01	39131653.16	0.0285	0.0200
Moon	102428-11-21 11:45 G	39132443.90	39132443.99	39132444.10	0.0295	0.0263
Earth	102428-11-21 13:11 G	39132443.96	39132444.05	39132444.16	0.0295	0.0269 *
Earth	102429-12-05 21:35 G	39132823.16	39132823.40	39132823.64	0.0298	0.0026
Moon	102429-12-05 23:30 G	39132823.25	39132823.48	39132823.71	0.0298	0.0039 *
Mercury	102436-01-31 16:18 G	39135071.08	39135071.18	39135071.28	0.0294	0.0182
Mercury	102436-04-29 04:04 G	39135159.54	39135159.67	39135159.80	0.0293	0.0017
Mercury	102436-07-26 15:35 G	39135248.04	39135248.15	39135248.27	0.0292	0.0147
Venus	102439-04-28 00:57 G	39136253.36	39136253.54	39136253.74	0.0280	0.0133
Venus	102439-12-13 16:33 G	39136483.02	39136483.19	39136483.38	0.0277	0.0151
Earth	102443-06-03 08:09 G	39137750.60	39137750.84	39137751.08	0.0265	0.0065
Moon	102443-06-03 11:45 G	39137750.75	39137750.99	39137751.23	0.0265	0.0071 *
Moon	102444-06-14 05:45 G	39138127.52	39138127.74	39138127.97	0.0262	0.0131
Earth	102444-06-14 05:30 G	39138127.53	39138127.73	39138127.94	0.0262	0.0146 *
Mars	102448-12-18 18:57 G	39139776.00	39139776.29	39139776.59	0.0261	0.0043

Mercury	102452-02-06 05:16 G	39140920.55	39140920.72	39140920.90	0.0268	0.0111
Mercury	102452-05-05 03:49 G	39141009.48	39141009.66	39141009.85	0.0269	0.0082
Venus	102455-08-18 08:09 G	39142209.63	39142209.84	39142210.04	0.0283	0.0046
Venus	102456-04-03 18:28 G	39142439.16	39142439.27	39142439.38	0.0286	0.0244
Moon	102458-11-29 21:21 G	39143409.17	39143409.39	39143409.63	0.0297	0.0097
Earth	102458-11-29 23:59 G	39143409.28	39143409.50	39143409.73	0.0297	0.0108 *
Moon	102459-12-14 09:49 G	39143788.75	39143788.91	39143789.09	0.0300	0.0213
Earth	102459-12-14 13:25 G	39143788.88	39143789.06	39143789.24	0.0300	0.0198 *
Mercury	102465-06-19 19:11 G	39145803.22	39145803.30	39145803.39	0.0294	0.0219
Mercury	102465-09-16 07:11 G	39145891.67	39145891.80	39145891.92	0.0293	0.0053
Mercury	102465-12-13 18:42 G	39145980.17	39145980.28	39145980.40	0.0292	0.0111
Mercury	102466-03-12 06:13 G	39146068.73	39146068.76	39146068.81	0.0291	0.0273
Venus	102468-11-07 10:04 G	39147039.72	39147039.92	39147040.13	0.0279	0.0083
Venus	102469-06-25 01:11 G	39147269.41	39147269.55	39147269.71	0.0276	0.0199
Moon	102472-05-28 11:16 G	39148337.77	39148337.97	39148338.18	0.0266	0.0157
Earth	102472-05-28 14:37 G	39148337.92	39148338.11	39148338.32	0.0266	0.0158 *
Moon	102473-06-09 14:09 G	39148714.86	39148715.09	39148715.33	0.0263	0.0045
Earth	102473-06-09 14:52 G	39148714.88	39148715.12	39148715.37	0.0263	0.0057 *
Earth	102474-06-21 09:21 G	39149091.89	39149091.89	39149091.90	0.0261	0.0261
Moon	102474-06-21 12:57 G	39149091.97	39149092.04	39149092.13	0.0261	0.0247
Mercury	102481-06-25 05:59 G	39151652.60	39151652.75	39151652.92	0.0269	0.0150
Mercury	102481-09-22 04:47 G	39151741.51	39151741.70	39151741.89	0.0269	0.0043
Mercury	102481-12-20 03:06 G	39151830.55	39151830.63	39151830.73	0.0270	0.0237
Venus	102484-07-13 08:09 G	39152766.82	39152766.84	39152766.89	0.0281	0.0276
Venus	102485-02-27 17:01 G	39152996.01	39152996.21	39152996.42	0.0284	0.0005
Earth	102487-11-24 08:37 G	39153995.72	39153995.86	39153996.02	0.0295	0.0230
Moon	102487-11-24 11:30 G	39153995.83	39153995.98	39153996.14	0.0295	0.0221 *
Earth	102488-12-07 18:13 G	39154375.03	39154375.26	39154375.50	0.0299	0.0068
Moon	102488-12-07 22:04 G	39154375.18	39154375.42	39154375.65	0.0299	0.0081 *
Mercury	102494-11-06 22:33 G	39156535.38	39156535.44	39156535.51	0.0295	0.0253

Mercury	102495-02-03 10:18 G	39156623.81	39156623.93	39156624.06	0.0294	0.0088
Mercury	102495-05-02 22:04 G	39156712.30	39156712.42	39156712.55	0.0293	0.0078
Mercury	102495-07-30 09:49 G	39156800.84	39156800.91	39156800.98	0.0292	0.0239
Venus	102498-05-20 18:57 G	39157826.08	39157826.29	39157826.51	0.0279	0.0036
Venus	102499-01-05 09:49 G	39158055.82	39158055.91	39158056.02	0.0276	0.0244
Earth	102501-05-24 18:13 G	39158925.19	39158925.26	39158925.34	0.0267	0.0252
Moon	102501-05-24 21:49 G	39158925.33	39158925.41	39158925.51	0.0267	0.0246 *
Earth	102502-06-05 20:52 G	39159302.12	39159302.37	39159302.62	0.0264	0.0035
Moon	102502-06-05 22:18 G	39159302.18	39159302.43	39159302.69	0.0264	0.0042 *
Moon	102503-06-17 13:40 G	39159678.87	39159679.07	39159679.27	0.0262	0.0158
Earth	102503-06-17 17:01 G	39159679.04	39159679.21	39159679.41	0.0262	0.0174 *
Mercury	102510-11-13 05:01 G	39162384.60	39162384.71	39162384.85	0.0268	0.0200
Mercury	102511-02-10 03:49 G	39162473.46	39162473.66	39162473.85	0.0269	0.0010
Mercury	102511-05-10 02:09 G	39162562.46	39162562.59	39162562.74	0.0270	0.0184
Venus	102514-01-24 12:57 G	39163552.94	39163553.04	39163553.16	0.0281	0.0237
Venus	102514-09-10 22:04 G	39163782.22	39163782.42	39163782.62	0.0284	0.0045
Moon	102517-12-02 14:23 G	39164960.87	39164961.10	39164961.34	0.0298	0.0056
Earth	102517-12-02 17:59 G	39164961.01	39164961.25	39164961.48	0.0298	0.0070 *
Moon	102518-12-17 07:11 G	39165340.69	39165340.80	39165340.94	0.0301	0.0253
Earth	102518-12-17 08:23 G	39165340.71	39165340.85	39165341.00	0.0301	0.0237 *
Mercury	102524-06-23 13:11 G	39167355.93	39167356.05	39167356.16	0.0294	0.0129
Mercury	102524-09-20 00:57 G	39167444.41	39167444.54	39167444.67	0.0293	0.0036
Mercury	102524-12-17 12:28 G	39167532.93	39167533.02	39167533.12	0.0292	0.0199
Venus	102527-04-16 09:21 G	39168382.88	39168382.89	39168382.92	0.0281	0.0280
Venus	102527-12-02 02:37 G	39168612.40	39168612.61	39168612.83	0.0278	0.0011
Moon	102531-06-01 00:42 G	39169889.32	39169889.53	39169889.74	0.0265	0.0130
Earth	102531-06-01 02:37 G	39169889.40	39169889.61	39169889.83	0.0265	0.0128 *
Earth	102532-06-12 01:40 G	39170266.34	39170266.57	39170266.81	0.0263	0.0085
Moon	102532-06-12 04:47 G	39170266.46	39170266.70	39170266.93	0.0263	0.0072 *
Mars	102537-05-16 09:49 G	39172065.64	39172065.91	39172066.20	0.0261	0.0077

Mercury	102540-04-01 05:30 G	39173116.66	39173116.73	39173116.82	0.0268	0.0242
Mercury	102540-06-29 04:04 G	39173205.48	39173205.67	39173205.86	0.0269	0.0052
Mercury	102540-09-26 02:23 G	39173294.45	39173294.60	39173294.77	0.0270	0.0141
Venus	102543-08-06 20:37 G	39174339.22	39174339.36	39174339.52	0.0282	0.0192
Venus	102544-03-23 05:59 G	39174568.56	39174568.75	39174568.95	0.0284	0.0093
Earth	102546-11-26 23:59 G	39175547.33	39175547.50	39175547.69	0.0296	0.0195
Moon	102546-11-27 03:06 G	39175547.45	39175547.63	39175547.83	0.0296	0.0182 *
Earth	102547-12-11 11:01 G	39175926.73	39175926.96	39175927.18	0.0299	0.0105
Moon	102547-12-11 11:30 G	39175926.75	39175926.98	39175927.21	0.0299	0.0120 *
Mercury	102553-11-10 16:18 G	39178088.08	39178088.18	39178088.29	0.0294	0.0165
Mercury	102554-02-07 04:04 G	39178176.54	39178176.67	39178176.80	0.0293	0.0008
Mercury	102554-05-06 15:49 G	39178265.05	39178265.16	39178265.27	0.0292	0.0164
Venus	102556-10-26 18:13 G	39179169.15	39179169.26	39179169.40	0.0281	0.0232
Venus	102557-06-13 11:16 G	39179398.76	39179398.97	39179399.18	0.0278	0.0057
Earth	102560-05-26 06:13 G	39180476.64	39180476.76	39180476.91	0.0267	0.0224
Moon	102560-05-26 08:09 G	39180476.71	39180476.84	39180477.00	0.0267	0.0221 *
Moon	102561-06-07 05:01 G	39180853.46	39180853.71	39180853.97	0.0264	0.0018
Earth	102561-06-07 07:54 G	39180853.58	39180853.83	39180854.08	0.0264	0.0008 *
Moon	102562-06-19 01:11 G	39181230.38	39181230.55	39181230.72	0.0262	0.0186
Earth	102562-06-19 03:06 G	39181230.48	39181230.63	39181230.80	0.0262	0.0200 *
Mercury	102569-11-16 02:37 G	39183937.44	39183937.61	39183937.79	0.0268	0.0107
Mercury	102570-02-13 01:11 G	39184026.37	39184026.55	39184026.73	0.0269	0.0084
Venus	102573-02-16 00:28 G	39185125.35	39185125.52	39185125.70	0.0282	0.0155
Venus	102573-10-03 09:49 G	39185354.73	39185354.91	39185355.10	0.0285	0.0131
Earth	102576-12-04 07:25 G	39186512.57	39186512.81	39186513.05	0.0298	0.0035
Moon	102576-12-04 08:09 G	39186512.60	39186512.84	39186513.07	0.0298	0.0020 *
Earth	102577-12-18 23:01 G	39186892.37	39186892.46	39186892.57	0.0301	0.0272
Moon	102577-12-19 01:54 G	39186892.53	39186892.58	39186892.65	0.0301	0.0291 *
Mercury	102583-03-30 18:42 G	39188820.19	39188820.28	39188820.37	0.0295	0.0212
Mercury	102583-06-27 06:28 G	39188908.64	39188908.77	39188908.90	0.0294	0.0046

Mercury	102583-09-23 18:13 G	39188997.14	39188997.26	39188997.38	0.0293	0.0118
Mercury	102583-12-21 05:45 G	39189085.71	39189085.74	39189085.78	0.0292	0.0280
Venus	102586-05-09 00:57 G	39189955.39	39189955.54	39189955.70	0.0280	0.0188
Venus	102586-12-24 17:30 G	39190185.03	39190185.23	39190185.44	0.0277	0.0099
Jupiter	102588-03-11 06:13 G	39190627.29	39190627.76	39190628.24	0.0272	0.0018
Earth	102590-06-02 11:59 G	39191440.78	39191441.00	39191441.24	0.0265	0.0101
Moon	102590-06-02 14:52 G	39191440.90	39191441.12	39191441.35	0.0265	0.0107 *
Earth	102591-06-14 10:33 G	39191817.71	39191817.94	39191818.16	0.0262	0.0111
Moon	102591-06-14 13:11 G	39191817.82	39191818.05	39191818.30	0.0262	0.0098 *
Mercury	102599-04-05 02:23 G	39194669.45	39194669.60	39194669.76	0.0268	0.0154
Mercury	102599-07-03 00:57 G	39194758.35	39194758.54	39194758.73	0.0269	0.0037
Mercury	102599-09-29 23:30 G	39194847.38	39194847.48	39194847.58	0.0270	0.0230
Venus	102602-08-30 07:11 G	39195911.61	39195911.80	39195911.99	0.0282	0.0111
Venus	102603-04-16 16:47 G	39196141.04	39196141.20	39196141.37	0.0285	0.0176
Moon	102605-11-29 10:04 G	39197098.71	39197098.92	39197099.14	0.0296	0.0148
Earth	102605-11-29 11:30 G	39197098.78	39197098.98	39197099.18	0.0296	0.0163 *
Moon	102606-12-13 19:40 G	39197478.12	39197478.32	39197478.53	0.0299	0.0157
Earth	102606-12-13 23:16 G	39197478.26	39197478.47	39197478.69	0.0299	0.0140 *
Mercury	102612-08-17 21:35 G	39199552.33	39199552.40	39199552.46	0.0295	0.0252
Mercury	102612-11-14 09:21 G	39199640.77	39199640.89	39199641.01	0.0294	0.0085
Mercury	102613-02-10 21:06 G	39199729.26	39199729.38	39199729.50	0.0293	0.0080
Mercury	102613-05-10 08:37 G	39199817.80	39199817.86	39199817.94	0.0292	0.0242
Venus	102615-11-20 08:52 G	39200741.69	39200741.87	39200742.06	0.0280	0.0142
Venus	102616-07-07 00:57 G	39200971.36	39200971.54	39200971.73	0.0277	0.0143
Moon	102619-05-29 12:42 G	39202027.86	39202028.03	39202028.20	0.0266	0.0200
Earth	102619-05-29 15:35 G	39202027.99	39202028.15	39202028.32	0.0266	0.0197 *
Moon	102620-06-09 12:57 G	39202404.79	39202405.04	39202405.28	0.0263	0.0006
Earth	102620-06-09 16:04 G	39202404.92	39202405.17	39202405.42	0.0263	0.0018 *
Earth	102621-06-21 10:33 G	39202781.82	39202781.94	39202782.07	0.0261	0.0224
Moon	102621-06-21 12:13 G	39202781.88	39202782.01	39202782.16	0.0261	0.0212 *

Mars	102625-10-11 08:37 G	39204354.65	39204354.86	39204355.10	0.0261	0.0172
Mercury	102628-08-23 00:42 G	39205401.42	39205401.53	39205401.65	0.0267	0.0211
Mercury	102628-11-19 23:01 G	39205490.27	39205490.46	39205490.66	0.0268	0.0022
Mercury	102629-02-16 21:35 G	39205579.25	39205579.40	39205579.55	0.0269	0.0170
Venus	102632-03-11 09:35 G	39206697.71	39206697.90	39206698.11	0.0282	0.0077
Venus	102632-10-26 19:25 G	39206927.18	39206927.31	39206927.45	0.0285	0.0212
Moon	102634-11-23 09:21 G	39207684.85	39207684.89	39207684.95	0.0295	0.0286
Earth	102635-12-07 15:49 G	39208063.92	39208064.16	39208064.40	0.0299	0.0006
Moon	102635-12-07 19:25 G	39208064.07	39208064.31	39208064.55	0.0299	0.0013 *
Mars	102639-09-25 13:25 G	39209451.85	39209452.06	39209452.26	0.0302	0.0211
Mercury	102642-04-03 11:01 G	39210372.85	39210372.96	39210373.08	0.0294	0.0140
Mercury	102642-06-30 23:01 G	39210461.33	39210461.46	39210461.58	0.0293	0.0028
Mercury	102642-09-27 10:33 G	39210549.85	39210549.94	39210550.04	0.0292	0.0190
Venus	102645-06-01 13:25 G	39211527.86	39211528.06	39211528.27	0.0280	0.0104
Venus	102646-01-17 05:30 G	39211757.57	39211757.73	39211757.90	0.0277	0.0181
Earth	102649-06-04 18:13 G	39212992.03	39212992.26	39212992.51	0.0264	0.0077
Moon	102649-06-04 21:21 G	39212992.16	39212992.39	39212992.64	0.0264	0.0087 *
Moon	102650-06-16 14:09 G	39213368.87	39213369.09	39213369.33	0.0262	0.0119
Earth	102650-06-16 15:49 G	39213368.95	39213369.16	39213369.38	0.0262	0.0134 *
Mercury	102658-01-09 23:45 G	39216133.46	39216133.49	39216133.52	0.0268	0.0264
Mercury	102658-04-08 22:04 G	39216222.24	39216222.42	39216222.61	0.0268	0.0075
Mercury	102658-07-06 20:23 G	39216311.18	39216311.35	39216311.53	0.0269	0.0117
Venus	102661-09-21 14:37 G	39217483.91	39217484.11	39217484.32	0.0283	0.0037
Venus	102662-05-09 00:42 G	39217713.45	39217713.53	39217713.63	0.0286	0.0254
Moon	102664-11-30 13:25 G	39218649.84	39218650.06	39218650.28	0.0297	0.0120
Earth	102664-11-30 17:01 G	39218650.00	39218650.21	39218650.42	0.0297	0.0136 *
Moon	102665-12-15 03:49 G	39219029.48	39219029.66	39219029.85	0.0300	0.0186
Earth	102665-12-15 05:45 G	39219029.54	39219029.74	39219029.94	0.0300	0.0168 *
Mercury	102671-08-21 13:40 G	39221104.97	39221105.07	39221105.17	0.0295	0.0183
Mercury	102671-11-18 01:40 G	39221193.44	39221193.57	39221193.70	0.0294	0.0016

Mercury	102672-02-14 13:25 G	39221281.95	39221282.06	39221282.17	0.0293	0.0149
Venus	102674-12-12 20:37 G	39222314.15	39222314.36	39222314.57	0.0280	0.0059
Venus	102675-07-30 12:13 G	39222543.89	39222544.01	39222544.14	0.0277	0.0224
Moon	102678-05-30 18:13 G	39223579.09	39223579.26	39223579.45	0.0266	0.0179
Earth	102678-05-30 21:21 G	39223579.20	39223579.39	39223579.58	0.0266	0.0173 *
Earth	102679-06-11 21:06 G	39223956.14	39223956.38	39223956.63	0.0263	0.0041
Moon	102679-06-11 22:33 G	39223956.20	39223956.44	39223956.68	0.0263	0.0027 *
Earth	102680-06-22 14:37 G	39224333.04	39224333.11	39224333.21	0.0261	0.0245
Moon	102680-06-22 18:28 G	39224333.16	39224333.27	39224333.39	0.0261	0.0231 *
Mercury	102687-08-26 19:54 G	39226954.17	39226954.33	39226954.50	0.0267	0.0135
Mercury	102687-11-23 18:13 G	39227043.08	39227043.26	39227043.45	0.0268	0.0055
Mercury	102688-02-20 16:47 G	39227132.13	39227132.20	39227132.28	0.0269	0.0247
Venus	102691-04-03 16:33 G	39228269.98	39228270.19	39228270.39	0.0283	0.0007
Earth	102693-11-24 10:47 G	39229235.87	39229235.95	39229236.05	0.0295	0.0274
Moon	102693-11-24 14:37 G	39229236.00	39229236.11	39229236.22	0.0295	0.0259 *
Earth	102694-12-08 19:25 G	39229615.07	39229615.31	39229615.55	0.0299	0.0021
Moon	102694-12-08 20:37 G	39229615.11	39229615.36	39229615.61	0.0299	0.0037 *
Mercury	102701-01-08 15:06 G	39231837.06	39231837.13	39231837.20	0.0295	0.0245
Mercury	102701-04-07 02:52 G	39231925.50	39231925.62	39231925.75	0.0294	0.0077
Mercury	102701-07-04 14:37 G	39232013.99	39232014.11	39232014.24	0.0293	0.0089
Mercury	102701-10-01 02:23 G	39232102.54	39232102.60	39232102.66	0.0292	0.0252
Venus	102704-06-24 23:16 G	39233100.26	39233100.47	39233100.69	0.0279	0.0025
Venus	102705-02-09 14:52 G	39233330.05	39233330.12	39233330.21	0.0276	0.0257
Moon	102708-06-06 19:25 G	39234543.07	39234543.31	39234543.57	0.0264	0.0069
Earth	102708-06-06 21:21 G	39234543.15	39234543.39	39234543.63	0.0264	0.0055 *
Moon	102709-06-18 14:23 G	39234919.90	39234920.10	39234920.32	0.0262	0.0139
Earth	102709-06-18 18:13 G	39234920.06	39234920.26	39234920.46	0.0262	0.0154 *
Mars	102714-03-07 22:33 G	39236643.35	39236643.44	39236643.56	0.0261	0.0242
Mercury	102717-01-13 18:28 G	39237686.14	39237686.27	39237686.40	0.0268	0.0193
Mercury	102717-04-12 16:47 G	39237775.01	39237775.20	39237775.39	0.0268	0.0004

Mercury	102717-07-10 15:06 G	39237864.00	39237864.13	39237864.27	0.0269	0.0188
Venus	102720-02-28 12:13 G	39238826.92	39238827.01	39238827.11	0.0280	0.0245
Venus	102720-10-14 20:23 G	39239056.14	39239056.35	39239056.56	0.0283	0.0034
Moon	102723-12-03 16:47 G	39240200.99	39240201.20	39240201.43	0.0297	0.0099
Earth	102723-12-03 17:45 G	39240201.02	39240201.24	39240201.46	0.0297	0.0114 *
Earth	102724-12-17 07:11 G	39240580.61	39240580.80	39240580.98	0.0300	0.0191
Moon	102724-12-17 09:35 G	39240580.74	39240580.90	39240581.08	0.0300	0.0208 *
Mars	102728-02-19 23:59 G	39241740.24	39241740.50	39241740.76	0.0302	0.0131
Mercury	102730-05-28 17:01 G	39242569.21	39242569.21	39242569.23	0.0296	0.0294
Mercury	102730-08-25 05:16 G	39242657.60	39242657.72	39242657.83	0.0295	0.0125
Mercury	102730-11-21 17:01 G	39242746.08	39242746.21	39242746.34	0.0294	0.0042
Mercury	102731-02-18 04:33 G	39242834.61	39242834.69	39242834.79	0.0293	0.0206
Venus	102733-05-20 11:01 G	39243656.93	39243656.96	39243657.01	0.0282	0.0277
Venus	102734-01-05 05:16 G	39243886.50	39243886.72	39243886.94	0.0279	0.0017
Earth	102737-06-01 23:01 G	39245130.26	39245130.46	39245130.67	0.0266	0.0153
Moon	102737-06-01 23:59 G	39245130.32	39245130.50	39245130.71	0.0266	0.0162 *
Earth	102738-06-13 22:33 G	39245507.21	39245507.44	39245507.69	0.0263	0.0061
Moon	102738-06-14 02:23 G	39245507.36	39245507.60	39245507.85	0.0263	0.0045 *
Moon	102739-06-25 16:04 G	39245884.11	39245884.17	39245884.23	0.0261	0.0252
Mercury	102746-06-02 16:04 G	39248418.12	39248418.17	39248418.23	0.0266	0.0254
Mercury	102746-08-30 14:09 G	39248506.91	39248507.09	39248507.28	0.0267	0.0068
Mercury	102746-11-27 12:28 G	39248595.86	39248596.02	39248596.20	0.0268	0.0123
Venus	102749-09-09 12:42 G	39249612.91	39249613.03	39249613.17	0.0280	0.0215
Venus	102750-04-26 20:52 G	39249842.17	39249842.37	39249842.58	0.0283	0.0065
Moon	102752-11-26 09:21 G	39250786.76	39250786.89	39250787.05	0.0295	0.0238
Earth	102752-11-26 09:21 G	39250786.78	39250786.89	39250787.02	0.0295	0.0254 *
Moon	102753-12-10 15:06 G	39251165.89	39251166.13	39251166.37	0.0299	0.0057
Earth	102753-12-10 18:13 G	39251166.02	39251166.26	39251166.50	0.0299	0.0041 *
Mercury	102760-01-12 05:59 G	39253389.66	39253389.75	39253389.85	0.0295	0.0192
Mercury	102760-04-09 17:59 G	39253478.12	39253478.25	39253478.38	0.0294	0.0025

Mercury	102760-07-07 05:45 G	39253566.63	39253566.74	39253566.85	0.0293	0.0142
Venus	102762-11-30 12:28 G	39254442.92	39254443.02	39254443.13	0.0282	0.0246
Venus	102763-07-18 06:28 G	39254672.56	39254672.77	39254672.98	0.0279	0.0047
Moon	102766-05-27 17:01 G	39255717.16	39255717.21	39255717.29	0.0267	0.0257
Earth	102766-05-27 17:59 G	39255717.18	39255717.25	39255717.33	0.0267	0.0254 *
Moon	102767-06-08 17:45 G	39256094.00	39256094.24	39256094.49	0.0264	0.0051
Earth	102767-06-08 21:21 G	39256094.14	39256094.39	39256094.64	0.0264	0.0037 *
Earth	102768-06-19 17:45 G	39256471.06	39256471.24	39256471.43	0.0262	0.0172
Moon	102768-06-19 17:59 G	39256471.07	39256471.25	39256471.45	0.0262	0.0160 *
Mercury	102776-01-17 12:13 G	39259238.85	39259239.01	39259239.18	0.0268	0.0129
Mercury	102776-04-15 10:33 G	39259327.75	39259327.94	39259328.13	0.0268	0.0061
Mercury	102776-07-13 08:52 G	39259416.81	39259416.87	39259416.94	0.0269	0.0252
Venus	102779-03-22 15:35 G	39260399.00	39260399.15	39260399.32	0.0281	0.0182
Venus	102779-11-06 23:59 G	39260628.31	39260628.50	39260628.70	0.0284	0.0101
Earth	102782-12-04 14:37 G	39261751.88	39261752.11	39261752.34	0.0297	0.0095
Moon	102782-12-04 17:45 G	39261752.01	39261752.24	39261752.47	0.0297	0.0078 *
Earth	102783-12-19 04:04 G	39262131.51	39262131.67	39262131.86	0.0300	0.0211
Moon	102783-12-19 07:11 G	39262131.65	39262131.80	39262131.97	0.0300	0.0226 *
Mercury	102789-05-31 07:54 G	39264121.76	39264121.83	39264121.90	0.0296	0.0243
Mercury	102789-08-27 19:54 G	39264210.20	39264210.33	39264210.45	0.0295	0.0075
Mercury	102789-11-24 07:40 G	39264298.70	39264298.82	39264298.94	0.0294	0.0091
Mercury	102790-02-20 19:11 G	39264387.25	39264387.30	39264387.37	0.0293	0.0256
Venus	102792-06-11 17:45 G	39265229.09	39265229.24	39265229.39	0.0282	0.0205
Venus	102793-01-27 11:30 G	39265458.78	39265458.98	39265459.19	0.0279	0.0087
Earth	102796-06-02 22:04 G	39266681.21	39266681.42	39266681.63	0.0266	0.0136
Moon	102796-06-03 01:40 G	39266681.36	39266681.57	39266681.78	0.0266	0.0146 *
Moon	102797-06-14 21:06 G	39267058.13	39267058.38	39267058.63	0.0263	0.0063
Earth	102797-06-14 21:35 G	39267058.16	39267058.40	39267058.64	0.0263	0.0077 *
Mercury	102805-06-05 09:49 G	39269970.78	39269970.91	39269971.05	0.0266	0.0190
Mercury	102805-09-02 08:09 G	39270059.65	39270059.84	39270060.03	0.0267	0.0004

Mercury	102805-11-30 06:13 G	39270148.63	39270148.76	39270148.91	0.0268	0.0187
Venus	102808-10-01 16:18 G	39271185.01	39271185.18	39271185.36	0.0280	0.0150
Venus	102809-05-19 00:28 G	39271414.34	39271414.52	39271414.71	0.0283	0.0132
Moon	102811-11-28 01:54 G	39272337.42	39272337.58	39272337.74	0.0295	0.0219
Earth	102811-11-28 05:45 G	39272337.60	39272337.74	39272337.88	0.0295	0.0237 *
Moon	102812-12-11 11:59 G	39272716.77	39272717.00	39272717.22	0.0299	0.0074
Earth	102812-12-11 14:23 G	39272716.86	39272717.10	39272717.34	0.0299	0.0059 *
Mars	102816-07-14 02:23 G	39274027.36	39274027.60	39274027.86	0.0302	0.0145
Mercury	102819-01-14 20:23 G	39274942.24	39274942.35	39274942.46	0.0295	0.0146
Mercury	102819-04-13 08:23 G	39275030.72	39275030.85	39275030.98	0.0294	0.0022
Mercury	102819-07-10 20:09 G	39275119.24	39275119.34	39275119.44	0.0293	0.0187
Venus	102821-12-22 17:30 G	39276015.07	39276015.23	39276015.40	0.0282	0.0179
Venus	102822-08-09 11:16 G	39276244.78	39276244.97	39276245.17	0.0279	0.0114
Moon	102825-05-28 11:16 G	39277267.89	39277267.97	39277268.07	0.0267	0.0247
Earth	102825-05-28 15:06 G	39277268.03	39277268.13	39277268.25	0.0267	0.0239 *
Earth	102826-06-09 18:28 G	39277645.02	39277645.27	39277645.52	0.0264	0.0021
Moon	102826-06-09 18:28 G	39277645.03	39277645.27	39277645.51	0.0264	0.0034 *
Earth	102827-06-21 14:37 G	39278021.95	39278022.11	39278022.30	0.0262	0.0188
Moon	102827-06-21 18:28 G	39278022.10	39278022.27	39278022.47	0.0262	0.0179 *
Mercury	102834-10-23 07:25 G	39280702.76	39280702.81	39280702.87	0.0267	0.0255
Mercury	102835-01-20 05:30 G	39280791.55	39280791.73	39280791.92	0.0267	0.0069
Mercury	102835-04-19 03:49 G	39280880.49	39280880.66	39280880.83	0.0268	0.0121
Venus	102838-04-13 18:13 G	39281971.08	39281971.26	39281971.45	0.0281	0.0119
Venus	102838-11-29 02:37 G	39282200.45	39282200.61	39282200.78	0.0284	0.0165
Earth	102841-12-05 08:52 G	39283302.64	39283302.87	39283303.10	0.0297	0.0080
Moon	102841-12-05 11:01 G	39283302.72	39283302.96	39283303.21	0.0297	0.0064 *
Moon	102842-12-19 21:06 G	39283682.24	39283682.38	39283682.54	0.0300	0.0237
Earth	102842-12-19 22:33 G	39283682.29	39283682.44	39283682.60	0.0300	0.0227 *
Mercury	102848-06-02 22:04 G	39285674.33	39285674.42	39285674.52	0.0296	0.0201
Mercury	102848-08-30 10:04 G	39285762.79	39285762.92	39285763.05	0.0295	0.0032

Mercury	102848-11-26 21:49 G	39285851.30	39285851.41	39285851.53	0.0294	0.0134
Venus	102851-07-04 22:04 G	39286801.24	39286801.42	39286801.61	0.0282	0.0139
Venus	102852-02-19 15:49 G	39287030.98	39287031.16	39287031.34	0.0279	0.0153
Earth	102855-06-04 18:42 G	39288232.07	39288232.28	39288232.51	0.0266	0.0121
Moon	102855-06-04 19:25 G	39288232.09	39288232.31	39288232.54	0.0266	0.0133 *
Moon	102856-06-15 14:52 G	39288608.88	39288609.12	39288609.35	0.0263	0.0080
Earth	102856-06-15 18:28 G	39288609.04	39288609.27	39288609.50	0.0263	0.0092 *
Mercury	102864-06-08 03:06 G	39291523.47	39291523.63	39291523.81	0.0266	0.0131
Mercury	102864-09-05 01:25 G	39291612.38	39291612.56	39291612.75	0.0267	0.0058
Mercury	102864-12-02 23:30 G	39291701.42	39291701.48	39291701.56	0.0268	0.0248
Venus	102867-10-24 19:11 G	39292757.10	39292757.30	39292757.49	0.0280	0.0087
Venus	102868-06-10 03:21 G	39292986.50	39292986.64	39292986.79	0.0283	0.0196
Moon	102870-11-28 23:01 G	39293888.30	39293888.46	39293888.63	0.0295	0.0208
Earth	102870-11-28 23:45 G	39293888.35	39293888.49	39293888.66	0.0295	0.0223 *
Earth	102871-12-13 08:37 G	39294267.63	39294267.86	39294268.10	0.0299	0.0075
Moon	102871-12-13 10:47 G	39294267.72	39294267.95	39294268.17	0.0299	0.0087 *
Mercury	102877-10-20 22:33 G	39296406.40	39296406.44	39296406.49	0.0296	0.0274
Mercury	102878-01-17 10:33 G	39296494.82	39296494.94	39296495.06	0.0295	0.0105
Mercury	102878-04-15 22:33 G	39296583.31	39296583.44	39296583.56	0.0294	0.0063
Mercury	102878-07-13 10:04 G	39296671.85	39296671.92	39296672.01	0.0293	0.0229
Venus	102881-01-13 21:35 G	39297587.21	39297587.40	39297587.60	0.0282	0.0113
Venus	102881-08-31 15:06 G	39297816.97	39297817.13	39297817.30	0.0279	0.0179
Earth	102884-05-29 10:47 G	39298818.82	39298818.95	39298819.09	0.0267	0.0225
Moon	102884-05-29 10:33 G	39298818.84	39298818.94	39298819.05	0.0267	0.0238 *
Earth	102885-06-10 14:09 G	39299195.85	39299196.09	39299196.34	0.0264	0.0008
Moon	102885-06-10 17:45 G	39299195.99	39299196.24	39299196.49	0.0264	0.0021 *
Earth	102886-06-22 10:33 G	39299572.80	39299572.94	39299573.11	0.0262	0.0202
Moon	102886-06-22 11:01 G	39299572.81	39299572.96	39299573.14	0.0262	0.0198 *
Mercury	102893-10-26 00:42 G	39302255.41	39302255.53	39302255.67	0.0267	0.0196
Mercury	102894-01-22 23:01 G	39302344.26	39302344.46	39302344.65	0.0267	0.0009

Mercury	102894-04-21 21:06 G	39302433.24	39302433.38	39302433.53	0.0268	0.0182
Venus	102897-05-05 21:06 G	39303543.18	39303543.38	39303543.58	0.0281	0.0055
Venus	102897-12-21 05:30 G	39303772.62	39303772.73	39303772.86	0.0284	0.0230
Moon	102900-12-07 00:28 G	39304853.28	39304853.52	39304853.76	0.0297	0.0053
Earth	102900-12-07 03:21 G	39304853.41	39304853.64	39304853.88	0.0297	0.0065 *
Moon	102901-12-21 13:11 G	39305232.93	39305233.05	39305233.20	0.0300	0.0249
Earth	102901-12-21 17:01 G	39305233.07	39305233.21	39305233.35	0.0300	0.0241 *
Mars	102904-12-07 11:01 G	39306314.72	39306314.96	39306315.23	0.0302	0.0133
Mercury	102907-06-07 12:13 G	39307226.90	39307227.01	39307227.12	0.0295	0.0161
Mercury	102907-09-03 23:59 G	39307315.37	39307315.50	39307315.63	0.0294	0.0010
Mercury	102907-12-01 11:59 G	39307403.89	39307404.00	39307404.10	0.0294	0.0174
Venus	102910-07-28 01:40 G	39308373.36	39308373.57	39308373.78	0.0281	0.0074
Venus	102911-03-14 18:57 G	39308603.17	39308603.29	39308603.44	0.0279	0.0217
Moon	102914-06-06 10:33 G	39309782.72	39309782.94	39309783.16	0.0266	0.0123
Earth	102914-06-06 14:09 G	39309782.87	39309783.09	39309783.33	0.0266	0.0107 *
Moon	102915-06-18 13:11 G	39310159.83	39310160.05	39310160.28	0.0263	0.0099
Earth	102915-06-18 13:54 G	39310159.86	39310160.08	39310160.31	0.0263	0.0106 *
Mercury	102923-03-15 22:47 G	39312987.40	39312987.45	39312987.51	0.0266	0.0254
Mercury	102923-06-12 20:52 G	39313076.19	39313076.37	39313076.56	0.0266	0.0069
Mercury	102923-09-09 18:57 G	39313165.12	39313165.29	39313165.47	0.0267	0.0120
Venus	102926-11-16 22:18 G	39314329.22	39314329.43	39314329.64	0.0280	0.0023
Venus	102927-07-04 06:42 G	39314558.71	39314558.78	39314558.86	0.0284	0.0261
Earth	102929-11-30 18:57 G	39315439.13	39315439.29	39315439.47	0.0295	0.0207
Moon	102929-11-30 22:47 G	39315439.28	39315439.45	39315439.63	0.0295	0.0197 *
Earth	102930-12-15 03:21 G	39315818.41	39315818.64	39315818.87	0.0298	0.0090
Moon	102930-12-15 06:28 G	39315818.54	39315818.77	39315819.01	0.0298	0.0097 *
Mercury	102936-10-24 12:28 G	39317958.95	39317959.02	39317959.10	0.0296	0.0235
Mercury	102937-01-21 00:28 G	39318047.40	39318047.52	39318047.65	0.0295	0.0065
Mercury	102937-04-19 12:28 G	39318135.90	39318136.02	39318136.14	0.0294	0.0103
Mercury	102937-07-16 23:59 G	39318224.46	39318224.50	39318224.56	0.0293	0.0268

Venus	102940-02-07 00:57 G	39319159.33	39319159.54	39319159.76	0.0281	0.0049
Venus	102940-09-23 18:13 G	39319389.16	39319389.26	39319389.37	0.0279	0.0242
Earth	102943-06-01 05:30 G	39320369.59	39320369.73	39320369.89	0.0267	0.0212
Moon	102943-06-01 09:35 G	39320369.78	39320369.90	39320370.03	0.0267	0.0228 *
Earth	102944-06-12 09:35 G	39320746.65	39320746.90	39320747.15	0.0264	0.0007
Moon	102944-06-12 10:33 G	39320746.68	39320746.94	39320747.19	0.0264	0.0006 *
Moon	102945-06-24 02:37 G	39321123.48	39321123.61	39321123.75	0.0262	0.0219
Earth	102945-06-24 06:13 G	39321123.63	39321123.76	39321123.91	0.0262	0.0215 *
Mercury	102952-10-29 18:28 G	39323808.10	39323808.27	39323808.43	0.0267	0.0134
Mercury	102953-01-26 16:33 G	39323897.00	39323897.19	39323897.38	0.0267	0.0054
Mercury	102953-04-25 14:52 G	39323986.04	39323986.12	39323986.19	0.0268	0.0244
Venus	102955-10-12 17:45 G	39324886.19	39324886.24	39324886.31	0.0278	0.0265
Venus	102956-05-29 00:13 G	39325115.31	39325115.51	39325115.72	0.0281	0.0012
Moon	102959-12-08 20:23 G	39326404.12	39326404.35	39326404.58	0.0297	0.0045
Earth	102959-12-08 22:33 G	39326404.21	39326404.44	39326404.68	0.0297	0.0050 *
Earth	102960-12-22 11:59 G	39326783.88	39326784.00	39326784.12	0.0300	0.0256
Moon	102960-12-22 12:28 G	39326783.91	39326784.02	39326784.14	0.0300	0.0257 *
Mercury	102966-03-13 14:09 G	39328691.07	39328691.09	39328691.12	0.0296	0.0290
Mercury	102966-06-10 02:09 G	39328779.48	39328779.59	39328779.71	0.0295	0.0120
Mercury	102966-09-06 14:09 G	39328867.96	39328868.09	39328868.22	0.0294	0.0048
Mercury	102966-12-04 01:54 G	39328956.50	39328956.58	39328956.67	0.0293	0.0214
Venus	102969-08-19 05:16 G	39329945.51	39329945.72	39329945.94	0.0281	0.0009
Moon	102973-06-07 08:37 G	39331333.64	39331333.86	39331334.08	0.0266	0.0109
Earth	102973-06-07 09:35 G	39331333.68	39331333.90	39331334.14	0.0266	0.0094 *
Earth	102974-06-19 09:49 G	39331710.69	39331710.91	39331711.13	0.0263	0.0120
Moon	102974-06-19 12:57 G	39331710.82	39331711.04	39331711.27	0.0263	0.0115 *
Mercury	102982-03-18 16:47 G	39334540.07	39334540.20	39334540.33	0.0266	0.0190
Mercury	102982-06-15 14:52 G	39334628.93	39334629.12	39334629.31	0.0267	0.0004
Mercury	102982-09-12 12:57 G	39334717.91	39334718.04	39334718.18	0.0267	0.0185
Venus	102985-04-23 20:23 G	39335672.23	39335672.35	39335672.46	0.0278	0.0229

Venus	102985-12-09 02:37 G	39335901.41	39335901.61	39335901.82	0.0281	0.0045
Earth	102988-12-01 17:01 G	39336990.03	39336990.21	39336990.40	0.0294	0.0189
Moon	102988-12-01 18:13 G	39336990.08	39336990.26	39336990.47	0.0294	0.0185 *
Moon	102989-12-15 23:16 G	39337369.24	39337369.47	39337369.70	0.0298	0.0106
Earth	102989-12-16 00:57 G	39337369.32	39337369.54	39337369.77	0.0298	0.0108 *
Mars	102993-05-01 08:23 G	39338601.62	39338601.85	39338602.10	0.0302	0.0163
Mercury	102995-10-28 02:52 G	39339511.53	39339511.62	39339511.72	0.0296	0.0191
Mercury	102996-01-24 14:52 G	39339599.99	39339600.12	39339600.25	0.0295	0.0021
Mercury	102996-04-22 02:37 G	39339688.50	39339688.61	39339688.73	0.0294	0.0146
Venus	102999-03-01 05:01 G	39340731.50	39340731.71	39340731.93	0.0281	0.0017

104TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 104th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	103002-06-03 01:11 G	39341920.40	39341920.55	39341920.73	0.0268	0.0198		
Moon	103002-06-03 01:54 G	39341920.44	39341920.58	39341920.75	0.0268	0.0213 *		
Moon	103003-06-15 02:09 G	39342297.33	39342297.59	39342297.84	0.0264	0.0012		
Earth	103003-06-15 05:30 G	39342297.48	39342297.73	39342297.98	0.0264	0.0021 *		
Moon	103004-06-26 00:42 G	39342674.44	39342674.53	39342674.65	0.0262	0.0234		
Earth	103004-06-26 02:09 G	39342674.49	39342674.59	39342674.73	0.0262	0.0229 *		
Mercury	103011-08-06 14:23 G	39345272.05	39345272.10	39345272.17	0.0266	0.0253		
Mercury	103011-11-03 12:28 G	39345360.84	39345361.02	39345361.21	0.0267	0.0068		
Mercury	103012-01-31 10:33 G	39345449.78	39345449.94	39345450.12	0.0268	0.0122		

Venus	103014-11-04 22:33 G	39346458.30	39346458.44	39346458.59	0.0279	0.0198
Venus	103015-06-22 05:16 G	39346687.52	39346687.72	39346687.92	0.0282	0.0079
Earth	103018-12-10 20:52 G	39347955.13	39347955.37	39347955.61	0.0297	0.0031
Moon	103018-12-10 23:16 G	39347955.24	39347955.47	39347955.71	0.0297	0.0033 *
Earth	103019-12-25 09:49 G	39348334.82	39348334.91	39348335.01	0.0300	0.0274
Moon	103019-12-25 13:25 G	39348334.97	39348335.06	39348335.18	0.0300	0.0270 *
Mercury	103025-03-17 04:33 G	39350243.63	39350243.69	39350243.77	0.0296	0.0245
Mercury	103025-06-13 16:33 G	39350332.07	39350332.19	39350332.32	0.0295	0.0076
Mercury	103025-09-10 04:33 G	39350420.57	39350420.69	39350420.81	0.0294	0.0093
Mercury	103025-12-07 16:18 G	39350509.12	39350509.18	39350509.24	0.0293	0.0258
Venus	103028-01-25 13:54 G	39351287.98	39351288.08	39351288.20	0.0284	0.0244
Venus	103028-09-11 09:35 G	39351517.69	39351517.90	39351518.12	0.0281	0.0057
Earth	103032-06-09 06:13 G	39352884.52	39352884.76	39352885.00	0.0266	0.0079
Moon	103032-06-09 09:35 G	39352884.68	39352884.90	39352885.14	0.0266	0.0092 *
Earth	103033-06-21 06:28 G	39353261.56	39353261.77	39353261.99	0.0264	0.0135
Moon	103033-06-21 08:37 G	39353261.65	39353261.86	39353262.10	0.0264	0.0133 *
Mercury	103041-03-22 11:30 G	39356092.81	39356092.98	39356093.15	0.0266	0.0120
Mercury	103041-06-19 09:35 G	39356181.71	39356181.90	39356182.09	0.0267	0.0067
Mercury	103041-09-16 07:54 G	39356270.78	39356270.83	39356270.88	0.0268	0.0257
Venus	103044-05-17 01:54 G	39357244.42	39357244.58	39357244.76	0.0278	0.0161
Venus	103045-01-01 08:37 G	39357473.68	39357473.86	39357474.06	0.0281	0.0117
Moon	103047-12-04 14:23 G	39358540.91	39358541.10	39358541.30	0.0294	0.0175
Earth	103047-12-04 17:45 G	39358541.05	39358541.24	39358541.44	0.0294	0.0169 *
Moon	103048-12-17 22:18 G	39358920.22	39358920.43	39358920.65	0.0298	0.0118
Earth	103048-12-18 01:40 G	39358920.35	39358920.57	39358920.79	0.0298	0.0128 *
Mercury	103054-10-31 17:30 G	39361064.12	39361064.23	39361064.35	0.0296	0.0142
Mercury	103055-01-28 05:30 G	39361152.60	39361152.73	39361152.86	0.0295	0.0028
Mercury	103055-04-26 17:16 G	39361241.13	39361241.22	39361241.32	0.0294	0.0194
Venus	103057-08-06 15:06 G	39362073.99	39362074.13	39362074.27	0.0284	0.0215
Venus	103058-03-24 10:33 G	39362303.73	39362303.94	39362304.14	0.0281	0.0086

Moon	103061-06-03 18:57 G	39363471.13	39363471.29	39363471.47	0.0268	0.0192
Earth	103061-06-03 22:47 G	39363471.28	39363471.45	39363471.64	0.0268	0.0183 *
Moon	103062-06-16 02:23 G	39363848.37	39363848.60	39363848.84	0.0265	0.0039
Earth	103062-06-16 03:06 G	39363848.39	39363848.63	39363848.88	0.0265	0.0036 *
Earth	103063-06-28 00:13 G	39364225.43	39364225.51	39364225.61	0.0262	0.0244
Moon	103063-06-28 03:35 G	39364225.62	39364225.65	39364225.71	0.0262	0.0257
Mercury	103070-08-09 09:35 G	39366824.76	39366824.90	39366825.04	0.0266	0.0181
Mercury	103070-11-06 07:40 G	39366913.63	39366913.82	39366914.01	0.0267	0.0007
Mercury	103071-02-03 05:45 G	39367002.61	39367002.74	39367002.87	0.0268	0.0196
Venus	103073-11-27 05:16 G	39368030.54	39368030.72	39368030.91	0.0279	0.0126
Venus	103074-07-14 12:13 G	39368259.84	39368260.01	39368260.19	0.0282	0.0154
Earth	103077-12-11 23:45 G	39369506.24	39369506.49	39369506.73	0.0297	0.0010
Moon	103077-12-12 00:57 G	39369506.29	39369506.54	39369506.79	0.0297	0.0024 *
Moon	103078-12-26 10:47 G	39369885.87	39369885.95	39369886.05	0.0300	0.0277
Earth	103078-12-26 12:42 G	39369886.00	39369886.03	39369886.07	0.0300	0.0295 *
Mars	103081-09-25 10:04 G	39370889.67	39370889.92	39370890.19	0.0302	0.0113
Mercury	103084-03-19 19:40 G	39371796.23	39371796.32	39371796.42	0.0296	0.0191
Mercury	103084-06-16 07:40 G	39371884.69	39371884.82	39371884.95	0.0295	0.0021
Mercury	103084-09-12 19:25 G	39371973.20	39371973.31	39371973.43	0.0294	0.0146
Venus	103087-02-16 20:52 G	39372860.20	39372860.37	39372860.55	0.0283	0.0172
Venus	103087-10-04 16:04 G	39373089.98	39373090.17	39373090.36	0.0280	0.0128
Moon	103091-06-11 03:49 G	39374435.41	39374435.66	39374435.92	0.0266	0.0058
Earth	103091-06-11 05:01 G	39374435.47	39374435.71	39374435.95	0.0266	0.0063 *
Moon	103092-06-22 01:40 G	39374812.39	39374812.57	39374812.78	0.0264	0.0165
Earth	103092-06-22 05:30 G	39374812.53	39374812.73	39374812.94	0.0264	0.0151 *
Mercury	103099-12-27 09:06 G	39377556.78	39377556.88	39377556.98	0.0266	0.0228
Mercury	103100-03-26 07:11 G	39377645.61	39377645.80	39377645.99	0.0267	0.0042
Mercury	103100-06-23 05:16 G	39377734.56	39377734.72	39377734.88	0.0267	0.0147
Venus	103103-06-10 10:18 G	39378816.74	39378816.93	39378817.13	0.0279	0.0085
Venus	103104-01-25 17:16 G	39379046.08	39379046.22	39379046.38	0.0282	0.0195

Earth	103106-12-06 23:30 G	39380092.28	39380092.48	39380092.70	0.0294	0.0143
Moon	103106-12-07 00:28 G	39380092.33	39380092.52	39380092.72	0.0294	0.0160 *
Earth	103107-12-21 07:25 G	39380471.61	39380471.81	39380472.02	0.0298	0.0154
Moon	103107-12-21 11:01 G	39380471.75	39380471.96	39380472.17	0.0298	0.0136 *
Mercury	103113-08-07 20:52 G	39382528.31	39382528.37	39382528.44	0.0296	0.0254
Mercury	103113-11-04 09:06 G	39382616.75	39382616.88	39382617.00	0.0296	0.0083
Mercury	103114-01-31 20:52 G	39382705.25	39382705.37	39382705.50	0.0295	0.0085
Mercury	103114-04-30 08:37 G	39382793.80	39382793.86	39382793.93	0.0294	0.0251
Venus	103116-08-29 23:16 G	39383646.28	39383646.47	39383646.66	0.0283	0.0140
Venus	103117-04-16 17:45 G	39383876.07	39383876.24	39383876.43	0.0280	0.0160
Earth	103120-06-05 23:01 G	39385022.27	39385022.46	39385022.66	0.0268	0.0165
Moon	103120-06-06 01:40 G	39385022.38	39385022.57	39385022.78	0.0268	0.0157 *
Earth	103121-06-18 03:21 G	39385399.40	39385399.64	39385399.89	0.0265	0.0053
Moon	103121-06-18 06:42 G	39385399.54	39385399.78	39385400.03	0.0265	0.0069 *
Earth	103122-06-30 00:42 G	39385776.51	39385776.53	39385776.57	0.0262	0.0260
Mars	103126-01-22 07:25 G	39387078.66	39387078.81	39387079.00	0.0260	0.0213
Mercury	103129-08-13 05:30 G	39388377.56	39388377.73	39388377.91	0.0267	0.0099
Mercury	103129-11-10 03:35 G	39388466.47	39388466.65	39388466.84	0.0267	0.0089
Venus	103132-12-20 14:23 G	39389602.89	39389603.10	39389603.30	0.0280	0.0048
Venus	103133-08-06 21:49 G	39389832.30	39389832.41	39389832.53	0.0283	0.0235
Moon	103135-12-01 00:13 G	39390678.46	39390678.51	39390678.56	0.0293	0.0285
Earth	103135-12-01 03:06 G	39390678.56	39390678.63	39390678.73	0.0293	0.0271 *
Moon	103136-12-14 03:49 G	39391057.42	39391057.66	39391057.90	0.0297	0.0005
Earth	103136-12-14 07:11 G	39391057.56	39391057.80	39391058.04	0.0297	0.0018 *
Mercury	103143-03-24 11:30 G	39393348.87	39393348.98	39393349.10	0.0295	0.0128
Mercury	103143-06-20 23:30 G	39393437.35	39393437.48	39393437.61	0.0294	0.0041
Mercury	103143-09-17 11:16 G	39393525.88	39393525.97	39393526.06	0.0293	0.0207
Venus	103146-03-12 05:59 G	39394432.55	39394432.75	39394432.96	0.0283	0.0094
Venus	103146-10-28 00:42 G	39394662.38	39394662.53	39394662.68	0.0280	0.0203
Moon	103149-05-31 19:11 G	39395609.21	39395609.30	39395609.39	0.0270	0.0251

Earth	103149-05-31 22:47 G	39395609.42	39395609.45	39395609.50	0.0270	0.0266
Moon	103150-06-13 05:45 G	39395986.50	39395986.74	39395986.98	0.0266	0.0029
Earth	103150-06-13 06:42 G	39395986.54	39395986.78	39395987.03	0.0266	0.0044 *
Earth	103151-06-25 07:11 G	39396363.61	39396363.80	39396363.99	0.0264	0.0169
Moon	103151-06-25 10:33 G	39396363.76	39396363.94	39396364.12	0.0264	0.0176 *
Mercury	103158-12-31 05:30 G	39399109.57	39399109.73	39399109.90	0.0266	0.0144
Mercury	103159-03-30 03:49 G	39399198.47	39399198.66	39399198.85	0.0267	0.0044
Mercury	103159-06-27 02:09 G	39399287.49	39399287.59	39399287.68	0.0268	0.0234
Venus	103161-11-15 15:06 G	39400160.12	39400160.13	39400160.16	0.0277	0.0275
Venus	103162-07-02 20:52 G	39400389.16	39400389.37	39400389.58	0.0279	0.0004
Venus	103163-02-17 04:18 G	39400618.66	39400618.68	39400618.71	0.0282	0.0279
Earth	103165-12-08 10:18 G	39401643.71	39401643.93	39401644.15	0.0295	0.0113
Moon	103165-12-08 10:47 G	39401643.73	39401643.95	39401644.19	0.0295	0.0116 *
Moon	103166-12-22 16:04 G	39402022.99	39402023.17	39402023.37	0.0298	0.0187
Earth	103166-12-22 18:42 G	39402023.10	39402023.28	39402023.48	0.0298	0.0184 *
Mars	103170-02-19 23:59 G	39403178.22	39403178.50	39403178.79	0.0302	0.0041
Mercury	103172-08-10 13:25 G	39404080.96	39404081.06	39404081.16	0.0296	0.0182
Mercury	103172-11-07 01:25 G	39404169.43	39404169.56	39404169.69	0.0295	0.0013
Mercury	103173-02-03 13:11 G	39404257.94	39404258.05	39404258.16	0.0294	0.0154
Venus	103175-09-22 10:18 G	39405218.72	39405218.93	39405219.15	0.0283	0.0057
Venus	103176-05-09 04:18 G	39405448.58	39405448.68	39405448.80	0.0280	0.0239
Moon	103179-06-08 00:57 G	39406573.32	39406573.54	39406573.77	0.0268	0.0133
Earth	103179-06-08 03:06 G	39406573.42	39406573.63	39406573.84	0.0268	0.0144 *
Moon	103180-06-19 03:35 G	39406950.41	39406950.65	39406950.89	0.0265	0.0075
Earth	103180-06-19 06:57 G	39406950.56	39406950.79	39406951.04	0.0265	0.0075 *
Mercury	103188-05-19 04:33 G	39409841.56	39409841.69	39409841.82	0.0266	0.0197
Mercury	103188-08-16 02:37 G	39409930.42	39409930.61	39409930.80	0.0267	0.0010
Mercury	103188-11-13 00:57 G	39410019.40	39410019.54	39410019.68	0.0268	0.0180
Venus	103191-05-28 19:40 G	39410946.22	39410946.32	39410946.43	0.0278	0.0238
Venus	103192-01-13 01:40 G	39411175.37	39411175.57	39411175.78	0.0280	0.0037

Earth	103194-12-02 15:35 G	39412230.02	39412230.15	39412230.29	0.0293	0.0240
Moon	103194-12-02 17:45 G	39412230.11	39412230.24	39412230.39	0.0293	0.0233 *
Earth	103195-12-16 19:54 G	39412609.09	39412609.33	39412609.57	0.0297	0.0049
Moon	103195-12-16 23:45 G	39412609.26	39412609.49	39412609.73	0.0297	0.0063 *
Mercury	103201-12-28 16:04 G	39414813.09	39414813.17	39414813.26	0.0296	0.0223
Mercury	103202-03-27 04:04 G	39414901.55	39414901.67	39414901.80	0.0295	0.0054
Mercury	103202-06-23 16:04 G	39414990.05	39414990.17	39414990.28	0.0294	0.0114
Mercury	103202-09-20 03:35 G	39415078.62	39415078.65	39415078.69	0.0293	0.0279
Venus	103205-04-03 17:59 G	39416005.04	39416005.25	39416005.47	0.0282	0.0011
Earth	103208-06-02 04:04 G	39417160.58	39417160.67	39417160.79	0.0269	0.0243
Moon	103208-06-02 08:09 G	39417160.73	39417160.84	39417160.96	0.0269	0.0237 *
Earth	103209-06-14 11:59 G	39417537.75	39417538.00	39417538.25	0.0266	0.0021
Moon	103209-06-14 14:09 G	39417537.84	39417538.09	39417538.35	0.0266	0.0026 *
Moon	103210-06-26 09:06 G	39417914.70	39417914.88	39417915.08	0.0264	0.0176
Earth	103210-06-26 12:13 G	39417914.84	39417915.01	39417915.18	0.0264	0.0191 *
Mars	103214-06-18 13:11 G	39419367.79	39419368.05	39419368.33	0.0261	0.0117
Mercury	103217-10-06 05:01 G	39420573.63	39420573.71	39420573.80	0.0266	0.0237
Mercury	103218-01-03 03:06 G	39420662.45	39420662.63	39420662.83	0.0267	0.0050
Mercury	103218-04-02 01:25 G	39420751.40	39420751.56	39420751.73	0.0268	0.0140
Venus	103220-12-08 03:21 G	39421732.49	39421732.64	39421732.79	0.0278	0.0192
Venus	103221-07-25 09:35 G	39421961.70	39421961.90	39421962.10	0.0280	0.0084
Moon	103224-12-09 23:30 G	39423195.25	39423195.48	39423195.71	0.0295	0.0062
Earth	103224-12-10 01:25 G	39423195.33	39423195.56	39423195.80	0.0295	0.0079 *
Earth	103225-12-24 10:18 G	39423574.78	39423574.93	39423575.10	0.0298	0.0219
Moon	103225-12-24 11:30 G	39423574.85	39423574.98	39423575.13	0.0298	0.0236 *
Mercury	103231-05-17 18:28 G	39425545.22	39425545.27	39425545.32	0.0296	0.0271
Mercury	103231-08-14 06:28 G	39425633.65	39425633.77	39425633.89	0.0295	0.0101
Mercury	103231-11-10 18:28 G	39425722.14	39425722.27	39425722.39	0.0294	0.0068
Mercury	103232-02-07 05:59 G	39425810.68	39425810.75	39425810.83	0.0294	0.0233
Venus	103234-02-27 03:49 G	39426561.62	39426561.66	39426561.73	0.0285	0.0274

Venus	103234-10-14 23:59 G	39426791.29	39426791.50	39426791.72	0.0282	0.0031
Earth	103238-06-09 10:18 G	39428124.72	39428124.93	39428125.16	0.0267	0.0119
Moon	103238-06-09 10:47 G	39428124.75	39428124.95	39428125.17	0.0267	0.0132 *
Earth	103239-06-21 13:54 G	39428501.85	39428502.08	39428502.31	0.0265	0.0098
Moon	103239-06-21 17:30 G	39428501.99	39428502.23	39428502.47	0.0265	0.0083 *
Mercury	103247-05-23 02:23 G	39431394.42	39431394.60	39431394.78	0.0267	0.0101
Mercury	103247-08-20 00:28 G	39431483.34	39431483.52	39431483.71	0.0268	0.0088
Venus	103250-06-20 08:23 G	39432518.68	39432518.85	39432519.03	0.0279	0.0153
Venus	103251-02-04 14:52 G	39432747.94	39432748.12	39432748.31	0.0281	0.0126
Moon	103253-12-04 06:28 G	39433781.58	39433781.77	39433781.96	0.0294	0.0191
Earth	103253-12-04 07:25 G	39433781.65	39433781.81	39433781.99	0.0294	0.0206 *
Moon	103254-12-18 09:21 G	39434160.66	39434160.89	39434161.12	0.0297	0.0097
Earth	103254-12-18 12:42 G	39434160.81	39434161.03	39434161.27	0.0297	0.0086 *
Mars	103258-07-17 17:30 G	39435467.97	39435468.23	39435468.50	0.0301	0.0109
Mercury	103260-12-31 09:35 G	39436365.79	39436365.90	39436366.01	0.0295	0.0138
Mercury	103261-03-29 21:35 G	39436454.27	39436454.40	39436454.52	0.0294	0.0032
Mercury	103261-06-26 09:21 G	39436542.79	39436542.89	39436542.98	0.0293	0.0196
Venus	103263-09-09 13:11 G	39437347.93	39437348.05	39437348.19	0.0284	0.0222
Venus	103264-04-26 08:52 G	39437577.67	39437577.87	39437578.08	0.0281	0.0081
Moon	103267-06-04 10:33 G	39438711.82	39438711.94	39438712.08	0.0269	0.0231
Earth	103267-06-04 13:40 G	39438711.93	39438712.07	39438712.22	0.0269	0.0215 *
Moon	103268-06-15 17:30 G	39439088.99	39439089.23	39439089.48	0.0266	0.0009
Earth	103268-06-15 20:37 G	39439089.11	39439089.36	39439089.61	0.0266	0.0005 *
Earth	103269-06-27 20:09 G	39439466.21	39439466.34	39439466.49	0.0263	0.0215
Moon	103269-06-27 22:33 G	39439466.31	39439466.44	39439466.58	0.0263	0.0216 *
Mercury	103276-10-09 03:21 G	39442126.48	39442126.64	39442126.81	0.0267	0.0138
Mercury	103277-01-06 01:25 G	39442215.38	39442215.56	39442215.75	0.0268	0.0051
Mercury	103277-04-04 23:45 G	39442304.41	39442304.49	39442304.58	0.0268	0.0242
Venus	103279-12-31 17:01 G	39443305.02	39443305.21	39443305.40	0.0279	0.0104
Venus	103280-08-16 23:45 G	39443534.34	39443534.49	39443534.66	0.0281	0.0177

Earth	103283-12-12 20:23 G	39444747.11	39444747.35	39444747.59	0.0295	0.0041
Moon	103283-12-12 23:45 G	39444747.25	39444747.49	39444747.74	0.0295	0.0038 *
Earth	103284-12-26 06:13 G	39445126.65	39445126.76	39445126.89	0.0298	0.0258
Moon	103284-12-26 07:11 G	39445126.67	39445126.80	39445126.93	0.0298	0.0254 *
Mercury	103290-05-20 12:28 G	39447097.92	39447098.02	39447098.12	0.0296	0.0179
Mercury	103290-08-17 00:28 G	39447186.39	39447186.52	39447186.64	0.0295	0.0015
Mercury	103290-11-13 12:13 G	39447274.90	39447275.01	39447275.12	0.0294	0.0156
Venus	103293-03-21 21:06 G	39448134.21	39448134.38	39448134.55	0.0284	0.0176
Venus	103293-11-06 16:18 G	39448363.98	39448364.18	39448364.37	0.0281	0.0125
Earth	103297-06-10 21:21 G	39449676.15	39449676.39	39449676.62	0.0267	0.0091
Moon	103297-06-10 22:04 G	39449676.19	39449676.42	39449676.67	0.0267	0.0101 *
Moon	103298-06-22 20:09 G	39450053.13	39450053.34	39450053.57	0.0264	0.0129
Earth	103298-06-22 23:45 G	39450053.27	39450053.49	39450053.71	0.0264	0.0124 *
Mars	103302-11-13 18:42 G	39451656.98	39451657.28	39451657.58	0.0260	0.0011
Mercury	103306-02-27 02:52 G	39452858.48	39452858.62	39452858.75	0.0267	0.0187
Mercury	103306-05-27 00:57 G	39452947.35	39452947.54	39452947.73	0.0267	0.0001
Mercury	103306-08-23 23:01 G	39453036.34	39453036.46	39453036.60	0.0268	0.0192
Venus	103309-07-13 22:33 G	39454091.24	39454091.44	39454091.65	0.0279	0.0063
Venus	103310-02-28 05:45 G	39454320.61	39454320.74	39454320.87	0.0282	0.0220
Moon	103312-12-07 01:25 G	39455333.39	39455333.56	39455333.76	0.0294	0.0178
Earth	103312-12-07 02:09 G	39455333.40	39455333.59	39455333.80	0.0294	0.0168 *
Earth	103313-12-21 08:37 G	39455712.65	39455712.86	39455713.08	0.0298	0.0125
Moon	103313-12-21 11:01 G	39455712.75	39455712.96	39455713.18	0.0298	0.0112 *
Mercury	103319-10-08 15:35 G	39457830.06	39457830.15	39457830.23	0.0296	0.0217
Mercury	103320-01-05 03:21 G	39457918.52	39457918.64	39457918.77	0.0295	0.0048
Mercury	103320-04-02 15:21 G	39458007.02	39458007.14	39458007.26	0.0294	0.0120
Mercury	103320-06-30 02:52 G	39458095.60	39458095.62	39458095.65	0.0293	0.0285
Venus	103322-10-03 06:42 G	39458920.59	39458920.78	39458920.97	0.0283	0.0124
Venus	103323-05-21 01:25 G	39459150.39	39459150.56	39459150.73	0.0280	0.0175
Earth	103326-06-07 01:11 G	39460263.39	39460263.55	39460263.74	0.0268	0.0187

Moon	103326-06-07 02:52 G	39460263.46	39460263.62	39460263.80	0.0268	0.0191	*
Earth	103327-06-19 07:25 G	39460640.56	39460640.81	39460641.05	0.0266	0.0033	
Moon	103327-06-19 11:01 G	39460640.71	39460640.96	39460641.20	0.0266	0.0041	*
Moon	103328-06-30 05:01 G	39461017.66	39461017.71	39461017.79	0.0263	0.0255	
Earth	103328-06-30 06:42 G	39461017.68	39461017.78	39461017.88	0.0263	0.0241	*
Mercury	103335-07-17 03:35 G	39463590.56	39463590.65	39463590.77	0.0267	0.0224	
Mercury	103335-10-14 01:54 G	39463679.39	39463679.58	39463679.77	0.0267	0.0036	
Mercury	103336-01-10 23:59 G	39463768.35	39463768.50	39463768.67	0.0268	0.0155	
Venus	103339-01-24 07:11 G	39464877.60	39464877.80	39464878.01	0.0280	0.0015	
Venus	103339-09-10 14:52 G	39465107.07	39465107.12	39465107.18	0.0282	0.0271	
Earth	103341-12-01 14:37 G	39465920.07	39465920.11	39465920.18	0.0292	0.0283	
Moon	103342-12-15 12:57 G	39466298.80	39466299.04	39466299.29	0.0296	0.0019	
Earth	103342-12-15 16:47 G	39466298.96	39466299.20	39466299.45	0.0296	0.0004	*
Moon	103343-12-30 01:40 G	39466678.50	39466678.57	39466678.65	0.0299	0.0283	
Earth	103343-12-30 03:49 G	39466678.66	39466678.66	39466678.67	0.0299	0.0298	
Mars	103346-12-14 00:42 G	39467758.50	39467758.53	39467758.60	0.0301	0.0295	
Mercury	103349-02-24 18:42 G	39468562.22	39468562.28	39468562.35	0.0296	0.0253	
Mercury	103349-05-24 06:42 G	39468650.65	39468650.78	39468650.90	0.0295	0.0083	
Mercury	103349-08-20 18:28 G	39468739.15	39468739.27	39468739.40	0.0294	0.0085	
Mercury	103349-11-17 06:13 G	39468827.70	39468827.76	39468827.83	0.0293	0.0250	
Venus	103352-04-14 15:49 G	39469706.95	39469707.16	39469707.37	0.0283	0.0075	
Venus	103352-11-30 09:49 G	39469936.79	39469936.91	39469937.05	0.0280	0.0223	
Moon	103356-06-13 08:09 G	39471227.60	39471227.84	39471228.08	0.0267	0.0050	
Earth	103356-06-13 10:33 G	39471227.69	39471227.94	39471228.18	0.0267	0.0062	*
Earth	103357-06-25 11:45 G	39471604.79	39471604.99	39471605.20	0.0264	0.0151	
Moon	103357-06-25 14:52 G	39471604.93	39471605.12	39471605.31	0.0264	0.0164	*
Mercury	103365-03-02 01:25 G	39474411.38	39474411.56	39474411.74	0.0267	0.0084	
Mercury	103365-05-29 23:30 G	39474500.31	39474500.48	39474500.66	0.0268	0.0105	
Venus	103367-12-20 06:42 G	39475434.70	39475434.78	39475434.88	0.0277	0.0247	
Venus	103368-08-05 12:57 G	39475663.83	39475664.04	39475664.24	0.0280	0.0029	

Earth	103371-12-09 21:35 G	39476885.19	39476885.40	39476885.62	0.0295	0.0129
Moon	103371-12-09 23:59 G	39476885.29	39476885.50	39476885.72	0.0295	0.0145 *
Moon	103372-12-23 04:33 G	39477264.47	39477264.69	39477264.90	0.0298	0.0154
Earth	103372-12-23 05:16 G	39477264.53	39477264.72	39477264.93	0.0298	0.0165 *
Mercury	103378-07-14 21:35 G	39479294.39	39479294.40	39479294.43	0.0296	0.0291
Mercury	103378-10-11 09:35 G	39479382.79	39479382.90	39479383.02	0.0295	0.0121
Mercury	103379-01-07 21:35 G	39479471.27	39479471.40	39479471.53	0.0294	0.0048
Mercury	103379-04-06 09:21 G	39479559.80	39479559.89	39479559.98	0.0293	0.0214
Venus	103381-10-26 01:11 G	39480493.33	39480493.55	39480493.76	0.0282	0.0024
Venus	103382-06-12 19:11 G	39480723.25	39480723.30	39480723.35	0.0279	0.0272
Moon	103385-06-08 14:52 G	39481814.91	39481815.12	39481815.35	0.0268	0.0140
Earth	103385-06-08 14:52 G	39481814.92	39481815.12	39481815.33	0.0268	0.0156 *
Moon	103386-06-20 16:04 G	39482191.93	39482192.17	39482192.41	0.0265	0.0073
Earth	103386-06-20 19:40 G	39482192.08	39482192.32	39482192.57	0.0265	0.0062 *
Mars	103391-04-10 14:37 G	39483946.84	39483947.11	39483947.38	0.0261	0.0120
Mercury	103394-07-20 02:23 G	39485143.43	39485143.60	39485143.77	0.0267	0.0121
Mercury	103394-10-17 00:28 G	39485232.34	39485232.52	39485232.71	0.0268	0.0069
Mercury	103395-01-13 22:47 G	39485321.41	39485321.45	39485321.50	0.0269	0.0260
Venus	103397-07-01 15:21 G	39486221.01	39486221.14	39486221.29	0.0278	0.0199
Venus	103398-02-15 21:49 G	39486450.21	39486450.41	39486450.61	0.0281	0.0079
Earth	103400-12-04 09:49 G	39487471.79	39487471.91	39487472.05	0.0292	0.0245
Moon	103400-12-04 10:18 G	39487471.83	39487471.93	39487472.05	0.0292	0.0254 *
Earth	103401-12-18 13:25 G	39487850.82	39487851.06	39487851.30	0.0296	0.0041
Moon	103401-12-18 16:33 G	39487850.96	39487851.19	39487851.43	0.0296	0.0038 *
Mercury	103408-02-29 12:57 G	39490114.94	39490115.04	39490115.15	0.0295	0.0155
Mercury	103408-05-28 00:57 G	39490203.41	39490203.54	39490203.67	0.0295	0.0014
Mercury	103408-08-24 12:42 G	39490291.93	39490292.03	39490292.13	0.0294	0.0180
Venus	103410-09-21 14:23 G	39491050.07	39491050.10	39491050.14	0.0285	0.0280
Venus	103411-05-09 10:33 G	39491279.72	39491279.94	39491280.15	0.0282	0.0026
Earth	103414-06-04 16:04 G	39492402.10	39492402.17	39492402.27	0.0269	0.0253

Moon	103414-06-04 18:42 G	39492402.18	39492402.28	39492402.40	0.0269	0.0237	*
Earth	103415-06-16 23:59 G	39492779.25	39492779.50	39492779.75	0.0266	0.0032	
Moon	103415-06-17 03:06 G	39492779.38	39492779.63	39492779.89	0.0266	0.0024	*
Moon	103416-06-27 22:18 G	39493156.24	39493156.43	39493156.63	0.0264	0.0171	
Earth	103416-06-28 00:28 G	39493156.34	39493156.52	39493156.70	0.0264	0.0180	*
Mercury	103423-12-08 01:40 G	39495875.42	39495875.57	39495875.72	0.0267	0.0171	
Mercury	103424-03-05 23:45 G	39495964.30	39495964.49	39495964.68	0.0267	0.0018	
Mercury	103424-06-02 22:04 G	39496053.30	39496053.42	39496053.54	0.0268	0.0208	
Venus	103427-01-12 19:40 G	39497007.16	39497007.32	39497007.50	0.0278	0.0161	
Venus	103427-08-30 02:23 G	39497236.42	39497236.60	39497236.79	0.0281	0.0119	
Moon	103430-12-12 11:59 G	39498436.77	39498437.00	39498437.23	0.0295	0.0084	
Earth	103430-12-12 15:21 G	39498436.92	39498437.14	39498437.38	0.0295	0.0092	*
Moon	103431-12-26 23:16 G	39498816.32	39498816.47	39498816.64	0.0299	0.0217	
Earth	103431-12-27 00:13 G	39498816.34	39498816.51	39498816.69	0.0299	0.0204	*
Mercury	103437-07-18 15:49 G	39500847.06	39500847.16	39500847.26	0.0296	0.0197	
Mercury	103437-10-15 03:49 G	39500935.53	39500935.66	39500935.79	0.0295	0.0027	
Mercury	103438-01-11 15:35 G	39501024.04	39501024.15	39501024.26	0.0294	0.0140	
Venus	103440-04-02 23:01 G	39501836.35	39501836.46	39501836.60	0.0284	0.0229	
Venus	103440-11-18 18:57 G	39502066.09	39502066.29	39502066.50	0.0281	0.0076	
Jupiter	103442-01-27 05:45 G	39502500.57	39502500.74	39502500.95	0.0276	0.0252	
Moon	103444-06-11 02:37 G	39503366.40	39503366.61	39503366.83	0.0267	0.0122	
Earth	103444-06-11 04:18 G	39503366.47	39503366.68	39503366.91	0.0267	0.0125	*
Earth	103445-06-23 07:54 G	39503743.60	39503743.83	39503744.07	0.0265	0.0091	
Moon	103445-06-23 11:16 G	39503743.73	39503743.97	39503744.20	0.0265	0.0080	*
Mercury	103453-04-26 02:09 G	39506607.49	39506607.59	39506607.72	0.0267	0.0210	
Mercury	103453-07-24 00:28 G	39506696.33	39506696.52	39506696.72	0.0267	0.0022	
Mercury	103453-10-20 22:47 G	39506785.30	39506785.45	39506785.60	0.0268	0.0169	
Venus	103456-07-25 04:04 G	39507793.48	39507793.67	39507793.86	0.0279	0.0113	
Venus	103457-03-11 10:47 G	39508022.79	39508022.95	39508023.12	0.0281	0.0168	
Earth	103459-12-07 01:54 G	39509023.42	39509023.58	39509023.76	0.0293	0.0210	

Moon	103459-12-07 03:21 G	39509023.46	39509023.64	39509023.83	0.0293	0.0195	*
Moon	103460-12-20 04:47 G	39509402.47	39509402.70	39509402.94	0.0297	0.0096	
Earth	103460-12-20 06:57 G	39509402.56	39509402.79	39509403.03	0.0297	0.0079	*
Mercury	103466-12-05 18:57 G	39511579.22	39511579.29	39511579.38	0.0296	0.0231	
Mercury	103467-03-04 07:11 G	39511667.67	39511667.80	39511667.92	0.0295	0.0061	
Mercury	103467-05-31 18:57 G	39511756.17	39511756.29	39511756.41	0.0294	0.0107	
Mercury	103467-08-28 06:42 G	39511844.74	39511844.78	39511844.83	0.0293	0.0272	
Venus	103469-10-14 09:06 G	39512622.72	39512622.88	39512623.05	0.0284	0.0177	
Venus	103470-06-01 04:18 G	39512852.50	39512852.68	39512852.88	0.0281	0.0127	
Moon	103473-06-06 05:45 G	39513953.61	39513953.74	39513953.89	0.0269	0.0224	
Earth	103473-06-06 06:42 G	39513953.64	39513953.78	39513953.92	0.0269	0.0221	*
Moon	103474-06-18 09:21 G	39514330.64	39514330.89	39514331.14	0.0266	0.0016	
Earth	103474-06-18 12:57 G	39514330.79	39514331.04	39514331.29	0.0266	0.0002	*
Earth	103475-06-30 12:13 G	39514707.86	39514708.01	39514708.17	0.0263	0.0207	
Moon	103475-06-30 12:28 G	39514707.88	39514708.02	39514708.20	0.0263	0.0197	*
Mars	103479-09-05 23:30 G	39516236.37	39516236.48	39516236.61	0.0260	0.0238	
Mercury	103482-09-13 01:25 G	39517339.53	39517339.56	39517339.60	0.0266	0.0260	
Mercury	103482-12-10 23:30 G	39517428.30	39517428.48	39517428.67	0.0267	0.0074	
Mercury	103483-03-09 21:35 G	39517517.23	39517517.40	39517517.58	0.0267	0.0116	
Venus	103486-02-04 07:54 G	39518579.63	39518579.83	39518580.03	0.0279	0.0075	
Venus	103486-09-21 14:37 G	39518808.98	39518809.11	39518809.26	0.0282	0.0208	
Earth	103489-12-14 06:28 G	39519988.54	39519988.77	39519989.01	0.0296	0.0057	
Moon	103489-12-14 10:18 G	39519988.69	39519988.93	39519989.17	0.0296	0.0040	*
Earth	103490-12-28 16:33 G	39520368.05	39520368.19	39520368.34	0.0299	0.0241	
Moon	103490-12-28 18:42 G	39520368.16	39520368.28	39520368.42	0.0299	0.0252	*
Mercury	103496-04-23 21:21 G	39522311.35	39522311.39	39522311.44	0.0296	0.0279	
Mercury	103496-07-21 09:21 G	39522399.77	39522399.89	39522400.02	0.0295	0.0108	
Mercury	103496-10-17 21:21 G	39522488.26	39522488.39	39522488.52	0.0295	0.0061	
Mercury	103497-01-14 09:06 G	39522576.80	39522576.88	39522576.96	0.0294	0.0227	
Venus	103499-04-26 16:18 G	39523408.99	39523409.18	39523409.37	0.0283	0.0131	

Venus	103499-12-12 11:30 G	39523638.81	39523638.98	39523639.15	0.0281	0.0171
Earth	103503-06-14 15:49 G	39524917.93	39524918.16	39524918.40	0.0267	0.0096
Moon	103503-06-14 18:42 G	39524918.05	39524918.28	39524918.52	0.0267	0.0111 *
Moon	103504-06-25 15:49 G	39525294.93	39525295.16	39525295.40	0.0264	0.0111
Earth	103504-06-25 18:28 G	39525295.05	39525295.27	39525295.49	0.0264	0.0118 *
Mercury	103512-04-29 23:45 G	39528160.32	39528160.49	39528160.66	0.0267	0.0117
Mercury	103512-07-27 21:49 G	39528249.23	39528249.41	39528249.60	0.0268	0.0072
Mercury	103512-10-24 19:54 G	39528338.31	39528338.33	39528338.38	0.0268	0.0263
Venus	103515-08-18 14:52 G	39529365.91	39529366.12	39529366.32	0.0279	0.0030
Venus	103516-04-03 21:49 G	39529595.34	39529595.41	39529595.51	0.0282	0.0254
Moon	103518-12-09 11:30 G	39530574.79	39530574.98	39530575.18	0.0294	0.0170
Earth	103518-12-09 14:09 G	39530574.91	39530575.09	39530575.29	0.0294	0.0179 *
Earth	103519-12-23 20:09 G	39530954.13	39530954.34	39530954.57	0.0297	0.0114
Moon	103519-12-23 20:52 G	39530954.16	39530954.37	39530954.59	0.0297	0.0116 *
Mercury	103525-12-09 12:28 G	39533131.91	39533132.02	39533132.13	0.0296	0.0145
Mercury	103526-03-08 00:28 G	39533220.39	39533220.52	39533220.65	0.0295	0.0025
Mercury	103526-06-04 12:13 G	39533308.92	39533309.01	39533309.11	0.0294	0.0191
Venus	103528-11-07 01:25 G	39534195.35	39534195.56	39534195.77	0.0283	0.0080
Venus	103529-06-24 20:09 G	39534425.21	39534425.34	39534425.48	0.0280	0.0220
Moon	103532-06-08 17:16 G	39535505.08	39535505.22	39535505.38	0.0269	0.0209
Earth	103532-06-08 18:28 G	39535505.09	39535505.27	39535505.44	0.0269	0.0193 *
Earth	103533-06-20 23:30 G	39535882.23	39535882.48	39535882.73	0.0265	0.0025
Moon	103533-06-21 02:52 G	39535882.38	39535882.62	39535882.87	0.0265	0.0020 *
Earth	103534-07-02 22:04 G	39536259.31	39536259.42	39536259.53	0.0263	0.0232
Moon	103534-07-02 22:47 G	39536259.37	39536259.45	39536259.57	0.0263	0.0241 *
Mercury	103541-09-16 22:18 G	39538892.29	39538892.43	39538892.58	0.0266	0.0171
Mercury	103541-12-14 20:23 G	39538981.16	39538981.35	39538981.54	0.0267	0.0016
Mercury	103542-03-13 18:42 G	39539070.16	39539070.28	39539070.40	0.0268	0.0206
Venus	103544-07-13 12:13 G	39539922.96	39539923.01	39539923.07	0.0277	0.0267
Venus	103545-02-27 17:45 G	39540152.03	39540152.24	39540152.44	0.0279	0.0008

Moon	103548-12-16 13:25 G	39541539.82	39541540.06	39541540.30	0.0296	0.0034
Earth	103548-12-16 16:33 G	39541539.95	39541540.19	39541540.44	0.0296	0.0026 *
Moon	103549-12-31 00:28 G	39541919.41	39541919.52	39541919.64	0.0299	0.0260
Earth	103549-12-31 03:35 G	39541919.56	39541919.65	39541919.75	0.0299	0.0273 *
Mercury	103555-04-28 14:23 G	39543864.01	39543864.10	39543864.20	0.0296	0.0199
Mercury	103555-07-26 02:23 G	39543952.47	39543952.60	39543952.73	0.0295	0.0029
Mercury	103555-10-22 14:09 G	39544040.98	39544041.09	39544041.21	0.0294	0.0140
Venus	103558-05-20 06:42 G	39544981.57	39544981.78	39544982.00	0.0283	0.0039
Venus	103559-01-05 01:11 G	39545211.49	39545211.55	39545211.64	0.0280	0.0261
Moon	103562-06-15 21:06 G	39546469.15	39546469.38	39546469.62	0.0267	0.0071
Earth	103562-06-16 00:28 G	39546469.29	39546469.52	39546469.77	0.0267	0.0071 *
Earth	103563-06-28 02:09 G	39546846.39	39546846.59	39546846.81	0.0264	0.0143
Moon	103563-06-28 03:21 G	39546846.46	39546846.64	39546846.85	0.0264	0.0156 *
Mercury	103571-02-03 21:49 G	39549624.31	39549624.41	39549624.53	0.0266	0.0219
Mercury	103571-05-03 19:54 G	39549713.14	39549713.33	39549713.52	0.0267	0.0033
Mercury	103571-07-31 18:13 G	39549802.10	39549802.26	39549802.41	0.0268	0.0157
Venus	103574-01-23 17:45 G	39550709.12	39550709.24	39550709.36	0.0277	0.0227
Venus	103574-09-09 23:30 G	39550938.28	39550938.48	39550938.68	0.0280	0.0049
Earth	103577-12-10 22:04 G	39552126.22	39552126.42	39552126.63	0.0294	0.0150
Moon	103577-12-11 01:40 G	39552126.38	39552126.57	39552126.78	0.0294	0.0165 *
Earth	103578-12-25 05:01 G	39552505.51	39552505.71	39552505.93	0.0298	0.0144
Moon	103578-12-25 05:59 G	39552505.53	39552505.75	39552505.98	0.0298	0.0127 *
Mercury	103584-09-14 17:01 G	39554596.14	39554596.21	39554596.29	0.0296	0.0240
Mercury	103584-12-12 05:16 G	39554684.59	39554684.72	39554684.84	0.0295	0.0069
Mercury	103585-03-10 17:01 G	39554773.09	39554773.21	39554773.34	0.0295	0.0100
Mercury	103585-06-07 04:47 G	39554861.65	39554861.70	39554861.76	0.0294	0.0266
Venus	103587-11-30 14:52 G	39555767.91	39555768.12	39555768.34	0.0283	0.0011
Earth	103591-06-11 02:09 G	39557056.41	39557056.59	39557056.79	0.0268	0.0169
Moon	103591-06-11 04:18 G	39557056.49	39557056.68	39557056.90	0.0268	0.0166 *
Moon	103592-06-22 03:35 G	39557433.41	39557433.65	39557433.90	0.0265	0.0064

Earth	103592-06-22 06:42 G	39557433.54	39557433.78	39557434.03	0.0265	0.0049	*
Earth	103593-07-04 04:18 G	39557810.63	39557810.68	39557810.75	0.0263	0.0255	
Mercury	103600-09-19 18:13 G	39560445.08	39560445.26	39560445.45	0.0266	0.0089	
Mercury	103600-12-17 16:18 G	39560534.00	39560534.18	39560534.36	0.0267	0.0099	
Venus	103603-08-05 19:40 G	39561495.18	39561495.32	39561495.48	0.0277	0.0193	
Venus	103604-03-22 01:25 G	39561724.36	39561724.56	39561724.76	0.0280	0.0083	
Earth	103606-12-04 19:40 G	39562712.27	39562712.32	39562712.39	0.0292	0.0282	
Earth	103607-12-18 22:04 G	39563091.18	39563091.42	39563091.66	0.0296	0.0003	
Moon	103607-12-19 00:13 G	39563091.28	39563091.51	39563091.74	0.0296	0.0013	*
Earth	103609-01-01 09:21 G	39563470.89	39563470.89	39563470.91	0.0299	0.0299	
Moon	103609-01-01 12:57 G	39563470.99	39563471.04	39563471.10	0.0299	0.0291	
Mercury	103614-05-01 06:28 G	39565416.66	39565416.77	39565416.89	0.0296	0.0131	
Mercury	103614-07-28 18:28 G	39565505.14	39565505.27	39565505.40	0.0295	0.0039	
Mercury	103614-10-25 06:13 G	39565593.67	39565593.76	39565593.85	0.0294	0.0207	
Venus	103616-10-24 21:06 G	39566324.31	39566324.38	39566324.47	0.0285	0.0263	
Venus	103617-06-11 17:59 G	39566554.04	39566554.25	39566554.47	0.0282	0.0047	
Moon	103620-06-04 21:21 G	39567643.33	39567643.39	39567643.45	0.0270	0.0260	
Earth	103620-06-04 21:06 G	39567643.38	39567643.38	39567643.40	0.0270	0.0269	*
Earth	103621-06-17 05:30 G	39568020.49	39568020.73	39568020.98	0.0266	0.0048	
Moon	103621-06-17 09:06 G	39568020.64	39568020.88	39568021.13	0.0266	0.0033	*
Earth	103622-06-29 06:28 G	39568397.59	39568397.77	39568397.98	0.0264	0.0165	
Moon	103622-06-29 06:57 G	39568397.60	39568397.79	39568397.99	0.0264	0.0171	*
Mercury	103630-02-06 17:01 G	39571177.06	39571177.21	39571177.38	0.0266	0.0144	
Mercury	103630-05-06 15:21 G	39571265.95	39571266.14	39571266.33	0.0267	0.0044	
Mercury	103630-08-03 13:25 G	39571354.97	39571355.06	39571355.15	0.0268	0.0234	
Venus	103633-02-14 23:45 G	39572281.33	39572281.49	39572281.67	0.0278	0.0156	
Venus	103633-10-02 05:45 G	39572510.56	39572510.74	39572510.93	0.0280	0.0122	
Moon	103636-12-11 21:06 G	39573677.16	39573677.38	39573677.59	0.0294	0.0135	
Earth	103636-12-12 00:42 G	39573677.31	39573677.53	39573677.75	0.0294	0.0127	*
Moon	103637-12-26 06:28 G	39574056.58	39574056.77	39574056.97	0.0298	0.0169	

Earth	103637-12-26 08:23 G	39574056.65	39574056.85	39574057.05	0.0298	0.0167	*
Mercury	103643-09-18 08:52 G	39576148.77	39576148.87	39576148.97	0.0296	0.0176	
Mercury	103643-12-15 20:52 G	39576237.24	39576237.37	39576237.50	0.0295	0.0006	
Mercury	103644-03-13 08:37 G	39576325.76	39576325.86	39576325.97	0.0294	0.0163	
Venus	103646-05-07 04:47 G	39577110.56	39577110.70	39577110.84	0.0285	0.0216	
Venus	103646-12-23 00:57 G	39577340.35	39577340.54	39577340.75	0.0282	0.0094	
Moon	103650-06-12 03:21 G	39578607.43	39578607.64	39578607.85	0.0268	0.0134	
Earth	103650-06-12 06:28 G	39578607.56	39578607.77	39578607.98	0.0268	0.0147	*
Earth	103651-06-24 10:18 G	39578984.69	39578984.93	39578985.17	0.0265	0.0070	
Moon	103651-06-24 12:28 G	39578984.79	39578985.02	39578985.25	0.0265	0.0071	*
Mercury	103659-06-26 15:21 G	39581909.02	39581909.14	39581909.26	0.0265	0.0201	
Mercury	103659-09-23 13:11 G	39581997.86	39581998.05	39581998.24	0.0266	0.0016	
Mercury	103659-12-21 11:16 G	39582086.82	39582086.97	39582087.12	0.0267	0.0172	
Venus	103662-08-28 01:11 G	39583067.37	39583067.55	39583067.74	0.0277	0.0123	
Venus	103663-04-14 06:57 G	39583296.62	39583296.79	39583296.96	0.0280	0.0154	
Earth	103665-12-05 20:37 G	39584263.25	39584263.36	39584263.46	0.0292	0.0262	
Moon	103665-12-05 22:47 G	39584263.35	39584263.45	39584263.58	0.0292	0.0259	*
Moon	103666-12-19 21:35 G	39584642.16	39584642.40	39584642.65	0.0296	0.0034	
Earth	103666-12-19 23:01 G	39584642.22	39584642.46	39584642.70	0.0296	0.0023	*
Mercury	103673-02-04 09:49 G	39586880.84	39586880.91	39586880.98	0.0297	0.0244	
Mercury	103673-05-03 21:49 G	39586969.29	39586969.41	39586969.54	0.0296	0.0072	
Mercury	103673-07-31 09:49 G	39587057.79	39587057.91	39587058.03	0.0295	0.0098	
Mercury	103673-10-27 21:35 G	39587146.35	39587146.40	39587146.46	0.0294	0.0265	
Venus	103675-11-17 05:59 G	39587896.60	39587896.75	39587896.93	0.0285	0.0184	
Venus	103676-07-04 02:37 G	39588126.42	39588126.61	39588126.81	0.0282	0.0125	
Earth	103679-06-06 23:01 G	39589194.37	39589194.46	39589194.55	0.0270	0.0250	
Moon	103679-06-06 23:59 G	39589194.39	39589194.50	39589194.63	0.0270	0.0239	*
Moon	103680-06-18 03:35 G	39589571.40	39589571.65	39589571.90	0.0266	0.0034	
Earth	103680-06-18 07:11 G	39589571.55	39589571.80	39589572.05	0.0266	0.0029	*
Moon	103681-06-30 06:13 G	39589948.58	39589948.76	39589948.95	0.0263	0.0169	

Earth	103681-06-30 07:54 G	39589948.65	39589948.83	39589949.01	0.0263	0.0183	*
Mercury	103688-11-12 13:25 G	39592641.04	39592641.06	39592641.11	0.0266	0.0260	
Mercury	103689-02-09 11:30 G	39592729.80	39592729.98	39592730.17	0.0266	0.0075	
Mercury	103689-05-09 09:35 G	39592818.73	39592818.90	39592819.07	0.0267	0.0113	
Venus	103692-03-09 04:18 G	39593853.49	39593853.68	39593853.88	0.0278	0.0088	
Venus	103692-10-24 10:04 G	39594082.78	39594082.92	39594083.08	0.0281	0.0192	
Earth	103695-12-13 23:01 G	39595228.24	39595228.46	39595228.69	0.0294	0.0109	
Moon	103695-12-14 02:23 G	39595228.38	39595228.60	39595228.83	0.0294	0.0093	*
Earth	103696-12-27 06:57 G	39595607.62	39595607.79	39595607.99	0.0298	0.0187	
Moon	103696-12-27 09:35 G	39595607.73	39595607.90	39595608.09	0.0298	0.0203	*
Mercury	103702-06-25 11:30 G	39597612.98	39597612.98	39597613.00	0.0297	0.0296	
Mercury	103702-09-21 23:45 G	39597701.38	39597701.49	39597701.61	0.0296	0.0123	
Mercury	103702-12-19 11:45 G	39597789.87	39597789.99	39597790.12	0.0295	0.0049	
Mercury	103703-03-17 23:45 G	39597878.40	39597878.49	39597878.58	0.0294	0.0215	
Venus	103705-05-30 11:59 G	39598682.82	39598683.00	39598683.19	0.0285	0.0140	
Venus	103706-01-15 08:23 G	39598912.68	39598912.85	39598913.03	0.0282	0.0168	
Earth	103709-06-14 06:28 G	39600158.55	39600158.77	39600158.99	0.0268	0.0129	
Moon	103709-06-14 10:04 G	39600158.70	39600158.92	39600159.13	0.0268	0.0137	*
Moon	103710-06-26 09:21 G	39600535.65	39600535.89	39600536.14	0.0265	0.0072	
Earth	103710-06-26 10:18 G	39600535.70	39600535.93	39600536.17	0.0265	0.0088	*
Mars	103714-10-04 09:35 G	39602096.80	39602096.90	39602097.05	0.0259	0.0237	
Mercury	103718-06-30 09:35 G	39603461.73	39603461.90	39603462.06	0.0265	0.0135	
Mercury	103718-09-27 07:25 G	39603550.62	39603550.81	39603551.00	0.0266	0.0051	
Mercury	103718-12-25 05:16 G	39603639.64	39603639.72	39603639.81	0.0267	0.0239	
Venus	103721-09-20 05:01 G	39604639.51	39604639.71	39604639.92	0.0277	0.0057	
Venus	103722-05-07 10:47 G	39604868.83	39604868.95	39604869.08	0.0280	0.0222	
Moon	103724-12-07 14:23 G	39605813.97	39605814.10	39605814.26	0.0292	0.0230	
Earth	103724-12-07 17:45 G	39605814.11	39605814.24	39605814.37	0.0292	0.0244	*
Earth	103725-12-21 20:09 G	39606193.10	39606193.34	39606193.58	0.0296	0.0041	
Moon	103725-12-21 20:52 G	39606193.14	39606193.37	39606193.60	0.0296	0.0048	*

Mercury	103732-02-09 00:28 G	39608433.42	39608433.52	39608433.62	0.0297	0.0195
Mercury	103732-05-07 12:28 G	39608521.89	39608522.02	39608522.15	0.0296	0.0024
Mercury	103732-08-04 00:28 G	39608610.41	39608610.52	39608610.63	0.0295	0.0146
Venus	103734-12-10 12:13 G	39609468.81	39609469.01	39609469.21	0.0285	0.0111
Venus	103735-07-28 08:23 G	39609698.70	39609698.85	39609699.01	0.0282	0.0196
Moon	103738-06-08 19:11 G	39610745.22	39610745.30	39610745.41	0.0270	0.0247
Earth	103738-06-08 21:06 G	39610745.27	39610745.38	39610745.51	0.0270	0.0234 *
Earth	103739-06-21 05:16 G	39611122.47	39611122.72	39611122.97	0.0266	0.0012
Moon	103739-06-21 08:23 G	39611122.61	39611122.85	39611123.09	0.0266	0.0025 *
Earth	103740-07-02 05:45 G	39611499.58	39611499.74	39611499.91	0.0263	0.0198
Moon	103740-07-02 08:23 G	39611499.69	39611499.85	39611500.04	0.0263	0.0194 *
Mercury	103747-11-17 07:11 G	39614193.68	39614193.80	39614193.93	0.0265	0.0198
Mercury	103748-02-14 05:01 G	39614282.52	39614282.71	39614282.91	0.0266	0.0014
Mercury	103748-05-13 02:52 G	39614371.49	39614371.62	39614371.78	0.0267	0.0176
Venus	103751-04-02 07:11 G	39615425.60	39615425.80	39615426.01	0.0278	0.0025
Venus	103751-11-17 13:11 G	39615654.98	39615655.05	39615655.14	0.0281	0.0257
Moon	103754-12-15 15:35 G	39616778.93	39616779.15	39616779.39	0.0294	0.0096
Earth	103754-12-15 18:57 G	39616779.06	39616779.29	39616779.52	0.0294	0.0093 *
Moon	103755-12-29 23:45 G	39617158.32	39617158.49	39617158.68	0.0298	0.0194
Earth	103755-12-30 03:06 G	39617158.45	39617158.63	39617158.80	0.0298	0.0203 *
Mars	103758-10-30 20:23 G	39618194.25	39618194.35	39618194.47	0.0302	0.0278
Mercury	103761-06-28 02:09 G	39619165.53	39619165.59	39619165.66	0.0297	0.0249
Mercury	103761-09-24 14:23 G	39619253.97	39619254.10	39619254.22	0.0296	0.0077
Mercury	103761-12-22 02:09 G	39619342.47	39619342.59	39619342.72	0.0295	0.0094
Mercury	103762-03-20 14:09 G	39619431.03	39619431.09	39619431.15	0.0294	0.0261
Venus	103764-06-21 17:30 G	39620255.02	39620255.23	39620255.44	0.0285	0.0068
Venus	103765-02-06 13:40 G	39620484.96	39620485.07	39620485.19	0.0282	0.0238
Moon	103768-06-15 00:13 G	39621709.30	39621709.51	39621709.74	0.0268	0.0123
Earth	103768-06-15 03:49 G	39621709.44	39621709.66	39621709.89	0.0268	0.0114 *
Moon	103769-06-27 07:25 G	39622086.60	39622086.81	39622087.04	0.0265	0.0106

Earth	103769-06-27 07:54 G	39622086.60	39622086.83	39622087.06	0.0265	0.0102	*
Mercury	103777-04-05 05:16 G	39624925.68	39624925.72	39624925.77	0.0265	0.0256	
Mercury	103777-07-03 03:06 G	39625014.44	39625014.63	39625014.81	0.0265	0.0073	
Mercury	103777-09-30 00:57 G	39625103.37	39625103.54	39625103.71	0.0266	0.0114	
Venus	103780-02-26 03:49 G	39625982.61	39625982.66	39625982.73	0.0275	0.0262	
Venus	103780-10-12 08:09 G	39626211.63	39626211.84	39626212.05	0.0278	0.0008	
Earth	103783-12-09 12:57 G	39627364.91	39627365.04	39627365.20	0.0292	0.0229	
Moon	103783-12-09 16:33 G	39627365.06	39627365.19	39627365.34	0.0292	0.0238	*
Earth	103784-12-22 15:49 G	39627743.92	39627744.16	39627744.40	0.0296	0.0057	
Moon	103784-12-22 16:04 G	39627743.92	39627744.17	39627744.42	0.0296	0.0041	*
Mercury	103791-02-11 14:37 G	39629986.00	39629986.11	39629986.22	0.0297	0.0152	
Mercury	103791-05-11 02:37 G	39630074.48	39630074.61	39630074.74	0.0296	0.0020	
Mercury	103791-08-07 14:23 G	39630163.01	39630163.10	39630163.21	0.0295	0.0190	
Venus	103794-01-01 16:33 G	39631040.98	39631041.19	39631041.41	0.0285	0.0044	
Venus	103794-08-19 12:28 G	39631270.96	39631271.02	39631271.11	0.0282	0.0263	
Earth	103797-06-09 16:47 G	39632296.06	39632296.20	39632296.35	0.0270	0.0220	
Moon	103797-06-09 19:11 G	39632296.17	39632296.30	39632296.45	0.0270	0.0224	*
Moon	103798-06-21 22:33 G	39632673.19	39632673.44	39632673.70	0.0266	0.0014	
Earth	103798-06-22 01:11 G	39632673.30	39632673.55	39632673.80	0.0266	0.0004	*
Moon	103799-07-03 22:18 G	39633050.32	39633050.43	39633050.56	0.0263	0.0228	
Earth	103799-07-04 01:40 G	39633050.44	39633050.57	39633050.73	0.0263	0.0213	*
Mars	103803-02-28 05:01 G	39634384.53	39634384.71	39634384.91	0.0260	0.0202	
Mercury	103806-11-21 00:28 G	39635746.36	39635746.52	39635746.69	0.0265	0.0138	
Mercury	103807-02-17 22:33 G	39635835.25	39635835.44	39635835.63	0.0266	0.0048	
Mercury	103807-05-17 20:23 G	39635924.27	39635924.35	39635924.44	0.0267	0.0236	
Venus	103809-09-08 05:30 G	39636768.63	39636768.73	39636768.85	0.0276	0.0232	
Venus	103810-04-25 09:49 G	39636997.71	39636997.91	39636998.12	0.0278	0.0040	
Earth	103813-12-17 13:11 G	39638329.82	39638330.05	39638330.29	0.0294	0.0078	
Moon	103813-12-17 15:49 G	39638329.94	39638330.16	39638330.39	0.0294	0.0093	*
Earth	103814-12-31 20:52 G	39638709.22	39638709.37	39638709.55	0.0298	0.0218	

Moon	103815-01-01 00:42 G	39638709.36	39638709.53	39638709.71	0.0298	0.0204	*
Mercury	103820-07-01 16:04 G	39640718.09	39640718.17	39640718.27	0.0297	0.0209	
Mercury	103820-09-28 04:18 G	39640806.55	39640806.68	39640806.81	0.0296	0.0036	
Mercury	103820-12-25 16:18 G	39640895.06	39640895.18	39640895.29	0.0295	0.0134	
Venus	103823-07-15 21:06 G	39641827.17	39641827.38	39641827.60	0.0284	0.0007	
Earth	103827-06-17 23:16 G	39643260.24	39643260.47	39643260.70	0.0268	0.0100	
Moon	103827-06-18 02:52 G	39643260.39	39643260.62	39643260.86	0.0268	0.0086	*
Earth	103828-06-29 03:21 G	39643637.42	39643637.64	39643637.87	0.0265	0.0116	
Moon	103828-06-29 04:47 G	39643637.48	39643637.70	39643637.93	0.0265	0.0131	*
Mercury	103836-04-08 22:33 G	39646478.32	39646478.44	39646478.57	0.0265	0.0197	
Mercury	103836-07-06 20:23 G	39646567.16	39646567.35	39646567.54	0.0265	0.0013	
Mercury	103836-10-03 18:13 G	39646656.12	39646656.26	39646656.41	0.0266	0.0174	
Venus	103839-03-21 06:42 G	39647554.64	39647554.78	39647554.93	0.0275	0.0200	
Venus	103839-11-05 10:47 G	39647783.75	39647783.95	39647784.15	0.0278	0.0071	
Moon	103842-12-11 04:47 G	39648915.55	39648915.70	39648915.86	0.0292	0.0222	
Earth	103842-12-11 08:09 G	39648915.68	39648915.84	39648916.01	0.0292	0.0214	*
Moon	103843-12-25 09:21 G	39649294.67	39649294.89	39649295.12	0.0296	0.0071	
Earth	103843-12-25 10:33 G	39649294.71	39649294.94	39649295.18	0.0296	0.0072	*
Mercury	103849-11-18 16:33 G	39651450.16	39651450.19	39651450.23	0.0298	0.0284	
Mercury	103850-02-15 04:47 G	39651538.58	39651538.70	39651538.82	0.0297	0.0111	
Mercury	103850-05-14 16:47 G	39651627.07	39651627.20	39651627.33	0.0296	0.0061	
Mercury	103850-08-11 04:33 G	39651715.62	39651715.69	39651715.77	0.0295	0.0230	
Venus	103853-01-24 20:37 G	39652613.14	39652613.36	39652613.57	0.0284	0.0024	
Moon	103856-06-11 08:37 G	39653846.70	39653846.86	39653847.04	0.0270	0.0192	
Earth	103856-06-11 11:30 G	39653846.83	39653846.98	39653847.15	0.0270	0.0207	*
Earth	103857-06-23 20:23 G	39654224.10	39654224.35	39654224.60	0.0266	0.0016	
Moon	103857-06-23 21:49 G	39654224.17	39654224.41	39654224.65	0.0266	0.0026	*
Earth	103858-07-05 21:06 G	39654601.26	39654601.38	39654601.51	0.0263	0.0226	
Moon	103858-07-06 00:28 G	39654601.41	39654601.52	39654601.67	0.0263	0.0226	*
Mercury	103865-08-26 19:54 G	39657210.32	39657210.33	39657210.37	0.0265	0.0262	

Mercury	103865-11-23 17:45 G	39657299.06	39657299.24	39657299.43	0.0265	0.0079
Mercury	103866-02-20 15:49 G	39657387.98	39657388.16	39657388.33	0.0266	0.0108
Venus	103868-09-30 08:09 G	39658340.68	39658340.84	39658341.01	0.0276	0.0170
Venus	103869-05-17 12:42 G	39658569.83	39658570.03	39658570.22	0.0279	0.0104
Moon	103872-12-18 06:13 G	39659880.52	39659880.76	39659881.01	0.0294	0.0053
Earth	103872-12-18 08:23 G	39659880.61	39659880.85	39659881.09	0.0294	0.0063 *
Moon	103874-01-01 11:59 G	39660259.88	39660260.00	39660260.14	0.0298	0.0247
Earth	103874-01-01 16:04 G	39660260.02	39660260.17	39660260.32	0.0298	0.0232 *
Mercury	103879-07-05 06:13 G	39662270.66	39662270.76	39662270.87	0.0297	0.0168
Mercury	103879-10-01 18:28 G	39662359.14	39662359.27	39662359.40	0.0296	0.0007
Mercury	103879-12-29 06:13 G	39662447.66	39662447.76	39662447.87	0.0295	0.0175
Venus	103881-12-20 02:37 G	39663169.51	39663169.61	39663169.71	0.0287	0.0252
Venus	103882-08-07 00:42 G	39663399.32	39663399.53	39663399.74	0.0284	0.0065
Moon	103886-06-18 14:37 G	39664810.87	39664811.11	39664811.35	0.0268	0.0084
Earth	103886-06-18 17:59 G	39664811.02	39664811.25	39664811.50	0.0268	0.0087 *
Moon	103887-06-30 19:54 G	39665188.13	39665188.33	39665188.56	0.0265	0.0123
Earth	103887-06-30 22:18 G	39665188.23	39665188.43	39665188.66	0.0265	0.0131 *
Mars	103891-07-24 05:59 G	39666672.53	39666672.75	39666673.00	0.0260	0.0161
Mercury	103895-04-12 16:18 G	39668031.02	39668031.18	39668031.35	0.0265	0.0134
Mercury	103895-07-10 14:09 G	39668119.90	39668120.09	39668120.28	0.0265	0.0050
Mercury	103895-10-07 11:45 G	39668208.92	39668208.99	39668209.09	0.0266	0.0239
Venus	103898-04-12 10:18 G	39669126.75	39669126.93	39669127.12	0.0275	0.0136
Venus	103898-11-27 14:37 G	39669355.93	39669356.11	39669356.29	0.0278	0.0137
Earth	103901-12-13 05:01 G	39670466.53	39670466.71	39670466.89	0.0292	0.0197
Moon	103901-12-13 08:23 G	39670466.67	39670466.85	39670467.05	0.0292	0.0181 *
Earth	103902-12-27 06:57 G	39670845.57	39670845.79	39670846.03	0.0296	0.0089
Moon	103902-12-27 09:21 G	39670845.66	39670845.89	39670846.13	0.0296	0.0107 *
Mercury	103908-11-22 06:42 G	39673002.71	39673002.78	39673002.86	0.0297	0.0242
Mercury	103909-02-18 18:57 G	39673091.16	39673091.29	39673091.41	0.0297	0.0069
Mercury	103909-05-18 06:42 G	39673179.67	39673179.78	39673179.91	0.0296	0.0103

Mercury	103909-08-14 18:42 G	39673268.23	39673268.28	39673268.33	0.0295	0.0271
Venus	103911-07-03 02:09 G	39673955.46	39673955.59	39673955.72	0.0287	0.0226
Venus	103912-02-18 00:13 G	39674185.31	39674185.51	39674185.72	0.0284	0.0090
Earth	103915-06-14 06:28 G	39675397.60	39675397.77	39675397.94	0.0270	0.0193
Moon	103915-06-14 10:04 G	39675397.75	39675397.92	39675398.09	0.0270	0.0197 *
Moon	103916-06-25 15:06 G	39675774.87	39675775.13	39675775.39	0.0266	0.0016
Earth	103916-06-25 15:21 G	39675774.89	39675775.14	39675775.39	0.0266	0.0029 *
Moon	103917-07-07 12:57 G	39676151.92	39676152.04	39676152.17	0.0264	0.0225
Earth	103917-07-07 16:33 G	39676152.09	39676152.19	39676152.30	0.0264	0.0239 *
Mercury	103924-08-30 13:54 G	39678762.96	39678763.08	39678763.21	0.0265	0.0199
Mercury	103924-11-27 11:45 G	39678851.79	39678851.99	39678852.18	0.0266	0.0016
Mercury	103925-02-24 09:35 G	39678940.75	39678940.90	39678941.04	0.0266	0.0172
Venus	103927-10-24 11:45 G	39679912.81	39679912.99	39679913.19	0.0276	0.0105
Venus	103928-06-09 16:18 G	39680142.02	39680142.18	39680142.35	0.0279	0.0170
Earth	103931-12-21 05:01 G	39681431.48	39681431.71	39681431.95	0.0294	0.0047
Moon	103931-12-21 05:59 G	39681431.52	39681431.75	39681431.99	0.0294	0.0035 *
Earth	103933-01-03 12:28 G	39681810.89	39681811.02	39681811.15	0.0298	0.0248
Moon	103933-01-03 15:35 G	39681811.05	39681811.15	39681811.28	0.0298	0.0259 *
Mars	103935-08-19 05:45 G	39682768.72	39682768.74	39682768.80	0.0302	0.0299
Mercury	103938-04-11 08:23 G	39683734.85	39683734.85	39683734.86	0.0297	0.0297
Mercury	103938-07-08 20:37 G	39683823.24	39683823.36	39683823.48	0.0296	0.0123
Mercury	103938-10-05 08:37 G	39683911.73	39683911.86	39683911.99	0.0296	0.0049
Mercury	103939-01-01 20:37 G	39684000.27	39684000.36	39684000.44	0.0295	0.0218
Venus	103941-01-12 07:11 G	39684741.64	39684741.80	39684741.97	0.0286	0.0183
Venus	103941-08-30 05:16 G	39684971.52	39684971.72	39684971.91	0.0284	0.0132
Earth	103945-06-20 13:54 G	39686361.85	39686362.08	39686362.33	0.0268	0.0072
Moon	103945-06-20 16:47 G	39686361.97	39686362.20	39686362.43	0.0268	0.0088 *
Earth	103946-07-02 18:28 G	39686739.07	39686739.27	39686739.49	0.0265	0.0145
Moon	103946-07-02 21:49 G	39686739.20	39686739.41	39686739.64	0.0265	0.0132 *
Mercury	103954-01-17 12:42 G	39689494.98	39689495.03	39689495.09	0.0264	0.0252

Mercury	103954-04-16 10:33 G	39689583.75	39689583.94	39689584.12	0.0265	0.0068
Mercury	103954-07-14 08:09 G	39689672.68	39689672.84	39689673.02	0.0266	0.0118
Venus	103957-05-05 15:06 G	39690698.93	39690699.13	39690699.33	0.0276	0.0068
Venus	103957-12-20 19:40 G	39690928.18	39690928.32	39690928.46	0.0278	0.0207
Moon	103960-12-14 00:57 G	39692017.36	39692017.54	39692017.74	0.0292	0.0176
Earth	103960-12-14 04:18 G	39692017.50	39692017.68	39692017.89	0.0292	0.0178 *
Moon	103961-12-28 03:21 G	39692396.42	39692396.64	39692396.86	0.0296	0.0105
Earth	103961-12-28 06:28 G	39692396.55	39692396.77	39692397.00	0.0296	0.0108 *
Mercury	103967-11-25 21:21 G	39694555.29	39694555.39	39694555.49	0.0297	0.0193
Mercury	103968-02-22 09:21 G	39694643.77	39694643.89	39694644.02	0.0296	0.0023
Mercury	103968-05-20 21:21 G	39694732.28	39694732.39	39694732.50	0.0296	0.0150
Venus	103970-07-25 07:40 G	39695527.64	39695527.82	39695528.00	0.0287	0.0155
Venus	103971-03-12 05:30 G	39695757.55	39695757.73	39695757.91	0.0284	0.0160
Moon	103974-06-14 23:01 G	39696948.30	39696948.46	39696948.64	0.0270	0.0193
Earth	103974-06-15 03:06 G	39696948.45	39696948.63	39696948.82	0.0270	0.0178 *
Moon	103975-06-27 11:01 G	39697325.73	39697325.96	39697326.20	0.0267	0.0039
Earth	103975-06-27 11:59 G	39697325.76	39697326.00	39697326.25	0.0267	0.0044 *
Earth	103976-07-08 13:25 G	39697702.99	39697703.06	39697703.13	0.0264	0.0253
Moon	103976-07-08 16:47 G	39697703.18	39697703.20	39697703.23	0.0264	0.0262
Mars	103979-12-18 02:09 G	39698960.32	39698960.59	39698960.86	0.0260	0.0124
Mercury	103983-09-03 08:23 G	39700315.68	39700315.85	39700316.02	0.0265	0.0130
Mercury	103983-12-01 06:13 G	39700404.57	39700404.76	39700404.95	0.0266	0.0055
Mercury	103984-02-28 04:04 G	39700493.60	39700493.67	39700493.75	0.0267	0.0243
Venus	103986-11-15 17:30 G	39701485.03	39701485.23	39701485.44	0.0276	0.0035
Venus	103987-07-02 22:04 G	39701714.33	39701714.42	39701714.53	0.0279	0.0242
Earth	103990-12-22 06:13 G	39702982.52	39702982.76	39702983.00	0.0294	0.0025
Moon	103990-12-22 06:28 G	39702982.53	39702982.77	39702983.02	0.0294	0.0039 *
Moon	103992-01-05 10:33 G	39703361.82	39703361.94	39703362.09	0.0298	0.0252
Earth	103992-01-05 13:25 G	39703361.97	39703362.06	39703362.17	0.0298	0.0269 *
Mercury	103997-04-13 23:16 G	39705287.40	39705287.47	39705287.55	0.0297	0.0245

Mercury	103997-07-11 11:30 G	39705375.85	39705375.98	39705376.10	0.0296	0.0072
Mercury	103997-10-07 23:30 G	39705464.36	39705464.48	39705464.60	0.0295	0.0099
Mercury	103998-01-04 11:16 G	39705552.92	39705552.97	39705553.03	0.0295	0.0268
Venus	104000-02-04 13:25 G	39706313.86	39706314.06	39706314.26	0.0286	0.0111
Venus	104000-09-21 11:01 G	39706543.81	39706543.96	39706544.11	0.0283	0.0203

105TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 105th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	104004-06-21 09:49 G		39707912.66	39707912.91	39707913.16	0.0268	0.0055	
Earth	104004-06-21 11:30 G		39707912.74	39707912.98	39707913.23	0.0268	0.0056	*
Moon	104005-07-03 12:57 G		39708289.87	39708290.04	39708290.24	0.0265	0.0172	
Earth	104005-07-03 16:33 G		39708290.00	39708290.19	39708290.39	0.0265	0.0159	*
Mercury	104013-01-20 07:40 G		39711047.69	39711047.82	39711047.97	0.0265	0.0179	
Mercury	104013-04-19 05:30 G		39711136.54	39711136.73	39711136.92	0.0265	0.0005	
Mercury	104013-07-17 03:21 G		39711225.51	39711225.64	39711225.78	0.0266	0.0192	
Venus	104015-10-11 18:28 G		39712042.23	39712042.27	39712042.34	0.0274	0.0263	
Venus	104016-05-27 21:49 G		39712271.20	39712271.41	39712271.62	0.0276	0.0005	
Earth	104019-12-16 07:40 G		39713568.63	39713568.82	39713569.04	0.0292	0.0155	
Moon	104019-12-16 10:33 G		39713568.75	39713568.94	39713569.13	0.0292	0.0172	*
Earth	104020-12-29 09:35 G		39713947.69	39713947.90	39713948.13	0.0296	0.0132	
Moon	104020-12-29 13:25 G		39713947.84	39713948.06	39713948.29	0.0296	0.0114	*
Mars	104024-01-11 23:16 G		39715056.39	39715056.47	39715056.59	0.0302	0.0281	

Mercury	104026-11-28 12:42 G	39716107.91	39716108.03	39716108.14	0.0297	0.0137
Mercury	104027-02-25 00:42 G	39716196.40	39716196.53	39716196.66	0.0296	0.0035
Mercury	104027-05-24 12:28 G	39716284.93	39716285.02	39716285.12	0.0295	0.0205
Venus	104029-08-16 15:21 G	39717099.94	39717100.14	39717100.35	0.0286	0.0079
Venus	104030-04-03 12:42 G	39717329.91	39717330.03	39717330.15	0.0283	0.0234
Earth	104033-06-16 02:23 G	39718499.41	39718499.60	39718499.81	0.0270	0.0161
Moon	104033-06-16 06:13 G	39718499.56	39718499.76	39718499.96	0.0270	0.0152 *
Earth	104034-06-28 11:30 G	39718876.74	39718876.98	39718877.22	0.0267	0.0061
Moon	104034-06-28 13:25 G	39718876.82	39718877.06	39718877.31	0.0267	0.0075 *
Mercury	104042-06-09 05:59 G	39721779.67	39721779.75	39721779.84	0.0265	0.0238
Mercury	104042-09-06 03:49 G	39721868.47	39721868.66	39721868.85	0.0265	0.0054
Mercury	104042-12-04 01:40 G	39721957.40	39721957.57	39721957.74	0.0266	0.0132
Venus	104045-04-22 21:35 G	39722828.29	39722828.40	39722828.52	0.0274	0.0229
Venus	104045-12-08 00:57 G	39723057.33	39723057.54	39723057.75	0.0277	0.0040
Earth	104048-12-09 13:25 G	39724155.00	39724155.06	39724155.14	0.0290	0.0277
Moon	104049-12-23 09:35 G	39724533.66	39724533.90	39724534.13	0.0294	0.0012
Earth	104049-12-23 11:16 G	39724533.73	39724533.97	39724534.21	0.0294	0.0001 *
Earth	104051-01-06 18:42 G	39724913.24	39724913.28	39724913.33	0.0298	0.0292
Moon	104051-01-06 20:09 G	39724913.30	39724913.34	39724913.41	0.0298	0.0289 *
Mercury	104056-04-16 14:52 G	39726840.02	39726840.12	39726840.22	0.0297	0.0184
Mercury	104056-07-14 03:06 G	39726928.50	39726928.63	39726928.76	0.0296	0.0015
Mercury	104056-10-10 14:52 G	39727017.02	39727017.12	39727017.23	0.0295	0.0159
Venus	104059-02-26 22:04 G	39727886.21	39727886.42	39727886.64	0.0285	0.0033
Venus	104059-10-14 19:11 G	39728116.27	39728116.30	39728116.33	0.0283	0.0279
Moon	104062-06-10 19:40 G	39729086.24	39729086.32	39729086.43	0.0272	0.0249
Earth	104062-06-10 23:16 G	39729086.42	39729086.47	39729086.54	0.0272	0.0263 *
Earth	104063-06-23 12:13 G	39729463.76	39729464.01	39729464.26	0.0268	0.0038
Moon	104063-06-23 12:42 G	39729463.79	39729464.03	39729464.27	0.0268	0.0023 *
Earth	104064-07-04 17:01 G	39729841.03	39729841.21	39729841.40	0.0265	0.0178
Moon	104064-07-04 20:37 G	39729841.19	39729841.36	39729841.55	0.0265	0.0184 *

Mars	104068-05-12 20:23 G	39731249.05	39731249.35	39731249.65	0.0260	0.0050
Mercury	104072-01-24 03:49 G	39732600.48	39732600.66	39732600.84	0.0265	0.0098
Mercury	104072-04-22 01:40 G	39732689.39	39732689.57	39732689.75	0.0266	0.0088
Venus	104074-11-03 03:21 G	39733614.50	39733614.64	39733614.80	0.0274	0.0187
Venus	104075-06-20 06:57 G	39733843.59	39733843.79	39733843.99	0.0277	0.0083
Moon	104078-12-17 15:06 G	39735119.91	39735120.13	39735120.36	0.0292	0.0126
Earth	104078-12-17 16:33 G	39735119.98	39735120.19	39735120.41	0.0292	0.0127 *
Moon	104079-12-31 15:21 G	39735498.95	39735499.14	39735499.35	0.0296	0.0166
Earth	104079-12-31 18:57 G	39735499.09	39735499.29	39735499.50	0.0296	0.0160 *
Mercury	104085-09-03 16:33 G	39737572.12	39737572.19	39737572.26	0.0297	0.0242
Mercury	104085-12-01 04:33 G	39737660.57	39737660.69	39737660.82	0.0296	0.0070
Mercury	104086-02-27 16:33 G	39737749.07	39737749.19	39737749.31	0.0296	0.0102
Mercury	104086-05-27 04:33 G	39737837.64	39737837.69	39737837.74	0.0295	0.0270
Venus	104088-09-08 01:54 G	39738672.36	39738672.58	39738672.79	0.0285	0.0005
Moon	104092-06-17 01:54 G	39740050.37	39740050.58	39740050.82	0.0270	0.0128
Earth	104092-06-17 05:16 G	39740050.51	39740050.72	39740050.93	0.0270	0.0140 *
Moon	104093-06-29 11:01 G	39740427.74	39740427.96	39740428.20	0.0267	0.0083
Earth	104093-06-29 13:54 G	39740427.84	39740428.08	39740428.32	0.0267	0.0081 *
Mercury	104101-06-13 02:23 G	39743332.45	39743332.60	39743332.76	0.0265	0.0154
Mercury	104101-09-10 00:13 G	39743421.32	39743421.51	39743421.70	0.0266	0.0032
Mercury	104101-12-07 22:04 G	39743510.32	39743510.42	39743510.53	0.0266	0.0219
Venus	104104-05-16 06:57 G	39744400.62	39744400.79	39744400.97	0.0275	0.0151
Venus	104104-12-31 10:47 G	39744629.76	39744629.95	39744630.14	0.0278	0.0121
Earth	104107-12-12 23:01 G	39745706.35	39745706.46	39745706.59	0.0290	0.0250
Moon	104107-12-13 02:23 G	39745706.48	39745706.60	39745706.75	0.0290	0.0241 *
Earth	104108-12-25 21:06 G	39746085.14	39746085.38	39746085.62	0.0295	0.0028
Moon	104108-12-26 00:13 G	39746085.27	39746085.51	39746085.76	0.0295	0.0042 *
Mars	104112-06-07 21:49 G	39747345.20	39747345.41	39747345.65	0.0301	0.0182
Mercury	104115-01-22 18:57 G	39748304.26	39748304.29	39748304.33	0.0297	0.0287
Mercury	104115-04-21 07:11 G	39748392.68	39748392.80	39748392.92	0.0296	0.0113

Mercury	104115-07-18 19:11 G	39748481.18	39748481.30	39748481.43	0.0296	0.0059
Mercury	104115-10-15 07:11 G	39748569.72	39748569.80	39748569.88	0.0295	0.0227
Venus	104117-08-04 10:33 G	39749228.87	39749228.94	39749229.02	0.0287	0.0268
Venus	104118-03-22 09:35 G	39749458.68	39749458.90	39749459.11	0.0285	0.0053
Earth	104121-06-13 03:35 G	39750637.54	39750637.65	39750637.77	0.0272	0.0241
Moon	104121-06-13 07:25 G	39750637.70	39750637.81	39750637.95	0.0272	0.0233 *
Earth	104122-06-25 16:18 G	39751014.93	39751015.18	39751015.43	0.0268	0.0016
Moon	104122-06-25 17:16 G	39751014.96	39751015.22	39751015.48	0.0268	0.0019 *
Moon	104123-07-07 17:30 G	39751392.05	39751392.23	39751392.41	0.0265	0.0184
Earth	104123-07-07 21:06 G	39751392.22	39751392.38	39751392.55	0.0265	0.0199 *
Mercury	104130-10-31 02:52 G	39754064.50	39754064.62	39754064.76	0.0265	0.0194
Mercury	104131-01-28 00:42 G	39754153.34	39754153.53	39754153.73	0.0266	0.0011
Mercury	104131-04-26 22:33 G	39754242.31	39754242.44	39754242.59	0.0266	0.0179
Venus	104133-11-26 14:09 G	39755186.90	39755187.09	39755187.28	0.0275	0.0106
Venus	104134-07-13 17:59 G	39755416.09	39755416.25	39755416.42	0.0278	0.0167
Moon	104137-12-20 04:47 G	39756671.48	39756671.70	39756671.93	0.0292	0.0078
Earth	104137-12-20 05:01 G	39756671.49	39756671.71	39756671.95	0.0292	0.0095 *
Earth	104139-01-03 08:09 G	39757050.66	39757050.84	39757051.03	0.0296	0.0192
Moon	104139-01-03 11:01 G	39757050.80	39757050.96	39757051.13	0.0296	0.0208 *
Mercury	104144-09-07 09:21 G	39759124.79	39759124.89	39759125.00	0.0297	0.0163
Mercury	104144-12-04 21:35 G	39759213.27	39759213.40	39759213.52	0.0296	0.0013
Mercury	104145-03-03 09:21 G	39759301.79	39759301.89	39759301.99	0.0295	0.0179
Venus	104147-02-14 16:47 G	39760015.07	39760015.20	39760015.33	0.0288	0.0226
Venus	104147-10-02 15:06 G	39760244.93	39760245.13	39760245.34	0.0285	0.0094
Earth	104151-06-20 11:30 G	39761601.76	39761601.98	39761602.21	0.0270	0.0116
Moon	104151-06-20 13:25 G	39761601.85	39761602.06	39761602.27	0.0270	0.0127 *
Earth	104152-07-01 19:40 G	39761979.10	39761979.32	39761979.55	0.0266	0.0104
Moon	104152-07-01 23:01 G	39761979.23	39761979.46	39761979.70	0.0266	0.0089 *
Mars	104156-10-07 13:54 G	39763537.78	39763538.08	39763538.38	0.0260	0.0035
Mercury	104160-03-19 01:54 G	39764796.52	39764796.58	39764796.65	0.0265	0.0246

Mercury	104160-06-15 23:45 G	39764885.30	39764885.49	39764885.68	0.0266	0.0062
Mercury	104160-09-12 21:35 G	39764974.23	39764974.40	39764974.57	0.0266	0.0125
Venus	104163-06-08 18:28 G	39765973.07	39765973.27	39765973.47	0.0276	0.0068
Venus	104164-01-23 22:33 G	39766202.31	39766202.44	39766202.58	0.0278	0.0208
Moon	104166-12-14 10:33 G	39767257.77	39767257.94	39767258.12	0.0291	0.0203
Earth	104166-12-14 13:11 G	39767257.90	39767258.05	39767258.22	0.0291	0.0218 *
Moon	104167-12-28 08:37 G	39767636.63	39767636.86	39767637.10	0.0295	0.0072
Earth	104167-12-28 12:13 G	39767636.78	39767637.01	39767637.25	0.0295	0.0062 *
Mercury	104174-01-25 12:13 G	39769856.92	39769857.01	39769857.11	0.0297	0.0204
Mercury	104174-04-24 00:28 G	39769945.39	39769945.52	39769945.64	0.0296	0.0032
Mercury	104174-07-21 12:13 G	39770033.90	39770034.01	39770034.13	0.0295	0.0140
Venus	104176-08-27 01:40 G	39770801.40	39770801.57	39770801.75	0.0287	0.0173
Venus	104177-04-13 23:45 G	39771031.31	39771031.49	39771031.68	0.0284	0.0145
Moon	104180-06-14 08:09 G	39772188.72	39772188.84	39772188.98	0.0271	0.0230
Earth	104180-06-14 11:45 G	39772188.85	39772188.99	39772189.15	0.0271	0.0214 *
Moon	104181-06-26 22:04 G	39772566.17	39772566.42	39772566.66	0.0268	0.0006
Earth	104181-06-26 23:45 G	39772566.25	39772566.49	39772566.74	0.0268	0.0011 *
Earth	104182-07-09 03:49 G	39772943.53	39772943.66	39772943.80	0.0265	0.0222
Moon	104182-07-09 07:11 G	39772943.67	39772943.80	39772943.93	0.0265	0.0221 *
Mercury	104189-11-03 00:42 G	39775617.36	39775617.53	39775617.71	0.0266	0.0099
Mercury	104190-01-30 22:33 G	39775706.26	39775706.44	39775706.63	0.0266	0.0088
Venus	104192-12-19 02:23 G	39776759.40	39776759.60	39776759.81	0.0276	0.0021
Venus	104193-08-05 07:11 G	39776988.72	39776988.80	39776988.88	0.0278	0.0257
Earth	104196-12-21 21:49 G	39778223.18	39778223.41	39778223.65	0.0292	0.0059
Moon	104196-12-21 23:59 G	39778223.26	39778223.50	39778223.75	0.0292	0.0057 *
Moon	104198-01-04 23:59 G	39778602.34	39778602.50	39778602.67	0.0296	0.0220
Earth	104198-01-05 01:54 G	39778602.43	39778602.58	39778602.73	0.0296	0.0229 *
Mars	104200-11-03 14:23 G	39779634.82	39779635.10	39779635.38	0.0301	0.0035
Mercury	104203-06-15 14:52 G	39780589.05	39780589.12	39780589.19	0.0297	0.0248
Mercury	104203-09-12 02:52 G	39780677.50	39780677.62	39780677.75	0.0296	0.0076

Mercury	104203-12-09 14:52 G	39780766.00	39780766.12	39780766.25	0.0295	0.0096
Mercury	104204-03-07 02:52 G	39780854.56	39780854.62	39780854.67	0.0295	0.0264
Venus	104206-03-10 09:06 G	39781587.69	39781587.88	39781588.08	0.0287	0.0127
Venus	104206-10-26 06:42 G	39781817.63	39781817.78	39781817.95	0.0284	0.0190
Moon	104210-06-22 21:06 G	39783153.14	39783153.38	39783153.62	0.0269	0.0099
Earth	104210-06-22 21:21 G	39783153.16	39783153.39	39783153.63	0.0269	0.0090 *
Moon	104211-07-05 01:11 G	39783530.34	39783530.55	39783530.77	0.0266	0.0134
Earth	104211-07-05 04:47 G	39783530.49	39783530.70	39783530.92	0.0266	0.0129 *
Mercury	104219-03-23 23:59 G	39786349.34	39786349.50	39786349.66	0.0265	0.0149
Mercury	104219-06-20 21:49 G	39786438.22	39786438.41	39786438.60	0.0266	0.0037
Mercury	104219-09-17 19:40 G	39786527.23	39786527.32	39786527.43	0.0267	0.0226
Venus	104221-11-15 04:18 G	39787316.59	39787316.68	39787316.76	0.0274	0.0249
Venus	104222-07-02 07:11 G	39787545.60	39787545.80	39787546.01	0.0277	0.0020
Earth	104225-12-17 05:45 G	39788809.56	39788809.74	39788809.94	0.0291	0.0182
Moon	104225-12-17 06:57 G	39788809.61	39788809.79	39788809.96	0.0291	0.0192 *
Earth	104226-12-31 05:45 G	39789188.52	39789188.74	39789188.98	0.0295	0.0099
Moon	104226-12-31 09:21 G	39789188.66	39789188.89	39789189.12	0.0295	0.0085 *
Mercury	104232-11-01 17:45 G	39791321.21	39791321.24	39791321.27	0.0297	0.0287
Mercury	104233-01-29 05:59 G	39791409.63	39791409.75	39791409.87	0.0296	0.0114
Mercury	104233-04-27 17:59 G	39791498.12	39791498.25	39791498.38	0.0295	0.0058
Mercury	104233-07-25 05:45 G	39791586.67	39791586.74	39791586.83	0.0295	0.0227
Venus	104235-09-20 18:42 G	39792374.08	39792374.28	39792374.50	0.0286	0.0074
Venus	104236-05-07 16:04 G	39792604.06	39792604.17	39792604.29	0.0283	0.0241
Earth	104239-06-17 22:47 G	39793740.28	39793740.45	39793740.64	0.0271	0.0186
Moon	104239-06-18 01:25 G	39793740.40	39793740.56	39793740.74	0.0271	0.0192 *
Earth	104240-06-29 10:04 G	39794117.67	39794117.92	39794118.17	0.0268	0.0037
Moon	104240-06-29 12:57 G	39794117.79	39794118.04	39794118.29	0.0268	0.0044 *
Moon	104241-07-11 11:01 G	39794494.94	39794494.96	39794495.01	0.0265	0.0262
Earth	104241-07-11 13:25 G	39794494.98	39794495.06	39794495.15	0.0265	0.0247 *
Mars	104245-03-05 05:45 G	39795827.51	39795827.74	39795827.99	0.0261	0.0160

Mercury	104248-08-10 01:11 G	39797081.42	39797081.55	39797081.69	0.0266	0.0184
Mercury	104248-11-06 23:01 G	39797170.27	39797170.46	39797170.65	0.0266	0.0002
Mercury	104249-02-03 20:52 G	39797259.24	39797259.37	39797259.51	0.0267	0.0190
Venus	104251-05-28 12:13 G	39798102.88	39798103.01	39798103.16	0.0274	0.0202
Venus	104252-01-12 15:49 G	39798331.96	39798332.16	39798332.36	0.0277	0.0069
Moon	104255-12-25 14:09 G	39799774.85	39799775.09	39799775.33	0.0293	0.0037
Earth	104255-12-25 17:16 G	39799774.98	39799775.22	39799775.46	0.0293	0.0020 *
Moon	104257-01-07 22:33 G	39800154.32	39800154.44	39800154.56	0.0296	0.0255
Earth	104257-01-07 22:18 G	39800154.33	39800154.43	39800154.53	0.0296	0.0268 *
Mercury	104262-06-18 09:06 G	39802141.77	39802141.88	39802141.99	0.0296	0.0151
Mercury	104262-09-14 21:06 G	39802230.25	39802230.38	39802230.51	0.0296	0.0021
Mercury	104262-12-12 08:52 G	39802318.78	39802318.87	39802318.97	0.0295	0.0190
Venus	104265-04-02 03:49 G	39803160.44	39803160.66	39803160.88	0.0286	0.0023
Moon	104269-06-24 09:06 G	39804704.65	39804704.88	39804705.12	0.0269	0.0049
Earth	104269-06-24 10:04 G	39804704.68	39804704.92	39804705.17	0.0269	0.0060 *
Earth	104270-07-06 16:04 G	39805081.98	39805082.17	39805082.38	0.0266	0.0157
Moon	104270-07-06 19:40 G	39805082.14	39805082.32	39805082.52	0.0266	0.0171 *
Mercury	104277-12-28 00:28 G	39807813.44	39807813.52	39807813.62	0.0265	0.0233
Mercury	104278-03-26 22:18 G	39807902.24	39807902.43	39807902.62	0.0266	0.0048
Mercury	104278-06-23 20:23 G	39807991.18	39807991.35	39807991.51	0.0266	0.0140
Venus	104280-12-07 17:01 G	39808889.05	39808889.21	39808889.38	0.0275	0.0163
Venus	104281-07-24 20:52 G	39809118.18	39809118.37	39809118.56	0.0277	0.0110
Earth	104284-12-19 00:13 G	39810361.31	39810361.51	39810361.72	0.0292	0.0145
Moon	104284-12-19 01:11 G	39810361.34	39810361.55	39810361.76	0.0292	0.0159 *
Moon	104286-01-01 22:47 G	39810740.23	39810740.45	39810740.68	0.0296	0.0130
Earth	104286-01-02 01:40 G	39810740.36	39810740.57	39810740.78	0.0296	0.0138 *
Mars	104289-03-31 16:18 G	39811924.94	39811925.18	39811925.44	0.0301	0.0136
Mercury	104291-11-05 11:59 G	39812873.90	39812874.00	39812874.10	0.0297	0.0192
Mercury	104292-02-01 23:59 G	39812962.37	39812962.50	39812962.63	0.0296	0.0020
Mercury	104292-04-30 11:59 G	39813050.89	39813051.00	39813051.11	0.0295	0.0151

Venus	104294-10-13 13:11 G	39813946.83	39813947.05	39813947.26	0.0285	0.0030
Moon	104298-06-19 10:33 G	39815291.73	39815291.94	39815292.17	0.0270	0.0141
Earth	104298-06-19 11:59 G	39815291.80	39815292.00	39815292.21	0.0270	0.0156 *
Moon	104299-07-01 18:28 G	39815669.04	39815669.27	39815669.51	0.0267	0.0078
Earth	104299-07-01 21:49 G	39815669.18	39815669.41	39815669.66	0.0267	0.0066 *
Mercury	104307-08-14 23:30 G	39818634.30	39818634.48	39818634.67	0.0266	0.0083
Mercury	104307-11-11 21:21 G	39818723.22	39818723.39	39818723.57	0.0267	0.0105
Venus	104310-06-21 01:25 G	39819675.37	39819675.56	39819675.75	0.0275	0.0115
Venus	104311-02-05 05:30 G	39819904.56	39819904.73	39819904.90	0.0278	0.0160
Earth	104313-12-14 15:35 G	39820948.05	39820948.15	39820948.27	0.0290	0.0255
Moon	104313-12-14 17:30 G	39820948.15	39820948.23	39820948.33	0.0290	0.0265 *
Earth	104314-12-28 12:42 G	39821326.79	39821327.03	39821327.27	0.0294	0.0019
Moon	104314-12-28 16:18 G	39821326.94	39821327.18	39821327.42	0.0294	0.0017 *
Mercury	104321-03-25 15:21 G	39823606.06	39823606.14	39823606.22	0.0297	0.0226
Mercury	104321-06-22 03:21 G	39823694.51	39823694.64	39823694.77	0.0296	0.0053
Mercury	104321-09-18 15:21 G	39823783.02	39823783.14	39823783.26	0.0295	0.0117
Mercury	104321-12-16 03:06 G	39823871.61	39823871.63	39823871.66	0.0294	0.0285
Venus	104323-09-09 00:28 G	39824503.40	39824503.52	39824503.64	0.0288	0.0239
Venus	104324-04-25 22:47 G	39824733.25	39824733.45	39824733.66	0.0285	0.0083
Earth	104327-06-15 11:01 G	39825878.88	39825878.96	39825879.05	0.0272	0.0254
Moon	104327-06-15 14:23 G	39825878.98	39825879.10	39825879.21	0.0272	0.0238 *
Earth	104328-06-26 23:59 G	39826256.25	39826256.50	39826256.75	0.0268	0.0030
Moon	104328-06-27 02:09 G	39826256.34	39826256.59	39826256.85	0.0268	0.0022 *
Moon	104329-07-09 01:54 G	39826633.40	39826633.58	39826633.78	0.0266	0.0177
Earth	104329-07-09 05:01 G	39826633.53	39826633.71	39826633.89	0.0266	0.0185 *
Mercury	104336-12-31 22:47 G	39829366.29	39829366.45	39829366.62	0.0265	0.0133
Mercury	104337-03-30 20:37 G	39829455.17	39829455.36	39829455.55	0.0266	0.0053
Mercury	104337-06-27 18:42 G	39829544.20	39829544.28	39829544.36	0.0267	0.0242
Venus	104340-01-01 05:45 G	39830461.54	39830461.74	39830461.94	0.0276	0.0076
Venus	104340-08-17 10:04 G	39830690.78	39830690.92	39830691.07	0.0278	0.0200

Moon	104343-12-22 15:21 G	39831912.93	39831913.14	39831913.37	0.0292	0.0102
Earth	104343-12-22 17:45 G	39831913.02	39831913.24	39831913.47	0.0292	0.0109 *
Earth	104345-01-04 20:23 G	39832292.16	39832292.35	39832292.55	0.0296	0.0176
Moon	104345-01-04 21:49 G	39832292.24	39832292.41	39832292.60	0.0296	0.0191 *
Mercury	104350-08-12 17:59 G	39834338.20	39834338.25	39834338.30	0.0297	0.0269
Mercury	104350-11-09 06:13 G	39834426.63	39834426.76	39834426.88	0.0296	0.0095
Mercury	104351-02-05 18:13 G	39834515.13	39834515.26	39834515.38	0.0295	0.0077
Mercury	104351-05-05 05:59 G	39834603.68	39834603.75	39834603.82	0.0295	0.0245
Venus	104353-03-21 09:35 G	39835289.74	39835289.90	39835290.06	0.0287	0.0186
Venus	104353-11-06 07:40 G	39835519.64	39835519.82	39835520.02	0.0284	0.0134
Earth	104357-06-22 01:54 G	39836843.36	39836843.58	39836843.80	0.0270	0.0125
Moon	104357-06-22 01:40 G	39836843.36	39836843.57	39836843.79	0.0270	0.0121 *
Earth	104358-07-04 10:18 G	39837220.71	39837220.93	39837221.17	0.0267	0.0096
Moon	104358-07-04 14:09 G	39837220.86	39837221.09	39837221.33	0.0267	0.0084 *
Mercury	104366-05-20 23:45 G	39840098.35	39840098.49	39840098.64	0.0266	0.0170
Mercury	104366-08-17 21:35 G	39840187.21	39840187.40	39840187.60	0.0266	0.0018
Mercury	104366-11-14 19:40 G	39840276.20	39840276.32	39840276.44	0.0267	0.0205
Venus	104369-07-13 13:54 G	39841247.87	39841248.08	39841248.28	0.0276	0.0028
Venus	104370-02-27 18:28 G	39841477.18	39841477.27	39841477.36	0.0279	0.0250
Moon	104372-12-16 08:09 G	39842499.66	39842499.84	39842500.01	0.0290	0.0206
Earth	104372-12-16 08:23 G	39842499.69	39842499.85	39842500.00	0.0290	0.0221 *
Moon	104373-12-30 03:35 G	39842878.41	39842878.65	39842878.88	0.0294	0.0073
Earth	104373-12-30 06:42 G	39842878.55	39842878.78	39842879.02	0.0294	0.0057 *
Mercury	104380-03-28 09:21 G	39845158.78	39845158.89	39845159.01	0.0296	0.0129
Mercury	104380-06-24 21:35 G	39845247.27	39845247.40	39845247.52	0.0296	0.0044
Mercury	104380-09-21 09:21 G	39845335.80	39845335.89	39845335.98	0.0295	0.0212
Venus	104382-10-01 19:40 G	39846076.14	39846076.32	39846076.52	0.0287	0.0132
Venus	104383-05-19 17:30 G	39846306.07	39846306.23	39846306.40	0.0284	0.0187
Moon	104386-06-16 23:30 G	39847430.36	39847430.48	39847430.64	0.0271	0.0226
Earth	104386-06-17 01:40 G	39847430.44	39847430.57	39847430.72	0.0271	0.0224 *

Moon	104387-06-29 10:33 G	39847807.69	39847807.94	39847808.18	0.0268	0.0014
Earth	104387-06-29 13:25 G	39847807.82	39847808.06	39847808.31	0.0268	0.0005 *
Earth	104388-07-10 17:16 G	39848185.08	39848185.22	39848185.38	0.0265	0.0213
Moon	104388-07-10 18:57 G	39848185.13	39848185.29	39848185.45	0.0265	0.0199 *
Mercury	104395-10-07 22:47 G	39850830.36	39850830.45	39850830.57	0.0265	0.0220
Mercury	104396-01-04 20:37 G	39850919.18	39850919.36	39850919.56	0.0266	0.0036
Mercury	104396-04-02 18:42 G	39851008.12	39851008.28	39851008.44	0.0266	0.0153
Venus	104398-06-08 14:23 G	39851805.04	39851805.10	39851805.17	0.0274	0.0259
Venus	104399-01-23 17:30 G	39852034.03	39852034.23	39852034.44	0.0276	0.0011
Earth	104402-12-24 09:06 G	39853464.65	39853464.88	39853465.12	0.0293	0.0074
Moon	104402-12-24 12:28 G	39853464.78	39853465.02	39853465.26	0.0293	0.0058 *
Moon	104404-01-07 12:42 G	39853843.87	39853844.03	39853844.20	0.0297	0.0219
Earth	104404-01-07 12:57 G	39853843.88	39853844.04	39853844.21	0.0297	0.0213 *
Mercury	104409-08-15 11:45 G	39855890.89	39855890.99	39855891.10	0.0297	0.0177
Mercury	104409-11-11 23:59 G	39855979.37	39855979.50	39855979.63	0.0296	0.0010
Mercury	104410-02-08 11:45 G	39856067.89	39856067.99	39856068.10	0.0295	0.0166
Venus	104412-04-13 03:21 G	39856862.44	39856862.64	39856862.85	0.0286	0.0083
Venus	104412-11-29 01:11 G	39857092.43	39857092.55	39857092.67	0.0284	0.0234
Earth	104416-06-23 14:23 G	39858394.87	39858395.10	39858395.34	0.0269	0.0095
Moon	104416-06-23 15:49 G	39858394.94	39858395.16	39858395.41	0.0269	0.0110 *
Moon	104417-07-05 18:28 G	39858772.05	39858772.27	39858772.50	0.0266	0.0113
Earth	104417-07-05 21:49 G	39858772.20	39858772.41	39858772.64	0.0266	0.0123 *
Mercury	104425-02-23 23:30 G	39861562.45	39861562.48	39861562.52	0.0265	0.0260
Mercury	104425-05-23 21:21 G	39861651.20	39861651.39	39861651.57	0.0266	0.0076
Mercury	104425-08-20 18:57 G	39861740.12	39861740.29	39861740.47	0.0267	0.0112
Venus	104427-12-19 21:06 G	39862591.26	39862591.38	39862591.52	0.0274	0.0215
Venus	104428-08-05 00:42 G	39862820.33	39862820.53	39862820.73	0.0277	0.0056
Moon	104431-12-18 19:40 G	39864051.15	39864051.32	39864051.51	0.0291	0.0182
Earth	104431-12-18 21:06 G	39864051.20	39864051.38	39864051.57	0.0291	0.0189 *
Earth	104432-12-31 20:52 G	39864430.15	39864430.37	39864430.61	0.0295	0.0092

Moon	104432-12-31 23:30 G	39864430.26	39864430.48	39864430.71	0.0295	0.0090	*
Mercury	104439-01-02 15:06 G	39866623.04	39866623.13	39866623.22	0.0297	0.0211	
Mercury	104439-04-01 03:06 G	39866711.51	39866711.63	39866711.76	0.0296	0.0039	
Mercury	104439-06-28 15:06 G	39866800.02	39866800.13	39866800.25	0.0295	0.0133	
Venus	104441-10-24 13:40 G	39867648.86	39867649.07	39867649.29	0.0286	0.0028	
Earth	104445-06-18 15:21 G	39868981.96	39868982.14	39868982.31	0.0271	0.0193	
Moon	104445-06-18 15:49 G	39868982.01	39868982.16	39868982.32	0.0271	0.0208	*
Earth	104446-07-01 01:25 G	39869359.32	39869359.56	39869359.81	0.0268	0.0029	
Moon	104446-07-01 05:16 G	39869359.47	39869359.72	39869359.97	0.0268	0.0023	*
Earth	104447-07-13 04:18 G	39869736.59	39869736.68	39869736.80	0.0265	0.0239	
Moon	104447-07-13 04:33 G	39869736.61	39869736.69	39869736.80	0.0265	0.0245	*
Mercury	104454-10-10 20:09 G	39872383.17	39872383.34	39872383.51	0.0265	0.0128	
Mercury	104455-01-07 17:59 G	39872472.06	39872472.25	39872472.44	0.0266	0.0058	
Mercury	104455-04-06 15:49 G	39872561.09	39872561.16	39872561.23	0.0266	0.0246	
Venus	104457-07-01 00:13 G	39873377.36	39873377.51	39873377.67	0.0274	0.0179	
Venus	104458-02-15 03:35 G	39873606.46	39873606.65	39873606.85	0.0277	0.0093	
Moon	104461-12-25 17:30 G	39875015.99	39875016.23	39875016.47	0.0293	0.0052	
Earth	104461-12-25 20:52 G	39875016.14	39875016.37	39875016.62	0.0293	0.0042	*
Moon	104463-01-09 00:42 G	39875395.38	39875395.53	39875395.67	0.0297	0.0231	
Earth	104463-01-09 01:40 G	39875395.45	39875395.57	39875395.71	0.0297	0.0246	*
Mercury	104468-05-21 17:01 G	39877355.15	39877355.21	39877355.26	0.0297	0.0266	
Mercury	104468-08-18 05:16 G	39877443.59	39877443.72	39877443.84	0.0297	0.0092	
Mercury	104468-11-14 17:16 G	39877532.09	39877532.22	39877532.34	0.0296	0.0081	
Mercury	104469-02-11 05:01 G	39877620.65	39877620.71	39877620.78	0.0295	0.0250	
Venus	104471-05-06 19:25 G	39878435.10	39878435.31	39878435.53	0.0286	0.0016	
Moon	104475-06-25 22:18 G	39879946.20	39879946.43	39879946.67	0.0269	0.0069	
Earth	104475-06-26 00:57 G	39879946.30	39879946.54	39879946.78	0.0269	0.0068	*
Earth	104476-07-07 07:11 G	39880323.60	39880323.80	39880324.01	0.0266	0.0149	
Moon	104476-07-07 09:35 G	39880323.71	39880323.90	39880324.09	0.0266	0.0161	*
Mars	104480-04-02 22:47 G	39881689.35	39881689.45	39881689.59	0.0261	0.0240	

Mercury	104484-02-27 19:54 G	39883115.20	39883115.33	39883115.49	0.0265	0.0174
Mercury	104484-05-26 17:59 G	39883204.06	39883204.25	39883204.44	0.0266	0.0013
Mercury	104484-08-23 15:35 G	39883293.04	39883293.15	39883293.29	0.0267	0.0201
Venus	104487-01-11 06:13 G	39884163.58	39884163.76	39884163.94	0.0275	0.0137
Venus	104487-08-28 09:49 G	39884392.74	39884392.91	39884393.10	0.0277	0.0137
Earth	104490-12-20 06:28 G	39885602.57	39885602.77	39885602.97	0.0291	0.0161
Moon	104490-12-20 08:52 G	39885602.67	39885602.87	39885603.07	0.0291	0.0175 *
Moon	104492-01-03 05:30 G	39885981.50	39885981.73	39885981.97	0.0295	0.0106
Earth	104492-01-03 07:11 G	39885981.59	39885981.80	39885982.03	0.0295	0.0122 *
Mercury	104498-01-05 07:54 G	39888175.72	39888175.83	39888175.95	0.0297	0.0131
Mercury	104498-04-03 20:09 G	39888264.21	39888264.34	39888264.47	0.0296	0.0042
Mercury	104498-07-01 08:09 G	39888352.75	39888352.84	39888352.93	0.0295	0.0212
Venus	104500-04-01 05:30 G	39888991.64	39888991.73	39888991.83	0.0288	0.0255
Venus	104500-11-17 04:33 G	39889221.49	39889221.69	39889221.90	0.0285	0.0070
Earth	104504-06-21 00:57 G	39890533.36	39890533.54	39890533.75	0.0271	0.0168
Moon	104504-06-21 01:54 G	39890533.37	39890533.58	39890533.79	0.0271	0.0163 *
Moon	104505-07-03 06:57 G	39890910.55	39890910.79	39890911.04	0.0267	0.0069
Earth	104505-07-03 10:33 G	39890910.70	39890910.94	39890911.19	0.0267	0.0055 *
Earth	104506-07-15 12:42 G	39891288.01	39891288.03	39891288.07	0.0264	0.0262
Mercury	104513-07-17 18:42 G	39893847.19	39893847.28	39893847.38	0.0264	0.0227
Mercury	104513-10-14 16:33 G	39893936.00	39893936.19	39893936.38	0.0265	0.0043
Mercury	104514-01-11 14:09 G	39894024.93	39894025.09	39894025.26	0.0266	0.0143
Venus	104516-07-24 08:23 G	39894949.66	39894949.85	39894950.04	0.0274	0.0103
Venus	104517-03-10 11:45 G	39895178.84	39895178.99	39895179.16	0.0277	0.0171
Earth	104519-12-15 07:25 G	39896188.79	39896188.81	39896188.86	0.0289	0.0287
Earth	104520-12-28 03:35 G	39896567.41	39896567.65	39896567.89	0.0294	0.0015
Moon	104520-12-28 07:11 G	39896567.56	39896567.80	39896568.03	0.0294	0.0026 *
Earth	104522-01-11 09:21 G	39896946.80	39896946.89	39896946.98	0.0297	0.0274
Moon	104522-01-11 11:30 G	39896946.89	39896946.98	39896947.10	0.0297	0.0269 *
Mercury	104527-05-26 09:21 G	39898907.80	39898907.89	39898907.99	0.0297	0.0191

Mercury	104527-08-22 21:35 G	39898996.27	39898996.40	39898996.53	0.0297	0.0017
Mercury	104527-11-19 09:35 G	39899084.79	39899084.90	39899085.01	0.0296	0.0154
Venus	104529-10-12 09:35 G	39899777.76	39899777.90	39899778.05	0.0288	0.0216
Venus	104530-05-30 08:37 G	39900007.67	39900007.86	39900008.07	0.0285	0.0108
Earth	104533-06-15 18:13 G	39901120.24	39901120.26	39901120.30	0.0272	0.0270
Moon	104533-06-15 19:54 G	39901120.28	39901120.33	39901120.41	0.0272	0.0260 *
Earth	104534-06-28 08:09 G	39901497.60	39901497.84	39901498.09	0.0268	0.0044
Moon	104534-06-28 11:30 G	39901497.73	39901497.98	39901498.23	0.0268	0.0028 *
Moon	104535-07-10 12:42 G	39901874.86	39901875.03	39901875.23	0.0265	0.0181
Earth	104535-07-10 13:54 G	39901874.90	39901875.08	39901875.28	0.0265	0.0172 *
Mercury	104543-03-03 15:49 G	39904667.98	39904668.16	39904668.34	0.0265	0.0093
Mercury	104543-05-31 13:25 G	39904756.89	39904757.06	39904757.25	0.0266	0.0093
Venus	104546-02-03 12:57 G	39905735.84	39905736.04	39905736.24	0.0275	0.0063
Venus	104546-09-20 16:47 G	39905965.07	39905965.20	39905965.34	0.0278	0.0212
Moon	104549-12-22 07:40 G	39907153.62	39907153.82	39907154.03	0.0292	0.0142
Earth	104549-12-22 10:47 G	39907153.74	39907153.95	39907154.16	0.0292	0.0137 *
Earth	104551-01-05 12:13 G	39907532.81	39907533.01	39907533.23	0.0295	0.0147
Moon	104551-01-05 12:42 G	39907532.84	39907533.03	39907533.24	0.0295	0.0154 *
Mercury	104556-10-12 11:59 G	39909639.93	39909640.00	39909640.08	0.0297	0.0234
Mercury	104557-01-09 00:13 G	39909728.38	39909728.51	39909728.64	0.0297	0.0060
Mercury	104557-04-07 12:13 G	39909816.89	39909817.01	39909817.13	0.0296	0.0113
Mercury	104557-07-05 00:13 G	39909905.48	39909905.51	39909905.55	0.0295	0.0282
Venus	104559-04-24 17:59 G	39910564.08	39910564.25	39910564.43	0.0288	0.0164
Venus	104559-12-10 16:47 G	39910794.02	39910794.20	39910794.38	0.0285	0.0159
Moon	104563-06-23 05:59 G	39912084.55	39912084.75	39912084.97	0.0270	0.0132
Earth	104563-06-23 07:40 G	39912084.61	39912084.82	39912085.03	0.0270	0.0145 *
Earth	104564-07-04 16:33 G	39912461.95	39912462.19	39912462.43	0.0267	0.0076
Moon	104564-07-04 19:25 G	39912462.09	39912462.31	39912462.55	0.0267	0.0080 *
Mars	104568-08-28 19:40 G	39913978.08	39913978.32	39913978.59	0.0260	0.0148
Mercury	104572-07-20 14:23 G	39915399.94	39915400.10	39915400.25	0.0264	0.0149

Mercury	104572-10-17 11:59 G	39915488.81	39915489.00	39915489.19	0.0265	0.0036
Mercury	104573-01-14 09:49 G	39915577.80	39915577.91	39915578.01	0.0266	0.0222
Venus	104575-08-16 14:37 G	39916521.91	39916522.11	39916522.32	0.0275	0.0030
Venus	104576-04-01 18:28 G	39916751.18	39916751.27	39916751.37	0.0277	0.0245
Earth	104578-12-16 10:33 G	39917739.84	39917739.94	39917740.03	0.0289	0.0265
Moon	104578-12-16 11:01 G	39917739.85	39917739.96	39917740.07	0.0289	0.0259 *
Moon	104579-12-30 03:35 G	39918118.41	39918118.65	39918118.90	0.0294	0.0023
Earth	104579-12-30 06:57 G	39918118.55	39918118.79	39918119.03	0.0294	0.0008 *
Earth	104581-01-12 12:57 G	39918498.04	39918498.04	39918498.06	0.0297	0.0297
Mercury	104586-05-29 01:11 G	39920460.44	39920460.55	39920460.67	0.0297	0.0127
Mercury	104586-08-25 13:25 G	39920548.93	39920549.06	39920549.18	0.0296	0.0047
Mercury	104586-11-22 01:11 G	39920637.47	39920637.55	39920637.64	0.0296	0.0218
Venus	104588-11-03 19:54 G	39921350.15	39921350.33	39921350.53	0.0288	0.0131
Venus	104589-06-21 18:57 G	39921580.13	39921580.29	39921580.45	0.0285	0.0192
Moon	104592-06-16 21:06 G	39922671.28	39922671.38	39922671.52	0.0272	0.0240
Earth	104592-06-16 22:18 G	39922671.34	39922671.43	39922671.53	0.0272	0.0248 *
Moon	104593-06-29 07:54 G	39923048.59	39923048.83	39923049.08	0.0268	0.0029
Earth	104593-06-29 11:45 G	39923048.74	39923048.99	39923049.24	0.0268	0.0023 *
Moon	104594-07-11 16:18 G	39923426.02	39923426.18	39923426.37	0.0265	0.0179
Earth	104594-07-11 17:01 G	39923426.04	39923426.21	39923426.39	0.0265	0.0192 *
Mercury	104601-12-08 12:57 G	39926131.92	39926132.04	39926132.16	0.0265	0.0204
Mercury	104602-03-07 10:33 G	39926220.75	39926220.94	39926221.13	0.0265	0.0021
Mercury	104602-06-04 08:23 G	39926309.70	39926309.85	39926310.00	0.0266	0.0166
Venus	104604-07-12 15:35 G	39927079.10	39927079.15	39927079.22	0.0273	0.0260
Venus	104605-02-26 17:59 G	39927308.04	39927308.25	39927308.46	0.0275	0.0007
Earth	104608-12-24 10:33 G	39928704.73	39928704.94	39928705.17	0.0292	0.0118
Moon	104608-12-24 14:09 G	39928704.86	39928705.09	39928705.32	0.0292	0.0101 *
Earth	104610-01-07 12:42 G	39929083.84	39929084.03	39929084.24	0.0296	0.0168
Moon	104610-01-07 13:25 G	39929083.87	39929084.06	39929084.26	0.0296	0.0182 *
Mercury	104615-10-17 03:21 G	39931192.54	39931192.64	39931192.75	0.0297	0.0175

Mercury	104616-01-13 15:35 G	39931281.02	39931281.15	39931281.28	0.0296	0.0004
Mercury	104616-04-11 03:35 G	39931369.55	39931369.65	39931369.76	0.0296	0.0171
Venus	104618-05-18 03:21 G	39932136.43	39932136.64	39932136.85	0.0287	0.0081
Venus	104619-01-03 01:40 G	39932366.47	39932366.57	39932366.70	0.0285	0.0241
Earth	104622-06-25 10:18 G	39933635.71	39933635.93	39933636.15	0.0270	0.0125
Moon	104622-06-25 12:57 G	39933635.82	39933636.04	39933636.26	0.0270	0.0133 *
Moon	104623-07-07 16:47 G	39934012.96	39934013.20	39934013.45	0.0267	0.0080
Earth	104623-07-07 18:57 G	39934013.06	39934013.29	39934013.53	0.0267	0.0096 *
Mercury	104631-04-27 11:16 G	39936863.95	39936863.97	39936864.01	0.0264	0.0260
Mercury	104631-07-25 08:52 G	39936952.69	39936952.87	39936953.06	0.0264	0.0078
Mercury	104631-10-22 06:28 G	39937041.60	39937041.77	39937041.95	0.0265	0.0107
Venus	104634-01-22 17:01 G	39937865.10	39937865.21	39937865.32	0.0272	0.0228
Venus	104634-09-08 19:11 G	39938094.10	39938094.30	39938094.51	0.0275	0.0039
Moon	104637-12-18 07:54 G	39939290.70	39939290.83	39939290.97	0.0289	0.0235
Earth	104637-12-18 09:21 G	39939290.77	39939290.89	39939291.02	0.0289	0.0247 *
Earth	104639-01-01 05:45 G	39939669.50	39939669.74	39939669.98	0.0294	0.0027
Moon	104639-01-01 08:23 G	39939669.61	39939669.85	39939670.08	0.0294	0.0033 *
Mercury	104645-03-05 04:04 G	39941924.60	39941924.67	39941924.74	0.0298	0.0247
Mercury	104645-06-01 16:18 G	39942013.05	39942013.18	39942013.31	0.0297	0.0072
Mercury	104645-08-29 04:18 G	39942101.56	39942101.68	39942101.80	0.0296	0.0102
Mercury	104645-11-25 16:18 G	39942190.13	39942190.18	39942190.23	0.0296	0.0272
Venus	104647-11-28 04:04 G	39942922.46	39942922.67	39942922.88	0.0287	0.0051
Venus	104648-07-15 02:23 G	39943152.54	39943152.60	39943152.67	0.0285	0.0271
Earth	104651-06-19 22:33 G	39944222.33	39944222.44	39944222.59	0.0272	0.0231
Moon	104651-06-19 22:47 G	39944222.35	39944222.45	39944222.56	0.0272	0.0244 *
Earth	104652-07-01 11:59 G	39944599.75	39944600.00	39944600.25	0.0268	0.0005
Moon	104652-07-01 15:49 G	39944599.91	39944600.16	39944600.41	0.0268	0.0020 *
Earth	104653-07-13 17:01 G	39944977.07	39944977.21	39944977.37	0.0265	0.0209
Moon	104653-07-13 18:57 G	39944977.13	39944977.29	39944977.46	0.0265	0.0201 *
Mars	104657-01-23 01:11 G	39946266.27	39946266.55	39946266.85	0.0260	0.0089

Mercury	104660-12-11 06:57 G	39947684.64	39947684.79	39947684.96	0.0265	0.0138
Mercury	104661-03-10 04:47 G	39947773.51	39947773.70	39947773.89	0.0265	0.0047
Mercury	104661-06-07 02:37 G	39947862.52	39947862.61	39947862.70	0.0266	0.0233
Venus	104663-08-04 19:25 G	39948651.17	39948651.31	39948651.46	0.0273	0.0195
Venus	104664-03-20 21:49 G	39948880.21	39948880.41	39948880.61	0.0276	0.0074
Moon	104667-12-26 04:47 G	39950255.48	39950255.70	39950255.93	0.0292	0.0106
Earth	104667-12-26 08:23 G	39950255.62	39950255.85	39950256.08	0.0292	0.0100 *
Moon	104669-01-08 08:52 G	39950634.68	39950634.87	39950635.06	0.0296	0.0175
Earth	104669-01-08 10:18 G	39950634.76	39950634.93	39950635.13	0.0296	0.0186 *
Mercury	104674-10-19 18:13 G	39952745.14	39952745.26	39952745.38	0.0297	0.0123
Mercury	104675-01-16 06:13 G	39952833.64	39952833.76	39952833.89	0.0296	0.0051
Mercury	104675-04-14 18:13 G	39952922.18	39952922.26	39952922.35	0.0296	0.0222
Venus	104677-06-09 10:04 G	39953708.70	39953708.92	39953709.14	0.0287	0.0005
Moon	104681-06-26 05:59 G	39955186.54	39955186.75	39955186.98	0.0270	0.0119
Earth	104681-06-26 09:21 G	39955186.67	39955186.89	39955187.12	0.0270	0.0108 *
Earth	104682-07-08 17:59 G	39955564.03	39955564.25	39955564.48	0.0267	0.0112
Moon	104682-07-08 18:57 G	39955564.08	39955564.29	39955564.51	0.0267	0.0113 *
Mercury	104690-04-30 05:30 G	39958416.60	39958416.73	39958416.86	0.0264	0.0194
Mercury	104690-07-28 02:52 G	39958505.43	39958505.62	39958505.82	0.0264	0.0013
Mercury	104690-10-25 00:28 G	39958594.38	39958594.52	39958594.67	0.0265	0.0174
Venus	104693-02-13 20:37 G	39959437.20	39959437.36	39959437.53	0.0272	0.0163
Venus	104693-09-30 22:47 G	39959666.26	39959666.45	39959666.65	0.0275	0.0106
Earth	104696-12-19 05:59 G	39960841.61	39960841.75	39960841.90	0.0289	0.0230
Moon	104696-12-19 08:09 G	39960841.71	39960841.84	39960841.98	0.0289	0.0242 *
Moon	104698-01-02 00:42 G	39961220.28	39961220.53	39961220.78	0.0294	0.0027
Earth	104698-01-02 02:23 G	39961220.36	39961220.60	39961220.84	0.0294	0.0044 *
Mercury	104704-03-08 18:28 G	39963477.18	39963477.27	39963477.37	0.0298	0.0200
Mercury	104704-06-05 06:42 G	39963565.65	39963565.78	39963565.91	0.0297	0.0025
Mercury	104704-09-01 18:42 G	39963654.17	39963654.28	39963654.39	0.0296	0.0148
Venus	104706-12-21 09:35 G	39964494.68	39964494.90	39964495.11	0.0287	0.0023

Earth	104710-06-21 19:54 G	39965773.19	39965773.33	39965773.49	0.0272	0.0216
Moon	104710-06-21 21:06 G	39965773.23	39965773.38	39965773.54	0.0272	0.0218 *
Moon	104711-07-04 06:13 G	39966150.51	39966150.76	39966151.01	0.0268	0.0019
Earth	104711-07-04 09:35 G	39966150.65	39966150.90	39966151.15	0.0268	0.0010 *
Moon	104712-07-15 11:59 G	39966527.91	39966528.00	39966528.12	0.0265	0.0238
Earth	104712-07-15 14:37 G	39966527.99	39966528.11	39966528.25	0.0265	0.0223 *
Mercury	104719-09-18 03:21 G	39969148.60	39969148.64	39969148.68	0.0264	0.0256
Mercury	104719-12-16 00:42 G	39969237.35	39969237.53	39969237.72	0.0265	0.0075
Mercury	104720-03-13 22:18 G	39969326.26	39969326.43	39969326.61	0.0265	0.0110
Venus	104722-08-27 22:33 G	39970223.26	39970223.44	39970223.62	0.0273	0.0131
Venus	104723-04-14 00:42 G	39970452.36	39970452.53	39970452.72	0.0276	0.0139
Earth	104726-12-28 03:21 G	39971806.42	39971806.64	39971806.88	0.0292	0.0086
Moon	104726-12-28 07:11 G	39971806.58	39971806.80	39971807.02	0.0292	0.0101 *
Earth	104728-01-11 05:16 G	39972185.56	39972185.72	39972185.91	0.0296	0.0201
Moon	104728-01-11 08:23 G	39972185.66	39972185.85	39972186.05	0.0296	0.0187 *
Mercury	104733-07-26 20:09 G	39974209.28	39974209.34	39974209.41	0.0298	0.0255
Mercury	104733-10-23 08:23 G	39974297.73	39974297.85	39974297.98	0.0297	0.0080
Mercury	104734-01-19 20:37 G	39974386.24	39974386.36	39974386.48	0.0296	0.0094
Mercury	104734-04-18 08:37 G	39974474.81	39974474.86	39974474.91	0.0296	0.0265
Venus	104735-11-15 14:09 G	39975051.02	39975051.09	39975051.18	0.0290	0.0265
Venus	104736-07-02 14:52 G	39975280.91	39975281.12	39975281.33	0.0287	0.0067
Earth	104740-06-28 05:59 G	39976737.52	39976737.75	39976737.98	0.0270	0.0094
Moon	104740-06-28 09:49 G	39976737.67	39976737.91	39976738.15	0.0270	0.0079 *
Earth	104741-07-10 14:52 G	39977114.91	39977115.12	39977115.35	0.0267	0.0126
Moon	104741-07-10 15:06 G	39977114.92	39977115.13	39977115.36	0.0267	0.0141 *
Mars	104745-06-19 05:59 G	39978554.45	39978554.75	39978555.06	0.0260	0.0038
Mercury	104749-05-03 23:01 G	39979969.30	39979969.46	39979969.63	0.0264	0.0132
Mercury	104749-07-31 20:37 G	39980058.17	39980058.36	39980058.55	0.0264	0.0052
Mercury	104749-10-28 18:13 G	39980147.18	39980147.26	39980147.35	0.0265	0.0237
Venus	104752-03-08 23:59 G	39981009.31	39981009.50	39981009.69	0.0273	0.0099

Venus	104752-10-24 01:54 G	39981238.43	39981238.58	39981238.75	0.0275	0.0172
Moon	104755-12-21 23:30 G	39982392.34	39982392.48	39982392.64	0.0289	0.0222
Earth	104755-12-22 02:23 G	39982392.44	39982392.60	39982392.76	0.0289	0.0214 *
Earth	104757-01-03 22:33 G	39982771.20	39982771.44	39982771.68	0.0294	0.0060
Moon	104757-01-03 23:01 G	39982771.24	39982771.46	39982771.70	0.0294	0.0061 *
Mercury	104763-03-12 08:52 G	39985029.76	39985029.87	39985029.98	0.0298	0.0156
Mercury	104763-06-08 20:52 G	39985118.24	39985118.37	39985118.50	0.0297	0.0021
Mercury	104763-09-05 08:52 G	39985206.78	39985206.87	39985206.97	0.0296	0.0192
Venus	104765-05-27 13:25 G	39985836.95	39985837.06	39985837.19	0.0290	0.0240
Venus	104766-01-12 13:54 G	39986066.88	39986067.08	39986067.29	0.0287	0.0093
Moon	104769-06-22 13:40 G	39987323.90	39987324.07	39987324.25	0.0272	0.0187
Earth	104769-06-22 15:21 G	39987323.99	39987324.14	39987324.32	0.0272	0.0203 *
Earth	104770-07-05 05:16 G	39987701.47	39987701.72	39987701.97	0.0268	0.0024
Moon	104770-07-05 07:40 G	39987701.58	39987701.82	39987702.06	0.0268	0.0036 *
Earth	104771-07-17 10:18 G	39988078.84	39988078.93	39988079.05	0.0265	0.0237
Moon	104771-07-17 13:25 G	39988078.96	39988079.06	39988079.18	0.0265	0.0238 *
Mercury	104778-09-20 20:52 G	39990701.24	39990701.37	39990701.50	0.0264	0.0195
Mercury	104778-12-18 18:13 G	39990790.07	39990790.26	39990790.45	0.0265	0.0013
Mercury	104779-03-17 15:49 G	39990879.02	39990879.16	39990879.31	0.0265	0.0172
Venus	104781-09-19 01:25 G	39991795.36	39991795.56	39991795.76	0.0273	0.0068
Venus	104782-05-06 03:35 G	39992024.52	39992024.65	39992024.80	0.0276	0.0204
Moon	104785-12-28 19:40 G	39993357.08	39993357.32	39993357.56	0.0292	0.0059
Earth	104785-12-28 23:01 G	39993357.23	39993357.46	39993357.70	0.0292	0.0071 *
Moon	104787-01-11 21:06 G	39993736.25	39993736.38	39993736.54	0.0296	0.0230
Earth	104787-01-12 00:28 G	39993736.37	39993736.52	39993736.70	0.0296	0.0215 *
Mercury	104792-07-29 10:18 G	39995761.84	39995761.93	39995762.02	0.0298	0.0213
Mercury	104792-10-25 22:33 G	39995850.31	39995850.44	39995850.57	0.0297	0.0038
Mercury	104793-01-22 10:33 G	39995938.83	39995938.94	39995939.06	0.0296	0.0136
Venus	104794-12-07 18:13 G	39996623.11	39996623.26	39996623.42	0.0289	0.0196
Venus	104795-07-25 18:42 G	39996853.09	39996853.28	39996853.47	0.0287	0.0135

Moon	104799-06-29 21:21 G	39998288.15	39998288.39	39998288.63	0.0270	0.0074
Earth	104799-06-30 01:11 G	39998288.32	39998288.55	39998288.79	0.0270	0.0080 *
Moon	104800-07-11 09:06 G	39998665.68	39998665.88	39998666.10	0.0267	0.0135
Earth	104800-07-11 10:18 G	39998665.73	39998665.93	39998666.15	0.0267	0.0140 *
Mercury	104808-02-07 19:11 G	40001433.26	40001433.30	40001433.37	0.0263	0.0251
Mercury	104808-05-06 16:47 G	40001522.02	40001522.20	40001522.39	0.0264	0.0069
Mercury	104808-08-03 14:23 G	40001610.93	40001611.10	40001611.27	0.0264	0.0115
Venus	104811-04-01 03:21 G	40002581.44	40002581.64	40002581.85	0.0273	0.0035
Venus	104811-11-16 05:45 G	40002810.64	40002810.74	40002810.85	0.0275	0.0236
Earth	104814-12-22 22:47 G	40003943.28	40003943.45	40003943.63	0.0289	0.0198
Moon	104814-12-23 02:09 G	40003943.41	40003943.59	40003943.79	0.0289	0.0181 *
Earth	104816-01-05 18:42 G	40004322.05	40004322.28	40004322.52	0.0293	0.0076
Moon	104816-01-05 19:25 G	40004322.07	40004322.31	40004322.55	0.0293	0.0093 *
Mercury	104821-12-16 10:33 G	40006493.92	40006493.94	40006493.97	0.0298	0.0290
Mercury	104822-03-14 22:47 G	40006582.34	40006582.45	40006582.57	0.0298	0.0114
Mercury	104822-06-11 11:01 G	40006670.83	40006670.96	40006671.09	0.0297	0.0061
Mercury	104822-09-07 23:01 G	40006759.39	40006759.46	40006759.54	0.0296	0.0233
Venus	104824-06-18 17:45 G	40007409.07	40007409.24	40007409.42	0.0290	0.0170
Venus	104825-02-03 17:59 G	40007639.08	40007639.25	40007639.43	0.0287	0.0162
Earth	104828-06-23 10:18 G	40008874.76	40008874.93	40008875.12	0.0272	0.0189
Moon	104828-06-23 13:11 G	40008874.88	40008875.05	40008875.24	0.0272	0.0191 *
Moon	104829-07-05 22:47 G	40009252.20	40009252.45	40009252.71	0.0269	0.0026
Earth	104829-07-06 00:28 G	40009252.27	40009252.52	40009252.77	0.0269	0.0038 *
Moon	104830-07-18 02:37 G	40009629.51	40009629.61	40009629.73	0.0265	0.0237
Earth	104830-07-18 05:45 G	40009629.68	40009629.74	40009629.84	0.0265	0.0251 *
Mars	104833-11-11 20:37 G	40010842.05	40010842.36	40010842.67	0.0260	0.0011
Mercury	104837-09-23 14:23 G	40012253.94	40012254.10	40012254.26	0.0264	0.0134
Mercury	104837-12-21 11:45 G	40012342.81	40012342.99	40012343.19	0.0265	0.0050
Mercury	104838-03-20 09:21 G	40012431.81	40012431.89	40012431.99	0.0265	0.0235
Venus	104840-02-25 03:21 G	40013138.62	40013138.64	40013138.69	0.0271	0.0267

Venus	104840-10-11 04:47 G	40013367.49	40013367.70	40013367.90	0.0274	0.0007
Venus	104841-05-28 07:11 G	40013596.76	40013596.80	40013596.85	0.0276	0.0270
Earth	104844-12-29 19:40 G	40014908.09	40014908.32	40014908.56	0.0292	0.0054
Moon	104844-12-29 22:18 G	40014908.20	40014908.43	40014908.66	0.0292	0.0042 *
Earth	104846-01-12 20:52 G	40015287.24	40015287.37	40015287.54	0.0296	0.0231
Moon	104846-01-13 00:28 G	40015287.40	40015287.52	40015287.68	0.0296	0.0239 *
Mercury	104851-08-02 00:42 G	40017314.42	40017314.53	40017314.64	0.0297	0.0168
Mercury	104851-10-29 12:57 G	40017402.91	40017403.04	40017403.17	0.0297	0.0010
Mercury	104852-01-26 00:57 G	40017491.44	40017491.54	40017491.64	0.0296	0.0179
Venus	104853-12-29 22:47 G	40018195.26	40018195.45	40018195.65	0.0289	0.0126
Venus	104854-08-16 22:47 G	40018425.31	40018425.45	40018425.61	0.0286	0.0205
Earth	104858-06-30 20:23 G	40019839.12	40019839.35	40019839.60	0.0270	0.0066
Moon	104858-06-30 23:59 G	40019839.27	40019839.50	40019839.74	0.0270	0.0081 *
Earth	104859-07-13 05:59 G	40020216.55	40020216.75	40020216.96	0.0267	0.0154
Moon	104859-07-13 07:54 G	40020216.62	40020216.83	40020217.06	0.0267	0.0142 *
Mercury	104867-02-10 13:25 G	40022985.92	40022986.06	40022986.19	0.0264	0.0186
Mercury	104867-05-10 10:47 G	40023074.76	40023074.95	40023075.14	0.0264	0.0005
Mercury	104867-08-07 08:23 G	40023163.71	40023163.85	40023163.99	0.0265	0.0181
Venus	104869-09-06 06:42 G	40023924.68	40023924.78	40023924.89	0.0271	0.0231
Venus	104870-04-23 07:40 G	40024153.62	40024153.82	40024154.03	0.0273	0.0033
Moon	104873-12-23 17:59 G	40025494.07	40025494.25	40025494.44	0.0289	0.0178
Earth	104873-12-23 21:35 G	40025494.23	40025494.40	40025494.60	0.0289	0.0180 *
Moon	104875-01-06 15:49 G	40025872.94	40025873.16	40025873.39	0.0293	0.0091
Earth	104875-01-06 17:30 G	40025873.01	40025873.23	40025873.46	0.0293	0.0096 *
Mercury	104880-12-19 01:11 G	40028046.48	40028046.55	40028046.62	0.0298	0.0243
Mercury	104881-03-17 13:25 G	40028134.93	40028135.06	40028135.18	0.0298	0.0067
Mercury	104881-06-14 01:25 G	40028223.44	40028223.56	40028223.68	0.0297	0.0107
Mercury	104881-09-10 13:25 G	40028312.02	40028312.06	40028312.11	0.0296	0.0278
Venus	104883-07-11 22:47 G	40028981.25	40028981.45	40028981.66	0.0289	0.0098
Venus	104884-02-26 22:47 G	40029211.33	40029211.45	40029211.58	0.0286	0.0232

Moon	104887-06-25 02:37 G	40030425.44	40030425.61	40030425.78	0.0272	0.0190
Earth	104887-06-25 06:13 G	40030425.57	40030425.76	40030425.95	0.0272	0.0174 *
Earth	104888-07-06 20:09 G	40030803.10	40030803.34	40030803.59	0.0269	0.0052
Moon	104888-07-06 20:37 G	40030803.13	40030803.36	40030803.60	0.0269	0.0047 *
Earth	104889-07-19 01:54 G	40031180.57	40031180.58	40031180.62	0.0266	0.0264
Mercury	104896-06-29 11:01 G	40033717.91	40033717.96	40033718.02	0.0264	0.0249
Mercury	104896-09-26 08:37 G	40033806.67	40033806.86	40033807.04	0.0264	0.0068
Mercury	104896-12-24 05:59 G	40033895.58	40033895.75	40033895.93	0.0265	0.0117
Venus	104899-03-19 08:09 G	40034710.70	40034710.84	40034710.98	0.0272	0.0201
Venus	104899-11-03 09:21 G	40034939.69	40034939.89	40034940.09	0.0274	0.0065
Moon	104904-01-01 17:59 G	40036459.00	40036459.25	40036459.49	0.0292	0.0049
Earth	104904-01-01 19:25 G	40036459.07	40036459.31	40036459.55	0.0292	0.0035 *
Moon	104905-01-14 17:01 G	40036838.07	40036838.21	40036838.36	0.0295	0.0232
Earth	104905-01-14 20:37 G	40036838.23	40036838.36	40036838.49	0.0295	0.0249 *
Mercury	104910-05-09 03:06 G	40038778.62	40038778.63	40038778.64	0.0298	0.0296
Mercury	104910-08-05 15:21 G	40038867.02	40038867.14	40038867.26	0.0297	0.0120
Mercury	104910-11-02 03:21 G	40038955.52	40038955.64	40038955.77	0.0297	0.0056
Mercury	104911-01-29 15:21 G	40039044.07	40039044.14	40039044.23	0.0296	0.0227
Venus	104913-01-22 04:33 G	40039767.48	40039767.69	40039767.91	0.0289	0.0053
Venus	104913-09-09 04:18 G	40039997.63	40039997.68	40039997.74	0.0286	0.0275
Moon	104917-07-02 14:09 G	40041389.85	40041390.09	40041390.35	0.0271	0.0050
Earth	104917-07-02 17:16 G	40041389.97	40041390.22	40041390.46	0.0271	0.0050 *
Moon	104918-07-15 00:13 G	40041767.34	40041767.51	40041767.70	0.0267	0.0181
Earth	104918-07-15 02:37 G	40041767.43	40041767.61	40041767.82	0.0267	0.0170 *
Mars	104922-04-08 04:04 G	40043130.37	40043130.67	40043130.98	0.0261	0.0044
Mercury	104926-02-14 07:54 G	40044538.66	40044538.83	40044539.00	0.0264	0.0117
Mercury	104926-05-14 05:16 G	40044627.54	40044627.72	40044627.91	0.0264	0.0067
Mercury	104926-08-11 02:52 G	40044716.57	40044716.62	40044716.69	0.0265	0.0252
Venus	104928-09-29 11:59 G	40045496.84	40045497.00	40045497.17	0.0271	0.0163
Venus	104929-05-16 13:25 G	40045725.87	40045726.06	40045726.25	0.0274	0.0103

Earth	104932-12-25 23:59 G	40047045.30	40047045.50	40047045.70	0.0289	0.0157
Moon	104932-12-26 03:21 G	40047045.46	40047045.64	40047045.84	0.0289	0.0175 *
Earth	104934-01-08 19:40 G	40047424.10	40047424.32	40047424.54	0.0293	0.0118
Moon	104934-01-08 22:18 G	40047424.20	40047424.43	40047424.67	0.0293	0.0102 *
Mercury	104939-12-23 16:18 G	40049599.08	40049599.18	40049599.28	0.0298	0.0187
Mercury	104940-03-21 04:33 G	40049687.56	40049687.69	40049687.82	0.0297	0.0015
Mercury	104940-06-17 16:33 G	40049776.08	40049776.19	40049776.30	0.0297	0.0161
Venus	104942-08-04 06:13 G	40050553.54	40050553.76	40050553.98	0.0289	0.0021
Earth	104946-06-27 04:04 G	40051976.48	40051976.67	40051976.88	0.0272	0.0157
Moon	104946-06-27 08:09 G	40051976.63	40051976.84	40051977.05	0.0272	0.0149 *
Earth	104947-07-09 18:13 G	40052354.02	40052354.26	40052354.50	0.0269	0.0069
Moon	104947-07-09 18:28 G	40052354.03	40052354.27	40052354.52	0.0269	0.0082 *
Mercury	104955-07-04 05:59 G	40055270.61	40055270.75	40055270.89	0.0264	0.0178
Mercury	104955-10-01 03:21 G	40055359.45	40055359.64	40055359.84	0.0265	0.0007
Mercury	104955-12-29 00:57 G	40055448.41	40055448.54	40055448.68	0.0265	0.0190
Venus	104958-04-11 14:09 G	40056282.91	40056283.09	40056283.28	0.0272	0.0132
Venus	104958-11-26 15:49 G	40056511.98	40056512.16	40056512.34	0.0275	0.0137
Earth	104961-12-20 07:11 G	40057631.75	40057631.80	40057631.88	0.0288	0.0277
Earth	104963-01-02 23:01 G	40058010.21	40058010.46	40058010.70	0.0292	0.0012
Moon	104963-01-02 23:01 G	40058010.23	40058010.46	40058010.70	0.0292	0.0020 *
Earth	104964-01-17 00:13 G	40058389.42	40058389.51	40058389.61	0.0295	0.0271
Moon	104964-01-17 03:35 G	40058389.57	40058389.65	40058389.74	0.0295	0.0273 *
Mercury	104969-05-11 18:13 G	40060331.19	40060331.26	40060331.34	0.0298	0.0238
Mercury	104969-08-08 06:28 G	40060419.65	40060419.77	40060419.90	0.0297	0.0063
Mercury	104969-11-04 18:42 G	40060508.16	40060508.28	40060508.40	0.0296	0.0112
Mercury	104970-02-01 06:42 G	40060596.75	40060596.78	40060596.81	0.0296	0.0282
Venus	104972-02-14 12:42 G	40061339.81	40061340.03	40061340.24	0.0288	0.0026
Moon	104975-06-21 19:11 G	40062563.21	40062563.30	40062563.41	0.0274	0.0248
Earth	104975-06-21 21:49 G	40062563.34	40062563.41	40062563.49	0.0274	0.0261 *
Earth	104976-07-03 16:04 G	40062940.93	40062941.17	40062941.42	0.0271	0.0032

Moon	104976-07-03 18:13 G	40062941.02	40062941.26	40062941.50	0.0271	0.0018	*
Earth	104977-07-16 01:54 G	40063318.41	40063318.58	40063318.76	0.0267	0.0187	
Moon	104977-07-16 05:16 G	40063318.54	40063318.72	40063318.89	0.0267	0.0193	*
Mercury	104984-11-20 05:45 G	40066002.65	40066002.74	40066002.85	0.0264	0.0223	
Mercury	104985-02-17 03:21 G	40066091.45	40066091.64	40066091.83	0.0264	0.0041	
Mercury	104985-05-17 00:57 G	40066180.38	40066180.54	40066180.70	0.0265	0.0144	
Venus	104987-10-22 19:25 G	40067069.12	40067069.31	40067069.51	0.0272	0.0090	
Venus	104988-06-07 21:06 G	40067298.22	40067298.38	40067298.54	0.0274	0.0178	
Moon	104991-12-28 03:21 G	40068596.42	40068596.64	40068596.86	0.0289	0.0130	
Earth	104991-12-28 06:13 G	40068596.55	40068596.76	40068596.98	0.0289	0.0132	*
Moon	104993-01-09 23:16 G	40068975.27	40068975.47	40068975.67	0.0293	0.0153	
Earth	104993-01-10 02:23 G	40068975.39	40068975.60	40068975.81	0.0293	0.0143	*
Mercury	104998-12-26 07:54 G	40071151.72	40071151.83	40071151.95	0.0297	0.0123	
Mercury	104999-03-24 20:09 G	40071240.21	40071240.34	40071240.47	0.0297	0.0051	
Mercury	104999-06-21 08:09 G	40071328.76	40071328.84	40071328.92	0.0296	0.0223	

106TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 106th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	105001-01-09 14:23 G		40071896.05	40071896.10	40071896.18	0.0291	0.0276	
Venus	105001-08-27 15:49 G		40072125.95	40072126.16	40072126.37	0.0288	0.0062	
Moon	105005-06-29 01:54 G		40073527.36	40073527.58	40073527.80	0.0272	0.0124	
Earth	105005-06-29 05:16 G		40073527.52	40073527.72	40073527.95	0.0272	0.0138	*

Moon	105006-07-11 17:59 G	40073905.03	40073905.25	40073905.48	0.0269	0.0088
Earth	105006-07-11 19:11 G	40073905.07	40073905.30	40073905.54	0.0269	0.0088 *
Mars	105010-09-02 06:57 G	40075418.51	40075418.79	40075419.09	0.0261	0.0100
Mercury	105014-07-08 01:40 G	40076823.39	40076823.57	40076823.74	0.0264	0.0100
Mercury	105014-10-04 23:01 G	40076912.28	40076912.46	40076912.65	0.0265	0.0085
Venus	105017-05-04 22:04 G	40077855.22	40077855.42	40077855.62	0.0273	0.0057
Venus	105017-12-19 23:59 G	40078084.37	40078084.50	40078084.63	0.0275	0.0214
Earth	105020-12-22 14:23 G	40079182.99	40079183.10	40079183.22	0.0288	0.0251
Moon	105020-12-22 18:13 G	40079183.13	40079183.26	40079183.40	0.0288	0.0241 *
Earth	105022-01-05 06:28 G	40079561.53	40079561.77	40079562.01	0.0292	0.0016
Moon	105022-01-05 07:40 G	40079561.57	40079561.82	40079562.07	0.0292	0.0030 *
Mercury	105028-05-15 10:18 G	40081883.83	40081883.93	40081884.04	0.0297	0.0170
Mercury	105028-08-11 22:33 G	40081972.31	40081972.44	40081972.57	0.0297	0.0011
Mercury	105028-11-08 10:33 G	40082060.85	40082060.94	40082061.05	0.0296	0.0179
Venus	105030-07-22 22:33 G	40082682.31	40082682.44	40082682.58	0.0290	0.0224
Venus	105031-03-09 23:30 G	40082912.28	40082912.48	40082912.68	0.0287	0.0112
Earth	105034-06-24 00:57 G	40084114.43	40084114.54	40084114.66	0.0274	0.0239
Moon	105034-06-24 04:33 G	40084114.56	40084114.69	40084114.83	0.0274	0.0230 *
Moon	105035-07-06 17:45 G	40084491.99	40084492.24	40084492.50	0.0270	0.0016
Earth	105035-07-06 18:57 G	40084492.04	40084492.29	40084492.54	0.0270	0.0010 *
Moon	105036-07-18 00:57 G	40084869.37	40084869.54	40084869.71	0.0267	0.0191
Earth	105036-07-18 04:18 G	40084869.54	40084869.68	40084869.85	0.0267	0.0208 *
Mercury	105043-11-25 01:54 G	40087555.43	40087555.58	40087555.75	0.0264	0.0141
Mercury	105044-02-21 23:30 G	40087644.30	40087644.48	40087644.67	0.0265	0.0044
Mercury	105044-05-20 21:21 G	40087733.30	40087733.39	40087733.48	0.0265	0.0230
Venus	105046-11-15 04:33 G	40088641.49	40088641.69	40088641.90	0.0273	0.0013
Venus	105047-07-02 06:42 G	40088870.72	40088870.78	40088870.85	0.0275	0.0259
Earth	105050-12-30 17:01 G	40090147.98	40090148.21	40090148.43	0.0289	0.0102
Moon	105050-12-30 18:28 G	40090148.05	40090148.27	40090148.50	0.0289	0.0086 *
Earth	105052-01-13 13:40 G	40090526.88	40090527.07	40090527.27	0.0293	0.0174

Moon	105052-01-13 17:01 G	40090527.03	40090527.21	40090527.40	0.0293	0.0188	*
Mercury	105057-10-02 12:28 G	40092615.94	40092616.02	40092616.10	0.0298	0.0222	
Mercury	105057-12-30 00:42 G	40092704.40	40092704.53	40092704.66	0.0297	0.0047	
Mercury	105058-03-28 12:42 G	40092792.91	40092793.03	40092793.15	0.0296	0.0126	
Venus	105060-02-02 04:04 G	40093468.50	40093468.67	40093468.84	0.0290	0.0182	
Venus	105060-09-19 04:33 G	40093698.51	40093698.69	40093698.87	0.0287	0.0152	
Earth	105064-06-30 10:33 G	40095078.72	40095078.94	40095079.17	0.0272	0.0113	
Moon	105064-06-30 13:25 G	40095078.85	40095079.06	40095079.29	0.0272	0.0125	*
Earth	105065-07-12 23:45 G	40095456.27	40095456.49	40095456.72	0.0269	0.0110	
Moon	105065-07-13 01:54 G	40095456.35	40095456.58	40095456.83	0.0269	0.0095	*
Mercury	105073-04-13 00:42 G	40098287.41	40098287.53	40098287.66	0.0264	0.0195	
Mercury	105073-07-10 22:18 G	40098376.24	40098376.43	40098376.62	0.0265	0.0012	
Mercury	105073-10-07 19:54 G	40098465.19	40098465.33	40098465.48	0.0265	0.0174	
Venus	105075-10-11 07:11 G	40099198.71	40099198.80	40099198.90	0.0271	0.0240	
Venus	105076-05-27 08:09 G	40099427.63	40099427.84	40099428.05	0.0273	0.0024	
Moon	105079-12-24 22:33 G	40100734.29	40100734.44	40100734.62	0.0288	0.0208	
Earth	105079-12-25 02:09 G	40100734.45	40100734.59	40100734.76	0.0288	0.0221	*
Moon	105081-01-06 16:47 G	40101112.97	40101113.20	40101113.43	0.0292	0.0053	
Earth	105081-01-06 18:57 G	40101113.06	40101113.29	40101113.53	0.0292	0.0048	*
Mercury	105087-02-19 15:06 G	40103348.07	40103348.13	40103348.18	0.0298	0.0266	
Mercury	105087-05-19 03:21 G	40103436.51	40103436.64	40103436.76	0.0297	0.0090	
Mercury	105087-08-15 15:21 G	40103525.02	40103525.14	40103525.27	0.0296	0.0084	
Mercury	105087-11-12 03:21 G	40103613.58	40103613.64	40103613.71	0.0296	0.0255	
Venus	105089-08-14 12:42 G	40104254.84	40104255.03	40104255.23	0.0289	0.0129	
Venus	105090-04-01 12:57 G	40104484.90	40104485.04	40104485.20	0.0287	0.0204	
Moon	105093-06-25 03:49 G	40105665.54	40105665.66	40105665.81	0.0274	0.0229	
Earth	105093-06-25 07:54 G	40105665.68	40105665.83	40105665.98	0.0274	0.0213	*
Earth	105094-07-08 01:11 G	40106043.30	40106043.55	40106043.79	0.0270	0.0016	
Moon	105094-07-08 01:11 G	40106043.31	40106043.55	40106043.79	0.0270	0.0005	*
Earth	105095-07-20 09:49 G	40106420.80	40106420.91	40106421.05	0.0267	0.0230	

Moon	105095-07-20 13:40 G	40106420.96	40106421.07	40106421.21	0.0267	0.0228	*
Mars	105099-01-27 13:40 G	40107707.88	40107708.07	40107708.26	0.0262	0.0206	
Mercury	105102-09-01 01:40 G	40109019.49	40109019.57	40109019.66	0.0264	0.0232	
Mercury	105102-11-28 23:16 G	40109108.28	40109108.47	40109108.66	0.0265	0.0049	
Mercury	105103-02-25 20:52 G	40109197.21	40109197.37	40109197.53	0.0265	0.0136	
Venus	105105-04-23 14:09 G	40109984.96	40109985.09	40109985.24	0.0271	0.0196	
Venus	105105-12-08 15:35 G	40110213.95	40110214.15	40110214.35	0.0274	0.0071	
Moon	105110-01-02 06:57 G	40111699.55	40111699.79	40111700.03	0.0290	0.0071	
Earth	105110-01-02 07:11 G	40111699.56	40111699.80	40111700.03	0.0290	0.0068	*
Moon	105111-01-16 01:11 G	40112078.38	40112078.55	40112078.74	0.0294	0.0196	
Earth	105111-01-16 04:33 G	40112078.54	40112078.69	40112078.87	0.0294	0.0210	*
Mercury	105116-10-06 05:45 G	40114168.63	40114168.74	40114168.86	0.0297	0.0136	
Mercury	105117-01-02 17:59 G	40114257.12	40114257.25	40114257.38	0.0297	0.0039	
Mercury	105117-04-01 05:59 G	40114345.66	40114345.75	40114345.84	0.0296	0.0210	
Venus	105119-02-25 20:09 G	40115041.14	40115041.34	40115041.55	0.0289	0.0081	
Venus	105119-10-13 20:09 G	40115271.24	40115271.34	40115271.45	0.0287	0.0250	
Moon	105123-07-03 17:30 G	40116629.99	40116630.23	40116630.48	0.0272	0.0094	
Earth	105123-07-03 19:54 G	40116630.10	40116630.33	40116630.57	0.0272	0.0087	*
Moon	105124-07-15 05:01 G	40117007.51	40117007.71	40117007.93	0.0268	0.0141	
Earth	105124-07-15 08:09 G	40117007.63	40117007.84	40117008.06	0.0268	0.0136	*
Mercury	105132-04-16 22:18 G	40119840.25	40119840.43	40119840.61	0.0264	0.0102	
Mercury	105132-07-14 19:54 G	40119929.15	40119929.33	40119929.51	0.0265	0.0083	
Venus	105134-11-03 17:59 G	40120771.09	40120771.25	40120771.43	0.0272	0.0159	
Venus	105135-06-20 19:25 G	40121000.13	40121000.31	40121000.51	0.0274	0.0110	
Earth	105138-12-27 17:01 G	40122286.03	40122286.21	40122286.40	0.0289	0.0187	
Moon	105138-12-27 19:54 G	40122286.16	40122286.33	40122286.50	0.0289	0.0198	*
Earth	105140-01-10 10:47 G	40122664.72	40122664.95	40122665.19	0.0293	0.0083	
Moon	105140-01-10 13:54 G	40122664.85	40122665.08	40122665.33	0.0293	0.0068	*
Mars	105143-02-21 09:49 G	40123802.68	40123802.91	40123803.15	0.0300	0.0161	
Mercury	105146-02-23 08:37 G	40124900.76	40124900.86	40124900.96	0.0297	0.0176	

Mercury	105146-05-22 20:52 G	40124989.24	40124989.37	40124989.50	0.0297	0.0004
Mercury	105146-08-19 08:52 G	40125077.77	40125077.87	40125077.98	0.0296	0.0171
Venus	105148-09-07 05:45 G	40125827.53	40125827.74	40125827.96	0.0288	0.0026
Jupiter	105149-10-02 17:45 G	40126217.99	40126218.24	40126218.55	0.0284	0.0232
Earth	105152-06-27 18:13 G	40127217.09	40127217.26	40127217.46	0.0273	0.0185
Moon	105152-06-27 21:49 G	40127217.24	40127217.41	40127217.59	0.0273	0.0189 *
Earth	105153-07-10 10:47 G	40127594.70	40127594.95	40127595.20	0.0270	0.0042
Moon	105153-07-10 11:59 G	40127594.75	40127595.00	40127595.26	0.0270	0.0051 *
Earth	105154-07-22 18:57 G	40127972.23	40127972.29	40127972.37	0.0267	0.0255
Mercury	105161-09-03 23:30 G	40130572.32	40130572.48	40130572.64	0.0265	0.0136
Mercury	105161-12-01 21:06 G	40130661.19	40130661.38	40130661.57	0.0265	0.0049
Mercury	105162-02-28 18:42 G	40130750.20	40130750.28	40130750.37	0.0266	0.0236
Venus	105164-05-16 02:09 G	40131557.40	40131557.59	40131557.78	0.0272	0.0111
Venus	105164-12-31 03:49 G	40131786.50	40131786.66	40131786.83	0.0274	0.0159
Moon	105169-01-03 23:30 G	40133251.26	40133251.48	40133251.72	0.0290	0.0047
Earth	105169-01-04 00:57 G	40133251.30	40133251.54	40133251.78	0.0290	0.0031 *
Earth	105170-01-17 23:30 G	40133630.36	40133630.48	40133630.62	0.0294	0.0247
Moon	105170-01-18 02:23 G	40133630.47	40133630.60	40133630.74	0.0294	0.0237 *
Mercury	105175-07-13 11:45 G	40135632.90	40135632.99	40135633.08	0.0297	0.0215
Mercury	105175-10-09 23:45 G	40135721.37	40135721.49	40135721.62	0.0297	0.0042
Mercury	105176-01-06 11:59 G	40135809.88	40135810.00	40135810.11	0.0296	0.0132
Venus	105178-03-20 14:52 G	40136613.90	40136614.12	40136614.33	0.0288	0.0027
Earth	105182-07-05 08:09 G	40138181.60	40138181.84	40138182.08	0.0271	0.0057
Moon	105182-07-05 09:06 G	40138181.65	40138181.88	40138182.12	0.0271	0.0045 *
Earth	105183-07-17 19:11 G	40138559.11	40138559.30	40138559.51	0.0268	0.0163
Moon	105183-07-17 23:16 G	40138559.28	40138559.47	40138559.65	0.0268	0.0178 *
Mercury	105191-01-21 22:47 G	40141304.32	40141304.45	40141304.58	0.0264	0.0186
Mercury	105191-04-20 20:23 G	40141393.15	40141393.35	40141393.54	0.0265	0.0005
Mercury	105191-07-18 17:45 G	40141482.11	40141482.24	40141482.39	0.0265	0.0185
Venus	105193-11-26 06:13 G	40142343.56	40142343.76	40142343.96	0.0272	0.0073

Venus	105194-07-13 08:09 G	40142572.70	40142572.84	40142572.99	0.0275	0.0199
Moon	105197-12-29 08:09 G	40143837.64	40143837.84	40143838.05	0.0289	0.0163
Earth	105197-12-29 09:35 G	40143837.70	40143837.90	40143838.11	0.0289	0.0152 *
Moon	105199-01-12 00:57 G	40144216.33	40144216.54	40144216.77	0.0293	0.0118
Earth	105199-01-12 04:33 G	40144216.48	40144216.69	40144216.92	0.0293	0.0120 *
Mercury	105204-11-29 14:23 G	40146365.04	40146365.10	40146365.16	0.0298	0.0258
Mercury	105205-02-26 02:37 G	40146453.49	40146453.61	40146453.74	0.0297	0.0082
Mercury	105205-05-25 14:37 G	40146541.99	40146542.11	40146542.24	0.0296	0.0093
Mercury	105205-08-22 02:52 G	40146630.56	40146630.62	40146630.67	0.0296	0.0263
Venus	105207-02-12 23:01 G	40147170.37	40147170.46	40147170.57	0.0290	0.0257
Venus	105207-10-01 00:13 G	40147400.31	40147400.51	40147400.72	0.0288	0.0081
Moon	105211-06-30 04:47 G	40148768.49	40148768.70	40148768.93	0.0273	0.0140
Earth	105211-06-30 07:40 G	40148768.63	40148768.82	40148769.04	0.0273	0.0155 *
Moon	105212-07-11 20:37 G	40149146.13	40149146.36	40149146.59	0.0269	0.0082
Earth	105212-07-11 23:01 G	40149146.22	40149146.46	40149146.70	0.0269	0.0071 *
Mercury	105220-06-09 23:59 G	40152036.41	40152036.50	40152036.61	0.0265	0.0220
Mercury	105220-09-06 21:35 G	40152125.21	40152125.40	40152125.59	0.0265	0.0036
Mercury	105220-12-04 19:11 G	40152214.15	40152214.30	40152214.46	0.0266	0.0151
Venus	105223-06-08 14:23 G	40153129.90	40153130.10	40153130.31	0.0273	0.0025
Venus	105224-01-23 16:33 G	40153359.11	40153359.19	40153359.29	0.0275	0.0249
Earth	105226-12-24 04:04 G	40154424.58	40154424.67	40154424.79	0.0287	0.0258
Moon	105226-12-24 07:25 G	40154424.73	40154424.81	40154424.91	0.0287	0.0265 *
Earth	105228-01-06 19:11 G	40154803.06	40154803.30	40154803.54	0.0291	0.0007
Moon	105228-01-06 21:35 G	40154803.16	40154803.40	40154803.65	0.0291	0.0011 *
Earth	105229-01-19 19:11 G	40155182.25	40155182.30	40155182.37	0.0295	0.0285
Mars	105231-07-19 16:18 G	40156092.91	40156093.18	40156093.46	0.0300	0.0031
Mercury	105234-04-18 17:45 G	40157097.22	40157097.24	40157097.27	0.0298	0.0291
Mercury	105234-07-16 05:59 G	40157185.63	40157185.75	40157185.87	0.0297	0.0115
Mercury	105234-10-12 18:13 G	40157274.13	40157274.26	40157274.38	0.0296	0.0059
Mercury	105235-01-09 05:59 G	40157362.68	40157362.75	40157362.84	0.0296	0.0230

Venus	105236-08-25 09:35 G	40157956.76	40157956.90	40157957.07	0.0290	0.0200
Venus	105237-04-12 10:18 G	40158186.75	40158186.93	40158187.13	0.0287	0.0137
Earth	105240-06-24 04:18 G	40159355.60	40159355.68	40159355.77	0.0274	0.0256
Moon	105240-06-24 08:09 G	40159355.72	40159355.84	40159355.95	0.0274	0.0240 *
Earth	105241-07-06 22:33 G	40159733.20	40159733.44	40159733.69	0.0271	0.0027
Moon	105241-07-06 23:01 G	40159733.20	40159733.46	40159733.72	0.0271	0.0021 *
Moon	105242-07-19 04:47 G	40160110.52	40160110.70	40160110.88	0.0268	0.0185
Earth	105242-07-19 08:23 G	40160110.69	40160110.85	40160111.03	0.0268	0.0192 *
Mercury	105250-01-24 20:52 G	40162857.20	40162857.37	40162857.56	0.0265	0.0086
Mercury	105250-04-23 18:28 G	40162946.10	40162946.27	40162946.45	0.0265	0.0100
Venus	105252-05-03 17:30 G	40163687.16	40163687.23	40163687.32	0.0271	0.0250
Venus	105252-12-18 18:42 G	40163916.07	40163916.28	40163916.49	0.0273	0.0015
Earth	105256-12-31 02:52 G	40165389.41	40165389.62	40165389.85	0.0290	0.0117
Moon	105256-12-31 02:52 G	40165389.41	40165389.62	40165389.84	0.0290	0.0107 *
Earth	105258-01-13 23:16 G	40165768.27	40165768.47	40165768.68	0.0294	0.0158
Moon	105258-01-14 02:52 G	40165768.43	40165768.62	40165768.81	0.0294	0.0175 *
Mercury	105263-12-03 08:37 G	40167917.75	40167917.86	40167917.97	0.0297	0.0159
Mercury	105264-02-29 20:52 G	40168006.24	40168006.37	40168006.50	0.0297	0.0016
Mercury	105264-05-28 08:52 G	40168094.77	40168094.87	40168094.97	0.0296	0.0188
Venus	105266-03-07 18:57 G	40168743.11	40168743.29	40168743.48	0.0290	0.0146
Venus	105266-10-23 19:25 G	40168973.15	40168973.31	40168973.48	0.0287	0.0189
Earth	105270-07-01 22:04 G	40170320.20	40170320.42	40170320.65	0.0272	0.0123
Moon	105270-07-01 23:59 G	40170320.29	40170320.50	40170320.72	0.0272	0.0123 *
Earth	105271-07-14 11:59 G	40170697.77	40170698.00	40170698.23	0.0269	0.0101
Moon	105271-07-14 15:35 G	40170697.92	40170698.15	40170698.39	0.0269	0.0090 *
Mercury	105279-06-13 22:18 G	40173589.26	40173589.43	40173589.60	0.0265	0.0120
Mercury	105279-09-10 19:54 G	40173678.14	40173678.33	40173678.51	0.0265	0.0065
Mercury	105279-12-08 17:30 G	40173767.18	40173767.23	40173767.29	0.0266	0.0252
Venus	105281-11-14 01:25 G	40174473.43	40174473.56	40174473.70	0.0272	0.0203
Venus	105282-07-01 02:37 G	40174702.41	40174702.61	40174702.82	0.0274	0.0064

Moon	105285-12-25 18:13 G	40175976.10	40175976.26	40175976.44	0.0288	0.0209
Earth	105285-12-25 20:23 G	40175976.21	40175976.35	40175976.51	0.0288	0.0225 *
Moon	105287-01-08 09:35 G	40176354.67	40176354.90	40176355.13	0.0292	0.0058
Earth	105287-01-08 12:42 G	40176354.80	40176355.03	40176355.27	0.0292	0.0043 *
Mercury	105293-04-21 11:59 G	40178649.90	40178650.00	40178650.10	0.0297	0.0192
Mercury	105293-07-19 00:13 G	40178738.38	40178738.51	40178738.64	0.0297	0.0017
Mercury	105293-10-15 12:13 G	40178826.90	40178827.01	40178827.12	0.0296	0.0155
Venus	105295-09-18 05:45 G	40179529.54	40179529.74	40179529.95	0.0289	0.0088
Venus	105296-05-05 05:45 G	40179759.64	40179759.74	40179759.86	0.0287	0.0246
Moon	105299-06-26 16:47 G	40180907.07	40180907.20	40180907.34	0.0274	0.0229
Earth	105299-06-26 20:09 G	40180907.21	40180907.34	40180907.49	0.0274	0.0224 *
Moon	105300-07-09 11:30 G	40181284.74	40181284.98	40181285.23	0.0270	0.0011
Earth	105300-07-09 13:25 G	40181284.81	40181285.06	40181285.31	0.0270	0.0005 *
Earth	105301-07-21 21:49 G	40181662.28	40181662.41	40181662.56	0.0267	0.0220
Moon	105301-07-22 00:42 G	40181662.38	40181662.53	40181662.69	0.0267	0.0205 *
Mercury	105308-10-31 21:21 G	40184321.25	40184321.39	40184321.55	0.0264	0.0169
Mercury	105309-01-28 18:57 G	40184410.10	40184410.29	40184410.49	0.0265	0.0016
Mercury	105309-04-27 16:47 G	40184499.07	40184499.20	40184499.32	0.0265	0.0201
Venus	105311-05-28 05:01 G	40185259.55	40185259.71	40185259.88	0.0271	0.0166
Venus	105312-01-12 06:13 G	40185488.58	40185488.76	40185488.96	0.0274	0.0103
Earth	105316-01-03 18:13 G	40186941.03	40186941.26	40186941.50	0.0290	0.0083
Moon	105316-01-03 19:40 G	40186941.08	40186941.32	40186941.57	0.0290	0.0072 *
Moon	105317-01-16 13:11 G	40187319.87	40187320.05	40187320.24	0.0294	0.0194
Earth	105317-01-16 16:04 G	40187319.99	40187320.17	40187320.35	0.0294	0.0194 *
Mars	105319-12-15 11:30 G	40188382.76	40188382.98	40188383.20	0.0300	0.0181
Mercury	105322-09-09 14:23 G	40189382.03	40189382.10	40189382.18	0.0298	0.0240
Mercury	105322-12-07 02:37 G	40189470.48	40189470.61	40189470.74	0.0297	0.0064
Mercury	105323-03-05 14:52 G	40189559.00	40189559.12	40189559.24	0.0296	0.0110
Mercury	105323-06-02 02:37 G	40189647.58	40189647.61	40189647.66	0.0296	0.0281
Venus	105325-03-31 13:54 G	40190315.87	40190316.08	40190316.30	0.0289	0.0037

Moon	105329-07-04 11:30 G	40191871.75	40191871.98	40191872.22	0.0272	0.0107
Earth	105329-07-04 12:13 G	40191871.78	40191872.01	40191872.24	0.0272	0.0093 *
Moon	105330-07-16 20:37 G	40192249.15	40192249.36	40192249.60	0.0268	0.0119
Earth	105330-07-17 00:42 G	40192249.32	40192249.53	40192249.75	0.0268	0.0129 *
Mars	105334-02-26 00:42 G	40193569.34	40193569.53	40193569.74	0.0262	0.0202
Mercury	105338-03-20 22:18 G	40195053.32	40195053.43	40195053.55	0.0265	0.0207
Mercury	105338-06-17 19:54 G	40195142.14	40195142.33	40195142.52	0.0265	0.0023
Mercury	105338-09-14 17:30 G	40195231.08	40195231.23	40195231.38	0.0266	0.0163
Venus	105340-12-07 12:13 G	40196045.83	40196046.01	40196046.20	0.0272	0.0120
Venus	105341-07-24 13:40 G	40196274.91	40196275.07	40196275.26	0.0274	0.0151
Earth	105344-12-28 10:18 G	40197527.76	40197527.93	40197528.12	0.0288	0.0193
Moon	105344-12-28 11:16 G	40197527.80	40197527.97	40197528.15	0.0288	0.0190 *
Earth	105346-01-11 04:04 G	40197906.44	40197906.67	40197906.90	0.0292	0.0077
Moon	105346-01-11 07:40 G	40197906.59	40197906.82	40197907.06	0.0292	0.0071 *
Mercury	105352-01-27 17:45 G	40200114.19	40200114.24	40200114.29	0.0298	0.0273
Mercury	105352-04-25 05:59 G	40200202.63	40200202.75	40200202.88	0.0297	0.0097
Mercury	105352-07-22 18:13 G	40200291.13	40200291.26	40200291.38	0.0296	0.0077
Mercury	105352-10-19 05:59 G	40200379.69	40200379.75	40200379.83	0.0296	0.0249
Venus	105354-10-12 00:57 G	40201102.33	40201102.54	40201102.76	0.0289	0.0023
Earth	105358-06-29 10:47 G	40202458.78	40202458.95	40202459.13	0.0273	0.0194
Moon	105358-06-29 13:25 G	40202458.91	40202459.06	40202459.22	0.0273	0.0208 *
Earth	105359-07-12 02:37 G	40202836.37	40202836.61	40202836.86	0.0270	0.0033
Moon	105359-07-12 05:45 G	40202836.49	40202836.74	40202837.00	0.0270	0.0028 *
Moon	105360-07-23 09:06 G	40203213.81	40203213.88	40203213.97	0.0267	0.0252
Earth	105360-07-23 10:18 G	40203213.85	40203213.93	40203214.03	0.0267	0.0247 *
Mercury	105367-08-07 21:35 G	40205785.36	40205785.40	40205785.45	0.0264	0.0256
Mercury	105367-11-04 18:57 G	40205874.11	40205874.29	40205874.48	0.0264	0.0074
Mercury	105368-02-01 16:33 G	40205963.02	40205963.19	40205963.37	0.0265	0.0111
Venus	105370-06-19 15:21 G	40206831.95	40206832.14	40206832.34	0.0272	0.0083
Venus	105371-02-03 17:01 G	40207061.06	40207061.21	40207061.36	0.0274	0.0187

Moon	105375-01-05 04:33 G	40208492.46	40208492.69	40208492.92	0.0291	0.0065
Earth	105375-01-05 06:57 G	40208492.55	40208492.79	40208493.03	0.0291	0.0051 *
Earth	105376-01-19 05:16 G	40208871.58	40208871.72	40208871.89	0.0294	0.0227
Moon	105376-01-19 06:28 G	40208871.62	40208871.77	40208871.94	0.0294	0.0210 *
Mercury	105381-09-12 07:54 G	40210934.72	40210934.83	40210934.94	0.0298	0.0152
Mercury	105381-12-09 20:09 G	40211023.21	40211023.34	40211023.47	0.0297	0.0024
Mercury	105382-03-08 08:09 G	40211111.75	40211111.84	40211111.94	0.0296	0.0196
Venus	105383-09-06 05:01 G	40211658.65	40211658.71	40211658.80	0.0291	0.0273
Venus	105384-04-23 06:57 G	40211888.58	40211888.79	40211889.00	0.0288	0.0068
Moon	105388-07-05 23:01 G	40213423.23	40213423.46	40213423.70	0.0271	0.0065
Earth	105388-07-05 23:59 G	40213423.26	40213423.50	40213423.74	0.0271	0.0065 *
Earth	105389-07-18 11:30 G	40213800.78	40213800.98	40213801.18	0.0268	0.0155
Moon	105389-07-18 14:52 G	40213800.93	40213801.12	40213801.31	0.0268	0.0167 *
Mercury	105397-03-23 19:11 G	40216606.14	40216606.30	40216606.48	0.0265	0.0117
Mercury	105397-06-20 17:01 G	40216695.02	40216695.21	40216695.39	0.0265	0.0068
Mercury	105397-09-17 14:23 G	40216784.06	40216784.10	40216784.16	0.0266	0.0255
Venus	105399-12-30 21:35 G	40217618.19	40217618.40	40217618.61	0.0273	0.0040
Venus	105400-08-16 23:30 G	40217847.38	40217847.48	40217847.59	0.0275	0.0232
Earth	105403-12-31 20:09 G	40219079.15	40219079.34	40219079.54	0.0289	0.0165
Moon	105403-12-31 20:09 G	40219079.16	40219079.34	40219079.55	0.0289	0.0180 *
Moon	105405-01-13 11:30 G	40219457.75	40219457.98	40219458.22	0.0293	0.0092
Earth	105405-01-13 14:52 G	40219457.90	40219458.12	40219458.35	0.0293	0.0108 *
Mercury	105411-01-31 11:01 G	40221666.86	40221666.96	40221667.06	0.0297	0.0188
Mercury	105411-04-29 23:16 G	40221755.34	40221755.47	40221755.60	0.0297	0.0013
Mercury	105411-07-27 11:16 G	40221843.86	40221843.97	40221844.08	0.0296	0.0161
Venus	105413-03-19 15:49 G	40222445.02	40222445.16	40222445.31	0.0291	0.0214
Venus	105413-11-04 17:16 G	40222675.02	40222675.22	40222675.41	0.0288	0.0125
Moon	105417-07-01 20:52 G	40224010.16	40224010.37	40224010.58	0.0273	0.0158
Earth	105417-07-01 22:18 G	40224010.25	40224010.43	40224010.64	0.0273	0.0167 *
Moon	105418-07-14 09:35 G	40224387.67	40224387.90	40224388.14	0.0269	0.0075

Earth	105418-07-14 13:25 G	40224387.82	40224388.06	40224388.31	0.0269	0.0059	*
Mars	105422-07-24 08:37 G	40225858.56	40225858.86	40225859.15	0.0261	0.0087	
Mercury	105426-08-11 18:28 G	40227338.12	40227338.27	40227338.41	0.0264	0.0168	
Mercury	105426-11-08 15:49 G	40227426.97	40227427.16	40227427.35	0.0264	0.0015	
Mercury	105427-02-05 13:11 G	40227515.93	40227516.05	40227516.18	0.0265	0.0200	
Venus	105428-11-25 23:16 G	40228175.46	40228175.47	40228175.51	0.0270	0.0268	
Venus	105429-07-12 23:59 G	40228404.29	40228404.50	40228404.71	0.0272	0.0005	
Venus	105430-02-27 01:54 G	40228633.54	40228633.58	40228633.63	0.0275	0.0267	
Earth	105432-12-25 01:25 G	40229665.55	40229665.56	40229665.60	0.0287	0.0285	
Earth	105434-01-07 15:21 G	40230043.90	40230044.14	40230044.38	0.0291	0.0024	
Moon	105434-01-07 18:42 G	40230044.04	40230044.28	40230044.52	0.0291	0.0032	*
Earth	105435-01-21 14:52 G	40230423.01	40230423.12	40230423.24	0.0295	0.0255	
Moon	105435-01-21 15:06 G	40230423.02	40230423.13	40230423.27	0.0295	0.0253	*
Mercury	105440-06-19 12:28 G	40232398.95	40232399.02	40232399.09	0.0298	0.0249	
Mercury	105440-09-16 00:42 G	40232487.41	40232487.53	40232487.66	0.0297	0.0072	
Mercury	105440-12-13 12:57 G	40232575.92	40232576.04	40232576.16	0.0297	0.0102	
Mercury	105441-03-12 00:57 G	40232664.50	40232664.54	40232664.59	0.0296	0.0274	
Venus	105442-09-29 20:23 G	40233231.18	40233231.35	40233231.53	0.0290	0.0173	
Venus	105443-05-17 21:35 G	40233461.23	40233461.40	40233461.58	0.0288	0.0166	
Earth	105446-06-26 13:11 G	40234597.02	40234597.05	40234597.10	0.0275	0.0271	
Moon	105446-06-26 16:33 G	40234597.11	40234597.19	40234597.28	0.0275	0.0258	
Earth	105447-07-09 08:52 G	40234974.62	40234974.87	40234975.11	0.0271	0.0040	
Moon	105447-07-09 11:01 G	40234974.71	40234974.96	40234975.22	0.0271	0.0024	*
Moon	105448-07-20 17:01 G	40235352.04	40235352.21	40235352.40	0.0267	0.0189	
Earth	105448-07-20 19:40 G	40235352.13	40235352.32	40235352.50	0.0267	0.0179	*
Mercury	105455-12-29 17:59 G	40238070.14	40238070.25	40238070.36	0.0264	0.0216	
Mercury	105456-03-27 15:21 G	40238158.95	40238159.14	40238159.33	0.0265	0.0033	
Mercury	105456-06-24 12:42 G	40238247.88	40238248.03	40238248.20	0.0265	0.0153	
Venus	105458-06-08 04:04 G	40238961.57	40238961.67	40238961.79	0.0271	0.0229	
Venus	105459-01-23 05:01 G	40239190.50	40239190.71	40239190.92	0.0273	0.0037	

Moon	105463-01-02 00:57 G	40240630.34	40240630.54	40240630.75	0.0289	0.0141
Earth	105463-01-02 02:09 G	40240630.38	40240630.59	40240630.81	0.0289	0.0141 *
Earth	105464-01-15 21:35 G	40241009.19	40241009.40	40241009.62	0.0293	0.0133
Moon	105464-01-16 00:13 G	40241009.30	40241009.51	40241009.71	0.0293	0.0142 *
Mercury	105469-11-06 15:06 G	40243131.11	40243131.13	40243131.16	0.0298	0.0290
Mercury	105470-02-03 03:35 G	40243219.53	40243219.65	40243219.77	0.0297	0.0113
Mercury	105470-05-02 15:35 G	40243308.03	40243308.15	40243308.28	0.0297	0.0062
Mercury	105470-07-30 03:49 G	40243396.58	40243396.66	40243396.74	0.0296	0.0234
Venus	105472-04-11 05:30 G	40244017.54	40244017.73	40244017.93	0.0290	0.0117
Venus	105472-11-27 06:13 G	40244247.63	40244247.76	40244247.91	0.0288	0.0221
Earth	105476-07-03 06:13 G	40245561.56	40245561.76	40245561.98	0.0273	0.0143
Moon	105476-07-03 06:42 G	40245561.57	40245561.78	40245561.99	0.0273	0.0131 *
Earth	105477-07-15 20:37 G	40245939.12	40245939.36	40245939.60	0.0269	0.0082
Moon	105477-07-16 00:28 G	40245939.28	40245939.52	40245939.75	0.0269	0.0087 *
Mercury	105485-08-14 14:09 G	40248890.91	40248891.09	40248891.27	0.0264	0.0087
Mercury	105485-11-11 11:30 G	40248979.80	40248979.98	40248980.16	0.0264	0.0096
Venus	105487-12-19 06:28 G	40249747.62	40249747.77	40249747.91	0.0270	0.0195
Venus	105488-08-04 06:57 G	40249976.59	40249976.79	40249976.99	0.0272	0.0070
Moon	105491-12-27 03:35 G	40251216.54	40251216.65	40251216.78	0.0287	0.0253
Earth	105491-12-27 05:16 G	40251216.64	40251216.72	40251216.82	0.0287	0.0263 *
Moon	105493-01-08 15:49 G	40251594.92	40251595.16	40251595.41	0.0291	0.0018
Earth	105493-01-08 19:40 G	40251595.08	40251595.32	40251595.56	0.0291	0.0000 *
Earth	105494-01-22 19:25 G	40251974.25	40251974.31	40251974.40	0.0295	0.0279
Mercury	105499-06-23 04:33 G	40253951.59	40253951.69	40253951.79	0.0298	0.0180
Mercury	105499-09-19 16:47 G	40254040.07	40254040.20	40254040.33	0.0297	0.0004
Mercury	105499-12-17 04:47 G	40254128.60	40254128.70	40254128.81	0.0297	0.0170
Venus	105501-10-23 08:09 G	40254803.64	40254803.84	40254804.05	0.0290	0.0081
Venus	105502-06-10 08:52 G	40255033.78	40255033.87	40255033.97	0.0287	0.0255
Moon	105505-06-28 15:35 G	40256148.05	40256148.15	40256148.28	0.0274	0.0243
Earth	105505-06-28 18:28 G	40256148.18	40256148.27	40256148.39	0.0274	0.0249 *

Moon	105506-07-11 10:33 G	40256525.69	40256525.94	40256526.18	0.0271	0.0023
Earth	105506-07-11 13:40 G	40256525.82	40256526.07	40256526.32	0.0271	0.0018 *
Earth	105507-07-23 23:45 G	40256903.34	40256903.49	40256903.67	0.0267	0.0200
Moon	105507-07-24 00:42 G	40256903.37	40256903.53	40256903.71	0.0267	0.0188 *
Mars	105510-12-19 02:23 G	40258147.29	40258147.60	40258147.91	0.0261	0.0001
Mercury	105515-01-02 12:57 G	40259622.89	40259623.04	40259623.21	0.0264	0.0141
Mercury	105515-04-01 10:33 G	40259711.75	40259711.94	40259712.13	0.0265	0.0042
Mercury	105515-06-29 07:54 G	40259800.74	40259800.83	40259800.93	0.0265	0.0228
Venus	105517-07-01 09:35 G	40260533.74	40260533.90	40260534.08	0.0271	0.0159
Venus	105518-02-15 10:18 G	40260762.75	40260762.93	40260763.13	0.0273	0.0109
Earth	105522-01-04 03:35 G	40262181.43	40262181.65	40262181.87	0.0289	0.0121
Moon	105522-01-04 05:59 G	40262181.52	40262181.75	40262181.98	0.0289	0.0104 *
Moon	105523-01-17 22:04 G	40262560.22	40262560.42	40262560.63	0.0293	0.0168
Earth	105523-01-17 23:30 G	40262560.28	40262560.48	40262560.69	0.0293	0.0155 *
Mercury	105528-11-10 06:57 G	40264683.71	40264683.79	40264683.87	0.0298	0.0226
Mercury	105529-02-06 19:11 G	40264772.17	40264772.30	40264772.43	0.0297	0.0049
Mercury	105529-05-06 07:25 G	40264860.69	40264860.81	40264860.92	0.0297	0.0125
Venus	105531-05-05 16:18 G	40265589.97	40265590.18	40265590.40	0.0290	0.0028
Earth	105535-07-06 10:33 G	40267112.72	40267112.94	40267113.17	0.0273	0.0121
Moon	105535-07-06 11:30 G	40267112.76	40267112.98	40267113.21	0.0273	0.0131 *
Moon	105536-07-17 21:06 G	40267490.15	40267490.38	40267490.63	0.0269	0.0087
Earth	105536-07-18 00:28 G	40267490.29	40267490.52	40267490.75	0.0269	0.0103 *
Mercury	105544-05-21 11:30 G	40270354.87	40270354.98	40270355.12	0.0263	0.0196
Mercury	105544-08-18 09:06 G	40270443.69	40270443.88	40270444.07	0.0264	0.0014
Mercury	105544-11-15 06:28 G	40270532.63	40270532.77	40270532.92	0.0264	0.0170
Venus	105547-01-11 11:16 G	40271319.79	40271319.97	40271320.16	0.0270	0.0126
Venus	105547-08-28 11:59 G	40271548.83	40271549.00	40271549.19	0.0273	0.0141
Earth	105550-12-29 05:45 G	40272767.62	40272767.74	40272767.87	0.0287	0.0244
Moon	105550-12-29 06:28 G	40272767.64	40272767.77	40272767.91	0.0287	0.0233 *
Earth	105552-01-11 20:09 G	40273146.10	40273146.34	40273146.58	0.0291	0.0021

Moon	105552-01-11 23:45 G	40273146.26	40273146.49	40273146.73	0.0291	0.0026	*
Mercury	105558-06-26 19:40 G	40275504.21	40275504.32	40275504.44	0.0298	0.0122	
Mercury	105558-09-23 07:54 G	40275592.71	40275592.83	40275592.96	0.0297	0.0055	
Mercury	105558-12-20 20:09 G	40275681.26	40275681.34	40275681.42	0.0297	0.0228	
Venus	105560-11-14 17:01 G	40276376.00	40276376.21	40276376.43	0.0290	0.0005	
Earth	105564-06-29 19:54 G	40277699.21	40277699.33	40277699.48	0.0274	0.0230	
Moon	105564-06-29 21:49 G	40277699.31	40277699.41	40277699.53	0.0274	0.0245	*
Earth	105565-07-12 14:52 G	40278076.87	40278077.12	40278077.37	0.0270	0.0002	
Moon	105565-07-12 18:42 G	40278077.03	40278077.28	40278077.53	0.0270	0.0016	*
Moon	105566-07-25 01:11 G	40278454.40	40278454.55	40278454.71	0.0267	0.0211	
Earth	105566-07-25 01:11 G	40278454.41	40278454.55	40278454.69	0.0267	0.0218	*
Mercury	105573-10-08 10:04 G	40281086.88	40281086.92	40281086.98	0.0264	0.0253	
Mercury	105574-01-05 07:25 G	40281175.63	40281175.81	40281176.00	0.0264	0.0072	
Mercury	105574-04-04 04:47 G	40281264.53	40281264.70	40281264.88	0.0265	0.0112	
Venus	105576-07-23 13:54 G	40282105.89	40282106.08	40282106.28	0.0271	0.0092	
Venus	105577-03-09 14:37 G	40282334.96	40282335.11	40282335.28	0.0273	0.0177	
Moon	105581-01-04 23:16 G	40283732.26	40283732.47	40283732.70	0.0289	0.0112	
Earth	105581-01-05 02:09 G	40283732.37	40283732.59	40283732.82	0.0289	0.0103	*
Earth	105582-01-18 22:04 G	40284111.23	40284111.42	40284111.62	0.0293	0.0173	
Moon	105582-01-18 22:47 G	40284111.26	40284111.45	40284111.65	0.0293	0.0160	*
Mercury	105587-11-13 21:49 G	40286236.31	40286236.41	40286236.52	0.0298	0.0172	
Mercury	105588-02-10 10:04 G	40286324.79	40286324.92	40286325.05	0.0297	0.0007	
Mercury	105588-05-08 22:18 G	40286413.33	40286413.43	40286413.53	0.0297	0.0178	
Venus	105590-05-27 23:45 G	40287162.28	40287162.49	40287162.71	0.0289	0.0053	
Moon	105594-07-07 08:52 G	40288663.66	40288663.87	40288664.10	0.0273	0.0113	
Earth	105594-07-07 10:33 G	40288663.72	40288663.94	40288664.18	0.0273	0.0104	*
Earth	105595-07-20 00:28 G	40289041.30	40289041.52	40289041.75	0.0269	0.0120	
Moon	105595-07-20 03:21 G	40289041.42	40289041.64	40289041.85	0.0269	0.0123	*
Mars	105599-05-14 13:54 G	40290435.78	40290436.08	40290436.39	0.0261	0.0068	
Mercury	105603-05-25 05:45 G	40291907.58	40291907.74	40291907.91	0.0263	0.0128	

Mercury	105603-08-22 03:06 G	40291996.45	40291996.63	40291996.82	0.0264	0.0054
Mercury	105603-11-19 00:28 G	40292085.45	40292085.52	40292085.61	0.0264	0.0238
Venus	105606-02-02 15:06 G	40292891.93	40292892.13	40292892.34	0.0270	0.0060
Venus	105606-09-19 15:49 G	40293121.03	40293121.16	40293121.30	0.0273	0.0208
Moon	105609-12-30 02:23 G	40294318.48	40294318.60	40294318.75	0.0287	0.0242
Earth	105609-12-30 03:06 G	40294318.50	40294318.63	40294318.79	0.0287	0.0227 *
Moon	105611-01-12 14:09 G	40294696.85	40294697.09	40294697.33	0.0291	0.0020
Earth	105611-01-12 17:45 G	40294697.00	40294697.24	40294697.48	0.0291	0.0038 *
Mercury	105617-04-01 22:04 G	40296968.36	40296968.42	40296968.50	0.0299	0.0249
Mercury	105617-06-29 10:33 G	40297056.81	40297056.94	40297057.07	0.0298	0.0071
Mercury	105617-09-25 22:47 G	40297145.33	40297145.45	40297145.57	0.0297	0.0105
Mercury	105617-12-23 10:47 G	40297233.91	40297233.95	40297233.99	0.0297	0.0278
Venus	105619-04-21 21:21 G	40297718.31	40297718.39	40297718.48	0.0292	0.0265
Venus	105619-12-07 23:45 G	40297948.29	40297948.49	40297948.70	0.0290	0.0081
Moon	105623-07-01 16:33 G	40299250.03	40299250.19	40299250.36	0.0274	0.0208
Earth	105623-07-01 18:42 G	40299250.14	40299250.28	40299250.45	0.0274	0.0213 *
Moon	105624-07-13 09:49 G	40299627.67	40299627.91	40299628.16	0.0271	0.0029
Earth	105624-07-13 13:40 G	40299627.82	40299628.07	40299628.32	0.0271	0.0017 *
Earth	105625-07-25 23:30 G	40300005.37	40300005.48	40300005.61	0.0267	0.0233
Moon	105625-07-25 23:59 G	40300005.42	40300005.50	40300005.60	0.0267	0.0247 *
Mercury	105632-10-11 03:49 G	40302639.53	40302639.66	40302639.80	0.0263	0.0189
Mercury	105633-01-08 01:11 G	40302728.36	40302728.55	40302728.74	0.0264	0.0008
Mercury	105633-04-06 22:33 G	40302817.30	40302817.44	40302817.58	0.0264	0.0176
Venus	105635-08-15 17:01 G	40303678.01	40303678.21	40303678.42	0.0271	0.0028
Venus	105636-03-31 17:59 G	40303907.16	40303907.25	40303907.34	0.0274	0.0242
Earth	105640-01-06 22:18 G	40305283.20	40305283.43	40305283.66	0.0289	0.0087
Moon	105640-01-07 01:11 G	40305283.32	40305283.55	40305283.79	0.0289	0.0098 *
Moon	105641-01-19 17:30 G	40305662.05	40305662.23	40305662.43	0.0293	0.0186
Earth	105641-01-19 18:28 G	40305662.09	40305662.27	40305662.46	0.0293	0.0189 *
Mercury	105646-11-16 12:28 G	40307788.90	40307789.02	40307789.14	0.0298	0.0124

Mercury	105647-02-13 00:42 G	40307877.40	40307877.53	40307877.66	0.0297	0.0052
Mercury	105647-05-12 12:42 G	40307965.95	40307966.03	40307966.12	0.0297	0.0226
Venus	105648-11-01 03:21 G	40308504.50	40308504.64	40308504.79	0.0292	0.0218
Venus	105649-06-19 05:45 G	40308734.55	40308734.74	40308734.93	0.0289	0.0127
Earth	105653-07-08 08:09 G	40310214.60	40310214.84	40310215.07	0.0273	0.0088
Moon	105653-07-08 09:49 G	40310214.66	40310214.91	40310215.16	0.0273	0.0072 *
Moon	105654-07-20 19:11 G	40310592.09	40310592.30	40310592.51	0.0269	0.0145
Earth	105654-07-20 22:04 G	40310592.21	40310592.42	40310592.64	0.0269	0.0136 *
Mercury	105662-02-28 02:23 G	40313371.54	40313371.60	40313371.68	0.0263	0.0244
Mercury	105662-05-27 23:45 G	40313460.30	40313460.49	40313460.68	0.0263	0.0064
Mercury	105662-08-24 20:52 G	40313549.21	40313549.37	40313549.55	0.0264	0.0119
Venus	105664-07-10 19:11 G	40314235.24	40314235.30	40314235.37	0.0269	0.0255
Venus	105665-02-24 18:42 G	40314464.07	40314464.28	40314464.49	0.0271	0.0006
Earth	105668-12-30 23:59 G	40315869.35	40315869.50	40315869.67	0.0287	0.0210
Moon	105668-12-31 00:57 G	40315869.39	40315869.54	40315869.72	0.0287	0.0207 *
Earth	105670-01-13 14:23 G	40316247.86	40316248.10	40316248.34	0.0291	0.0054
Moon	105670-01-13 17:59 G	40316248.01	40316248.25	40316248.48	0.0291	0.0066 *
Mercury	105676-04-04 12:28 G	40318520.93	40318521.02	40318521.12	0.0299	0.0203
Mercury	105676-07-02 00:57 G	40318609.41	40318609.54	40318609.67	0.0298	0.0026
Mercury	105676-09-28 12:57 G	40318697.93	40318698.04	40318698.16	0.0297	0.0150
Venus	105678-05-14 02:23 G	40319290.45	40319290.60	40319290.77	0.0292	0.0192
Venus	105678-12-30 04:47 G	40319520.52	40319520.70	40319520.89	0.0289	0.0154
Earth	105682-07-02 14:52 G	40320800.95	40320801.12	40320801.29	0.0274	0.0199
Moon	105682-07-02 17:45 G	40320801.07	40320801.24	40320801.42	0.0274	0.0190 *
Earth	105683-07-15 09:49 G	40321178.66	40321178.91	40321179.15	0.0271	0.0032
Moon	105683-07-15 12:28 G	40321178.77	40321179.02	40321179.28	0.0271	0.0029 *
Moon	105684-07-26 17:16 G	40321556.11	40321556.22	40321556.35	0.0267	0.0232
Earth	105684-07-26 20:09 G	40321556.25	40321556.34	40321556.43	0.0267	0.0248 *
Mars	105687-10-07 05:45 G	40322723.46	40322723.74	40322724.04	0.0261	0.0102
Mercury	105691-10-14 21:21 G	40324192.23	40324192.39	40324192.56	0.0263	0.0128

Mercury	105692-01-11 18:42 G	40324281.09	40324281.28	40324281.47	0.0264	0.0054
Mercury	105692-04-09 15:49 G	40324370.09	40324370.16	40324370.25	0.0264	0.0239
Venus	105694-01-20 19:54 G	40325021.23	40325021.33	40325021.45	0.0269	0.0226
Venus	105694-09-06 19:54 G	40325250.12	40325250.33	40325250.53	0.0271	0.0036
Earth	105699-01-07 17:30 G	40326834.00	40326834.23	40326834.47	0.0289	0.0072
Moon	105699-01-07 17:45 G	40326834.01	40326834.24	40326834.47	0.0289	0.0061 *
Earth	105700-01-21 13:11 G	40327212.88	40327213.05	40327213.23	0.0293	0.0203
Moon	105700-01-21 16:47 G	40327213.03	40327213.20	40327213.37	0.0293	0.0205 *
Mercury	105705-08-23 14:09 G	40329253.03	40329253.09	40329253.16	0.0298	0.0258
Mercury	105705-11-20 02:37 G	40329341.48	40329341.61	40329341.73	0.0298	0.0080
Mercury	105706-02-16 14:52 G	40329430.00	40329430.12	40329430.24	0.0297	0.0095
Mercury	105706-05-16 02:52 G	40329518.57	40329518.62	40329518.67	0.0296	0.0269
Venus	105707-11-25 07:54 G	40330076.65	40330076.83	40330077.03	0.0291	0.0146
Venus	105708-07-12 10:04 G	40330306.77	40330306.92	40330307.08	0.0289	0.0199
Earth	105712-07-10 04:04 G	40331765.43	40331765.67	40331765.91	0.0273	0.0073
Moon	105712-07-10 06:57 G	40331765.56	40331765.79	40331766.03	0.0273	0.0088 *
Earth	105713-07-22 18:13 G	40332143.06	40332143.26	40332143.47	0.0269	0.0150
Moon	105713-07-22 20:52 G	40332143.16	40332143.37	40332143.59	0.0269	0.0143 *
Mercury	105721-03-03 20:09 G	40334924.21	40334924.34	40334924.48	0.0263	0.0182
Mercury	105721-05-31 17:30 G	40335013.03	40335013.23	40335013.42	0.0263	0.0006
Mercury	105721-08-28 14:37 G	40335101.98	40335102.11	40335102.25	0.0264	0.0182
Venus	105723-08-03 22:18 G	40335807.29	40335807.43	40335807.58	0.0269	0.0192
Venus	105724-03-19 21:49 G	40336036.21	40336036.41	40336036.61	0.0271	0.0070
Moon	105728-01-02 17:45 G	40337420.07	40337420.24	40337420.40	0.0286	0.0206
Earth	105728-01-02 20:37 G	40337420.19	40337420.36	40337420.55	0.0286	0.0194 *
Earth	105729-01-15 10:47 G	40337798.72	40337798.95	40337799.18	0.0291	0.0071
Moon	105729-01-15 11:16 G	40337798.75	40337798.97	40337799.21	0.0291	0.0056 *
Mercury	105735-04-09 02:52 G	40340073.51	40340073.62	40340073.73	0.0298	0.0158
Mercury	105735-07-06 15:06 G	40340162.00	40340162.13	40340162.26	0.0298	0.0020
Mercury	105735-10-03 03:21 G	40340250.54	40340250.64	40340250.73	0.0297	0.0194

Venus	105737-06-06 07:25 G	40340862.62	40340862.81	40340863.01	0.0292	0.0119
Venus	105738-01-22 09:21 G	40341092.77	40341092.89	40341093.03	0.0289	0.0226
Moon	105741-07-04 09:21 G	40342351.71	40342351.89	40342352.07	0.0275	0.0180
Earth	105741-07-04 10:04 G	40342351.75	40342351.92	40342352.11	0.0275	0.0185 *
Earth	105742-07-17 05:16 G	40342729.47	40342729.72	40342729.97	0.0271	0.0046
Moon	105742-07-17 08:37 G	40342729.63	40342729.86	40342730.10	0.0271	0.0061 *
Earth	105743-07-29 15:21 G	40343107.11	40343107.14	40343107.21	0.0267	0.0262
Mercury	105750-07-21 17:45 G	40345656.18	40345656.24	40345656.31	0.0263	0.0246
Mercury	105750-10-18 14:52 G	40345744.94	40345745.12	40345745.31	0.0264	0.0066
Mercury	105751-01-15 12:13 G	40345833.84	40345834.01	40345834.18	0.0264	0.0117
Venus	105753-02-12 23:01 G	40346593.30	40346593.46	40346593.63	0.0270	0.0164
Venus	105753-09-29 23:01 G	40346822.27	40346822.46	40346822.65	0.0272	0.0101
Moon	105758-01-09 11:01 G	40348384.73	40348384.96	40348385.20	0.0289	0.0054
Earth	105758-01-09 14:23 G	40348384.86	40348385.10	40348385.34	0.0289	0.0055 *
Moon	105759-01-23 09:35 G	40348763.76	40348763.90	40348764.05	0.0293	0.0228
Earth	105759-01-23 09:49 G	40348763.76	40348763.91	40348764.07	0.0293	0.0219 *
Mercury	105764-08-26 04:33 G	40350805.60	40350805.69	40350805.78	0.0298	0.0213
Mercury	105764-11-22 17:01 G	40350894.08	40350894.21	40350894.33	0.0298	0.0037
Mercury	105765-02-19 05:01 G	40350982.60	40350982.71	40350982.83	0.0297	0.0140
Venus	105766-12-17 12:42 G	40351648.83	40351649.03	40351649.24	0.0291	0.0073
Venus	105767-08-04 14:37 G	40351879.04	40351879.11	40351879.19	0.0289	0.0270
Moon	105771-07-11 22:18 G	40353316.19	40353316.43	40353316.67	0.0273	0.0051
Earth	105771-07-11 23:16 G	40353316.23	40353316.47	40353316.72	0.0273	0.0059 *
Earth	105772-07-23 13:54 G	40353693.88	40353694.08	40353694.28	0.0269	0.0164
Moon	105772-07-23 17:01 G	40353694.01	40353694.21	40353694.40	0.0269	0.0162 *
Mars	105776-03-02 09:21 G	40355011.65	40355011.89	40355012.16	0.0262	0.0151
Mercury	105780-03-06 13:54 G	40356476.91	40356477.08	40356477.26	0.0263	0.0118
Mercury	105780-06-03 11:16 G	40356565.78	40356565.97	40356566.16	0.0264	0.0063
Mercury	105780-08-31 08:37 G	40356654.80	40356654.86	40356654.93	0.0264	0.0247
Venus	105782-08-26 01:54 G	40357379.41	40357379.58	40357379.78	0.0269	0.0129

Venus	105783-04-12 01:40 G	40357608.40	40357608.57	40357608.76	0.0271	0.0136
Moon	105787-01-03 16:33 G	40358970.99	40358971.19	40358971.40	0.0286	0.0159
Earth	105787-01-03 18:42 G	40358971.10	40358971.28	40358971.48	0.0286	0.0176 *
Moon	105788-01-17 05:01 G	40359349.49	40359349.71	40359349.94	0.0291	0.0105
Earth	105788-01-17 08:37 G	40359349.64	40359349.86	40359350.10	0.0291	0.0089 *
Mercury	105794-01-13 04:47 G	40361537.68	40361537.70	40361537.73	0.0299	0.0290
Mercury	105794-04-11 17:16 G	40361626.10	40361626.22	40361626.34	0.0298	0.0111
Mercury	105794-07-09 05:30 G	40361714.60	40361714.73	40361714.86	0.0298	0.0065
Mercury	105794-10-05 17:44 G	40361803.16	40361803.24	40361803.31	0.0297	0.0239
Venus	105796-06-28 12:42 G	40362434.82	40362435.03	40362435.24	0.0291	0.0045
Moon	105800-07-06 02:08 G	40363902.41	40363902.59	40363902.79	0.0275	0.0180
Earth	105800-07-06 05:44 G	40363902.56	40363902.74	40363902.95	0.0275	0.0170 *
Moon	105801-07-18 22:47 G	40364280.21	40364280.45	40364280.69	0.0271	0.0046
Earth	105801-07-19 01:11 G	40364280.31	40364280.55	40364280.80	0.0271	0.0061 *
Moon	105802-07-31 14:23 G	40364658.08	40364658.10	40364658.13	0.0268	0.0266
Mercury	105809-07-25 11:30 G	40367208.85	40367208.98	40367209.12	0.0263	0.0183
Mercury	105809-10-22 08:52 G	40367297.68	40367297.87	40367298.06	0.0264	0.0002
Mercury	105810-01-19 06:13 G	40367386.62	40367386.76	40367386.90	0.0264	0.0182
Venus	105812-03-08 03:06 G	40368165.44	40368165.63	40368165.83	0.0270	0.0098
Venus	105812-10-23 02:52 G	40368394.46	40368394.62	40368394.79	0.0272	0.0168
Moon	105815-12-30 06:56 G	40369557.76	40369557.79	40369557.84	0.0285	0.0280
Earth	105817-01-11 12:56 G	40369935.80	40369936.04	40369936.28	0.0289	0.0037
Moon	105817-01-11 13:54 G	40369935.83	40369936.08	40369936.33	0.0289	0.0033 *
Moon	105818-01-25 05:30 G	40370314.58	40370314.73	40370314.88	0.0293	0.0230
Earth	105818-01-25 07:54 G	40370314.71	40370314.83	40370314.99	0.0293	0.0237 *
Mercury	105823-08-30 19:11 G	40372358.19	40372358.30	40372358.41	0.0298	0.0165
Mercury	105823-11-27 07:25 G	40372446.68	40372446.81	40372446.94	0.0297	0.0013
Mercury	105824-02-23 19:40 G	40372535.22	40372535.32	40372535.42	0.0297	0.0187
Venus	105826-01-09 18:28 G	40373221.06	40373221.27	40373221.49	0.0291	0.0004
Moon	105830-07-13 18:56 G	40374867.04	40374867.29	40374867.54	0.0273	0.0056

Earth	105830-07-13 19:40 G	40374867.08	40374867.32	40374867.57	0.0273	0.0043	*
Moon	105831-07-26 06:56 G	40375244.61	40375244.79	40375244.98	0.0269	0.0177	
Earth	105831-07-26 10:18 G	40375244.76	40375244.93	40375245.12	0.0269	0.0180	*
Mercury	105838-12-12 11:01 G	40377940.88	40377940.96	40377941.06	0.0263	0.0231	
Mercury	105839-03-11 08:23 G	40378029.66	40378029.85	40378030.04	0.0263	0.0051	
Mercury	105839-06-08 05:44 G	40378118.57	40378118.74	40378118.90	0.0264	0.0132	
Venus	105841-09-18 06:56 G	40378951.59	40378951.79	40378952.00	0.0270	0.0061	
Venus	105842-05-05 06:42 G	40379180.66	40379180.78	40379180.93	0.0272	0.0206	
Earth	105846-01-05 20:08 G	40380522.14	40380522.34	40380522.55	0.0286	0.0154	
Moon	105846-01-05 22:47 G	40380522.26	40380522.45	40380522.65	0.0286	0.0165	*
Earth	105847-01-19 10:04 G	40380900.70	40380900.92	40380901.14	0.0291	0.0111	
Moon	105847-01-19 13:25 G	40380900.83	40380901.06	40380901.29	0.0291	0.0096	*
Mercury	105853-01-16 19:54 G	40383090.25	40383090.33	40383090.41	0.0298	0.0235	
Mercury	105853-04-15 08:08 G	40383178.71	40383178.84	40383178.97	0.0298	0.0058	
Mercury	105853-07-12 20:23 G	40383267.23	40383267.35	40383267.47	0.0297	0.0118	
Mercury	105853-10-09 08:23 G	40383355.84	40383355.85	40383355.88	0.0297	0.0292	
Venus	105855-07-22 19:40 G	40384007.10	40384007.32	40384007.53	0.0291	0.0033	
Earth	105859-07-08 03:06 G	40385453.44	40385453.63	40385453.85	0.0275	0.0153	
Moon	105859-07-08 06:42 G	40385453.59	40385453.78	40385453.99	0.0275	0.0159	*
Earth	105860-07-19 22:32 G	40385831.21	40385831.44	40385831.68	0.0271	0.0077	
Moon	105860-07-19 23:59 G	40385831.27	40385831.50	40385831.76	0.0271	0.0084	*
Mars	105864-07-27 01:40 G	40387299.36	40387299.57	40387299.80	0.0262	0.0186	
Mercury	105868-07-28 05:59 G	40388761.59	40388761.75	40388761.93	0.0263	0.0114	
Mercury	105868-10-25 03:20 G	40388850.46	40388850.64	40388850.83	0.0264	0.0070	
Mercury	105869-01-22 00:56 G	40388939.49	40388939.54	40388939.59	0.0264	0.0254	
Venus	105871-03-31 08:37 G	40389737.65	40389737.86	40389738.07	0.0270	0.0029	
Venus	105871-11-15 08:23 G	40389966.76	40389966.85	40389966.96	0.0272	0.0239	
Earth	105874-12-31 05:30 G	40391108.66	40391108.73	40391108.80	0.0285	0.0270	
Moon	105876-01-13 14:37 G	40391486.88	40391487.11	40391487.34	0.0289	0.0029	
Earth	105876-01-13 14:52 G	40391486.88	40391487.12	40391487.36	0.0289	0.0015	*

Earth	105877-01-26 10:04 G	40391865.81	40391865.92	40391866.04	0.0293	0.0258
Moon	105877-01-26 13:11 G	40391865.94	40391866.05	40391866.18	0.0293	0.0252 *
Mercury	105882-06-05 21:49 G	40393822.38	40393822.41	40393822.44	0.0298	0.0288
Mercury	105882-09-02 10:04 G	40393910.81	40393910.92	40393911.05	0.0298	0.0111
Mercury	105882-11-29 22:18 G	40393999.31	40393999.43	40393999.56	0.0297	0.0068
Mercury	105883-02-26 10:32 G	40394087.87	40394087.94	40394088.02	0.0297	0.0240
Venus	105884-06-15 22:32 G	40394563.37	40394563.44	40394563.53	0.0293	0.0271
Venus	105885-02-01 01:54 G	40394793.37	40394793.58	40394793.79	0.0290	0.0080
Moon	105888-07-01 15:06 G	40396040.05	40396040.13	40396040.24	0.0277	0.0253
Earth	105888-07-01 18:13 G	40396040.18	40396040.26	40396040.35	0.0277	0.0259 *
Earth	105889-07-14 17:59 G	40396418.00	40396418.25	40396418.50	0.0273	0.0025
Moon	105889-07-14 19:40 G	40396418.08	40396418.32	40396418.57	0.0273	0.0012 *
Earth	105890-07-27 08:52 G	40396795.70	40396795.87	40396796.04	0.0269	0.0197
Moon	105890-07-27 11:59 G	40396795.86	40396796.00	40396796.17	0.0269	0.0211 *
Mercury	105897-12-15 05:59 G	40399493.61	40399493.75	40399493.91	0.0263	0.0158
Mercury	105898-03-14 03:20 G	40399582.45	40399582.64	40399582.83	0.0264	0.0024
Mercury	105898-06-11 00:42 G	40399671.42	40399671.53	40399671.65	0.0264	0.0208
Venus	105900-02-24 14:08 G	40400295.03	40400295.09	40400295.18	0.0268	0.0250
Venus	105900-10-11 13:25 G	40400523.85	40400524.06	40400524.27	0.0270	0.0011
Moon	105905-01-07 21:35 G	40402073.19	40402073.40	40402073.63	0.0286	0.0136
Earth	105905-01-08 00:42 G	40402073.32	40402073.53	40402073.75	0.0286	0.0130 *
Moon	105906-01-21 11:44 G	40402451.79	40402451.99	40402452.21	0.0291	0.0141
Earth	105906-01-21 14:37 G	40402451.90	40402452.11	40402452.33	0.0291	0.0135 *
Mercury	105912-01-21 11:30 G	40404642.87	40404642.98	40404643.08	0.0298	0.0173
Mercury	105912-04-18 23:44 G	40404731.36	40404731.49	40404731.62	0.0298	0.0004
Mercury	105912-07-16 11:59 G	40404819.90	40404820.00	40404820.10	0.0297	0.0178
Venus	105913-12-28 01:40 G	40405349.45	40405349.57	40405349.71	0.0293	0.0234
Venus	105914-08-15 04:47 G	40405579.50	40405579.70	40405579.90	0.0290	0.0117
Moon	105918-07-09 23:59 G	40407004.28	40407004.50	40407004.73	0.0275	0.0119
Earth	105918-07-10 03:35 G	40407004.44	40407004.65	40407004.88	0.0275	0.0134 *

Moon	105919-07-22 21:49 G	40407382.19	40407382.41	40407382.64	0.0271	0.0101
Earth	105919-07-22 22:32 G	40407382.21	40407382.44	40407382.68	0.0271	0.0096 *
Mercury	105927-05-05 04:04 G	40410225.57	40410225.67	40410225.78	0.0263	0.0218
Mercury	105927-08-02 01:25 G	40410314.37	40410314.56	40410314.75	0.0264	0.0037
Mercury	105927-10-29 22:47 G	40410403.29	40410403.45	40410403.61	0.0264	0.0146
Venus	105929-09-06 16:18 G	40411081.06	40411081.18	40411081.30	0.0269	0.0218
Venus	105930-04-23 15:35 G	40411309.94	40411310.15	40411310.36	0.0271	0.0044
Earth	105934-01-02 10:47 G	40412659.84	40412659.95	40412660.08	0.0285	0.0247
Moon	105934-01-02 14:37 G	40412659.99	40412660.11	40412660.24	0.0285	0.0242 *
Moon	105935-01-15 20:52 G	40413038.12	40413038.37	40413038.63	0.0289	0.0024
Earth	105935-01-15 21:06 G	40413038.14	40413038.38	40413038.62	0.0289	0.0011 *
Earth	105936-01-29 16:32 G	40413417.14	40413417.19	40413417.26	0.0293	0.0283
Mercury	105941-06-09 13:40 G	40415374.99	40415375.07	40415375.16	0.0298	0.0222
Mercury	105941-09-06 02:08 G	40415463.46	40415463.59	40415463.71	0.0297	0.0045
Mercury	105941-12-03 14:08 G	40415551.98	40415552.09	40415552.21	0.0297	0.0131
Venus	105943-07-10 09:20 G	40416135.73	40416135.89	40416136.07	0.0292	0.0182
Venus	105944-02-25 11:59 G	40416365.83	40416366.00	40416366.19	0.0290	0.0167
Earth	105947-07-04 19:54 G	40417591.21	40417591.33	40417591.46	0.0276	0.0238
Moon	105947-07-04 22:47 G	40417591.31	40417591.45	40417591.59	0.0276	0.0227 *
Moon	105948-07-16 17:16 G	40417968.96	40417969.22	40417969.48	0.0273	0.0009
Earth	105948-07-16 19:25 G	40417969.06	40417969.31	40417969.56	0.0273	0.0004 *
Moon	105949-07-29 06:28 G	40418346.62	40418346.77	40418346.94	0.0269	0.0203
Earth	105949-07-29 10:04 G	40418346.78	40418346.92	40418347.07	0.0269	0.0217 *
Mercury	105956-09-21 04:32 G	40420957.67	40420957.69	40420957.73	0.0263	0.0259
Mercury	105956-12-19 01:54 G	40421046.40	40421046.58	40421046.76	0.0264	0.0078
Mercury	105957-03-17 23:16 G	40421135.29	40421135.47	40421135.65	0.0264	0.0105
Venus	105959-03-19 22:18 G	40421867.27	40421867.43	40421867.59	0.0269	0.0175
Venus	105959-11-03 21:35 G	40422096.21	40422096.40	40422096.60	0.0271	0.0088
Earth	105964-01-10 09:35 G	40423624.68	40423624.90	40423625.13	0.0287	0.0102
Moon	105964-01-10 12:13 G	40423624.79	40423625.01	40423625.24	0.0287	0.0087 *

Earth	105965-01-22 23:59 G	40424003.31	40424003.50	40424003.70	0.0291	0.0164
Moon	105965-01-23 02:52 G	40424003.43	40424003.62	40424003.83	0.0291	0.0176 *
Mercury	105970-10-27 15:20 G	40426107.10	40426107.14	40426107.19	0.0298	0.0279
Mercury	105971-01-24 03:49 G	40426195.54	40426195.66	40426195.78	0.0298	0.0101
Mercury	105971-04-22 16:04 G	40426284.04	40426284.17	40426284.29	0.0297	0.0075
Mercury	105971-07-20 04:04 G	40426372.60	40426372.67	40426372.74	0.0297	0.0248
Venus	105973-01-19 14:08 G	40426921.91	40426922.09	40426922.28	0.0292	0.0141
Venus	105973-09-06 16:32 G	40427152.04	40427152.19	40427152.34	0.0290	0.0207
Earth	105977-07-11 07:25 G	40428555.59	40428555.81	40428556.04	0.0274	0.0110
Moon	105977-07-11 10:47 G	40428555.74	40428555.95	40428556.19	0.0274	0.0123 *
Earth	105978-07-24 01:54 G	40428933.36	40428933.58	40428933.81	0.0271	0.0118
Moon	105978-07-24 02:52 G	40428933.39	40428933.62	40428933.87	0.0271	0.0102 *
Mercury	105986-05-08 00:13 G	40431778.35	40431778.51	40431778.68	0.0264	0.0136
Mercury	105986-08-04 21:35 G	40431867.22	40431867.40	40431867.59	0.0264	0.0047
Mercury	105986-11-01 19:11 G	40431956.21	40431956.30	40431956.39	0.0264	0.0232
Venus	105988-09-29 00:42 G	40432653.36	40432653.53	40432653.71	0.0269	0.0142
Venus	105989-05-16 00:13 G	40432882.33	40432882.51	40432882.70	0.0271	0.0123
Moon	105993-01-03 17:01 G	40434211.05	40434211.21	40434211.38	0.0285	0.0205
Earth	105993-01-03 20:37 G	40434211.21	40434211.36	40434211.52	0.0285	0.0218 *
Moon	105994-01-17 06:56 G	40434589.56	40434589.79	40434590.02	0.0290	0.0042
Earth	105994-01-17 06:56 G	40434589.56	40434589.79	40434590.04	0.0290	0.0041 *
Mercury	106000-06-12 06:13 G	40436927.65	40436927.76	40436927.87	0.0298	0.0146
Mercury	106000-09-08 18:28 G	40437016.14	40437016.27	40437016.40	0.0297	0.0030
Mercury	106000-12-06 06:28 G	40437104.69	40437104.77	40437104.87	0.0297	0.0205

107TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 107th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	106002-08-01 22:32	G	40437708.24	40437708.44	40437708.65	0.0291	0.0088	
Venus	106003-03-20 00:42	G	40437938.45	40437938.53	40437938.64	0.0289	0.0259	
Jupiter	106003-08-04 12:56	G	40438075.65	40438076.04	40438076.47	0.0288	0.0150	
Moon	106006-07-05 22:32	G	40439142.32	40439142.44	40439142.59	0.0276	0.0228	
Earth	106006-07-06 01:11	G	40439142.41	40439142.55	40439142.72	0.0276	0.0213	*
Earth	106007-07-19 00:13	G	40439520.26	40439520.51	40439520.76	0.0272	0.0020	
Moon	106007-07-19 02:08	G	40439520.35	40439520.59	40439520.83	0.0272	0.0008	*
Earth	106008-07-30 14:08	G	40439897.99	40439898.09	40439898.21	0.0269	0.0239	
Moon	106008-07-30 18:13	G	40439898.14	40439898.26	40439898.38	0.0269	0.0234	*
Mercury	106015-09-25 01:11	G	40442510.41	40442510.55	40442510.70	0.0264	0.0174	
Mercury	106015-12-22 22:32	G	40442599.25	40442599.44	40442599.63	0.0264	0.0009	
Mercury	106016-03-20 19:40	G	40442688.20	40442688.32	40442688.46	0.0265	0.0194	
Venus	106018-04-11 07:40	G	40443439.62	40443439.82	40443440.01	0.0270	0.0097	
Venus	106018-11-26 07:11	G	40443668.65	40443668.80	40443668.97	0.0272	0.0169	
Moon	106023-01-11 19:25	G	40445176.08	40445176.31	40445176.55	0.0287	0.0079	
Earth	106023-01-11 22:18	G	40445176.19	40445176.43	40445176.66	0.0287	0.0071	*
Moon	106024-01-25 10:04	G	40445554.74	40445554.92	40445555.12	0.0291	0.0181	
Earth	106024-01-25 13:25	G	40445554.89	40445555.06	40445555.25	0.0291	0.0197	*
Mercury	106029-10-30 08:37	G	40447659.76	40447659.86	40447659.96	0.0298	0.0194	
Mercury	106030-01-26 20:52	G	40447748.24	40447748.37	40447748.50	0.0297	0.0018	
Mercury	106030-04-25 09:06	G	40447836.77	40447836.88	40447836.99	0.0297	0.0157	
Venus	106032-02-12 05:44	G	40448494.53	40448494.74	40448494.96	0.0291	0.0039	
Moon	106036-07-12 11:44	G	40450106.76	40450106.99	40450107.23	0.0274	0.0088	
Earth	106036-07-12 15:35	G	40450106.92	40450107.15	40450107.39	0.0274	0.0084	*
Moon	106037-07-25 07:25	G	40450484.62	40450484.81	40450485.02	0.0271	0.0149	

Earth	106037-07-25 09:06 G	40450484.68	40450484.88	40450485.10	0.0271	0.0142	*
Mercury	106045-02-10 23:44 G	40453242.41	40453242.49	40453242.60	0.0264	0.0228	
Mercury	106045-05-10 21:20 G	40453331.20	40453331.39	40453331.58	0.0264	0.0046	
Mercury	106045-08-07 18:28 G	40453420.12	40453420.27	40453420.44	0.0264	0.0139	
Venus	106047-10-22 10:47 G	40454225.75	40454225.95	40454226.15	0.0270	0.0061	
Venus	106048-06-07 10:47 G	40454454.82	40454454.95	40454455.08	0.0272	0.0206	
Earth	106052-01-06 09:35 G	40455762.72	40455762.90	40455763.09	0.0286	0.0186	
Moon	106052-01-06 13:11 G	40455762.88	40455763.05	40455763.23	0.0286	0.0200	*
Earth	106053-01-18 21:06 G	40456141.15	40456141.38	40456141.62	0.0290	0.0074	
Moon	106053-01-18 21:49 G	40456141.16	40456141.41	40456141.66	0.0290	0.0058	*
Mercury	106059-03-19 11:16 G	40458391.89	40458391.97	40458392.05	0.0298	0.0238	
Mercury	106059-06-15 23:30 G	40458480.36	40458480.48	40458480.61	0.0297	0.0061	
Mercury	106059-09-12 11:44 G	40458568.87	40458568.99	40458569.11	0.0297	0.0114	
Mercury	106059-12-09 23:44 G	40458657.47	40458657.49	40458657.52	0.0296	0.0287	
Venus	106061-08-24 14:52 G	40459280.90	40459281.12	40459281.33	0.0291	0.0016	
Earth	106065-07-07 10:18 G	40460693.76	40460693.93	40460694.13	0.0276	0.0186	
Moon	106065-07-07 13:25 G	40460693.87	40460694.06	40460694.26	0.0276	0.0182	*
Moon	106066-07-20 06:42 G	40461071.54	40461071.78	40461072.04	0.0272	0.0060	
Earth	106066-07-20 08:37 G	40461071.61	40461071.86	40461072.10	0.0272	0.0046	*
Earth	106067-08-01 22:04 G	40461449.37	40461449.42	40461449.47	0.0269	0.0263	
Mercury	106074-07-01 01:11 G	40463974.54	40463974.55	40463974.58	0.0264	0.0262	
Mercury	106074-09-27 22:32 G	40464063.26	40464063.44	40464063.62	0.0264	0.0080	
Mercury	106074-12-25 19:54 G	40464152.15	40464152.33	40464152.51	0.0265	0.0103	
Venus	106077-05-03 18:28 G	40465012.06	40465012.27	40465012.48	0.0270	0.0014	
Venus	106077-12-18 18:42 G	40465241.21	40465241.28	40465241.35	0.0272	0.0255	
Earth	106082-01-13 13:40 G	40466727.83	40466728.07	40466728.31	0.0288	0.0036	
Moon	106082-01-13 15:49 G	40466727.93	40466728.16	40466728.40	0.0288	0.0046	*
Earth	106083-01-27 05:59 G	40467106.61	40467106.75	40467106.90	0.0291	0.0232	
Moon	106083-01-27 09:35 G	40467106.77	40467106.90	40467107.07	0.0291	0.0228	*
Mars	106085-06-10 06:13 G	40467971.61	40467971.76	40467971.91	0.0298	0.0245	

Mercury	106088-08-05 13:54 G	40469124.05	40469124.08	40469124.13	0.0298	0.0279
Mercury	106088-11-02 02:23 G	40469212.48	40469212.60	40469212.73	0.0297	0.0101
Mercury	106089-01-29 14:37 G	40469300.99	40469301.11	40469301.24	0.0297	0.0074
Mercury	106089-04-28 02:37 G	40469389.55	40469389.61	40469389.68	0.0296	0.0248
Venus	106090-07-19 20:23 G	40469837.31	40469837.35	40469837.41	0.0293	0.0283
Venus	106091-03-06 23:30 G	40470067.28	40470067.48	40470067.70	0.0291	0.0069
Earth	106095-07-15 02:52 G	40471658.37	40471658.62	40471658.86	0.0274	0.0056
Moon	106095-07-15 06:28 G	40471658.53	40471658.77	40471659.02	0.0274	0.0039 *
Earth	106096-07-26 19:25 G	40472036.12	40472036.31	40472036.51	0.0270	0.0168
Moon	106096-07-26 21:35 G	40472036.22	40472036.40	40472036.60	0.0270	0.0181 *
Mercury	106104-02-15 21:20 G	40474795.23	40474795.39	40474795.56	0.0264	0.0133
Mercury	106104-05-14 18:56 G	40474884.10	40474884.29	40474884.47	0.0264	0.0050
Mercury	106104-08-11 16:04 G	40474973.10	40474973.17	40474973.27	0.0265	0.0236
Venus	106106-03-30 22:32 G	40475569.35	40475569.44	40475569.53	0.0269	0.0239
Venus	106106-11-14 21:49 G	40475798.20	40475798.41	40475798.62	0.0271	0.0023
Moon	106111-01-08 21:06 G	40477314.18	40477314.38	40477314.59	0.0286	0.0154
Earth	106111-01-09 00:42 G	40477314.33	40477314.53	40477314.74	0.0286	0.0153 *
Moon	106112-01-22 11:59 G	40477692.79	40477693.00	40477693.22	0.0290	0.0117
Earth	106112-01-22 13:11 G	40477692.84	40477693.05	40477693.29	0.0290	0.0110 *
Mercury	106118-03-23 05:01 G	40479944.60	40479944.71	40479944.83	0.0298	0.0145
Mercury	106118-06-19 17:16 G	40480033.10	40480033.22	40480033.35	0.0297	0.0034
Mercury	106118-09-16 05:30 G	40480121.64	40480121.73	40480121.82	0.0296	0.0206
Venus	106120-01-31 06:13 G	40480623.63	40480623.76	40480623.90	0.0292	0.0226
Venus	106120-09-17 09:06 G	40480853.69	40480853.88	40480854.08	0.0290	0.0124
Moon	106124-07-09 20:23 G	40482245.15	40482245.35	40482245.56	0.0275	0.0142
Earth	106124-07-09 23:30 G	40482245.28	40482245.48	40482245.69	0.0275	0.0155 *
Earth	106125-07-22 20:08 G	40482623.10	40482623.34	40482623.58	0.0271	0.0075
Moon	106125-07-22 20:52 G	40482623.14	40482623.37	40482623.60	0.0271	0.0081 *
Mercury	106133-07-04 22:47 G	40485527.31	40485527.45	40485527.61	0.0264	0.0167
Mercury	106133-10-01 20:23 G	40485616.15	40485616.35	40485616.54	0.0265	0.0018

Mercury	106133-12-29 17:30 G	40485705.12	40485705.23	40485705.36	0.0265	0.0203
Venus	106135-10-11 06:13 G	40486355.62	40486355.76	40486355.91	0.0269	0.0192
Venus	106136-05-27 05:44 G	40486584.54	40486584.74	40486584.95	0.0271	0.0073
Earth	106140-01-03 21:49 G	40487901.32	40487901.41	40487901.53	0.0284	0.0255
Moon	106140-01-04 00:42 G	40487901.42	40487901.53	40487901.65	0.0284	0.0249 *
Moon	106141-01-16 05:01 G	40488279.46	40488279.71	40488279.96	0.0288	0.0015
Earth	106141-01-16 06:42 G	40488279.54	40488279.78	40488280.03	0.0288	0.0005 *
Moon	106142-01-29 20:52 G	40488658.34	40488658.37	40488658.42	0.0292	0.0287
Earth	106142-01-30 00:42 G	40488658.45	40488658.53	40488658.63	0.0292	0.0269
Mercury	106147-08-10 08:23 G	40490676.75	40490676.85	40490676.95	0.0297	0.0179
Mercury	106147-11-06 20:37 G	40490765.23	40490765.36	40490765.49	0.0297	0.0005
Mercury	106148-02-03 08:52 G	40490853.76	40490853.87	40490853.97	0.0296	0.0172
Venus	106149-08-12 16:47 G	40491410.03	40491410.20	40491410.38	0.0292	0.0167
Venus	106150-03-30 19:11 G	40491640.14	40491640.30	40491640.47	0.0290	0.0182
Earth	106153-07-04 16:47 G	40492832.12	40492832.20	40492832.29	0.0277	0.0259
Moon	106153-07-04 17:44 G	40492832.14	40492832.24	40492832.35	0.0277	0.0251 *
Moon	106154-07-17 13:25 G	40493209.81	40493210.06	40493210.31	0.0273	0.0030
Earth	106154-07-17 16:47 G	40493209.96	40493210.20	40493210.45	0.0273	0.0025 *
Moon	106155-07-30 05:16 G	40493587.55	40493587.72	40493587.90	0.0270	0.0186
Earth	106155-07-30 07:54 G	40493587.68	40493587.83	40493588.01	0.0270	0.0198 *
Mercury	106162-11-21 22:04 G	40496259.32	40496259.42	40496259.54	0.0264	0.0216
Mercury	106163-02-18 19:25 G	40496348.12	40496348.31	40496348.50	0.0264	0.0034
Mercury	106163-05-18 16:47 G	40496437.05	40496437.20	40496437.36	0.0264	0.0151
Venus	106165-04-22 09:49 G	40497141.75	40497141.91	40497142.09	0.0269	0.0155
Venus	106165-12-07 09:35 G	40497370.71	40497370.90	40497371.09	0.0271	0.0111
Earth	106170-01-10 16:47 G	40498865.98	40498866.20	40498866.42	0.0287	0.0119
Moon	106170-01-10 20:23 G	40498866.13	40498866.35	40498866.58	0.0287	0.0102 *
Earth	106171-01-24 06:56 G	40499244.58	40499244.79	40499245.00	0.0291	0.0145
Moon	106171-01-24 09:20 G	40499244.69	40499244.89	40499245.10	0.0291	0.0160 *
Mars	106173-11-06 02:08 G	40500261.34	40500261.59	40500261.86	0.0299	0.0094

Mercury	106176-12-27 10:47 G	40501408.87	40501408.95	40501409.04	0.0298	0.0225
Mercury	106177-03-25 23:16 G	40501497.34	40501497.47	40501497.60	0.0297	0.0047
Mercury	106177-06-22 11:30 G	40501585.86	40501585.98	40501586.09	0.0297	0.0128
Venus	106179-02-23 01:54 G	40502196.39	40502196.58	40502196.78	0.0292	0.0113
Venus	106179-10-11 04:04 G	40502426.56	40502426.67	40502426.81	0.0289	0.0236
Earth	106183-07-12 13:40 G	40503796.86	40503797.07	40503797.30	0.0274	0.0124
Moon	106183-07-12 17:16 G	40503797.02	40503797.22	40503797.45	0.0274	0.0136 *
Earth	106184-07-24 09:06 G	40504174.66	40504174.88	40504175.12	0.0271	0.0105
Moon	106184-07-24 09:35 G	40504174.66	40504174.90	40504175.15	0.0271	0.0089 *
Mars	106188-01-18 22:47 G	40505448.26	40505448.45	40505448.66	0.0263	0.0201
Mercury	106192-04-09 23:16 G	40506991.43	40506991.47	40506991.54	0.0264	0.0250
Mercury	106192-07-07 20:52 G	40507080.18	40507080.37	40507080.55	0.0264	0.0068
Mercury	106192-10-04 17:59 G	40507169.09	40507169.25	40507169.43	0.0265	0.0117
Venus	106194-11-02 17:30 G	40507928.04	40507928.23	40507928.42	0.0270	0.0107
Venus	106195-06-19 17:16 G	40508157.06	40508157.22	40508157.39	0.0272	0.0160
Moon	106199-01-05 10:32 G	40509452.78	40509452.94	40509453.10	0.0285	0.0209
Earth	106199-01-05 13:25 G	40509452.91	40509453.06	40509453.21	0.0285	0.0222 *
Earth	106200-01-18 23:30 G	40509831.24	40509831.48	40509831.72	0.0289	0.0035
Moon	106200-01-18 23:59 G	40509831.27	40509831.50	40509831.73	0.0289	0.0041 *
Mercury	106206-05-17 14:23 G	40512141.04	40512141.10	40512141.17	0.0298	0.0255
Mercury	106206-08-14 02:52 G	40512229.49	40512229.62	40512229.74	0.0297	0.0078
Mercury	106206-11-10 14:52 G	40512318.00	40512318.12	40512318.25	0.0297	0.0098
Mercury	106207-02-07 02:52 G	40512406.58	40512406.62	40512406.68	0.0296	0.0271
Venus	106208-09-05 13:40 G	40512982.86	40512983.07	40512983.28	0.0291	0.0050
Moon	106212-07-07 07:54 G	40514383.73	40514383.83	40514383.96	0.0276	0.0243
Earth	106212-07-07 09:35 G	40514383.77	40514383.90	40514384.05	0.0276	0.0226 *
Earth	106213-07-20 08:23 G	40514761.60	40514761.85	40514762.10	0.0273	0.0007
Moon	106213-07-20 10:47 G	40514761.71	40514761.95	40514762.19	0.0273	0.0009 *
Earth	106214-08-01 22:04 G	40515139.30	40515139.42	40515139.57	0.0269	0.0226
Moon	106214-08-02 01:25 G	40515139.43	40515139.56	40515139.72	0.0269	0.0218 *

Mercury	106221-11-25 20:08 G	40517812.17	40517812.34	40517812.51	0.0264	0.0117
Mercury	106222-02-22 17:30 G	40517901.04	40517901.23	40517901.41	0.0264	0.0066
Mercury	106222-05-22 14:37 G	40517990.07	40517990.11	40517990.18	0.0265	0.0252
Venus	106224-05-15 21:06 G	40518714.18	40518714.38	40518714.58	0.0270	0.0070
Venus	106224-12-30 20:52 G	40518943.24	40518943.37	40518943.52	0.0272	0.0198
Moon	106229-01-13 04:47 G	40520417.47	40520417.70	40520417.93	0.0288	0.0091
Earth	106229-01-13 08:08 G	40520417.61	40520417.84	40520418.07	0.0288	0.0085 *
Moon	106230-01-26 20:23 G	40520796.16	40520796.35	40520796.54	0.0291	0.0170
Earth	106230-01-26 23:30 G	40520796.30	40520796.48	40520796.67	0.0291	0.0181 *
Mercury	106236-01-01 05:01 G	40522961.60	40522961.71	40522961.83	0.0298	0.0127
Mercury	106236-03-29 17:16 G	40523050.10	40523050.22	40523050.35	0.0297	0.0051
Mercury	106236-06-26 05:30 G	40523138.65	40523138.73	40523138.81	0.0297	0.0224
Venus	106238-03-18 21:49 G	40523769.20	40523769.41	40523769.63	0.0291	0.0002
Moon	106242-07-15 00:42 G	40525348.31	40525348.53	40525348.77	0.0274	0.0102
Earth	106242-07-15 04:32 G	40525348.47	40525348.69	40525348.94	0.0274	0.0093 *
Moon	106243-07-27 21:35 G	40525726.19	40525726.40	40525726.61	0.0270	0.0135
Earth	106243-07-27 22:47 G	40525726.24	40525726.45	40525726.67	0.0270	0.0134 *
Mercury	106251-04-14 21:20 G	40528544.23	40528544.39	40528544.54	0.0264	0.0153
Mercury	106251-07-12 18:28 G	40528633.08	40528633.27	40528633.46	0.0265	0.0031
Mercury	106251-10-09 15:49 G	40528722.06	40528722.16	40528722.28	0.0265	0.0216
Venus	106253-11-26 04:32 G	40529500.48	40529500.69	40529500.89	0.0270	0.0023
Venus	106254-07-13 04:32 G	40529729.61	40529729.69	40529729.78	0.0272	0.0247
Earth	106258-01-08 03:35 G	40531004.47	40531004.65	40531004.83	0.0286	0.0191
Moon	106258-01-08 06:56 G	40531004.63	40531004.79	40531004.97	0.0286	0.0204 *
Earth	106259-01-21 14:52 G	40531382.89	40531383.12	40531383.36	0.0290	0.0070
Moon	106259-01-21 15:35 G	40531382.91	40531383.15	40531383.40	0.0290	0.0053 *
Mars	106262-04-04 07:11 G	40532551.54	40532551.80	40532552.06	0.0298	0.0097
Mercury	106265-05-20 08:37 G	40533693.75	40533693.86	40533693.97	0.0297	0.0158
Mercury	106265-08-16 20:52 G	40533782.24	40533782.37	40533782.50	0.0297	0.0019
Mercury	106265-11-13 09:06 G	40533870.78	40533870.88	40533870.97	0.0296	0.0193

Venus	106267-02-11 06:28 G	40534325.73	40534325.77	40534325.80	0.0293	0.0288
Venus	106267-09-29 09:20 G	40534555.68	40534555.89	40534556.11	0.0291	0.0065
Earth	106271-07-10 01:11 G	40535935.39	40535935.55	40535935.74	0.0276	0.0196
Moon	106271-07-10 03:49 G	40535935.50	40535935.66	40535935.86	0.0276	0.0197 *
Moon	106272-07-21 21:20 G	40536313.14	40536313.39	40536313.65	0.0272	0.0045
Earth	106272-07-21 23:01 G	40536313.22	40536313.46	40536313.71	0.0272	0.0036 *
Moon	106273-08-03 08:23 G	40536690.85	40536690.85	40536690.87	0.0269	0.0269
Earth	106273-08-03 11:59 G	40536690.92	40536691.00	40536691.08	0.0269	0.0253
Mars	106276-06-15 13:25 G	40537737.76	40537738.06	40537738.37	0.0263	0.0068
Mercury	106280-08-31 20:23 G	40539276.24	40539276.35	40539276.48	0.0263	0.0202
Mercury	106280-11-28 17:44 G	40539365.05	40539365.24	40539365.43	0.0264	0.0020
Mercury	106281-02-25 15:06 G	40539453.98	40539454.13	40539454.28	0.0264	0.0164
Venus	106282-10-22 08:23 G	40540057.78	40540057.85	40540057.93	0.0268	0.0247
Venus	106283-06-08 07:25 G	40540286.61	40540286.81	40540287.02	0.0270	0.0015
Earth	106288-01-15 20:52 G	40541969.13	40541969.37	40541969.61	0.0288	0.0054
Moon	106288-01-15 23:30 G	40541969.25	40541969.48	40541969.71	0.0288	0.0070 *
Earth	106289-01-28 13:11 G	40542347.90	40542348.05	40542348.22	0.0292	0.0214
Moon	106289-01-28 17:01 G	40542348.03	40542348.21	40542348.38	0.0292	0.0202 *
Mercury	106294-10-07 10:32 G	40544425.85	40544425.94	40544426.03	0.0298	0.0212
Mercury	106295-01-03 22:47 G	40544514.32	40544514.45	40544514.58	0.0298	0.0035
Mercury	106295-04-02 11:01 G	40544602.85	40544602.96	40544603.07	0.0297	0.0141
Venus	106296-08-23 12:42 G	40545111.92	40545112.03	40545112.16	0.0293	0.0241
Venus	106297-04-10 16:04 G	40545341.97	40545342.17	40545342.37	0.0291	0.0113
Earth	106301-07-17 18:28 G	40546900.03	40546900.27	40546900.51	0.0273	0.0063
Moon	106301-07-17 22:04 G	40546900.18	40546900.42	40546900.67	0.0273	0.0049 *
Earth	106302-07-30 11:30 G	40547277.78	40547277.98	40547278.18	0.0270	0.0161
Moon	106302-07-30 13:11 G	40547277.86	40547278.05	40547278.25	0.0270	0.0175 *
Mercury	106310-01-19 21:06 G	40550008.32	40550008.38	40550008.47	0.0264	0.0241
Mercury	106310-04-18 18:28 G	40550097.08	40550097.27	40550097.46	0.0264	0.0059
Mercury	106310-07-16 15:35 G	40550185.99	40550186.15	40550186.33	0.0265	0.0125

Venus	106312-05-04 14:23 G	40550843.98	40550844.10	40550844.25	0.0269	0.0205
Venus	106312-12-19 13:54 G	40551072.88	40551073.08	40551073.29	0.0271	0.0060
Moon	106317-01-10 10:18 G	40552555.74	40552555.93	40552556.13	0.0286	0.0171
Earth	106317-01-10 14:08 G	40552555.90	40552556.09	40552556.29	0.0286	0.0163 *
Moon	106318-01-24 01:25 G	40552934.34	40552934.56	40552934.78	0.0290	0.0099
Earth	106318-01-24 02:52 G	40552934.40	40552934.62	40552934.85	0.0290	0.0100 *
Mercury	106324-02-25 13:54 G	40555158.01	40555158.08	40555158.15	0.0298	0.0245
Mercury	106324-05-24 02:08 G	40555246.47	40555246.59	40555246.72	0.0297	0.0068
Mercury	106324-08-20 14:23 G	40555334.98	40555335.10	40555335.22	0.0297	0.0108
Mercury	106324-11-17 02:37 G	40555423.57	40555423.61	40555423.64	0.0296	0.0281
Venus	106326-03-07 00:28 G	40555898.36	40555898.52	40555898.70	0.0292	0.0177
Venus	106326-10-23 03:20 G	40556128.47	40556128.64	40556128.82	0.0290	0.0174
Moon	106330-07-12 11:59 G	40557486.81	40557487.00	40557487.22	0.0275	0.0151
Earth	106330-07-12 15:35 G	40557486.95	40557487.15	40557487.35	0.0275	0.0167 *
Earth	106331-07-25 11:59 G	40557864.76	40557865.00	40557865.24	0.0272	0.0064
Moon	106331-07-25 12:28 G	40557864.80	40557865.02	40557865.26	0.0272	0.0075 *
Mercury	106339-09-05 17:30 G	40560829.07	40560829.23	40560829.41	0.0263	0.0110
Mercury	106339-12-03 14:52 G	40560917.94	40560918.12	40560918.31	0.0264	0.0073
Mercury	106340-03-01 12:13 G	40561006.98	40561007.01	40561007.05	0.0264	0.0258
Venus	106341-11-14 17:16 G	40561630.07	40561630.22	40561630.40	0.0268	0.0169
Venus	106342-07-01 16:47 G	40561859.01	40561859.20	40561859.40	0.0270	0.0096
Earth	106346-01-04 23:01 G	40563142.43	40563142.46	40563142.52	0.0284	0.0278
Moon	106346-01-05 00:56 G	40563142.50	40563142.54	40563142.62	0.0284	0.0275 *
Moon	106347-01-18 05:01 G	40563520.46	40563520.71	40563520.96	0.0288	0.0015
Earth	106347-01-18 06:56 G	40563520.55	40563520.79	40563521.03	0.0288	0.0026 *
Moon	106348-01-31 20:52 G	40563899.26	40563899.37	40563899.48	0.0292	0.0259
Earth	106348-01-31 23:59 G	40563899.38	40563899.50	40563899.65	0.0292	0.0244 *
Mars	106350-08-30 06:56 G	40564840.59	40564840.79	40564841.00	0.0299	0.0195
Mercury	106353-10-11 03:49 G	40565978.54	40565978.66	40565978.77	0.0298	0.0127
Mercury	106354-01-07 16:04 G	40566067.04	40566067.17	40566067.30	0.0297	0.0050

Mercury	106354-04-06 04:04 G	40566155.59	40566155.67	40566155.76	0.0297	0.0225
Venus	106355-09-17 05:30 G	40566684.54	40566684.73	40566684.92	0.0292	0.0135
Venus	106356-05-04 07:54 G	40566914.70	40566914.83	40566914.98	0.0290	0.0217
Moon	106359-07-07 04:32 G	40568073.61	40568073.69	40568073.79	0.0277	0.0259
Earth	106359-07-07 04:04 G	40568073.63	40568073.67	40568073.72	0.0277	0.0272 *
Moon	106360-07-19 02:08 G	40568451.34	40568451.59	40568451.84	0.0273	0.0033
Earth	106360-07-19 05:16 G	40568451.48	40568451.72	40568451.97	0.0273	0.0037 *
Moon	106361-07-31 18:56 G	40568829.12	40568829.29	40568829.48	0.0270	0.0179
Earth	106361-07-31 21:06 G	40568829.21	40568829.38	40568829.57	0.0270	0.0187 *
Mars	106364-11-10 22:47 G	40570027.14	40570027.45	40570027.76	0.0263	0.0055
Mercury	106369-01-22 17:44 G	40571561.09	40571561.24	40571561.40	0.0264	0.0154
Mercury	106369-04-21 14:52 G	40571649.93	40571650.12	40571650.31	0.0264	0.0029
Mercury	106369-07-19 12:13 G	40571738.90	40571739.01	40571739.13	0.0265	0.0213
Venus	106371-05-27 22:32 G	40572416.27	40572416.44	40572416.63	0.0269	0.0127
Venus	106372-01-11 22:04 G	40572645.25	40572645.42	40572645.60	0.0271	0.0139
Earth	106376-01-12 20:52 G	40574107.17	40574107.37	40574107.59	0.0286	0.0140
Moon	106376-01-13 00:42 G	40574107.32	40574107.53	40574107.75	0.0286	0.0123 *
Earth	106377-01-25 10:32 G	40574485.73	40574485.94	40574486.16	0.0290	0.0125
Moon	106377-01-25 12:56 G	40574485.83	40574486.04	40574486.26	0.0290	0.0141 *
Mercury	106383-02-28 06:42 G	40576710.67	40576710.78	40576710.89	0.0298	0.0166
Mercury	106383-05-27 18:56 G	40576799.16	40576799.29	40576799.42	0.0297	0.0012
Mercury	106383-08-24 07:11 G	40576887.70	40576887.80	40576887.90	0.0297	0.0186
Venus	106385-03-29 15:35 G	40577470.95	40577471.15	40577471.36	0.0292	0.0075
Venus	106385-11-14 17:59 G	40577701.20	40577701.25	40577701.33	0.0290	0.0276
Earth	106389-07-14 01:25 G	40579038.36	40579038.56	40579038.79	0.0275	0.0141
Moon	106389-07-14 05:30 G	40579038.52	40579038.73	40579038.95	0.0275	0.0144 *
Earth	106390-07-26 21:20 G	40579416.16	40579416.39	40579416.63	0.0271	0.0090
Moon	106390-07-26 21:49 G	40579416.16	40579416.41	40579416.66	0.0271	0.0077 *
Mercury	106398-06-11 16:47 G	40582293.09	40582293.20	40582293.33	0.0263	0.0204
Mercury	106398-09-08 13:54 G	40582381.90	40582382.08	40582382.28	0.0263	0.0025

Mercury	106398-12-06 11:01 G	40582470.82	40582470.96	40582471.12	0.0264	0.0160
Venus	106400-12-07 01:11 G	40583202.35	40583202.55	40583202.75	0.0269	0.0092
Venus	106401-07-24 00:28 G	40583431.36	40583431.52	40583431.68	0.0271	0.0173
Moon	106405-01-06 01:25 G	40584693.44	40584693.56	40584693.69	0.0284	0.0240
Earth	106405-01-06 04:18 G	40584693.59	40584693.68	40584693.79	0.0284	0.0256 *
Earth	106406-01-19 12:42 G	40585071.79	40585072.03	40585072.27	0.0288	0.0004
Moon	106406-01-19 13:25 G	40585071.83	40585072.06	40585072.29	0.0288	0.0009 *
Earth	106407-02-02 06:13 G	40585450.68	40585450.76	40585450.87	0.0292	0.0268
Moon	106407-02-02 09:49 G	40585450.83	40585450.91	40585451.01	0.0292	0.0270 *
Mercury	106412-07-17 07:40 G	40587442.74	40587442.82	40587442.90	0.0298	0.0232
Mercury	106412-10-13 20:08 G	40587531.21	40587531.34	40587531.47	0.0298	0.0053
Mercury	106413-01-10 08:23 G	40587619.73	40587619.85	40587619.97	0.0297	0.0123
Venus	106414-10-09 18:56 G	40588257.08	40588257.29	40588257.50	0.0292	0.0036
Moon	106418-07-08 10:04 G	40589624.85	40589624.92	40589625.00	0.0277	0.0261
Earth	106418-07-08 11:59 G	40589624.90	40589625.00	40589625.11	0.0277	0.0248 *
Earth	106419-07-21 12:42 G	40590002.78	40590003.03	40590003.28	0.0273	0.0014
Moon	106419-07-21 14:52 G	40590002.88	40590003.12	40590003.36	0.0273	0.0029 *
Earth	106420-08-02 04:04 G	40590380.52	40590380.67	40590380.83	0.0269	0.0209
Moon	106420-08-02 06:42 G	40590380.63	40590380.78	40590380.97	0.0269	0.0199 *
Mercury	106427-10-29 16:04 G	40593025.14	40593025.17	40593025.23	0.0263	0.0255
Mercury	106428-01-26 13:25 G	40593113.88	40593114.06	40593114.24	0.0264	0.0074
Mercury	106428-04-24 10:32 G	40593202.77	40593202.94	40593203.12	0.0264	0.0109
Venus	106430-06-19 05:16 G	40593988.51	40593988.72	40593988.92	0.0269	0.0054
Venus	106431-02-03 04:32 G	40594217.57	40594217.69	40594217.82	0.0271	0.0213
Moon	106435-01-13 21:20 G	40595658.17	40595658.39	40595658.62	0.0287	0.0116
Earth	106435-01-14 00:42 G	40595658.32	40595658.53	40595658.76	0.0287	0.0118 *
Moon	106436-01-27 11:59 G	40596036.79	40596037.00	40596037.21	0.0291	0.0142
Earth	106436-01-27 14:52 G	40596036.91	40596037.12	40596037.32	0.0291	0.0148 *
Mercury	106441-12-04 10:18 G	40598174.88	40598174.93	40598174.98	0.0298	0.0275
Mercury	106442-03-02 22:47 G	40598263.33	40598263.45	40598263.57	0.0298	0.0096

Mercury	106442-05-30 11:01 G	40598351.83	40598351.96	40598352.08	0.0297	0.0081
Mercury	106442-08-26 23:16 G	40598440.40	40598440.47	40598440.53	0.0297	0.0255
Venus	106444-04-21 03:49 G	40599043.45	40599043.66	40599043.88	0.0292	0.0022
Moon	106448-07-15 04:18 G	40600589.46	40600589.68	40600589.90	0.0275	0.0133
Earth	106448-07-15 07:54 G	40600589.61	40600589.83	40600590.06	0.0275	0.0118 *
Moon	106449-07-28 02:08 G	40600967.38	40600967.59	40600967.82	0.0271	0.0107
Earth	106449-07-28 03:20 G	40600967.41	40600967.64	40600967.87	0.0271	0.0111 *
Mars	106453-04-06 22:47 G	40602316.21	40602316.45	40602316.72	0.0263	0.0152
Mercury	106457-06-14 12:13 G	40603845.85	40603846.01	40603846.18	0.0263	0.0126
Mercury	106457-09-11 09:20 G	40603934.71	40603934.89	40603935.08	0.0263	0.0056
Mercury	106457-12-09 06:28 G	40604023.70	40604023.77	40604023.86	0.0264	0.0239
Venus	106459-12-30 07:11 G	40604774.60	40604774.80	40604775.01	0.0269	0.0020
Venus	106460-08-15 06:28 G	40605003.70	40605003.77	40605003.86	0.0271	0.0247
Earth	106464-01-08 06:13 G	40606244.64	40606244.76	40606244.91	0.0284	0.0235
Moon	106464-01-08 09:49 G	40606244.80	40606244.91	40606245.05	0.0284	0.0243 *
Earth	106465-01-20 14:52 G	40606622.88	40606623.12	40606623.37	0.0288	0.0020
Moon	106465-01-20 15:06 G	40606622.88	40606623.13	40606623.38	0.0288	0.0006 *
Moon	106466-02-03 05:44 G	40607001.66	40607001.74	40607001.83	0.0292	0.0273
Earth	106466-02-03 08:52 G	40607001.86	40607001.87	40607001.92	0.0292	0.0290
Mercury	106471-07-20 23:16 G	40608995.37	40608995.47	40608995.58	0.0298	0.0169
Mercury	106471-10-17 11:44 G	40609083.86	40609083.99	40609084.12	0.0298	0.0011
Mercury	106472-01-13 23:59 G	40609172.40	40609172.50	40609172.60	0.0297	0.0185
Venus	106473-11-01 05:01 G	40609829.50	40609829.71	40609829.93	0.0292	0.0053
Earth	106477-07-09 15:20 G	40611176.00	40611176.14	40611176.28	0.0277	0.0228
Moon	106477-07-09 17:59 G	40611176.14	40611176.25	40611176.39	0.0277	0.0238 *
Moon	106478-07-22 14:08 G	40611553.83	40611554.09	40611554.35	0.0273	0.0011
Earth	106478-07-22 15:49 G	40611553.91	40611554.16	40611554.41	0.0273	0.0007 *
Moon	106479-08-04 03:35 G	40611931.56	40611931.65	40611931.77	0.0269	0.0243
Earth	106479-08-04 07:11 G	40611931.67	40611931.80	40611931.93	0.0269	0.0228 *
Mercury	106486-11-01 11:01 G	40614577.83	40614577.96	40614578.10	0.0263	0.0182

Mercury	106487-01-29 08:08 G	40614666.65	40614666.84	40614667.03	0.0264	0.0002
Mercury	106487-04-28 05:30 G	40614755.59	40614755.73	40614755.86	0.0264	0.0182
Venus	106488-11-24 11:30 G	40615331.91	40615331.98	40615332.07	0.0268	0.0245
Venus	106489-07-11 10:04 G	40615560.71	40615560.92	40615561.13	0.0270	0.0016
Earth	106494-01-15 00:28 G	40617209.30	40617209.52	40617209.75	0.0287	0.0099
Moon	106494-01-15 02:52 G	40617209.41	40617209.62	40617209.84	0.0287	0.0116 *
Earth	106495-01-28 14:23 G	40617587.91	40617588.10	40617588.31	0.0291	0.0167
Moon	106495-01-28 17:44 G	40617588.03	40617588.24	40617588.45	0.0291	0.0154 *
Mercury	106500-12-08 01:40 G	40619727.48	40619727.57	40619727.66	0.0298	0.0216
Mercury	106501-03-06 13:54 G	40619815.96	40619816.08	40619816.21	0.0298	0.0039
Mercury	106501-06-03 02:08 G	40619904.48	40619904.59	40619904.71	0.0297	0.0139
Venus	106502-09-27 08:52 G	40620385.77	40620385.87	40620385.99	0.0294	0.0252
Venus	106503-05-15 12:56 G	40620615.84	40620616.04	40620616.24	0.0291	0.0106
Earth	106507-07-18 10:04 G	40622140.69	40622140.92	40622141.16	0.0275	0.0099
Moon	106507-07-18 13:25 G	40622140.83	40622141.06	40622141.30	0.0275	0.0090 *
Earth	106508-07-30 05:01 G	40622518.50	40622518.71	40622518.94	0.0271	0.0130
Moon	106508-07-30 06:56 G	40622518.57	40622518.79	40622519.01	0.0271	0.0144 *
Mercury	106516-03-21 10:04 G	40625309.84	40625309.92	40625310.00	0.0263	0.0234
Mercury	106516-06-18 06:56 G	40625398.61	40625398.79	40625398.98	0.0263	0.0055
Mercury	106516-09-15 04:04 G	40625487.51	40625487.67	40625487.84	0.0263	0.0127
Venus	106518-06-07 13:25 G	40626117.94	40626118.06	40626118.19	0.0267	0.0211
Venus	106519-01-22 11:44 G	40626346.79	40626346.99	40626347.20	0.0269	0.0050
Jupiter	106519-09-10 05:44 G	40626577.51	40626577.74	40626578.01	0.0271	0.0224
Moon	106523-01-10 01:54 G	40627795.45	40627795.58	40627795.73	0.0284	0.0230
Earth	106523-01-10 05:44 G	40627795.59	40627795.74	40627795.90	0.0284	0.0217 *
Moon	106524-01-23 13:40 G	40628173.84	40628174.07	40628174.31	0.0288	0.0036
Earth	106524-01-23 14:08 G	40628173.86	40628174.09	40628174.34	0.0288	0.0039 *
Mercury	106530-04-27 01:54 G	40630459.56	40630459.58	40630459.60	0.0299	0.0293
Mercury	106530-07-24 14:23 G	40630547.98	40630548.10	40630548.22	0.0298	0.0113
Mercury	106530-10-21 02:37 G	40630636.49	40630636.61	40630636.74	0.0298	0.0065

Mercury	106531-01-17 14:52 G	40630725.05	40630725.12	40630725.20	0.0297	0.0240
Venus	106532-04-08 09:20 G	40631171.75	40631171.89	40631172.03	0.0294	0.0222
Venus	106532-11-24 12:56 G	40631401.85	40631402.04	40631402.24	0.0292	0.0136
Moon	106536-07-11 12:13 G	40632726.85	40632727.01	40632727.19	0.0277	0.0196
Earth	106536-07-11 15:20 G	40632726.99	40632727.14	40632727.31	0.0277	0.0211 *
Earth	106537-07-24 15:35 G	40633104.91	40633105.15	40633105.40	0.0273	0.0025
Moon	106537-07-24 17:01 G	40633104.97	40633105.21	40633105.45	0.0273	0.0036 *
Earth	106538-08-06 06:42 G	40633482.69	40633482.78	40633482.90	0.0269	0.0245
Moon	106538-08-06 10:47 G	40633482.86	40633482.95	40633483.05	0.0269	0.0248 *
Mars	106541-08-31 23:30 G	40634604.31	40634604.48	40634604.70	0.0262	0.0207
Mercury	106545-11-05 05:16 G	40636130.55	40636130.72	40636130.89	0.0263	0.0115
Mercury	106546-02-02 02:23 G	40636219.41	40636219.60	40636219.78	0.0264	0.0067
Mercury	106546-05-01 23:30 G	40636308.43	40636308.48	40636308.54	0.0264	0.0250
Venus	106547-12-18 15:06 G	40636903.99	40636904.13	40636904.29	0.0268	0.0180
Venus	106548-08-03 13:54 G	40637132.88	40637133.08	40637133.28	0.0270	0.0083
Moon	106553-01-16 19:40 G	40638760.09	40638760.32	40638760.57	0.0287	0.0075
Earth	106553-01-16 22:04 G	40638760.20	40638760.42	40638760.66	0.0287	0.0083 *
Moon	106554-01-30 08:52 G	40639138.70	40639138.87	40639139.05	0.0291	0.0199
Earth	106554-01-30 12:13 G	40639138.82	40639139.01	40639139.20	0.0291	0.0183 *
Mercury	106559-12-11 16:18 G	40641280.07	40641280.18	40641280.29	0.0298	0.0166
Mercury	106560-03-09 04:32 G	40641368.57	40641368.69	40641368.82	0.0298	0.0016
Mercury	106560-06-05 16:47 G	40641457.11	40641457.20	40641457.30	0.0297	0.0188
Venus	106561-10-19 15:49 G	40641957.98	40641958.16	40641958.33	0.0293	0.0173
Venus	106562-06-06 19:25 G	40642188.14	40642188.31	40642188.48	0.0291	0.0185
Moon	106566-07-19 05:16 G	40643691.48	40643691.72	40643691.96	0.0275	0.0075
Earth	106566-07-19 08:37 G	40643691.62	40643691.86	40643692.10	0.0275	0.0082 *
Moon	106567-08-01 01:40 G	40644069.37	40644069.57	40644069.78	0.0271	0.0141
Earth	106567-08-01 03:35 G	40644069.46	40644069.65	40644069.87	0.0271	0.0147 *
Mercury	106575-03-25 03:49 G	40646862.53	40646862.66	40646862.82	0.0263	0.0169
Mercury	106575-06-22 01:11 G	40646951.36	40646951.55	40646951.74	0.0263	0.0012

Mercury	106575-09-18 22:04 G	40647040.30	40647040.42	40647040.56	0.0263	0.0194
Venus	106577-06-29 17:01 G	40647690.05	40647690.21	40647690.40	0.0267	0.0147
Venus	106578-02-13 15:35 G	40647918.96	40647919.15	40647919.34	0.0269	0.0116
Earth	106582-01-11 03:06 G	40649346.47	40649346.63	40649346.81	0.0284	0.0200
Moon	106582-01-11 06:42 G	40649346.61	40649346.78	40649346.97	0.0284	0.0186 *
Earth	106583-01-24 11:30 G	40649724.74	40649724.98	40649725.22	0.0288	0.0055
Moon	106583-01-24 12:13 G	40649724.77	40649725.01	40649725.26	0.0288	0.0070 *
Mercury	106589-04-29 16:18 G	40652012.11	40652012.18	40652012.26	0.0299	0.0245
Mercury	106589-07-27 04:47 G	40652100.58	40652100.70	40652100.83	0.0298	0.0066
Mercury	106589-10-23 17:16 G	40652189.10	40652189.22	40652189.34	0.0298	0.0112
Mercury	106590-01-20 05:16 G	40652277.69	40652277.72	40652277.75	0.0297	0.0287
Venus	106591-05-01 15:06 G	40652743.95	40652744.13	40652744.32	0.0294	0.0145
Venus	106591-12-17 18:42 G	40652974.14	40652974.28	40652974.43	0.0291	0.0212
Earth	106595-07-13 12:13 G	40654277.84	40654278.01	40654278.19	0.0277	0.0195
Moon	106595-07-13 15:35 G	40654277.98	40654278.15	40654278.34	0.0277	0.0195 *
Moon	106596-07-25 11:30 G	40654655.73	40654655.98	40654656.24	0.0273	0.0028
Earth	106596-07-25 12:42 G	40654655.79	40654656.03	40654656.28	0.0273	0.0040 *
Moon	106597-08-07 00:13 G	40655033.41	40655033.51	40655033.62	0.0269	0.0243
Earth	106597-08-07 03:49 G	40655033.61	40655033.66	40655033.74	0.0269	0.0260 *
Mercury	106604-08-12 01:40 G	40657594.49	40657594.57	40657594.67	0.0263	0.0232
Mercury	106604-11-08 22:47 G	40657683.26	40657683.45	40657683.64	0.0263	0.0052
Mercury	106605-02-05 19:54 G	40657772.17	40657772.33	40657772.50	0.0264	0.0130
Venus	106607-01-10 18:13 G	40658476.07	40658476.26	40658476.45	0.0268	0.0116
Venus	106607-08-27 16:47 G	40658705.03	40658705.20	40658705.38	0.0270	0.0147
Earth	106612-01-19 18:13 G	40660311.03	40660311.26	40660311.50	0.0287	0.0067
Moon	106612-01-19 20:08 G	40660311.12	40660311.34	40660311.58	0.0287	0.0058 *
Earth	106613-02-01 07:54 G	40660689.67	40660689.83	40660690.02	0.0291	0.0199
Moon	106613-02-01 11:44 G	40660689.82	40660689.99	40660690.17	0.0291	0.0200 *
Mercury	106618-12-15 06:42 G	40662832.66	40662832.78	40662832.90	0.0298	0.0119
Mercury	106619-03-13 18:56 G	40662921.17	40662921.29	40662921.42	0.0298	0.0059

Mercury	106619-06-10 07:11 G	40663009.73	40663009.80	40663009.88	0.0297	0.0234
Venus	106620-11-11 21:06 G	40663530.18	40663530.38	40663530.59	0.0293	0.0097
Venus	106621-06-30 00:42 G	40663760.44	40663760.53	40663760.63	0.0291	0.0259
Earth	106625-07-21 04:47 G	40665242.46	40665242.70	40665242.95	0.0275	0.0066
Moon	106625-07-21 07:54 G	40665242.60	40665242.83	40665243.07	0.0275	0.0082 *
Earth	106626-08-03 00:13 G	40665620.32	40665620.51	40665620.72	0.0271	0.0162
Moon	106626-08-03 03:06 G	40665620.42	40665620.63	40665620.85	0.0271	0.0147 *
Mars	106630-01-26 04:47 G	40666892.67	40666892.70	40666892.75	0.0263	0.0260
Mercury	106634-03-28 21:35 G	40668415.23	40668415.40	40668415.58	0.0263	0.0106
Mercury	106634-06-25 18:42 G	40668504.10	40668504.28	40668504.47	0.0263	0.0075
Mercury	106634-09-22 15:49 G	40668593.13	40668593.16	40668593.20	0.0263	0.0258
Venus	106636-07-22 20:23 G	40669262.16	40669262.35	40669262.56	0.0267	0.0083
Venus	106637-03-08 18:56 G	40669491.14	40669491.29	40669491.45	0.0269	0.0180
Moon	106641-01-12 20:52 G	40670897.20	40670897.37	40670897.57	0.0284	0.0182
Earth	106641-01-13 00:28 G	40670897.34	40670897.52	40670897.71	0.0284	0.0183 *
Moon	106642-01-26 07:25 G	40671275.58	40671275.81	40671276.04	0.0288	0.0063
Earth	106642-01-26 08:37 G	40671275.63	40671275.86	40671276.10	0.0288	0.0073 *
Mercury	106648-05-03 06:42 G	40673564.69	40673564.78	40673564.88	0.0299	0.0199
Mercury	106648-07-30 19:11 G	40673653.17	40673653.30	40673653.43	0.0298	0.0020
Mercury	106648-10-27 07:25 G	40673741.70	40673741.81	40673741.92	0.0298	0.0157
Venus	106650-05-24 20:08 G	40674316.14	40674316.34	40674316.55	0.0293	0.0071
Venus	106651-01-09 23:30 G	40674546.45	40674546.48	40674546.52	0.0291	0.0286
Moon	106654-07-15 04:18 G	40675828.51	40675828.68	40675828.86	0.0277	0.0194
Earth	106654-07-15 07:40 G	40675828.64	40675828.82	40675829.01	0.0277	0.0180 *
Earth	106655-07-28 08:08 G	40676206.60	40676206.84	40676207.09	0.0273	0.0055
Moon	106655-07-28 08:37 G	40676206.62	40676206.86	40676207.10	0.0273	0.0050 *
Mercury	106663-08-15 19:11 G	40679147.16	40679147.30	40679147.45	0.0263	0.0171
Mercury	106663-11-12 16:18 G	40679235.99	40679236.18	40679236.37	0.0263	0.0010
Mercury	106664-02-09 13:11 G	40679324.93	40679325.05	40679325.19	0.0264	0.0193
Venus	106666-02-01 21:06 G	40680048.18	40680048.38	40680048.58	0.0268	0.0053

Venus	106666-09-18 19:40 G	40680277.20	40680277.32	40680277.46	0.0270	0.0211
Moon	106671-01-20 12:42 G	40681861.79	40681862.03	40681862.28	0.0287	0.0065
Earth	106671-01-20 14:37 G	40681861.87	40681862.11	40681862.35	0.0287	0.0050 *
Moon	106672-02-03 00:28 G	40682240.35	40682240.52	40682240.70	0.0291	0.0197
Earth	106672-02-03 04:18 G	40682240.52	40682240.68	40682240.84	0.0291	0.0215 *
Mercury	106677-09-20 08:23 G	40684296.79	40684296.85	40684296.92	0.0298	0.0255
Mercury	106677-12-17 20:52 G	40684385.25	40684385.37	40684385.50	0.0298	0.0076
Mercury	106678-03-16 09:20 G	40684473.77	40684473.89	40684474.01	0.0297	0.0102
Mercury	106678-06-12 21:20 G	40684562.35	40684562.39	40684562.44	0.0297	0.0277
Venus	106679-12-05 01:40 G	40685102.36	40685102.57	40685102.79	0.0293	0.0025
Moon	106684-07-21 20:37 G	40686793.12	40686793.36	40686793.62	0.0275	0.0046
Earth	106684-07-21 23:59 G	40686793.26	40686793.50	40686793.74	0.0275	0.0051 *
Moon	106685-08-03 16:32 G	40687171.02	40687171.19	40687171.37	0.0271	0.0189
Earth	106685-08-03 19:40 G	40687171.14	40687171.32	40687171.52	0.0271	0.0176 *
Mercury	106693-01-01 18:28 G	40689879.17	40689879.27	40689879.37	0.0263	0.0222
Mercury	106693-03-31 15:20 G	40689967.96	40689968.14	40689968.33	0.0263	0.0043
Mercury	106693-06-28 12:28 G	40690056.86	40690057.02	40690057.18	0.0263	0.0139
Venus	106695-08-14 23:59 G	40690834.29	40690834.50	40690834.71	0.0268	0.0018
Venus	106696-03-30 22:18 G	40691063.36	40691063.43	40691063.52	0.0270	0.0246
Earth	106700-01-14 22:04 G	40692448.23	40692448.42	40692448.62	0.0284	0.0165
Moon	106700-01-15 01:40 G	40692448.39	40692448.57	40692448.76	0.0284	0.0180 *
Earth	106701-01-28 06:13 G	40692826.53	40692826.76	40692826.99	0.0288	0.0091
Moon	106701-01-28 08:08 G	40692826.60	40692826.84	40692827.08	0.0288	0.0080 *
Mercury	106707-05-07 21:20 G	40695117.28	40695117.39	40695117.50	0.0298	0.0151
Mercury	106707-08-04 09:35 G	40695205.77	40695205.90	40695206.03	0.0298	0.0027
Mercury	106707-10-31 21:49 G	40695294.32	40695294.41	40695294.51	0.0298	0.0203
Venus	106709-06-17 01:40 G	40695888.35	40695888.57	40695888.79	0.0293	0.0005
Earth	106713-07-17 03:06 G	40697379.44	40697379.63	40697379.83	0.0277	0.0165
Moon	106713-07-17 06:42 G	40697379.57	40697379.78	40697379.99	0.0277	0.0152 *
Earth	106714-07-30 03:49 G	40697757.42	40697757.66	40697757.90	0.0273	0.0070

Moon	106714-07-30 04:04 G	40697757.43	40697757.67	40697757.92	0.0273	0.0086	*
Mercury	106722-08-19 12:42 G	40700699.87	40700700.03	40700700.21	0.0263	0.0109	
Mercury	106722-11-16 10:04 G	40700788.73	40700788.92	40700789.10	0.0263	0.0073	
Mercury	106723-02-13 06:56 G	40700877.76	40700877.79	40700877.84	0.0264	0.0256	
Venus	106724-07-11 02:37 G	40701391.54	40701391.61	40701391.69	0.0267	0.0248	
Venus	106725-02-25 00:28 G	40701620.31	40701620.52	40701620.73	0.0268	0.0011	
Earth	106729-01-09 08:52 G	40703034.84	40703034.87	40703034.92	0.0282	0.0277	
Earth	106730-01-22 12:42 G	40703412.79	40703413.03	40703413.27	0.0287	0.0032	
Moon	106730-01-22 13:54 G	40703412.85	40703413.08	40703413.32	0.0287	0.0032	*
Earth	106731-02-05 01:54 G	40703791.45	40703791.58	40703791.73	0.0291	0.0233	
Moon	106731-02-05 05:59 G	40703791.62	40703791.75	40703791.88	0.0291	0.0240	*
Mercury	106736-09-23 23:01 G	40705849.37	40705849.46	40705849.55	0.0298	0.0206	
Mercury	106736-12-21 11:30 G	40705937.85	40705937.98	40705938.11	0.0298	0.0028	
Mercury	106737-03-19 23:44 G	40706026.38	40706026.49	40706026.60	0.0297	0.0149	
Venus	106738-12-28 07:11 G	40706674.59	40706674.80	40706675.02	0.0292	0.0053	
Moon	106742-07-11 12:28 G	40707965.95	40707966.02	40707966.12	0.0279	0.0260	
Earth	106742-07-11 14:08 G	40707966.06	40707966.09	40707966.14	0.0279	0.0274	*
Earth	106743-07-24 19:25 G	40708344.06	40708344.31	40708344.56	0.0275	0.0035	
Moon	106743-07-24 22:04 G	40708344.18	40708344.42	40708344.67	0.0275	0.0022	*
Earth	106744-08-05 15:35 G	40708721.97	40708722.15	40708722.32	0.0271	0.0191	
Moon	106744-08-05 18:56 G	40708722.13	40708722.29	40708722.47	0.0271	0.0198	*
Mercury	106752-01-06 12:28 G	40711431.87	40711432.02	40711432.17	0.0263	0.0157	
Mercury	106752-04-04 09:20 G	40711520.70	40711520.89	40711521.08	0.0263	0.0023	
Mercury	106752-07-02 06:28 G	40711609.66	40711609.77	40711609.89	0.0264	0.0206	
Venus	106754-01-21 05:59 G	40712177.64	40712177.75	40712177.89	0.0267	0.0212	
Venus	106754-09-07 04:18 G	40712406.47	40712406.68	40712406.88	0.0268	0.0049	
Moon	106759-01-16 18:42 G	40713999.07	40713999.28	40713999.51	0.0284	0.0134	
Earth	106759-01-16 22:18 G	40713999.23	40713999.43	40713999.65	0.0284	0.0145	*
Moon	106760-01-30 03:49 G	40714377.45	40714377.66	40714377.88	0.0288	0.0127	
Earth	106760-01-30 06:28 G	40714377.55	40714377.77	40714378.00	0.0288	0.0111	*

Mercury	106766-02-10 23:30 G	40716581.44	40716581.48	40716581.53	0.0298	0.0279
Mercury	106766-05-10 11:59 G	40716669.88	40716670.00	40716670.13	0.0298	0.0100
Mercury	106766-08-07 00:13 G	40716758.39	40716758.51	40716758.64	0.0298	0.0079
Mercury	106766-11-03 12:28 G	40716846.96	40716847.02	40716847.09	0.0297	0.0253
Venus	106767-11-22 03:35 G	40717230.59	40717230.65	40717230.72	0.0295	0.0280
Venus	106768-07-09 07:54 G	40717460.63	40717460.83	40717461.04	0.0293	0.0084
Moon	106772-07-17 20:08 G	40718930.13	40718930.34	40718930.55	0.0277	0.0143
Earth	106772-07-17 23:44 G	40718930.29	40718930.49	40718930.71	0.0277	0.0148 *
Moon	106773-07-30 23:30 G	40719308.25	40719308.48	40719308.70	0.0273	0.0083
Earth	106773-07-31 00:13 G	40719308.28	40719308.51	40719308.76	0.0273	0.0087 *
Mercury	106781-05-25 10:04 G	40722163.82	40722163.92	40722164.02	0.0263	0.0222
Mercury	106781-08-22 06:56 G	40722252.60	40722252.79	40722252.98	0.0263	0.0042
Mercury	106781-11-19 04:04 G	40722341.51	40722341.67	40722341.83	0.0264	0.0140
Venus	106783-08-03 06:42 G	40722963.64	40722963.78	40722963.94	0.0267	0.0183
Venus	106784-03-19 04:47 G	40723192.51	40723192.70	40723192.90	0.0269	0.0079
Earth	106788-01-11 09:06 G	40724585.79	40724585.88	40724585.98	0.0282	0.0258
Moon	106788-01-11 11:59 G	40724585.89	40724586.00	40724586.14	0.0282	0.0243 *
Moon	106789-01-23 12:28 G	40724963.77	40724964.02	40724964.27	0.0287	0.0005
Earth	106789-01-23 13:11 G	40724963.80	40724964.05	40724964.29	0.0287	0.0012 *
Moon	106790-02-05 23:01 G	40725342.36	40725342.46	40725342.56	0.0291	0.0265
Earth	106790-02-06 02:08 G	40725342.49	40725342.59	40725342.73	0.0291	0.0253 *
Mercury	106795-09-27 13:54 G	40727401.97	40727402.08	40727402.20	0.0298	0.0153
Mercury	106795-12-25 02:23 G	40727490.47	40727490.60	40727490.73	0.0298	0.0026
Mercury	106796-03-22 14:37 G	40727579.02	40727579.11	40727579.20	0.0297	0.0201
Venus	106797-06-03 10:04 G	40728016.80	40728016.92	40728017.06	0.0294	0.0230
Venus	106798-01-19 14:23 G	40728246.91	40728247.10	40728247.30	0.0292	0.0132
Earth	106801-07-12 11:44 G	40729516.91	40729516.99	40729517.10	0.0279	0.0256
Moon	106801-07-12 13:40 G	40729517.00	40729517.07	40729517.18	0.0279	0.0259 *
Moon	106802-07-25 15:06 G	40729894.87	40729895.13	40729895.38	0.0275	0.0029
Earth	106802-07-25 17:16 G	40729894.97	40729895.22	40729895.47	0.0275	0.0017 *

Moon	106803-08-07 09:49 G	40730272.74	40730272.91	40730273.08	0.0271	0.0193
Earth	106803-08-07 13:11 G	40730272.90	40730273.05	40730273.21	0.0271	0.0209 *
Mercury	106811-01-09 06:42 G	40732984.61	40732984.78	40732984.97	0.0263	0.0089
Mercury	106811-04-08 03:49 G	40733073.49	40733073.66	40733073.84	0.0264	0.0094
Venus	106813-02-12 11:16 G	40733749.80	40733749.97	40733750.15	0.0267	0.0144
Venus	106813-09-29 09:20 G	40733978.71	40733978.89	40733979.09	0.0269	0.0119
Earth	106818-01-18 01:25 G	40735550.34	40735550.56	40735550.78	0.0284	0.0121
Moon	106818-01-18 04:32 G	40735550.47	40735550.69	40735550.91	0.0284	0.0111 *
Earth	106819-01-31 09:35 G	40735928.69	40735928.90	40735929.12	0.0288	0.0135
Moon	106819-01-31 12:56 G	40735928.83	40735929.04	40735929.26	0.0288	0.0139 *
Mercury	106825-02-13 15:06 G	40738134.04	40738134.13	40738134.22	0.0298	0.0218
Mercury	106825-05-13 03:35 G	40738222.52	40738222.65	40738222.78	0.0298	0.0040
Mercury	106825-08-09 15:49 G	40738311.04	40738311.16	40738311.27	0.0297	0.0137
Venus	106826-12-14 12:42 G	40738802.87	40738803.03	40738803.20	0.0294	0.0194
Venus	106827-08-01 16:47 G	40739033.03	40739033.20	40739033.38	0.0292	0.0168
Earth	106831-07-19 23:01 G	40740481.25	40740481.46	40740481.69	0.0277	0.0129
Moon	106831-07-20 02:52 G	40740481.42	40740481.62	40740481.84	0.0277	0.0146 *
Earth	106832-07-31 23:30 G	40740859.25	40740859.48	40740859.71	0.0273	0.0105
Moon	106832-08-01 01:11 G	40740859.32	40740859.55	40740859.80	0.0273	0.0091 *
Mercury	106840-05-28 04:47 G	40743716.54	40743716.70	40743716.86	0.0263	0.0150
Mercury	106840-08-25 01:40 G	40743805.39	40743805.57	40743805.77	0.0263	0.0032
Mercury	106840-11-21 22:47 G	40743894.35	40743894.45	40743894.57	0.0264	0.0214
Venus	106842-08-25 12:42 G	40744535.84	40744536.03	40744536.22	0.0267	0.0113
Venus	106843-04-11 11:01 G	40744764.79	40744764.96	40744765.13	0.0269	0.0150
Moon	106847-01-12 09:35 G	40746136.78	40746136.90	40746137.05	0.0283	0.0234
Earth	106847-01-12 13:25 G	40746136.93	40746137.06	40746137.19	0.0283	0.0234 *
Moon	106848-01-25 17:16 G	40746514.98	40746515.22	40746515.45	0.0287	0.0008
Earth	106848-01-25 17:30 G	40746514.99	40746515.23	40746515.48	0.0287	0.0014 *
Earth	106849-02-07 06:56 G	40746893.73	40746893.79	40746893.87	0.0291	0.0277
Moon	106849-02-07 10:18 G	40746893.83	40746893.93	40746894.03	0.0291	0.0263 *

Mercury	106854-07-03 17:01 G	40748866.16	40748866.21	40748866.27	0.0298	0.0270
Mercury	106854-09-30 05:30 G	40748954.61	40748954.73	40748954.86	0.0298	0.0090
Mercury	106854-12-27 17:59 G	40749043.12	40749043.25	40749043.37	0.0297	0.0087
Mercury	106855-03-26 05:59 G	40749131.70	40749131.75	40749131.81	0.0297	0.0262
Venus	106856-06-25 19:54 G	40749589.15	40749589.33	40749589.52	0.0294	0.0143
Venus	106857-02-10 23:44 G	40749819.36	40749819.49	40749819.64	0.0292	0.0218
Jupiter	106857-06-12 11:59 G	40749940.62	40749941.00	40749941.41	0.0290	0.0166
Moon	106860-07-13 09:35 G	40751067.81	40751067.90	40751068.02	0.0279	0.0250
Earth	106860-07-13 12:13 G	40751067.89	40751068.01	40751068.16	0.0279	0.0235 *
Earth	106861-07-26 17:16 G	40751445.98	40751446.22	40751446.47	0.0275	0.0006
Moon	106861-07-26 18:42 G	40751446.03	40751446.28	40751446.52	0.0275	0.0006 *
Earth	106862-08-08 13:11 G	40751823.92	40751824.05	40751824.19	0.0271	0.0228
Moon	106862-08-08 16:47 G	40751824.08	40751824.20	40751824.33	0.0271	0.0231 *
Mercury	106869-10-15 05:16 G	40754448.59	40754448.72	40754448.85	0.0263	0.0192
Mercury	106870-01-12 02:08 G	40754537.40	40754537.59	40754537.78	0.0264	0.0012
Mercury	106870-04-10 23:16 G	40754626.33	40754626.47	40754626.62	0.0264	0.0172
Venus	106872-03-06 17:59 G	40755322.06	40755322.25	40755322.46	0.0268	0.0071
Venus	106872-10-21 16:18 G	40755551.05	40755551.18	40755551.34	0.0269	0.0193
Moon	106877-01-19 05:16 G	40757101.50	40757101.72	40757101.96	0.0284	0.0110
Earth	106877-01-19 07:54 G	40757101.61	40757101.83	40757102.07	0.0284	0.0095 *
Moon	106878-02-01 12:56 G	40757479.85	40757480.04	40757480.26	0.0288	0.0146
Earth	106878-02-01 16:32 G	40757480.00	40757480.19	40757480.40	0.0288	0.0162 *
Mercury	106884-02-17 07:11 G	40759686.69	40759686.80	40759686.91	0.0298	0.0148
Mercury	106884-05-15 19:25 G	40759775.18	40759775.31	40759775.44	0.0297	0.0031
Mercury	106884-08-12 07:40 G	40759863.73	40759863.82	40759863.92	0.0297	0.0205
Venus	106886-01-06 00:13 G	40760375.32	40760375.51	40760375.72	0.0294	0.0101
Venus	106886-08-24 04:04 G	40760605.57	40760605.67	40760605.77	0.0292	0.0259
Moon	106890-07-20 22:32 G	40762032.22	40762032.44	40762032.68	0.0277	0.0104
Earth	106890-07-21 02:23 G	40762032.38	40762032.60	40762032.83	0.0277	0.0106 *
Moon	106891-08-02 23:59 G	40762410.30	40762410.50	40762410.71	0.0273	0.0137

Earth 106891-08-03 02:08 G 40762410.37 40762410.59 40762410.81 0.0273 0.0126 *
 Mercury 106899-03-04 03:20 G 40765180.59 40765180.64 40765180.70 0.0263 0.0251
 Mercury 106899-06-01 00:13 G 40765269.33 40765269.51 40765269.70 0.0263 0.0072
 Mercury 106899-08-28 21:20 G 40765358.22 40765358.39 40765358.57 0.0264 0.0111
 Venus 106901-09-17 20:08 G 40766108.13 40766108.34 40766108.55 0.0268 0.0038
 Venus 106902-05-04 18:28 G 40766337.17 40766337.27 40766337.39 0.0270 0.0227
 Earth 106906-01-14 20:37 G 40767688.20 40767688.36 40767688.53 0.0283 0.0207
 Moon 106906-01-15 00:13 G 40767688.38 40767688.51 40767688.67 0.0283 0.0225 *
 Earth 106907-01-28 01:25 G 40768066.33 40768066.56 40768066.81 0.0287 0.0042
 Moon 106907-01-28 03:06 G 40768066.38 40768066.63 40768066.88 0.0287 0.0028 *
 Mercury 106913-07-07 09:35 G 40770418.80 40770418.90 40770418.99 0.0298 0.0196
 Mercury 106913-10-03 21:49 G 40770507.28 40770507.41 40770507.54 0.0298 0.0019
 Mercury 106913-12-31 10:04 G 40770595.82 40770595.92 40770596.03 0.0297 0.0159
 Venus 106915-07-20 08:37 G 40771161.65 40771161.86 40771162.08 0.0293 0.0047
 Earth 106919-07-16 16:47 G 40772619.05 40772619.20 40772619.38 0.0278 0.0212
 Moon 106919-07-16 20:23 G 40772619.18 40772619.35 40772619.53 0.0278 0.0200 *
 Moon 106920-07-28 20:52 G 40772997.12 40772997.37 40772997.63 0.0275 0.0041
 Earth 106920-07-28 21:20 G 40772997.14 40772997.39 40772997.64 0.0275 0.0026 *
 Moon 106921-08-10 12:56 G 40773374.99 40773375.04 40773375.12 0.0271 0.0261
 Earth 106921-08-10 16:32 G 40773375.11 40773375.19 40773375.30 0.0271 0.0250 *
 Mercury 106928-10-19 01:11 G 40776001.38 40776001.55 40776001.72 0.0264 0.0109
 Mercury 106929-01-15 22:18 G 40776090.25 40776090.43 40776090.61 0.0264 0.0073
 Mercury 106929-04-14 19:25 G 40776179.28 40776179.31 40776179.36 0.0264 0.0257
 Venus 106930-08-14 04:32 G 40776665.64 40776665.69 40776665.76 0.0267 0.0254
 Venus 106931-03-31 02:37 G 40776894.40 40776894.61 40776894.82 0.0268 0.0007
 Earth 106936-01-22 18:56 G 40778653.05 40778653.29 40778653.53 0.0285 0.0065
 Moon 106936-01-22 20:23 G 40778653.13 40778653.35 40778653.58 0.0285 0.0071 *
 Earth 106937-02-04 04:04 G 40779031.50 40779031.67 40779031.86 0.0288 0.0193
 Moon 106937-02-04 07:54 G 40779031.66 40779031.83 40779032.01 0.0288 0.0196 *
 Mercury 106942-11-24 11:44 G 40781150.92 40781150.99 40781151.06 0.0298 0.0245

Mercury	106943-02-21 00:13 G	40781239.38	40781239.51	40781239.63	0.0297	0.0067
Mercury	106943-05-20 12:28 G	40781327.90	40781328.02	40781328.14	0.0297	0.0110
Mercury	106943-08-17 00:42 G	40781416.49	40781416.53	40781416.56	0.0297	0.0284
Venus	106945-01-29 15:20 G	40781947.92	40781948.14	40781948.35	0.0293	0.0005
Earth	106949-07-23 09:20 G	40783583.65	40783583.89	40783584.13	0.0276	0.0081
Moon	106949-07-23 12:28 G	40783583.78	40783584.02	40783584.26	0.0276	0.0065 *
Earth	106950-08-05 08:08 G	40783961.64	40783961.84	40783962.06	0.0273	0.0150
Moon	106950-08-05 10:47 G	40783961.75	40783961.95	40783962.17	0.0273	0.0157 *
Mercury	106958-03-07 23:44 G	40786733.35	40786733.49	40786733.64	0.0263	0.0165
Mercury	106958-06-04 20:52 G	40786822.18	40786822.37	40786822.56	0.0264	0.0016
Mercury	106958-09-01 17:59 G	40786911.13	40786911.25	40786911.38	0.0264	0.0200
Venus	106960-02-24 06:56 G	40787451.68	40787451.79	40787451.91	0.0267	0.0220
Venus	106960-10-10 05:16 G	40787680.51	40787680.72	40787680.92	0.0268	0.0042
Moon	106965-01-16 03:49 G	40789239.47	40789239.66	40789239.86	0.0283	0.0173
Earth	106965-01-16 07:25 G	40789239.63	40789239.81	40789240.01	0.0283	0.0179 *
Moon	106966-01-29 11:01 G	40789617.74	40789617.96	40789618.19	0.0287	0.0084
Earth	106966-01-29 13:11 G	40789617.82	40789618.05	40789618.29	0.0287	0.0073 *
Mercury	106972-04-12 13:54 G	40791883.07	40791883.08	40791883.11	0.0298	0.0293
Mercury	106972-07-10 02:37 G	40791971.49	40791971.61	40791971.73	0.0298	0.0114
Mercury	106972-10-06 14:52 G	40792059.99	40792060.12	40792060.25	0.0297	0.0064
Mercury	106973-01-03 03:06 G	40792148.55	40792148.63	40792148.70	0.0297	0.0239
Venus	106974-08-11 23:44 G	40792734.28	40792734.49	40792734.71	0.0293	0.0057
Moon	106978-07-17 21:49 G	40794170.23	40794170.41	40794170.61	0.0278	0.0174
Earth	106978-07-18 01:40 G	40794170.39	40794170.57	40794170.76	0.0278	0.0184 *
Earth	106979-07-31 05:01 G	40794548.47	40794548.71	40794548.95	0.0274	0.0052
Moon	106979-07-31 04:47 G	40794548.47	40794548.70	40794548.94	0.0274	0.0052 *
Moon	106980-08-12 03:06 G	40794926.58	40794926.63	40794926.71	0.0271	0.0261
Mercury	106987-07-26 00:56 G	40797465.43	40797465.54	40797465.67	0.0264	0.0200
Mercury	106987-10-22 22:04 G	40797554.23	40797554.42	40797554.61	0.0264	0.0019
Mercury	106988-01-19 19:11 G	40797643.16	40797643.30	40797643.45	0.0264	0.0165

Venus	106989-09-05 14:08 G	40798237.94	40798238.09	40798238.25	0.0267	0.0174
Venus	106990-04-22 12:28 G	40798466.83	40798467.02	40798467.22	0.0269	0.0089
Earth	106994-01-11 06:42 G	40799826.73	40799826.78	40799826.82	0.0281	0.0276
Moon	106994-01-11 09:49 G	40799826.83	40799826.91	40799827.00	0.0281	0.0263
Moon	106995-01-24 07:40 G	40800204.58	40800204.82	40800205.08	0.0285	0.0019
Earth	106995-01-24 08:08 G	40800204.61	40800204.84	40800205.09	0.0285	0.0034 *
Moon	106996-02-06 15:06 G	40800583.01	40800583.13	40800583.28	0.0289	0.0240
Earth	106996-02-06 18:42 G	40800583.14	40800583.28	40800583.44	0.0289	0.0226 *

108TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 108th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	107001-11-28 05:16 G		40802703.61	40802703.72	40802703.84	0.0298	0.0154	
Mercury	107002-02-24 17:44 G		40802792.11	40802792.24	40802792.37	0.0297	0.0024	
Mercury	107002-05-24 05:44 G		40802880.65	40802880.74	40802880.84	0.0297	0.0199	
Venus	107003-07-08 04:32 G		40803290.58	40803290.69	40803290.80	0.0294	0.0251	
Venus	107004-02-23 08:37 G		40803520.67	40803520.86	40803521.06	0.0292	0.0112	
Moon	107008-07-25 17:44 G		40805135.00	40805135.24	40805135.49	0.0276	0.0062	
Earth	107008-07-25 20:23 G		40805135.11	40805135.35	40805135.59	0.0276	0.0052 *	
Moon	107009-08-07 15:06 G		40805512.95	40805513.13	40805513.34	0.0272	0.0162	
Earth	107009-08-07 18:13 G		40805513.08	40805513.26	40805513.45	0.0272	0.0176 *	
Mercury	107016-12-12 23:59 G		40808197.45	40808197.50	40808197.55	0.0263	0.0253	
Mercury	107017-03-11 20:52 G		40808286.19	40808286.37	40808286.56	0.0264	0.0073	

Mercury	107017-06-08 17:59 G	40808375.08	40808375.25	40808375.43	0.0264	0.0111
Venus	107019-03-19 17:01 G	40809024.04	40809024.21	40809024.39	0.0267	0.0138
Venus	107019-11-03 15:35 G	40809252.96	40809253.15	40809253.33	0.0269	0.0125
Earth	107024-01-19 21:20 G	40810791.19	40810791.39	40810791.60	0.0284	0.0147
Moon	107024-01-20 00:28 G	40810791.31	40810791.52	40810791.73	0.0284	0.0131 *
Earth	107025-02-01 04:04 G	40811169.45	40811169.67	40811169.90	0.0288	0.0106
Moon	107025-02-01 06:56 G	40811169.57	40811169.79	40811170.02	0.0288	0.0116 *
Mercury	107031-04-17 07:54 G	40813435.73	40813435.83	40813435.92	0.0298	0.0200
Mercury	107031-07-14 20:08 G	40813524.21	40813524.34	40813524.47	0.0297	0.0023
Mercury	107031-10-11 08:23 G	40813612.74	40813612.85	40813612.96	0.0297	0.0154
Venus	107033-01-17 13:25 G	40814076.91	40814077.06	40814077.23	0.0294	0.0196
Venus	107033-09-04 17:44 G	40814307.06	40814307.24	40814307.42	0.0292	0.0166
Earth	107037-07-20 13:40 G	40815721.87	40815722.07	40815722.28	0.0277	0.0154
Moon	107037-07-20 17:16 G	40815722.03	40815722.22	40815722.43	0.0277	0.0168 *
Earth	107038-08-02 15:49 G	40816099.92	40816100.16	40816100.40	0.0274	0.0081
Moon	107038-08-02 16:47 G	40816099.95	40816100.20	40816100.45	0.0274	0.0067 *
Mars	107041-12-11 06:28 G	40817326.58	40817326.77	40817326.97	0.0265	0.0211
Mercury	107046-07-29 22:32 G	40819018.26	40819018.44	40819018.61	0.0264	0.0105
Mercury	107046-10-26 19:40 G	40819107.13	40819107.32	40819107.50	0.0264	0.0078
Mercury	107047-01-23 16:32 G	40819196.18	40819196.19	40819196.22	0.0265	0.0263
Venus	107048-09-29 00:42 G	40819810.34	40819810.53	40819810.73	0.0268	0.0091
Venus	107049-05-15 23:16 G	40820039.32	40820039.47	40820039.63	0.0270	0.0175
Moon	107053-01-13 17:01 G	40821378.09	40821378.21	40821378.35	0.0282	0.0235
Earth	107053-01-13 20:52 G	40821378.26	40821378.37	40821378.50	0.0282	0.0245 *
Moon	107054-01-26 23:16 G	40821756.24	40821756.47	40821756.70	0.0286	0.0002
Earth	107054-01-26 23:59 G	40821756.25	40821756.50	40821756.74	0.0286	0.0005 *
Earth	107055-02-09 11:30 G	40822134.89	40822134.98	40822135.10	0.0289	0.0262
Moon	107055-02-09 14:52 G	40822135.01	40822135.12	40822135.24	0.0289	0.0251 *
Mercury	107060-09-03 11:01 G	40824167.88	40824167.96	40824168.04	0.0298	0.0235
Mercury	107060-11-30 23:30 G	40824256.35	40824256.48	40824256.60	0.0297	0.0058

Mercury	107061-02-27 11:44 G	40824344.87	40824344.99	40824345.11	0.0297	0.0119
Mercury	107061-05-26 23:44 G	40824433.48	40824433.49	40824433.51	0.0296	0.0292
Venus	107062-07-30 23:59 G	40824863.32	40824863.50	40824863.70	0.0294	0.0135
Venus	107063-03-18 03:35 G	40825093.53	40825093.65	40825093.80	0.0292	0.0226
Moon	107066-07-15 01:25 G	40826308.55	40826308.56	40826308.59	0.0279	0.0278
Earth	107066-07-15 04:04 G	40826308.60	40826308.67	40826308.77	0.0279	0.0261
Earth	107067-07-28 09:49 G	40826686.66	40826686.91	40826687.16	0.0276	0.0022
Moon	107067-07-28 11:30 G	40826686.74	40826686.98	40826687.22	0.0276	0.0033 *
Earth	107068-08-09 06:42 G	40827064.62	40827064.78	40827064.94	0.0272	0.0204
Moon	107068-08-09 10:18 G	40827064.77	40827064.93	40827065.09	0.0272	0.0205 *
Mercury	107075-12-16 21:35 G	40829750.25	40829750.40	40829750.56	0.0263	0.0156
Mercury	107076-03-14 18:42 G	40829839.09	40829839.28	40829839.47	0.0264	0.0026
Mercury	107076-06-11 15:49 G	40829928.05	40829928.16	40829928.28	0.0264	0.0210
Venus	107078-04-11 04:04 G	40830596.47	40830596.67	40830596.87	0.0268	0.0054
Venus	107078-11-26 02:37 G	40830825.49	40830825.61	40830825.74	0.0269	0.0212
Moon	107083-01-21 09:49 G	40832342.69	40832342.91	40832343.14	0.0284	0.0123
Earth	107083-01-21 12:13 G	40832342.79	40832343.01	40832343.23	0.0284	0.0114 *
Moon	107084-02-03 17:01 G	40832721.00	40832721.21	40832721.42	0.0288	0.0126
Earth	107084-02-03 19:54 G	40832721.13	40832721.33	40832721.55	0.0288	0.0142 *
Mercury	107090-01-21 13:25 G	40834900.03	40834900.06	40834900.10	0.0298	0.0283
Mercury	107090-04-20 01:54 G	40834988.46	40834988.58	40834988.70	0.0298	0.0104
Mercury	107090-07-17 14:08 G	40835076.97	40835077.09	40835077.22	0.0297	0.0074
Mercury	107090-10-14 02:23 G	40835165.53	40835165.60	40835165.67	0.0297	0.0248
Venus	107092-02-10 09:06 G	40835649.67	40835649.88	40835650.09	0.0293	0.0080
Venus	107092-09-27 12:42 G	40835879.98	40835880.03	40835880.09	0.0291	0.0280
Moon	107096-07-22 00:28 G	40837273.30	40837273.52	40837273.75	0.0277	0.0127
Earth	107096-07-22 04:04 G	40837273.45	40837273.67	40837273.90	0.0277	0.0123 *
Moon	107097-08-04 03:06 G	40837651.42	40837651.63	40837651.86	0.0273	0.0119
Earth	107097-08-04 04:47 G	40837651.48	40837651.70	40837651.94	0.0273	0.0110 *
Mercury	107105-05-05 23:01 G	40840482.33	40840482.46	40840482.59	0.0264	0.0189

Mercury	107105-08-02 20:08 G	40840571.15	40840571.34	40840571.53	0.0264	0.0008
Mercury	107105-10-30 17:01 G	40840660.08	40840660.21	40840660.36	0.0265	0.0177
Venus	107107-03-08 13:25 G	40841154.06	40841154.06	40841154.07	0.0267	0.0267
Venus	107107-10-23 11:44 G	40841382.78	40841382.99	40841383.20	0.0268	0.0006
Venus	107108-06-08 10:32 G	40841611.89	40841611.94	40841611.99	0.0270	0.0261
Earth	107112-01-17 11:44 G	40842929.84	40842929.99	40842930.15	0.0282	0.0214
Moon	107112-01-17 15:06 G	40842930.01	40842930.13	40842930.29	0.0282	0.0229 *
Earth	107113-01-29 16:04 G	40843307.93	40843308.17	40843308.41	0.0286	0.0035
Moon	107113-01-29 17:30 G	40843307.98	40843308.23	40843308.48	0.0286	0.0020 *
Moon	107114-02-12 02:23 G	40843686.58	40843686.60	40843686.65	0.0290	0.0287
Mars	107116-02-26 21:35 G	40844431.17	40844431.40	40844431.64	0.0296	0.0140
Mercury	107119-09-08 05:30 G	40845720.61	40845720.73	40845720.84	0.0297	0.0134
Mercury	107119-12-05 17:44 G	40845809.11	40845809.24	40845809.37	0.0297	0.0043
Mercury	107120-03-03 05:59 G	40845897.66	40845897.75	40845897.84	0.0297	0.0217
Venus	107121-08-23 20:52 G	40846436.16	40846436.37	40846436.59	0.0293	0.0016
Earth	107125-07-17 20:52 G	40847860.24	40847860.37	40847860.52	0.0279	0.0229
Moon	107125-07-18 00:28 G	40847860.38	40847860.52	40847860.67	0.0279	0.0226 *
Moon	107126-07-31 00:13 G	40848238.26	40848238.51	40848238.77	0.0275	0.0022
Earth	107126-07-31 01:25 G	40848238.31	40848238.56	40848238.81	0.0275	0.0009 *
Moon	107127-08-12 16:47 G	40848616.12	40848616.20	40848616.31	0.0272	0.0249
Earth	107127-08-12 20:52 G	40848616.25	40848616.37	40848616.50	0.0272	0.0233 *
Mars	107130-05-08 19:40 G	40849616.01	40849616.32	40849616.63	0.0265	0.0079
Mercury	107134-09-22 22:32 G	40851214.36	40851214.44	40851214.52	0.0263	0.0238
Mercury	107134-12-20 19:25 G	40851303.13	40851303.31	40851303.50	0.0264	0.0057
Mercury	107135-03-19 16:32 G	40851392.03	40851392.19	40851392.36	0.0264	0.0126
Venus	107136-09-17 16:47 G	40851940.11	40851940.20	40851940.31	0.0267	0.0230
Venus	107137-05-04 15:06 G	40852168.92	40852169.13	40852169.34	0.0268	0.0032
Earth	107142-01-24 03:06 G	40853894.40	40853894.63	40853894.86	0.0285	0.0082
Moon	107142-01-24 04:32 G	40853894.47	40853894.69	40853894.91	0.0285	0.0093 *
Earth	107143-02-06 12:13 G	40854272.82	40854273.01	40854273.21	0.0289	0.0176

Moon	107143-02-06 15:49 G	40854272.97	40854273.16	40854273.36	0.0289	0.0174	*
Mercury	107149-01-25 07:40 G	40856452.72	40856452.82	40856452.92	0.0298	0.0185	
Mercury	107149-04-23 19:54 G	40856541.20	40856541.33	40856541.46	0.0297	0.0012	
Mercury	107149-07-21 08:08 G	40856629.74	40856629.84	40856629.95	0.0297	0.0170	
Venus	107151-03-06 04:47 G	40857222.49	40857222.70	40857222.92	0.0293	0.0037	
Earth	107155-07-25 18:56 G	40858825.06	40858825.29	40858825.53	0.0276	0.0093	
Moon	107155-07-25 21:49 G	40858825.18	40858825.41	40858825.65	0.0276	0.0078	*
Earth	107156-08-06 18:42 G	40859203.07	40859203.28	40859203.49	0.0273	0.0139	
Moon	107156-08-06 21:06 G	40859203.18	40859203.38	40859203.60	0.0273	0.0151	*
Mercury	107164-05-08 20:37 G	40862035.19	40862035.36	40862035.54	0.0264	0.0092	
Mercury	107164-08-05 17:44 G	40862124.06	40862124.24	40862124.42	0.0264	0.0091	
Venus	107166-03-30 23:59 G	40862726.36	40862726.50	40862726.66	0.0267	0.0184	
Venus	107166-11-14 22:18 G	40862955.24	40862955.43	40862955.63	0.0269	0.0080	
Moon	107171-01-18 22:04 G	40864481.24	40864481.42	40864481.60	0.0283	0.0190	
Earth	107171-01-19 01:11 G	40864481.38	40864481.55	40864481.74	0.0283	0.0185	*
Moon	107172-02-01 04:47 G	40864859.47	40864859.70	40864859.93	0.0287	0.0073	
Earth	107172-02-01 06:56 G	40864859.55	40864859.79	40864860.02	0.0287	0.0067	*
Mercury	107178-06-14 11:01 G	40867184.88	40867184.96	40867185.05	0.0297	0.0215	
Mercury	107178-09-10 23:30 G	40867273.35	40867273.48	40867273.61	0.0297	0.0037	
Mercury	107178-12-08 11:44 G	40867361.88	40867361.99	40867362.11	0.0297	0.0139	
Venus	107180-01-29 12:42 G	40867778.94	40867779.03	40867779.13	0.0294	0.0261	
Venus	107180-09-15 17:01 G	40868009.01	40868009.21	40868009.41	0.0292	0.0103	
Moon	107184-07-19 09:49 G	40869411.74	40869411.91	40869412.11	0.0278	0.0184	
Earth	107184-07-19 13:25 G	40869411.90	40869412.06	40869412.24	0.0278	0.0198	*
Earth	107185-08-01 16:32 G	40869789.95	40869790.19	40869790.44	0.0274	0.0040	
Moon	107185-08-01 16:47 G	40869789.96	40869790.20	40869790.44	0.0274	0.0044	*
Earth	107186-08-14 10:47 G	40870167.89	40870167.95	40870168.02	0.0271	0.0261	
Moon	107186-08-14 14:23 G	40870168.03	40870168.10	40870168.19	0.0271	0.0255	
Mercury	107193-09-25 19:54 G	40872767.18	40872767.33	40872767.50	0.0263	0.0142	
Mercury	107193-12-23 17:01 G	40872856.03	40872856.21	40872856.40	0.0264	0.0041	

Mercury	107194-03-22 14:08 G	40872945.00	40872945.09	40872945.20	0.0264	0.0224
Venus	107195-10-11 03:20 G	40873512.46	40873512.64	40873512.81	0.0267	0.0146
Venus	107196-05-27 01:25 G	40873741.38	40873741.56	40873741.75	0.0269	0.0117
Moon	107201-01-25 15:20 G	40875445.89	40875446.14	40875446.39	0.0285	0.0038
Earth	107201-01-25 16:04 G	40875445.93	40875446.17	40875446.41	0.0285	0.0051 *
Moon	107202-02-07 22:47 G	40875824.31	40875824.45	40875824.61	0.0289	0.0224
Earth	107202-02-08 02:37 G	40875824.44	40875824.61	40875824.78	0.0289	0.0207 *
Mars	107204-07-23 07:25 G	40876720.54	40876720.81	40876721.08	0.0297	0.0016
Mercury	107207-11-01 12:56 G	40877916.99	40877917.04	40877917.10	0.0298	0.0269
Mercury	107208-01-29 01:40 G	40878005.44	40878005.57	40878005.69	0.0298	0.0090
Mercury	107208-04-26 13:54 G	40878093.96	40878094.08	40878094.20	0.0297	0.0087
Mercury	107208-07-24 02:08 G	40878182.53	40878182.59	40878182.65	0.0297	0.0262
Venus	107209-08-10 19:40 G	40878565.17	40878565.32	40878565.47	0.0294	0.0212
Venus	107210-03-28 23:59 G	40878795.31	40878795.50	40878795.68	0.0292	0.0152
Moon	107214-07-27 06:42 G	40880376.53	40880376.78	40880377.03	0.0276	0.0067
Earth	107214-07-27 09:35 G	40880376.65	40880376.90	40880377.14	0.0276	0.0062 *
Moon	107215-08-09 04:32 G	40880754.50	40880754.69	40880754.90	0.0272	0.0154
Earth	107215-08-09 07:54 G	40880754.64	40880754.83	40880755.03	0.0272	0.0168 *
Mars	107218-10-03 13:25 G	40881905.76	40881906.06	40881906.38	0.0265	0.0065
Mercury	107223-02-12 20:52 G	40883499.24	40883499.37	40883499.51	0.0264	0.0179
Mercury	107223-05-12 17:59 G	40883588.06	40883588.25	40883588.44	0.0264	0.0003
Mercury	107223-08-09 15:06 G	40883677.00	40883677.13	40883677.26	0.0264	0.0186
Venus	107225-04-22 09:49 G	40884298.72	40884298.91	40884299.10	0.0268	0.0102
Venus	107225-12-07 08:08 G	40884527.68	40884527.84	40884528.01	0.0269	0.0164
Earth	107230-01-20 12:28 G	40886032.83	40886033.02	40886033.23	0.0284	0.0157
Moon	107230-01-20 15:20 G	40886032.94	40886033.14	40886033.35	0.0284	0.0141 *
Earth	107231-02-02 19:11 G	40886411.08	40886411.30	40886411.53	0.0287	0.0098
Moon	107231-02-02 21:49 G	40886411.19	40886411.41	40886411.65	0.0287	0.0111 *
Mercury	107237-06-17 05:01 G	40888737.59	40888737.71	40888737.83	0.0297	0.0122
Mercury	107237-09-13 17:16 G	40888826.10	40888826.22	40888826.35	0.0297	0.0056

Mercury	107237-12-11 05:30 G	40888914.65	40888914.73	40888914.81	0.0297	0.0230
Venus	107239-02-21 07:40 G	40889351.64	40889351.82	40889352.01	0.0294	0.0146
Venus	107239-10-09 11:30 G	40889581.84	40889581.98	40889582.13	0.0292	0.0216
Earth	107243-07-22 04:04 G	40890963.48	40890963.67	40890963.88	0.0278	0.0168
Moon	107243-07-22 07:40 G	40890963.64	40890963.82	40890964.02	0.0278	0.0178 *
Earth	107244-08-03 06:13 G	40891341.53	40891341.76	40891342.01	0.0274	0.0068
Moon	107244-08-03 07:11 G	40891341.55	40891341.80	40891342.06	0.0274	0.0052 *
Mercury	107252-07-01 20:23 G	40894231.26	40894231.35	40894231.45	0.0263	0.0227
Mercury	107252-09-28 17:16 G	40894320.04	40894320.22	40894320.41	0.0263	0.0047
Mercury	107252-12-26 14:23 G	40894408.94	40894409.10	40894409.26	0.0264	0.0135
Venus	107254-11-02 12:42 G	40895084.83	40895085.03	40895085.24	0.0267	0.0065
Venus	107255-06-19 10:47 G	40895313.83	40895313.95	40895314.10	0.0269	0.0200
Moon	107259-01-14 21:06 G	40896619.28	40896619.38	40896619.49	0.0282	0.0252
Earth	107259-01-15 00:28 G	40896619.46	40896619.52	40896619.61	0.0282	0.0267 *
Earth	107260-01-28 02:23 G	40896997.36	40896997.60	40896997.85	0.0286	0.0024
Moon	107260-01-28 02:37 G	40896997.38	40896997.61	40896997.84	0.0286	0.0019 *
Earth	107261-02-09 13:40 G	40897375.94	40897376.07	40897376.21	0.0290	0.0237
Moon	107261-02-09 17:16 G	40897376.08	40897376.22	40897376.37	0.0290	0.0231 *
Mercury	107266-11-04 06:28 G	40899469.67	40899469.77	40899469.87	0.0298	0.0182
Mercury	107267-01-31 18:56 G	40899558.16	40899558.29	40899558.42	0.0298	0.0005
Mercury	107267-04-30 07:11 G	40899646.69	40899646.80	40899646.90	0.0297	0.0173
Venus	107268-09-02 12:42 G	40900137.83	40900138.03	40900138.23	0.0294	0.0103
Venus	107269-04-20 16:32 G	40900368.10	40900368.19	40900368.29	0.0292	0.0260
Earth	107272-07-15 14:23 G	40901550.07	40901550.10	40901550.15	0.0280	0.0275
Earth	107273-07-28 21:20 G	40901928.14	40901928.39	40901928.64	0.0276	0.0034
Moon	107273-07-28 23:30 G	40901928.24	40901928.48	40901928.72	0.0276	0.0048 *
Earth	107274-08-10 18:42 G	40902306.12	40902306.28	40902306.46	0.0272	0.0194
Moon	107274-08-10 22:32 G	40902306.27	40902306.44	40902306.63	0.0272	0.0186 *
Mercury	107282-02-15 17:30 G	40905052.05	40905052.23	40905052.41	0.0264	0.0091
Mercury	107282-05-15 14:37 G	40905140.93	40905141.11	40905141.29	0.0264	0.0091

Venus	107284-05-14 17:59 G	40905871.05	40905871.25	40905871.46	0.0268	0.0023
Venus	107284-12-29 16:18 G	40906100.11	40906100.18	40906100.28	0.0270	0.0244
Moon	107289-01-21 17:44 G	40907584.02	40907584.24	40907584.46	0.0284	0.0136
Earth	107289-01-21 20:23 G	40907584.14	40907584.35	40907584.56	0.0284	0.0131 *
Moon	107290-02-04 00:42 G	40907962.32	40907962.53	40907962.76	0.0288	0.0110
Earth	107290-02-04 04:04 G	40907962.45	40907962.67	40907962.89	0.0288	0.0124 *
Mars	107292-12-17 23:01 G	40909010.22	40909010.46	40909010.71	0.0296	0.0133
Mercury	107296-03-23 09:35 G	40910201.81	40910201.90	40910201.99	0.0298	0.0217
Mercury	107296-06-19 22:04 G	40910290.29	40910290.42	40910290.55	0.0297	0.0038
Mercury	107296-09-16 10:18 G	40910378.82	40910378.93	40910379.05	0.0297	0.0139
Venus	107298-03-16 00:13 G	40910924.29	40910924.51	40910924.72	0.0293	0.0038
Moon	107302-07-24 12:28 G	40912514.82	40912515.02	40912515.24	0.0277	0.0148
Earth	107302-07-24 16:04 G	40912514.97	40912515.17	40912515.39	0.0277	0.0140 *
Moon	107303-08-06 15:49 G	40912892.93	40912893.16	40912893.39	0.0274	0.0096
Earth	107303-08-06 17:30 G	40912893.00	40912893.23	40912893.47	0.0274	0.0094 *
Mars	107307-03-01 00:42 G	40914195.32	40914195.53	40914195.77	0.0264	0.0189
Mercury	107311-07-06 16:47 G	40915784.05	40915784.20	40915784.37	0.0263	0.0140
Mercury	107311-10-03 13:54 G	40915872.89	40915873.08	40915873.27	0.0263	0.0041
Mercury	107311-12-31 10:47 G	40915961.86	40915961.95	40915962.06	0.0264	0.0224
Venus	107313-04-10 23:01 G	40916428.39	40916428.46	40916428.55	0.0266	0.0247
Venus	107313-11-25 20:52 G	40916657.16	40916657.37	40916657.58	0.0267	0.0014
Earth	107318-01-17 06:56 G	40918170.67	40918170.79	40918170.91	0.0282	0.0243
Moon	107318-01-17 10:18 G	40918170.84	40918170.93	40918171.04	0.0282	0.0254 *
Earth	107319-01-30 09:35 G	40918548.66	40918548.90	40918549.14	0.0286	0.0003
Moon	107319-01-30 10:04 G	40918548.67	40918548.92	40918549.17	0.0286	0.0013 *
Moon	107320-02-12 18:13 G	40918927.14	40918927.26	40918927.39	0.0290	0.0248
Earth	107320-02-12 21:20 G	40918927.30	40918927.39	40918927.50	0.0290	0.0263 *
Mercury	107325-08-11 10:47 G	40920933.91	40920933.95	40920933.99	0.0298	0.0283
Mercury	107325-11-07 23:16 G	40921022.35	40921022.47	40921022.59	0.0298	0.0103
Mercury	107326-02-04 11:30 G	40921110.86	40921110.98	40921111.11	0.0298	0.0075

Mercury	107326-05-03 23:44 G	40921199.43	40921199.49	40921199.56	0.0297	0.0251
Venus	107327-09-27 03:35 G	40921710.43	40921710.65	40921710.86	0.0294	0.0006
Earth	107331-07-18 23:44 G	40923101.39	40923101.49	40923101.60	0.0279	0.0250
Moon	107331-07-19 02:23 G	40923101.50	40923101.60	40923101.73	0.0279	0.0251 *
Moon	107332-07-31 04:47 G	40923479.44	40923479.70	40923479.96	0.0275	0.0002
Earth	107332-07-31 06:13 G	40923479.51	40923479.76	40923480.01	0.0275	0.0011 *
Moon	107333-08-12 23:01 G	40923857.34	40923857.46	40923857.60	0.0272	0.0233
Earth	107333-08-13 02:52 G	40923857.48	40923857.62	40923857.78	0.0272	0.0217 *
Mercury	107340-11-22 16:32 G	40926516.06	40926516.19	40926516.32	0.0263	0.0188
Mercury	107341-02-19 13:25 G	40926604.87	40926605.06	40926605.25	0.0264	0.0008
Mercury	107341-05-19 10:18 G	40926693.80	40926693.93	40926694.08	0.0264	0.0175
Venus	107342-10-22 03:06 G	40927214.51	40927214.63	40927214.77	0.0267	0.0209
Venus	107343-06-08 00:56 G	40927443.34	40927443.54	40927443.75	0.0268	0.0053
Earth	107348-01-25 00:42 G	40929135.32	40929135.53	40929135.76	0.0284	0.0110
Moon	107348-01-25 02:52 G	40929135.42	40929135.62	40929135.84	0.0284	0.0123 *
Earth	107349-02-06 09:06 G	40929513.67	40929513.88	40929514.09	0.0288	0.0147
Moon	107349-02-06 12:42 G	40929513.82	40929514.03	40929514.25	0.0288	0.0140 *
Mercury	107355-03-28 01:54 G	40931754.47	40931754.58	40931754.70	0.0298	0.0144
Mercury	107355-06-24 14:23 G	40931842.97	40931843.10	40931843.23	0.0297	0.0034
Mercury	107355-09-21 02:37 G	40931931.52	40931931.61	40931931.70	0.0297	0.0210
Venus	107357-04-08 13:11 G	40932496.84	40932497.05	40932497.27	0.0293	0.0061
Earth	107361-07-25 23:44 G	40934066.27	40934066.49	40934066.72	0.0277	0.0116
Moon	107361-07-26 03:20 G	40934066.41	40934066.64	40934066.87	0.0277	0.0101 *
Earth	107362-08-08 00:42 G	40934444.31	40934444.53	40934444.76	0.0274	0.0117
Moon	107362-08-08 03:35 G	40934444.43	40934444.65	40934444.88	0.0274	0.0134 *
Mercury	107370-04-11 15:49 G	40937248.09	40937248.16	40937248.24	0.0263	0.0238
Mercury	107370-07-09 12:42 G	40937336.84	40937337.03	40937337.21	0.0263	0.0059
Mercury	107370-10-06 09:35 G	40937425.73	40937425.90	40937426.07	0.0263	0.0122
Venus	107372-05-03 05:44 G	40938000.59	40938000.74	40938000.90	0.0266	0.0173
Venus	107372-12-18 03:20 G	40938229.44	40938229.64	40938229.84	0.0267	0.0087

Moon	107377-01-18 06:13 G	40939721.63	40939721.76	40939721.91	0.0282	0.0228
Earth	107377-01-18 09:49 G	40939721.77	40939721.91	40939722.07	0.0282	0.0222 *
Moon	107378-01-31 11:30 G	40940099.75	40940099.98	40940100.21	0.0286	0.0029
Earth	107378-01-31 12:42 G	40940099.79	40940100.03	40940100.28	0.0286	0.0025 *
Earth	107379-02-14 00:56 G	40940478.51	40940478.54	40940478.59	0.0290	0.0285
Mars	107381-05-14 01:40 G	40941298.35	40941298.57	40941298.79	0.0297	0.0171
Mercury	107384-08-14 02:37 G	40942486.52	40942486.61	40942486.70	0.0298	0.0215
Mercury	107384-11-10 15:06 G	40942575.00	40942575.13	40942575.26	0.0298	0.0036
Mercury	107385-02-07 03:20 G	40942663.53	40942663.64	40942663.76	0.0298	0.0143
Venus	107386-03-03 10:18 G	40943052.86	40943052.93	40943053.02	0.0295	0.0272
Venus	107386-10-19 15:06 G	40943282.93	40943283.13	40943283.34	0.0293	0.0097
Moon	107390-07-20 01:54 G	40944652.44	40944652.58	40944652.75	0.0279	0.0213
Earth	107390-07-20 05:16 G	40944652.59	40944652.72	40944652.87	0.0279	0.0228 *
Earth	107391-08-02 11:16 G	40945030.72	40945030.97	40945031.22	0.0275	0.0013
Moon	107391-08-02 11:30 G	40945030.75	40945030.98	40945031.23	0.0275	0.0023 *
Earth	107392-08-14 07:40 G	40945408.71	40945408.82	40945408.95	0.0272	0.0238
Moon	107392-08-14 11:30 G	40945408.86	40945408.98	40945409.09	0.0272	0.0239 *
Mercury	107399-11-26 11:30 G	40948068.81	40948068.98	40948069.16	0.0263	0.0113
Mercury	107400-02-23 08:23 G	40948157.67	40948157.85	40948158.04	0.0264	0.0068
Mercury	107400-05-23 05:30 G	40948246.68	40948246.73	40948246.79	0.0264	0.0251
Venus	107401-11-14 08:37 G	40948786.68	40948786.86	40948787.04	0.0267	0.0138
Venus	107402-07-01 06:28 G	40949015.58	40949015.77	40949015.95	0.0268	0.0124
Moon	107407-01-27 00:13 G	40950686.27	40950686.51	40950686.75	0.0284	0.0077
Earth	107407-01-27 01:54 G	40950686.35	40950686.58	40950686.81	0.0284	0.0090 *
Moon	107408-02-09 06:28 G	40951064.59	40951064.77	40951064.96	0.0288	0.0185
Earth	107408-02-09 10:04 G	40951064.74	40951064.92	40951065.13	0.0288	0.0168 *
Mercury	107414-01-02 05:01 G	40953218.65	40953218.71	40953218.78	0.0298	0.0260
Mercury	107414-03-31 17:44 G	40953307.11	40953307.24	40953307.36	0.0298	0.0080
Mercury	107414-06-28 05:59 G	40953395.63	40953395.75	40953395.87	0.0297	0.0098
Mercury	107414-09-24 18:13 G	40953484.21	40953484.26	40953484.31	0.0297	0.0273

Venus	107415-09-14 18:56 G	40953839.15	40953839.29	40953839.44	0.0295	0.0215
Venus	107416-05-01 23:44 G	40954069.31	40954069.49	40954069.68	0.0293	0.0153
Moon	107420-07-28 00:42 G	40955617.30	40955617.53	40955617.78	0.0277	0.0094
Earth	107420-07-28 03:49 G	40955617.43	40955617.66	40955617.90	0.0277	0.0095 *
Moon	107421-08-10 00:56 G	40955995.34	40955995.54	40955995.76	0.0273	0.0131
Earth	107421-08-10 04:18 G	40955995.48	40955995.68	40955995.91	0.0273	0.0139 *
Mercury	107429-04-15 10:47 G	40958800.81	40958800.95	40958801.10	0.0263	0.0164
Mercury	107429-07-13 07:40 G	40958889.63	40958889.82	40958890.01	0.0263	0.0016
Mercury	107429-10-10 04:32 G	40958978.57	40958978.69	40958978.82	0.0263	0.0198
Venus	107431-05-27 11:01 G	40959572.77	40959572.96	40959573.16	0.0266	0.0104
Venus	107432-01-11 08:37 G	40959801.70	40959801.86	40959802.03	0.0268	0.0159
Earth	107436-01-21 10:32 G	40961272.78	40961272.94	40961273.11	0.0282	0.0203
Moon	107436-01-21 13:54 G	40961272.91	40961273.08	40961273.27	0.0282	0.0187 *
Earth	107437-02-02 13:40 G	40961650.83	40961651.07	40961651.31	0.0286	0.0044
Moon	107437-02-02 15:49 G	40961650.92	40961651.16	40961651.41	0.0286	0.0060 *
Mercury	107443-08-18 17:59 G	40964039.14	40964039.25	40964039.36	0.0298	0.0155
Mercury	107443-11-15 06:28 G	40964127.64	40964127.77	40964127.90	0.0298	0.0024
Mercury	107444-02-11 18:42 G	40964216.19	40964216.28	40964216.38	0.0298	0.0201
Venus	107445-03-26 19:25 G	40964625.15	40964625.31	40964625.48	0.0295	0.0185
Venus	107445-11-12 00:13 G	40964855.35	40964855.51	40964855.68	0.0293	0.0184
Earth	107449-07-22 06:42 G	40966203.62	40966203.78	40966203.95	0.0279	0.0208
Moon	107449-07-22 10:18 G	40966203.78	40966203.93	40966204.10	0.0279	0.0217 *
Earth	107450-08-04 12:42 G	40966581.78	40966582.03	40966582.28	0.0275	0.0031
Moon	107450-08-04 13:25 G	40966581.80	40966582.06	40966582.32	0.0275	0.0017 *
Moon	107451-08-17 05:44 G	40966959.64	40966959.74	40966959.87	0.0271	0.0241
Earth	107451-08-17 09:06 G	40966959.81	40966959.88	40966959.97	0.0271	0.0256 *
Mercury	107458-09-02 09:06 G	40969532.79	40969532.88	40969532.99	0.0263	0.0222
Mercury	107458-11-30 05:59 G	40969621.56	40969621.75	40969621.94	0.0263	0.0043
Mercury	107459-02-27 02:52 G	40969710.46	40969710.62	40969710.79	0.0263	0.0138
Venus	107460-12-06 12:56 G	40970358.84	40970359.04	40970359.24	0.0267	0.0071

Venus	107461-07-23 10:32 G	40970587.80	40970587.94	40970588.09	0.0268	0.0193
Earth	107466-01-28 00:28 G	40972237.28	40972237.52	40972237.75	0.0284	0.0073
Moon	107466-01-28 01:11 G	40972237.32	40972237.55	40972237.78	0.0284	0.0066 *
Earth	107467-02-10 08:23 G	40972615.68	40972615.85	40972616.05	0.0288	0.0185
Moon	107467-02-10 12:13 G	40972615.83	40972616.01	40972616.19	0.0288	0.0185 *
Mars	107469-10-08 10:04 G	40973586.76	40973586.92	40973587.10	0.0296	0.0228
Mercury	107473-01-04 20:08 G	40974771.25	40974771.34	40974771.43	0.0298	0.0205
Mercury	107473-04-03 08:37 G	40974859.73	40974859.86	40974859.99	0.0298	0.0026
Mercury	107473-06-30 20:52 G	40974948.26	40974948.37	40974948.48	0.0297	0.0152
Venus	107474-10-07 02:52 G	40975411.43	40975411.62	40975411.82	0.0295	0.0131
Venus	107475-05-25 07:40 G	40975641.69	40975641.82	40975641.94	0.0293	0.0236
Earth	107479-07-30 04:18 G	40977168.44	40977168.68	40977168.92	0.0277	0.0076
Moon	107479-07-30 06:28 G	40977168.55	40977168.77	40977169.00	0.0277	0.0093 *
Earth	107480-08-11 04:47 G	40977546.50	40977546.70	40977546.91	0.0273	0.0156
Moon	107480-08-11 08:23 G	40977546.65	40977546.85	40977547.07	0.0273	0.0144 *
Mercury	107488-04-18 05:16 G	40980353.54	40980353.72	40980353.89	0.0263	0.0095
Mercury	107488-07-16 01:54 G	40980442.41	40980442.58	40980442.77	0.0263	0.0086
Venus	107490-06-18 15:20 G	40981144.93	40981145.14	40981145.35	0.0266	0.0036
Venus	107491-02-02 12:56 G	40981373.93	40981374.04	40981374.15	0.0268	0.0226
Moon	107495-01-22 05:30 G	40982823.55	40982823.73	40982823.92	0.0282	0.0189
Earth	107495-01-22 09:06 G	40982823.70	40982823.88	40982824.06	0.0282	0.0185 *
Moon	107496-02-04 09:06 G	40983201.64	40983201.88	40983202.11	0.0286	0.0051
Earth	107496-02-04 11:44 G	40983201.76	40983201.99	40983202.23	0.0286	0.0063 *
Mercury	107502-05-25 20:08 G	40985503.31	40985503.34	40985503.38	0.0299	0.0284
Mercury	107502-08-22 08:51 G	40985591.75	40985591.87	40985591.99	0.0298	0.0103
Mercury	107502-11-18 21:20 G	40985680.26	40985680.39	40985680.51	0.0298	0.0076
Mercury	107503-02-15 09:35 G	40985768.83	40985768.90	40985768.97	0.0298	0.0252
Venus	107504-04-19 02:37 G	40986197.41	40986197.61	40986197.82	0.0295	0.0103
Venus	107504-12-05 07:11 G	40986427.72	40986427.80	40986427.89	0.0293	0.0265
Moon	107508-07-24 01:25 G	40987754.40	40987754.56	40987754.74	0.0279	0.0203

Earth	107508-07-24 05:30 G	40987754.56	40987754.73	40987754.92	0.0279	0.0191	*
Moon	107509-08-06 09:49 G	40988132.67	40988132.91	40988133.15	0.0275	0.0045	
Earth	107509-08-06 11:15 G	40988132.73	40988132.97	40988133.22	0.0275	0.0048	*
Earth	107510-08-19 07:39 G	40988510.82	40988510.82	40988510.84	0.0272	0.0271	
Mercury	107517-09-06 03:06 G	40991085.48	40991085.63	40991085.78	0.0263	0.0157	
Mercury	107517-12-03 23:59 G	40991174.31	40991174.50	40991174.69	0.0263	0.0023	
Mercury	107518-03-02 20:51 G	40991263.25	40991263.37	40991263.49	0.0263	0.0205	
Venus	107519-05-15 19:11 G	40991702.29	40991702.30	40991702.32	0.0265	0.0264	
Venus	107519-12-30 16:18 G	40991930.98	40991931.18	40991931.39	0.0267	0.0008	
Venus	107520-08-15 14:08 G	40992160.04	40992160.09	40992160.15	0.0268	0.0259	
Earth	107525-01-29 21:49 G	40993788.17	40993788.41	40993788.65	0.0284	0.0055	
Moon	107525-01-29 21:49 G	40993788.17	40993788.41	40993788.65	0.0284	0.0072	*
Moon	107526-02-12 02:37 G	40994166.43	40994166.61	40994166.80	0.0288	0.0185	
Earth	107526-02-12 05:44 G	40994166.58	40994166.74	40994166.93	0.0288	0.0202	*
Mercury	107532-01-09 10:47 G	40996323.84	40996323.95	40996324.06	0.0298	0.0156	
Mercury	107532-04-06 23:15 G	40996412.34	40996412.47	40996412.60	0.0298	0.0024	
Mercury	107532-07-04 11:30 G	40996500.89	40996500.98	40996501.08	0.0297	0.0200	
Venus	107533-10-30 09:06 G	40996983.67	40996983.88	40996984.10	0.0294	0.0053	
Moon	107538-07-31 23:59 G	40998719.25	40998719.50	40998719.76	0.0277	0.0054	
Earth	107538-08-01 01:39 G	40998719.33	40998719.57	40998719.82	0.0277	0.0059	*
Moon	107539-08-13 23:01 G	40999097.28	40999097.46	40999097.64	0.0273	0.0186	
Earth	107539-08-14 02:23 G	40999097.42	40999097.60	40999097.80	0.0273	0.0173	*
Mercury	107547-01-24 02:23 G	41001817.49	41001817.60	41001817.72	0.0263	0.0208	
Mercury	107547-04-22 23:01 G	41001906.28	41001906.46	41001906.65	0.0263	0.0030	
Mercury	107547-07-20 19:54 G	41001995.18	41001995.33	41001995.49	0.0263	0.0152	
Venus	107548-11-24 21:49 G	41002488.32	41002488.41	41002488.52	0.0265	0.0229	
Venus	107549-07-11 18:56 G	41002717.08	41002717.29	41002717.50	0.0266	0.0030	
Earth	107554-01-24 06:42 G	41004374.59	41004374.78	41004374.98	0.0281	0.0167	
Moon	107554-01-24 09:35 G	41004374.73	41004374.90	41004375.09	0.0281	0.0183	*
Earth	107555-02-06 09:20 G	41004752.66	41004752.89	41004753.13	0.0286	0.0080	

Moon	107555-02-06 12:42 G	41004752.79	41004753.03	41004753.27	0.0286	0.0069	*
Mars	107558-03-03 18:56 G	41005874.11	41005874.29	41005874.48	0.0296	0.0215	
Mercury	107561-05-28 10:47 G	41007055.87	41007055.95	41007056.03	0.0298	0.0236	
Mercury	107561-08-24 23:15 G	41007144.34	41007144.47	41007144.60	0.0298	0.0056	
Mercury	107561-11-21 11:44 G	41007232.87	41007232.99	41007233.11	0.0298	0.0123	
Venus	107563-05-12 08:23 G	41007769.64	41007769.85	41007770.07	0.0295	0.0024	
Earth	107567-07-26 02:08 G	41009305.39	41009305.59	41009305.78	0.0279	0.0176	
Moon	107567-07-26 05:44 G	41009305.54	41009305.74	41009305.95	0.0279	0.0161	*
Earth	107568-08-07 07:54 G	41009683.58	41009683.83	41009684.07	0.0275	0.0064	
Moon	107568-08-07 09:49 G	41009683.67	41009683.91	41009684.16	0.0275	0.0079	*
Mercury	107576-09-08 20:51 G	41012638.19	41012638.37	41012638.54	0.0263	0.0094	
Mercury	107576-12-06 17:30 G	41012727.05	41012727.23	41012727.41	0.0263	0.0087	
Venus	107578-06-06 22:18 G	41013274.30	41013274.43	41013274.57	0.0266	0.0201	
Venus	107579-01-21 19:25 G	41013503.11	41013503.31	41013503.52	0.0267	0.0059	
Earth	107583-01-18 19:39 G	41014961.30	41014961.32	41014961.37	0.0280	0.0277	
Moon	107584-01-31 17:44 G	41015339.01	41015339.24	41015339.47	0.0284	0.0039	
Earth	107584-01-31 18:27 G	41015339.03	41015339.27	41015339.51	0.0284	0.0039	*
Earth	107585-02-13 02:23 G	41015717.45	41015717.60	41015717.76	0.0288	0.0217	
Moon	107585-02-13 05:15 G	41015717.59	41015717.72	41015717.87	0.0288	0.0228	*
Mercury	107590-10-15 12:27 G	41017788.00	41017788.02	41017788.05	0.0298	0.0290	
Mercury	107591-01-12 01:11 G	41017876.43	41017876.55	41017876.67	0.0298	0.0110	
Mercury	107591-04-10 13:25 G	41017964.94	41017965.06	41017965.19	0.0298	0.0070	
Mercury	107591-07-08 01:54 G	41018053.51	41018053.58	41018053.65	0.0297	0.0245	
Venus	107592-11-21 14:37 G	41018555.89	41018556.11	41018556.32	0.0294	0.0025	
Moon	107596-07-19 08:08 G	41019891.78	41019891.84	41019891.91	0.0281	0.0270	
Earth	107597-08-01 21:35 G	41020270.16	41020270.40	41020270.65	0.0277	0.0043	
Moon	107597-08-01 22:32 G	41020270.20	41020270.44	41020270.68	0.0277	0.0031	*
Earth	107598-08-14 22:47 G	41020648.27	41020648.45	41020648.63	0.0274	0.0188	
Moon	107598-08-15 02:08 G	41020648.42	41020648.59	41020648.78	0.0274	0.0191	*
Mercury	107606-01-26 20:08 G	41023370.19	41023370.34	41023370.50	0.0263	0.0144	

Mercury	107606-04-25 17:01 G	41023459.02	41023459.21	41023459.40	0.0263	0.0036
Mercury	107606-07-23 13:39 G	41023547.97	41023548.07	41023548.19	0.0263	0.0217
Venus	107607-12-18 01:25 G	41024060.40	41024060.56	41024060.73	0.0265	0.0165
Venus	107608-08-02 22:32 G	41024289.25	41024289.44	41024289.64	0.0267	0.0095
Moon	107613-01-25 03:06 G	41025925.41	41025925.63	41025925.84	0.0281	0.0138
Earth	107613-01-25 05:15 G	41025925.52	41025925.72	41025925.93	0.0281	0.0149 *
Moon	107614-02-07 04:32 G	41026303.47	41026303.69	41026303.91	0.0286	0.0114
Earth	107614-02-07 07:39 G	41026303.60	41026303.82	41026304.06	0.0286	0.0099 *
Mercury	107620-05-31 01:25 G	41028608.46	41028608.56	41028608.66	0.0298	0.0186
Mercury	107620-08-27 13:54 G	41028696.95	41028697.08	41028697.21	0.0298	0.0009
Mercury	107620-11-24 02:08 G	41028785.49	41028785.59	41028785.70	0.0298	0.0170
Venus	107622-06-03 14:08 G	41029341.88	41029342.09	41029342.31	0.0294	0.0054
Moon	107626-07-26 18:27 G	41030856.06	41030856.27	41030856.48	0.0279	0.0156
Earth	107626-07-26 22:03 G	41030856.22	41030856.42	41030856.62	0.0279	0.0159 *
Moon	107627-08-09 01:25 G	41031234.33	41031234.56	41031234.80	0.0275	0.0074
Earth	107627-08-09 03:49 G	41031234.42	41031234.66	41031234.90	0.0275	0.0080 *
Mercury	107635-06-15 17:44 G	41034102.13	41034102.24	41034102.35	0.0263	0.0210
Mercury	107635-09-12 14:23 G	41034190.91	41034191.10	41034191.29	0.0263	0.0031
Mercury	107635-12-10 11:15 G	41034279.82	41034279.97	41034280.13	0.0263	0.0150
Venus	107637-06-29 01:39 G	41034846.39	41034846.57	41034846.75	0.0266	0.0137
Venus	107638-02-12 22:47 G	41035075.27	41035075.45	41035075.64	0.0267	0.0125
Earth	107642-01-19 17:44 G	41036512.16	41036512.24	41036512.34	0.0280	0.0259
Moon	107642-01-19 21:20 G	41036512.29	41036512.39	41036512.53	0.0280	0.0244 *
Earth	107643-02-01 16:18 G	41036889.94	41036890.18	41036890.42	0.0284	0.0021
Moon	107643-02-01 17:44 G	41036889.99	41036890.24	41036890.49	0.0284	0.0006 *
Moon	107644-02-14 20:51 G	41037268.25	41037268.37	41037268.52	0.0288	0.0240
Earth	107644-02-15 00:13 G	41037268.37	41037268.51	41037268.65	0.0288	0.0234 *
Mars	107646-07-27 17:01 G	41038162.06	41038162.21	41038162.37	0.0296	0.0240
Mercury	107649-10-18 03:06 G	41039340.55	41039340.63	41039340.70	0.0298	0.0243
Mercury	107650-01-14 15:35 G	41039429.02	41039429.15	41039429.28	0.0298	0.0063

Mercury	107650-04-13 04:03 G	41039517.55	41039517.67	41039517.79	0.0297	0.0116
Mercury	107650-07-10 16:18 G	41039606.16	41039606.18	41039606.20	0.0297	0.0291
Venus	107651-04-28 14:51 G	41039898.04	41039898.12	41039898.20	0.0295	0.0271
Venus	107651-12-14 19:54 G	41040128.13	41040128.33	41040128.53	0.0294	0.0101
Earth	107655-07-21 06:13 G	41041442.71	41041442.76	41041442.84	0.0281	0.0271
Moon	107655-07-21 09:49 G	41041442.87	41041442.91	41041442.97	0.0281	0.0275
Moon	107656-08-02 16:47 G	41041820.94	41041821.20	41041821.46	0.0277	0.0039
Earth	107656-08-02 17:15 G	41041820.97	41041821.22	41041821.47	0.0277	0.0027 *
Moon	107657-08-15 14:51 G	41042198.95	41042199.12	41042199.31	0.0274	0.0189
Earth	107657-08-15 18:42 G	41042199.12	41042199.28	41042199.45	0.0274	0.0204 *
Mercury	107664-11-01 17:30 G	41044834.19	41044834.23	41044834.26	0.0263	0.0257
Mercury	107665-01-29 14:08 G	41044922.91	41044923.09	41044923.27	0.0263	0.0079
Mercury	107665-04-28 10:47 G	41045011.78	41045011.95	41045012.13	0.0263	0.0102
Venus	107667-01-09 05:30 G	41045632.53	41045632.73	41045632.92	0.0266	0.0100
Venus	107667-08-26 02:23 G	41045861.45	41045861.60	41045861.78	0.0267	0.0162
Earth	107672-01-27 04:47 G	41047476.49	41047476.70	41047476.92	0.0281	0.0129
Moon	107672-01-27 06:13 G	41047476.56	41047476.76	41047476.98	0.0281	0.0120 *
Earth	107673-02-08 07:11 G	41047854.59	41047854.80	41047855.03	0.0285	0.0119
Moon	107673-02-08 10:47 G	41047854.73	41047854.95	41047855.17	0.0285	0.0118 *
Mercury	107679-06-03 16:03 G	41050161.06	41050161.17	41050161.29	0.0298	0.0135
Mercury	107679-08-31 04:32 G	41050249.56	41050249.69	41050249.82	0.0298	0.0044
Mercury	107679-11-27 16:47 G	41050338.12	41050338.20	41050338.29	0.0297	0.0220
Venus	107680-11-07 15:20 G	41050684.03	41050684.14	41050684.27	0.0296	0.0240
Venus	107681-06-25 20:37 G	41050914.17	41050914.36	41050914.55	0.0294	0.0133
Earth	107685-07-27 18:13 G	41052407.06	41052407.26	41052407.49	0.0279	0.0143
Moon	107685-07-27 21:20 G	41052407.20	41052407.39	41052407.60	0.0279	0.0159 *
Earth	107686-08-10 00:13 G	41052785.28	41052785.51	41052785.75	0.0275	0.0096
Moon	107686-08-10 02:51 G	41052785.38	41052785.62	41052785.87	0.0275	0.0086 *
Mercury	107694-06-18 11:15 G	41055654.82	41055654.97	41055655.14	0.0263	0.0146
Mercury	107694-09-15 08:08 G	41055743.66	41055743.84	41055744.03	0.0263	0.0035

Mercury	107694-12-13 05:15 G	41055832.61	41055832.72	41055832.83	0.0263	0.0217
Venus	107696-07-21 05:30 G	41056418.54	41056418.73	41056418.94	0.0266	0.0072
Venus	107697-03-07 02:51 G	41056647.48	41056647.62	41056647.77	0.0267	0.0191
Moon	107701-01-21 14:08 G	41058062.97	41058063.09	41058063.23	0.0280	0.0238
Earth	107701-01-21 17:44 G	41058063.13	41058063.24	41058063.37	0.0280	0.0239 *
Moon	107702-02-03 14:37 G	41058440.88	41058441.11	41058441.34	0.0284	0.0009
Earth	107702-02-03 16:32 G	41058440.94	41058441.19	41058441.43	0.0284	0.0005 *
Earth	107703-02-16 23:59 G	41058819.40	41058819.50	41058819.62	0.0288	0.0255
Moon	107703-02-17 02:37 G	41058819.49	41058819.61	41058819.75	0.0288	0.0239 *
Mercury	107708-10-21 17:59 G	41060893.15	41060893.25	41060893.35	0.0298	0.0189
Mercury	107709-01-18 06:27 G	41060981.64	41060981.77	41060981.90	0.0298	0.0010
Mercury	107709-04-16 18:42 G	41061070.18	41061070.28	41061070.39	0.0297	0.0168
Venus	107710-05-21 21:49 G	41061470.25	41061470.41	41061470.58	0.0295	0.0189
Venus	107711-01-07 02:37 G	41061700.46	41061700.61	41061700.79	0.0293	0.0183
Moon	107714-07-23 00:13 G	41062993.43	41062993.51	41062993.59	0.0281	0.0265
Earth	107714-07-23 03:35 G	41062993.55	41062993.65	41062993.77	0.0281	0.0252 *
Earth	107715-08-05 14:08 G	41063371.84	41063372.09	41063372.34	0.0277	0.0009
Moon	107715-08-05 14:23 G	41063371.86	41063372.10	41063372.34	0.0277	0.0012 *
Earth	107716-08-17 15:20 G	41063750.01	41063750.14	41063750.30	0.0274	0.0221
Moon	107716-08-17 19:25 G	41063750.18	41063750.31	41063750.44	0.0274	0.0230 *
Mercury	107723-11-06 11:30 G	41066386.86	41066386.98	41066387.11	0.0263	0.0190
Mercury	107724-02-03 08:23 G	41066475.66	41066475.85	41066476.04	0.0263	0.0011
Mercury	107724-05-02 05:01 G	41066564.58	41066564.71	41066564.86	0.0264	0.0171
Venus	107726-02-01 10:03 G	41067204.72	41067204.92	41067205.13	0.0266	0.0032
Venus	107726-09-18 07:39 G	41067433.72	41067433.82	41067433.93	0.0267	0.0231
Moon	107731-01-29 06:27 G	41069027.55	41069027.77	41069028.00	0.0282	0.0120
Earth	107731-01-29 07:11 G	41069027.58	41069027.80	41069028.03	0.0282	0.0106 *
Moon	107732-02-11 06:27 G	41069405.55	41069405.77	41069405.99	0.0286	0.0127
Earth	107732-02-11 09:49 G	41069405.71	41069405.91	41069406.13	0.0286	0.0142 *
Mars	107734-12-21 17:15 G	41070450.15	41070450.22	41070450.33	0.0295	0.0277

Mercury	107738-03-10 18:56 G	41071625.22	41071625.29	41071625.35	0.0298	0.0256
Mercury	107738-06-07 07:25 G	41071713.68	41071713.81	41071713.93	0.0298	0.0077
Mercury	107738-09-03 19:39 G	41071802.20	41071802.32	41071802.45	0.0297	0.0101
Mercury	107738-12-01 07:54 G	41071890.79	41071890.83	41071890.88	0.0297	0.0276
Venus	107739-12-01 23:59 G	41072256.32	41072256.50	41072256.68	0.0295	0.0154
Venus	107740-07-19 04:32 G	41072486.55	41072486.69	41072486.84	0.0294	0.0217
Moon	107744-07-29 14:08 G	41073957.86	41073958.09	41073958.32	0.0279	0.0116
Earth	107744-07-29 17:01 G	41073957.99	41073958.21	41073958.43	0.0279	0.0123 *
Moon	107745-08-11 19:39 G	41074336.11	41074336.32	41074336.54	0.0275	0.0129
Earth	107745-08-11 22:32 G	41074336.22	41074336.44	41074336.67	0.0275	0.0114 *
Mercury	107753-03-25 09:06 G	41077118.84	41077118.88	41077118.93	0.0263	0.0255
Mercury	107753-06-22 05:59 G	41077207.57	41077207.75	41077207.93	0.0263	0.0076
Mercury	107753-09-19 02:51 G	41077296.45	41077296.62	41077296.79	0.0263	0.0106
Venus	107754-12-28 13:25 G	41077762.05	41077762.06	41077762.11	0.0265	0.0262
Venus	107755-08-14 10:47 G	41077990.75	41077990.95	41077991.16	0.0266	0.0006
Venus	107756-03-30 08:08 G	41078219.81	41078219.84	41078219.90	0.0268	0.0262
Earth	107760-01-23 20:23 G	41079614.21	41079614.35	41079614.52	0.0280	0.0216
Moon	107760-01-23 23:30 G	41079614.35	41079614.48	41079614.61	0.0280	0.0233 *
Earth	107761-02-04 19:25 G	41079992.07	41079992.31	41079992.55	0.0284	0.0024
Moon	107761-02-04 22:03 G	41079992.17	41079992.42	41079992.67	0.0284	0.0013 *
Moon	107762-02-18 01:11 G	41080370.50	41080370.55	41080370.63	0.0288	0.0279
Earth	107762-02-18 03:20 G	41080370.58	41080370.64	41080370.71	0.0288	0.0277 *
Mercury	107767-10-25 09:20 G	41082445.77	41082445.89	41082446.01	0.0298	0.0130
Mercury	107768-01-21 21:49 G	41082534.28	41082534.41	41082534.54	0.0297	0.0049
Mercury	107768-04-19 10:03 G	41082622.84	41082622.92	41082623.00	0.0297	0.0225
Venus	107769-06-13 06:42 G	41083042.59	41083042.78	41083042.99	0.0295	0.0103
Venus	107770-01-29 11:30 G	41083272.90	41083272.98	41083273.07	0.0293	0.0267
Earth	107773-07-24 03:06 G	41084544.50	41084544.63	41084544.78	0.0281	0.0232
Moon	107773-07-24 06:42 G	41084544.64	41084544.78	41084544.95	0.0281	0.0220 *
Earth	107774-08-06 13:25 G	41084922.81	41084923.06	41084923.31	0.0277	0.0012

Moon	107774-08-06 14:23 G	41084922.84	41084923.10	41084923.35	0.0277	0.0026	*
Moon	107775-08-19 11:01 G	41085300.88	41085300.96	41085301.07	0.0274	0.0252	
Earth	107775-08-19 14:37 G	41085301.00	41085301.11	41085301.23	0.0274	0.0240	*
Mercury	107782-11-09 06:13 G	41087939.60	41087939.76	41087939.93	0.0263	0.0118	
Mercury	107783-02-06 03:06 G	41088028.45	41088028.63	41088028.82	0.0264	0.0063	
Mercury	107783-05-05 23:59 G	41088117.44	41088117.50	41088117.57	0.0264	0.0246	
Venus	107784-07-09 18:56 G	41088548.18	41088548.29	41088548.40	0.0265	0.0221	
Venus	107785-02-23 16:03 G	41088776.96	41088777.17	41088777.38	0.0267	0.0040	
Moon	107790-01-30 12:13 G	41090578.79	41090579.01	41090579.23	0.0282	0.0085	
Earth	107790-01-30 12:27 G	41090578.79	41090579.02	41090579.26	0.0282	0.0081	*
Earth	107791-02-12 15:20 G	41090956.96	41090957.14	41090957.35	0.0286	0.0168	
Moon	107791-02-12 19:11 G	41090957.11	41090957.30	41090957.49	0.0286	0.0177	*
Mercury	107797-03-13 10:47 G	41093177.86	41093177.95	41093178.06	0.0298	0.0188	
Mercury	107797-06-09 23:15 G	41093266.34	41093266.47	41093266.60	0.0297	0.0012	
Mercury	107797-09-06 11:30 G	41093354.88	41093354.98	41093355.09	0.0297	0.0168	
Venus	107798-12-24 11:01 G	41093828.75	41093828.96	41093829.17	0.0295	0.0060	
Earth	107803-08-01 19:11 G	41095509.07	41095509.30	41095509.53	0.0279	0.0101	
Moon	107803-08-01 21:06 G	41095509.16	41095509.38	41095509.61	0.0279	0.0090	*
Earth	107804-08-14 00:13 G	41095887.30	41095887.51	41095887.73	0.0275	0.0135	
Moon	107804-08-14 03:49 G	41095887.45	41095887.66	41095887.88	0.0275	0.0140	*
Mercury	107812-03-29 04:03 G	41098671.54	41098671.67	41098671.82	0.0263	0.0180	
Mercury	107812-06-26 00:56 G	41098760.35	41098760.54	41098760.73	0.0263	0.0006	
Mercury	107812-09-22 21:49 G	41098849.28	41098849.41	41098849.55	0.0264	0.0183	
Venus	107814-01-20 19:54 G	41099334.19	41099334.33	41099334.48	0.0266	0.0190	
Venus	107814-09-06 17:30 G	41099563.03	41099563.23	41099563.43	0.0267	0.0071	
Moon	107819-01-26 00:13 G	41101165.33	41101165.51	41101165.70	0.0281	0.0186	
Earth	107819-01-26 02:37 G	41101165.44	41101165.61	41101165.79	0.0281	0.0191	*
Moon	107820-02-07 23:01 G	41101543.23	41101543.46	41101543.70	0.0285	0.0065	
Earth	107820-02-08 02:08 G	41101543.35	41101543.59	41101543.83	0.0285	0.0050	*
Mercury	107826-08-01 12:56 G	41103909.97	41103910.04	41103910.12	0.0298	0.0239	

Mercury	107826-10-29 01:25 G	41103998.43	41103998.56	41103998.69	0.0297	0.0060
Mercury	107827-01-25 13:54 G	41104086.96	41104087.08	41104087.20	0.0297	0.0118
Mercury	107827-04-24 02:08 G	41104175.57	41104175.59	41104175.61	0.0297	0.0293
Venus	107828-07-06 18:42 G	41104615.06	41104615.28	41104615.49	0.0294	0.0009
Moon	107832-07-26 03:06 G	41106095.46	41106095.63	41106095.80	0.0281	0.0203
Earth	107832-07-26 06:42 G	41106095.61	41106095.78	41106095.94	0.0281	0.0208 *
Moon	107833-08-08 14:37 G	41106473.87	41106474.11	41106474.35	0.0277	0.0029
Earth	107833-08-08 16:03 G	41106473.93	41106474.17	41106474.42	0.0277	0.0035 *
Earth	107834-08-21 16:32 G	41106852.14	41106852.19	41106852.28	0.0273	0.0262
Moon	107834-08-21 19:25 G	41106852.21	41106852.31	41106852.41	0.0273	0.0249 *
Mercury	107841-08-16 05:01 G	41109403.61	41109403.71	41109403.82	0.0264	0.0218
Mercury	107841-11-13 01:54 G	41109492.39	41109492.58	41109492.77	0.0264	0.0038
Mercury	107842-02-09 22:47 G	41109581.29	41109581.45	41109581.61	0.0264	0.0144
Venus	107843-08-03 01:54 G	41110120.42	41110120.58	41110120.77	0.0266	0.0147
Venus	107844-03-18 23:30 G	41110349.30	41110349.48	41110349.67	0.0267	0.0116
Moon	107848-01-21 05:44 G	41111752.70	41111752.74	41111752.77	0.0278	0.0275
Earth	107849-02-01 21:20 G	41112130.15	41112130.39	41112130.63	0.0282	0.0053
Moon	107849-02-01 22:18 G	41112130.18	41112130.43	41112130.68	0.0282	0.0038 *
Moon	107850-02-14 21:49 G	41112508.25	41112508.41	41112508.58	0.0286	0.0207
Earth	107850-02-15 01:11 G	41112508.38	41112508.55	41112508.73	0.0286	0.0196 *
Mercury	107855-12-19 14:51 G	41114642.10	41114642.12	41114642.16	0.0297	0.0290
Mercury	107856-03-17 03:35 G	41114730.53	41114730.65	41114730.77	0.0297	0.0110
Mercury	107856-06-13 15:49 G	41114819.04	41114819.16	41114819.29	0.0297	0.0069
Mercury	107856-09-10 04:03 G	41114907.60	41114907.67	41114907.75	0.0297	0.0243
Venus	107858-01-17 00:42 G	41115401.32	41115401.53	41115401.75	0.0294	0.0042
Moon	107862-08-02 23:01 G	41117060.22	41117060.46	41117060.71	0.0279	0.0089
Earth	107862-08-03 00:56 G	41117060.30	41117060.54	41117060.78	0.0279	0.0076 *
Moon	107863-08-16 01:11 G	41117438.35	41117438.55	41117438.77	0.0275	0.0142
Earth	107863-08-16 05:15 G	41117438.52	41117438.72	41117438.93	0.0275	0.0159 *
Mercury	107871-04-01 23:59 G	41120224.33	41120224.50	41120224.68	0.0263	0.0098

Mercury	107871-06-29 20:51 G	41120313.20	41120313.37	41120313.56	0.0264	0.0085
Venus	107873-02-12 03:49 G	41120906.47	41120906.66	41120906.85	0.0266	0.0114
Venus	107873-09-29 01:11 G	41121135.39	41121135.55	41121135.73	0.0267	0.0150
Earth	107878-01-27 11:30 G	41122716.78	41122716.98	41122717.18	0.0281	0.0163
Moon	107878-01-27 13:11 G	41122716.86	41122717.05	41122717.26	0.0281	0.0152 *
Earth	107879-02-09 11:44 G	41123094.76	41123094.99	41123095.22	0.0285	0.0080
Moon	107879-02-09 15:06 G	41123094.90	41123095.13	41123095.37	0.0285	0.0083 *
Mercury	107885-08-04 05:44 G	41125462.63	41125462.74	41125462.85	0.0297	0.0159
Mercury	107885-10-31 18:13 G	41125551.13	41125551.26	41125551.39	0.0297	0.0020
Mercury	107886-01-28 06:27 G	41125639.68	41125639.77	41125639.87	0.0297	0.0196
Venus	107886-12-12 04:03 G	41125957.60	41125957.67	41125957.75	0.0295	0.0277
Venus	107887-07-30 09:06 G	41126187.68	41126187.88	41126188.09	0.0294	0.0096
Earth	107891-07-28 14:08 G	41127646.90	41127647.09	41127647.28	0.0280	0.0181
Moon	107891-07-28 17:44 G	41127647.07	41127647.24	41127647.41	0.0280	0.0197 *
Earth	107892-08-09 22:47 G	41128025.21	41128025.45	41128025.70	0.0276	0.0060
Moon	107892-08-10 01:11 G	41128025.30	41128025.55	41128025.80	0.0276	0.0046 *
Mars	107895-11-02 03:49 G	41129204.50	41129204.66	41129204.85	0.0267	0.0226
Mercury	107900-08-20 01:11 G	41130956.39	41130956.55	41130956.72	0.0264	0.0133
Mercury	107900-11-16 22:03 G	41131045.24	41131045.42	41131045.61	0.0264	0.0049
Mercury	107901-02-13 19:11 G	41131134.21	41131134.30	41131134.39	0.0264	0.0232
Venus	107902-08-26 10:47 G	41131692.75	41131692.95	41131693.15	0.0267	0.0068
Venus	107903-04-12 08:23 G	41131921.72	41131921.85	41131922.00	0.0268	0.0196
Moon	107907-01-23 09:20 G	41133303.79	41133303.89	41133304.00	0.0279	0.0250
Earth	107907-01-23 12:27 G	41133303.94	41133304.02	41133304.12	0.0279	0.0258 *
Moon	107908-02-05 07:39 G	41133681.59	41133681.82	41133682.06	0.0283	0.0028
Earth	107908-02-05 09:06 G	41133681.64	41133681.88	41133682.12	0.0283	0.0023 *
Earth	107909-02-17 13:54 G	41134059.94	41134060.08	41134060.23	0.0286	0.0228
Moon	107909-02-17 16:32 G	41134060.04	41134060.19	41134060.35	0.0286	0.0215 *
Mercury	107914-12-23 08:23 G	41136194.76	41136194.85	41136194.95	0.0297	0.0201
Mercury	107915-03-21 21:06 G	41136283.24	41136283.38	41136283.51	0.0297	0.0024

Mercury	107915-06-18 09:20 G	41136371.78	41136371.89	41136372.00	0.0297	0.0154
Venus	107916-06-24 12:56 G	41136743.90	41136744.04	41136744.19	0.0295	0.0220
Venus	107917-02-09 17:30 G	41136974.05	41136974.23	41136974.42	0.0294	0.0152
Earth	107921-08-05 10:47 G	41138611.71	41138611.95	41138612.20	0.0278	0.0048
Moon	107921-08-05 11:59 G	41138611.76	41138612.00	41138612.23	0.0278	0.0054 *
Earth	107922-08-18 14:08 G	41138989.91	41138990.09	41138990.27	0.0275	0.0185
Moon	107922-08-18 17:44 G	41138990.07	41138990.24	41138990.43	0.0275	0.0189 *
Mercury	107930-01-06 23:59 G	41141688.37	41141688.50	41141688.64	0.0263	0.0188
Mercury	107930-04-05 20:51 G	41141777.18	41141777.37	41141777.56	0.0264	0.0007
Mercury	107930-07-03 17:44 G	41141866.10	41141866.24	41141866.39	0.0264	0.0176
Venus	107932-03-07 13:11 G	41142478.84	41142479.05	41142479.25	0.0266	0.0034
Venus	107932-10-22 10:47 G	41142707.86	41142707.95	41142708.06	0.0268	0.0232
Moon	107937-01-29 22:03 G	41144268.21	41144268.42	41144268.64	0.0282	0.0145
Earth	107937-01-29 23:44 G	41144268.28	41144268.49	41144268.70	0.0282	0.0133 *
Moon	107938-02-11 21:06 G	41144646.16	41144646.38	41144646.61	0.0285	0.0095
Earth	107938-02-12 00:56 G	41144646.32	41144646.54	41144646.76	0.0285	0.0112 *
Mercury	107944-05-11 10:47 G	41146926.88	41146926.95	41146927.02	0.0297	0.0249
Mercury	107944-08-07 23:15 G	41147015.35	41147015.47	41147015.60	0.0297	0.0070
Mercury	107944-11-04 11:44 G	41147103.87	41147103.99	41147104.11	0.0297	0.0108
Mercury	107945-01-31 23:59 G	41147192.46	41147192.50	41147192.54	0.0297	0.0283
Venus	107946-01-04 21:20 G	41147530.22	41147530.39	41147530.57	0.0295	0.0165
Venus	107946-08-23 01:54 G	41147760.44	41147760.58	41147760.74	0.0293	0.0206
Moon	107950-07-30 21:35 G	41149198.20	41149198.40	41149198.63	0.0280	0.0147
Earth	107950-07-31 01:11 G	41149198.35	41149198.55	41149198.77	0.0280	0.0153 *
Moon	107951-08-13 05:59 G	41149576.52	41149576.75	41149576.98	0.0276	0.0099
Earth	107951-08-13 08:51 G	41149576.64	41149576.87	41149577.11	0.0276	0.0087 *
Mercury	107959-05-27 01:11 G	41152420.46	41152420.55	41152420.66	0.0264	0.0222
Mercury	107959-08-23 22:18 G	41152509.24	41152509.43	41152509.61	0.0264	0.0041
Mercury	107959-11-20 18:56 G	41152598.14	41152598.29	41152598.46	0.0264	0.0143
Venus	107961-01-31 22:47 G	41153036.38	41153036.45	41153036.53	0.0266	0.0247

Venus	107961-09-17 20:37 G	41153265.15	41153265.36	41153265.57	0.0267	0.0015
Earth	107966-01-25 01:11 G	41154855.41	41154855.55	41154855.68	0.0280	0.0229
Moon	107966-01-25 04:03 G	41154855.56	41154855.67	41154855.79	0.0280	0.0245 *
Earth	107967-02-06 22:47 G	41155233.21	41155233.45	41155233.69	0.0283	0.0010
Moon	107967-02-07 01:11 G	41155233.30	41155233.55	41155233.80	0.0283	0.0005 *
Moon	107968-02-20 03:06 G	41155611.53	41155611.63	41155611.76	0.0287	0.0254
Earth	107968-02-20 05:01 G	41155611.62	41155611.71	41155611.81	0.0287	0.0261 *
Mercury	107973-09-28 14:08 G	41157659.05	41157659.09	41157659.12	0.0297	0.0283
Mercury	107973-12-26 02:37 G	41157747.49	41157747.61	41157747.73	0.0297	0.0105
Mercury	107974-03-24 14:51 G	41157836.00	41157836.12	41157836.25	0.0297	0.0073
Mercury	107974-06-21 03:06 G	41157924.56	41157924.63	41157924.70	0.0296	0.0248
Venus	107975-07-18 08:08 G	41158316.64	41158316.84	41158317.04	0.0295	0.0102
Venus	107976-03-04 12:27 G	41158546.94	41158547.02	41158547.11	0.0293	0.0267
Earth	107979-07-25 13:25 G	41159784.97	41159785.06	41159785.15	0.0282	0.0262
Moon	107979-07-25 16:32 G	41159785.09	41159785.19	41159785.32	0.0282	0.0250 *
Earth	107980-08-07 00:27 G	41160163.27	41160163.52	41160163.77	0.0278	0.0018
Moon	107980-08-07 00:27 G	41160163.27	41160163.52	41160163.78	0.0278	0.0005 *
Moon	107981-08-19 23:01 G	41160541.33	41160541.46	41160541.61	0.0274	0.0228
Earth	107981-08-20 02:23 G	41160541.46	41160541.60	41160541.77	0.0274	0.0213 *
Mars	107984-03-29 06:42 G	41161493.50	41161493.78	41161494.09	0.0267	0.0111
Mercury	107989-01-09 21:20 G	41163241.21	41163241.39	41163241.57	0.0264	0.0093
Mercury	107989-04-08 18:13 G	41163330.08	41163330.26	41163330.44	0.0264	0.0089
Venus	107990-08-14 01:54 G	41163822.45	41163822.58	41163822.70	0.0266	0.0211
Venus	107991-03-30 23:15 G	41164051.27	41164051.47	41164051.68	0.0267	0.0051
Earth	107996-02-01 13:11 G	41165819.83	41165820.05	41165820.28	0.0282	0.0102
Moon	107996-02-01 13:54 G	41165819.86	41165820.08	41165820.29	0.0282	0.0108 *
Earth	107997-02-13 15:20 G	41166197.94	41166198.14	41166198.36	0.0286	0.0145
Moon	107997-02-13 19:11 G	41166198.10	41166198.30	41166198.51	0.0286	0.0148 *

109TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 109th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	108003-05-15 04:47	G	41168479.59	41168479.70	41168479.82	0.0297	0.0153	
Mercury	108003-08-11 17:15	G	41168568.09	41168568.22	41168568.35	0.0297	0.0026	
Mercury	108003-11-08 05:30	G	41168656.64	41168656.73	41168656.83	0.0297	0.0202	
Venus	108005-01-27 16:47	G	41169102.98	41169103.20	41169103.41	0.0294	0.0048	
Earth	108009-08-01 15:35	G	41170749.93	41170750.15	41170750.38	0.0279	0.0122	
Moon	108009-08-01 18:27	G	41170750.05	41170750.27	41170750.50	0.0279	0.0107	*
Earth	108010-08-14 21:49	G	41171128.19	41171128.41	41171128.64	0.0276	0.0117	
Moon	108010-08-15 01:25	G	41171128.34	41171128.56	41171128.79	0.0276	0.0127	*
Mercury	108018-05-29 22:47	G	41173973.29	41173973.45	41173973.62	0.0264	0.0126	
Mercury	108018-08-26 19:39	G	41174062.14	41174062.32	41174062.51	0.0264	0.0056	
Mercury	108018-11-23 16:47	G	41174151.12	41174151.20	41174151.28	0.0265	0.0240	
Venus	108020-02-24 09:06	G	41174608.72	41174608.88	41174609.05	0.0266	0.0164	
Venus	108020-10-10 06:56	G	41174837.60	41174837.79	41174837.99	0.0268	0.0101	
Moon	108025-01-26 11:59	G	41176406.83	41176407.00	41176407.18	0.0280	0.0197	
Earth	108025-01-26 15:06	G	41176406.96	41176407.13	41176407.30	0.0280	0.0200	*
Moon	108026-02-08 11:01	G	41176784.73	41176784.96	41176785.19	0.0284	0.0054	
Earth	108026-02-08 14:08	G	41176784.85	41176785.09	41176785.33	0.0284	0.0042	*
Mercury	108032-10-01 08:23	G	41179211.75	41179211.85	41179211.95	0.0297	0.0183	
Mercury	108032-12-28 20:51	G	41179300.24	41179300.37	41179300.50	0.0297	0.0008	
Mercury	108033-03-27 09:06	G	41179388.77	41179388.88	41179388.99	0.0297	0.0171	

Venus	108034-08-10 04:32 G	41179889.48	41179889.69	41179889.91	0.0294	0.0020
Moon	108038-07-27 02:08 G	41181336.46	41181336.59	41181336.75	0.0281	0.0223
Earth	108038-07-27 05:59 G	41181336.62	41181336.75	41181336.90	0.0281	0.0230 *
Moon	108039-08-09 14:37 G	41181714.87	41181715.11	41181715.35	0.0277	0.0013
Earth	108039-08-09 15:49 G	41181714.91	41181715.16	41181715.41	0.0277	0.0013 *
Earth	108040-08-21 16:32 G	41182093.09	41182093.19	41182093.32	0.0274	0.0242
Moon	108040-08-21 19:25 G	41182093.19	41182093.31	41182093.45	0.0274	0.0233 *
Mercury	108047-10-16 22:03 G	41184705.29	41184705.42	41184705.57	0.0264	0.0176
Mercury	108048-01-13 18:56 G	41184794.10	41184794.29	41184794.48	0.0264	0.0008
Mercury	108048-04-11 16:03 G	41184883.04	41184883.17	41184883.30	0.0264	0.0188
Venus	108049-09-05 12:27 G	41185394.84	41185395.02	41185395.21	0.0266	0.0126
Venus	108050-04-22 10:03 G	41185623.75	41185623.92	41185624.10	0.0267	0.0137
Moon	108055-02-03 03:20 G	41187371.39	41187371.64	41187371.89	0.0282	0.0055
Earth	108055-02-03 03:06 G	41187371.40	41187371.63	41187371.86	0.0282	0.0071 *
Moon	108056-02-16 03:06 G	41187749.46	41187749.63	41187749.82	0.0286	0.0193
Earth	108056-02-16 06:27 G	41187749.59	41187749.77	41187749.97	0.0286	0.0178 *
Mars	108058-06-16 20:08 G	41188601.15	41188601.34	41188601.53	0.0294	0.0209
Mercury	108062-02-18 10:18 G	41189943.86	41189943.93	41189944.02	0.0298	0.0235
Mercury	108062-05-17 23:01 G	41190032.33	41190032.46	41190032.59	0.0297	0.0055
Mercury	108062-08-14 11:15 G	41190120.85	41190120.97	41190121.09	0.0297	0.0122
Mercury	108062-11-10 23:30 G	41190209.48	41190209.48	41190209.48	0.0297	0.0297
Venus	108064-02-20 12:27 G	41190675.81	41190676.02	41190676.23	0.0294	0.0072
Moon	108068-08-03 05:01 G	41192301.48	41192301.71	41192301.96	0.0279	0.0101
Earth	108068-08-03 07:25 G	41192301.57	41192301.81	41192302.04	0.0279	0.0090 *
Moon	108069-08-16 08:51 G	41192679.65	41192679.87	41192680.09	0.0275	0.0131
Earth	108069-08-16 12:27 G	41192679.81	41192680.02	41192680.23	0.0275	0.0146 *
Mars	108072-08-24 04:18 G	41193783.36	41193783.68	41193783.99	0.0267	0.0044
Mercury	108077-03-04 23:30 G	41195437.37	41195437.48	41195437.60	0.0264	0.0210
Mercury	108077-06-01 20:23 G	41195526.16	41195526.35	41195526.54	0.0264	0.0029
Mercury	108077-08-29 17:15 G	41195615.07	41195615.22	41195615.38	0.0264	0.0154

Venus	108079-03-18 19:39 G	41196181.12	41196181.32	41196181.52	0.0267	0.0079
Venus	108079-11-02 17:15 G	41196410.09	41196410.22	41196410.38	0.0268	0.0187
Earth	108084-01-29 04:03 G	41197958.48	41197958.67	41197958.86	0.0281	0.0171
Moon	108084-01-29 06:27 G	41197958.58	41197958.77	41197958.97	0.0281	0.0156 *
Earth	108085-02-10 04:03 G	41198336.44	41198336.67	41198336.91	0.0285	0.0074
Moon	108085-02-10 07:39 G	41198336.60	41198336.82	41198337.06	0.0285	0.0085 *
Mercury	108091-07-08 14:08 G	41200676.03	41200676.09	41200676.15	0.0297	0.0262
Mercury	108091-10-05 02:37 G	41200764.49	41200764.61	41200764.74	0.0297	0.0084
Mercury	108092-01-01 15:06 G	41200853.00	41200853.13	41200853.25	0.0297	0.0094
Mercury	108092-03-30 03:06 G	41200941.59	41200941.63	41200941.69	0.0296	0.0269
Venus	108093-01-14 20:23 G	41201232.23	41201232.35	41201232.49	0.0295	0.0232
Venus	108093-09-02 01:11 G	41201462.36	41201462.55	41201462.74	0.0294	0.0141
Earth	108097-07-28 23:30 G	41202888.31	41202888.48	41202888.66	0.0280	0.0198
Moon	108097-07-29 03:35 G	41202888.49	41202888.65	41202888.81	0.0280	0.0214 *
Earth	108098-08-11 08:08 G	41203266.60	41203266.84	41203267.09	0.0277	0.0044
Moon	108098-08-11 10:32 G	41203266.68	41203266.94	41203267.19	0.0277	0.0028 *
Moon	108099-08-24 05:15 G	41203644.66	41203644.72	41203644.80	0.0273	0.0263
Earth	108099-08-24 07:54 G	41203644.80	41203644.83	41203644.87	0.0273	0.0270 *
Mercury	108106-07-23 23:01 G	41206169.43	41206169.46	41206169.51	0.0263	0.0257
Mercury	108106-10-20 19:54 G	41206258.15	41206258.33	41206258.51	0.0264	0.0077
Mercury	108107-01-17 16:32 G	41206347.03	41206347.19	41206347.37	0.0264	0.0105
Venus	108108-09-28 23:15 G	41206967.26	41206967.47	41206967.67	0.0266	0.0041
Venus	108109-05-15 20:37 G	41207196.26	41207196.36	41207196.49	0.0267	0.0224
Moon	108113-01-23 16:32 G	41208545.13	41208545.19	41208545.27	0.0279	0.0266
Earth	108113-01-23 20:23 G	41208545.32	41208545.35	41208545.39	0.0279	0.0275
Moon	108114-02-05 15:06 G	41208922.90	41208923.13	41208923.36	0.0283	0.0041
Earth	108114-02-05 16:32 G	41208922.95	41208923.19	41208923.43	0.0283	0.0041 *
Earth	108115-02-18 21:06 G	41209301.22	41209301.38	41209301.55	0.0287	0.0210
Moon	108115-02-18 23:30 G	41209301.32	41209301.48	41209301.65	0.0287	0.0202 *
Mercury	108121-02-22 04:32 G	41211496.58	41211496.69	41211496.81	0.0297	0.0137

Mercury	108121-05-21 17:01 G	41211585.08	41211585.21	41211585.34	0.0297	0.0041
Mercury	108121-08-18 05:15 G	41211673.64	41211673.72	41211673.81	0.0297	0.0217
Venus	108122-07-29 03:06 G	41212018.47	41212018.63	41212018.80	0.0295	0.0183
Venus	108123-03-16 07:54 G	41212248.67	41212248.83	41212249.00	0.0294	0.0191
Earth	108127-08-06 22:32 G	41213853.20	41213853.44	41213853.69	0.0278	0.0060
Moon	108127-08-06 22:47 G	41213853.23	41213853.45	41213853.69	0.0278	0.0074 *
Earth	108128-08-19 02:37 G	41214231.42	41214231.61	41214231.80	0.0275	0.0175
Moon	108128-08-19 05:59 G	41214231.57	41214231.75	41214231.95	0.0275	0.0170 *
Mercury	108136-03-08 20:51 G	41216990.20	41216990.37	41216990.54	0.0264	0.0114
Mercury	108136-06-05 17:44 G	41217079.06	41217079.24	41217079.42	0.0264	0.0068
Mercury	108136-09-02 14:37 G	41217168.06	41217168.11	41217168.17	0.0264	0.0252
Venus	108137-08-25 08:08 G	41217524.80	41217524.84	41217524.90	0.0266	0.0257
Venus	108138-04-11 05:44 G	41217753.53	41217753.74	41217753.95	0.0267	0.0007
Moon	108143-01-31 15:06 G	41219509.92	41219510.13	41219510.34	0.0281	0.0147
Earth	108143-01-31 15:35 G	41219509.94	41219510.15	41219510.36	0.0281	0.0144 *
Moon	108144-02-13 12:56 G	41219887.82	41219888.04	41219888.28	0.0285	0.0091
Earth	108144-02-13 16:32 G	41219887.97	41219888.19	41219888.43	0.0285	0.0103 *
Mars	108146-11-12 21:20 G	41220891.12	41220891.39	41220891.66	0.0294	0.0035
Mercury	108150-07-12 08:08 G	41222228.73	41222228.84	41222228.94	0.0297	0.0168
Mercury	108150-10-08 20:37 G	41222317.22	41222317.36	41222317.49	0.0297	0.0014
Mercury	108151-01-05 08:51 G	41222405.77	41222405.87	41222405.97	0.0297	0.0186
Venus	108152-02-08 15:35 G	41222804.96	41222805.15	41222805.36	0.0295	0.0114
Venus	108152-09-25 20:08 G	41223035.25	41223035.34	41223035.45	0.0293	0.0258
Moon	108156-07-31 13:39 G	41224439.87	41224440.07	41224440.26	0.0280	0.0177
Earth	108156-07-31 15:35 G	41224439.97	41224440.15	41224440.36	0.0280	0.0167 *
Moon	108157-08-13 19:39 G	41224818.09	41224818.32	41224818.56	0.0276	0.0071
Earth	108157-08-13 23:30 G	41224818.24	41224818.48	41224818.72	0.0276	0.0074 *
Mars	108161-01-19 23:15 G	41226073.25	41226073.47	41226073.71	0.0267	0.0188
Mercury	108165-07-26 20:23 G	41227722.21	41227722.35	41227722.51	0.0263	0.0162
Mercury	108165-10-23 17:15 G	41227811.04	41227811.22	41227811.41	0.0264	0.0020

Mercury	108166-01-20 14:08 G	41227899.98	41227900.09	41227900.22	0.0264	0.0202
Venus	108167-03-07 11:30 G	41228310.87	41228310.98	41228311.11	0.0265	0.0219
Venus	108167-10-22 09:06 G	41228539.67	41228539.88	41228540.09	0.0266	0.0043
Jupiter	108168-03-03 16:47 G	41228673.10	41228673.20	41228673.35	0.0267	0.0257
Earth	108172-01-26 06:13 G	41230096.66	41230096.76	41230096.88	0.0279	0.0250
Moon	108172-01-26 08:23 G	41230096.76	41230096.85	41230096.94	0.0279	0.0257 *
Earth	108173-02-07 03:06 G	41230474.39	41230474.63	41230474.87	0.0283	0.0013
Moon	108173-02-07 06:56 G	41230474.54	41230474.79	41230475.03	0.0283	0.0028 *
Earth	108174-02-20 08:37 G	41230852.74	41230852.86	41230853.00	0.0287	0.0239
Moon	108174-02-20 09:20 G	41230852.74	41230852.89	41230853.06	0.0287	0.0222 *
Mercury	108179-11-29 09:35 G	41232960.82	41232960.90	41232960.99	0.0298	0.0227
Mercury	108180-02-25 22:03 G	41233049.29	41233049.42	41233049.55	0.0297	0.0048
Mercury	108180-05-24 10:32 G	41233137.82	41233137.94	41233138.05	0.0297	0.0130
Venus	108181-08-20 21:06 G	41233591.17	41233591.38	41233591.59	0.0295	0.0068
Earth	108185-07-25 23:44 G	41235026.44	41235026.49	41235026.53	0.0282	0.0276
Earth	108186-08-08 11:59 G	41235404.75	41235405.00	41235405.25	0.0278	0.0031
Moon	108186-08-08 15:06 G	41235404.88	41235405.13	41235405.39	0.0278	0.0031 *
Moon	108187-08-21 14:08 G	41235782.93	41235783.09	41235783.25	0.0274	0.0211
Earth	108187-08-21 15:20 G	41235782.97	41235783.14	41235783.31	0.0274	0.0202 *
Mercury	108194-12-13 20:51 G	41238454.26	41238454.37	41238454.50	0.0264	0.0203
Mercury	108195-03-12 17:44 G	41238543.05	41238543.24	41238543.43	0.0264	0.0023
Mercury	108195-06-09 14:37 G	41238631.96	41238632.11	41238632.26	0.0264	0.0160
Venus	108196-09-16 17:15 G	41239097.07	41239097.22	41239097.38	0.0266	0.0177
Venus	108197-05-03 14:37 G	41239325.92	41239326.11	41239326.31	0.0267	0.0087
Moon	108202-02-02 21:49 G	41241061.20	41241061.41	41241061.62	0.0282	0.0135
Earth	108202-02-03 00:27 G	41241061.31	41241061.52	41241061.74	0.0282	0.0118 *
Earth	108203-02-16 02:37 G	41241439.39	41241439.61	41241439.83	0.0286	0.0130
Moon	108203-02-16 03:20 G	41241439.44	41241439.64	41241439.87	0.0286	0.0115 *
Mercury	108209-04-18 12:42 G	41243692.98	41243693.03	41243693.10	0.0297	0.0261
Mercury	108209-07-16 01:25 G	41243781.44	41243781.56	41243781.69	0.0297	0.0081

Mercury	108209-10-12 13:54 G	41243869.96	41243870.08	41243870.20	0.0297	0.0097
Mercury	108210-01-09 02:08 G	41243958.54	41243958.59	41243958.64	0.0297	0.0272
Venus	108211-03-04 09:06 G	41244377.67	41244377.88	41244378.10	0.0294	0.0005
Moon	108215-08-04 03:49 G	41245991.45	41245991.66	41245991.87	0.0280	0.0133
Earth	108215-08-04 05:01 G	41245991.50	41245991.71	41245991.94	0.0280	0.0139 *
Earth	108216-08-16 11:59 G	41246369.77	41246370.00	41246370.24	0.0276	0.0101
Moon	108216-08-16 14:23 G	41246369.88	41246370.10	41246370.32	0.0276	0.0113 *
Mercury	108224-05-02 20:37 G	41249186.31	41249186.36	41249186.43	0.0263	0.0249
Mercury	108224-07-30 17:30 G	41249275.05	41249275.23	41249275.41	0.0263	0.0070
Mercury	108224-10-27 14:08 G	41249363.92	41249364.09	41249364.26	0.0263	0.0111
Venus	108226-03-30 20:23 G	41249883.18	41249883.35	41249883.54	0.0265	0.0140
Venus	108226-11-14 17:44 G	41250112.06	41250112.24	41250112.43	0.0266	0.0124
Earth	108231-01-28 13:54 G	41251647.95	41251648.08	41251648.23	0.0279	0.0226
Moon	108231-01-28 15:06 G	41251648.02	41251648.13	41251648.27	0.0279	0.0241 *
Moon	108232-02-10 08:23 G	41252025.60	41252025.85	41252026.10	0.0283	0.0001
Earth	108232-02-10 11:15 G	41252025.73	41252025.97	41252026.22	0.0283	0.0014 *
Moon	108233-02-22 14:08 G	41252404.00	41252404.09	41252404.20	0.0287	0.0257
Earth	108233-02-22 17:44 G	41252404.15	41252404.24	41252404.33	0.0287	0.0265 *
Mars	108235-04-09 14:08 G	41253179.82	41253180.09	41253180.35	0.0294	0.0041
Mercury	108238-12-03 02:37 G	41254513.49	41254513.61	41254513.72	0.0298	0.0146
Mercury	108239-03-01 15:06 G	41254602.00	41254602.13	41254602.26	0.0297	0.0034
Mercury	108239-05-29 03:20 G	41254690.55	41254690.64	41254690.73	0.0297	0.0210
Venus	108240-09-13 12:27 G	41255163.81	41255164.02	41255164.24	0.0295	0.0039
Moon	108244-07-28 09:35 G	41256577.77	41256577.90	41256578.03	0.0282	0.0239
Earth	108244-07-28 10:03 G	41256577.83	41256577.92	41256578.05	0.0282	0.0251 *
Moon	108245-08-10 18:27 G	41256956.02	41256956.27	41256956.52	0.0278	0.0011
Earth	108245-08-10 22:18 G	41256956.18	41256956.43	41256956.68	0.0278	0.0005 *
Moon	108246-08-23 22:32 G	41257334.33	41257334.44	41257334.56	0.0274	0.0241
Earth	108246-08-24 00:42 G	41257334.40	41257334.53	41257334.67	0.0274	0.0226 *
Mercury	108253-12-17 17:01 G	41260007.05	41260007.21	41260007.39	0.0264	0.0118

Mercury	108254-03-16 13:54 G	41260095.90	41260096.08	41260096.27	0.0264	0.0064
Mercury	108254-06-13 10:47 G	41260184.89	41260184.95	41260185.02	0.0264	0.0247
Venus	108255-10-11 00:56 G	41260669.35	41260669.54	41260669.74	0.0266	0.0100
Venus	108256-05-26 22:18 G	41260898.27	41260898.43	41260898.60	0.0267	0.0164
Earth	108261-02-04 05:59 G	41262612.52	41262612.75	41262612.98	0.0282	0.0095
Moon	108261-02-04 09:35 G	41262612.68	41262612.90	41262613.13	0.0282	0.0106 *
Earth	108262-02-17 08:37 G	41262990.66	41262990.86	41262991.06	0.0286	0.0153
Moon	108262-02-17 10:32 G	41262990.74	41262990.94	41262991.16	0.0286	0.0150 *
Mercury	108268-04-21 05:30 G	41265245.63	41265245.73	41265245.84	0.0297	0.0183
Mercury	108268-07-18 17:59 G	41265334.12	41265334.25	41265334.38	0.0297	0.0009
Mercury	108268-10-15 06:27 G	41265422.66	41265422.77	41265422.87	0.0297	0.0172
Venus	108269-08-08 17:59 G	41265720.18	41265720.25	41265720.34	0.0296	0.0273
Venus	108270-03-26 23:30 G	41265950.28	41265950.48	41265950.68	0.0294	0.0103
Earth	108274-08-05 14:37 G	41267542.89	41267543.11	41267543.34	0.0280	0.0113
Moon	108274-08-05 18:27 G	41267543.04	41267543.27	41267543.51	0.0280	0.0096 *
Earth	108275-08-18 20:51 G	41267921.16	41267921.37	41267921.60	0.0276	0.0126
Moon	108275-08-18 21:49 G	41267921.20	41267921.41	41267921.64	0.0276	0.0140 *
Mercury	108283-05-06 16:32 G	41270739.06	41270739.19	41270739.35	0.0263	0.0166
Mercury	108283-08-03 13:25 G	41270827.87	41270828.06	41270828.25	0.0263	0.0014
Mercury	108283-10-31 10:18 G	41270916.80	41270916.93	41270917.06	0.0263	0.0195
Venus	108285-04-22 03:49 G	41271455.46	41271455.66	41271455.87	0.0265	0.0064
Venus	108285-12-07 00:56 G	41271684.41	41271684.54	41271684.68	0.0267	0.0200
Moon	108290-01-29 15:06 G	41273198.98	41273199.13	41273199.29	0.0280	0.0210
Earth	108290-01-29 18:27 G	41273199.11	41273199.27	41273199.44	0.0280	0.0204 *
Earth	108291-02-11 16:03 G	41273576.93	41273577.17	41273577.41	0.0284	0.0036
Moon	108291-02-11 16:03 G	41273576.94	41273577.17	41273577.40	0.0284	0.0039 *
Mercury	108297-09-08 06:27 G	41275977.70	41275977.77	41275977.83	0.0298	0.0253
Mercury	108297-12-05 18:56 G	41276066.16	41276066.29	41276066.41	0.0298	0.0073
Mercury	108298-03-04 07:11 G	41276154.68	41276154.80	41276154.93	0.0297	0.0105
Mercury	108298-05-31 19:25 G	41276243.28	41276243.31	41276243.36	0.0297	0.0281

Venus	108299-02-18 20:23 G	41276506.23	41276506.35	41276506.48	0.0296	0.0237
Venus	108299-10-07 01:25 G	41276736.38	41276736.56	41276736.76	0.0295	0.0140
Moon	108303-07-31 15:20 G	41278128.99	41278129.14	41278129.31	0.0281	0.0211
Earth	108303-07-31 17:30 G	41278129.09	41278129.23	41278129.38	0.0281	0.0227 *
Earth	108304-08-13 05:01 G	41278507.46	41278507.71	41278507.96	0.0277	0.0018
Moon	108304-08-13 06:27 G	41278507.53	41278507.77	41278508.01	0.0277	0.0030 *
Earth	108305-08-26 06:42 G	41278885.69	41278885.78	41278885.90	0.0274	0.0248
Moon	108305-08-26 10:32 G	41278885.85	41278885.94	41278886.04	0.0274	0.0251 *
Mercury	108312-09-23 15:49 G	41281471.07	41281471.16	41281471.27	0.0263	0.0218
Mercury	108312-12-21 12:42 G	41281559.84	41281560.03	41281560.21	0.0264	0.0039
Mercury	108313-03-20 09:20 G	41281648.74	41281648.89	41281649.05	0.0264	0.0143
Venus	108314-11-03 07:11 G	41282241.59	41282241.80	41282242.01	0.0266	0.0027
Venus	108315-06-20 04:32 G	41282470.59	41282470.69	41282470.78	0.0267	0.0238
Moon	108320-02-07 06:13 G	41284163.52	41284163.76	41284164.00	0.0282	0.0066
Earth	108320-02-07 08:23 G	41284163.62	41284163.85	41284164.08	0.0282	0.0075 *
Moon	108321-02-19 07:25 G	41284541.64	41284541.81	41284542.00	0.0286	0.0189
Earth	108321-02-19 11:15 G	41284541.79	41284541.97	41284542.17	0.0286	0.0174 *
Mars	108323-09-04 11:59 G	41285468.77	41285469.00	41285469.25	0.0294	0.0136
Mercury	108327-01-27 08:51 G	41286709.87	41286709.87	41286709.88	0.0297	0.0297
Mercury	108327-04-25 21:20 G	41286798.27	41286798.39	41286798.51	0.0297	0.0117
Mercury	108327-07-23 09:49 G	41286886.79	41286886.91	41286887.04	0.0297	0.0062
Mercury	108327-10-19 22:18 G	41286975.35	41286975.43	41286975.50	0.0297	0.0238
Venus	108328-09-01 05:30 G	41287292.56	41287292.73	41287292.90	0.0295	0.0179
Venus	108329-04-19 10:32 G	41287522.79	41287522.94	41287523.10	0.0294	0.0197
Moon	108333-08-07 16:18 G	41289093.95	41289094.18	41289094.43	0.0279	0.0084
Earth	108333-08-07 19:54 G	41289094.10	41289094.33	41289094.57	0.0279	0.0090 *
Moon	108334-08-20 22:47 G	41289472.25	41289472.45	41289472.66	0.0276	0.0147
Earth	108334-08-21 01:54 G	41289472.38	41289472.58	41289472.80	0.0276	0.0148 *
Mercury	108342-05-10 12:13 G	41292291.83	41292292.01	41292292.19	0.0263	0.0088
Mercury	108342-08-07 08:51 G	41292380.69	41292380.87	41292381.05	0.0263	0.0092

Venus	108343-09-29 13:11 G	41292798.99	41292799.05	41292799.12	0.0264	0.0251
Venus	108344-05-15 10:03 G	41293027.71	41293027.92	41293028.13	0.0265	0.0010
Earth	108349-01-31 19:54 G	41294750.16	41294750.33	41294750.52	0.0279	0.0184
Moon	108349-01-31 23:30 G	41294750.29	41294750.48	41294750.67	0.0279	0.0171 *
Earth	108350-02-13 17:44 G	41295128.01	41295128.24	41295128.48	0.0283	0.0057
Moon	108350-02-13 20:23 G	41295128.12	41295128.35	41295128.60	0.0283	0.0074 *
Mercury	108356-09-11 21:49 G	41297530.31	41297530.41	41297530.51	0.0298	0.0191
Mercury	108356-12-09 10:18 G	41297618.80	41297618.93	41297619.06	0.0298	0.0012
Mercury	108357-03-07 22:47 G	41297707.34	41297707.45	41297707.56	0.0297	0.0166
Venus	108358-03-14 06:13 G	41298078.58	41298078.76	41298078.95	0.0296	0.0147
Venus	108358-10-30 11:15 G	41298308.85	41298308.97	41298309.11	0.0294	0.0230
Earth	108362-08-01 20:23 G	41299680.18	41299680.35	41299680.52	0.0281	0.0206
Moon	108362-08-02 00:13 G	41299680.35	41299680.51	41299680.68	0.0281	0.0205 *
Earth	108363-08-15 07:39 G	41300058.57	41300058.82	41300059.07	0.0277	0.0039
Moon	108363-08-15 09:06 G	41300058.62	41300058.88	41300059.14	0.0277	0.0032 *
Moon	108364-08-27 06:13 G	41300436.68	41300436.76	41300436.88	0.0274	0.0253
Earth	108364-08-27 09:20 G	41300436.85	41300436.89	41300436.95	0.0274	0.0268 *
Mercury	108371-09-27 10:32 G	41303023.79	41303023.94	41303024.10	0.0263	0.0146
Mercury	108371-12-25 07:11 G	41303112.62	41303112.80	41303112.99	0.0263	0.0034
Mercury	108372-03-23 03:49 G	41303201.56	41303201.66	41303201.78	0.0264	0.0216
Venus	108373-04-10 14:37 G	41303585.01	41303585.11	41303585.24	0.0265	0.0219
Venus	108373-11-25 11:44 G	41303813.79	41303813.99	41303814.20	0.0266	0.0043
Moon	108378-01-26 10:32 G	41305336.90	41305336.94	41305336.98	0.0278	0.0274
Moon	108379-02-08 07:11 G	41305714.57	41305714.80	41305715.04	0.0282	0.0041
Earth	108379-02-08 07:39 G	41305714.59	41305714.82	41305715.07	0.0282	0.0058 *
Earth	108380-02-21 10:47 G	41306092.77	41306092.95	41306093.13	0.0286	0.0192
Moon	108380-02-21 13:39 G	41306092.91	41306093.07	41306093.24	0.0286	0.0205 *
Mercury	108386-01-29 23:59 G	41308262.43	41308262.50	41308262.58	0.0297	0.0239
Mercury	108386-04-28 12:42 G	41308350.90	41308351.03	41308351.16	0.0297	0.0059
Mercury	108386-07-26 01:11 G	41308439.43	41308439.55	41308439.67	0.0297	0.0119

Mercury	108386-10-22 13:25 G	41308528.05	41308528.06	41308528.07	0.0297	0.0295
Venus	108387-09-24 14:23 G	41308864.90	41308865.10	41308865.31	0.0295	0.0091
Venus	108388-05-11 19:25 G	41309095.27	41309095.31	41309095.37	0.0294	0.0285
Earth	108392-08-08 21:35 G	41310645.16	41310645.40	41310645.64	0.0279	0.0069
Moon	108392-08-08 22:32 G	41310645.21	41310645.44	41310645.67	0.0279	0.0082 *
Earth	108393-08-22 03:20 G	41311023.45	41311023.64	41311023.85	0.0276	0.0168
Moon	108393-08-22 06:56 G	41311023.60	41311023.79	41311024.01	0.0276	0.0152 *
Mercury	108401-02-13 09:49 G	41313755.80	41313755.91	41313756.05	0.0263	0.0196
Mercury	108401-05-13 06:42 G	41313844.59	41313844.78	41313844.97	0.0263	0.0017
Mercury	108401-08-10 03:06 G	41313933.49	41313933.63	41313933.79	0.0263	0.0165
Venus	108402-10-21 17:59 G	41314371.10	41314371.25	41314371.40	0.0265	0.0183
Venus	108403-06-07 14:37 G	41314599.91	41314600.11	41314600.31	0.0266	0.0078
Moon	108408-02-02 17:59 G	41316301.05	41316301.25	41316301.47	0.0279	0.0152
Earth	108408-02-02 19:39 G	41316301.13	41316301.32	41316301.52	0.0279	0.0165 *
Moon	108409-02-14 13:39 G	41316678.84	41316679.07	41316679.31	0.0283	0.0082
Earth	108409-02-14 17:30 G	41316679.00	41316679.23	41316679.47	0.0283	0.0076 *
Mars	108412-01-28 04:18 G	41317756.45	41317756.68	41317756.92	0.0294	0.0143
Mercury	108415-09-15 12:56 G	41319082.92	41319083.04	41319083.16	0.0298	0.0136
Mercury	108415-12-13 01:25 G	41319171.43	41319171.56	41319171.69	0.0298	0.0043
Mercury	108416-03-10 13:39 G	41319259.99	41319260.07	41319260.16	0.0297	0.0220
Venus	108417-04-05 14:08 G	41319650.89	41319651.09	41319651.31	0.0296	0.0062
Moon	108421-08-02 16:32 G	41321231.02	41321231.19	41321231.37	0.0281	0.0204
Earth	108421-08-02 19:39 G	41321231.15	41321231.32	41321231.52	0.0281	0.0188 *
Moon	108422-08-16 03:35 G	41321609.41	41321609.65	41321609.90	0.0277	0.0041
Earth	108422-08-16 06:56 G	41321609.55	41321609.79	41321610.04	0.0277	0.0058 *
Mercury	108430-07-03 07:54 G	41324487.81	41324487.83	41324487.87	0.0263	0.0258
Mercury	108430-09-30 04:32 G	41324576.51	41324576.69	41324576.87	0.0263	0.0080
Mercury	108430-12-28 01:11 G	41324665.38	41324665.55	41324665.73	0.0263	0.0101
Venus	108432-05-02 18:42 G	41325157.12	41325157.28	41325157.46	0.0265	0.0153
Venus	108432-12-17 15:35 G	41325385.96	41325386.15	41325386.34	0.0266	0.0109

Earth	108437-01-27 11:59 G	41326887.95	41326888.00	41326888.06	0.0278	0.0270
Moon	108437-01-27 14:51 G	41326888.05	41326888.12	41326888.21	0.0278	0.0261 *
Earth	108438-02-09 05:44 G	41327265.51	41327265.74	41327265.99	0.0282	0.0039
Moon	108438-02-09 08:51 G	41327265.63	41327265.87	41327266.12	0.0282	0.0038 *
Moon	108439-02-22 07:39 G	41327643.65	41327643.82	41327644.00	0.0286	0.0200
Earth	108439-02-22 08:37 G	41327643.70	41327643.86	41327644.03	0.0286	0.0210 *
Mercury	108445-02-01 14:51 G	41329815.02	41329815.12	41329815.22	0.0297	0.0187
Mercury	108445-05-01 03:20 G	41329903.51	41329903.64	41329903.78	0.0297	0.0012
Mercury	108445-07-28 15:49 G	41329992.05	41329992.16	41329992.27	0.0297	0.0170
Venus	108446-10-16 21:20 G	41330437.17	41330437.39	41330437.60	0.0295	0.0010
Earth	108451-08-10 19:39 G	41332196.08	41332196.32	41332196.57	0.0279	0.0051
Moon	108451-08-10 21:35 G	41332196.15	41332196.40	41332196.65	0.0279	0.0065 *
Moon	108452-08-22 23:30 G	41332574.29	41332574.48	41332574.68	0.0276	0.0179
Earth	108452-08-23 01:54 G	41332574.40	41332574.58	41332574.77	0.0276	0.0185 *
Mercury	108460-02-17 04:03 G	41335308.51	41335308.67	41335308.84	0.0263	0.0129
Mercury	108460-05-16 00:42 G	41335397.34	41335397.53	41335397.72	0.0263	0.0050
Mercury	108460-08-12 21:20 G	41335486.31	41335486.39	41335486.48	0.0263	0.0232
Venus	108461-11-12 21:35 G	41335943.22	41335943.40	41335943.59	0.0265	0.0117
Venus	108462-06-29 18:13 G	41336172.09	41336172.26	41336172.44	0.0266	0.0145
Moon	108467-02-03 16:47 G	41337852.01	41337852.20	41337852.40	0.0279	0.0152
Earth	108467-02-03 17:44 G	41337852.04	41337852.24	41337852.45	0.0279	0.0146 *
Earth	108468-02-16 15:20 G	41338229.92	41338230.14	41338230.37	0.0283	0.0094
Moon	108468-02-16 18:13 G	41338230.04	41338230.26	41338230.49	0.0283	0.0081 *
Mercury	108474-06-21 14:51 G	41340547.07	41340547.12	41340547.18	0.0298	0.0266
Mercury	108474-09-18 03:35 G	41340635.52	41340635.65	41340635.78	0.0298	0.0085
Mercury	108474-12-15 16:03 G	41340724.04	41340724.17	41340724.29	0.0298	0.0093
Mercury	108475-03-14 04:18 G	41340812.63	41340812.68	41340812.73	0.0297	0.0270
Venus	108476-04-27 20:51 G	41341223.15	41341223.37	41341223.58	0.0295	0.0021
Earth	108480-08-03 17:30 G	41342782.04	41342782.23	41342782.43	0.0281	0.0170
Moon	108480-08-03 18:13 G	41342782.09	41342782.26	41342782.46	0.0281	0.0179 *

Earth	108481-08-17 04:18 G	41343160.45	41343160.68	41343160.93	0.0277	0.0075
Moon	108481-08-17 08:08 G	41343160.60	41343160.84	41343161.08	0.0277	0.0073 *
Mercury	108489-07-06 01:39 G	41346040.45	41346040.57	41346040.70	0.0263	0.0195
Mercury	108489-10-02 22:18 G	41346129.24	41346129.43	41346129.62	0.0263	0.0016
Mercury	108489-12-30 18:56 G	41346218.15	41346218.29	41346218.44	0.0263	0.0165
Venus	108491-05-25 22:03 G	41346729.22	41346729.42	41346729.62	0.0265	0.0089
Venus	108492-01-09 18:42 G	41346958.13	41346958.28	41346958.44	0.0266	0.0174
Moon	108496-01-29 07:54 G	41348438.76	41348438.83	41348438.92	0.0278	0.0262
Earth	108496-01-29 08:51 G	41348438.79	41348438.87	41348438.99	0.0278	0.0253 *
Moon	108497-02-09 23:15 G	41348816.23	41348816.47	41348816.71	0.0282	0.0038
Earth	108497-02-10 03:06 G	41348816.39	41348816.63	41348816.87	0.0282	0.0021 *
Moon	108498-02-23 04:03 G	41349194.53	41349194.67	41349194.84	0.0286	0.0213
Earth	108498-02-23 05:30 G	41349194.60	41349194.73	41349194.89	0.0286	0.0227 *
Mars	108500-06-23 04:32 G	41350044.47	41350044.69	41350044.90	0.0294	0.0173
Mercury	108504-02-06 05:15 G	41351367.61	41351367.72	41351367.84	0.0297	0.0140
Mercury	108504-05-04 17:59 G	41351456.12	41351456.25	41351456.38	0.0297	0.0040
Mercury	108504-08-01 06:13 G	41351544.68	41351544.76	41351544.85	0.0297	0.0217
Venus	108505-11-09 03:06 G	41352009.42	41352009.63	41352009.84	0.0295	0.0071
Moon	108509-07-29 20:51 G	41353368.36	41353368.37	41353368.41	0.0283	0.0282
Earth	108509-07-30 00:13 G	41353368.50	41353368.51	41353368.54	0.0283	0.0282
Moon	108510-08-12 12:27 G	41353746.78	41353747.02	41353747.27	0.0279	0.0029
Earth	108510-08-12 16:03 G	41353746.93	41353747.17	41353747.42	0.0279	0.0034 *
Earth	108511-08-25 22:32 G	41354125.27	41354125.44	41354125.61	0.0276	0.0201
Moon	108511-08-25 22:18 G	41354125.29	41354125.43	41354125.59	0.0276	0.0214 *
Mercury	108518-11-24 01:11 G	41356772.49	41356772.55	41356772.63	0.0263	0.0243
Mercury	108519-02-20 21:49 G	41356861.23	41356861.41	41356861.59	0.0263	0.0065
Mercury	108519-05-20 18:27 G	41356950.10	41356950.27	41356950.44	0.0263	0.0115
Venus	108520-12-06 01:11 G	41357515.35	41357515.55	41357515.76	0.0265	0.0052
Venus	108521-07-22 22:03 G	41357744.29	41357744.42	41357744.54	0.0266	0.0210
Earth	108526-02-05 16:18 G	41359402.97	41359403.18	41359403.40	0.0279	0.0127

Moon	108526-02-05 19:25 G	41359403.11	41359403.31	41359403.53	0.0279	0.0144	*
Moon	108527-02-18 13:11 G	41359780.82	41359781.05	41359781.28	0.0283	0.0101	
Earth	108527-02-18 13:39 G	41359780.86	41359781.07	41359781.30	0.0283	0.0114	*
Mercury	108533-06-25 05:30 G	41362099.65	41362099.73	41362099.82	0.0298	0.0216	
Mercury	108533-09-21 18:13 G	41362188.13	41362188.26	41362188.39	0.0298	0.0037	
Mercury	108533-12-19 06:42 G	41362276.66	41362276.78	41362276.89	0.0297	0.0142	
Venus	108534-10-03 21:06 G	41362565.32	41362565.38	41362565.46	0.0296	0.0280	
Venus	108535-05-22 02:37 G	41362795.41	41362795.61	41362795.81	0.0295	0.0100	
Earth	108539-08-06 13:25 G	41364332.86	41364333.06	41364333.28	0.0281	0.0153	
Moon	108539-08-06 15:06 G	41364332.92	41364333.13	41364333.36	0.0281	0.0141	*
Moon	108540-08-18 22:18 G	41364711.19	41364711.43	41364711.67	0.0278	0.0106	
Earth	108540-08-19 00:27 G	41364711.29	41364711.52	41364711.76	0.0278	0.0091	*
Mercury	108548-07-09 19:11 G	41367593.14	41367593.30	41367593.46	0.0263	0.0133	
Mercury	108548-10-06 15:49 G	41367681.97	41367682.16	41367682.34	0.0263	0.0047	
Mercury	108549-01-03 12:27 G	41367770.93	41367771.02	41367771.12	0.0263	0.0229	
Venus	108550-06-18 01:11 G	41368301.34	41368301.55	41368301.76	0.0265	0.0024	
Venus	108551-02-01 21:49 G	41368530.33	41368530.41	41368530.51	0.0266	0.0239	
Moon	108555-01-31 05:01 G	41369989.61	41369989.71	41369989.81	0.0278	0.0250	
Earth	108555-01-31 06:27 G	41369989.65	41369989.77	41369989.91	0.0278	0.0235	*
Earth	108556-02-13 00:27 G	41370367.27	41370367.52	41370367.76	0.0282	0.0004	
Moon	108556-02-13 02:51 G	41370367.38	41370367.62	41370367.86	0.0282	0.0012	*
Earth	108557-02-25 02:51 G	41370745.50	41370745.62	41370745.75	0.0286	0.0244	
Moon	108557-02-25 06:13 G	41370745.64	41370745.76	41370745.90	0.0286	0.0244	*
Mercury	108562-11-12 07:25 G	41372831.76	41372831.81	41372831.86	0.0298	0.0272	
Mercury	108563-02-08 19:54 G	41372920.21	41372920.33	41372920.46	0.0297	0.0091	
Mercury	108563-05-08 08:23 G	41373008.73	41373008.85	41373008.98	0.0297	0.0087	
Mercury	108563-08-04 20:37 G	41373097.31	41373097.36	41373097.42	0.0297	0.0264	
Venus	108564-04-15 03:20 G	41373351.51	41373351.64	41373351.78	0.0296	0.0230	
Venus	108564-12-01 08:37 G	41373581.68	41373581.86	41373582.05	0.0295	0.0150	
Moon	108568-07-30 20:51 G	41374919.26	41374919.37	41374919.48	0.0283	0.0250	

Earth	108568-07-30 20:08 G	41374919.27	41374919.34	41374919.44	0.0283	0.0265	*
Earth	108569-08-13 11:59 G	41375297.75	41375298.00	41375298.25	0.0279	0.0017	
Moon	108569-08-13 15:35 G	41375297.90	41375298.15	41375298.39	0.0279	0.0002	*
Earth	108570-08-26 18:27 G	41375676.13	41375676.27	41375676.43	0.0276	0.0218	
Moon	108570-08-26 21:06 G	41375676.25	41375676.38	41375676.53	0.0276	0.0230	*
Mercury	108577-11-26 18:56 G	41378325.16	41378325.29	41378325.43	0.0263	0.0179	
Mercury	108578-02-23 15:35 G	41378413.96	41378414.15	41378414.34	0.0263	0.0001	
Mercury	108578-05-23 11:59 G	41378502.88	41378503.00	41378503.15	0.0263	0.0182	
Venus	108579-05-14 08:08 G	41378858.78	41378858.84	41378858.92	0.0264	0.0247	
Venus	108579-12-29 04:47 G	41379087.50	41379087.70	41379087.91	0.0265	0.0015	
Moon	108585-02-06 11:59 G	41380953.78	41380954.00	41380954.23	0.0279	0.0112	
Earth	108585-02-06 15:35 G	41380953.93	41380954.15	41380954.38	0.0279	0.0107	*
Moon	108586-02-19 10:32 G	41381331.74	41381331.94	41381332.15	0.0283	0.0137	
Earth	108586-02-19 12:56 G	41381331.83	41381332.04	41381332.26	0.0283	0.0133	*
Mars	108588-11-15 21:35 G	41382332.21	41382332.40	41382332.62	0.0293	0.0189	
Mercury	108592-06-27 20:23 G	41383652.24	41383652.35	41383652.46	0.0297	0.0164	
Mercury	108592-09-24 08:51 G	41383740.74	41383740.87	41383741.00	0.0297	0.0017	
Mercury	108592-12-21 21:20 G	41383829.29	41383829.39	41383829.49	0.0297	0.0192	
Venus	108593-10-26 04:03 G	41384137.51	41384137.67	41384137.83	0.0296	0.0197	
Venus	108594-06-13 09:06 G	41384367.72	41384367.88	41384368.06	0.0295	0.0182	
Moon	108598-08-07 06:27 G	41385883.55	41385883.77	41385884.00	0.0281	0.0120	
Earth	108598-08-07 10:32 G	41385883.72	41385883.94	41385884.16	0.0281	0.0136	*
Moon	108599-08-20 19:54 G	41386262.12	41386262.33	41386262.55	0.0278	0.0118	
Earth	108599-08-20 21:06 G	41386262.16	41386262.38	41386262.62	0.0278	0.0108	*
Mercury	108607-04-16 16:03 G	41389057.12	41389057.17	41389057.25	0.0263	0.0248	
Mercury	108607-07-14 12:56 G	41389145.86	41389146.04	41389146.22	0.0263	0.0068	
Mercury	108607-10-11 09:35 G	41389234.73	41389234.90	41389235.07	0.0263	0.0112	
Venus	108608-11-24 07:39 G	41389644.72	41389644.82	41389644.95	0.0265	0.0220	
Venus	108609-07-11 04:47 G	41389873.49	41389873.70	41389873.91	0.0265	0.0042	
Earth	108614-02-02 05:59 G	41391540.61	41391540.75	41391540.91	0.0278	0.0215	

Moon	108614-02-02 09:35 G	41391540.76	41391540.90	41391541.06	0.0278	0.0219	*
Earth	108615-02-14 23:59 G	41391918.26	41391918.50	41391918.74	0.0282	0.0018	
Moon	108615-02-15 01:11 G	41391918.30	41391918.55	41391918.80	0.0282	0.0024	*
Moon	108616-02-27 23:44 G	41392296.44	41392296.49	41392296.55	0.0286	0.0278	
Earth	108616-02-28 02:23 G	41392296.52	41392296.60	41392296.70	0.0286	0.0264	*
Mercury	108621-11-15 22:03 G	41394384.34	41394384.42	41394384.51	0.0297	0.0219	
Mercury	108622-02-12 10:47 G	41394472.82	41394472.95	41394473.08	0.0297	0.0041	
Mercury	108622-05-11 23:01 G	41394561.35	41394561.46	41394561.58	0.0297	0.0138	
Venus	108623-05-09 10:03 G	41394923.74	41394923.92	41394924.11	0.0296	0.0148	
Venus	108623-12-25 15:20 G	41395154.01	41395154.14	41395154.28	0.0294	0.0231	
Earth	108627-08-02 16:47 G	41396470.09	41396470.20	41396470.33	0.0283	0.0247	
Moon	108627-08-02 20:08 G	41396470.20	41396470.34	41396470.49	0.0283	0.0231	*
Moon	108628-08-15 08:23 G	41396848.59	41396848.85	41396849.11	0.0279	0.0010	
Earth	108628-08-15 08:37 G	41396848.61	41396848.86	41396849.11	0.0279	0.0001	*
Moon	108629-08-28 11:30 G	41397226.86	41397226.98	41397227.12	0.0276	0.0234	
Earth	108629-08-28 15:20 G	41397227.01	41397227.14	41397227.27	0.0276	0.0235	*
Mercury	108636-11-30 12:56 G	41399877.88	41399878.04	41399878.21	0.0264	0.0113	
Mercury	108637-02-27 09:35 G	41399966.72	41399966.90	41399967.09	0.0264	0.0068	
Mercury	108637-05-27 06:13 G	41400055.71	41400055.76	41400055.83	0.0264	0.0250	
Venus	108638-06-06 12:13 G	41400430.87	41400431.01	41400431.18	0.0265	0.0180	
Venus	108639-01-21 09:06 G	41400659.69	41400659.88	41400660.08	0.0266	0.0082	
Earth	108644-02-09 16:47 G	41402504.97	41402505.20	41402505.44	0.0279	0.0086	
Moon	108644-02-09 17:01 G	41402504.99	41402505.21	41402505.44	0.0279	0.0077	*
Earth	108645-02-21 14:23 G	41402882.90	41402883.10	41402883.30	0.0283	0.0154	
Moon	108645-02-21 17:44 G	41402883.06	41402883.24	41402883.44	0.0283	0.0171	*
Mercury	108651-04-04 23:01 G	41405116.43	41405116.46	41405116.49	0.0297	0.0286	
Mercury	108651-07-02 11:30 G	41405204.86	41405204.98	41405205.10	0.0297	0.0107	
Mercury	108651-09-28 23:59 G	41405293.37	41405293.50	41405293.63	0.0297	0.0071	
Mercury	108651-12-26 12:13 G	41405381.95	41405382.01	41405382.09	0.0297	0.0248	
Venus	108652-11-18 11:59 G	41405709.80	41405710.00	41405710.20	0.0296	0.0111	

Venus	108653-07-06 17:01 G	41405940.12	41405940.21	41405940.30	0.0294	0.0267
Earth	108657-08-09 08:37 G	41407434.64	41407434.86	41407435.09	0.0281	0.0117
Moon	108657-08-09 11:01 G	41407434.74	41407434.96	41407435.18	0.0281	0.0112 *
Earth	108658-08-22 19:25 G	41407813.09	41407813.31	41407813.54	0.0278	0.0126
Moon	108658-08-22 23:01 G	41407813.25	41407813.46	41407813.69	0.0278	0.0125 *
Mercury	108666-04-19 10:18 G	41410609.80	41410609.93	41410610.08	0.0263	0.0180
Mercury	108666-07-17 07:11 G	41410698.61	41410698.80	41410698.98	0.0263	0.0006
Mercury	108666-10-14 03:49 G	41410787.52	41410787.66	41410787.80	0.0264	0.0182
Venus	108667-12-17 12:27 G	41411216.85	41411217.02	41411217.19	0.0265	0.0152
Venus	108668-08-02 09:20 G	41411445.70	41411445.89	41411446.08	0.0266	0.0111
Moon	108673-02-03 05:59 G	41413091.57	41413091.75	41413091.94	0.0278	0.0183
Earth	108673-02-03 07:39 G	41413091.65	41413091.82	41413092.00	0.0278	0.0194 *
Moon	108674-02-15 21:49 G	41413469.18	41413469.41	41413469.65	0.0282	0.0057
Earth	108674-02-16 01:39 G	41413469.33	41413469.57	41413469.81	0.0282	0.0040 *
Earth	108675-03-01 04:18 G	41413847.68	41413847.68	41413847.69	0.0286	0.0286
Mars	108677-04-12 04:03 G	41414620.51	41414620.67	41414620.83	0.0293	0.0233
Mercury	108680-11-18 13:25 G	41415936.95	41415937.06	41415937.17	0.0297	0.0161
Mercury	108681-02-15 01:54 G	41416025.45	41416025.58	41416025.71	0.0297	0.0018
Mercury	108681-05-14 14:23 G	41416114.00	41416114.10	41416114.19	0.0297	0.0195
Venus	108682-05-31 18:42 G	41416496.07	41416496.28	41416496.49	0.0295	0.0060
Moon	108686-08-03 12:56 G	41418020.89	41418021.04	41418021.19	0.0283	0.0226
Earth	108686-08-03 16:03 G	41418021.04	41418021.17	41418021.33	0.0283	0.0227 *
Moon	108687-08-17 04:03 G	41418399.43	41418399.67	41418399.92	0.0279	0.0016
Earth	108687-08-17 07:39 G	41418399.57	41418399.82	41418400.06	0.0279	0.0022 *
Earth	108688-08-29 13:54 G	41418777.99	41418778.08	41418778.18	0.0276	0.0254
Moon	108688-08-29 14:08 G	41418777.99	41418778.09	41418778.21	0.0276	0.0243 *
Mercury	108695-09-06 11:01 G	41421341.86	41421341.96	41421342.06	0.0264	0.0221
Mercury	108695-12-04 07:25 G	41421430.63	41421430.81	41421431.00	0.0264	0.0042
Mercury	108696-03-02 04:03 G	41421519.52	41421519.67	41421519.84	0.0264	0.0140
Venus	108697-06-28 17:44 G	41422003.05	41422003.24	41422003.43	0.0265	0.0109

Venus	108698-02-12 14:23 G	41422231.94	41422232.10	41422232.28	0.0266	0.0154
Earth	108703-02-11 21:06 G	41424056.15	41424056.38	41424056.62	0.0280	0.0062
Moon	108703-02-12 00:27 G	41424056.28	41424056.52	41424056.76	0.0280	0.0045 *
Moon	108704-02-24 18:42 G	41424434.11	41424434.28	41424434.47	0.0283	0.0193
Earth	108704-02-24 19:11 G	41424434.12	41424434.30	41424434.49	0.0283	0.0179 *
Mercury	108710-04-08 14:51 G	41426669.03	41426669.12	41426669.21	0.0297	0.0219
Mercury	108710-07-06 03:20 G	41426757.51	41426757.64	41426757.77	0.0297	0.0042
Mercury	108710-10-02 15:49 G	41426846.04	41426846.16	41426846.28	0.0297	0.0136
Venus	108711-12-12 22:32 G	41427282.23	41427282.44	41427282.65	0.0295	0.0018
Earth	108716-08-11 10:03 G	41428985.68	41428985.92	41428986.15	0.0281	0.0095
Moon	108716-08-11 11:30 G	41428985.75	41428985.98	41428986.23	0.0281	0.0106 *
Moon	108717-08-24 17:59 G	41429364.03	41429364.25	41429364.48	0.0277	0.0131
Earth	108717-08-24 20:23 G	41429364.14	41429364.35	41429364.56	0.0277	0.0147 *
Mercury	108725-04-23 05:15 G	41432162.55	41432162.72	41432162.89	0.0264	0.0106
Mercury	108725-07-21 01:54 G	41432251.40	41432251.58	41432251.76	0.0264	0.0075
Mercury	108725-10-17 22:47 G	41432340.41	41432340.45	41432340.49	0.0264	0.0257
Venus	108727-01-09 18:13 G	41432789.06	41432789.26	41432789.46	0.0265	0.0080
Venus	108727-08-26 15:06 G	41433017.99	41433018.13	41433018.29	0.0266	0.0185
Moon	108732-02-06 10:32 G	41434642.76	41434642.94	41434643.15	0.0279	0.0156
Earth	108732-02-06 12:13 G	41434642.82	41434643.01	41434643.21	0.0279	0.0170 *
Earth	108733-02-18 06:42 G	41435020.55	41435020.78	41435021.02	0.0282	0.0065
Moon	108733-02-18 09:20 G	41435020.67	41435020.89	41435021.12	0.0282	0.0075 *
Mercury	108739-08-26 16:32 G	41437401.15	41437401.19	41437401.25	0.0297	0.0274
Mercury	108739-11-23 05:15 G	41437489.60	41437489.72	41437489.85	0.0297	0.0094
Mercury	108740-02-19 17:44 G	41437578.11	41437578.24	41437578.36	0.0297	0.0084
Mercury	108740-05-18 05:59 G	41437666.69	41437666.75	41437666.81	0.0297	0.0260
Venus	108741-06-24 05:15 G	41438068.51	41438068.72	41438068.94	0.0295	0.0034
Earth	108745-08-05 18:27 G	41439572.11	41439572.27	41439572.45	0.0283	0.0204
Moon	108745-08-05 19:54 G	41439572.18	41439572.33	41439572.48	0.0283	0.0220 *
Earth	108746-08-19 09:20 G	41439950.64	41439950.89	41439951.14	0.0279	0.0043

Moon	108746-08-19 12:56 G	41439950.80	41439951.04	41439951.29	0.0279	0.0027	*
Earth	108747-09-01 15:06 G	41440329.13	41440329.13	41440329.15	0.0276	0.0275	
Moon	108747-09-01 17:15 G	41440329.15	41440329.22	41440329.30	0.0276	0.0263	*
Mars	108749-09-23 19:54 G	41441082.19	41441082.33	41441082.52	0.0270	0.0233	
Mercury	108754-09-10 05:59 G	41442894.60	41442894.75	41442894.91	0.0264	0.0145	
Mercury	108754-12-08 02:37 G	41442983.43	41442983.61	41442983.80	0.0264	0.0037	
Mercury	108755-03-06 23:15 G	41443072.38	41443072.47	41443072.59	0.0264	0.0219	
Venus	108756-07-22 00:13 G	41443575.30	41443575.51	41443575.72	0.0266	0.0036	
Venus	108757-03-07 21:20 G	41443804.29	41443804.39	41443804.50	0.0266	0.0229	
Moon	108761-01-31 12:56 G	41445229.94	41445230.04	41445230.16	0.0277	0.0250	
Earth	108761-01-31 13:11 G	41445229.99	41445230.05	41445230.14	0.0277	0.0263	*
Moon	108762-02-13 00:27 G	41445607.27	41445607.52	41445607.76	0.0280	0.0032	
Earth	108762-02-13 04:03 G	41445607.43	41445607.67	41445607.91	0.0280	0.0036	*
Moon	108763-02-26 00:56 G	41445985.38	41445985.54	41445985.71	0.0284	0.0202	
Earth	108763-02-26 02:51 G	41445985.46	41445985.62	41445985.79	0.0284	0.0207	*
Mercury	108769-04-11 07:25 G	41448221.69	41448221.81	41448221.92	0.0297	0.0144	
Mercury	108769-07-08 19:54 G	41448310.20	41448310.33	41448310.46	0.0297	0.0034	
Mercury	108769-10-05 08:08 G	41448398.75	41448398.84	41448398.93	0.0296	0.0209	
Venus	108770-05-19 06:42 G	41448624.77	41448624.78	41448624.79	0.0296	0.0295	
Venus	108771-01-04 11:30 G	41448854.77	41448854.98	41448855.19	0.0295	0.0083	
Moon	108775-08-13 11:44 G	41450536.76	41450536.99	41450537.23	0.0281	0.0085	
Earth	108775-08-13 15:06 G	41450536.89	41450537.13	41450537.37	0.0281	0.0070	*
Earth	108776-08-26 00:27 G	41450915.33	41450915.52	41450915.72	0.0277	0.0170	
Moon	108776-08-26 00:42 G	41450915.35	41450915.53	41450915.74	0.0277	0.0165	*
Mercury	108784-01-28 04:03 G	41453626.56	41453626.67	41453626.79	0.0264	0.0206	
Mercury	108784-04-26 00:42 G	41453715.34	41453715.53	41453715.72	0.0264	0.0026	
Mercury	108784-07-23 21:20 G	41453804.25	41453804.39	41453804.55	0.0264	0.0156	
Venus	108786-02-01 01:25 G	41454361.35	41454361.56	41454361.77	0.0265	0.0004	
Venus	108786-09-17 22:32 G	41454590.41	41454590.44	41454590.49	0.0267	0.0261	
Earth	108791-02-07 19:54 G	41456194.12	41456194.33	41456194.54	0.0279	0.0143	

Moon	108791-02-07 23:01 G	41456194.25	41456194.46	41456194.67	0.0279	0.0145	*
Moon	108792-02-20 14:23 G	41456571.87	41456572.10	41456572.35	0.0283	0.0082	
Earth	108792-02-20 15:06 G	41456571.91	41456572.13	41456572.36	0.0283	0.0093	*
Mercury	108798-08-29 09:20 G	41458953.79	41458953.89	41458953.99	0.0297	0.0196	
Mercury	108798-11-25 21:49 G	41459042.28	41459042.41	41459042.54	0.0297	0.0019	
Mercury	108799-02-22 10:18 G	41459130.82	41459130.93	41459131.04	0.0297	0.0160	
Venus	108799-11-29 13:54 G	41459410.97	41459411.08	41459411.21	0.0296	0.0243	
Venus	108800-07-16 18:56 G	41459641.11	41459641.29	41459641.49	0.0295	0.0137	
Earth	108804-08-07 00:56 G	41461123.36	41461123.54	41461123.74	0.0282	0.0178	
Moon	108804-08-07 02:08 G	41461123.41	41461123.59	41461123.79	0.0282	0.0186	*
Moon	108805-08-20 12:27 G	41461501.77	41461502.02	41461502.27	0.0279	0.0067	
Earth	108805-08-20 15:06 G	41461501.89	41461502.13	41461502.37	0.0279	0.0068	*
Mercury	108813-06-16 05:01 G	41464358.65	41464358.71	41464358.80	0.0264	0.0243	
Mercury	108813-09-13 01:54 G	41464447.40	41464447.58	41464447.76	0.0264	0.0062	
Mercury	108813-12-10 22:32 G	41464536.28	41464536.44	41464536.61	0.0264	0.0120	
Venus	108814-12-28 11:01 G	41464918.85	41464918.96	41464919.08	0.0265	0.0221	
Venus	108815-08-14 08:08 G	41465147.64	41465147.84	41465148.05	0.0266	0.0043	
Moon	108820-02-02 20:37 G	41466781.25	41466781.36	41466781.48	0.0277	0.0242	
Earth	108820-02-02 22:32 G	41466781.32	41466781.44	41466781.57	0.0277	0.0236	*
Earth	108821-02-14 14:08 G	41467158.85	41467159.09	41467159.34	0.0281	0.0007	
Moon	108821-02-14 16:47 G	41467158.96	41467159.20	41467159.43	0.0281	0.0021	*
Earth	108822-02-27 13:39 G	41467536.95	41467537.07	41467537.21	0.0284	0.0237	
Moon	108822-02-27 17:01 G	41467537.07	41467537.21	41467537.38	0.0284	0.0220	*
Mercury	108828-01-16 11:59 G	41469685.92	41469686.00	41469686.08	0.0297	0.0239	
Mercury	108828-04-14 00:27 G	41469774.39	41469774.52	41469774.65	0.0296	0.0061	
Mercury	108828-07-11 12:56 G	41469862.92	41469863.04	41469863.16	0.0296	0.0116	
Mercury	108828-10-08 01:11 G	41469951.53	41469951.55	41469951.57	0.0296	0.0291	
Venus	108829-06-10 22:18 G	41470197.27	41470197.43	41470197.60	0.0295	0.0186	
Venus	108830-01-27 03:06 G	41470427.47	41470427.63	41470427.79	0.0294	0.0192	
Earth	108834-08-14 23:44 G	41472088.25	41472088.49	41472088.74	0.0280	0.0044	

Moon	108834-08-15 03:35 G	41472088.41	41472088.65	41472088.90	0.0280	0.0038	*
Earth	108835-08-28 08:08 G	41472466.68	41472466.84	41472467.03	0.0277	0.0195	
Moon	108835-08-28 10:18 G	41472466.77	41472466.93	41472467.11	0.0277	0.0206	*
Mars	108838-02-17 06:56 G	41473370.54	41473370.79	41473371.07	0.0270	0.0151	
Mercury	108843-01-31 00:27 G	41475179.35	41475179.52	41475179.69	0.0264	0.0119	
Mercury	108843-04-29 21:06 G	41475268.20	41475268.38	41475268.56	0.0264	0.0062	
Mercury	108843-07-27 17:44 G	41475357.18	41475357.24	41475357.32	0.0264	0.0245	
Venus	108844-07-09 12:42 G	41475704.89	41475705.03	41475705.18	0.0265	0.0187	
Venus	108845-02-23 10:03 G	41475933.72	41475933.92	41475934.12	0.0266	0.0076	
Moon	108850-02-09 02:08 G	41477745.39	41477745.59	41477745.82	0.0279	0.0133	
Earth	108850-02-09 06:13 G	41477745.54	41477745.76	41477745.98	0.0279	0.0115	*
Moon	108851-02-22 00:27 G	41478123.30	41478123.52	41478123.73	0.0283	0.0109	
Earth	108851-02-22 02:23 G	41478123.38	41478123.60	41478123.82	0.0283	0.0123	*
Mercury	108857-06-04 13:54 G	41480418.06	41480418.08	41480418.12	0.0297	0.0290	
Mercury	108857-09-01 02:37 G	41480506.49	41480506.61	41480506.73	0.0297	0.0110	
Mercury	108857-11-28 15:06 G	41480595.00	41480595.13	41480595.26	0.0297	0.0068	
Mercury	108858-02-25 03:20 G	41480683.57	41480683.64	41480683.72	0.0296	0.0244	
Venus	108858-12-22 06:13 G	41480983.57	41480983.76	41480983.95	0.0295	0.0133	
Venus	108859-08-09 11:01 G	41481213.85	41481213.96	41481214.08	0.0294	0.0245	
Moon	108863-08-09 07:54 G	41482674.62	41482674.83	41482675.05	0.0282	0.0138	
Earth	108863-08-09 11:15 G	41482674.76	41482674.97	41482675.18	0.0282	0.0150	*
Earth	108864-08-21 23:59 G	41483053.27	41483053.50	41483053.74	0.0278	0.0095	
Moon	108864-08-21 23:59 G	41483053.29	41483053.50	41483053.73	0.0278	0.0111	*
Mercury	108872-06-19 01:39 G	41485911.42	41485911.57	41485911.72	0.0264	0.0154	
Mercury	108872-09-15 22:18 G	41486000.25	41486000.43	41486000.62	0.0265	0.0028	
Mercury	108872-12-13 19:11 G	41486089.19	41486089.30	41486089.41	0.0265	0.0211	
Venus	108874-01-19 19:39 G	41486491.15	41486491.32	41486491.51	0.0266	0.0141	
Venus	108874-09-05 17:15 G	41486720.04	41486720.22	41486720.40	0.0267	0.0125	
Earth	108879-02-04 09:35 G	41488332.75	41488332.90	41488333.06	0.0278	0.0209	
Moon	108879-02-04 12:56 G	41488332.90	41488333.04	41488333.19	0.0278	0.0225	*

Moon	108880-02-17 02:23 G	41488710.35	41488710.60	41488710.85	0.0281	0.0014
Earth	108880-02-17 02:37 G	41488710.37	41488710.61	41488710.85	0.0281	0.0024 *
Moon	108881-02-28 23:44 G	41489088.42	41489088.49	41489088.59	0.0285	0.0267
Earth	108881-03-01 03:20 G	41489088.57	41489088.64	41489088.73	0.0285	0.0268 *
Mercury	108887-01-19 05:44 G	41491238.63	41491238.74	41491238.86	0.0296	0.0146
Mercury	108887-04-17 18:13 G	41491327.13	41491327.26	41491327.39	0.0296	0.0034
Mercury	108887-07-15 06:27 G	41491415.69	41491415.77	41491415.87	0.0296	0.0208
Venus	108888-07-03 16:47 G	41491770.00	41491770.20	41491770.42	0.0295	0.0069
Earth	108892-08-02 20:08 G	41493261.26	41493261.34	41493261.44	0.0284	0.0263
Moon	108892-08-02 21:35 G	41493261.28	41493261.40	41493261.53	0.0284	0.0246 *
Moon	108893-08-16 10:03 G	41493639.66	41493639.92	41493640.18	0.0280	0.0003
Earth	108893-08-16 12:27 G	41493639.78	41493640.02	41493640.27	0.0280	0.0015 *
Moon	108894-08-29 16:32 G	41494018.07	41494018.19	41494018.32	0.0276	0.0233
Earth	108894-08-29 19:39 G	41494018.19	41494018.32	41494018.48	0.0276	0.0223 *
Mercury	108901-11-07 00:42 G	41496643.42	41496643.53	41496643.65	0.0264	0.0207
Mercury	108902-02-03 21:20 G	41496732.20	41496732.39	41496732.58	0.0264	0.0027
Mercury	108902-05-03 17:59 G	41496821.10	41496821.25	41496821.41	0.0264	0.0155
Venus	108903-08-02 22:03 G	41497277.24	41497277.42	41497277.62	0.0265	0.0106
Venus	108904-03-18 19:39 G	41497506.15	41497506.32	41497506.49	0.0266	0.0159
Earth	108909-02-11 18:27 G	41499297.04	41499297.27	41499297.50	0.0280	0.0085
Moon	108909-02-11 20:37 G	41499297.15	41499297.36	41499297.59	0.0280	0.0091 *
Earth	108910-02-24 15:49 G	41499674.95	41499675.16	41499675.36	0.0283	0.0155
Moon	108910-02-24 19:11 G	41499675.11	41499675.30	41499675.51	0.0283	0.0158 *
Mercury	108916-06-08 07:54 G	41501970.73	41501970.83	41501970.93	0.0297	0.0196
Mercury	108916-09-04 20:23 G	41502059.22	41502059.35	41502059.48	0.0297	0.0019
Mercury	108916-12-02 08:51 G	41502147.76	41502147.87	41502147.98	0.0296	0.0159
Venus	108918-01-15 00:27 G	41502556.31	41502556.52	41502556.74	0.0295	0.0016
Earth	108922-08-12 00:13 G	41504226.29	41504226.51	41504226.74	0.0281	0.0120
Moon	108922-08-12 04:18 G	41504226.45	41504226.68	41504226.91	0.0281	0.0105 *
Earth	108923-08-25 11:44 G	41504604.78	41504604.99	41504605.23	0.0278	0.0124

Moon	108923-08-25 14:08 G	41504604.88	41504605.09	41504605.33	0.0278	0.0132	*
Mars	108926-07-15 22:03 G	41505660.09	41505660.42	41505660.74	0.0269	0.0007	
Mercury	108931-03-27 02:08 G	41507375.52	41507375.59	41507375.67	0.0265	0.0241	
Mercury	108931-06-23 22:47 G	41507464.27	41507464.45	41507464.63	0.0265	0.0061	
Mercury	108931-09-20 19:25 G	41507553.15	41507553.31	41507553.48	0.0265	0.0122	
Venus	108933-02-12 05:30 G	41508063.53	41508063.73	41508063.94	0.0266	0.0057	
Venus	108933-09-29 03:06 G	41508292.51	41508292.63	41508292.77	0.0267	0.0210	
Moon	108938-02-06 18:27 G	41509884.09	41509884.27	41509884.46	0.0278	0.0181	
Earth	108938-02-06 21:49 G	41509884.24	41509884.41	41509884.61	0.0278	0.0181	*
Moon	108939-02-19 13:54 G	41510261.85	41510262.08	41510262.31	0.0282	0.0064	
Earth	108939-02-19 16:18 G	41510261.94	41510262.18	41510262.42	0.0282	0.0054	*
Mercury	108945-10-26 11:15 G	41512702.89	41512702.97	41512703.06	0.0296	0.0227	
Mercury	108946-01-22 23:59 G	41512791.37	41512791.50	41512791.63	0.0296	0.0048	
Mercury	108946-04-21 12:13 G	41512879.90	41512880.01	41512880.13	0.0296	0.0129	
Venus	108947-07-28 12:27 G	41513342.81	41513343.02	41513343.24	0.0295	0.0053	
Moon	108951-08-06 08:51 G	41514812.74	41514812.87	41514813.04	0.0283	0.0222	
Earth	108951-08-06 12:13 G	41514812.88	41514813.01	41514813.17	0.0283	0.0231	*
Moon	108952-08-19 03:20 G	41515191.40	41515191.64	41515191.88	0.0279	0.0019	
Earth	108952-08-19 03:35 G	41515191.40	41515191.65	41515191.90	0.0279	0.0017	*
Earth	108953-09-01 09:35 G	41515569.81	41515569.90	41515570.01	0.0276	0.0251	
Moon	108953-09-01 12:56 G	41515569.94	41515570.04	41515570.17	0.0276	0.0243	*
Mercury	108960-11-09 21:49 G	41518196.25	41518196.41	41518196.59	0.0264	0.0112	
Mercury	108961-02-06 18:42 G	41518285.10	41518285.28	41518285.46	0.0264	0.0070	
Mercury	108961-05-06 15:35 G	41518374.10	41518374.15	41518374.20	0.0264	0.0253	
Venus	108962-08-25 08:37 G	41518849.65	41518849.86	41518850.07	0.0266	0.0021	
Venus	108963-04-11 05:59 G	41519078.67	41519078.75	41519078.83	0.0267	0.0245	
Earth	108968-02-14 07:25 G	41520848.57	41520848.81	41520849.05	0.0280	0.0055	
Moon	108968-02-14 07:39 G	41520848.57	41520848.82	41520849.07	0.0280	0.0042	*
Moon	108969-02-26 02:08 G	41521226.43	41521226.59	41521226.77	0.0284	0.0203	
Earth	108969-02-26 05:44 G	41521226.56	41521226.74	41521226.92	0.0284	0.0186	*

Mercury	108975-03-15 13:25 G	41523435.02	41523435.06	41523435.11	0.0297	0.0278
Mercury	108975-06-12 02:08 G	41523523.46	41523523.59	41523523.71	0.0297	0.0099
Mercury	108975-09-08 14:37 G	41523611.98	41523612.11	41523612.23	0.0297	0.0079
Mercury	108975-12-06 02:51 G	41523700.56	41523700.62	41523700.69	0.0296	0.0254
Venus	108976-06-21 15:06 G	41523899.07	41523899.13	41523899.22	0.0296	0.0275
Venus	108977-02-06 20:08 G	41524129.14	41524129.34	41524129.54	0.0295	0.0105
Moon	108981-08-13 13:39 G	41525777.83	41525778.07	41525778.32	0.0281	0.0093
Earth	108981-08-13 16:03 G	41525777.94	41525778.17	41525778.41	0.0281	0.0088 *
Moon	108982-08-26 23:01 G	41526156.25	41526156.46	41526156.67	0.0277	0.0142
Earth	108982-08-27 02:23 G	41526156.40	41526156.60	41526156.82	0.0277	0.0153 *
Mercury	108990-03-29 23:15 G	41528928.32	41528928.47	41528928.63	0.0265	0.0146
Mercury	108990-06-26 19:54 G	41529017.15	41529017.33	41529017.52	0.0265	0.0036
Mercury	108990-09-23 16:47 G	41529106.10	41529106.20	41529106.31	0.0265	0.0219
Venus	108991-07-21 18:13 G	41529407.17	41529407.26	41529407.36	0.0266	0.0237
Venus	108992-03-06 15:49 G	41529635.95	41529636.16	41529636.36	0.0266	0.0029
Earth	108997-02-08 10:18 G	41531435.74	41531435.93	41531436.14	0.0279	0.0153
Moon	108997-02-08 12:13 G	41531435.81	41531436.01	41531436.21	0.0279	0.0138 *
Earth	108998-02-21 05:44 G	41531813.51	41531813.74	41531813.97	0.0282	0.0085
Moon	108998-02-21 09:20 G	41531813.67	41531813.89	41531814.13	0.0282	0.0103 *
Mars	109000-10-08 04:47 G	41532772.51	41532772.70	41532772.91	0.0291	0.0191

110TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 110th millennium CE.

PLANET	MAX- TRANSIT	C	START	MAX	END	SUNRAD	DEPTH	S
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TIME

Mercury	109004-10-30 05:44 G	41534255.62	41534255.74	41534255.86	0.0296	0.0127
Mercury	109005-01-26 18:13 G	41534344.13	41534344.26	41534344.39	0.0296	0.0050
Mercury	109005-04-25 06:27 G	41534432.69	41534432.77	41534432.86	0.0296	0.0225
Venus	109006-01-03 04:03 G	41534685.53	41534685.67	41534685.83	0.0295	0.0204
Venus	109006-08-21 08:37 G	41534915.70	41534915.86	41534916.04	0.0294	0.0175
Earth	109010-08-09 05:59 G	41536364.57	41536364.75	41536364.92	0.0283	0.0198
Moon	109010-08-09 09:20 G	41536364.74	41536364.89	41536365.07	0.0283	0.0210 *
Earth	109011-08-22 19:39 G	41536743.08	41536743.32	41536743.57	0.0279	0.0049
Moon	109011-08-22 22:32 G	41536743.18	41536743.44	41536743.69	0.0279	0.0034 *
Moon	109012-09-03 22:47 G	41537121.39	41537121.45	41537121.52	0.0276	0.0266
Mars	109014-12-11 15:49 G	41537949.89	41537950.16	41537950.45	0.0269	0.0138
Mercury	109019-08-17 22:47 G	41539660.33	41539660.45	41539660.58	0.0264	0.0194
Mercury	109019-11-14 19:25 G	41539749.13	41539749.31	41539749.50	0.0264	0.0015
Mercury	109020-02-11 16:18 G	41539838.04	41539838.18	41539838.32	0.0264	0.0169
Venus	109021-01-31 21:49 G	41540193.27	41540193.41	41540193.54	0.0265	0.0198
Venus	109021-09-17 19:11 G	41540422.10	41540422.30	41540422.50	0.0266	0.0066
Moon	109026-02-04 01:25 G	41542022.44	41542022.56	41542022.69	0.0277	0.0238
Earth	109026-02-04 04:47 G	41542022.61	41542022.70	41542022.79	0.0277	0.0254 *
Moon	109027-02-16 17:44 G	41542400.00	41542400.24	41542400.48	0.0281	0.0013
Earth	109027-02-16 20:08 G	41542400.10	41542400.34	41542400.59	0.0281	0.0026 *
Earth	109028-02-29 19:25 G	41542778.16	41542778.31	41542778.47	0.0284	0.0217
Moon	109028-02-29 20:51 G	41542778.23	41542778.37	41542778.53	0.0284	0.0221 *
Mercury	109034-03-19 07:25 G	41544987.71	41544987.81	41544987.92	0.0297	0.0182
Mercury	109034-06-15 20:08 G	41545076.21	41545076.34	41545076.47	0.0297	0.0006
Mercury	109034-09-12 08:23 G	41545164.75	41545164.85	41545164.96	0.0297	0.0173
Venus	109035-07-16 10:32 G	41545471.77	41545471.94	41545472.13	0.0296	0.0155
Venus	109036-03-02 15:20 G	41545702.01	41545702.14	41545702.28	0.0294	0.0225
Moon	109040-08-16 06:56 G	41547329.56	41547329.79	41547330.02	0.0280	0.0074
Earth	109040-08-16 07:25 G	41547329.57	41547329.81	41547330.06	0.0280	0.0057 *

Earth	109041-08-29 16:47 G	41547708.02	41547708.20	41547708.39	0.0277	0.0183
Moon	109041-08-29 19:54 G	41547708.14	41547708.33	41547708.53	0.0277	0.0169 *
Mercury	109049-01-03 23:59 G	41550392.41	41550392.50	41550392.59	0.0264	0.0231
Mercury	109049-04-02 20:37 G	41550481.17	41550481.36	41550481.54	0.0265	0.0051
Mercury	109049-06-30 17:15 G	41550570.06	41550570.22	41550570.38	0.0265	0.0132
Venus	109050-08-14 04:03 G	41550979.51	41550979.67	41550979.85	0.0266	0.0153
Venus	109051-03-31 01:39 G	41551208.38	41551208.57	41551208.76	0.0267	0.0113
Earth	109056-02-11 21:20 G	41552987.19	41552987.39	41552987.62	0.0279	0.0127
Moon	109056-02-11 23:01 G	41552987.24	41552987.46	41552987.70	0.0279	0.0114 *
Moon	109057-02-23 15:06 G	41553364.91	41553365.13	41553365.36	0.0283	0.0116
Earth	109057-02-23 17:44 G	41553365.03	41553365.24	41553365.47	0.0283	0.0114 *
Mercury	109063-08-06 11:15 G	41555719.88	41555719.97	41555720.06	0.0296	0.0210
Mercury	109063-11-02 23:44 G	41555808.36	41555808.49	41555808.62	0.0296	0.0032
Mercury	109064-01-30 11:59 G	41555896.89	41555897.00	41555897.12	0.0296	0.0146
Venus	109065-01-25 23:44 G	41556258.29	41556258.49	41556258.70	0.0295	0.0083
Moon	109069-08-10 22:03 G	41557916.24	41557916.42	41557916.63	0.0282	0.0183
Earth	109069-08-10 22:47 G	41557916.26	41557916.45	41557916.66	0.0282	0.0167 *
Moon	109070-08-24 08:23 G	41558294.61	41558294.85	41558295.09	0.0279	0.0064
Earth	109070-08-24 11:59 G	41558294.76	41558295.00	41558295.24	0.0279	0.0079 *
Mercury	109078-08-20 20:23 G	41561213.18	41561213.35	41561213.52	0.0264	0.0098
Mercury	109078-11-17 17:01 G	41561302.03	41561302.21	41561302.39	0.0264	0.0083
Venus	109080-02-24 07:54 G	41561765.64	41561765.83	41561766.02	0.0265	0.0114
Venus	109080-10-10 05:15 G	41561994.55	41561994.72	41561994.89	0.0266	0.0150
Moon	109085-02-05 14:23 G	41563573.96	41563574.10	41563574.24	0.0277	0.0218
Earth	109085-02-05 14:51 G	41563573.99	41563574.12	41563574.26	0.0277	0.0229 *
Earth	109086-02-18 07:11 G	41563951.56	41563951.80	41563952.05	0.0281	0.0004
Moon	109086-02-18 10:32 G	41563951.71	41563951.94	41563952.18	0.0281	0.0007 *
Earth	109087-03-03 07:25 G	41564329.70	41564329.81	41564329.94	0.0285	0.0247
Moon	109087-03-03 10:32 G	41564329.81	41564329.94	41564330.08	0.0285	0.0239 *
Mars	109089-03-04 07:54 G	41565061.58	41565061.83	41565062.09	0.0291	0.0089

Mercury	109092-12-23 12:42 G	41566451.98	41566452.03	41566452.09	0.0297	0.0268
Mercury	109093-03-22 01:25 G	41566540.43	41566540.56	41566540.68	0.0297	0.0089
Mercury	109093-06-18 13:54 G	41566628.95	41566629.08	41566629.20	0.0297	0.0089
Mercury	109093-09-15 02:08 G	41566717.53	41566717.59	41566717.65	0.0297	0.0264
Venus	109094-08-08 05:15 G	41567044.51	41567044.72	41567044.93	0.0295	0.0036
Earth	109098-08-05 04:03 G	41568502.64	41568502.67	41568502.73	0.0284	0.0278
Earth	109099-08-18 21:49 G	41568881.16	41568881.41	41568881.66	0.0280	0.0028
Moon	109099-08-19 01:54 G	41568881.33	41568881.58	41568881.82	0.0280	0.0042 *
Earth	109100-09-01 06:13 G	41569259.61	41569259.76	41569259.93	0.0276	0.0211
Moon	109100-09-01 08:08 G	41569259.67	41569259.84	41569260.01	0.0276	0.0203 *
Mercury	109108-01-08 20:51 G	41571945.21	41571945.37	41571945.53	0.0264	0.0139
Mercury	109108-04-06 17:30 G	41572034.05	41572034.23	41572034.42	0.0264	0.0043
Mercury	109108-07-04 14:08 G	41572123.00	41572123.09	41572123.19	0.0265	0.0226
Venus	109109-09-06 13:39 G	41572551.87	41572552.07	41572552.27	0.0266	0.0070
Venus	109110-04-23 11:01 G	41572780.82	41572780.96	41572781.10	0.0267	0.0196
Moon	109115-02-14 03:20 G	41574538.42	41574538.64	41574538.88	0.0280	0.0101
Earth	109115-02-14 06:56 G	41574538.58	41574538.79	41574539.03	0.0280	0.0101 *
Moon	109116-02-27 02:08 G	41574916.38	41574916.59	41574916.80	0.0283	0.0132
Earth	109116-02-27 04:03 G	41574916.47	41574916.67	41574916.89	0.0283	0.0141 *
Mercury	109122-08-10 04:47 G	41577272.58	41577272.70	41577272.82	0.0296	0.0120
Mercury	109122-11-06 17:15 G	41577361.09	41577361.22	41577361.35	0.0296	0.0057
Mercury	109123-02-03 05:30 G	41577449.66	41577449.73	41577449.81	0.0296	0.0233
Venus	109124-02-19 17:44 G	41577831.03	41577831.24	41577831.45	0.0295	0.0033
Moon	109128-08-13 10:03 G	41579467.72	41579467.92	41579468.13	0.0282	0.0149
Earth	109128-08-13 13:39 G	41579467.85	41579468.07	41579468.29	0.0282	0.0136 *
Moon	109129-08-27 01:11 G	41579846.33	41579846.55	41579846.77	0.0278	0.0102
Earth	109129-08-27 01:39 G	41579846.34	41579846.57	41579846.80	0.0278	0.0108 *
Mercury	109137-05-27 20:51 G	41582677.24	41582677.37	41582677.50	0.0264	0.0184
Mercury	109137-08-24 17:15 G	41582766.04	41582766.22	41582766.41	0.0264	0.0007
Mercury	109137-11-21 13:54 G	41582854.95	41582855.08	41582855.22	0.0264	0.0177

Venus	109139-03-19 17:01 G	41583338.01	41583338.21	41583338.42	0.0265	0.0033
Venus	109139-11-03 14:08 G	41583567.00	41583567.09	41583567.20	0.0266	0.0233
Earth	109144-02-08 22:47 G	41585125.30	41585125.45	41585125.62	0.0277	0.0204
Moon	109144-02-09 02:08 G	41585125.44	41585125.59	41585125.77	0.0277	0.0203 *
Earth	109145-02-20 15:35 G	41585502.91	41585503.15	41585503.40	0.0281	0.0029
Moon	109145-02-20 16:32 G	41585502.94	41585503.19	41585503.44	0.0281	0.0019 *
Moon	109146-03-05 13:39 G	41585880.97	41585881.07	41585881.18	0.0285	0.0256
Earth	109146-03-05 16:32 G	41585881.14	41585881.19	41585881.27	0.0285	0.0273 *
Mercury	109151-12-28 05:59 G	41588004.65	41588004.75	41588004.85	0.0297	0.0184
Mercury	109152-03-25 18:27 G	41588093.14	41588093.27	41588093.40	0.0297	0.0009
Mercury	109152-06-22 06:56 G	41588181.68	41588181.79	41588181.90	0.0297	0.0172
Venus	109153-08-31 21:35 G	41588617.19	41588617.40	41588617.61	0.0295	0.0075
Earth	109157-08-07 17:01 G	41590054.10	41590054.21	41590054.33	0.0284	0.0250
Moon	109157-08-07 19:39 G	41590054.23	41590054.32	41590054.42	0.0284	0.0261 *
Moon	109158-08-21 08:51 G	41590432.62	41590432.87	41590433.13	0.0280	0.0007
Earth	109158-08-21 10:03 G	41590432.67	41590432.92	41590433.16	0.0280	0.0005 *
Moon	109159-09-03 13:54 G	41590810.97	41590811.08	41590811.22	0.0276	0.0241
Earth	109159-09-03 17:44 G	41590811.12	41590811.24	41590811.38	0.0276	0.0236 *
Mercury	109166-10-14 20:37 G	41593409.28	41593409.36	41593409.46	0.0264	0.0230
Mercury	109167-01-11 17:15 G	41593498.04	41593498.22	41593498.41	0.0264	0.0051
Mercury	109167-04-10 13:54 G	41593586.92	41593587.08	41593587.25	0.0264	0.0131
Venus	109168-02-13 00:27 G	41593895.47	41593895.52	41593895.58	0.0265	0.0255
Venus	109168-09-28 21:49 G	41594124.20	41594124.41	41594124.62	0.0266	0.0009
Earth	109174-02-15 13:25 G	41596089.83	41596090.06	41596090.29	0.0280	0.0077
Moon	109174-02-15 13:25 G	41596089.84	41596090.06	41596090.28	0.0280	0.0086 *
Earth	109175-02-28 11:01 G	41596467.76	41596467.96	41596468.16	0.0284	0.0165
Moon	109175-02-28 14:23 G	41596467.91	41596468.10	41596468.31	0.0284	0.0149 *
Mars	109177-07-30 18:56 G	41597351.03	41597351.29	41597351.55	0.0291	0.0041
Mercury	109181-05-16 09:06 G	41598736.80	41598736.88	41598736.97	0.0296	0.0219
Mercury	109181-08-12 21:49 G	41598825.28	41598825.41	41598825.54	0.0296	0.0041

Mercury	109181-11-09 10:03 G	41598913.81	41598913.92	41598914.04	0.0296	0.0137
Venus	109182-07-27 04:03 G	41599173.55	41599173.67	41599173.80	0.0296	0.0240
Venus	109183-03-14 09:06 G	41599403.70	41599403.88	41599404.07	0.0295	0.0141
Earth	109187-08-16 00:56 G	41601019.31	41601019.54	41601019.77	0.0282	0.0109
Moon	109187-08-16 03:06 G	41601019.41	41601019.63	41601019.85	0.0282	0.0112 *
Earth	109188-08-28 12:27 G	41601397.81	41601398.02	41601398.25	0.0278	0.0134
Moon	109188-08-28 16:32 G	41601397.98	41601398.19	41601398.41	0.0278	0.0138 *
Mercury	109196-05-30 17:15 G	41604230.05	41604230.22	41604230.39	0.0264	0.0097
Mercury	109196-08-27 13:39 G	41604318.90	41604319.07	41604319.25	0.0264	0.0084
Venus	109197-08-25 04:18 G	41604681.56	41604681.68	41604681.80	0.0264	0.0217
Venus	109198-04-11 01:11 G	41604910.35	41604910.55	41604910.76	0.0265	0.0047
Moon	109203-02-10 03:20 G	41606676.46	41606676.64	41606676.82	0.0278	0.0192
Earth	109203-02-10 05:01 G	41606676.53	41606676.71	41606676.89	0.0278	0.0181 *
Moon	109204-02-22 18:13 G	41607054.03	41607054.26	41607054.50	0.0281	0.0036
Earth	109204-02-22 21:49 G	41607054.18	41607054.41	41607054.65	0.0281	0.0053 *
Moon	109205-03-06 22:47 G	41607432.44	41607432.45	41607432.47	0.0285	0.0284
Mercury	109210-10-03 09:49 G	41609468.89	41609468.91	41609468.94	0.0297	0.0288
Mercury	109210-12-30 22:32 G	41609557.32	41609557.44	41609557.56	0.0297	0.0108
Mercury	109211-03-29 11:01 G	41609645.83	41609645.96	41609646.09	0.0297	0.0070
Mercury	109211-06-25 23:15 G	41609734.41	41609734.47	41609734.55	0.0297	0.0247
Venus	109212-02-06 06:27 G	41609959.62	41609959.77	41609959.93	0.0296	0.0203
Venus	109212-09-23 11:30 G	41610189.81	41610189.98	41610190.15	0.0295	0.0179
Moon	109216-08-08 22:03 G	41611605.26	41611605.42	41611605.58	0.0283	0.0217
Earth	109216-08-09 01:54 G	41611605.43	41611605.58	41611605.73	0.0283	0.0225 *
Moon	109217-08-22 16:03 G	41611983.93	41611984.17	41611984.41	0.0280	0.0038
Earth	109217-08-22 18:13 G	41611984.01	41611984.26	41611984.51	0.0280	0.0025 *
Earth	109218-09-05 01:25 G	41612362.49	41612362.56	41612362.65	0.0276	0.0259
Moon	109218-09-05 03:20 G	41612362.63	41612362.64	41612362.65	0.0276	0.0275 *
Mercury	109225-10-17 16:32 G	41614962.04	41614962.19	41614962.35	0.0264	0.0148
Mercury	109226-01-14 13:10 G	41615050.86	41615051.05	41615051.23	0.0264	0.0032

Mercury	109226-04-13 09:49 G	41615139.80	41615139.91	41615140.02	0.0264	0.0214
Venus	109227-03-07 07:25 G	41615467.67	41615467.81	41615467.97	0.0265	0.0180
Venus	109227-10-22 04:46 G	41615696.50	41615696.70	41615696.90	0.0266	0.0085
Earth	109233-02-16 16:46 G	41617640.96	41617641.20	41617641.44	0.0280	0.0056
Moon	109233-02-16 18:42 G	41617641.04	41617641.28	41617641.52	0.0280	0.0069 *
Moon	109234-03-01 12:13 G	41618018.83	41618019.01	41618019.21	0.0284	0.0180
Earth	109234-03-01 14:37 G	41618018.94	41618019.11	41618019.30	0.0284	0.0187 *
Mercury	109240-05-19 01:10 G	41620289.44	41620289.55	41620289.67	0.0297	0.0149
Mercury	109240-08-15 13:54 G	41620377.95	41620378.08	41620378.21	0.0296	0.0031
Mercury	109240-11-12 02:08 G	41620466.50	41620466.59	41620466.69	0.0296	0.0207
Venus	109241-08-18 16:18 G	41620746.00	41620746.18	41620746.37	0.0296	0.0141
Venus	109242-04-05 21:20 G	41620976.28	41620976.39	41620976.52	0.0295	0.0241
Moon	109246-08-17 07:25 G	41622570.56	41622570.81	41622571.06	0.0281	0.0068
Earth	109246-08-17 08:08 G	41622570.61	41622570.84	41622571.09	0.0281	0.0085 *
Moon	109247-08-30 16:03 G	41622948.98	41622949.17	41622949.37	0.0278	0.0173
Earth	109247-08-30 19:39 G	41622949.12	41622949.32	41622949.53	0.0278	0.0158 *
Mercury	109255-03-06 16:32 G	41625694.07	41625694.19	41625694.32	0.0264	0.0194
Mercury	109255-06-03 12:56 G	41625782.85	41625783.04	41625783.23	0.0264	0.0015
Mercury	109255-08-31 09:34 G	41625871.75	41625871.90	41625872.04	0.0264	0.0166
Venus	109256-09-16 11:15 G	41626253.80	41626253.97	41626254.15	0.0264	0.0142
Venus	109257-05-03 08:08 G	41626482.66	41626482.84	41626483.03	0.0265	0.0122
Earth	109262-02-11 07:54 G	41628227.63	41628227.83	41628228.02	0.0278	0.0160
Moon	109262-02-11 08:37 G	41628227.68	41628227.86	41628228.05	0.0278	0.0167 *
Earth	109263-02-24 00:42 G	41628605.30	41628605.53	41628605.77	0.0281	0.0074
Moon	109263-02-24 04:32 G	41628605.46	41628605.69	41628605.92	0.0281	0.0077 *
Mars	109265-12-23 22:32 G	41629639.19	41629639.44	41629639.70	0.0291	0.0078
Mercury	109269-10-06 01:39 G	41631021.49	41631021.57	41631021.66	0.0297	0.0221
Mercury	109270-01-02 14:22 G	41631109.97	41631110.10	41631110.23	0.0297	0.0042
Mercury	109270-04-01 02:51 G	41631198.51	41631198.62	41631198.74	0.0297	0.0136
Venus	109271-02-28 17:44 G	41631532.04	41631532.24	41631532.44	0.0296	0.0107

Venus	109271-10-16 22:46 G	41631762.38	41631762.45	41631762.53	0.0295	0.0275
Earth	109275-08-11 06:42 G	41633156.62	41633156.78	41633156.96	0.0283	0.0203
Moon	109275-08-11 10:18 G	41633156.75	41633156.93	41633157.12	0.0283	0.0188 *
Earth	109276-08-23 23:01 G	41633535.22	41633535.46	41633535.71	0.0280	0.0047
Moon	109276-08-24 02:22 G	41633535.35	41633535.60	41633535.85	0.0280	0.0057 *
Mercury	109284-07-23 15:06 G	41636426.08	41636426.13	41636426.19	0.0264	0.0251
Mercury	109284-10-20 11:30 G	41636514.80	41636514.98	41636515.16	0.0264	0.0073
Mercury	109285-01-17 08:08 G	41636603.67	41636603.84	41636604.01	0.0264	0.0108
Venus	109286-03-29 13:25 G	41637039.87	41637040.06	41637040.25	0.0265	0.0108
Venus	109286-11-13 10:18 G	41637268.77	41637268.93	41637269.10	0.0266	0.0157
Moon	109291-02-06 00:56 G	41638814.48	41638814.54	41638814.63	0.0277	0.0262
Earth	109291-02-06 04:03 G	41638814.61	41638814.67	41638814.75	0.0277	0.0263 *
Moon	109292-02-18 15:20 G	41639191.91	41639192.14	41639192.38	0.0280	0.0024
Earth	109292-02-18 17:58 G	41639192.01	41639192.25	41639192.49	0.0280	0.0036 *
Earth	109293-03-02 15:49 G	41639570.00	41639570.16	41639570.33	0.0284	0.0206
Moon	109293-03-02 17:01 G	41639570.08	41639570.21	41639570.37	0.0284	0.0223 *
Mercury	109299-02-23 04:18 G	41641753.62	41641753.68	41641753.74	0.0297	0.0266
Mercury	109299-05-22 16:46 G	41641842.08	41641842.20	41641842.33	0.0297	0.0087
Mercury	109299-08-19 05:30 G	41641930.60	41641930.73	41641930.85	0.0297	0.0092
Mercury	109299-11-15 17:44 G	41642019.19	41642019.24	41642019.30	0.0296	0.0268
Venus	109300-09-11 02:22 G	41642318.39	41642318.60	41642318.82	0.0295	0.0049
Moon	109305-08-19 11:01 G	41644121.73	41644121.96	41644122.20	0.0281	0.0063
Earth	109305-08-19 11:30 G	41644121.74	41644121.98	41644122.22	0.0281	0.0062 *
Earth	109306-09-01 22:46 G	41644500.26	41644500.45	41644500.64	0.0278	0.0179
Moon	109306-09-02 01:54 G	41644500.38	41644500.58	41644500.77	0.0278	0.0171 *
Mercury	109314-03-10 11:15 G	41647246.81	41647246.97	41647247.15	0.0264	0.0120
Mercury	109314-06-07 07:54 G	41647335.65	41647335.83	41647336.01	0.0264	0.0060
Mercury	109314-09-04 04:32 G	41647424.62	41647424.69	41647424.76	0.0264	0.0242
Venus	109315-10-10 17:01 G	41647826.01	41647826.21	41647826.41	0.0264	0.0070
Venus	109316-05-26 13:39 G	41648054.93	41648055.07	41648055.22	0.0265	0.0194

Moon	109321-02-13 08:37 G	41649778.64	41649778.86	41649779.09	0.0277	0.0125
Earth	109321-02-13 08:37 G	41649778.66	41649778.86	41649779.07	0.0277	0.0140 *
Moon	109322-02-25 22:03 G	41650156.20	41650156.42	41650156.65	0.0281	0.0110
Earth	109322-02-26 01:39 G	41650156.35	41650156.57	41650156.80	0.0281	0.0094 *
Mercury	109328-10-09 17:01 G	41652574.10	41652574.21	41652574.32	0.0297	0.0163
Mercury	109329-01-06 05:44 G	41652662.61	41652662.74	41652662.87	0.0297	0.0018
Mercury	109329-04-04 17:58 G	41652751.16	41652751.25	41652751.35	0.0297	0.0193
Venus	109330-03-24 02:22 G	41653104.39	41653104.60	41653104.82	0.0296	0.0019
Moon	109334-08-13 04:46 G	41654707.53	41654707.70	41654707.90	0.0283	0.0195
Earth	109334-08-13 07:54 G	41654707.65	41654707.83	41654708.03	0.0283	0.0182 *
Moon	109335-08-26 20:37 G	41655086.12	41655086.36	41655086.60	0.0280	0.0052
Earth	109335-08-27 00:13 G	41655086.27	41655086.51	41655086.75	0.0280	0.0067 *
Mercury	109343-07-28 09:34 G	41657978.77	41657978.90	41657979.04	0.0264	0.0181
Mercury	109343-10-25 05:58 G	41658067.56	41658067.75	41658067.94	0.0264	0.0003
Mercury	109344-01-22 02:22 G	41658156.47	41658156.60	41658156.75	0.0264	0.0180
Venus	109345-04-21 17:58 G	41658612.05	41658612.25	41658612.46	0.0265	0.0040
Venus	109345-12-06 14:51 G	41658841.02	41658841.12	41658841.23	0.0266	0.0226
Earth	109350-02-08 03:20 G	41660365.53	41660365.64	41660365.75	0.0276	0.0244
Moon	109350-02-08 05:15 G	41660365.60	41660365.72	41660365.86	0.0276	0.0230 *
Earth	109351-02-20 16:46 G	41660742.96	41660743.20	41660743.44	0.0280	0.0017
Moon	109351-02-20 20:22 G	41660743.10	41660743.35	41660743.59	0.0280	0.0006 *
Moon	109352-03-04 14:22 G	41661120.95	41661121.10	41661121.26	0.0284	0.0224
Earth	109352-03-04 14:37 G	41661120.97	41661121.11	41661121.26	0.0284	0.0224 *
Mars	109354-05-20 07:10 G	41661927.56	41661927.80	41661928.04	0.0291	0.0129
Mercury	109358-02-26 19:10 G	41663306.21	41663306.30	41663306.39	0.0297	0.0212
Mercury	109358-05-26 07:54 G	41663394.70	41663394.83	41663394.96	0.0297	0.0033
Mercury	109358-08-22 20:22 G	41663483.23	41663483.35	41663483.46	0.0297	0.0145
Venus	109359-10-04 10:03 G	41663890.71	41663890.92	41663891.14	0.0295	0.0037
Earth	109364-08-20 11:15 G	41665672.72	41665672.97	41665673.22	0.0281	0.0042
Moon	109364-08-20 12:56 G	41665672.79	41665673.04	41665673.29	0.0281	0.0058 *

Moon	109365-09-02 20:08 G	41666051.15	41666051.34	41666051.52	0.0278	0.0188
Earth	109365-09-02 22:32 G	41666051.27	41666051.44	41666051.62	0.0278	0.0198 *
Mercury	109372-12-14 09:20 G	41668710.81	41668710.89	41668710.99	0.0264	0.0228
Mercury	109373-03-13 05:44 G	41668799.56	41668799.74	41668799.93	0.0264	0.0050
Mercury	109373-06-10 02:08 G	41668888.43	41668888.59	41668888.76	0.0264	0.0131
Venus	109374-11-01 21:34 G	41669398.19	41669398.40	41669398.61	0.0265	0.0004
Venus	109375-06-18 17:58 G	41669627.23	41669627.25	41669627.29	0.0265	0.0262
Moon	109380-02-15 06:56 G	41671329.59	41671329.79	41671330.01	0.0277	0.0120
Earth	109380-02-15 08:08 G	41671329.62	41671329.84	41671330.06	0.0277	0.0120 *
Earth	109381-02-27 01:10 G	41671707.33	41671707.55	41671707.77	0.0281	0.0114
Moon	109381-02-27 03:49 G	41671707.45	41671707.66	41671707.89	0.0281	0.0106 *
Mercury	109387-07-16 19:10 G	41674038.28	41674038.30	41674038.34	0.0297	0.0289
Mercury	109387-10-13 08:08 G	41674126.71	41674126.84	41674126.96	0.0297	0.0109
Mercury	109388-01-09 20:37 G	41674215.23	41674215.36	41674215.49	0.0297	0.0070
Mercury	109388-04-07 08:51 G	41674303.80	41674303.87	41674303.95	0.0297	0.0246
Venus	109389-04-15 09:49 G	41674676.70	41674676.91	41674677.12	0.0296	0.0067
Earth	109393-08-14 06:27 G	41676258.58	41676258.77	41676258.98	0.0283	0.0164
Moon	109393-08-14 08:37 G	41676258.67	41676258.86	41676259.05	0.0283	0.0173 *
Earth	109394-08-27 22:32 G	41676637.21	41676637.44	41676637.68	0.0280	0.0085
Moon	109394-08-28 02:22 G	41676637.36	41676637.60	41676637.84	0.0280	0.0083 *
Mercury	109402-08-01 03:20 G	41679531.48	41679531.64	41679531.81	0.0264	0.0116
Mercury	109402-10-28 23:44 G	41679620.31	41679620.49	41679620.68	0.0264	0.0065
Mercury	109403-01-25 20:22 G	41679709.29	41679709.35	41679709.42	0.0264	0.0246
Venus	109403-09-29 00:42 G	41679955.45	41679955.53	41679955.64	0.0264	0.0237
Venus	109404-05-14 21:49 G	41680184.20	41680184.41	41680184.62	0.0265	0.0027
Moon	109409-02-09 23:30 G	41681916.35	41681916.48	41681916.62	0.0276	0.0233
Earth	109409-02-10 01:25 G	41681916.43	41681916.56	41681916.71	0.0276	0.0225 *
Moon	109410-02-22 11:15 G	41682293.73	41682293.97	41682294.21	0.0280	0.0014
Earth	109410-02-22 15:06 G	41682293.88	41682294.13	41682294.37	0.0280	0.0005 *
Moon	109411-03-07 12:27 G	41682671.89	41682672.02	41682672.16	0.0284	0.0229

Earth	109411-03-07 12:27 G	41682671.91	41682672.02	41682672.15	0.0284	0.0242	*
Mercury	109417-03-02 09:49 G	41684858.80	41684858.91	41684859.02	0.0297	0.0162	
Mercury	109417-05-29 22:32 G	41684947.31	41684947.44	41684947.57	0.0297	0.0017	
Mercury	109417-08-26 11:01 G	41685035.86	41685035.96	41685036.05	0.0296	0.0194	
Venus	109418-03-11 11:15 G	41685232.88	41685232.97	41685233.06	0.0296	0.0266	
Venus	109418-10-27 16:18 G	41685462.99	41685463.18	41685463.38	0.0295	0.0118	
Moon	109422-08-09 07:39 G	41686844.77	41686844.82	41686844.90	0.0285	0.0275	
Earth	109422-08-09 11:44 G	41686844.94	41686844.99	41686845.06	0.0285	0.0276	
Moon	109423-08-23 06:13 G	41687223.52	41687223.76	41687224.00	0.0281	0.0017	
Earth	109423-08-23 08:22 G	41687223.61	41687223.85	41687224.10	0.0281	0.0024	*
Earth	109424-09-04 19:39 G	41687602.17	41687602.32	41687602.48	0.0278	0.0216	
Moon	109424-09-04 22:03 G	41687602.29	41687602.42	41687602.55	0.0278	0.0230	*
Mercury	109431-12-19 03:20 G	41690263.49	41690263.64	41690263.79	0.0264	0.0162	
Mercury	109432-03-16 23:44 G	41690352.30	41690352.49	41690352.68	0.0264	0.0017	
Mercury	109432-06-13 20:08 G	41690441.22	41690441.34	41690441.47	0.0264	0.0198	
Venus	109433-04-10 04:32 G	41690741.56	41690741.69	41690741.84	0.0264	0.0198	
Venus	109433-11-25 01:25 G	41690970.36	41690970.56	41690970.76	0.0265	0.0065	
Earth	109439-02-17 06:56 G	41692880.57	41692880.79	41692881.02	0.0277	0.0101	
Moon	109439-02-17 08:37 G	41692880.65	41692880.86	41692881.10	0.0277	0.0118	*
Moon	109440-02-29 21:06 G	41693258.17	41693258.38	41693258.61	0.0281	0.0123	
Earth	109440-02-29 23:44 G	41693258.28	41693258.49	41693258.71	0.0281	0.0133	*
Mars	109442-10-14 00:42 G	41694215.30	41694215.53	41694215.76	0.0290	0.0143	
Mercury	109446-07-20 10:03 G	41695590.85	41695590.92	41695591.00	0.0297	0.0238	
Mercury	109446-10-16 22:46 G	41695679.32	41695679.45	41695679.58	0.0297	0.0058	
Mercury	109447-01-13 11:15 G	41695767.85	41695767.97	41695768.09	0.0297	0.0119	
Mercury	109447-04-11 23:30 G	41695856.48	41695856.48	41695856.49	0.0297	0.0295	
Venus	109447-09-21 10:46 G	41696018.83	41696018.95	41696019.09	0.0296	0.0236	
Venus	109448-05-08 16:03 G	41696248.99	41696249.17	41696249.36	0.0295	0.0149	
Moon	109452-08-16 02:08 G	41697809.37	41697809.59	41697809.82	0.0283	0.0130	
Earth	109452-08-16 03:34 G	41697809.44	41697809.65	41697809.87	0.0283	0.0145	*

Moon	109453-08-29 15:49 G	41698187.94	41698188.16	41698188.39	0.0280	0.0118
Earth	109453-08-29 19:25 G	41698188.08	41698188.31	41698188.55	0.0280	0.0103 *
Mercury	109461-05-07 00:27 G	41700995.44	41700995.52	41700995.62	0.0264	0.0231
Mercury	109461-08-03 20:51 G	41701084.19	41701084.37	41701084.56	0.0264	0.0052
Mercury	109461-10-31 17:15 G	41701173.07	41701173.22	41701173.39	0.0264	0.0129
Venus	109462-10-21 04:03 G	41701527.52	41701527.67	41701527.84	0.0264	0.0172
Venus	109463-06-07 01:10 G	41701756.35	41701756.55	41701756.75	0.0265	0.0093
Earth	109468-02-11 23:15 G	41703467.31	41703467.47	41703467.63	0.0276	0.0206
Moon	109468-02-12 00:13 G	41703467.38	41703467.51	41703467.66	0.0276	0.0219 *
Earth	109469-02-23 12:42 G	41703844.79	41703845.03	41703845.27	0.0280	0.0021
Moon	109469-02-23 16:32 G	41703844.94	41703845.19	41703845.43	0.0280	0.0018 *
Earth	109470-03-08 10:18 G	41704222.84	41704222.93	41704223.03	0.0284	0.0260
Moon	109470-03-08 10:46 G	41704222.88	41704222.95	41704223.03	0.0284	0.0269 *
Mercury	109475-12-07 11:44 G	41706322.98	41706322.99	41706323.01	0.0297	0.0293
Mercury	109476-03-05 00:27 G	41706411.40	41706411.52	41706411.65	0.0297	0.0113
Mercury	109476-06-01 13:10 G	41706499.92	41706500.05	41706500.17	0.0297	0.0066
Mercury	109476-08-29 01:25 G	41706588.49	41706588.56	41706588.64	0.0296	0.0242
Venus	109477-04-02 17:15 G	41706805.06	41706805.22	41706805.39	0.0296	0.0186
Venus	109477-11-18 22:32 G	41707035.28	41707035.44	41707035.60	0.0295	0.0198
Earth	109481-08-10 08:08 G	41708395.75	41708395.84	41708395.95	0.0285	0.0258
Moon	109481-08-10 11:44 G	41708395.87	41708395.99	41708396.13	0.0285	0.0242 *
Earth	109482-08-24 04:46 G	41708774.45	41708774.70	41708774.95	0.0281	0.0006
Moon	109482-08-24 07:10 G	41708774.55	41708774.80	41708775.06	0.0281	0.0006 *
Moon	109483-09-06 13:54 G	41709152.95	41709153.08	41709153.23	0.0278	0.0231
Earth	109483-09-06 16:18 G	41709153.05	41709153.18	41709153.32	0.0278	0.0233 *
Mercury	109490-12-21 20:51 G	41711816.20	41711816.37	41711816.55	0.0264	0.0098
Mercury	109491-03-20 17:30 G	41711905.05	41711905.23	41711905.41	0.0264	0.0082
Venus	109492-05-02 08:22 G	41712313.67	41712313.85	41712314.03	0.0264	0.0132
Venus	109492-12-17 05:01 G	41712542.53	41712542.71	41712542.90	0.0265	0.0132
Moon	109498-02-18 04:03 G	41714431.45	41714431.67	41714431.90	0.0277	0.0074

Earth	109498-02-18 06:27 G	41714431.54	41714431.77	41714432.01	0.0277	0.0081	*
Earth	109499-03-02 23:01 G	41714809.27	41714809.46	41714809.67	0.0281	0.0153	
Moon	109499-03-03 01:25 G	41714809.38	41714809.56	41714809.76	0.0281	0.0168	*
Mercury	109505-07-24 00:56 G	41717143.44	41717143.54	41717143.64	0.0297	0.0185	
Mercury	109505-10-20 13:25 G	41717231.93	41717232.06	41717232.20	0.0297	0.0012	
Mercury	109506-01-17 01:54 G	41717320.48	41717320.58	41717320.69	0.0296	0.0171	
Venus	109506-10-14 17:30 G	41717591.06	41717591.23	41717591.42	0.0296	0.0153	
Venus	109507-06-01 22:18 G	41717821.31	41717821.43	41717821.58	0.0295	0.0232	
Earth	109511-08-18 23:58 G	41719360.29	41719360.50	41719360.73	0.0283	0.0128	
Moon	109511-08-19 01:25 G	41719360.35	41719360.56	41719360.77	0.0283	0.0129	*
Earth	109512-08-31 15:49 G	41719738.94	41719739.16	41719739.39	0.0280	0.0120	
Moon	109512-08-31 19:25 G	41719739.09	41719739.31	41719739.55	0.0280	0.0109	*
Mercury	109520-05-10 18:13 G	41722548.12	41722548.26	41722548.40	0.0264	0.0167	
Mercury	109520-08-07 14:37 G	41722636.92	41722637.11	41722637.30	0.0264	0.0012	
Mercury	109520-11-04 11:01 G	41722725.84	41722725.96	41722726.10	0.0264	0.0194	
Venus	109521-11-13 07:39 G	41723099.64	41723099.82	41723100.02	0.0265	0.0106	
Venus	109522-06-30 04:46 G	41723328.53	41723328.70	41723328.87	0.0265	0.0160	
Moon	109527-02-13 21:34 G	41725018.22	41725018.40	41725018.61	0.0276	0.0172	
Earth	109527-02-13 22:32 G	41725018.26	41725018.44	41725018.62	0.0276	0.0187	*
Moon	109528-02-26 08:22 G	41725395.62	41725395.85	41725396.09	0.0280	0.0056	
Earth	109528-02-26 11:58 G	41725395.76	41725396.00	41725396.24	0.0280	0.0041	*
Earth	109529-03-10 09:20 G	41725773.87	41725773.89	41725773.94	0.0284	0.0280	
Mars	109531-03-10 02:51 G	41726503.41	41726503.62	41726503.83	0.0290	0.0176	
Mercury	109534-12-11 02:22 G	41727875.53	41727875.60	41727875.68	0.0296	0.0242	
Mercury	109535-03-09 15:20 G	41727964.01	41727964.14	41727964.26	0.0296	0.0063	
Mercury	109535-06-06 03:34 G	41728052.54	41728052.65	41728052.78	0.0296	0.0117	
Mercury	109535-09-02 16:03 G	41728141.15	41728141.17	41728141.19	0.0296	0.0291	
Venus	109536-04-25 23:44 G	41728377.29	41728377.49	41728377.69	0.0296	0.0104	
Venus	109536-12-12 04:32 G	41728607.64	41728607.69	41728607.76	0.0295	0.0280	
Moon	109540-08-12 01:10 G	41729946.44	41729946.55	41729946.67	0.0285	0.0251	

Earth	109540-08-12 04:32 G	41729946.57	41729946.69	41729946.84	0.0285	0.0240	*
Moon	109541-08-25 22:46 G	41730325.21	41730325.45	41730325.70	0.0281	0.0004	
Earth	109541-08-26 01:10 G	41730325.30	41730325.55	41730325.80	0.0281	0.0013	*
Earth	109542-09-08 12:27 G	41730703.93	41730704.02	41730704.13	0.0278	0.0251	
Moon	109542-09-08 14:37 G	41730703.99	41730704.11	41730704.23	0.0278	0.0237	*
Mercury	109549-09-27 18:27 G	41733280.16	41733280.27	41733280.38	0.0264	0.0211	
Mercury	109549-12-25 14:37 G	41733368.93	41733369.11	41733369.30	0.0264	0.0033	
Mercury	109550-03-24 11:01 G	41733457.82	41733457.96	41733458.13	0.0264	0.0150	
Venus	109551-05-26 12:27 G	41733885.81	41733886.02	41733886.22	0.0265	0.0065	
Venus	109552-01-10 08:51 G	41734114.75	41734114.87	41734115.02	0.0265	0.0201	
Moon	109556-02-09 00:42 G	41735605.47	41735605.53	41735605.60	0.0274	0.0262	
Earth	109557-02-20 07:10 G	41735982.56	41735982.80	41735983.04	0.0278	0.0059	
Moon	109557-02-20 09:49 G	41735982.67	41735982.91	41735983.16	0.0278	0.0047	*
Moon	109558-03-04 21:49 G	41736360.22	41736360.41	41736360.61	0.0281	0.0170	
Earth	109558-03-04 23:58 G	41736360.32	41736360.50	41736360.70	0.0281	0.0175	*
Mercury	109564-07-26 16:03 G	41738696.06	41738696.17	41738696.29	0.0296	0.0128	
Mercury	109564-10-23 04:46 G	41738784.57	41738784.70	41738784.83	0.0296	0.0051	
Mercury	109565-01-19 17:01 G	41738873.13	41738873.21	41738873.30	0.0296	0.0226	
Venus	109565-11-06 01:39 G	41739163.37	41739163.57	41739163.78	0.0296	0.0066	
Moon	109570-08-19 21:34 G	41740911.17	41740911.40	41740911.63	0.0283	0.0120	
Earth	109570-08-19 22:46 G	41740911.22	41740911.45	41740911.68	0.0283	0.0108	*
Moon	109571-09-02 10:18 G	41741289.71	41741289.93	41741290.15	0.0280	0.0134	
Earth	109571-09-02 14:08 G	41741289.87	41741290.09	41741290.31	0.0280	0.0139	*
Mercury	109579-05-14 11:58 G	41744100.83	41744101.00	41744101.17	0.0264	0.0101	
Mercury	109579-08-11 08:22 G	41744189.68	41744189.85	41744190.03	0.0264	0.0079	
Mercury	109579-11-08 05:15 G	41744278.69	41744278.72	41744278.74	0.0264	0.0261	
Venus	109580-12-05 11:58 G	41744671.79	41744672.00	41744672.20	0.0265	0.0038	
Venus	109581-07-22 08:51 G	41744900.77	41744900.87	41744900.98	0.0265	0.0228	
Earth	109586-02-14 23:01 G	41746569.28	41746569.46	41746569.66	0.0277	0.0166	
Moon	109586-02-14 23:15 G	41746569.28	41746569.47	41746569.66	0.0277	0.0163	*

Earth	109587-02-27 12:56 G	41746946.81	41746947.04	41746947.28	0.0280	0.0063
Moon	109587-02-27 16:18 G	41746946.95	41746947.18	41746947.42	0.0280	0.0054 *
Mercury	109593-12-13 17:44 G	41749428.14	41749428.24	41749428.35	0.0296	0.0184
Mercury	109594-03-12 06:27 G	41749516.64	41749516.77	41749516.90	0.0296	0.0005
Mercury	109594-06-08 18:56 G	41749605.18	41749605.29	41749605.39	0.0296	0.0172
Venus	109595-05-19 07:54 G	41749949.61	41749949.83	41749950.04	0.0295	0.0017
Earth	109599-08-14 03:06 G	41751497.49	41751497.63	41751497.80	0.0285	0.0220
Moon	109599-08-14 06:42 G	41751497.63	41751497.78	41751497.93	0.0285	0.0226 *
Earth	109600-08-26 23:15 G	41751876.22	41751876.47	41751876.71	0.0281	0.0032
Moon	109600-08-27 01:39 G	41751876.32	41751876.57	41751876.83	0.0281	0.0036 *
Earth	109601-09-09 10:18 G	41752254.89	41752254.93	41752255.00	0.0278	0.0270
Mars	109603-08-15 10:46 G	41752959.80	41752959.95	41752960.13	0.0272	0.0233
Mercury	109608-09-30 12:27 G	41754832.87	41754833.02	41754833.18	0.0264	0.0143
Mercury	109608-12-28 08:51 G	41754921.69	41754921.87	41754922.06	0.0264	0.0038
Mercury	109609-03-27 05:30 G	41755010.63	41755010.73	41755010.84	0.0264	0.0220
Venus	109609-10-31 19:39 G	41755229.30	41755229.32	41755229.37	0.0265	0.0260
Venus	109610-06-17 17:01 G	41755458.01	41755458.21	41755458.42	0.0265	0.0008
Moon	109615-02-09 21:34 G	41757156.33	41757156.40	41757156.48	0.0275	0.0262
Earth	109615-02-10 00:13 G	41757156.43	41757156.51	41757156.60	0.0275	0.0257 *
Moon	109616-02-22 07:39 G	41757533.59	41757533.82	41757534.05	0.0278	0.0050
Earth	109616-02-22 10:18 G	41757533.69	41757533.93	41757534.17	0.0278	0.0036 *
Earth	109617-03-06 03:49 G	41757911.49	41757911.66	41757911.83	0.0281	0.0199
Moon	109617-03-06 05:44 G	41757911.56	41757911.74	41757911.91	0.0281	0.0186 *
Mars	109619-08-03 12:42 G	41758791.90	41758792.03	41758792.19	0.0289	0.0243
Mercury	109623-05-02 19:10 G	41760160.23	41760160.30	41760160.38	0.0296	0.0242
Mercury	109623-07-30 07:54 G	41760248.70	41760248.83	41760248.96	0.0296	0.0064
Mercury	109623-10-26 20:22 G	41760337.22	41760337.35	41760337.47	0.0296	0.0113
Mercury	109624-01-23 08:22 G	41760425.83	41760425.85	41760425.89	0.0296	0.0288
Venus	109624-11-28 11:30 G	41760735.77	41760735.98	41760736.19	0.0295	0.0027
Earth	109629-08-20 23:01 G	41762462.23	41762462.46	41762462.70	0.0283	0.0087

Moon	109629-08-20 23:58 G	41762462.27	41762462.50	41762462.73	0.0283	0.0074	*
Earth	109630-09-03 13:54 G	41762840.89	41762841.08	41762841.29	0.0279	0.0160	
Moon	109630-09-03 17:44 G	41762841.06	41762841.24	41762841.44	0.0279	0.0177	*
Mercury	109638-02-17 10:03 G	41765564.81	41765564.92	41765565.03	0.0264	0.0210	
Mercury	109638-05-17 06:27 G	41765653.58	41765653.77	41765653.95	0.0264	0.0030	
Mercury	109638-08-14 03:06 G	41765742.47	41765742.63	41765742.78	0.0264	0.0152	
Venus	109639-05-13 19:39 G	41766015.23	41766015.32	41766015.43	0.0265	0.0232	
Venus	109639-12-28 17:01 G	41766244.00	41766244.21	41766244.42	0.0265	0.0034	
Earth	109645-02-16 02:22 G	41768120.39	41768120.60	41768120.80	0.0277	0.0142	
Moon	109645-02-16 02:37 G	41768120.41	41768120.61	41768120.82	0.0277	0.0157	*
Moon	109646-02-28 12:56 G	41768497.81	41768498.04	41768498.27	0.0280	0.0081	
Earth	109646-02-28 16:18 G	41768497.96	41768498.18	41768498.42	0.0280	0.0088	*
Mercury	109652-12-16 09:34 G	41770980.78	41770980.90	41770981.02	0.0296	0.0118	
Mercury	109653-03-14 22:03 G	41771069.29	41771069.42	41771069.55	0.0296	0.0059	
Mercury	109653-06-11 10:32 G	41771157.86	41771157.94	41771158.02	0.0296	0.0235	
Venus	109654-06-10 17:58 G	41771522.04	41771522.25	41771522.46	0.0295	0.0078	
Moon	109658-08-15 01:54 G	41773048.40	41773048.58	41773048.79	0.0284	0.0182	
Earth	109658-08-15 05:15 G	41773048.55	41773048.72	41773048.91	0.0284	0.0198	*
Moon	109659-08-28 21:49 G	41773427.17	41773427.41	41773427.64	0.0281	0.0068	
Earth	109659-08-29 00:42 G	41773427.28	41773427.53	41773427.77	0.0281	0.0054	*
Mercury	109667-07-07 10:46 G	41776296.89	41776296.95	41776297.02	0.0265	0.0249	
Mercury	109667-10-04 07:10 G	41776385.62	41776385.80	41776385.98	0.0265	0.0069	
Mercury	109668-01-01 03:34 G	41776474.49	41776474.65	41776474.83	0.0265	0.0113	
Venus	109668-11-23 01:39 G	41776801.43	41776801.57	41776801.72	0.0265	0.0187	
Venus	109669-07-09 22:46 G	41777030.26	41777030.45	41777030.66	0.0265	0.0079	
Earth	109674-02-11 04:46 G	41778707.59	41778707.70	41778707.84	0.0275	0.0234	
Moon	109674-02-11 06:42 G	41778707.69	41778707.78	41778707.89	0.0275	0.0248	*
Earth	109675-02-23 15:49 G	41779084.92	41779085.16	41779085.40	0.0278	0.0011	
Moon	109675-02-23 18:56 G	41779085.04	41779085.29	41779085.53	0.0278	0.0012	*
Moon	109676-03-07 08:37 G	41779462.74	41779462.86	41779463.01	0.0282	0.0236	

Earth	109676-03-07 09:49 G	41779462.78	41779462.91	41779463.07	0.0282	0.0225	*
Mercury	109682-05-05 11:30 G	41781712.88	41781712.98	41781713.09	0.0296	0.0169	
Mercury	109682-08-02 00:13 G	41781801.37	41781801.51	41781801.64	0.0296	0.0012	
Mercury	109682-10-29 12:27 G	41781889.92	41781890.02	41781890.12	0.0296	0.0184	
Venus	109683-05-05 19:10 G	41782078.21	41782078.30	41782078.42	0.0296	0.0255	
Venus	109683-12-21 23:44 G	41782308.30	41782308.49	41782308.69	0.0295	0.0128	
Moon	109688-08-22 03:06 G	41784013.38	41784013.63	41784013.88	0.0283	0.0058	
Earth	109688-08-22 03:20 G	41784013.40	41784013.64	41784013.88	0.0283	0.0063	*
Moon	109689-09-04 14:08 G	41784391.90	41784392.09	41784392.29	0.0279	0.0178	
Earth	109689-09-04 17:30 G	41784392.06	41784392.23	41784392.43	0.0279	0.0183	*
Mars	109692-01-08 05:15 G	41785247.48	41785247.72	41785247.96	0.0272	0.0184	
Mercury	109697-02-20 05:01 G	41787117.55	41787117.71	41787117.87	0.0264	0.0133	
Mercury	109697-05-20 01:25 G	41787206.38	41787206.56	41787206.75	0.0264	0.0049	
Mercury	109697-08-16 22:03 G	41787295.34	41787295.42	41787295.52	0.0264	0.0231	
Venus	109698-06-05 02:08 G	41787587.43	41787587.59	41787587.77	0.0265	0.0157	
Venus	109699-01-19 23:30 G	41787816.29	41787816.48	41787816.68	0.0265	0.0109	
Moon	109704-02-19 07:39 G	41789671.62	41789671.82	41789672.04	0.0277	0.0111	
Earth	109704-02-19 08:37 G	41789671.64	41789671.86	41789672.08	0.0277	0.0117	*
Earth	109705-03-02 23:30 G	41790049.26	41790049.48	41790049.70	0.0281	0.0113	
Moon	109705-03-03 02:51 G	41790049.41	41790049.62	41790049.84	0.0281	0.0130	*
Mercury	109711-09-23 13:25 G	41792444.98	41792445.06	41792445.15	0.0296	0.0222	
Mercury	109711-12-21 02:08 G	41792533.46	41792533.59	41792533.72	0.0296	0.0045	
Mercury	109712-03-18 14:22 G	41792621.99	41792622.10	41792622.22	0.0296	0.0133	
Venus	109712-11-16 02:08 G	41792864.44	41792864.59	41792864.74	0.0296	0.0204	
Venus	109713-07-04 06:42 G	41793094.61	41793094.78	41793094.95	0.0295	0.0179	
Earth	109717-08-17 10:46 G	41794599.75	41794599.95	41794600.15	0.0284	0.0172	
Moon	109717-08-17 13:39 G	41794599.89	41794600.07	41794600.27	0.0284	0.0179	*
Earth	109718-08-31 05:01 G	41794978.48	41794978.71	41794978.95	0.0281	0.0079	
Moon	109718-08-31 08:37 G	41794978.62	41794978.86	41794979.11	0.0281	0.0066	*
Mercury	109726-07-11 05:58 G	41797849.61	41797849.75	41797849.90	0.0265	0.0170	

Mercury	109726-10-08 02:37 G	41797938.42	41797938.61	41797938.80	0.0265	0.0012
Mercury	109727-01-04 23:15 G	41798027.34	41798027.47	41798027.60	0.0265	0.0194
Venus	109727-12-17 08:37 G	41798373.68	41798373.86	41798374.06	0.0265	0.0111
Venus	109728-08-02 05:58 G	41798602.59	41798602.75	41798602.92	0.0266	0.0157
Moon	109733-02-13 10:32 G	41800258.78	41800258.94	41800259.13	0.0275	0.0198
Earth	109733-02-13 12:13 G	41800258.87	41800259.01	41800259.18	0.0275	0.0210 *
Moon	109734-02-25 20:51 G	41800636.13	41800636.37	41800636.61	0.0279	0.0031
Earth	109734-02-25 23:58 G	41800636.26	41800636.50	41800636.75	0.0279	0.0017 *
Earth	109735-03-10 18:56 G	41801014.20	41801014.29	41801014.41	0.0282	0.0252
Moon	109735-03-10 19:25 G	41801014.23	41801014.31	41801014.40	0.0282	0.0262 *
Mercury	109741-02-09 16:03 G	41803177.11	41803177.17	41803177.22	0.0296	0.0265
Mercury	109741-05-09 04:32 G	41803265.57	41803265.69	41803265.82	0.0296	0.0087
Mercury	109741-08-05 17:01 G	41803354.09	41803354.21	41803354.34	0.0296	0.0089
Mercury	109741-11-02 05:15 G	41803442.67	41803442.72	41803442.78	0.0296	0.0264
Venus	109742-05-29 10:18 G	41803650.75	41803650.93	41803651.12	0.0295	0.0146
Venus	109743-01-14 14:37 G	41803880.98	41803881.11	41803881.24	0.0295	0.0236
Moon	109747-08-25 11:01 G	41805564.73	41805564.96	41805565.20	0.0282	0.0053
Earth	109747-08-25 11:44 G	41805564.74	41805564.99	41805565.24	0.0282	0.0036 *
Earth	109748-09-07 00:56 G	41805943.39	41805943.54	41805943.72	0.0279	0.0207
Moon	109748-09-07 03:49 G	41805943.50	41805943.66	41805943.85	0.0279	0.0192 *
Mercury	109755-11-28 04:18 G	41808581.60	41808581.68	41808581.78	0.0265	0.0229
Mercury	109756-02-25 00:56 G	41808670.36	41808670.54	41808670.72	0.0265	0.0049
Mercury	109756-05-23 21:20 G	41808759.24	41808759.39	41808759.56	0.0265	0.0134
Venus	109757-06-28 10:03 G	41809159.72	41809159.92	41809160.12	0.0265	0.0078
Venus	109758-02-12 07:25 G	41809388.67	41809388.81	41809388.96	0.0266	0.0189
Earth	109763-02-20 17:15 G	41811222.99	41811223.22	41811223.45	0.0277	0.0091
Moon	109763-02-20 18:27 G	41811223.03	41811223.27	41811223.51	0.0277	0.0080 *
Moon	109764-03-04 05:44 G	41811600.53	41811600.74	41811600.96	0.0281	0.0140
Earth	109764-03-04 08:51 G	41811600.67	41811600.87	41811601.09	0.0281	0.0142 *
Mercury	109770-09-26 06:27 G	41813997.66	41813997.77	41813997.89	0.0296	0.0139

Mercury	109770-12-23 19:10 G	41814086.17	41814086.30	41814086.43	0.0296	0.0039
Mercury	109771-03-22 07:25 G	41814174.72	41814174.81	41814174.90	0.0296	0.0214
Venus	109771-12-09 17:30 G	41814437.03	41814437.23	41814437.44	0.0295	0.0094
Venus	109772-07-26 21:49 G	41814667.38	41814667.41	41814667.46	0.0295	0.0289
Moon	109776-08-18 17:30 G	41816151.02	41816151.23	41816151.44	0.0284	0.0158
Earth	109776-08-18 20:08 G	41816151.13	41816151.34	41816151.56	0.0284	0.0145 *
Moon	109777-09-01 09:49 G	41816529.69	41816529.91	41816530.15	0.0280	0.0096
Earth	109777-09-01 13:54 G	41816529.85	41816530.08	41816530.31	0.0280	0.0105 *
Mars	109780-06-04 09:06 G	41817536.56	41817536.88	41817537.20	0.0272	0.0060
Mercury	109785-04-16 05:30 G	41819313.73	41819313.73	41819313.76	0.0265	0.0265
Mercury	109785-07-14 02:08 G	41819402.42	41819402.59	41819402.77	0.0265	0.0084
Mercury	109785-10-10 22:46 G	41819491.27	41819491.45	41819491.62	0.0265	0.0098
Venus	109787-01-08 17:01 G	41819946.01	41819946.21	41819946.42	0.0266	0.0030
Venus	109787-08-25 14:22 G	41820175.02	41820175.10	41820175.20	0.0266	0.0238
Earth	109792-02-15 22:03 G	41821810.25	41821810.42	41821810.61	0.0276	0.0184
Moon	109792-02-15 23:15 G	41821810.30	41821810.47	41821810.65	0.0276	0.0180 *
Earth	109793-02-27 11:01 G	41822187.72	41822187.96	41822188.20	0.0279	0.0044
Moon	109793-02-27 14:37 G	41822187.87	41822188.11	41822188.36	0.0279	0.0036 *
Moon	109794-03-12 07:54 G	41822565.76	41822565.83	41822565.92	0.0282	0.0266
Earth	109794-03-12 07:10 G	41822565.80	41822565.80	41822565.81	0.0282	0.0282 *
Mercury	109800-02-13 09:34 G	41824729.80	41824729.90	41824730.01	0.0295	0.0174
Mercury	109800-05-12 22:18 G	41824818.29	41824818.43	41824818.56	0.0295	0.0010
Mercury	109800-08-09 10:32 G	41824906.84	41824906.94	41824907.05	0.0295	0.0178
Venus	109801-06-22 04:03 G	41825223.45	41825223.67	41825223.88	0.0295	0.0030
Earth	109805-08-14 02:37 G	41826737.52	41826737.61	41826737.72	0.0285	0.0260
Moon	109805-08-14 06:27 G	41826737.69	41826737.77	41826737.87	0.0285	0.0265 *
Earth	109806-08-27 23:30 G	41827116.23	41827116.48	41827116.73	0.0282	0.0007
Moon	109806-08-28 01:10 G	41827116.30	41827116.55	41827116.81	0.0282	0.0008 *
Moon	109807-09-10 09:20 G	41827494.79	41827494.89	41827495.03	0.0279	0.0244
Earth	109807-09-10 11:44 G	41827494.87	41827494.99	41827495.14	0.0279	0.0234 *

Mercury	109814-12-02 00:56 G	41830134.39	41830134.54	41830134.70	0.0265	0.0139
Mercury	109815-02-28 21:34 G	41830223.21	41830223.40	41830223.58	0.0265	0.0042
Mercury	109815-05-28 18:13 G	41830312.16	41830312.26	41830312.36	0.0265	0.0225
Venus	109815-12-05 21:20 G	41830503.37	41830503.39	41830503.43	0.0265	0.0262
Venus	109816-07-21 19:10 G	41830732.09	41830732.30	41830732.51	0.0265	0.0005
Moon	109822-02-23 02:08 G	41832774.37	41832774.59	41832774.82	0.0278	0.0077
Earth	109822-02-23 04:03 G	41832774.43	41832774.67	41832774.91	0.0278	0.0062 *
Earth	109823-03-07 20:37 G	41833152.18	41833152.36	41833152.56	0.0281	0.0172
Moon	109823-03-07 23:01 G	41833152.27	41833152.46	41833152.66	0.0281	0.0155 *
Mercury	109829-07-03 11:30 G	41835461.90	41835461.98	41835462.07	0.0296	0.0227
Mercury	109829-09-30 00:13 G	41835550.38	41835550.51	41835550.64	0.0296	0.0050
Mercury	109829-12-27 12:42 G	41835638.91	41835639.03	41835639.14	0.0296	0.0127
Venus	109831-01-02 10:46 G	41836009.74	41836009.95	41836010.17	0.0295	0.0022
Earth	109835-08-22 08:51 G	41837702.65	41837702.87	41837703.10	0.0283	0.0116
Moon	109835-08-22 10:32 G	41837702.72	41837702.94	41837703.17	0.0283	0.0104 *
Earth	109836-09-04 01:25 G	41838081.35	41838081.56	41838081.78	0.0280	0.0132
Moon	109836-09-04 05:15 G	41838081.51	41838081.72	41838081.93	0.0280	0.0148 *
Mercury	109844-04-20 02:22 G	41840866.46	41840866.60	41840866.74	0.0265	0.0173
Mercury	109844-07-17 23:01 G	41840955.27	41840955.46	41840955.64	0.0265	0.0010
Mercury	109844-10-14 19:25 G	41841044.19	41841044.31	41841044.45	0.0265	0.0192
Venus	109845-06-17 04:32 G	41841289.58	41841289.69	41841289.82	0.0266	0.0215
Venus	109846-02-01 02:22 G	41841518.40	41841518.60	41841518.81	0.0266	0.0054
Moon	109851-02-18 08:37 G	41843361.68	41843361.86	41843362.07	0.0276	0.0172
Earth	109851-02-18 09:20 G	41843361.70	41843361.89	41843362.09	0.0276	0.0157 *
Moon	109852-03-01 19:25 G	41843739.08	41843739.31	41843739.55	0.0280	0.0061
Earth	109852-03-01 23:15 G	41843739.24	41843739.47	41843739.71	0.0280	0.0074 *
Mercury	109858-11-20 15:06 G	41846194.07	41846194.13	41846194.19	0.0295	0.0257
Mercury	109859-02-17 03:49 G	41846282.53	41846282.66	41846282.78	0.0295	0.0080
Mercury	109859-05-16 16:03 G	41846371.05	41846371.17	41846371.30	0.0295	0.0097
Mercury	109859-08-13 04:18 G	41846459.64	41846459.68	41846459.74	0.0295	0.0272

Venus	109859-11-27 18:56 G	41846566.26	41846566.29	41846566.33	0.0295	0.0290
Venus	109860-07-14 23:01 G	41846796.26	41846796.46	41846796.66	0.0295	0.0091
Moon	109864-08-15 14:37 G	41848288.96	41848289.11	41848289.29	0.0285	0.0212
Earth	109864-08-15 18:42 G	41848289.14	41848289.28	41848289.43	0.0285	0.0229 *
Moon	109865-08-29 11:58 G	41848667.76	41848668.00	41848668.24	0.0281	0.0039
Earth	109865-08-29 14:37 G	41848667.86	41848668.11	41848668.35	0.0281	0.0024 *
Earth	109866-09-12 01:25 G	41849046.50	41849046.56	41849046.66	0.0278	0.0262
Moon	109866-09-12 03:06 G	41849046.59	41849046.63	41849046.69	0.0278	0.0271 *
Mars	109868-10-30 17:44 G	41849825.93	41849826.24	41849826.56	0.0272	0.0067
Mercury	109873-09-07 01:39 G	41851598.48	41851598.57	41851598.67	0.0265	0.0225
Mercury	109873-12-04 22:03 G	41851687.24	41851687.42	41851687.61	0.0265	0.0045
Mercury	109874-03-03 18:42 G	41851776.12	41851776.28	41851776.44	0.0265	0.0138
Venus	109874-12-28 07:25 G	41852075.66	41852075.81	41852075.97	0.0265	0.0178
Venus	109875-08-14 05:15 G	41852304.52	41852304.72	41852304.92	0.0265	0.0090
Earth	109880-02-13 05:44 G	41853948.66	41853948.74	41853948.83	0.0275	0.0255
Moon	109880-02-13 08:22 G	41853948.81	41853948.85	41853948.90	0.0275	0.0269 *
Earth	109881-02-24 16:18 G	41854325.94	41854326.18	41854326.42	0.0278	0.0033
Moon	109881-02-24 18:56 G	41854326.05	41854326.29	41854326.54	0.0278	0.0038 *
Moon	109882-03-09 08:37 G	41854703.69	41854703.86	41854704.03	0.0282	0.0208
Earth	109882-03-09 10:03 G	41854703.76	41854703.92	41854704.09	0.0282	0.0202 *
Mercury	109888-07-06 05:44 G	41857014.62	41857014.74	41857014.86	0.0296	0.0131
Mercury	109888-10-02 18:13 G	41857103.13	41857103.26	41857103.39	0.0296	0.0046
Mercury	109888-12-30 06:27 G	41857191.69	41857191.77	41857191.86	0.0296	0.0221
Venus	109889-06-09 01:54 G	41857352.45	41857352.58	41857352.70	0.0296	0.0240
Venus	109890-01-25 05:44 G	41857582.56	41857582.74	41857582.93	0.0295	0.0143
Moon	109894-08-23 23:15 G	41859254.22	41859254.47	41859254.72	0.0283	0.0075
Earth	109894-08-23 23:58 G	41859254.27	41859254.50	41859254.74	0.0283	0.0085 *
Moon	109895-09-06 11:44 G	41859632.80	41859632.99	41859633.21	0.0279	0.0163
Earth	109895-09-06 15:34 G	41859632.95	41859633.15	41859633.35	0.0279	0.0162 *
Mercury	109903-01-26 02:51 G	41862330.59	41862330.62	41862330.67	0.0265	0.0260

Mercury	109903-04-24 23:15 G	41862419.30	41862419.47	41862419.66	0.0265	0.0080
Mercury	109903-07-22 19:54 G	41862508.16	41862508.33	41862508.51	0.0265	0.0104
Venus	109904-07-10 14:37 G	41862861.93	41862862.11	41862862.30	0.0266	0.0130
Venus	109905-02-24 12:27 G	41863090.84	41863091.02	41863091.20	0.0266	0.0139
Earth	109910-02-20 21:06 G	41864913.17	41864913.38	41864913.60	0.0277	0.0130
Moon	109910-02-20 21:06 G	41864913.17	41864913.38	41864913.59	0.0277	0.0126 *
Earth	109911-03-05 11:58 G	41865290.78	41865291.00	41865291.23	0.0280	0.0102
Moon	109911-03-05 15:34 G	41865290.93	41865291.15	41865291.37	0.0280	0.0116 *
Mercury	109917-11-24 09:20 G	41867746.78	41867746.89	41867747.00	0.0295	0.0160
Mercury	109918-02-20 21:49 G	41867835.28	41867835.41	41867835.54	0.0295	0.0017
Mercury	109918-05-20 10:18 G	41867923.83	41867923.93	41867924.02	0.0295	0.0192
Venus	109918-12-21 14:22 G	41868138.93	41868139.10	41868139.28	0.0295	0.0169
Venus	109919-08-08 18:27 G	41868369.13	41868369.27	41868369.42	0.0294	0.0213
Earth	109923-08-19 11:44 G	41869840.82	41869840.99	41869841.18	0.0284	0.0197
Moon	109923-08-19 15:20 G	41869840.97	41869841.14	41869841.32	0.0284	0.0198 *
Earth	109924-09-01 06:42 G	41870219.54	41870219.78	41870220.02	0.0281	0.0055
Moon	109924-09-01 09:49 G	41870219.66	41870219.91	41870220.16	0.0281	0.0048 *
Moon	109925-09-14 15:34 G	41870598.13	41870598.15	41870598.19	0.0278	0.0276
Mercury	109932-09-10 23:01 G	41873151.30	41873151.46	41873151.63	0.0265	0.0128
Mercury	109932-12-08 19:39 G	41873240.13	41873240.32	41873240.50	0.0265	0.0054
Mercury	109933-03-07 16:03 G	41873329.10	41873329.17	41873329.26	0.0265	0.0237
Venus	109934-01-20 18:13 G	41873648.06	41873648.26	41873648.46	0.0265	0.0091
Venus	109934-09-06 15:34 G	41873877.00	41873877.15	41873877.32	0.0266	0.0177
Moon	109939-02-15 14:22 G	41875499.95	41875500.10	41875500.25	0.0275	0.0216
Earth	109939-02-15 17:01 G	41875500.09	41875500.21	41875500.35	0.0275	0.0229 *
Moon	109940-02-28 01:25 G	41875877.32	41875877.56	41875877.79	0.0279	0.0013
Earth	109940-02-28 04:32 G	41875877.45	41875877.69	41875877.93	0.0279	0.0005 *
Earth	109941-03-11 23:01 G	41876255.33	41876255.46	41876255.60	0.0282	0.0231
Moon	109941-03-11 23:58 G	41876255.38	41876255.50	41876255.62	0.0282	0.0243 *
Mars	109943-01-29 08:37 G	41876943.68	41876943.86	41876944.05	0.0288	0.0205

Mercury	109947-04-13 11:01 G	41878478.87	41878478.96	41878479.05	0.0296	0.0214
Mercury	109947-07-10 23:44 G	41878567.36	41878567.49	41878567.62	0.0296	0.0037
Mercury	109947-10-07 11:58 G	41878655.89	41878656.00	41878656.12	0.0296	0.0140
Venus	109948-07-02 20:51 G	41878925.18	41878925.37	41878925.57	0.0295	0.0120
Venus	109949-02-18 00:42 G	41879155.45	41879155.53	41879155.64	0.0295	0.0264
Earth	109953-08-26 15:49 G	41880805.92	41880806.16	41880806.40	0.0282	0.0053
Moon	109953-08-26 15:34 G	41880805.92	41880806.15	41880806.39	0.0282	0.0068 *
Earth	109954-09-09 06:27 G	41881184.59	41881184.77	41881184.95	0.0279	0.0191
Moon	109954-09-09 09:20 G	41881184.72	41881184.89	41881185.09	0.0279	0.0177 *
Mars	109957-03-28 12:56 G	41882115.87	41882116.04	41882116.23	0.0271	0.0224
Mercury	109962-01-28 23:58 G	41883883.36	41883883.50	41883883.65	0.0265	0.0165
Mercury	109962-04-27 20:37 G	41883972.17	41883972.36	41883972.55	0.0265	0.0016
Mercury	109962-07-25 17:15 G	41884061.10	41884061.22	41884061.34	0.0265	0.0200
Venus	109963-08-03 00:42 G	41884434.32	41884434.53	41884434.74	0.0266	0.0045
Venus	109964-03-18 22:18 G	41884663.32	41884663.43	41884663.55	0.0266	0.0224
Earth	109969-02-22 08:08 G	41886464.62	41886464.84	41886465.07	0.0277	0.0104
Moon	109969-02-22 08:51 G	41886464.64	41886464.87	41886465.12	0.0277	0.0090 *
Moon	109970-03-06 20:51 G	41886842.16	41886842.37	41886842.59	0.0281	0.0136
Earth	109970-03-06 23:58 G	41886842.30	41886842.50	41886842.72	0.0281	0.0131 *
Mercury	109976-08-30 14:37 G	41889211.04	41889211.11	41889211.19	0.0295	0.0241
Mercury	109976-11-27 03:20 G	41889299.51	41889299.64	41889299.77	0.0295	0.0064
Mercury	109977-02-23 15:49 G	41889388.04	41889388.16	41889388.28	0.0295	0.0113
Mercury	109977-05-23 04:03 G	41889476.65	41889476.67	41889476.70	0.0295	0.0287
Venus	109978-01-13 10:03 G	41889711.71	41889711.92	41889712.14	0.0295	0.0047
Moon	109982-08-21 02:22 G	41891392.41	41891392.60	41891392.80	0.0284	0.0180
Earth	109982-08-21 05:15 G	41891392.53	41891392.72	41891392.93	0.0284	0.0164 *
Moon	109983-09-03 19:54 G	41891771.10	41891771.33	41891771.57	0.0281	0.0075
Earth	109983-09-03 23:01 G	41891771.23	41891771.46	41891771.71	0.0281	0.0087 *
Mercury	109991-06-17 23:58 G	41894615.40	41894615.50	41894615.62	0.0265	0.0211
Mercury	109991-09-14 20:22 G	41894704.17	41894704.35	41894704.54	0.0265	0.0031

Mercury	109991-12-12 16:46 G	41894793.06	41894793.20	41894793.36	0.0265	0.0152
Venus	109993-02-12 04:32 G	41895220.48	41895220.69	41895220.90	0.0265	0.0006
Venus	109993-09-29 02:08 G	41895449.56	41895449.59	41895449.62	0.0266	0.0262
Earth	109998-02-17 03:20 G	41897051.49	41897051.64	41897051.82	0.0276	0.0204
Moon	109998-02-17 05:44 G	41897051.59	41897051.74	41897051.91	0.0276	0.0198 *
Earth	109999-03-01 15:49 G	41897428.92	41897429.16	41897429.40	0.0279	0.0023
Moon	109999-03-01 19:25 G	41897429.06	41897429.31	41897429.55	0.0279	0.0020 *
Moon	110000-03-13 10:32 G	41897806.83	41897806.94	41897807.07	0.0282	0.0246
Earth	110000-03-13 11:01 G	41897806.88	41897806.96	41897807.06	0.0282	0.0261 *

111TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 111th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	110006-04-16 04:46 G	41900031.59	41900031.70	41900031.83	0.0296	0.0122		
Mercury	110006-07-13 17:30 G	41900120.10	41900120.23	41900120.36	0.0296	0.0056		
Mercury	110006-10-10 05:44 G	41900208.66	41900208.74	41900208.83	0.0296	0.0231		
Venus	110007-07-26 15:06 G	41900497.92	41900498.13	41900498.35	0.0295	0.0004		
Earth	110011-08-15 08:08 G	41901978.79	41901978.84	41901978.90	0.0286	0.0278		
Earth	110012-08-28 06:27 G	41902357.53	41902357.77	41902358.02	0.0282	0.0023		
Moon	110012-08-28 07:10 G	41902357.54	41902357.80	41902358.06	0.0282	0.0024 *		
Moon	110013-09-10 16:46 G	41902736.07	41902736.20	41902736.35	0.0279	0.0230		
Earth	110013-09-10 20:08 G	41902736.20	41902736.34	41902736.50	0.0279	0.0220 *		
Mercury	110020-11-04 00:42 G	41905347.48	41905347.53	41905347.59	0.0265	0.0251		

Mercury	110021-01-31 21:06 G	41905436.20	41905436.38	41905436.56	0.0265	0.0071
Mercury	110021-04-30 17:30 G	41905525.07	41905525.23	41905525.41	0.0265	0.0111
Venus	110022-01-08 12:27 G	41905777.93	41905778.02	41905778.13	0.0265	0.0230
Venus	110022-08-25 10:18 G	41906006.73	41906006.93	41906007.14	0.0266	0.0040
Moon	110028-02-24 16:18 G	41908015.96	41908016.18	41908016.41	0.0278	0.0090
Earth	110028-02-24 17:44 G	41908016.01	41908016.24	41908016.48	0.0278	0.0077 *
Earth	110029-03-08 10:18 G	41908393.73	41908393.93	41908394.13	0.0281	0.0158
Moon	110029-03-08 12:56 G	41908393.84	41908394.04	41908394.25	0.0281	0.0142 *
Mars	110031-06-26 04:18 G	41909233.42	41909233.68	41909233.94	0.0288	0.0051
Mercury	110035-09-03 08:22 G	41910763.74	41910763.85	41910763.97	0.0295	0.0151
Mercury	110035-11-30 21:06 G	41910852.25	41910852.38	41910852.51	0.0295	0.0026
Mercury	110036-02-27 09:20 G	41910940.80	41910940.89	41910940.99	0.0295	0.0202
Venus	110037-02-05 04:03 G	41911284.46	41911284.67	41911284.88	0.0295	0.0070
Earth	110041-08-22 20:51 G	41912944.15	41912944.37	41912944.59	0.0284	0.0133
Moon	110041-08-22 23:15 G	41912944.25	41912944.47	41912944.69	0.0284	0.0124 *
Earth	110042-09-05 13:54 G	41913322.85	41913323.08	41913323.30	0.0280	0.0116
Moon	110042-09-05 17:15 G	41913323.00	41913323.22	41913323.44	0.0280	0.0131 *
Mercury	110050-06-20 21:06 G	41916168.22	41916168.38	41916168.55	0.0265	0.0117
Mercury	110050-09-17 17:30 G	41916257.05	41916257.23	41916257.41	0.0265	0.0064
Mercury	110050-12-15 13:54 G	41916346.03	41916346.08	41916346.16	0.0265	0.0247
Venus	110051-07-21 16:32 G	41916564.05	41916564.19	41916564.34	0.0265	0.0190
Venus	110052-03-06 14:08 G	41916792.89	41916793.09	41916793.29	0.0265	0.0078
Moon	110057-02-18 10:18 G	41918602.75	41918602.93	41918603.10	0.0276	0.0194
Earth	110057-02-18 12:13 G	41918602.83	41918603.01	41918603.19	0.0276	0.0178 *
Moon	110058-03-02 21:20 G	41918980.16	41918980.39	41918980.63	0.0279	0.0037
Earth	110058-03-03 00:56 G	41918980.30	41918980.54	41918980.78	0.0279	0.0049 *
Mercury	110065-01-20 09:49 G	41921495.82	41921495.91	41921496.00	0.0296	0.0213
Mercury	110065-04-18 22:18 G	41921584.30	41921584.43	41921584.56	0.0296	0.0035
Mercury	110065-07-16 10:46 G	41921672.84	41921672.95	41921673.07	0.0296	0.0141
Venus	110065-12-31 03:49 G	41921840.59	41921840.66	41921840.75	0.0296	0.0271

Venus	110066-08-18 08:08 G	41922070.64	41922070.84	41922071.04	0.0295	0.0113
Moon	110070-08-16 18:13 G	41923530.13	41923530.26	41923530.41	0.0285	0.0233
Earth	110070-08-16 22:03 G	41923530.30	41923530.42	41923530.54	0.0285	0.0249 *
Moon	110071-08-30 18:56 G	41923909.05	41923909.29	41923909.53	0.0282	0.0019
Earth	110071-08-30 19:39 G	41923909.07	41923909.32	41923909.57	0.0282	0.0006 *
Earth	110072-09-12 08:22 G	41924287.75	41924287.85	41924287.97	0.0278	0.0247
Moon	110072-09-12 11:58 G	41924287.90	41924288.00	41924288.10	0.0278	0.0254 *
Mercury	110079-11-07 21:20 G	41926900.24	41926900.39	41926900.53	0.0265	0.0162
Mercury	110080-02-04 17:44 G	41926989.05	41926989.24	41926989.42	0.0265	0.0019
Mercury	110080-05-03 14:08 G	41927077.97	41927078.09	41927078.21	0.0265	0.0201
Venus	110081-01-30 21:20 G	41927350.22	41927350.39	41927350.57	0.0265	0.0149
Venus	110081-09-16 18:56 G	41927579.11	41927579.29	41927579.48	0.0266	0.0120
Earth	110086-02-13 15:06 G	41929190.12	41929190.13	41929190.14	0.0275	0.0274
Earth	110087-02-26 00:56 G	41929567.30	41929567.54	41929567.78	0.0278	0.0053
Moon	110087-02-26 02:37 G	41929567.36	41929567.61	41929567.85	0.0278	0.0059 *
Moon	110088-03-09 14:51 G	41929944.95	41929945.12	41929945.31	0.0281	0.0192
Earth	110088-03-09 17:44 G	41929945.07	41929945.24	41929945.44	0.0281	0.0183 *
Mercury	110094-06-09 12:56 G	41932227.97	41932228.04	41932228.11	0.0295	0.0246
Mercury	110094-09-06 01:39 G	41932316.44	41932316.57	41932316.70	0.0295	0.0069
Mercury	110094-12-03 14:08 G	41932404.97	41932405.09	41932405.21	0.0295	0.0108
Mercury	110095-03-02 02:22 G	41932493.57	41932493.60	41932493.64	0.0295	0.0283
Venus	110095-07-13 15:49 G	41932627.00	41932627.16	41932627.31	0.0295	0.0204
Venus	110096-02-28 19:39 G	41932857.16	41932857.32	41932857.50	0.0295	0.0181
Moon	110100-08-25 06:27 G	41934495.54	41934495.77	41934496.02	0.0283	0.0098
Earth	110100-08-25 09:06 G	41934495.65	41934495.88	41934496.11	0.0283	0.0104 *
Moon	110101-09-07 22:03 G	41934874.22	41934874.42	41934874.64	0.0280	0.0141
Earth	110101-09-08 01:25 G	41934874.36	41934874.56	41934874.79	0.0280	0.0144 *
Mercury	110109-03-27 21:20 G	41937632.28	41937632.39	41937632.51	0.0265	0.0207
Mercury	110109-06-24 17:44 G	41937721.06	41937721.24	41937721.43	0.0264	0.0027
Mercury	110109-09-21 14:08 G	41937809.94	41937810.09	41937810.24	0.0264	0.0154

Venus	110110-08-14 01:25 G	41938136.37	41938136.56	41938136.76	0.0265	0.0109
Venus	110111-03-30 22:46 G	41938365.29	41938365.45	41938365.62	0.0265	0.0159
Earth	110116-02-21 18:27 G	41940154.08	41940154.27	41940154.48	0.0276	0.0155
Moon	110116-02-21 20:08 G	41940154.15	41940154.34	41940154.54	0.0276	0.0150 *
Earth	110117-03-05 07:25 G	41940531.58	41940531.81	41940532.05	0.0279	0.0074
Moon	110117-03-05 10:46 G	41940531.72	41940531.95	41940532.19	0.0279	0.0088 *
Mars	110119-11-20 18:27 G	41941522.01	41941522.27	41941522.53	0.0288	0.0016
Mercury	110124-01-25 02:22 G	41943048.49	41943048.60	41943048.72	0.0296	0.0136
Mercury	110124-04-22 15:06 G	41943137.00	41943137.13	41943137.26	0.0296	0.0043
Mercury	110124-07-20 03:20 G	41943225.56	41943225.64	41943225.73	0.0296	0.0218
Venus	110125-01-23 17:58 G	41943413.08	41943413.25	41943413.43	0.0296	0.0166
Venus	110125-09-10 22:18 G	41943643.29	41943643.43	41943643.58	0.0295	0.0220
Earth	110129-08-19 07:39 G	41945081.68	41945081.82	41945081.99	0.0285	0.0222
Moon	110129-08-19 11:15 G	41945081.84	41945081.97	41945082.14	0.0285	0.0226 *
Earth	110130-09-02 05:01 G	41945460.47	41945460.71	41945460.96	0.0282	0.0032
Moon	110130-09-02 05:44 G	41945460.48	41945460.74	41945461.00	0.0282	0.0020 *
Moon	110131-09-15 14:08 G	41945839.00	41945839.09	41945839.20	0.0278	0.0254
Earth	110131-09-15 17:30 G	41945839.19	41945839.23	41945839.29	0.0278	0.0271 *
Mercury	110138-08-14 20:37 G	41948364.33	41948364.36	41948364.41	0.0265	0.0258
Mercury	110138-11-11 17:01 G	41948453.04	41948453.21	41948453.39	0.0265	0.0079
Mercury	110139-02-08 13:25 G	41948541.89	41948542.06	41948542.24	0.0265	0.0103
Venus	110140-02-24 04:46 G	41948922.50	41948922.70	41948922.91	0.0265	0.0071
Venus	110140-10-10 02:22 G	41949151.47	41949151.60	41949151.74	0.0266	0.0198
Moon	110145-02-15 15:06 G	41950741.02	41950741.13	41950741.26	0.0275	0.0240
Earth	110145-02-15 18:56 G	41950741.20	41950741.29	41950741.39	0.0275	0.0253 *
Moon	110146-02-28 03:34 G	41951118.42	41951118.65	41951118.89	0.0278	0.0018
Earth	110146-02-28 05:01 G	41951118.47	41951118.71	41951118.95	0.0278	0.0032 *
Earth	110147-03-12 22:18 G	41951496.27	41951496.43	41951496.60	0.0282	0.0205
Moon	110147-03-13 01:25 G	41951496.41	41951496.56	41951496.72	0.0282	0.0212 *
Mercury	110153-06-13 05:30 G	41953780.62	41953780.73	41953780.84	0.0296	0.0173

Mercury	110153-09-09 17:58 G	41953869.12	41953869.25	41953869.39	0.0296	0.0008
Mercury	110153-12-07 06:27 G	41953957.67	41953957.77	41953957.88	0.0296	0.0181
Venus	110154-08-06 04:46 G	41954199.50	41954199.70	41954199.90	0.0295	0.0101
Venus	110155-03-24 09:06 G	41954429.83	41954429.88	41954429.94	0.0295	0.0283
Earth	110159-08-27 17:58 G	41956047.01	41956047.25	41956047.49	0.0283	0.0077
Moon	110159-08-27 20:37 G	41956047.13	41956047.36	41956047.59	0.0283	0.0093 *
Earth	110160-09-09 10:18 G	41956425.73	41956425.93	41956426.13	0.0280	0.0169
Moon	110160-09-09 13:39 G	41956425.87	41956426.07	41956426.29	0.0280	0.0155 *
Mercury	110168-03-30 17:15 G	41959185.06	41959185.22	41959185.39	0.0264	0.0123
Mercury	110168-06-27 13:39 G	41959273.89	41959274.07	41959274.25	0.0264	0.0057
Mercury	110168-09-24 10:03 G	41959362.85	41959362.92	41959363.00	0.0264	0.0239
Venus	110169-09-05 09:06 G	41959708.67	41959708.88	41959709.09	0.0265	0.0031
Venus	110170-04-22 06:13 G	41959937.67	41959937.76	41959937.86	0.0265	0.0236
Moon	110175-02-22 20:51 G	41961705.16	41961705.37	41961705.60	0.0276	0.0122
Earth	110175-02-22 22:46 G	41961705.24	41961705.45	41961705.66	0.0276	0.0132 *
Moon	110176-03-06 08:22 G	41962082.63	41962082.85	41962083.08	0.0279	0.0093
Earth	110176-03-06 11:44 G	41962082.76	41962082.99	41962083.22	0.0279	0.0097 *
Mercury	110182-10-31 05:58 G	41964512.68	41964512.75	41964512.82	0.0296	0.0244
Mercury	110183-01-27 18:42 G	41964601.15	41964601.28	41964601.41	0.0296	0.0066
Mercury	110183-04-26 07:10 G	41964689.68	41964689.80	41964689.92	0.0296	0.0112
Mercury	110183-07-23 19:25 G	41964778.29	41964778.31	41964778.35	0.0296	0.0287
Venus	110184-02-16 06:13 G	41964985.55	41964985.76	41964985.97	0.0296	0.0066
Moon	110188-08-20 10:46 G	41966632.79	41966632.95	41966633.13	0.0285	0.0208
Earth	110188-08-20 14:22 G	41966632.92	41966633.10	41966633.28	0.0285	0.0197 *
Moon	110189-09-03 10:32 G	41967011.71	41967011.94	41967012.18	0.0282	0.0054
Earth	110189-09-03 11:01 G	41967011.72	41967011.96	41967012.21	0.0282	0.0056 *
Mercury	110197-08-17 16:03 G	41969917.04	41969917.17	41969917.31	0.0265	0.0180
Mercury	110197-11-14 12:27 G	41970005.83	41970006.02	41970006.20	0.0265	0.0006
Mercury	110198-02-11 08:37 G	41970094.73	41970094.86	41970095.00	0.0265	0.0182
Venus	110198-08-01 13:39 G	41970266.07	41970266.07	41970266.08	0.0265	0.0264

Venus	110199-03-18 11:15 G	41970494.76	41970494.97	41970495.18	0.0265	0.0004
Earth	110204-02-18 20:51 G	41972292.25	41972292.37	41972292.51	0.0275	0.0233
Moon	110204-02-19 00:42 G	41972292.40	41972292.53	41972292.66	0.0275	0.0230 *
Earth	110205-03-02 07:10 G	41972669.56	41972669.80	41972670.04	0.0278	0.0010
Moon	110205-03-02 08:08 G	41972669.59	41972669.84	41972670.09	0.0278	0.0020 *
Moon	110206-03-14 21:20 G	41973047.23	41973047.39	41973047.55	0.0282	0.0208
Earth	110206-03-15 00:27 G	41973047.39	41973047.52	41973047.68	0.0282	0.0226 *
Mars	110208-04-16 14:08 G	41973810.85	41973811.09	41973811.35	0.0288	0.0098
Mercury	110212-03-20 08:37 G	41975244.83	41975244.86	41975244.89	0.0296	0.0287
Mercury	110212-06-16 21:06 G	41975333.26	41975333.38	41975333.51	0.0296	0.0109
Mercury	110212-09-13 09:49 G	41975421.78	41975421.91	41975422.04	0.0296	0.0069
Mercury	110212-12-10 22:03 G	41975510.35	41975510.42	41975510.50	0.0296	0.0245
Venus	110213-08-29 15:20 G	41975771.93	41975772.14	41975772.36	0.0295	0.0007
Moon	110218-08-29 19:25 G	41977598.06	41977598.31	41977598.56	0.0283	0.0044
Earth	110218-08-29 22:18 G	41977598.19	41977598.43	41977598.68	0.0283	0.0054 *
Moon	110219-09-12 10:46 G	41977976.80	41977976.95	41977977.12	0.0280	0.0207
Earth	110219-09-12 14:22 G	41977976.93	41977977.10	41977977.29	0.0280	0.0192 *
Mercury	110227-01-05 16:03 G	41980649.09	41980649.17	41980649.28	0.0264	0.0225
Mercury	110227-04-04 12:27 G	41980737.84	41980738.02	41980738.20	0.0264	0.0046
Mercury	110227-07-02 08:37 G	41980826.71	41980826.86	41980827.03	0.0264	0.0136
Venus	110228-02-12 17:44 G	41981052.14	41981052.24	41981052.36	0.0264	0.0225
Venus	110228-09-28 15:20 G	41981280.93	41981281.14	41981281.35	0.0265	0.0043
Earth	110234-02-25 00:13 G	41983256.30	41983256.51	41983256.74	0.0276	0.0111
Moon	110234-02-25 02:22 G	41983256.40	41983256.60	41983256.81	0.0276	0.0126 *
Earth	110235-03-09 12:56 G	41983633.83	41983634.04	41983634.27	0.0279	0.0119
Moon	110235-03-09 16:18 G	41983633.96	41983634.18	41983634.41	0.0279	0.0106 *
Mercury	110241-11-03 21:34 G	41986065.29	41986065.40	41986065.50	0.0296	0.0182
Mercury	110242-01-31 10:03 G	41986153.79	41986153.92	41986154.06	0.0296	0.0009
Mercury	110242-04-29 22:32 G	41986242.34	41986242.44	41986242.55	0.0296	0.0173
Venus	110243-03-11 15:49 G	41986557.95	41986558.16	41986558.37	0.0296	0.0027

Earth	110247-08-23 17:15 G	41988184.03	41988184.22	41988184.42	0.0285	0.0176
Moon	110247-08-23 20:51 G	41988184.16	41988184.37	41988184.58	0.0285	0.0158 *
Earth	110248-09-05 13:54 G	41988562.85	41988563.08	41988563.32	0.0282	0.0078
Moon	110248-09-05 14:22 G	41988562.86	41988563.10	41988563.35	0.0282	0.0093 *
Mercury	110256-08-21 10:32 G	41991469.77	41991469.94	41991470.11	0.0264	0.0108
Mercury	110256-11-18 06:56 G	41991558.61	41991558.79	41991558.97	0.0264	0.0073
Mercury	110257-02-15 03:20 G	41991647.60	41991647.64	41991647.69	0.0264	0.0255
Venus	110257-08-24 18:56 G	41991838.15	41991838.29	41991838.43	0.0265	0.0194
Venus	110258-04-10 16:18 G	41992066.98	41992067.18	41992067.39	0.0265	0.0075
Moon	110263-02-19 17:15 G	41993843.09	41993843.22	41993843.36	0.0275	0.0227
Earth	110263-02-19 20:51 G	41993843.22	41993843.37	41993843.53	0.0275	0.0213 *
Moon	110264-03-03 06:27 G	41994220.54	41994220.77	41994221.01	0.0278	0.0010
Earth	110264-03-03 06:56 G	41994220.54	41994220.79	41994221.03	0.0278	0.0010 *
Earth	110265-03-16 00:27 G	41994598.40	41994598.52	41994598.64	0.0282	0.0244
Moon	110265-03-16 03:49 G	41994598.56	41994598.66	41994598.77	0.0282	0.0254 *
Mercury	110271-03-23 23:44 G	41996797.41	41996797.49	41996797.57	0.0296	0.0229
Mercury	110271-06-20 12:27 G	41996885.89	41996886.02	41996886.15	0.0296	0.0051
Mercury	110271-09-17 00:56 G	41996974.42	41996974.54	41996974.66	0.0296	0.0126
Venus	110272-09-20 23:44 G	41997344.29	41997344.49	41997344.70	0.0295	0.0083
Moon	110276-08-16 22:32 G	41998770.39	41998770.44	41998770.51	0.0286	0.0277
Earth	110277-08-30 23:30 G	41999149.24	41999149.48	41999149.73	0.0283	0.0033
Moon	110277-08-31 02:37 G	41999149.37	41999149.61	41999149.85	0.0283	0.0024 *
Earth	110278-09-13 15:34 G	41999528.00	41999528.15	41999528.32	0.0280	0.0213
Moon	110278-09-13 19:10 G	41999528.15	41999528.30	41999528.47	0.0280	0.0214 *
Mercury	110286-01-08 10:46 G	42002201.80	42002201.95	42002202.10	0.0264	0.0153
Mercury	110286-04-07 06:56 G	42002290.61	42002290.79	42002290.98	0.0264	0.0027
Mercury	110286-07-05 03:20 G	42002379.53	42002379.64	42002379.76	0.0264	0.0208
Venus	110287-03-06 23:15 G	42002624.30	42002624.47	42002624.64	0.0265	0.0154
Venus	110287-10-21 20:22 G	42002853.17	42002853.35	42002853.55	0.0265	0.0114
Moon	110293-02-25 22:03 G	42004807.19	42004807.42	42004807.66	0.0276	0.0081

Earth	110293-02-26 00:42 G	42004807.31	42004807.53	42004807.77	0.0276	0.0091	*
Moon	110294-03-10 10:18 G	42005184.75	42005184.93	42005185.14	0.0279	0.0155	
Earth	110294-03-10 13:39 G	42005184.86	42005185.07	42005185.28	0.0279	0.0138	*
Mars	110296-09-09 11:58 G	42006098.77	42006099.00	42006099.24	0.0288	0.0125	
Mercury	110300-11-07 12:42 G	42007617.91	42007618.03	42007618.15	0.0296	0.0126	
Mercury	110301-02-04 01:10 G	42007706.42	42007706.55	42007706.68	0.0296	0.0053	
Mercury	110301-05-03 13:39 G	42007794.99	42007795.07	42007795.16	0.0296	0.0228	
Venus	110301-08-16 19:25 G	42007900.24	42007900.31	42007900.40	0.0296	0.0272	
Venus	110302-04-03 23:44 G	42008130.30	42008130.49	42008130.69	0.0295	0.0114	
Moon	110306-08-25 13:54 G	42009734.88	42009735.08	42009735.28	0.0285	0.0163	
Earth	110306-08-25 17:15 G	42009735.01	42009735.22	42009735.43	0.0285	0.0155	*
Moon	110307-09-08 13:25 G	42010113.83	42010114.06	42010114.29	0.0282	0.0086	
Earth	110307-09-08 13:39 G	42010113.84	42010114.07	42010114.31	0.0282	0.0097	*
Mercury	110315-05-29 08:22 G	42012933.75	42012933.85	42012933.96	0.0264	0.0218	
Mercury	110315-08-26 04:32 G	42013022.51	42013022.69	42013022.88	0.0264	0.0040	
Mercury	110315-11-23 00:56 G	42013111.39	42013111.54	42013111.70	0.0264	0.0142	
Venus	110316-09-16 23:15 G	42013410.29	42013410.47	42013410.66	0.0265	0.0125	
Venus	110317-05-03 20:37 G	42013639.19	42013639.36	42013639.54	0.0265	0.0143	
Earth	110322-02-21 19:39 G	42015394.15	42015394.32	42015394.49	0.0275	0.0194	
Moon	110322-02-21 22:46 G	42015394.28	42015394.45	42015394.65	0.0275	0.0180	*
Earth	110323-03-06 05:15 G	42015771.48	42015771.72	42015771.96	0.0278	0.0029	
Moon	110323-03-06 05:15 G	42015771.48	42015771.72	42015771.97	0.0278	0.0044	*
Moon	110324-03-17 18:56 G	42016149.24	42016149.29	42016149.37	0.0282	0.0270	
Earth	110324-03-17 22:32 G	42016149.37	42016149.44	42016149.54	0.0282	0.0263	*
Mercury	110330-03-27 14:37 G	42018350.01	42018350.11	42018350.22	0.0296	0.0178	
Mercury	110330-06-24 03:20 G	42018438.50	42018438.64	42018438.77	0.0296	0.0007	
Mercury	110330-09-20 15:49 G	42018527.05	42018527.16	42018527.26	0.0296	0.0177	
Venus	110331-02-27 02:22 G	42018686.46	42018686.60	42018686.74	0.0296	0.0220	
Venus	110331-10-15 06:42 G	42018916.61	42018916.78	42018916.96	0.0295	0.0167	
Earth	110335-08-19 21:20 G	42020321.32	42020321.39	42020321.49	0.0286	0.0269	

Moon	110335-08-19 21:20 G	42020321.37	42020321.39	42020321.44	0.0286	0.0284	*
Moon	110336-09-01 18:56 G	42020700.04	42020700.29	42020700.55	0.0283	0.0030	
Earth	110336-09-01 22:18 G	42020700.18	42020700.43	42020700.68	0.0283	0.0012	*
Moon	110337-09-15 11:01 G	42021078.82	42021078.96	42021079.12	0.0280	0.0219	
Earth	110337-09-15 14:22 G	42021078.97	42021079.10	42021079.24	0.0280	0.0232	*
Mercury	110344-10-15 08:37 G	42023665.85	42023665.86	42023665.89	0.0265	0.0263	
Mercury	110345-01-12 04:46 G	42023754.53	42023754.70	42023754.88	0.0265	0.0084	
Mercury	110345-04-11 00:56 G	42023843.37	42023843.54	42023843.72	0.0265	0.0097	
Venus	110346-03-30 03:34 G	42024196.45	42024196.65	42024196.85	0.0265	0.0085	
Venus	110346-11-14 00:42 G	42024425.39	42024425.53	42024425.69	0.0265	0.0183	
Moon	110351-02-16 16:18 G	42025981.17	42025981.18	42025981.21	0.0273	0.0272	
Earth	110352-02-28 23:58 G	42026358.27	42026358.50	42026358.74	0.0276	0.0071	
Moon	110352-02-29 03:06 G	42026358.40	42026358.63	42026358.86	0.0276	0.0064	*
Earth	110353-03-12 12:42 G	42026735.84	42026736.03	42026736.24	0.0279	0.0158	
Moon	110353-03-12 15:49 G	42026735.97	42026736.16	42026736.38	0.0279	0.0155	*
Mercury	110359-08-14 14:51 G	42029082.06	42029082.12	42029082.19	0.0296	0.0251	
Mercury	110359-11-11 03:34 G	42029170.52	42029170.65	42029170.78	0.0296	0.0072	
Mercury	110360-02-07 16:03 G	42029259.05	42029259.17	42029259.30	0.0296	0.0105	
Mercury	110360-05-06 04:32 G	42029347.65	42029347.69	42029347.73	0.0296	0.0279	
Venus	110360-09-08 02:22 G	42029472.44	42029472.60	42029472.77	0.0296	0.0188	
Venus	110361-04-26 06:42 G	42029702.63	42029702.78	42029702.94	0.0295	0.0199	
Earth	110365-08-26 15:20 G	42031285.92	42031286.14	42031286.36	0.0285	0.0136	
Moon	110365-08-26 18:42 G	42031286.07	42031286.28	42031286.50	0.0285	0.0147	*
Moon	110366-09-09 11:30 G	42031664.75	42031664.98	42031665.22	0.0282	0.0114	
Earth	110366-09-09 11:44 G	42031664.76	42031664.99	42031665.22	0.0282	0.0116	*
Mercury	110374-06-01 02:08 G	42034486.44	42034486.59	42034486.74	0.0265	0.0154	
Mercury	110374-08-28 22:18 G	42034575.25	42034575.43	42034575.62	0.0264	0.0026	
Mercury	110374-11-25 18:42 G	42034664.17	42034664.28	42034664.40	0.0264	0.0208	
Venus	110375-10-10 03:06 G	42034982.43	42034982.63	42034982.84	0.0265	0.0058	
Venus	110376-05-26 00:27 G	42035211.40	42035211.52	42035211.65	0.0265	0.0211	

Moon	110381-02-22 14:51 G	42036944.94	42036945.12	42036945.30	0.0275	0.0180
Earth	110381-02-22 18:13 G	42036945.08	42036945.26	42036945.45	0.0275	0.0175 *
Earth	110382-03-07 03:49 G	42037322.43	42037322.66	42037322.91	0.0278	0.0049
Moon	110382-03-07 04:03 G	42037322.44	42037322.67	42037322.91	0.0278	0.0036 *
Earth	110383-03-19 21:06 G	42037700.38	42037700.38	42037700.39	0.0282	0.0282
Moon	110383-03-20 00:27 G	42037700.45	42037700.52	42037700.61	0.0282	0.0266
Mars	110385-02-03 15:20 G	42038386.92	42038387.14	42038387.36	0.0288	0.0159
Mercury	110389-03-30 05:15 G	42039902.60	42039902.72	42039902.84	0.0296	0.0127
Mercury	110389-06-26 17:58 G	42039991.12	42039991.25	42039991.38	0.0296	0.0051
Mercury	110389-09-23 06:27 G	42040079.69	42040079.77	42040079.85	0.0296	0.0227
Venus	110390-03-21 08:37 G	42040258.68	42040258.86	42040259.06	0.0295	0.0138
Venus	110390-11-06 13:10 G	42040488.94	42040489.05	42040489.16	0.0295	0.0249
Earth	110394-08-20 18:13 G	42041872.16	42041872.26	42041872.39	0.0286	0.0251
Moon	110394-08-20 18:56 G	42041872.17	42041872.29	42041872.41	0.0286	0.0247 *
Earth	110395-09-03 19:10 G	42042251.05	42042251.30	42042251.55	0.0283	0.0007
Moon	110395-09-03 22:18 G	42042251.19	42042251.43	42042251.68	0.0283	0.0016 *
Earth	110396-09-16 11:01 G	42042629.86	42042629.96	42042630.08	0.0280	0.0250
Moon	110396-09-16 13:39 G	42042630.00	42042630.07	42042630.17	0.0280	0.0264 *
Mercury	110403-10-19 02:22 G	42045218.48	42045218.60	42045218.73	0.0265	0.0198
Mercury	110404-01-15 22:32 G	42045307.26	42045307.44	42045307.63	0.0265	0.0019
Mercury	110404-04-13 18:56 G	42045396.15	42045396.29	42045396.44	0.0265	0.0163
Venus	110405-04-21 07:39 G	42045768.61	42045768.82	42045769.03	0.0265	0.0017
Venus	110405-12-06 04:46 G	42045997.64	42045997.70	42045997.77	0.0265	0.0251
Earth	110410-02-17 17:44 G	42047532.20	42047532.24	42047532.30	0.0273	0.0266
Moon	110411-03-01 20:37 G	42047909.12	42047909.36	42047909.60	0.0276	0.0067
Earth	110411-03-01 23:44 G	42047909.26	42047909.49	42047909.73	0.0276	0.0050 *
Moon	110412-03-13 09:49 G	42048286.74	42048286.91	42048287.11	0.0279	0.0168
Earth	110412-03-13 12:27 G	42048286.84	42048287.02	42048287.21	0.0279	0.0178 *
Mercury	110418-08-17 05:44 G	42050634.65	42050634.74	42050634.84	0.0295	0.0198
Mercury	110418-11-13 18:27 G	42050723.14	42050723.27	42050723.40	0.0296	0.0020

Mercury	110419-02-10 06:56 G	42050811.68	42050811.79	42050811.90	0.0296	0.0156
Venus	110419-10-01 09:06 G	42051044.69	42051044.88	42051045.09	0.0295	0.0104
Venus	110420-05-18 13:10 G	42051275.00	42051275.05	42051275.12	0.0295	0.0283
Moon	110424-08-27 09:49 G	42052836.69	42052836.91	42052837.14	0.0285	0.0102
Earth	110424-08-27 12:42 G	42052836.81	42052837.03	42052837.26	0.0285	0.0118 *
Earth	110425-09-10 08:37 G	42053215.66	42053215.86	42053216.09	0.0282	0.0135
Moon	110425-09-10 09:49 G	42053215.72	42053215.91	42053216.13	0.0282	0.0147 *
Mercury	110433-06-03 19:39 G	42056039.15	42056039.32	42056039.50	0.0265	0.0089
Mercury	110433-08-31 16:03 G	42056128.00	42056128.17	42056128.35	0.0265	0.0092
Venus	110434-03-17 08:51 G	42056325.84	42056325.87	42056325.93	0.0265	0.0259
Venus	110434-11-01 06:56 G	42056554.58	42056554.79	42056555.00	0.0265	0.0011
Earth	110440-02-24 17:01 G	42058496.01	42058496.21	42058496.41	0.0275	0.0155
Moon	110440-02-24 20:22 G	42058496.16	42058496.35	42058496.55	0.0275	0.0167 *
Moon	110441-03-08 02:08 G	42058873.35	42058873.59	42058873.84	0.0278	0.0069
Earth	110441-03-08 02:51 G	42058873.39	42058873.62	42058873.86	0.0278	0.0069 *
Mercury	110448-01-04 07:25 G	42061366.75	42061366.81	42061366.88	0.0295	0.0253
Mercury	110448-04-01 20:08 G	42061455.21	42061455.34	42061455.47	0.0296	0.0075
Mercury	110448-06-29 08:37 G	42061543.74	42061543.86	42061543.99	0.0296	0.0102
Mercury	110448-09-25 21:06 G	42061632.34	42061632.38	42061632.43	0.0296	0.0277
Venus	110449-04-12 15:06 G	42061830.93	42061831.13	42061831.35	0.0295	0.0055
Moon	110453-08-21 14:51 G	42063422.96	42063423.12	42063423.29	0.0286	0.0220
Earth	110453-08-21 15:34 G	42063423.01	42063423.15	42063423.30	0.0286	0.0231 *
Moon	110454-09-04 12:27 G	42063801.78	42063802.02	42063802.27	0.0283	0.0028
Earth	110454-09-04 16:03 G	42063801.92	42063802.17	42063802.42	0.0283	0.0025 *
Moon	110455-09-18 06:13 G	42064180.68	42064180.76	42064180.84	0.0280	0.0261
Earth	110455-09-18 07:54 G	42064180.78	42064180.83	42064180.92	0.0280	0.0268 *
Mars	110457-07-05 19:54 G	42064837.16	42064837.33	42064837.52	0.0274	0.0230
Mercury	110462-10-21 20:08 G	42066771.18	42066771.34	42066771.50	0.0265	0.0132
Mercury	110463-01-18 16:18 G	42066860.00	42066860.18	42066860.37	0.0265	0.0048
Mercury	110463-04-17 12:42 G	42066948.95	42066949.03	42066949.13	0.0265	0.0231

Venus	110463-09-27 13:54 G	42067111.98	42067112.08	42067112.21	0.0265	0.0217
Venus	110464-05-13 11:44 G	42067340.79	42067340.99	42067341.20	0.0265	0.0052
Moon	110469-02-18 17:15 G	42069083.13	42069083.22	42069083.31	0.0273	0.0249
Earth	110469-02-18 18:13 G	42069083.17	42069083.26	42069083.37	0.0273	0.0246 *
Earth	110470-03-03 00:27 G	42069460.28	42069460.52	42069460.76	0.0276	0.0029
Moon	110470-03-03 03:34 G	42069460.41	42069460.65	42069460.88	0.0276	0.0021 *
Earth	110471-03-15 13:25 G	42069837.89	42069838.06	42069838.23	0.0279	0.0199
Moon	110471-03-15 15:20 G	42069838.00	42069838.14	42069838.31	0.0279	0.0214 *
Mars	110473-06-29 18:27 G	42070675.10	42070675.27	42070675.46	0.0287	0.0207
Mercury	110477-08-19 21:06 G	42072187.26	42072187.38	42072187.50	0.0295	0.0140
Mercury	110477-11-16 09:34 G	42072275.77	42072275.90	42072276.03	0.0295	0.0038
Mercury	110478-02-12 22:03 G	42072364.33	42072364.42	42072364.51	0.0295	0.0212
Venus	110478-10-23 17:15 G	42072617.00	42072617.22	42072617.43	0.0295	0.0015
Earth	110483-08-29 11:01 G	42074387.73	42074387.96	42074388.20	0.0285	0.0098
Moon	110483-08-29 13:39 G	42074387.84	42074388.07	42074388.32	0.0285	0.0105 *
Moon	110484-09-11 05:30 G	42074766.50	42074766.73	42074766.95	0.0281	0.0138
Earth	110484-09-11 06:42 G	42074766.59	42074766.78	42074767.00	0.0281	0.0154 *
Mercury	110492-03-09 17:15 G	42077503.11	42077503.22	42077503.34	0.0265	0.0202
Mercury	110492-06-06 13:25 G	42077591.88	42077592.06	42077592.25	0.0265	0.0023
Mercury	110492-09-03 09:49 G	42077680.77	42077680.91	42077681.06	0.0265	0.0159
Venus	110493-04-08 13:10 G	42077897.91	42077898.05	42077898.20	0.0265	0.0190
Venus	110493-11-23 11:01 G	42078126.76	42078126.96	42078127.16	0.0265	0.0079
Moon	110499-02-25 13:54 G	42080046.87	42080047.08	42080047.30	0.0275	0.0119
Earth	110499-02-25 17:30 G	42080047.03	42080047.23	42080047.45	0.0275	0.0134 *
Earth	110500-03-10 03:34 G	42080424.42	42080424.65	42080424.88	0.0278	0.0090
Moon	110500-03-10 04:03 G	42080424.46	42080424.67	42080424.90	0.0278	0.0103 *
Mercury	110507-01-07 22:32 G	42082919.34	42082919.44	42082919.54	0.0295	0.0197
Mercury	110507-04-06 11:15 G	42083007.84	42083007.97	42083008.10	0.0295	0.0020
Mercury	110507-07-03 23:44 G	42083096.38	42083096.49	42083096.60	0.0295	0.0156
Venus	110508-05-05 22:32 G	42083403.23	42083403.44	42083403.66	0.0295	0.0034

Earth	110512-08-23 13:39 G	42084973.91	42084974.07	42084974.25	0.0286	0.0211
Moon	110512-08-23 14:22 G	42084973.96	42084974.10	42084974.25	0.0286	0.0226 *
Earth	110513-09-06 13:54 G	42085352.83	42085353.08	42085353.32	0.0283	0.0045
Moon	110513-09-06 17:30 G	42085352.98	42085353.23	42085353.47	0.0283	0.0030 *
Moon	110514-09-20 08:22 G	42085731.81	42085731.85	42085731.90	0.0280	0.0274
Mercury	110521-07-28 17:44 G	42088235.18	42088235.24	42088235.32	0.0265	0.0244
Mercury	110521-10-25 14:08 G	42088323.91	42088324.09	42088324.27	0.0265	0.0064
Mercury	110522-01-22 10:18 G	42088412.77	42088412.93	42088413.10	0.0265	0.0118
Venus	110522-10-20 18:42 G	42088684.11	42088684.28	42088684.46	0.0265	0.0147
Venus	110523-06-06 16:18 G	42088913.00	42088913.18	42088913.38	0.0265	0.0124
Earth	110528-02-21 19:54 G	42090634.21	42090634.33	42090634.48	0.0273	0.0225
Moon	110528-02-21 21:49 G	42090634.25	42090634.41	42090634.57	0.0273	0.0208 *
Moon	110529-03-04 23:58 G	42091011.25	42091011.50	42091011.74	0.0276	0.0003
Earth	110529-03-05 02:51 G	42091011.38	42091011.62	42091011.86	0.0276	0.0007 *
Moon	110530-03-17 13:54 G	42091388.94	42091389.08	42091389.23	0.0279	0.0217
Earth	110530-03-17 16:03 G	42091389.03	42091389.17	42091389.32	0.0279	0.0222 *
Mercury	110536-05-26 23:58 G	42093651.44	42093651.50	42093651.57	0.0295	0.0255
Mercury	110536-08-23 12:42 G	42093739.90	42093740.03	42093740.15	0.0295	0.0078
Mercury	110536-11-20 01:10 G	42093828.42	42093828.55	42093828.67	0.0295	0.0098
Mercury	110537-02-16 13:25 G	42093917.02	42093917.06	42093917.11	0.0295	0.0272
Venus	110537-11-16 02:22 G	42094189.40	42094189.60	42094189.81	0.0295	0.0077
Moon	110542-08-31 08:51 G	42095938.64	42095938.87	42095939.11	0.0285	0.0085
Earth	110542-08-31 11:30 G	42095938.74	42095938.98	42095939.22	0.0285	0.0077 *
Earth	110543-09-14 06:42 G	42096317.59	42096317.78	42096317.98	0.0281	0.0173
Moon	110543-09-14 07:54 G	42096317.65	42096317.83	42096318.03	0.0281	0.0174 *
Mars	110545-11-29 00:27 G	42097124.33	42097124.52	42097124.75	0.0274	0.0212
Mercury	110551-03-14 11:15 G	42099055.82	42099055.97	42099056.14	0.0265	0.0133
Mercury	110551-06-11 07:39 G	42099144.64	42099144.82	42099145.01	0.0265	0.0048
Mercury	110551-09-08 04:18 G	42099233.59	42099233.68	42099233.77	0.0265	0.0230
Venus	110552-05-01 18:13 G	42099470.07	42099470.26	42099470.45	0.0265	0.0119

Venus	110552-12-16 15:49 G	42099698.99	42099699.16	42099699.34	0.0265	0.0151
Earth	110558-02-27 19:54 G	42101598.11	42101598.33	42101598.55	0.0275	0.0112
Moon	110558-02-27 23:30 G	42101598.26	42101598.48	42101598.71	0.0275	0.0110 *
Moon	110559-03-12 05:44 G	42101975.51	42101975.74	42101975.98	0.0278	0.0101
Earth	110559-03-12 06:27 G	42101975.55	42101975.77	42101975.99	0.0278	0.0113 *
Mars	110561-11-24 03:06 G	42102963.53	42102963.63	42102963.76	0.0287	0.0258
Mercury	110566-01-10 14:22 G	42104471.98	42104472.10	42104472.21	0.0295	0.0133
Mercury	110566-04-09 02:51 G	42104560.49	42104560.62	42104560.75	0.0295	0.0044
Mercury	110566-07-06 15:20 G	42104649.05	42104649.14	42104649.23	0.0295	0.0218
Venus	110566-10-11 04:32 G	42104745.59	42104745.69	42104745.79	0.0295	0.0259
Venus	110567-05-29 08:22 G	42104975.66	42104975.85	42104976.04	0.0295	0.0126
Moon	110571-08-25 14:37 G	42106524.92	42106525.11	42106525.31	0.0286	0.0187
Earth	110571-08-25 14:51 G	42106524.95	42106525.12	42106525.32	0.0286	0.0190 *
Moon	110572-09-07 10:46 G	42106903.71	42106903.95	42106904.20	0.0283	0.0078
Earth	110572-09-07 14:37 G	42106903.87	42106904.11	42106904.35	0.0283	0.0066 *
Mercury	110580-07-31 12:13 G	42109787.87	42109788.01	42109788.15	0.0266	0.0173
Mercury	110580-10-28 08:22 G	42109876.67	42109876.85	42109877.04	0.0266	0.0009
Mercury	110581-01-25 05:01 G	42109965.58	42109965.71	42109965.83	0.0266	0.0191
Venus	110581-11-12 00:13 G	42110256.31	42110256.51	42110256.71	0.0266	0.0074
Venus	110582-06-28 21:49 G	42110485.28	42110485.41	42110485.55	0.0266	0.0197
Moon	110587-02-22 21:34 G	42112185.25	42112185.40	42112185.55	0.0274	0.0208
Earth	110587-02-22 23:58 G	42112185.35	42112185.50	42112185.67	0.0274	0.0203 *
Earth	110588-03-06 07:25 G	42112562.57	42112562.81	42112563.05	0.0276	0.0018
Moon	110588-03-06 09:49 G	42112562.67	42112562.91	42112563.14	0.0276	0.0005 *
Earth	110589-03-18 21:06 G	42112940.29	42112940.38	42112940.51	0.0280	0.0248
Moon	110589-03-19 00:27 G	42112940.39	42112940.52	42112940.66	0.0280	0.0233 *
Mercury	110595-05-30 16:03 G	42115204.07	42115204.17	42115204.28	0.0295	0.0184
Mercury	110595-08-27 04:46 G	42115292.57	42115292.70	42115292.83	0.0295	0.0008
Mercury	110595-11-23 17:15 G	42115381.11	42115381.22	42115381.33	0.0295	0.0167
Venus	110596-04-22 10:18 G	42115531.79	42115531.93	42115532.09	0.0295	0.0208

Venus	110596-12-08 13:54 G	42115761.91	42115762.08	42115762.25	0.0295	0.0176
Earth	110601-09-02 14:37 G	42117489.87	42117490.11	42117490.35	0.0284	0.0054
Moon	110601-09-02 17:58 G	42117490.00	42117490.25	42117490.50	0.0284	0.0038 *
Earth	110602-09-16 09:20 G	42117868.72	42117868.89	42117869.08	0.0281	0.0195
Moon	110602-09-16 09:34 G	42117868.74	42117868.90	42117869.08	0.0281	0.0211 *
Mercury	110609-12-19 09:49 G	42120519.84	42120519.91	42120520.00	0.0265	0.0238
Mercury	110610-03-18 06:13 G	42120608.58	42120608.76	42120608.94	0.0265	0.0058
Mercury	110610-06-15 02:22 G	42120697.44	42120697.60	42120697.77	0.0265	0.0124
Venus	110611-05-26 00:13 G	42121042.31	42121042.51	42121042.72	0.0265	0.0045
Venus	110612-01-09 21:49 G	42121271.31	42121271.41	42121271.53	0.0265	0.0226
Moon	110617-03-01 21:20 G	42123149.18	42123149.39	42123149.63	0.0275	0.0104
Earth	110617-03-02 00:56 G	42123149.31	42123149.54	42123149.77	0.0275	0.0087 *
Moon	110618-03-14 10:46 G	42123526.75	42123526.95	42123527.16	0.0279	0.0130
Earth	110618-03-14 11:58 G	42123526.79	42123527.00	42123527.21	0.0279	0.0139 *
Mercury	110624-10-17 17:44 G	42125936.17	42125936.24	42125936.32	0.0295	0.0240
Mercury	110625-01-14 06:27 G	42126024.64	42126024.77	42126024.90	0.0295	0.0063
Mercury	110625-04-12 18:56 G	42126113.17	42126113.29	42126113.42	0.0295	0.0114
Mercury	110625-07-10 07:25 G	42126201.78	42126201.81	42126201.84	0.0295	0.0287
Venus	110625-11-03 16:18 G	42126318.00	42126318.18	42126318.36	0.0295	0.0159
Venus	110626-06-21 19:54 G	42126548.20	42126548.33	42126548.47	0.0295	0.0226
Moon	110630-08-27 18:13 G	42128076.06	42128076.26	42128076.46	0.0286	0.0151
Earth	110630-08-27 19:25 G	42128076.12	42128076.31	42128076.52	0.0286	0.0166 *
Earth	110631-09-10 17:58 G	42128455.02	42128455.25	42128455.50	0.0282	0.0090
Moon	110631-09-10 20:22 G	42128455.13	42128455.35	42128455.58	0.0282	0.0104 *
Mars	110634-04-25 15:20 G	42129412.85	42129413.14	42129413.45	0.0275	0.0113
Mercury	110639-08-05 07:10 G	42131340.62	42131340.80	42131340.97	0.0266	0.0096
Mercury	110639-11-02 03:20 G	42131429.47	42131429.64	42131429.82	0.0266	0.0086
Venus	110640-12-05 06:42 G	42131828.57	42131828.78	42131828.99	0.0266	0.0006
Earth	110646-02-25 05:58 G	42133736.57	42133736.75	42133736.94	0.0274	0.0179
Moon	110646-02-25 09:34 G	42133736.74	42133736.90	42133737.07	0.0274	0.0195 *

Moon	110647-03-09 13:39 G	42134113.82	42134114.07	42134114.32	0.0277	0.0038
Earth	110647-03-09 14:22 G	42134113.86	42134114.10	42134114.34	0.0277	0.0043 *
Earth	110648-03-21 05:15 G	42134491.68	42134491.72	42134491.77	0.0280	0.0273
Mercury	110654-03-06 20:22 G	42136668.32	42136668.35	42136668.39	0.0294	0.0281
Mercury	110654-06-03 09:06 G	42136756.75	42136756.88	42136757.00	0.0294	0.0105
Mercury	110654-08-30 21:34 G	42136845.27	42136845.40	42136845.53	0.0295	0.0071
Mercury	110654-11-27 09:49 G	42136933.84	42136933.91	42136933.99	0.0295	0.0245
Venus	110655-05-17 00:27 G	42137104.33	42137104.52	42137104.73	0.0295	0.0101
Venus	110656-01-02 04:03 G	42137334.61	42137334.67	42137334.72	0.0294	0.0283
Moon	110659-08-21 18:56 G	42138662.22	42138662.29	42138662.38	0.0287	0.0272
Earth	110659-08-21 20:08 G	42138662.33	42138662.34	42138662.38	0.0287	0.0285 *
Moon	110660-09-03 18:13 G	42139041.01	42139041.26	42139041.51	0.0284	0.0021
Earth	110660-09-03 22:03 G	42139041.17	42139041.42	42139041.67	0.0284	0.0027 *
Moon	110661-09-17 13:25 G	42139419.93	42139420.06	42139420.22	0.0281	0.0221
Earth	110661-09-17 15:49 G	42139420.02	42139420.16	42139420.33	0.0281	0.0220 *
Mercury	110668-12-22 05:15 G	42142072.57	42142072.72	42142072.87	0.0265	0.0158
Mercury	110669-03-21 01:39 G	42142161.38	42142161.57	42142161.75	0.0265	0.0023
Mercury	110669-06-17 21:49 G	42142250.31	42142250.41	42142250.54	0.0265	0.0207
Venus	110669-10-31 09:06 G	42142385.80	42142385.88	42142385.98	0.0265	0.0237
Venus	110670-06-17 07:25 G	42142614.61	42142614.81	42142615.02	0.0265	0.0034
Earth	110676-03-03 08:22 G	42144700.62	42144700.85	42144701.09	0.0276	0.0062
Moon	110676-03-03 10:46 G	42144700.72	42144700.95	42144701.18	0.0276	0.0063 *
Earth	110677-03-15 19:54 G	42145078.15	42145078.33	42145078.54	0.0279	0.0166
Moon	110677-03-15 23:01 G	42145078.27	42145078.46	42145078.65	0.0279	0.0177 *
Mercury	110683-10-21 10:46 G	42147488.84	42147488.95	42147489.06	0.0295	0.0159
Mercury	110684-01-17 23:30 G	42147577.34	42147577.48	42147577.61	0.0295	0.0020
Mercury	110684-04-15 11:44 G	42147665.89	42147665.99	42147666.09	0.0295	0.0192
Venus	110684-11-26 06:42 G	42147890.57	42147890.78	42147890.99	0.0295	0.0051
Earth	110689-08-29 03:20 G	42149627.44	42149627.64	42149627.87	0.0285	0.0139
Moon	110689-08-29 06:27 G	42149627.56	42149627.77	42149628.00	0.0285	0.0138 *

Moon	110690-09-12 01:10 G	42150006.31	42150006.55	42150006.79	0.0282	0.0107
Earth	110690-09-12 01:25 G	42150006.34	42150006.56	42150006.79	0.0282	0.0115 *
Mercury	110698-05-11 06:27 G	42152804.65	42152804.77	42152804.90	0.0266	0.0194
Mercury	110698-08-08 02:37 G	42152893.43	42152893.61	42152893.80	0.0266	0.0015
Mercury	110698-11-04 23:15 G	42152982.33	42152982.47	42152982.61	0.0266	0.0170
Venus	110699-05-13 15:49 G	42153172.02	42153172.16	42153172.32	0.0266	0.0190
Venus	110699-12-28 14:22 G	42153400.90	42153401.10	42153401.30	0.0266	0.0083
Moon	110705-02-27 11:01 G	42155287.76	42155287.96	42155288.17	0.0275	0.0152
Earth	110705-02-27 14:22 G	42155287.91	42155288.10	42155288.31	0.0275	0.0155 *
Moon	110706-03-11 22:18 G	42155665.22	42155665.43	42155665.66	0.0277	0.0084
Earth	110706-03-11 23:30 G	42155665.25	42155665.48	42155665.72	0.0277	0.0070 *
Mercury	110713-03-10 13:54 G	42158220.98	42158221.08	42158221.18	0.0294	0.0195
Mercury	110713-06-07 02:22 G	42158309.47	42158309.60	42158309.73	0.0294	0.0019
Mercury	110713-09-03 14:51 G	42158398.01	42158398.12	42158398.23	0.0294	0.0156
Venus	110714-06-09 16:46 G	42158676.99	42158677.20	42158677.42	0.0294	0.0013
Moon	110718-08-24 07:25 G	42160213.73	42160213.81	42160213.91	0.0287	0.0265
Earth	110718-08-24 08:08 G	42160213.73	42160213.84	42160213.95	0.0287	0.0256 *
Earth	110719-09-07 08:37 G	42160592.62	42160592.86	42160593.11	0.0284	0.0005
Moon	110719-09-07 11:44 G	42160592.75	42160592.99	42160593.23	0.0284	0.0014 *
Earth	110720-09-20 01:39 G	42160971.46	42160971.57	42160971.69	0.0280	0.0246
Moon	110720-09-20 05:15 G	42160971.59	42160971.72	42160971.88	0.0280	0.0230 *
Mars	110722-09-20 08:08 G	42161701.51	42161701.84	42161702.17	0.0275	0.0019
Mercury	110727-09-29 05:01 G	42163536.66	42163536.71	42163536.77	0.0266	0.0251
Mercury	110727-12-27 01:10 G	42163625.38	42163625.55	42163625.74	0.0266	0.0072
Mercury	110728-03-24 21:34 G	42163714.24	42163714.40	42163714.58	0.0266	0.0111
Venus	110728-11-23 17:44 G	42163958.07	42163958.24	42163958.41	0.0265	0.0156
Venus	110729-07-10 16:03 G	42164186.98	42164187.17	42164187.36	0.0266	0.0116
Earth	110734-02-22 10:46 G	42165874.88	42165874.95	42165875.06	0.0273	0.0253
Moon	110734-02-22 14:37 G	42165875.01	42165875.11	42165875.22	0.0273	0.0244 *
Moon	110735-03-06 16:18 G	42166251.93	42166252.18	42166252.43	0.0276	0.0021

Earth	110735-03-06 17:44 G	42166252.00	42166252.24	42166252.48	0.0276	0.0035	*
Moon	110736-03-18 02:37 G	42166629.46	42166629.61	42166629.79	0.0279	0.0204	
Earth	110736-03-18 06:27 G	42166629.60	42166629.77	42166629.95	0.0279	0.0194	*
Mercury	110742-07-28 15:34 G	42168953.09	42168953.15	42168953.22	0.0295	0.0248	
Mercury	110742-10-25 04:18 G	42169041.55	42169041.68	42169041.81	0.0295	0.0071	
Mercury	110743-01-21 16:46 G	42169130.08	42169130.20	42169130.33	0.0295	0.0104	
Mercury	110743-04-20 05:01 G	42169218.68	42169218.71	42169218.76	0.0295	0.0278	
Venus	110743-12-20 23:15 G	42169463.26	42169463.47	42169463.68	0.0295	0.0064	
Moon	110748-08-31 11:44 G	42171178.78	42171178.99	42171179.22	0.0285	0.0127	
Earth	110748-08-31 15:34 G	42171178.93	42171179.15	42171179.38	0.0285	0.0109	*
Moon	110749-09-14 11:15 G	42171557.76	42171557.97	42171558.19	0.0282	0.0129	
Earth	110749-09-14 12:42 G	42171557.82	42171558.03	42171558.24	0.0282	0.0143	*
Mercury	110757-05-15 02:37 G	42174357.44	42174357.61	42174357.78	0.0266	0.0107	
Mercury	110757-08-11 23:01 G	42174446.28	42174446.46	42174446.64	0.0266	0.0076	
Mercury	110757-11-08 19:25 G	42174535.28	42174535.31	42174535.35	0.0266	0.0260	
Venus	110758-06-06 00:42 G	42174744.34	42174744.53	42174744.73	0.0266	0.0108	
Venus	110759-01-20 23:01 G	42174973.30	42174973.46	42174973.63	0.0266	0.0166	
Earth	110764-02-29 23:58 G	42176839.30	42176839.50	42176839.73	0.0275	0.0129	
Moon	110764-03-01 02:51 G	42176839.41	42176839.62	42176839.84	0.0275	0.0114	*
Earth	110765-03-13 10:18 G	42177216.71	42177216.93	42177217.16	0.0278	0.0098	
Moon	110765-03-13 12:42 G	42177216.80	42177217.03	42177217.26	0.0278	0.0103	*
Mercury	110771-12-15 18:56 G	42179685.26	42179685.29	42179685.34	0.0294	0.0278	
Mercury	110772-03-13 07:39 G	42179773.70	42179773.82	42179773.95	0.0294	0.0102	
Mercury	110772-06-09 20:22 G	42179862.22	42179862.35	42179862.47	0.0294	0.0074	
Mercury	110772-09-06 08:37 G	42179950.79	42179950.86	42179950.93	0.0294	0.0247	
Venus	110772-11-14 08:08 G	42180019.74	42180019.84	42180019.96	0.0294	0.0250	
Venus	110773-07-02 11:01 G	42180249.78	42180249.96	42180250.16	0.0294	0.0133	
Earth	110777-08-25 23:01 G	42181765.32	42181765.46	42181765.62	0.0286	0.0225	
Moon	110777-08-26 00:42 G	42181765.41	42181765.53	42181765.69	0.0286	0.0239	*
Moon	110778-09-08 20:51 G	42182144.12	42182144.37	42182144.63	0.0283	0.0025	

Earth	110778-09-08 23:01 G	42182144.21	42182144.46	42182144.70	0.0283	0.0032	*
Moon	110779-09-22 11:01 G	42182522.91	42182522.96	42182523.02	0.0280	0.0273	
Earth	110779-09-22 14:37 G	42182523.08	42182523.11	42182523.17	0.0280	0.0275	
Mercury	110786-10-02 01:39 G	42185089.43	42185089.57	42185089.72	0.0266	0.0160	
Mercury	110786-12-29 22:03 G	42185178.24	42185178.42	42185178.61	0.0266	0.0022	
Mercury	110787-03-28 18:42 G	42185267.16	42185267.28	42185267.39	0.0266	0.0205	
Venus	110787-12-17 03:34 G	42185530.44	42185530.65	42185530.85	0.0266	0.0071	
Venus	110788-08-02 01:39 G	42185759.44	42185759.57	42185759.71	0.0266	0.0201	
Moon	110793-02-23 17:44 G	42187426.10	42187426.24	42187426.40	0.0274	0.0214	
Earth	110793-02-23 21:20 G	42187426.26	42187426.39	42187426.53	0.0274	0.0226	*
Earth	110794-03-08 04:46 G	42187803.45	42187803.70	42187803.94	0.0277	0.0008	
Moon	110794-03-08 04:46 G	42187803.47	42187803.70	42187803.94	0.0277	0.0010	*
Earth	110795-03-20 18:13 G	42188181.12	42188181.26	42188181.41	0.0280	0.0223	
Moon	110795-03-20 21:49 G	42188181.27	42188181.41	42188181.58	0.0280	0.0210	*
Mercury	110801-07-31 09:34 G	42190505.79	42190505.90	42190506.01	0.0295	0.0155	
Mercury	110801-10-27 22:03 G	42190594.29	42190594.42	42190594.56	0.0295	0.0022	
Mercury	110802-01-24 10:32 G	42190682.84	42190682.94	42190683.04	0.0295	0.0195	
Venus	110802-05-27 14:08 G	42190805.94	42190806.09	42190806.25	0.0295	0.0201	
Venus	110803-01-12 17:15 G	42191036.06	42191036.22	42191036.39	0.0295	0.0183	
Earth	110807-09-03 05:44 G	42192730.50	42192730.74	42192730.98	0.0285	0.0079	
Moon	110807-09-03 09:34 G	42192730.66	42192730.90	42192731.14	0.0285	0.0077	*
Earth	110808-09-16 01:54 G	42193109.39	42193109.58	42193109.78	0.0281	0.0172	
Moon	110808-09-16 04:32 G	42193109.51	42193109.69	42193109.90	0.0281	0.0180	*
Mars	110811-02-14 23:01 G	42193991.18	42193991.46	42193991.76	0.0274	0.0132	
Mercury	110816-02-19 02:51 G	42195821.51	42195821.62	42195821.75	0.0266	0.0196	
Mercury	110816-05-17 23:15 G	42195910.29	42195910.47	42195910.66	0.0266	0.0014	
Mercury	110816-08-14 19:39 G	42195999.18	42195999.32	42195999.47	0.0266	0.0170	
Venus	110817-06-28 10:32 G	42196316.73	42196316.94	42196317.15	0.0266	0.0023	
Venus	110818-02-12 08:37 G	42196545.80	42196545.86	42196545.93	0.0266	0.0251	
Moon	110823-03-03 08:37 G	42198390.64	42198390.86	42198391.10	0.0276	0.0110	

Earth	110823-03-03 10:46 G	42198390.73	42198390.95	42198391.18	0.0276	0.0103	*
Moon	110824-03-14 18:42 G	42198768.07	42198768.28	42198768.51	0.0278	0.0110	
Earth	110824-03-14 22:03 G	42198768.21	42198768.42	42198768.64	0.0278	0.0126	*
Mercury	110830-12-18 13:10 G	42201237.95	42201238.05	42201238.16	0.0294	0.0182	
Mercury	110831-03-17 01:54 G	42201326.44	42201326.58	42201326.71	0.0294	0.0009	
Mercury	110831-06-13 14:08 G	42201414.99	42201415.09	42201415.20	0.0294	0.0168	
Venus	110831-12-08 03:20 G	42201592.45	42201592.64	42201592.83	0.0294	0.0128	
Venus	110832-07-25 06:13 G	42201822.66	42201822.76	42201822.87	0.0294	0.0254	
Moon	110836-08-27 13:25 G	42203316.88	42203317.06	42203317.25	0.0286	0.0182	
Earth	110836-08-27 16:18 G	42203317.01	42203317.18	42203317.37	0.0286	0.0193	*
Earth	110837-09-10 15:20 G	42203695.90	42203696.14	42203696.38	0.0283	0.0063	
Moon	110837-09-10 15:20 G	42203695.91	42203696.14	42203696.37	0.0283	0.0078	*
Mercury	110845-07-08 02:37 G	42206553.55	42206553.61	42206553.69	0.0266	0.0244	
Mercury	110845-10-04 23:01 G	42206642.28	42206642.46	42206642.64	0.0266	0.0064	
Mercury	110846-01-01 19:25 G	42206731.14	42206731.31	42206731.47	0.0266	0.0119	
Venus	110846-05-24 15:06 G	42206874.09	42206874.13	42206874.19	0.0266	0.0257	
Venus	110847-01-08 13:54 G	42207102.87	42207103.08	42207103.29	0.0266	0.0016	
Earth	110852-02-26 07:54 G	42208977.67	42208977.83	42208978.00	0.0274	0.0200	
Moon	110852-02-26 11:15 G	42208977.83	42208977.97	42208978.13	0.0274	0.0211	*
Earth	110853-03-09 16:03 G	42209354.93	42209355.17	42209355.41	0.0277	0.0021	
Moon	110853-03-09 17:15 G	42209354.97	42209355.22	42209355.47	0.0277	0.0007	*
Moon	110854-03-22 03:20 G	42209732.53	42209732.64	42209732.78	0.0280	0.0242	
Earth	110854-03-22 06:27 G	42209732.68	42209732.77	42209732.89	0.0280	0.0252	*
Mercury	110860-05-06 14:51 G	42211970.05	42211970.12	42211970.20	0.0295	0.0237	
Mercury	110860-08-03 03:34 G	42212058.52	42212058.65	42212058.78	0.0295	0.0060	
Mercury	110860-10-30 16:03 G	42212147.05	42212147.17	42212147.29	0.0295	0.0115	
Mercury	110861-01-27 04:32 G	42212235.66	42212235.69	42212235.71	0.0295	0.0288	
Venus	110861-06-19 09:06 G	42212378.68	42212378.88	42212379.09	0.0295	0.0080	
Moon	110866-09-04 18:42 G	42214282.02	42214282.28	42214282.53	0.0284	0.0031	
Earth	110866-09-04 21:34 G	42214282.16	42214282.40	42214282.65	0.0284	0.0049	*

Moon	110867-09-18 13:10 G	42214660.90	42214661.05	42214661.21	0.0281	0.0216
Earth	110867-09-18 16:46 G	42214661.03	42214661.20	42214661.38	0.0281	0.0201 *
Mercury	110875-02-21 23:58 G	42217374.33	42217374.50	42217374.67	0.0266	0.0101
Mercury	110875-05-21 20:22 G	42217463.17	42217463.35	42217463.53	0.0266	0.0081
Mercury	110875-08-18 16:46 G	42217552.20	42217552.20	42217552.21	0.0266	0.0266
Venus	110875-12-04 21:34 G	42217660.28	42217660.40	42217660.54	0.0266	0.0210
Venus	110876-07-20 20:22 G	42217889.15	42217889.35	42217889.56	0.0266	0.0064
Earth	110882-03-04 21:34 G	42219942.17	42219942.40	42219942.64	0.0276	0.0076
Moon	110882-03-04 22:32 G	42219942.22	42219942.44	42219942.66	0.0276	0.0088 *
Earth	110883-03-17 09:34 G	42220319.71	42220319.90	42220320.11	0.0279	0.0153
Moon	110883-03-17 13:25 G	42220319.86	42220320.06	42220320.27	0.0279	0.0150 *
Mars	110885-05-21 20:22 G	42221116.12	42221116.35	42221116.59	0.0285	0.0129
Mercury	110889-09-23 18:42 G	42222702.22	42222702.28	42222702.34	0.0294	0.0263
Mercury	110889-12-21 07:25 G	42222790.68	42222790.81	42222790.94	0.0294	0.0087
Mercury	110890-03-19 19:54 G	42222879.21	42222879.33	42222879.46	0.0294	0.0088
Mercury	110890-06-16 08:22 G	42222967.79	42222967.85	42222967.91	0.0294	0.0261
Venus	110890-12-30 22:18 G	42223165.22	42223165.43	42223165.65	0.0294	0.0010
Earth	110895-08-30 09:34 G	42224868.71	42224868.90	42224869.12	0.0286	0.0161
Moon	110895-08-30 13:39 G	42224868.86	42224869.07	42224869.29	0.0286	0.0146 *
Earth	110896-09-12 07:54 G	42225247.60	42225247.83	42225248.07	0.0282	0.0094
Moon	110896-09-12 09:49 G	42225247.67	42225247.91	42225248.15	0.0282	0.0103 *
Mercury	110904-07-11 23:58 G	42228106.35	42228106.50	42228106.66	0.0266	0.0147
Mercury	110904-10-08 20:22 G	42228195.16	42228195.35	42228195.53	0.0266	0.0034
Mercury	110905-01-05 16:32 G	42228284.09	42228284.19	42228284.30	0.0266	0.0218
Venus	110905-06-17 01:54 G	42228446.43	42228446.58	42228446.75	0.0265	0.0170
Venus	110906-02-01 00:13 G	42228675.33	42228675.51	42228675.71	0.0266	0.0104
Moon	110911-02-28 15:34 G	42230528.97	42230529.15	42230529.34	0.0274	0.0182
Earth	110911-02-28 18:27 G	42230529.08	42230529.27	42230529.46	0.0274	0.0174 *
Moon	110912-03-12 00:27 G	42230906.30	42230906.52	42230906.76	0.0277	0.0054
Earth	110912-03-12 03:06 G	42230906.39	42230906.63	42230906.87	0.0277	0.0048 *

Earth	110913-03-24 17:58 G	42231284.25	42231284.25	42231284.28	0.0280	0.0280
Mercury	110919-05-11 08:51 G	42233522.76	42233522.87	42233522.99	0.0295	0.0145
Mercury	110919-08-07 21:20 G	42233611.26	42233611.39	42233611.53	0.0295	0.0033
Mercury	110919-11-04 09:49 G	42233699.82	42233699.91	42233700.01	0.0295	0.0206
Venus	110920-07-13 03:20 G	42233951.43	42233951.64	42233951.85	0.0295	0.0039
Moon	110924-08-24 09:06 G	42235454.82	42235454.88	42235454.97	0.0287	0.0272
Earth	110924-08-24 11:01 G	42235454.91	42235454.96	42235455.04	0.0287	0.0276 *
Earth	110925-09-07 13:25 G	42235833.81	42235834.06	42235834.31	0.0284	0.0017
Moon	110925-09-07 14:37 G	42235833.87	42235834.11	42235834.35	0.0284	0.0019 *
Earth	110926-09-21 07:25 G	42236212.68	42236212.81	42236212.96	0.0281	0.0231
Moon	110926-09-21 11:15 G	42236212.83	42236212.97	42236213.12	0.0281	0.0223 *
Mercury	110933-11-29 00:42 G	42238838.40	42238838.53	42238838.66	0.0266	0.0188
Mercury	110934-02-25 21:06 G	42238927.19	42238927.38	42238927.56	0.0266	0.0009
Mercury	110934-05-25 17:15 G	42239016.09	42239016.22	42239016.37	0.0266	0.0177
Venus	110934-12-28 07:54 G	42239232.65	42239232.83	42239233.02	0.0266	0.0124
Venus	110935-08-14 06:13 G	42239461.59	42239461.76	42239461.94	0.0266	0.0150
Earth	110940-02-24 00:27 G	42241116.48	42241116.52	42241116.57	0.0274	0.0268
Earth	110941-03-07 06:56 G	42241493.55	42241493.79	42241494.03	0.0276	0.0051
Moon	110941-03-07 07:25 G	42241493.56	42241493.81	42241494.06	0.0276	0.0042 *
Moon	110942-03-19 16:03 G	42241871.01	42241871.17	42241871.35	0.0279	0.0196
Earth	110942-03-19 19:39 G	42241871.14	42241871.32	42241871.51	0.0279	0.0179 *
Mercury	110948-09-27 12:27 G	42244254.92	42244255.02	42244255.13	0.0294	0.0172
Mercury	110948-12-25 01:10 G	42244343.42	42244343.55	42244343.68	0.0294	0.0004
Mercury	110949-03-23 13:39 G	42244431.97	42244432.07	42244432.17	0.0294	0.0179
Venus	110949-06-07 13:39 G	42244508.00	42244508.07	42244508.16	0.0294	0.0271
Venus	110950-01-23 16:18 G	42244737.99	42244738.18	42244738.39	0.0294	0.0113
Moon	110954-09-01 22:46 G	42246420.23	42246420.45	42246420.67	0.0285	0.0138
Earth	110954-09-02 02:22 G	42246420.38	42246420.60	42246420.83	0.0285	0.0128 *
Moon	110955-09-15 20:37 G	42246799.14	42246799.36	42246799.59	0.0282	0.0112
Earth	110955-09-15 23:58 G	42246799.27	42246799.50	42246799.72	0.0282	0.0125 *

Mercury	110963-04-18 00:56 G	42249570.46	42249570.54	42249570.64	0.0266	0.0231
Mercury	110963-07-15 21:06 G	42249659.21	42249659.38	42249659.57	0.0266	0.0052
Mercury	110963-10-12 17:30 G	42249748.07	42249748.23	42249748.39	0.0265	0.0131
Venus	110964-07-09 12:27 G	42250018.82	42250019.02	42250019.22	0.0265	0.0083
Venus	110965-02-23 10:32 G	42250247.80	42250247.94	42250248.09	0.0266	0.0189
Earth	110970-03-02 03:34 G	42252080.45	42252080.65	42252080.86	0.0274	0.0149
Moon	110970-03-02 05:15 G	42252080.52	42252080.72	42252080.93	0.0274	0.0137 *
Earth	110971-03-14 12:42 G	42252457.80	42252458.03	42252458.27	0.0277	0.0075
Moon	110971-03-14 16:18 G	42252457.95	42252458.18	42252458.41	0.0277	0.0091 *
Mars	110973-10-16 19:10 G	42253405.04	42253405.30	42253405.56	0.0286	0.0040
Mercury	110978-02-14 13:39 G	42254987.00	42254987.07	42254987.15	0.0295	0.0234
Mercury	110978-05-14 02:22 G	42255075.47	42255075.60	42255075.73	0.0295	0.0057
Mercury	110978-08-10 14:51 G	42255164.00	42255164.12	42255164.24	0.0295	0.0119
Mercury	110978-11-07 03:20 G	42255252.63	42255252.64	42255252.65	0.0295	0.0292
Venus	110978-12-18 17:30 G	42255294.10	42255294.23	42255294.37	0.0295	0.0230
Venus	110979-08-05 20:22 G	42255524.17	42255524.35	42255524.54	0.0295	0.0155
Earth	110983-08-27 01:25 G	42257006.45	42257006.56	42257006.70	0.0287	0.0246
Moon	110983-08-27 04:46 G	42257006.62	42257006.70	42257006.82	0.0287	0.0262 *
Earth	110984-09-09 03:20 G	42257385.39	42257385.64	42257385.89	0.0284	0.0013
Moon	110984-09-09 03:49 G	42257385.40	42257385.66	42257385.92	0.0284	0.0004 *
Moon	110985-09-22 17:58 G	42257764.13	42257764.25	42257764.37	0.0280	0.0245
Earth	110985-09-22 20:51 G	42257764.28	42257764.37	42257764.47	0.0280	0.0258 *
Mercury	110992-12-01 21:20 G	42260391.22	42260391.39	42260391.57	0.0266	0.0096
Mercury	110993-02-28 17:44 G	42260480.06	42260480.24	42260480.42	0.0266	0.0086
Venus	110994-01-19 17:30 G	42260805.02	42260805.23	42260805.44	0.0266	0.0041
Venus	110994-09-05 15:34 G	42261034.06	42261034.15	42261034.25	0.0266	0.0233
Moon	110999-02-25 04:32 G	42262667.58	42262667.69	42262667.84	0.0274	0.0230
Earth	110999-02-25 07:54 G	42262667.73	42262667.83	42262667.94	0.0274	0.0245 *
Moon	111000-03-09 12:56 G	42263044.80	42263045.04	42263045.27	0.0277	0.0014
Earth	111000-03-09 14:37 G	42263044.87	42263045.11	42263045.36	0.0277	0.0027 *

112TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 112th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	111001-03-22 03:34	G	42263422.50	42263422.65	42263422.83	0.0280	0.0205	
Moon	111001-03-22 06:13	G	42263422.61	42263422.76	42263422.92	0.0280	0.0208	*
Mercury	111007-07-05 17:01	G	42265719.16	42265719.21	42265719.27	0.0294	0.0265	
Mercury	111007-10-02 05:44	G	42265807.62	42265807.74	42265807.87	0.0294	0.0088	
Mercury	111007-12-29 18:27	G	42265896.14	42265896.27	42265896.39	0.0294	0.0088	
Mercury	111008-03-27 06:42	G	42265984.73	42265984.78	42265984.84	0.0294	0.0261	
Venus	111008-07-01 05:30	G	42266080.56	42266080.73	42266080.91	0.0294	0.0161	
Venus	111009-02-16 08:37	G	42266310.72	42266310.86	42266311.00	0.0294	0.0224	
Earth	111013-09-04 16:03	G	42267971.94	42267972.17	42267972.40	0.0285	0.0097	
Moon	111013-09-04 18:13	G	42267972.05	42267972.26	42267972.49	0.0285	0.0112	*
Earth	111014-09-18 12:42	G	42268350.83	42268351.03	42268351.25	0.0282	0.0155	
Moon	111014-09-18 16:32	G	42268350.99	42268351.19	42268351.41	0.0282	0.0145	*
Mercury	111022-04-21 21:49	G	42271123.26	42271123.41	42271123.57	0.0266	0.0139	
Mercury	111022-07-19 18:13	G	42271212.07	42271212.26	42271212.44	0.0265	0.0043	
Mercury	111022-10-16 14:22	G	42271301.01	42271301.10	42271301.20	0.0265	0.0225	
Venus	111023-08-02 22:03	G	42271591.21	42271591.42	42271591.63	0.0265	0.0003	
Moon	111029-03-04 10:03	G	42273631.70	42273631.92	42273632.16	0.0274	0.0119	
Earth	111029-03-04 10:46	G	42273631.74	42273631.95	42273632.17	0.0274	0.0125	*
Moon	111030-03-16 16:18	G	42274008.96	42274009.18	42274009.42	0.0277	0.0094	

Earth	111030-03-16 20:22 G	42274009.12	42274009.35	42274009.57	0.0277	0.0100	*
Mercury	111037-02-18 06:42 G	42276539.67	42276539.78	42276539.90	0.0295	0.0153	
Mercury	111037-05-17 19:25 G	42276628.18	42276628.31	42276628.44	0.0295	0.0024	
Mercury	111037-08-14 07:54 G	42276716.73	42276716.83	42276716.93	0.0295	0.0198	
Venus	111038-01-11 08:22 G	42276866.66	42276866.85	42276867.04	0.0295	0.0121	
Venus	111038-08-29 11:15 G	42277096.89	42277096.97	42277097.07	0.0295	0.0265	
Moon	111042-08-29 09:20 G	42278557.74	42278557.89	42278558.05	0.0287	0.0223	
Earth	111042-08-29 13:10 G	42278557.90	42278558.05	42278558.22	0.0287	0.0218	*
Moon	111043-09-12 12:27 G	42278936.78	42278937.02	42278937.26	0.0283	0.0041	
Earth	111043-09-12 14:37 G	42278936.86	42278937.11	42278937.35	0.0283	0.0041	*
Mercury	111051-09-08 21:20 G	42281855.27	42281855.39	42281855.52	0.0266	0.0190	
Mercury	111051-12-06 17:30 G	42281944.05	42281944.23	42281944.42	0.0266	0.0010	
Mercury	111052-03-04 13:39 G	42282032.94	42282033.07	42282033.22	0.0266	0.0174	
Venus	111052-06-28 03:06 G	42282148.54	42282148.63	42282148.73	0.0266	0.0234	
Venus	111053-02-12 01:39 G	42282377.37	42282377.57	42282377.78	0.0266	0.0040	
Earth	111058-02-27 13:10 G	42284218.92	42284219.05	42284219.20	0.0274	0.0222	
Moon	111058-02-27 15:34 G	42284219.02	42284219.15	42284219.29	0.0274	0.0221	*
Earth	111059-03-11 20:08 G	42284596.10	42284596.34	42284596.59	0.0277	0.0005	
Moon	111059-03-11 23:15 G	42284596.23	42284596.47	42284596.72	0.0277	0.0014	*
Moon	111060-03-23 08:22 G	42284973.70	42284973.85	42284974.02	0.0280	0.0211	
Earth	111060-03-23 09:34 G	42284973.77	42284973.90	42284974.05	0.0280	0.0228	*
Mars	111062-03-14 02:51 G	42285694.36	42285694.62	42285694.88	0.0286	0.0072	
Mercury	111066-07-08 09:49 G	42287271.81	42287271.91	42287272.02	0.0294	0.0188	
Mercury	111066-10-04 22:32 G	42287360.31	42287360.44	42287360.58	0.0294	0.0013	
Mercury	111067-01-01 11:01 G	42287448.85	42287448.96	42287449.07	0.0294	0.0164	
Venus	111067-07-24 19:25 G	42287653.10	42287653.31	42287653.52	0.0294	0.0056	
Moon	111072-09-06 01:25 G	42289523.31	42289523.56	42289523.81	0.0285	0.0060	
Earth	111072-09-06 02:22 G	42289523.36	42289523.60	42289523.84	0.0285	0.0069	*
Moon	111073-09-19 19:10 G	42289902.13	42289902.30	42289902.49	0.0282	0.0196	
Earth	111073-09-19 22:46 G	42289902.27	42289902.45	42289902.65	0.0282	0.0182	*

Mercury	111081-01-25 22:03 G	42292587.33	42292587.42	42292587.51	0.0266	0.0231
Mercury	111081-04-24 17:58 G	42292676.07	42292676.25	42292676.44	0.0265	0.0052
Mercury	111081-07-22 14:22 G	42292764.94	42292765.10	42292765.26	0.0265	0.0130
Venus	111082-01-08 08:08 G	42292934.70	42292934.84	42292934.99	0.0265	0.0192
Venus	111082-08-25 06:27 G	42293163.57	42293163.77	42293163.97	0.0265	0.0081
Moon	111088-03-05 15:20 G	42295182.93	42295183.14	42295183.36	0.0274	0.0116
Earth	111088-03-05 16:03 G	42295182.95	42295183.17	42295183.40	0.0274	0.0101 *
Earth	111089-03-18 01:25 G	42295560.35	42295560.56	42295560.78	0.0278	0.0124
Moon	111089-03-18 04:46 G	42295560.48	42295560.70	42295560.92	0.0278	0.0108 *
Mercury	111095-11-25 10:32 G	42298003.88	42298003.94	42298004.00	0.0295	0.0258
Mercury	111096-02-21 23:15 G	42298092.34	42298092.47	42298092.59	0.0295	0.0081
Mercury	111096-05-20 11:44 G	42298180.86	42298180.99	42298181.11	0.0295	0.0095
Mercury	111096-08-17 00:13 G	42298269.46	42298269.51	42298269.56	0.0295	0.0269
Venus	111097-02-02 20:51 G	42298439.15	42298439.37	42298439.58	0.0295	0.0020
Earth	111101-08-31 20:51 G	42300109.20	42300109.37	42300109.56	0.0287	0.0192
Moon	111101-09-01 00:42 G	42300109.34	42300109.53	42300109.72	0.0287	0.0175 *
Earth	111102-09-14 21:49 G	42300488.17	42300488.41	42300488.65	0.0283	0.0066
Moon	111102-09-15 00:56 G	42300488.30	42300488.54	42300488.79	0.0283	0.0082 *
Mercury	111110-09-12 16:46 G	42303408.04	42303408.20	42303408.38	0.0266	0.0109
Mercury	111110-12-10 13:10 G	42303496.87	42303497.05	42303497.23	0.0266	0.0073
Mercury	111111-03-09 09:34 G	42303585.85	42303585.90	42303585.95	0.0265	0.0256
Venus	111111-07-22 10:32 G	42303720.77	42303720.94	42303721.11	0.0265	0.0156
Venus	111112-03-07 08:51 G	42303949.69	42303949.87	42303950.06	0.0266	0.0117
Moon	111117-03-01 14:37 G	42305769.96	42305770.11	42305770.27	0.0274	0.0214
Earth	111117-03-01 16:03 G	42305770.02	42305770.17	42305770.34	0.0274	0.0200 *
Moon	111118-03-13 19:39 G	42306147.08	42306147.32	42306147.56	0.0277	0.0010
Earth	111118-03-13 23:15 G	42306147.23	42306147.47	42306147.71	0.0277	0.0020 *
Earth	111119-03-26 12:27 G	42306524.92	42306525.02	42306525.14	0.0280	0.0249
Moon	111119-03-26 12:27 G	42306524.92	42306525.02	42306525.13	0.0280	0.0250 *
Mercury	111125-07-12 01:54 G	42308824.46	42308824.58	42308824.70	0.0294	0.0121

Mercury	111125-10-08 14:37 G	42308912.98	42308913.11	42308913.24	0.0295	0.0056
Mercury	111126-01-05 02:51 G	42309001.54	42309001.62	42309001.71	0.0295	0.0230
Venus	111126-08-17 06:42 G	42309225.56	42309225.78	42309225.99	0.0295	0.0042
Moon	111130-08-26 00:27 G	42310695.52	42310695.52	42310695.55	0.0288	0.0287
Moon	111131-09-09 07:39 G	42311074.58	42311074.82	42311075.06	0.0285	0.0031
Earth	111131-09-09 08:22 G	42311074.61	42311074.85	42311075.10	0.0285	0.0044 *
Earth	111132-09-22 04:46 G	42311453.54	42311453.70	42311453.88	0.0282	0.0206
Moon	111132-09-22 07:39 G	42311453.67	42311453.82	42311453.99	0.0282	0.0211 *
Mercury	111140-01-30 17:30 G	42314140.08	42314140.23	42314140.38	0.0266	0.0151
Mercury	111140-04-28 13:39 G	42314228.88	42314229.07	42314229.25	0.0265	0.0030
Mercury	111140-07-26 09:49 G	42314317.80	42314317.91	42314318.02	0.0265	0.0211
Venus	111141-01-31 15:34 G	42314506.96	42314507.15	42314507.34	0.0265	0.0115
Venus	111141-09-17 13:39 G	42314735.90	42314736.07	42314736.24	0.0265	0.0158
Earth	111147-03-08 19:10 G	42316734.07	42316734.30	42316734.53	0.0274	0.0078
Moon	111147-03-08 21:06 G	42316734.15	42316734.38	42316734.62	0.0274	0.0083 *
Moon	111148-03-20 01:54 G	42317111.38	42317111.58	42317111.80	0.0277	0.0154
Earth	111148-03-20 04:32 G	42317111.48	42317111.69	42317111.89	0.0277	0.0146 *
Mars	111150-08-08 08:22 G	42317982.61	42317982.85	42317983.09	0.0285	0.0120
Mercury	111154-11-29 02:08 G	42319556.50	42319556.59	42319556.70	0.0295	0.0193
Mercury	111155-02-25 15:06 G	42319644.99	42319645.13	42319645.26	0.0295	0.0018
Mercury	111155-05-25 03:34 G	42319733.54	42319733.65	42319733.76	0.0295	0.0160
Venus	111156-02-27 07:10 G	42320011.60	42320011.80	42320012.01	0.0295	0.0076
Moon	111160-09-01 22:46 G	42321660.25	42321660.45	42321660.67	0.0287	0.0164
Earth	111160-09-02 01:39 G	42321660.37	42321660.57	42321660.77	0.0287	0.0167 *
Moon	111161-09-15 22:32 G	42322039.21	42322039.44	42322039.68	0.0283	0.0086
Earth	111161-09-16 02:08 G	42322039.36	42322039.59	42322039.83	0.0283	0.0090 *
Mercury	111169-06-18 15:34 G	42324872.05	42324872.15	42324872.26	0.0266	0.0213
Mercury	111169-09-15 11:44 G	42324960.81	42324960.99	42324961.17	0.0265	0.0033
Mercury	111169-12-13 07:54 G	42325049.68	42325049.83	42325049.99	0.0265	0.0149
Venus	111170-08-13 16:32 G	42325292.99	42325293.19	42325293.39	0.0265	0.0083

Venus	111171-03-30 14:37 G	42325521.97	42325522.11	42325522.26	0.0266	0.0191
Earth	111176-03-02 17:15 G	42327321.04	42327321.22	42327321.41	0.0274	0.0179
Moon	111176-03-02 17:44 G	42327321.06	42327321.24	42327321.42	0.0274	0.0176 *
Earth	111177-03-15 00:13 G	42327698.27	42327698.51	42327698.75	0.0277	0.0041
Moon	111177-03-15 03:49 G	42327698.43	42327698.66	42327698.90	0.0277	0.0054 *
Earth	111178-03-27 13:39 G	42328076.01	42328076.07	42328076.14	0.0280	0.0269
Mercury	111184-04-17 04:32 G	42330288.62	42330288.69	42330288.77	0.0294	0.0239
Mercury	111184-07-14 17:15 G	42330377.10	42330377.22	42330377.36	0.0294	0.0062
Mercury	111184-10-11 05:58 G	42330465.63	42330465.75	42330465.87	0.0295	0.0114
Mercury	111185-01-07 18:13 G	42330554.24	42330554.26	42330554.29	0.0295	0.0289
Venus	111185-01-21 12:27 G	42330567.92	42330568.02	42330568.14	0.0295	0.0253
Venus	111185-09-08 15:34 G	42330797.96	42330798.15	42330798.34	0.0295	0.0133
Earth	111189-08-27 06:13 G	42332246.71	42332246.76	42332246.82	0.0288	0.0280
Moon	111189-08-27 09:49 G	42332246.91	42332246.91	42332246.95	0.0288	0.0287
Earth	111190-09-10 10:32 G	42332625.69	42332625.94	42332626.19	0.0285	0.0021
Moon	111190-09-10 12:27 G	42332625.76	42332626.02	42332626.27	0.0285	0.0031 *
Moon	111191-09-24 04:18 G	42333004.53	42333004.68	42333004.86	0.0282	0.0213
Earth	111191-09-24 06:56 G	42333004.66	42333004.79	42333004.94	0.0282	0.0228 *
Mercury	111198-11-05 16:03 G	42335604.13	42335604.17	42335604.23	0.0266	0.0255
Mercury	111199-02-02 12:13 G	42335692.83	42335693.01	42335693.19	0.0266	0.0076
Mercury	111199-05-02 08:08 G	42335781.68	42335781.84	42335782.02	0.0265	0.0106
Venus	111200-02-23 21:34 G	42336079.19	42336079.40	42336079.61	0.0265	0.0041
Venus	111200-10-09 19:25 G	42336308.22	42336308.31	42336308.42	0.0265	0.0232
Moon	111205-02-25 14:37 G	42337908.04	42337908.11	42337908.19	0.0272	0.0259
Earth	111205-02-25 17:15 G	42337908.19	42337908.22	42337908.25	0.0272	0.0269 *
Moon	111206-03-09 17:30 G	42338285.00	42338285.23	42338285.47	0.0274	0.0041
Earth	111206-03-09 20:37 G	42338285.12	42338285.36	42338285.59	0.0274	0.0057 *
Earth	111207-03-22 05:44 G	42338662.55	42338662.74	42338662.93	0.0277	0.0167
Moon	111207-03-22 06:56 G	42338662.61	42338662.79	42338662.97	0.0277	0.0180 *
Mercury	111213-12-01 17:44 G	42341109.12	42341109.24	42341109.36	0.0294	0.0134

Mercury	111214-02-28 06:13 G	42341197.63	42341197.76	42341197.90	0.0295	0.0044
Mercury	111214-05-27 18:42 G	42341286.20	42341286.28	42341286.37	0.0295	0.0217
Venus	111214-08-03 12:42 G	42341353.90	42341354.03	42341354.18	0.0295	0.0221
Venus	111215-03-21 15:34 G	42341583.98	42341584.15	42341584.33	0.0295	0.0166
Earth	111219-09-04 02:37 G	42343211.40	42343211.61	42343211.83	0.0287	0.0146
Moon	111219-09-04 04:03 G	42343211.48	42343211.67	42343211.88	0.0287	0.0162 *
Earth	111220-09-17 02:51 G	42343590.40	42343590.62	42343590.86	0.0283	0.0111
Moon	111220-09-17 06:42 G	42343590.55	42343590.78	42343591.01	0.0283	0.0096 *
Mercury	111228-06-21 09:49 G	42346424.76	42346424.91	42346425.07	0.0266	0.0143
Mercury	111228-09-18 05:58 G	42346513.57	42346513.75	42346513.93	0.0265	0.0037
Mercury	111228-12-16 02:08 G	42346602.49	42346602.59	42346602.70	0.0265	0.0220
Venus	111229-09-04 21:34 G	42346865.19	42346865.40	42346865.61	0.0265	0.0012
Venus	111230-04-21 19:25 G	42347094.28	42347094.31	42347094.36	0.0266	0.0261
Earth	111235-03-04 16:46 G	42348872.00	42348872.20	42348872.40	0.0274	0.0159
Moon	111235-03-04 17:15 G	42348872.02	42348872.22	42348872.45	0.0274	0.0144 *
Moon	111236-03-15 20:08 G	42349249.10	42349249.34	42349249.58	0.0277	0.0068
Earth	111236-03-15 23:30 G	42349249.24	42349249.48	42349249.72	0.0277	0.0061 *
Mars	111239-01-01 17:01 G	42350271.02	42350271.21	42350271.44	0.0285	0.0171
Mercury	111243-04-20 19:39 G	42351841.22	42351841.32	42351841.43	0.0294	0.0184
Mercury	111243-07-18 08:22 G	42351929.72	42351929.85	42351929.98	0.0295	0.0008
Mercury	111243-10-14 20:51 G	42352018.27	42352018.37	42352018.48	0.0295	0.0169
Venus	111244-02-13 19:54 G	42352140.16	42352140.33	42352140.51	0.0295	0.0167
Venus	111244-09-30 23:01 G	42352370.32	42352370.46	42352370.61	0.0295	0.0219
Moon	111248-08-28 02:22 G	42353797.53	42353797.60	42353797.68	0.0288	0.0274
Earth	111248-08-28 05:58 G	42353797.65	42353797.75	42353797.86	0.0288	0.0259 *
Moon	111249-09-11 07:39 G	42354176.58	42354176.82	42354177.06	0.0285	0.0008
Earth	111249-09-11 10:18 G	42354176.68	42354176.93	42354177.18	0.0285	0.0002 *
Earth	111250-09-25 06:27 G	42354555.67	42354555.77	42354555.90	0.0281	0.0249
Moon	111250-09-25 08:08 G	42354555.74	42354555.84	42354555.95	0.0281	0.0251 *
Mercury	111257-11-08 10:18 G	42357156.80	42357156.93	42357157.06	0.0266	0.0186

Mercury	111258-02-05 06:27 G	42357245.58	42357245.77	42357245.95	0.0266	0.0008
Mercury	111258-05-05 02:37 G	42357334.47	42357334.61	42357334.75	0.0266	0.0176
Venus	111258-08-01 03:49 G	42357422.58	42357422.66	42357422.75	0.0265	0.0243
Venus	111259-03-18 02:22 G	42357651.39	42357651.60	42357651.81	0.0265	0.0031
Earth	111264-02-27 17:15 G	42359459.13	42359459.22	42359459.32	0.0272	0.0249
Moon	111264-02-27 18:42 G	42359459.18	42359459.28	42359459.40	0.0272	0.0239 *
Earth	111265-03-10 20:37 G	42359836.12	42359836.36	42359836.60	0.0274	0.0036
Moon	111265-03-11 00:27 G	42359836.27	42359836.52	42359836.76	0.0274	0.0035 *
Moon	111266-03-23 05:30 G	42360213.54	42360213.73	42360213.93	0.0277	0.0177
Earth	111266-03-23 05:44 G	42360213.57	42360213.74	42360213.92	0.0277	0.0188 *
Mercury	111272-09-06 19:54 G	42362573.27	42362573.33	42362573.40	0.0294	0.0255
Mercury	111272-12-04 08:51 G	42362661.74	42362661.87	42362662.00	0.0294	0.0078
Mercury	111273-03-02 21:20 G	42362750.27	42362750.39	42362750.52	0.0295	0.0097
Mercury	111273-05-30 09:49 G	42362838.86	42362838.91	42362838.96	0.0295	0.0271
Venus	111273-08-25 20:08 G	42362926.15	42362926.34	42362926.53	0.0295	0.0134
Venus	111274-04-12 23:01 G	42363156.36	42363156.46	42363156.58	0.0295	0.0253
Moon	111278-09-05 00:56 G	42364762.31	42364762.54	42364762.78	0.0286	0.0124
Earth	111278-09-05 01:25 G	42364762.34	42364762.56	42364762.79	0.0286	0.0126 *
Moon	111279-09-18 22:18 G	42365141.21	42365141.43	42365141.65	0.0283	0.0142
Earth	111279-09-19 01:39 G	42365141.36	42365141.57	42365141.80	0.0283	0.0131 *
Mercury	111287-03-28 07:25 G	42367888.77	42367888.81	42367888.87	0.0266	0.0256
Mercury	111287-06-25 03:34 G	42367977.48	42367977.65	42367977.83	0.0266	0.0077
Mercury	111287-09-21 23:44 G	42368066.32	42368066.49	42368066.66	0.0265	0.0105
Venus	111288-02-11 03:06 G	42368208.51	42368208.63	42368208.75	0.0265	0.0216
Venus	111288-09-27 01:39 G	42368437.37	42368437.57	42368437.78	0.0265	0.0059
Moon	111294-03-05 13:39 G	42370422.88	42370423.07	42370423.27	0.0274	0.0146
Earth	111294-03-05 15:49 G	42370422.96	42370423.16	42370423.37	0.0274	0.0139 *
Earth	111295-03-17 22:18 G	42370800.20	42370800.43	42370800.66	0.0277	0.0081
Moon	111295-03-18 00:42 G	42370800.30	42370800.53	42370800.76	0.0277	0.0067 *
Mercury	111302-04-24 10:32 G	42373393.82	42373393.94	42373394.06	0.0294	0.0132

Mercury	111302-07-21 23:15 G	42373482.34	42373482.47	42373482.60	0.0294	0.0045
Mercury	111302-10-18 11:44 G	42373570.90	42373570.99	42373571.07	0.0295	0.0219
Venus	111303-03-09 02:22 G	42373712.39	42373712.60	42373712.80	0.0295	0.0084
Earth	111307-08-31 03:20 G	42375348.52	42375348.64	42375348.79	0.0288	0.0240
Moon	111307-08-31 06:27 G	42375348.63	42375348.77	42375348.92	0.0288	0.0230 *
Earth	111308-09-13 07:39 G	42375727.57	42375727.82	42375728.07	0.0285	0.0020
Moon	111308-09-13 10:46 G	42375727.70	42375727.95	42375728.21	0.0285	0.0035 *
Earth	111309-09-27 03:49 G	42376106.60	42376106.66	42376106.75	0.0281	0.0268
Mars	111311-05-27 22:18 G	42376714.29	42376714.43	42376714.61	0.0276	0.0241
Mercury	111316-11-12 03:49 G	42378709.51	42378709.66	42378709.83	0.0266	0.0120
Mercury	111317-02-09 00:13 G	42378798.33	42378798.51	42378798.69	0.0266	0.0061
Mercury	111317-05-08 20:22 G	42378887.28	42378887.35	42378887.43	0.0266	0.0244
Venus	111317-08-24 08:08 G	42378994.68	42378994.84	42378995.00	0.0266	0.0173
Venus	111318-04-10 06:27 G	42379223.58	42379223.77	42379223.97	0.0266	0.0101
Moon	111323-03-01 16:18 G	42381010.08	42381010.18	42381010.31	0.0272	0.0241
Earth	111323-03-01 17:01 G	42381010.08	42381010.21	42381010.34	0.0272	0.0229 *
Moon	111324-03-12 16:32 G	42381386.95	42381387.19	42381387.43	0.0274	0.0032
Earth	111324-03-12 20:08 G	42381387.10	42381387.34	42381387.59	0.0274	0.0016 *
Moon	111325-03-25 04:32 G	42381764.55	42381764.69	42381764.87	0.0277	0.0202
Earth	111325-03-25 05:30 G	42381764.58	42381764.73	42381764.90	0.0277	0.0208 *
Mars	111327-05-28 18:27 G	42382559.11	42382559.27	42382559.46	0.0284	0.0213
Mercury	111331-09-11 11:01 G	42384125.87	42384125.96	42384126.06	0.0294	0.0200
Mercury	111331-12-08 23:44 G	42384214.36	42384214.49	42384214.63	0.0294	0.0025
Mercury	111332-03-06 12:13 G	42384302.90	42384303.01	42384303.13	0.0294	0.0152
Venus	111332-09-18 03:20 G	42384498.43	42384498.64	42384498.85	0.0295	0.0048
Moon	111337-09-06 23:15 G	42386313.24	42386313.47	42386313.70	0.0286	0.0092
Earth	111337-09-06 23:44 G	42386313.26	42386313.49	42386313.72	0.0286	0.0106 *
Earth	111338-09-20 23:44 G	42386692.28	42386692.49	42386692.70	0.0283	0.0150
Moon	111338-09-21 02:51 G	42386692.43	42386692.62	42386692.83	0.0283	0.0160 *
Mercury	111346-04-01 00:56 G	42389441.42	42389441.54	42389441.68	0.0266	0.0192

Mercury	111346-06-28 21:06 G	42389530.20	42389530.38	42389530.57	0.0266	0.0013
Mercury	111346-09-25 17:15 G	42389619.09	42389619.22	42389619.37	0.0266	0.0171
Venus	111347-03-06 06:56 G	42389780.62	42389780.79	42389780.97	0.0265	0.0147
Venus	111347-10-21 05:44 G	42390009.55	42390009.74	42390009.92	0.0265	0.0127
Earth	111353-03-07 14:37 G	42391973.90	42391974.11	42391974.33	0.0274	0.0119
Moon	111353-03-07 17:58 G	42391974.03	42391974.25	42391974.46	0.0274	0.0133 *
Moon	111354-03-19 19:39 G	42392351.09	42392351.32	42392351.56	0.0277	0.0100
Earth	111354-03-19 21:20 G	42392351.17	42392351.39	42392351.62	0.0277	0.0101 *
Mercury	111361-01-28 12:42 G	42394857.97	42394858.03	42394858.10	0.0294	0.0256
Mercury	111361-04-27 01:25 G	42394946.43	42394946.56	42394946.69	0.0294	0.0079
Mercury	111361-07-24 14:08 G	42395034.96	42395035.09	42395035.21	0.0294	0.0097
Mercury	111361-10-21 02:22 G	42395123.56	42395123.60	42395123.66	0.0294	0.0270
Venus	111362-03-31 08:51 G	42395284.66	42395284.87	42395285.08	0.0295	0.0002
Moon	111366-08-31 22:32 G	42396899.28	42396899.44	42396899.62	0.0287	0.0211
Earth	111366-09-01 00:56 G	42396899.39	42396899.54	42396899.70	0.0287	0.0221 *
Moon	111367-09-15 01:25 G	42397278.31	42397278.56	42397278.80	0.0285	0.0041
Earth	111367-09-15 04:46 G	42397278.46	42397278.70	42397278.95	0.0285	0.0040 *
Moon	111368-09-27 23:58 G	42397657.50	42397657.50	42397657.52	0.0281	0.0281
Mercury	111375-08-19 01:39 G	42400173.49	42400173.57	42400173.66	0.0266	0.0234
Mercury	111375-11-15 21:34 G	42400262.22	42400262.40	42400262.58	0.0266	0.0054
Mercury	111376-02-12 17:44 G	42400351.08	42400351.24	42400351.41	0.0266	0.0128
Venus	111376-09-15 12:13 G	42400566.82	42400567.01	42400567.21	0.0266	0.0103
Venus	111377-05-02 10:32 G	42400795.79	42400795.94	42400796.11	0.0266	0.0171
Moon	111382-03-02 16:18 G	42402561.04	42402561.18	42402561.31	0.0272	0.0219
Earth	111382-03-02 17:15 G	42402561.07	42402561.22	42402561.38	0.0272	0.0209 *
Earth	111383-03-14 20:37 G	42402938.12	42402938.36	42402938.61	0.0275	0.0006
Moon	111383-03-14 23:44 G	42402938.25	42402938.49	42402938.73	0.0275	0.0009 *
Earth	111384-03-26 05:58 G	42403315.63	42403315.75	42403315.90	0.0277	0.0230
Moon	111384-03-26 07:54 G	42403315.72	42403315.83	42403315.96	0.0277	0.0243 *
Mercury	111390-09-14 02:22 G	42405678.48	42405678.60	42405678.72	0.0294	0.0143

Mercury	111390-12-11 14:51 G	42405766.99	42405767.12	42405767.26	0.0294	0.0034
Mercury	111391-03-10 03:20 G	42405855.55	42405855.64	42405855.74	0.0294	0.0206
Venus	111391-10-11 10:46 G	42406070.74	42406070.95	42406071.16	0.0294	0.0040
Earth	111396-09-07 21:49 G	42407864.18	42407864.41	42407864.66	0.0286	0.0087
Moon	111396-09-07 23:30 G	42407864.24	42407864.48	42407864.73	0.0286	0.0093 *
Moon	111397-09-21 19:10 G	42408243.09	42408243.30	42408243.52	0.0283	0.0154
Earth	111397-09-21 21:34 G	42408243.21	42408243.40	42408243.61	0.0283	0.0170 *
Mars	111399-10-19 19:54 G	42409001.18	42409001.33	42409001.52	0.0277	0.0237
Mercury	111405-04-04 18:42 G	42410994.12	42410994.28	42410994.44	0.0266	0.0126
Mercury	111405-07-02 14:51 G	42411082.94	42411083.12	42411083.30	0.0266	0.0055
Mercury	111405-09-29 11:01 G	42411171.89	42411171.96	42411172.05	0.0266	0.0238
Venus	111406-03-29 11:01 G	42411352.76	42411352.96	42411353.16	0.0266	0.0078
Venus	111406-11-13 09:34 G	42411581.77	42411581.90	42411582.05	0.0266	0.0197
Moon	111412-03-09 10:46 G	42413524.73	42413524.95	42413525.18	0.0274	0.0089
Earth	111412-03-09 14:22 G	42413524.88	42413525.10	42413525.33	0.0274	0.0099 *
Earth	111413-03-21 21:20 G	42413902.18	42413902.39	42413902.61	0.0277	0.0122
Moon	111413-03-21 21:49 G	42413902.21	42413902.41	42413902.62	0.0277	0.0137 *
Mars	111415-10-22 22:18 G	42414847.31	42414847.43	42414847.56	0.0285	0.0250
Mercury	111420-02-02 03:49 G	42416410.56	42416410.66	42416410.76	0.0294	0.0200
Mercury	111420-04-30 16:32 G	42416499.05	42416499.19	42416499.32	0.0294	0.0025
Mercury	111420-07-28 05:01 G	42416587.60	42416587.71	42416587.82	0.0294	0.0151
Venus	111421-04-23 16:03 G	42416856.97	42416857.17	42416857.38	0.0294	0.0088
Earth	111425-09-02 23:30 G	42418450.31	42418450.48	42418450.66	0.0287	0.0201
Moon	111425-09-03 00:56 G	42418450.38	42418450.54	42418450.70	0.0287	0.0215 *
Earth	111426-09-17 02:51 G	42418829.38	42418829.62	42418829.87	0.0284	0.0060
Moon	111426-09-17 06:42 G	42418829.54	42418829.78	42418830.03	0.0284	0.0043 *
Mercury	111434-08-22 19:10 G	42421726.17	42421726.30	42421726.45	0.0267	0.0168
Mercury	111434-11-19 15:20 G	42421814.96	42421815.14	42421815.33	0.0266	0.0015
Mercury	111435-02-16 11:44 G	42421903.87	42421903.99	42421904.12	0.0266	0.0196
Venus	111435-10-09 16:46 G	42422138.99	42422139.20	42422139.41	0.0266	0.0032

Venus	111436-05-25 15:06 G	42422368.05	42422368.13	42422368.22	0.0266	0.0242
Earth	111441-03-04 18:13 G	42424112.09	42424112.26	42424112.44	0.0272	0.0190
Moon	111441-03-04 20:37 G	42424112.18	42424112.36	42424112.56	0.0272	0.0176 *
Moon	111442-03-16 19:39 G	42424489.08	42424489.32	42424489.57	0.0275	0.0041
Earth	111442-03-16 22:18 G	42424489.18	42424489.43	42424489.67	0.0275	0.0027 *
Moon	111443-03-29 05:15 G	42424866.64	42424866.72	42424866.82	0.0278	0.0256
Earth	111443-03-29 07:54 G	42424866.74	42424866.83	42424866.94	0.0278	0.0252 *
Mercury	111449-06-21 05:15 G	42427142.66	42427142.72	42427142.78	0.0293	0.0256
Mercury	111449-09-17 17:58 G	42427231.12	42427231.25	42427231.38	0.0294	0.0081
Mercury	111449-12-15 06:27 G	42427319.65	42427319.77	42427319.90	0.0294	0.0094
Mercury	111450-03-13 18:56 G	42427408.24	42427408.29	42427408.34	0.0294	0.0266
Venus	111450-03-18 17:44 G	42427413.14	42427413.24	42427413.36	0.0294	0.0250
Venus	111450-11-03 19:54 G	42427643.14	42427643.33	42427643.52	0.0294	0.0133
Moon	111455-09-10 19:54 G	42429415.10	42429415.33	42429415.57	0.0286	0.0078
Earth	111455-09-10 22:18 G	42429415.20	42429415.43	42429415.68	0.0286	0.0066 *
Earth	111456-09-23 21:34 G	42429794.22	42429794.40	42429794.59	0.0283	0.0189
Moon	111456-09-23 22:32 G	42429794.26	42429794.44	42429794.63	0.0283	0.0182 *
Mercury	111464-01-09 16:18 G	42432458.11	42432458.18	42432458.27	0.0266	0.0239
Mercury	111464-04-07 12:42 G	42432546.85	42432547.03	42432547.21	0.0266	0.0058
Mercury	111464-07-05 08:51 G	42432635.71	42432635.87	42432636.03	0.0266	0.0124
Venus	111465-04-20 15:49 G	42432924.95	42432925.16	42432925.37	0.0266	0.0006
Moon	111470-02-27 14:37 G	42434699.11	42434699.11	42434699.12	0.0271	0.0271
Earth	111471-03-11 16:03 G	42435075.95	42435076.17	42435076.41	0.0274	0.0077
Moon	111471-03-11 19:54 G	42435076.09	42435076.33	42435076.56	0.0274	0.0064 *
Earth	111472-03-22 23:30 G	42435453.28	42435453.48	42435453.69	0.0277	0.0145
Moon	111472-03-22 23:58 G	42435453.29	42435453.50	42435453.72	0.0277	0.0142 *
Mercury	111479-02-04 19:25 G	42437963.19	42437963.31	42437963.43	0.0294	0.0138
Mercury	111479-05-04 08:08 G	42438051.70	42438051.84	42438051.97	0.0294	0.0038
Mercury	111479-07-31 20:22 G	42438140.27	42438140.35	42438140.45	0.0294	0.0211
Venus	111479-09-28 22:32 G	42438199.29	42438199.44	42438199.59	0.0294	0.0204

Venus	111480-05-16 00:56 G	42438429.38	42438429.54	42438429.71	0.0294	0.0180
Moon	111484-09-03 23:30 G	42440001.29	42440001.48	42440001.69	0.0287	0.0184
Earth	111484-09-03 23:58 G	42440001.31	42440001.50	42440001.70	0.0287	0.0180 *
Moon	111485-09-17 23:15 G	42440380.24	42440380.47	42440380.72	0.0284	0.0084
Earth	111485-09-18 02:51 G	42440380.39	42440380.62	42440380.87	0.0284	0.0080 *
Mars	111488-03-15 00:56 G	42441289.28	42441289.54	42441289.82	0.0277	0.0158
Mercury	111493-08-25 13:25 G	42443278.89	42443279.06	42443279.23	0.0267	0.0098
Mercury	111493-11-22 09:34 G	42443367.72	42443367.90	42443368.08	0.0267	0.0085
Venus	111494-03-16 22:32 G	42443482.34	42443482.44	42443482.54	0.0266	0.0236
Venus	111494-10-31 21:49 G	42443711.21	42443711.41	42443711.62	0.0266	0.0041
Moon	111500-03-06 17:58 G	42445663.06	42445663.25	42445663.44	0.0273	0.0161
Earth	111500-03-06 21:06 G	42445663.20	42445663.38	42445663.58	0.0273	0.0169 *
Earth	111501-03-19 01:39 G	42446040.33	42446040.57	42446040.81	0.0275	0.0050
Moon	111501-03-19 03:06 G	42446040.40	42446040.63	42446040.86	0.0275	0.0043 *
Earth	111502-03-31 11:58 G	42446417.98	42446418.00	42446418.04	0.0278	0.0275
Moon	111502-03-31 15:34 G	42446418.07	42446418.15	42446418.24	0.0278	0.0258
Mercury	111508-06-24 21:20 G	42448695.29	42448695.39	42448695.49	0.0293	0.0188
Mercury	111508-09-21 10:03 G	42448783.78	42448783.92	42448784.05	0.0293	0.0016
Mercury	111508-12-18 22:18 G	42448872.33	42448872.43	42448872.55	0.0294	0.0160
Venus	111509-04-11 04:18 G	42448985.51	42448985.68	42448985.87	0.0294	0.0153
Venus	111509-11-27 06:27 G	42449215.64	42449215.77	42449215.91	0.0294	0.0231
Earth	111514-09-13 01:10 G	42450966.31	42450966.55	42450966.80	0.0286	0.0043
Moon	111514-09-13 04:46 G	42450966.45	42450966.70	42450966.95	0.0286	0.0030 *
Earth	111515-09-26 23:44 G	42451345.34	42451345.49	42451345.67	0.0283	0.0211
Moon	111515-09-27 00:42 G	42451345.38	42451345.53	42451345.68	0.0283	0.0225 *
Mercury	111523-01-13 10:46 G	42454010.82	42454010.95	42454011.10	0.0266	0.0166
Mercury	111523-04-12 07:10 G	42454099.61	42454099.80	42454099.98	0.0266	0.0016
Mercury	111523-07-10 03:20 G	42454188.52	42454188.64	42454188.77	0.0266	0.0199
Venus	111523-09-27 22:18 G	42454268.31	42454268.43	42454268.57	0.0266	0.0207
Venus	111524-05-13 21:34 G	42454497.20	42454497.40	42454497.61	0.0266	0.0070

Earth	111529-03-01 17:58 G	42456250.20	42456250.25	42456250.29	0.0272	0.0265
Moon	111529-03-01 19:25 G	42456250.25	42456250.31	42456250.37	0.0272	0.0263 *
Moon	111530-03-13 16:46 G	42456626.97	42456627.20	42456627.44	0.0274	0.0066
Earth	111530-03-13 19:54 G	42456627.10	42456627.33	42456627.57	0.0274	0.0054 *
Moon	111531-03-26 01:54 G	42457004.39	42457004.58	42457004.78	0.0277	0.0154
Earth	111531-03-26 03:49 G	42457004.47	42457004.66	42457004.85	0.0277	0.0168 *
Mercury	111537-11-11 22:46 G	42459427.38	42459427.45	42459427.52	0.0293	0.0245
Mercury	111538-02-08 11:30 G	42459515.85	42459515.98	42459516.11	0.0294	0.0069
Mercury	111538-05-07 23:58 G	42459604.38	42459604.50	42459604.63	0.0294	0.0106
Mercury	111538-08-04 12:27 G	42459692.98	42459693.02	42459693.06	0.0294	0.0278
Venus	111538-10-22 09:34 G	42459771.70	42459771.90	42459772.10	0.0294	0.0106
Venus	111539-06-09 11:44 G	42460001.94	42460001.99	42460002.07	0.0294	0.0279
Moon	111543-09-07 03:06 G	42461552.42	42461552.63	42461552.83	0.0287	0.0141
Earth	111543-09-07 03:49 G	42461552.46	42461552.66	42461552.88	0.0287	0.0157 *
Earth	111544-09-20 06:13 G	42461931.53	42461931.76	42461931.99	0.0284	0.0102
Moon	111544-09-20 08:37 G	42461931.64	42461931.86	42461932.08	0.0284	0.0119 *
Mercury	111552-06-01 11:58 G	42464742.88	42464743.00	42464743.11	0.0267	0.0204
Mercury	111552-08-29 07:54 G	42464831.65	42464831.83	42464832.02	0.0267	0.0024
Mercury	111552-11-26 04:03 G	42464920.53	42464920.67	42464920.83	0.0267	0.0161
Venus	111553-04-09 04:32 G	42465054.53	42465054.69	42465054.86	0.0267	0.0160
Venus	111553-11-24 03:49 G	42465283.48	42465283.66	42465283.85	0.0267	0.0118
Earth	111559-03-09 01:54 G	42467214.39	42467214.58	42467214.80	0.0273	0.0146
Moon	111559-03-09 05:44 G	42467214.55	42467214.74	42467214.94	0.0273	0.0160 *
Moon	111560-03-20 07:25 G	42467591.57	42467591.81	42467592.06	0.0275	0.0062
Earth	111560-03-20 07:25 G	42467591.59	42467591.81	42467592.05	0.0275	0.0075 *
Mercury	111567-04-01 01:10 G	42470159.53	42470159.55	42470159.58	0.0293	0.0287
Mercury	111567-06-28 13:54 G	42470247.96	42470248.08	42470248.21	0.0293	0.0112
Mercury	111567-09-25 02:37 G	42470336.48	42470336.61	42470336.74	0.0293	0.0063
Mercury	111567-12-22 14:51 G	42470425.05	42470425.12	42470425.20	0.0293	0.0235
Venus	111568-05-03 17:44 G	42470558.03	42470558.24	42470558.45	0.0294	0.0047

Moon	111572-08-31 00:42 G	42472138.43	42472138.53	42472138.63	0.0288	0.0264
Earth	111572-08-31 02:37 G	42472138.56	42472138.61	42472138.68	0.0288	0.0279 *
Moon	111573-09-14 03:49 G	42472517.41	42472517.66	42472517.91	0.0286	0.0006
Earth	111573-09-14 07:39 G	42472517.58	42472517.82	42472518.07	0.0286	0.0018 *
Moon	111574-09-28 03:20 G	42472896.53	42472896.64	42472896.77	0.0283	0.0242
Earth	111574-09-28 05:30 G	42472896.60	42472896.73	42472896.88	0.0283	0.0235 *
Mars	111576-08-09 00:27 G	42473577.22	42473577.52	42473577.84	0.0277	0.0100
Mercury	111582-01-16 05:58 G	42475563.58	42475563.75	42475563.93	0.0267	0.0087
Mercury	111582-04-15 02:08 G	42475652.42	42475652.59	42475652.77	0.0266	0.0096
Venus	111582-10-20 05:15 G	42475840.54	42475840.72	42475840.91	0.0266	0.0129
Venus	111583-06-06 04:32 G	42476069.52	42476069.69	42476069.87	0.0266	0.0148
Moon	111588-03-02 20:22 G	42477801.29	42477801.35	42477801.43	0.0272	0.0259
Earth	111588-03-02 23:01 G	42477801.37	42477801.46	42477801.58	0.0272	0.0243 *
Earth	111589-03-15 02:08 G	42478178.35	42478178.59	42478178.83	0.0274	0.0029
Moon	111589-03-15 04:18 G	42478178.45	42478178.68	42478178.92	0.0274	0.0037 *
Earth	111590-03-27 10:32 G	42478555.77	42478555.94	42478556.11	0.0277	0.0194
Moon	111590-03-27 13:39 G	42478555.90	42478556.07	42478556.24	0.0277	0.0199 *
Mercury	111596-11-14 15:34 G	42480980.04	42480980.15	42480980.26	0.0293	0.0168
Mercury	111597-02-11 04:18 G	42481068.54	42481068.68	42481068.81	0.0294	0.0012
Mercury	111597-05-10 16:32 G	42481157.09	42481157.19	42481157.30	0.0294	0.0181
Venus	111597-11-13 22:46 G	42481344.24	42481344.45	42481344.67	0.0294	0.0004
Earth	111602-09-08 11:01 G	42483103.74	42483103.96	42483104.18	0.0287	0.0131
Moon	111602-09-08 13:39 G	42483103.84	42483104.07	42483104.30	0.0287	0.0127 *
Moon	111603-09-22 11:30 G	42483482.76	42483482.98	42483483.22	0.0284	0.0124
Earth	111603-09-22 12:27 G	42483482.81	42483483.02	42483483.25	0.0284	0.0128 *
Mercury	111611-06-05 07:10 G	42486295.64	42486295.80	42486295.96	0.0267	0.0124
Mercury	111611-09-02 03:20 G	42486384.46	42486384.64	42486384.82	0.0267	0.0058
Mercury	111611-11-29 23:30 G	42486473.42	42486473.48	42486473.56	0.0267	0.0243
Venus	111612-05-01 11:58 G	42486626.80	42486627.00	42486627.20	0.0267	0.0080
Venus	111612-12-16 11:01 G	42486855.83	42486855.96	42486856.11	0.0267	0.0198

Moon	111618-03-10 05:44 G	42488765.53	42488765.74	42488765.96	0.0273	0.0127
Earth	111618-03-10 09:06 G	42488765.67	42488765.88	42488766.10	0.0273	0.0122 *
Moon	111619-03-22 13:54 G	42489142.88	42489143.08	42489143.31	0.0276	0.0109
Earth	111619-03-22 15:20 G	42489142.91	42489143.14	42489143.37	0.0276	0.0099 *
Mercury	111626-04-03 18:42 G	42491712.18	42491712.28	42491712.37	0.0293	0.0203
Mercury	111626-07-01 07:10 G	42491800.67	42491800.80	42491800.93	0.0293	0.0029
Mercury	111626-09-27 19:39 G	42491889.21	42491889.32	42491889.44	0.0293	0.0144
Venus	111627-05-27 08:51 G	42492130.66	42492130.87	42492131.08	0.0293	0.0064
Earth	111631-09-02 13:39 G	42493689.96	42493690.07	42493690.20	0.0288	0.0250
Moon	111631-09-02 14:08 G	42493689.99	42493690.09	42493690.20	0.0288	0.0257 *
Earth	111632-09-15 17:44 G	42494068.99	42494069.24	42494069.49	0.0285	0.0011
Moon	111632-09-15 21:20 G	42494069.14	42494069.39	42494069.63	0.0285	0.0005 *
Earth	111633-09-29 14:51 G	42494448.03	42494448.12	42494448.22	0.0282	0.0260
Moon	111633-09-29 18:13 G	42494448.15	42494448.26	42494448.39	0.0282	0.0245 *
Mercury	111640-10-22 05:30 G	42497027.60	42497027.73	42497027.87	0.0267	0.0184
Mercury	111641-01-19 01:39 G	42497116.39	42497116.57	42497116.76	0.0267	0.0005
Mercury	111641-04-17 21:49 G	42497205.29	42497205.41	42497205.56	0.0267	0.0182
Venus	111641-11-11 13:39 G	42497412.86	42497413.07	42497413.28	0.0266	0.0047
Venus	111642-06-28 12:42 G	42497641.93	42497642.03	42497642.14	0.0266	0.0229
Earth	111647-03-05 06:42 G	42499352.64	42499352.78	42499352.92	0.0272	0.0219
Moon	111647-03-05 10:18 G	42499352.79	42499352.93	42499353.07	0.0272	0.0220 *
Moon	111648-03-16 09:20 G	42499729.64	42499729.89	42499730.14	0.0275	0.0010
Earth	111648-03-16 10:32 G	42499729.70	42499729.94	42499730.18	0.0275	0.0004 *
Moon	111649-03-28 15:49 G	42500107.05	42500107.16	42500107.30	0.0278	0.0237
Earth	111649-03-28 19:39 G	42500107.18	42500107.32	42500107.47	0.0278	0.0221 *
Mercury	111655-08-21 20:08 G	42502444.28	42502444.34	42502444.41	0.0293	0.0258
Mercury	111655-11-18 08:51 G	42502532.75	42502532.87	42502533.00	0.0293	0.0083
Mercury	111656-02-14 21:34 G	42502621.27	42502621.40	42502621.52	0.0294	0.0091
Venus	111656-04-20 12:42 G	42502686.96	42502687.03	42502687.13	0.0294	0.0270
Mercury	111656-05-13 09:49 G	42502709.86	42502709.91	42502709.97	0.0294	0.0263

Venus	111656-12-06 14:22 G	42502916.91	42502917.10	42502917.30	0.0294	0.0113
Moon	111661-09-09 18:13 G	42504655.05	42504655.26	42504655.49	0.0286	0.0120
Earth	111661-09-09 21:49 G	42504655.18	42504655.41	42504655.65	0.0286	0.0102 *
Moon	111662-09-23 21:49 G	42505034.20	42505034.41	42505034.62	0.0283	0.0138
Earth	111662-09-23 22:46 G	42505034.24	42505034.45	42505034.66	0.0283	0.0154 *
Mars	111665-01-03 04:32 G	42505866.37	42505866.69	42505867.02	0.0277	0.0030
Mercury	111670-03-11 06:42 G	42507759.68	42507759.78	42507759.89	0.0267	0.0221
Mercury	111670-06-08 02:51 G	42507848.44	42507848.62	42507848.80	0.0267	0.0039
Mercury	111670-09-04 23:01 G	42507937.31	42507937.46	42507937.62	0.0267	0.0146
Venus	111671-05-24 20:37 G	42508199.15	42508199.36	42508199.57	0.0267	0.0005
Earth	111677-03-11 17:58 G	42510317.02	42510317.25	42510317.48	0.0274	0.0097
Moon	111677-03-11 20:22 G	42510317.13	42510317.35	42510317.58	0.0274	0.0083 *
Earth	111678-03-24 00:56 G	42510694.33	42510694.54	42510694.76	0.0276	0.0125
Moon	111678-03-24 03:20 G	42510694.44	42510694.64	42510694.87	0.0276	0.0139 *
Mercury	111685-01-07 23:30 G	42513176.47	42513176.48	42513176.50	0.0292	0.0288
Mercury	111685-04-06 12:13 G	42513264.89	42513265.01	42513265.14	0.0293	0.0114
Mercury	111685-07-04 00:42 G	42513353.41	42513353.53	42513353.67	0.0293	0.0061
Mercury	111685-09-30 13:10 G	42513441.97	42513442.05	42513442.13	0.0293	0.0232
Venus	111685-11-01 00:13 G	42513473.37	42513473.51	42513473.67	0.0293	0.0201
Venus	111686-06-19 01:39 G	42513703.41	42513703.57	42513703.75	0.0293	0.0180
Earth	111690-09-04 03:34 G	42515241.50	42515241.65	42515241.81	0.0288	0.0220
Moon	111690-09-04 05:01 G	42515241.57	42515241.71	42515241.86	0.0288	0.0235 *
Moon	111691-09-18 04:46 G	42515620.44	42515620.70	42515620.95	0.0285	0.0028
Earth	111691-09-18 06:42 G	42515620.54	42515620.78	42515621.03	0.0285	0.0041 *
Moon	111692-09-30 23:15 G	42515999.46	42515999.47	42515999.50	0.0282	0.0281
Mercury	111699-10-26 01:54 G	42518580.41	42518580.58	42518580.76	0.0267	0.0094
Mercury	111700-01-22 22:18 G	42518669.25	42518669.43	42518669.60	0.0267	0.0089
Venus	111700-04-19 23:01 G	42518756.38	42518756.46	42518756.56	0.0267	0.0241
Venus	111700-12-04 23:01 G	42518985.25	42518985.46	42518985.67	0.0266	0.0038
Moon	111706-03-07 12:13 G	42520903.84	42520904.01	42520904.20	0.0272	0.0178

Earth	111706-03-07 15:34 G	42520904.00	42520904.15	42520904.33	0.0272	0.0195	*
Moon	111707-03-19 19:54 G	42521281.10	42521281.33	42521281.57	0.0275	0.0030	
Earth	111707-03-19 20:22 G	42521281.11	42521281.35	42521281.59	0.0275	0.0023	*
Earth	111708-03-31 06:13 G	42521658.67	42521658.76	42521658.88	0.0278	0.0248	
Moon	111708-03-31 10:03 G	42521658.81	42521658.92	42521659.03	0.0278	0.0243	*
Mercury	111714-08-25 13:54 G	42523996.97	42523997.08	42523997.19	0.0293	0.0168	
Mercury	111714-11-22 02:37 G	42524085.47	42524085.61	42524085.74	0.0293	0.0008	
Mercury	111715-02-18 14:51 G	42524174.02	42524174.12	42524174.23	0.0294	0.0180	
Venus	111715-05-15 05:58 G	42524259.57	42524259.75	42524259.93	0.0294	0.0154	
Venus	111715-12-31 07:25 G	42524489.68	42524489.81	42524489.95	0.0294	0.0229	
Earth	111720-09-12 11:15 G	42526206.73	42526206.97	42526207.21	0.0286	0.0072	
Moon	111720-09-12 15:06 G	42526206.90	42526207.13	42526207.37	0.0286	0.0077	*
Earth	111721-09-26 11:15 G	42526585.79	42526585.97	42526586.17	0.0283	0.0183	
Moon	111721-09-26 13:54 G	42526585.90	42526586.08	42526586.29	0.0283	0.0184	*
Mercury	111729-03-15 03:06 G	42529312.47	42529312.63	42529312.79	0.0267	0.0131	
Mercury	111729-06-11 23:15 G	42529401.29	42529401.47	42529401.65	0.0267	0.0052	
Mercury	111729-09-08 19:39 G	42529490.24	42529490.32	42529490.41	0.0267	0.0236	
Venus	111729-10-31 05:44 G	42529542.61	42529542.74	42529542.90	0.0267	0.0193	
Venus	111730-06-17 05:44 G	42529771.55	42529771.74	42529771.94	0.0267	0.0087	
Moon	111735-03-03 04:18 G	42531491.65	42531491.68	42531491.73	0.0272	0.0268	
Moon	111736-03-14 02:08 G	42531868.35	42531868.59	42531868.84	0.0274	0.0070	
Earth	111736-03-14 03:49 G	42531868.42	42531868.66	42531868.89	0.0274	0.0071	*
Moon	111737-03-26 07:54 G	42532245.64	42532245.83	42532246.05	0.0277	0.0142	
Earth	111737-03-26 11:30 G	42532245.79	42532245.98	42532246.19	0.0277	0.0153	*
Mars	111739-04-18 20:08 G	42532999.15	42532999.34	42532999.55	0.0283	0.0185	
Mercury	111744-01-12 17:30 G	42534729.14	42534729.23	42534729.34	0.0293	0.0195	
Mercury	111744-04-10 06:13 G	42534817.63	42534817.76	42534817.90	0.0293	0.0021	
Mercury	111744-07-07 18:42 G	42534906.17	42534906.28	42534906.40	0.0293	0.0153	
Venus	111744-11-24 18:42 G	42535046.08	42535046.28	42535046.49	0.0293	0.0082	
Moon	111749-09-06 17:15 G	42536793.04	42536793.22	42536793.42	0.0287	0.0182	

Earth	111749-09-06 20:22 G	42536793.16	42536793.35	42536793.54	0.0287	0.0187	*
Earth	111750-09-20 22:32 G	42537172.20	42537172.44	42537172.69	0.0284	0.0072	
Moon	111750-09-20 22:46 G	42537172.22	42537172.45	42537172.68	0.0284	0.0082	*
Mars	111753-05-31 20:08 G	42538156.11	42538156.34	42538156.62	0.0277	0.0175	
Mercury	111758-08-02 02:37 G	42540044.48	42540044.61	42540044.75	0.0267	0.0181	
Mercury	111758-10-29 22:46 G	42540133.27	42540133.45	42540133.64	0.0267	0.0005	
Mercury	111759-01-26 19:10 G	42540222.17	42540222.30	42540222.43	0.0267	0.0184	
Venus	111759-05-13 09:34 G	42540328.73	42540328.90	42540329.07	0.0267	0.0154	
Venus	111759-12-28 09:06 G	42540557.70	42540557.88	42540558.07	0.0266	0.0125	
Earth	111765-03-09 01:39 G	42542455.39	42542455.57	42542455.77	0.0273	0.0168	
Moon	111765-03-09 04:46 G	42542455.52	42542455.70	42542455.89	0.0273	0.0170	*
Earth	111766-03-21 06:56 G	42542832.56	42542832.79	42542833.03	0.0275	0.0051	
Moon	111766-03-21 09:06 G	42542832.63	42542832.88	42542833.13	0.0275	0.0037	*
Moon	111767-04-02 15:34 G	42543210.07	42543210.15	42543210.24	0.0278	0.0260	
Earth	111767-04-02 17:58 G	42543210.23	42543210.25	42543210.28	0.0278	0.0276	*
Mercury	111773-05-31 19:10 G	42545461.24	42545461.30	42545461.37	0.0293	0.0251	
Mercury	111773-08-28 07:54 G	42545549.70	42545549.83	42545549.96	0.0293	0.0076	
Mercury	111773-11-24 20:22 G	42545638.23	42545638.35	42545638.48	0.0293	0.0098	
Mercury	111774-02-21 08:51 G	42545726.82	42545726.87	42545726.92	0.0294	0.0270	
Venus	111774-06-06 23:44 G	42545832.28	42545832.49	42545832.70	0.0294	0.0035	
Moon	111779-09-14 23:15 G	42547758.22	42547758.47	42547758.72	0.0286	0.0025	
Earth	111779-09-15 02:22 G	42547758.35	42547758.60	42547758.85	0.0286	0.0041	*
Moon	111780-09-27 22:03 G	42548137.28	42548137.42	42548137.57	0.0283	0.0229	
Earth	111780-09-28 01:39 G	42548137.41	42548137.57	42548137.74	0.0283	0.0212	*
Mercury	111787-12-20 03:49 G	42550776.56	42550776.66	42550776.76	0.0267	0.0220	
Mercury	111788-03-17 23:44 G	42550865.31	42550865.49	42550865.68	0.0267	0.0038	
Mercury	111788-06-14 19:54 G	42550954.18	42550954.33	42550954.49	0.0267	0.0146	
Venus	111788-11-22 16:03 G	42551114.98	42551115.17	42551115.37	0.0267	0.0106	
Venus	111789-07-09 15:34 G	42551344.00	42551344.15	42551344.32	0.0267	0.0174	
Moon	111794-03-04 06:27 G	42553042.74	42553042.77	42553042.84	0.0272	0.0266	

Earth	111794-03-04 10:18 G	42553042.87	42553042.93	42553043.01	0.0272	0.0260
Earth	111795-03-16 13:39 G	42553419.84	42553420.07	42553420.32	0.0275	0.0046
Moon	111795-03-16 13:39 G	42553419.85	42553420.07	42553420.30	0.0275	0.0060 *
Earth	111796-03-27 22:32 G	42553797.26	42553797.44	42553797.63	0.0277	0.0180
Moon	111796-03-28 02:08 G	42553797.41	42553797.59	42553797.79	0.0277	0.0166 *
Mercury	111802-10-19 23:01 G	42556193.42	42556193.46	42556193.50	0.0292	0.0276
Mercury	111803-01-16 11:44 G	42556281.86	42556281.99	42556282.11	0.0293	0.0101
Mercury	111803-04-15 00:13 G	42556370.38	42556370.51	42556370.64	0.0293	0.0072
Mercury	111803-07-12 12:42 G	42556458.96	42556459.03	42556459.10	0.0293	0.0244
Venus	111803-12-19 12:56 G	42556618.83	42556619.04	42556619.26	0.0293	0.0038
Earth	111808-09-09 13:10 G	42558344.85	42558345.05	42558345.27	0.0287	0.0155
Moon	111808-09-09 17:15 G	42558345.00	42558345.22	42558345.44	0.0287	0.0137 *
Earth	111809-09-23 15:06 G	42558723.90	42558724.13	42558724.36	0.0284	0.0104
Moon	111809-09-23 17:01 G	42558723.98	42558724.21	42558724.45	0.0284	0.0118 *
Mercury	111817-05-09 03:49 G	42561508.65	42561508.66	42561508.68	0.0267	0.0265
Mercury	111817-08-05 23:44 G	42561597.32	42561597.49	42561597.67	0.0267	0.0085
Mercury	111817-11-02 19:54 G	42561686.17	42561686.33	42561686.51	0.0267	0.0098
Venus	111818-06-05 20:22 G	42561901.15	42561901.35	42561901.56	0.0266	0.0065
Venus	111819-01-20 19:39 G	42562130.20	42562130.32	42562130.45	0.0266	0.0213
Moon	111824-03-11 09:34 G	42564006.70	42564006.90	42564007.11	0.0273	0.0156
Earth	111824-03-11 11:44 G	42564006.79	42564006.99	42564007.20	0.0273	0.0142 *
Moon	111825-03-23 14:22 G	42564383.87	42564384.10	42564384.33	0.0276	0.0071
Earth	111825-03-23 17:30 G	42564384.00	42564384.23	42564384.47	0.0276	0.0078 *
Mars	111827-09-13 21:06 G	42565288.13	42565288.38	42565288.63	0.0283	0.0088
Mercury	111832-06-04 13:10 G	42567013.94	42567014.05	42567014.16	0.0293	0.0158
Mercury	111832-09-01 01:54 G	42567102.44	42567102.58	42567102.71	0.0293	0.0018
Mercury	111832-11-28 14:22 G	42567191.00	42567191.10	42567191.20	0.0294	0.0189
Venus	111833-06-30 17:44 G	42567405.04	42567405.24	42567405.45	0.0294	0.0084
Moon	111837-09-03 10:46 G	42568930.87	42568930.95	42568931.06	0.0288	0.0262
Earth	111837-09-03 12:42 G	42568930.97	42568931.03	42568931.12	0.0288	0.0272 *

Earth	111838-09-17 18:13 G	42569310.01	42569310.26	42569310.51	0.0285	0.0010
Moon	111838-09-17 19:25 G	42569310.07	42569310.31	42569310.55	0.0285	0.0004 *
Earth	111839-10-01 16:32 G	42569689.07	42569689.19	42569689.32	0.0282	0.0242
Moon	111839-10-01 19:54 G	42569689.22	42569689.33	42569689.47	0.0282	0.0242 *
Mercury	111846-12-24 00:27 G	42572329.36	42572329.52	42572329.68	0.0267	0.0127
Mercury	111847-03-22 20:37 G	42572418.18	42572418.36	42572418.54	0.0267	0.0056
Mercury	111847-06-19 17:01 G	42572507.13	42572507.21	42572507.29	0.0267	0.0240
Venus	111847-12-17 02:22 G	42572687.39	42572687.60	42572687.81	0.0267	0.0020
Venus	111848-08-02 01:39 G	42572916.53	42572916.57	42572916.62	0.0267	0.0259
Earth	111853-03-06 18:56 G	42574594.18	42574594.29	42574594.42	0.0273	0.0235
Moon	111853-03-06 21:49 G	42574594.33	42574594.41	42574594.52	0.0273	0.0250 *
Earth	111854-03-18 23:01 G	42574971.22	42574971.46	42574971.70	0.0275	0.0020
Moon	111854-03-19 00:42 G	42574971.28	42574971.53	42574971.78	0.0275	0.0022 *
Moon	111855-03-31 05:30 G	42575348.58	42575348.73	42575348.89	0.0278	0.0216
Earth	111855-03-31 08:22 G	42575348.70	42575348.85	42575349.02	0.0278	0.0206 *
Mercury	111861-10-22 16:46 G	42577746.10	42577746.20	42577746.31	0.0293	0.0185
Mercury	111862-01-19 05:30 G	42577834.60	42577834.73	42577834.87	0.0293	0.0011
Mercury	111862-04-17 17:58 G	42577923.14	42577923.25	42577923.36	0.0293	0.0162
Venus	111862-05-26 05:30 G	42577961.61	42577961.73	42577961.88	0.0293	0.0225
Venus	111863-01-11 06:42 G	42578191.61	42578191.78	42578191.97	0.0293	0.0157
Moon	111867-09-12 02:08 G	42579896.37	42579896.59	42579896.83	0.0286	0.0125
Earth	111867-09-12 05:44 G	42579896.53	42579896.74	42579896.98	0.0286	0.0122 *
Moon	111868-09-25 03:49 G	42580275.45	42580275.66	42580275.88	0.0284	0.0128
Earth	111868-09-25 06:56 G	42580275.58	42580275.79	42580276.02	0.0284	0.0136 *
Mercury	111876-05-12 00:56 G	42583061.40	42583061.54	42583061.68	0.0267	0.0170
Mercury	111876-08-08 21:06 G	42583150.19	42583150.38	42583150.56	0.0267	0.0012
Mercury	111876-11-05 17:15 G	42583239.10	42583239.22	42583239.35	0.0267	0.0195
Venus	111876-11-11 07:10 G	42583244.76	42583244.80	42583244.86	0.0267	0.0257
Venus	111877-06-28 07:10 G	42583473.59	42583473.80	42583474.01	0.0266	0.0023
Earth	111883-03-13 21:06 G	42585558.17	42585558.38	42585558.61	0.0273	0.0116

Moon	111883-03-13 21:49 G	42585558.20	42585558.41	42585558.63	0.0273	0.0113	*
Earth	111884-03-25 03:20 G	42585935.42	42585935.64	42585935.87	0.0276	0.0104	
Moon	111884-03-25 06:56 G	42585935.58	42585935.79	42585936.02	0.0276	0.0120	*
Mercury	111891-03-11 17:58 G	42588478.18	42588478.25	42588478.33	0.0293	0.0246	
Mercury	111891-06-08 06:42 G	42588566.65	42588566.78	42588566.91	0.0293	0.0071	
Mercury	111891-09-04 19:25 G	42588655.18	42588655.31	42588655.43	0.0293	0.0103	
Mercury	111891-12-02 07:39 G	42588743.78	42588743.82	42588743.87	0.0294	0.0275	
Venus	111891-12-06 09:06 G	42588747.73	42588747.88	42588748.06	0.0294	0.0184	
Venus	111892-07-23 10:32 G	42588977.79	42588977.94	42588978.10	0.0294	0.0200	
Earth	111896-09-05 03:34 G	42590482.53	42590482.65	42590482.80	0.0288	0.0241	
Moon	111896-09-05 07:10 G	42590482.69	42590482.80	42590482.93	0.0288	0.0253	*
Earth	111897-09-19 08:37 G	42590861.61	42590861.86	42590862.11	0.0285	0.0021	
Moon	111897-09-19 09:20 G	42590861.63	42590861.89	42590862.14	0.0285	0.0008	*
Moon	111898-10-03 03:06 G	42591240.54	42591240.63	42591240.75	0.0282	0.0255	
Earth	111898-10-03 06:13 G	42591240.70	42591240.76	42591240.84	0.0282	0.0271	*
Mercury	111905-09-30 01:10 G	42593793.44	42593793.55	42593793.66	0.0267	0.0215	
Mercury	111905-12-27 21:06 G	42593882.20	42593882.38	42593882.56	0.0267	0.0035	
Mercury	111906-03-26 17:15 G	42593971.07	42593971.22	42593971.38	0.0267	0.0149	
Venus	111906-05-25 11:58 G	42594030.89	42594031.00	42594031.13	0.0267	0.0215	
Venus	111907-01-09 11:58 G	42594259.80	42594260.00	42594260.21	0.0267	0.0066	
Moon	111912-03-08 23:58 G	42596145.34	42596145.50	42596145.67	0.0273	0.0203	
Earth	111912-03-09 02:37 G	42596145.46	42596145.61	42596145.76	0.0273	0.0211	*
Moon	111913-03-21 04:03 G	42596522.43	42596522.67	42596522.91	0.0275	0.0022	
Earth	111913-03-21 06:42 G	42596522.54	42596522.78	42596523.03	0.0275	0.0007	*
Earth	111914-04-02 16:32 G	42596900.07	42596900.19	42596900.33	0.0278	0.0231	
Moon	111914-04-02 17:58 G	42596900.15	42596900.25	42596900.37	0.0278	0.0245	*
Mars	111916-02-09 12:27 G	42597577.76	42597578.02	42597578.28	0.0283	0.0045	
Mercury	111920-07-29 21:34 G	42599210.36	42599210.40	42599210.45	0.0293	0.0275	
Mercury	111920-10-26 10:18 G	42599298.81	42599298.93	42599299.06	0.0293	0.0100	
Mercury	111921-01-22 23:01 G	42599387.33	42599387.46	42599387.59	0.0293	0.0075	

Mercury	111921-04-21 11:30 G	42599475.91	42599475.98	42599476.05	0.0293	0.0247
Venus	111921-06-18 21:34 G	42599534.21	42599534.40	42599534.61	0.0293	0.0114
Venus	111922-02-03 23:01 G	42599764.39	42599764.46	42599764.55	0.0293	0.0270
Earth	111926-09-14 20:37 G	42601448.13	42601448.36	42601448.60	0.0286	0.0089
Moon	111926-09-14 22:46 G	42601448.23	42601448.45	42601448.68	0.0286	0.0107 *
Earth	111927-09-28 21:20 G	42601827.19	42601827.39	42601827.60	0.0283	0.0166
Moon	111927-09-29 00:56 G	42601827.34	42601827.54	42601827.76	0.0283	0.0152 *
Mercury	111935-02-17 01:39 G	42604525.53	42604525.57	42604525.63	0.0267	0.0256
Mercury	111935-05-16 21:49 G	42604614.24	42604614.41	42604614.59	0.0267	0.0076
Mercury	111935-08-13 17:44 G	42604703.08	42604703.24	42604703.42	0.0267	0.0107
Venus	111935-12-05 17:30 G	42604817.08	42604817.23	42604817.40	0.0266	0.0171
Venus	111936-07-21 17:01 G	42605046.03	42605046.21	42605046.41	0.0266	0.0109
Earth	111942-03-16 04:46 G	42607109.48	42607109.70	42607109.94	0.0273	0.0091
Moon	111942-03-16 05:44 G	42607109.50	42607109.74	42607109.98	0.0273	0.0076 *
Moon	111943-03-28 07:54 G	42607486.62	42607486.83	42607487.05	0.0276	0.0137
Earth	111943-03-28 11:15 G	42607486.77	42607486.97	42607487.19	0.0276	0.0130 *
Mercury	111950-03-15 11:15 G	42610030.86	42610030.97	42610031.09	0.0293	0.0163
Mercury	111950-06-11 23:58 G	42610119.37	42610119.50	42610119.64	0.0293	0.0012
Mercury	111950-09-08 12:27 G	42610207.92	42610208.02	42610208.12	0.0294	0.0185
Venus	111950-12-30 00:27 G	42610320.32	42610320.52	42610320.73	0.0294	0.0073
Moon	111955-09-08 12:42 G	42612033.88	42612034.03	42612034.18	0.0288	0.0224
Earth	111955-09-08 16:32 G	42612034.03	42612034.19	42612034.36	0.0288	0.0211 *
Moon	111956-09-21 18:27 G	42612413.04	42612413.27	42612413.51	0.0285	0.0043
Earth	111956-09-21 20:51 G	42612413.13	42612413.37	42612413.62	0.0285	0.0050 *
Mercury	111964-10-02 21:20 G	42615346.23	42615346.39	42615346.55	0.0267	0.0127
Mercury	111964-12-30 17:30 G	42615435.05	42615435.23	42615435.41	0.0267	0.0055
Mercury	111965-03-29 13:39 G	42615523.99	42615524.07	42615524.15	0.0267	0.0239
Venus	111965-06-16 21:20 G	42615603.21	42615603.39	42615603.58	0.0267	0.0131
Venus	111966-01-31 20:51 G	42615832.20	42615832.37	42615832.55	0.0267	0.0149
Earth	111971-03-11 08:22 G	42617696.69	42617696.85	42617697.04	0.0273	0.0188

Moon	111971-03-11 09:34 G	42617696.73	42617696.90	42617697.09	0.0273	0.0176	*
Earth	111972-03-22 12:56 G	42618073.80	42618074.04	42618074.28	0.0275	0.0030	
Moon	111972-03-22 16:46 G	42618073.96	42618074.20	42618074.44	0.0275	0.0032	*
Moon	111973-04-03 23:15 G	42618451.37	42618451.47	42618451.60	0.0278	0.0246	
Earth	111973-04-03 23:01 G	42618451.38	42618451.46	42618451.56	0.0278	0.0255	*
Mercury	111979-08-02 14:22 G	42620763.01	42620763.10	42620763.21	0.0293	0.0197	
Mercury	111979-10-30 03:20 G	42620851.50	42620851.64	42620851.77	0.0293	0.0023	
Mercury	111980-01-26 15:49 G	42620940.05	42620940.16	42620940.27	0.0293	0.0152	
Venus	111980-07-11 11:44 G	42621106.78	42621106.99	42621107.21	0.0293	0.0008	
Moon	111985-09-16 07:39 G	42622999.57	42622999.82	42623000.07	0.0286	0.0059	
Earth	111985-09-16 07:54 G	42622999.59	42622999.83	42623000.07	0.0286	0.0060	*
Moon	111986-09-30 04:46 G	42623378.54	42623378.70	42623378.88	0.0283	0.0203	
Earth	111986-09-30 08:22 G	42623378.67	42623378.85	42623379.03	0.0283	0.0194	*
Mercury	111994-02-19 22:03 G	42626078.29	42626078.42	42626078.57	0.0267	0.0167	
Mercury	111994-05-19 18:13 G	42626167.08	42626167.26	42626167.44	0.0267	0.0014	
Mercury	111994-08-16 14:22 G	42626255.98	42626256.10	42626256.23	0.0266	0.0197	
Venus	111994-12-28 03:06 G	42626389.43	42626389.63	42626389.83	0.0266	0.0086	
Venus	111995-08-14 02:08 G	42626618.45	42626618.59	42626618.74	0.0266	0.0192	
Moon	112000-03-05 06:56 G	42628283.75	42628283.79	42628283.82	0.0271	0.0267	

113TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 113th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
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Moon	112001-03-17 08:22 G	42628660.63	42628660.85	42628661.09	0.0273	0.0073
Earth	112001-03-17 10:46 G	42628660.72	42628660.95	42628661.19	0.0273	0.0067 *
Earth	112002-03-29 17:15 G	42629038.02	42629038.22	42629038.42	0.0276	0.0154
Moon	112002-03-29 19:25 G	42629038.11	42629038.31	42629038.51	0.0276	0.0140 *
Mars	112004-07-05 01:25 G	42629866.33	42629866.56	42629866.81	0.0283	0.0116
Mercury	112008-12-19 15:06 G	42631495.08	42631495.13	42631495.19	0.0293	0.0264
Mercury	112009-03-18 03:49 G	42631583.54	42631583.66	42631583.79	0.0293	0.0089
Mercury	112009-06-14 16:32 G	42631672.06	42631672.19	42631672.32	0.0293	0.0086
Mercury	112009-09-11 05:01 G	42631760.65	42631760.71	42631760.77	0.0294	0.0258
Venus	112010-01-21 13:25 G	42631892.85	42631893.06	42631893.27	0.0294	0.0031
Earth	112014-09-10 01:54 G	42633585.40	42633585.58	42633585.78	0.0288	0.0184
Moon	112014-09-10 05:15 G	42633585.53	42633585.72	42633585.92	0.0288	0.0173 *
Earth	112015-09-24 05:58 G	42633964.52	42633964.75	42633964.99	0.0285	0.0077
Moon	112015-09-24 09:34 G	42633964.66	42633964.90	42633965.14	0.0285	0.0091 *
Mercury	112023-07-09 21:20 G	42636810.29	42636810.39	42636810.48	0.0267	0.0223
Mercury	112023-10-06 17:01 G	42636899.03	42636899.21	42636899.40	0.0267	0.0044
Mercury	112024-01-03 13:10 G	42636987.90	42636988.05	42636988.21	0.0267	0.0139
Venus	112024-07-09 05:30 G	42637175.53	42637175.73	42637175.94	0.0266	0.0050
Venus	112025-02-23 04:46 G	42637404.60	42637404.70	42637404.81	0.0266	0.0228
Earth	112030-03-12 12:13 G	42639247.83	42639248.01	42639248.21	0.0273	0.0165
Moon	112030-03-12 12:42 G	42639247.84	42639248.03	42639248.22	0.0273	0.0173 *
Moon	112031-03-24 13:10 G	42639624.81	42639625.05	42639625.29	0.0275	0.0036
Earth	112031-03-24 16:46 G	42639624.97	42639625.20	42639625.44	0.0275	0.0053 *
Moon	112032-04-05 01:10 G	42640002.49	42640002.55	42640002.63	0.0278	0.0266
Earth	112032-04-05 02:51 G	42640002.61	42640002.62	42640002.65	0.0278	0.0277 *
Mercury	112038-08-05 06:56 G	42642315.67	42642315.79	42642315.91	0.0293	0.0126
Mercury	112038-11-01 19:25 G	42642404.18	42642404.31	42642404.45	0.0293	0.0049
Venus	112038-12-16 22:32 G	42642449.41	42642449.44	42642449.48	0.0293	0.0289
Mercury	112039-01-29 07:54 G	42642492.75	42642492.83	42642492.92	0.0293	0.0221
Venus	112039-08-03 23:44 G	42642679.29	42642679.49	42642679.69	0.0293	0.0093

Moon	112043-09-04 04:46 G	42644171.65	42644171.70	42644171.78	0.0289	0.0279
Moon	112044-09-17 14:22 G	42644550.86	42644551.10	42644551.34	0.0286	0.0017
Earth	112044-09-17 15:49 G	42644550.91	42644551.16	42644551.41	0.0286	0.0033 *
Earth	112045-10-01 15:49 G	42644930.01	42644930.16	42644930.32	0.0283	0.0221
Moon	112045-10-01 18:27 G	42644930.14	42644930.27	42644930.41	0.0283	0.0233 *
Mercury	112052-11-25 21:49 G	42647542.40	42647542.41	42647542.45	0.0267	0.0263
Mercury	112053-02-22 17:44 G	42647631.08	42647631.24	42647631.42	0.0267	0.0084
Mercury	112053-05-22 13:54 G	42647719.91	42647720.08	42647720.25	0.0267	0.0098
Venus	112054-01-19 11:15 G	42647961.76	42647961.97	42647962.18	0.0266	0.0007
Earth	112059-03-07 13:54 G	42649835.00	42649835.08	42649835.16	0.0271	0.0253
Moon	112059-03-07 15:20 G	42649835.11	42649835.14	42649835.19	0.0271	0.0266 *
Earth	112060-03-18 14:51 G	42650211.89	42650212.12	42650212.36	0.0273	0.0043
Moon	112060-03-18 18:13 G	42650212.03	42650212.26	42650212.51	0.0273	0.0059 *
Moon	112061-03-30 20:37 G	42650589.17	42650589.36	42650589.57	0.0276	0.0170
Earth	112061-03-30 21:20 G	42650589.21	42650589.39	42650589.58	0.0276	0.0178 *
Mercury	112067-12-23 07:25 G	42653047.71	42653047.81	42653047.91	0.0293	0.0195
Mercury	112068-03-20 20:08 G	42653136.20	42653136.34	42653136.47	0.0293	0.0021
Mercury	112068-06-17 08:37 G	42653224.75	42653224.86	42653224.97	0.0293	0.0153
Venus	112068-06-27 23:30 G	42653235.38	42653235.48	42653235.59	0.0293	0.0254
Venus	112069-02-13 00:27 G	42653465.33	42653465.52	42653465.71	0.0294	0.0129
Moon	112073-09-11 05:58 G	42655136.53	42655136.75	42655136.97	0.0288	0.0146
Earth	112073-09-11 07:54 G	42655136.63	42655136.83	42655137.04	0.0288	0.0159 *
Moon	112074-09-25 08:08 G	42655515.61	42655515.84	42655516.07	0.0285	0.0108
Earth	112074-09-25 11:44 G	42655515.76	42655515.99	42655516.22	0.0285	0.0102 *
Mercury	112082-07-12 16:03 G	42658363.03	42658363.17	42658363.33	0.0267	0.0146
Mercury	112082-10-09 12:13 G	42658451.83	42658452.01	42658452.19	0.0267	0.0036
Venus	112082-12-15 12:13 G	42658518.96	42658519.01	42658519.09	0.0267	0.0254
Mercury	112083-01-06 08:22 G	42658540.75	42658540.85	42658540.96	0.0266	0.0219
Venus	112083-08-01 12:27 G	42658747.81	42658748.02	42658748.23	0.0266	0.0027
Moon	112089-03-13 12:42 G	42660798.84	42660799.03	42660799.22	0.0273	0.0155

Earth	112089-03-13 14:08 G	42660798.89	42660799.09	42660799.30	0.0273	0.0143	*
Earth	112090-03-25 18:27 G	42661176.05	42661176.27	42661176.51	0.0275	0.0075	
Moon	112090-03-25 21:20 G	42661176.17	42661176.39	42661176.62	0.0275	0.0074	*
Mars	112092-11-28 19:10 G	42662155.12	42662155.30	42662155.51	0.0283	0.0190	
Mercury	112097-05-11 09:34 G	42663779.83	42663779.90	42663779.98	0.0293	0.0240	
Mercury	112097-08-07 22:32 G	42663868.31	42663868.44	42663868.57	0.0293	0.0064	
Mercury	112097-11-04 11:01 G	42663956.84	42663956.96	42663957.09	0.0293	0.0111	
Venus	112098-01-08 07:39 G	42664021.67	42664021.82	42664021.98	0.0293	0.0197	
Mercury	112098-01-31 23:30 G	42664045.45	42664045.48	42664045.52	0.0293	0.0282	
Venus	112098-08-26 09:06 G	42664251.72	42664251.88	42664252.05	0.0294	0.0187	
Earth	112102-09-06 12:42 G	42665722.95	42665723.03	42665723.12	0.0289	0.0271	
Moon	112102-09-06 16:18 G	42665723.10	42665723.18	42665723.29	0.0289	0.0265	*
Earth	112103-09-20 19:39 G	42666102.08	42666102.32	42666102.57	0.0286	0.0010	
Moon	112103-09-20 22:32 G	42666102.18	42666102.44	42666102.70	0.0286	0.0008	*
Moon	112104-10-03 18:27 G	42666481.14	42666481.27	42666481.42	0.0283	0.0233	
Earth	112104-10-03 19:54 G	42666481.22	42666481.33	42666481.46	0.0283	0.0244	*
Mercury	112111-11-30 17:01 G	42669095.09	42669095.21	42669095.35	0.0267	0.0185	
Mercury	112112-02-27 12:56 G	42669183.86	42669184.04	42669184.23	0.0267	0.0007	
Mercury	112112-05-26 09:06 G	42669272.75	42669272.88	42669273.02	0.0267	0.0178	
Venus	112112-06-27 18:27 G	42669305.14	42669305.27	42669305.40	0.0267	0.0208	
Venus	112113-02-11 17:58 G	42669534.05	42669534.25	42669534.46	0.0266	0.0072	
Moon	112118-03-09 15:34 G	42671386.04	42671386.15	42671386.27	0.0271	0.0238	
Earth	112118-03-09 16:03 G	42671386.05	42671386.17	42671386.30	0.0271	0.0232	*
Moon	112119-03-21 13:25 G	42671762.82	42671763.06	42671763.30	0.0273	0.0015	
Earth	112119-03-21 17:15 G	42671762.98	42671763.22	42671763.46	0.0273	0.0021	*
Moon	112120-04-01 22:46 G	42672140.30	42672140.45	42672140.60	0.0276	0.0213	
Earth	112120-04-01 23:30 G	42672140.32	42672140.48	42672140.65	0.0276	0.0199	*
Mercury	112126-12-26 23:01 G	42674600.34	42674600.46	42674600.58	0.0293	0.0133	
Mercury	112127-03-25 11:44 G	42674688.85	42674688.99	42674689.12	0.0293	0.0042	
Mercury	112127-06-22 00:13 G	42674777.42	42674777.51	42674777.60	0.0293	0.0214	

Venus	112127-07-22 08:22 G	42674807.68	42674807.85	42674808.03	0.0293	0.0163
Venus	112128-03-08 09:34 G	42675037.77	42675037.90	42675038.05	0.0294	0.0222
Earth	112132-09-13 11:01 G	42676687.74	42676687.96	42676688.18	0.0288	0.0135
Moon	112132-09-13 11:15 G	42676687.77	42676687.97	42676688.18	0.0288	0.0146 *
Earth	112133-09-27 14:22 G	42677066.88	42677067.10	42677067.33	0.0285	0.0125
Moon	112133-09-27 17:44 G	42677067.02	42677067.24	42677067.47	0.0285	0.0110 *
Mercury	112141-04-18 14:51 G	42679827.07	42679827.12	42679827.18	0.0267	0.0252
Mercury	112141-07-16 10:46 G	42679915.77	42679915.95	42679916.12	0.0267	0.0072
Mercury	112141-10-13 06:42 G	42680004.62	42680004.78	42680004.95	0.0267	0.0110
Venus	112142-01-07 18:27 G	42680091.11	42680091.27	42680091.42	0.0266	0.0179
Venus	112142-08-24 17:58 G	42680320.06	42680320.25	42680320.45	0.0266	0.0101
Earth	112148-03-15 14:51 G	42682349.91	42682350.12	42682350.34	0.0273	0.0122
Moon	112148-03-15 17:58 G	42682350.02	42682350.25	42682350.47	0.0273	0.0110 *
Moon	112149-03-27 17:30 G	42682727.01	42682727.23	42682727.47	0.0275	0.0112
Earth	112149-03-27 19:10 G	42682727.08	42682727.30	42682727.53	0.0275	0.0096 *
Mercury	112156-05-15 00:56 G	42685332.44	42685332.54	42685332.65	0.0293	0.0182
Mercury	112156-08-11 13:54 G	42685420.94	42685421.08	42685421.21	0.0293	0.0011
Mercury	112156-11-08 02:22 G	42685509.49	42685509.60	42685509.71	0.0293	0.0166
Venus	112157-01-31 15:34 G	42685593.96	42685594.15	42685594.35	0.0293	0.0109
Venus	112157-09-18 17:01 G	42685824.15	42685824.21	42685824.29	0.0294	0.0276
Moon	112161-09-07 10:32 G	42687273.85	42687273.94	42687274.04	0.0289	0.0265
Earth	112161-09-07 13:25 G	42687273.95	42687274.06	42687274.20	0.0289	0.0249 *
Moon	112162-09-21 17:15 G	42687652.98	42687653.22	42687653.47	0.0286	0.0005
Earth	112162-09-21 20:37 G	42687653.11	42687653.36	42687653.61	0.0286	0.0014 *
Moon	112163-10-05 20:51 G	42688032.27	42688032.37	42688032.48	0.0283	0.0255
Earth	112163-10-05 20:37 G	42688032.29	42688032.36	42688032.45	0.0283	0.0266 *
Mars	112165-04-16 09:20 G	42688590.88	42688590.89	42688590.92	0.0279	0.0278
Mercury	112170-12-03 11:30 G	42690647.82	42690647.98	42690648.15	0.0267	0.0113
Mercury	112171-03-02 07:25 G	42690736.64	42690736.81	42690736.99	0.0267	0.0069
Mercury	112171-05-30 03:34 G	42690825.60	42690825.65	42690825.71	0.0267	0.0252

Venus	112171-07-20 23:58 G	42690877.33	42690877.50	42690877.69	0.0267	0.0134
Venus	112172-03-05 23:30 G	42691106.31	42691106.48	42691106.66	0.0266	0.0146
Moon	112177-03-10 16:03 G	42692937.03	42692937.17	42692937.34	0.0271	0.0199
Earth	112177-03-10 17:01 G	42692937.07	42692937.21	42692937.37	0.0271	0.0212 *
Earth	112178-03-22 18:27 G	42693314.02	42693314.27	42693314.51	0.0273	0.0003
Moon	112178-03-22 21:49 G	42693314.17	42693314.41	42693314.64	0.0273	0.0016 *
Earth	112179-04-04 00:42 G	42693691.38	42693691.53	42693691.67	0.0276	0.0220
Moon	112179-04-04 02:37 G	42693691.48	42693691.61	42693691.76	0.0276	0.0226 *
Mars	112181-04-24 23:58 G	42694443.38	42694443.50	42694443.65	0.0282	0.0240
Mercury	112185-10-02 01:39 G	42696064.50	42696064.57	42696064.63	0.0293	0.0251
Mercury	112185-12-29 14:08 G	42696152.97	42696153.09	42696153.22	0.0293	0.0077
Mercury	112186-03-28 02:51 G	42696241.50	42696241.62	42696241.75	0.0293	0.0097
Mercury	112186-06-24 15:20 G	42696330.09	42696330.14	42696330.19	0.0293	0.0269
Venus	112186-08-13 16:03 G	42696379.97	42696380.17	42696380.38	0.0293	0.0075
Earth	112191-09-15 11:01 G	42698238.73	42698238.96	42698239.19	0.0288	0.0113
Moon	112191-09-15 11:58 G	42698238.77	42698239.00	42698239.23	0.0288	0.0124 *
Moon	112192-09-28 11:30 G	42698617.77	42698617.98	42698618.20	0.0285	0.0145
Earth	112192-09-28 14:22 G	42698617.90	42698618.10	42698618.32	0.0285	0.0146 *
Mercury	112200-04-22 08:51 G	42701379.74	42701379.87	42701380.00	0.0267	0.0183
Mercury	112200-07-20 04:46 G	42701468.52	42701468.70	42701468.88	0.0267	0.0003
Mercury	112200-10-17 00:56 G	42701557.40	42701557.54	42701557.67	0.0267	0.0180
Venus	112201-01-30 23:30 G	42701663.29	42701663.48	42701663.67	0.0266	0.0106
Venus	112201-09-16 23:01 G	42701892.31	42701892.46	42701892.62	0.0266	0.0173
Moon	112207-03-18 11:01 G	42703900.74	42703900.96	42703901.19	0.0273	0.0091
Earth	112207-03-18 14:37 G	42703900.89	42703901.11	42703901.34	0.0273	0.0101 *
Earth	112208-03-29 18:27 G	42704278.06	42704278.27	42704278.50	0.0275	0.0117
Moon	112208-03-29 18:42 G	42704278.08	42704278.28	42704278.50	0.0275	0.0116 *
Mercury	112215-05-19 16:03 G	42706885.05	42706885.17	42706885.29	0.0293	0.0129
Mercury	112215-08-16 04:46 G	42706973.57	42706973.70	42706973.83	0.0293	0.0046
Mercury	112215-11-12 17:15 G	42707062.14	42707062.22	42707062.31	0.0293	0.0219

Venus	112216-02-24 22:18 G	42707166.22	42707166.43	42707166.64	0.0293	0.0024
Earth	112220-09-09 12:13 G	42708824.87	42708825.01	42708825.17	0.0288	0.0229
Moon	112220-09-09 14:22 G	42708824.96	42708825.10	42708825.25	0.0288	0.0231 *
Earth	112221-09-23 19:10 G	42709204.06	42709204.30	42709204.55	0.0286	0.0035
Moon	112221-09-23 22:46 G	42709204.21	42709204.45	42709204.70	0.0286	0.0041 *
Mercury	112229-09-09 09:34 G	42712111.80	42712111.90	42712112.00	0.0267	0.0225
Mercury	112229-12-07 05:15 G	42712200.54	42712200.72	42712200.91	0.0267	0.0045
Mercury	112230-03-06 01:25 G	42712289.40	42712289.56	42712289.72	0.0267	0.0138
Venus	112230-08-13 05:01 G	42712449.50	42712449.71	42712449.92	0.0267	0.0061
Venus	112231-03-30 04:18 G	42712678.57	42712678.68	42712678.81	0.0266	0.0218
Earth	112236-03-12 17:30 G	42714488.06	42714488.23	42714488.40	0.0271	0.0191
Moon	112236-03-12 19:39 G	42714488.15	42714488.32	42714488.51	0.0271	0.0185 *
Moon	112237-03-24 16:32 G	42714864.94	42714865.19	42714865.43	0.0273	0.0015
Earth	112237-03-24 18:42 G	42714865.04	42714865.28	42714865.53	0.0273	0.0023 *
Moon	112238-04-05 22:18 G	42715242.31	42715242.43	42715242.57	0.0276	0.0227
Earth	112238-04-06 00:56 G	42715242.44	42715242.54	42715242.67	0.0276	0.0242 *
Mercury	112244-10-05 16:46 G	42717617.10	42717617.20	42717617.30	0.0292	0.0193
Mercury	112245-01-02 05:30 G	42717705.60	42717705.73	42717705.86	0.0293	0.0019
Mercury	112245-03-31 17:58 G	42717794.14	42717794.25	42717794.37	0.0293	0.0154
Venus	112245-09-05 23:44 G	42717952.27	42717952.49	42717952.70	0.0293	0.0014
Moon	112250-09-17 08:08 G	42719789.61	42719789.84	42719790.07	0.0287	0.0081
Earth	112250-09-17 10:03 G	42719789.69	42719789.92	42719790.16	0.0287	0.0093 *
Earth	112251-10-01 13:10 G	42720168.86	42720169.05	42720169.26	0.0285	0.0166
Moon	112251-10-01 15:20 G	42720168.96	42720169.14	42720169.33	0.0285	0.0182 *
Mars	112253-09-09 08:37 G	42720877.80	42720877.86	42720877.94	0.0279	0.0271
Mercury	112259-04-26 02:22 G	42722932.44	42722932.60	42722932.77	0.0267	0.0117
Mercury	112259-07-23 22:18 G	42723021.26	42723021.43	42723021.62	0.0267	0.0065
Mercury	112259-10-20 18:27 G	42723110.22	42723110.27	42723110.35	0.0267	0.0248
Venus	112260-02-23 03:49 G	42723235.45	42723235.66	42723235.87	0.0266	0.0035
Venus	112260-10-09 03:20 G	42723464.57	42723464.64	42723464.73	0.0266	0.0244

Earth	112266-03-19 14:08 G	42725451.86	42725452.09	42725452.32	0.0273	0.0080
Moon	112266-03-19 17:44 G	42725452.02	42725452.24	42725452.47	0.0273	0.0094 *
Earth	112267-03-31 17:58 G	42725829.05	42725829.25	42725829.47	0.0275	0.0137
Moon	112267-03-31 19:10 G	42725829.08	42725829.30	42725829.53	0.0275	0.0122 *
Mars	112269-09-19 04:03 G	42726731.65	42726731.67	42726731.71	0.0282	0.0280
Mercury	112274-02-22 18:13 G	42728349.20	42728349.26	42728349.33	0.0293	0.0250
Mercury	112274-05-22 06:56 G	42728437.66	42728437.79	42728437.92	0.0293	0.0076
Mercury	112274-08-18 19:39 G	42728526.19	42728526.32	42728526.44	0.0293	0.0098
Mercury	112274-11-15 08:08 G	42728614.79	42728614.84	42728614.89	0.0293	0.0270
Venus	112275-03-19 04:46 G	42728738.49	42728738.70	42728738.91	0.0293	0.0061
Moon	112279-09-11 09:20 G	42730375.70	42730375.89	42730376.09	0.0288	0.0193
Earth	112279-09-11 10:18 G	42730375.76	42730375.93	42730376.10	0.0288	0.0209 *
Moon	112280-09-24 13:10 G	42730754.81	42730755.05	42730755.30	0.0286	0.0068
Earth	112280-09-24 16:46 G	42730754.96	42730755.20	42730755.45	0.0286	0.0055 *
Mercury	112288-09-12 03:06 G	42733664.49	42733664.63	42733664.78	0.0268	0.0159
Mercury	112288-12-09 23:01 G	42733753.28	42733753.46	42733753.65	0.0267	0.0024
Mercury	112289-03-08 19:10 G	42733842.19	42733842.30	42733842.42	0.0267	0.0206
Venus	112289-09-04 09:34 G	42734021.69	42734021.90	42734022.11	0.0267	0.0011
Moon	112295-03-14 14:37 G	42736038.94	42736039.11	42736039.28	0.0271	0.0187
Earth	112295-03-14 17:44 G	42736039.06	42736039.24	42736039.44	0.0271	0.0171 *
Earth	112296-03-25 19:10 G	42736416.06	42736416.30	42736416.54	0.0273	0.0043
Moon	112296-03-25 20:08 G	42736416.11	42736416.34	42736416.58	0.0273	0.0030 *
Earth	112297-04-07 01:54 G	42736793.51	42736793.58	42736793.65	0.0276	0.0262
Moon	112297-04-07 05:15 G	42736793.65	42736793.72	42736793.80	0.0276	0.0261 *
Mercury	112303-10-10 08:08 G	42739169.72	42739169.84	42739169.95	0.0292	0.0137
Mercury	112304-01-06 20:37 G	42739258.23	42739258.36	42739258.49	0.0292	0.0037
Venus	112304-02-12 06:42 G	42739294.72	42739294.78	42739294.85	0.0293	0.0278
Mercury	112304-04-04 09:06 G	42739346.79	42739346.88	42739346.98	0.0293	0.0209
Venus	112304-09-29 06:56 G	42739524.60	42739524.79	42739524.99	0.0293	0.0102
Earth	112309-09-19 08:51 G	42741340.63	42741340.87	42741341.11	0.0287	0.0073

Moon	112309-09-19 11:44 G	42741340.74	42741340.99	42741341.24	0.0287	0.0065	*
Moon	112310-10-03 11:01 G	42741719.78	42741719.96	42741720.17	0.0285	0.0184	
Earth	112310-10-03 11:44 G	42741719.81	42741719.99	42741720.19	0.0285	0.0186	*
Mercury	112318-01-31 00:13 G	42744396.42	42744396.51	42744396.60	0.0267	0.0232	
Mercury	112318-04-29 20:08 G	42744485.16	42744485.34	42744485.52	0.0267	0.0051	
Mercury	112318-07-27 16:03 G	42744574.02	42744574.17	42744574.33	0.0267	0.0131	
Venus	112318-08-01 07:25 G	42744578.74	42744578.81	42744578.90	0.0267	0.0246	
Venus	112319-03-18 08:08 G	42744807.63	42744807.84	42744808.05	0.0267	0.0036	
Earth	112324-03-09 14:08 G	42746626.07	42746626.09	42746626.13	0.0271	0.0268	
Moon	112325-03-21 11:01 G	42747002.72	42747002.96	42747003.20	0.0273	0.0069	
Earth	112325-03-21 14:08 G	42747002.85	42747003.09	42747003.32	0.0273	0.0060	*
Moon	112326-04-02 16:03 G	42747379.99	42747380.17	42747380.37	0.0275	0.0162	
Earth	112326-04-02 18:13 G	42747380.07	42747380.26	42747380.46	0.0275	0.0158	*
Mercury	112333-02-26 09:34 G	42749901.80	42749901.90	42749902.00	0.0292	0.0194	
Mercury	112333-05-25 22:18 G	42749990.29	42749990.43	42749990.56	0.0293	0.0022	
Mercury	112333-08-22 10:46 G	42750078.84	42750078.95	42750079.06	0.0293	0.0153	
Venus	112333-08-24 11:15 G	42750080.85	42750080.97	42750081.10	0.0293	0.0233	
Venus	112334-04-11 11:58 G	42750310.82	42750311.00	42750311.19	0.0293	0.0149	
Moon	112338-09-13 08:37 G	42751926.69	42751926.86	42751927.04	0.0288	0.0191	
Earth	112338-09-13 08:51 G	42751926.69	42751926.87	42751927.07	0.0288	0.0189	*
Earth	112339-09-27 15:06 G	42752305.90	42752306.13	42752306.38	0.0286	0.0075	
Moon	112339-09-27 18:27 G	42752306.03	42752306.27	42752306.51	0.0286	0.0064	*
Mars	112342-02-03 09:49 G	42753165.70	42753165.91	42753166.15	0.0279	0.0200	
Mercury	112347-09-16 20:37 G	42755217.19	42755217.36	42755217.53	0.0268	0.0093	
Mercury	112347-12-14 16:46 G	42755306.03	42755306.20	42755306.37	0.0268	0.0090	
Venus	112348-02-11 13:25 G	42755364.93	42755365.06	42755365.20	0.0267	0.0200	
Venus	112348-09-27 13:54 G	42755593.88	42755594.08	42755594.28	0.0267	0.0083	
Earth	112354-03-16 18:56 G	42757590.09	42757590.29	42757590.49	0.0271	0.0151	
Moon	112354-03-16 22:46 G	42757590.25	42757590.45	42757590.65	0.0271	0.0156	*
Earth	112355-03-28 20:37 G	42757967.13	42757967.36	42757967.60	0.0274	0.0064	

Moon	112355-03-28 21:06 G	42757967.13	42757967.38	42757967.62	0.0274	0.0072	*
Mercury	112362-07-16 10:46 G	42760633.89	42760633.95	42760634.02	0.0292	0.0249	
Mercury	112362-10-12 23:30 G	42760722.36	42760722.48	42760722.61	0.0292	0.0076	
Mercury	112363-01-09 12:13 G	42760810.88	42760811.01	42760811.14	0.0292	0.0097	
Venus	112363-03-06 15:20 G	42760866.98	42760867.14	42760867.30	0.0292	0.0187	
Mercury	112363-04-08 00:42 G	42760899.48	42760899.53	42760899.58	0.0292	0.0268	
Venus	112363-10-22 15:34 G	42761096.99	42761097.15	42761097.31	0.0293	0.0194	
Moon	112368-09-20 05:15 G	42762891.49	42762891.72	42762891.96	0.0287	0.0068	
Earth	112368-09-20 08:51 G	42762891.62	42762891.87	42762892.11	0.0287	0.0051	*
Moon	112369-10-04 10:18 G	42763270.76	42763270.93	42763271.11	0.0284	0.0190	
Earth	112369-10-04 11:01 G	42763270.81	42763270.96	42763271.15	0.0284	0.0207	*
Mercury	112377-02-02 17:44 G	42765949.10	42765949.24	42765949.39	0.0268	0.0165	
Mercury	112377-05-02 13:54 G	42766037.89	42766038.08	42766038.26	0.0267	0.0017	
Mercury	112377-07-30 10:03 G	42766126.80	42766126.92	42766127.04	0.0267	0.0200	
Venus	112377-08-23 12:27 G	42766150.86	42766151.02	42766151.18	0.0267	0.0173	
Venus	112378-04-09 12:56 G	42766379.84	42766380.04	42766380.23	0.0267	0.0109	
Moon	112383-03-11 12:42 G	42768176.93	42768177.03	42768177.13	0.0271	0.0245	
Earth	112383-03-11 15:06 G	42768177.05	42768177.13	42768177.24	0.0271	0.0248	*
Earth	112384-03-22 15:20 G	42768553.90	42768554.14	42768554.38	0.0273	0.0039	
Moon	112384-03-22 17:15 G	42768553.98	42768554.22	42768554.45	0.0273	0.0026	*
Earth	112385-04-03 19:54 G	42768931.15	42768931.33	42768931.51	0.0275	0.0180	
Moon	112385-04-03 22:46 G	42768931.28	42768931.45	42768931.63	0.0275	0.0194	*
Mercury	112392-03-01 00:56 G	42771454.42	42771454.54	42771454.66	0.0292	0.0133	
Mercury	112392-05-28 13:39 G	42771542.94	42771543.07	42771543.20	0.0293	0.0040	
Mercury	112392-08-25 02:08 G	42771631.50	42771631.59	42771631.68	0.0293	0.0212	
Venus	112392-09-15 19:25 G	42771653.13	42771653.31	42771653.50	0.0293	0.0143	
Venus	112393-05-03 20:08 G	42771883.23	42771883.34	42771883.47	0.0293	0.0240	
Earth	112397-09-14 08:51 G	42773477.68	42773477.87	42773478.08	0.0288	0.0167	
Moon	112397-09-14 10:18 G	42773477.74	42773477.93	42773478.14	0.0288	0.0183	*
Moon	112398-09-28 12:42 G	42773856.78	42773857.03	42773857.27	0.0285	0.0083	

Earth	112398-09-28 14:51 G	42773856.89	42773857.12	42773857.36	0.0285	0.0095	*
Mercury	112406-06-22 18:27 G	42776681.16	42776681.27	42776681.39	0.0268	0.0206	
Mercury	112406-09-19 14:22 G	42776769.92	42776770.10	42776770.29	0.0268	0.0025	
Mercury	112406-12-17 10:32 G	42776858.80	42776858.94	42776859.09	0.0268	0.0160	
Venus	112407-03-05 18:13 G	42776937.08	42776937.26	42776937.45	0.0268	0.0127	
Venus	112407-10-20 18:56 G	42777166.12	42777166.29	42777166.46	0.0267	0.0157	
Moon	112413-03-17 17:44 G	42779141.01	42779141.24	42779141.46	0.0272	0.0114	
Earth	112413-03-17 20:51 G	42779141.17	42779141.37	42779141.59	0.0272	0.0131	*
Moon	112414-03-29 21:34 G	42779518.19	42779518.40	42779518.63	0.0274	0.0097	
Earth	112414-03-29 23:15 G	42779518.24	42779518.47	42779518.70	0.0274	0.0086	*
Mercury	112421-07-19 02:51 G	42782186.52	42782186.62	42782186.73	0.0292	0.0181	
Mercury	112421-10-15 15:34 G	42782275.02	42782275.15	42782275.28	0.0292	0.0009	
Mercury	112422-01-12 04:03 G	42782363.56	42782363.67	42782363.78	0.0292	0.0163	
Venus	112422-03-29 01:39 G	42782439.37	42782439.57	42782439.77	0.0292	0.0090	
Venus	112422-11-14 01:54 G	42782669.56	42782669.58	42782669.61	0.0293	0.0291	
Earth	112427-09-22 11:30 G	42784442.73	42784442.98	42784443.23	0.0287	0.0029	
Moon	112427-09-22 15:20 G	42784442.89	42784443.14	42784443.39	0.0287	0.0032	*
Earth	112428-10-05 13:10 G	42784821.92	42784822.05	42784822.21	0.0284	0.0228	
Moon	112428-10-05 15:49 G	42784822.02	42784822.16	42784822.32	0.0284	0.0229	*
Mars	112430-06-28 19:10 G	42785453.06	42785453.30	42785453.57	0.0279	0.0173	
Mercury	112436-02-06 11:58 G	42787501.83	42787502.00	42787502.17	0.0268	0.0094	
Mercury	112436-05-05 07:54 G	42787590.66	42787590.83	42787591.01	0.0268	0.0089	
Venus	112436-09-14 17:58 G	42787723.05	42787723.25	42787723.44	0.0267	0.0098	
Venus	112437-05-01 18:13 G	42787952.11	42787952.26	42787952.41	0.0267	0.0184	
Earth	112442-03-12 17:44 G	42789728.11	42789728.24	42789728.37	0.0271	0.0227	
Moon	112442-03-12 21:06 G	42789728.24	42789728.38	42789728.55	0.0271	0.0211	*
Moon	112443-03-24 17:30 G	42790104.98	42790105.23	42790105.48	0.0273	0.0010	
Earth	112443-03-24 18:13 G	42790105.01	42790105.26	42790105.50	0.0273	0.0017	*
Moon	112444-04-04 19:39 G	42790482.16	42790482.32	42790482.50	0.0276	0.0194	
Earth	112444-04-04 23:15 G	42790482.31	42790482.47	42790482.64	0.0276	0.0203	*

Mercury	112450-12-06 04:03 G	42792918.60	42792918.67	42792918.75	0.0292	0.0240
Mercury	112451-03-04 17:01 G	42793007.08	42793007.21	42793007.34	0.0292	0.0066
Mercury	112451-06-01 05:30 G	42793095.61	42793095.73	42793095.86	0.0292	0.0106
Mercury	112451-08-28 17:58 G	42793184.21	42793184.25	42793184.29	0.0293	0.0277
Venus	112451-10-09 05:44 G	42793225.53	42793225.74	42793225.95	0.0293	0.0046
Moon	112456-09-15 09:06 G	42795028.68	42795028.88	42795029.10	0.0288	0.0139
Earth	112456-09-15 11:44 G	42795028.79	42795028.99	42795029.21	0.0288	0.0145 *
Earth	112457-09-29 17:01 G	42795407.99	42795408.21	42795408.44	0.0285	0.0117
Moon	112457-09-29 17:44 G	42795408.03	42795408.24	42795408.46	0.0285	0.0129 *
Mercury	112465-06-25 12:42 G	42798233.88	42798234.03	42798234.19	0.0268	0.0134
Mercury	112465-09-22 08:51 G	42798322.69	42798322.87	42798323.05	0.0268	0.0049
Mercury	112465-12-20 05:01 G	42798411.63	42798411.71	42798411.80	0.0268	0.0234
Venus	112466-03-27 23:58 G	42798509.30	42798509.50	42798509.71	0.0268	0.0051
Venus	112466-11-12 00:42 G	42798738.43	42798738.53	42798738.63	0.0267	0.0233
Earth	112472-03-19 01:10 G	42800692.33	42800692.55	42800692.77	0.0272	0.0108
Moon	112472-03-19 03:34 G	42800692.43	42800692.65	42800692.86	0.0272	0.0106 *
Earth	112473-03-31 04:03 G	42801069.45	42801069.67	42801069.89	0.0274	0.0109
Moon	112473-03-31 06:27 G	42801069.55	42801069.77	42801070.01	0.0274	0.0100 *
Mercury	112480-04-24 06:42 G	42803650.75	42803650.78	42803650.81	0.0291	0.0281
Mercury	112480-07-21 19:25 G	42803739.19	42803739.31	42803739.44	0.0291	0.0108
Mercury	112480-10-18 07:54 G	42803827.71	42803827.83	42803827.97	0.0292	0.0065
Mercury	112481-01-14 20:22 G	42803916.28	42803916.35	42803916.43	0.0292	0.0234
Venus	112481-04-20 13:39 G	42804011.86	42804012.07	42804012.28	0.0292	0.0012
Moon	112485-09-09 09:06 G	42805614.77	42805614.88	42805615.01	0.0289	0.0255
Earth	112485-09-09 09:34 G	42805614.81	42805614.90	42805614.99	0.0289	0.0268 *
Moon	112486-09-23 13:39 G	42805993.81	42805994.07	42805994.32	0.0287	0.0014
Earth	112486-09-23 17:01 G	42805993.96	42805994.21	42805994.46	0.0287	0.0005 *
Moon	112487-10-07 14:22 G	42806373.04	42806373.10	42806373.19	0.0284	0.0268
Earth	112487-10-07 18:13 G	42806373.15	42806373.26	42806373.38	0.0284	0.0250 *
Mercury	112494-11-12 10:32 G	42808965.83	42808965.94	42808966.07	0.0268	0.0200

Mercury	112495-02-09 06:42 G	42809054.60	42809054.78	42809054.96	0.0268	0.0018
Mercury	112495-05-09 02:51 G	42809143.47	42809143.62	42809143.76	0.0268	0.0166
Venus	112495-10-08 00:27 G	42809295.31	42809295.52	42809295.74	0.0267	0.0021
Venus	112496-05-24 00:42 G	42809524.50	42809524.53	42809524.57	0.0267	0.0262
Moon	112501-03-14 18:13 G	42811279.11	42811279.26	42811279.42	0.0271	0.0210
Earth	112501-03-14 22:03 G	42811279.26	42811279.42	42811279.58	0.0271	0.0205 *
Moon	112502-03-26 22:03 G	42811656.19	42811656.42	42811656.66	0.0273	0.0008
Earth	112502-03-26 23:01 G	42811656.21	42811656.46	42811656.70	0.0273	0.0008 *
Earth	112503-04-08 04:18 G	42812033.56	42812033.68	42812033.83	0.0276	0.0227
Moon	112503-04-08 07:54 G	42812033.69	42812033.83	42812033.99	0.0276	0.0214 *
Mercury	112509-12-09 20:51 G	42814471.26	42814471.37	42814471.48	0.0292	0.0165
Mercury	112510-03-08 09:34 G	42814559.77	42814559.90	42814560.03	0.0292	0.0008
Mercury	112510-06-04 22:03 G	42814648.32	42814648.42	42814648.52	0.0292	0.0179
Venus	112510-11-01 18:13 G	42814798.05	42814798.26	42814798.47	0.0293	0.0058
Earth	112515-09-18 18:27 G	42816580.04	42816580.27	42816580.49	0.0288	0.0120
Moon	112515-09-18 22:03 G	42816580.19	42816580.42	42816580.66	0.0288	0.0103 *
Earth	112516-10-01 23:01 G	42816959.25	42816959.46	42816959.68	0.0285	0.0141
Moon	112516-10-02 00:13 G	42816959.30	42816959.51	42816959.73	0.0285	0.0154 *
Mars	112518-11-23 11:01 G	42817741.65	42817741.96	42817742.29	0.0279	0.0069
Mercury	112524-04-01 11:30 G	42819697.91	42819697.98	42819698.07	0.0269	0.0239
Mercury	112524-06-29 07:25 G	42819786.64	42819786.81	42819786.99	0.0268	0.0057
Venus	112524-09-03 05:30 G	42819852.68	42819852.73	42819852.79	0.0268	0.0258
Mercury	112524-09-26 03:34 G	42819875.49	42819875.65	42819875.82	0.0268	0.0128
Venus	112525-04-20 06:56 G	42820081.58	42820081.79	42820082.00	0.0268	0.0029
Moon	112531-03-22 05:30 G	42822243.50	42822243.73	42822243.97	0.0273	0.0100
Earth	112531-03-22 06:42 G	42822243.55	42822243.78	42822244.01	0.0273	0.0086 *
Moon	112532-04-02 07:10 G	42822620.59	42822620.80	42822621.02	0.0275	0.0124
Earth	112532-04-02 10:18 G	42822620.73	42822620.93	42822621.15	0.0275	0.0134 *
Mercury	112539-04-28 23:44 G	42825203.40	42825203.49	42825203.59	0.0291	0.0200
Mercury	112539-07-26 12:27 G	42825291.89	42825292.02	42825292.16	0.0291	0.0029

Venus	112539-09-27 04:18 G	42825354.59	42825354.68	42825354.79	0.0292	0.0255
Mercury	112539-10-23 00:56 G	42825380.43	42825380.54	42825380.66	0.0292	0.0144
Venus	112540-05-14 04:03 G	42825584.47	42825584.67	42825584.86	0.0292	0.0121
Moon	112544-09-11 18:13 G	42827166.12	42827166.26	42827166.40	0.0289	0.0233
Earth	112544-09-11 19:39 G	42827166.18	42827166.32	42827166.45	0.0289	0.0241 *
Earth	112545-09-26 02:08 G	42827545.34	42827545.59	42827545.84	0.0286	0.0023
Moon	112545-09-26 04:03 G	42827545.43	42827545.67	42827545.91	0.0286	0.0026 *
Earth	112546-10-10 02:22 G	42827924.56	42827924.60	42827924.67	0.0284	0.0276
Moon	112546-10-10 06:27 G	42827924.71	42827924.77	42827924.83	0.0284	0.0274
Mercury	112553-11-16 05:58 G	42830518.59	42830518.75	42830518.91	0.0268	0.0118
Mercury	112554-02-13 01:54 G	42830607.41	42830607.58	42830607.76	0.0268	0.0065
Venus	112554-03-16 06:56 G	42830638.68	42830638.79	42830638.91	0.0268	0.0224
Mercury	112554-05-12 22:03 G	42830696.37	42830696.42	42830696.49	0.0268	0.0250
Venus	112554-10-31 08:22 G	42830867.65	42830867.85	42830868.06	0.0267	0.0062
Earth	112560-03-16 04:18 G	42832830.51	42832830.68	42832830.87	0.0271	0.0182
Moon	112560-03-16 07:10 G	42832830.65	42832830.80	42832830.97	0.0271	0.0199 *
Earth	112561-03-28 06:13 G	42833207.52	42833207.76	42833208.00	0.0274	0.0032
Moon	112561-03-28 08:08 G	42833207.59	42833207.84	42833208.09	0.0274	0.0027 *
Moon	112562-04-09 09:20 G	42833584.83	42833584.89	42833584.98	0.0276	0.0263
Earth	112562-04-09 12:27 G	42833584.93	42833585.02	42833585.13	0.0276	0.0252 *
Mercury	112568-09-15 01:10 G	42835935.50	42835935.55	42835935.62	0.0292	0.0257
Mercury	112568-12-12 13:54 G	42836023.96	42836024.08	42836024.21	0.0292	0.0084
Mercury	112569-03-11 02:37 G	42836112.48	42836112.61	42836112.74	0.0292	0.0089
Venus	112569-04-08 08:51 G	42836140.73	42836140.87	42836141.02	0.0292	0.0211
Mercury	112569-06-07 15:06 G	42836201.07	42836201.13	42836201.19	0.0292	0.0259
Venus	112569-11-24 08:37 G	42836370.69	42836370.86	42836371.04	0.0293	0.0168
Moon	112574-09-19 23:58 G	42838131.27	42838131.50	42838131.74	0.0287	0.0101
Earth	112574-09-20 04:03 G	42838131.44	42838131.67	42838131.91	0.0287	0.0092 *
Moon	112575-10-04 05:01 G	42838510.52	42838510.71	42838510.92	0.0285	0.0157
Earth	112575-10-04 07:54 G	42838510.63	42838510.83	42838511.03	0.0285	0.0168 *

Mercury	112583-04-05 06:56 G	42841250.65	42841250.79	42841250.94	0.0269	0.0157
Mercury	112583-07-03 03:06 G	42841339.45	42841339.63	42841339.81	0.0269	0.0027
Venus	112583-09-26 13:39 G	42841424.92	42841425.07	42841425.24	0.0268	0.0175
Mercury	112583-09-29 23:01 G	42841428.36	42841428.46	42841428.58	0.0268	0.0213
Venus	112584-05-12 15:06 G	42841653.94	42841654.13	42841654.32	0.0268	0.0112
Moon	112590-03-23 13:54 G	42843794.85	42843795.08	42843795.30	0.0273	0.0063
Earth	112590-03-23 14:08 G	42843794.85	42843795.09	42843795.32	0.0273	0.0062 *
Earth	112591-04-04 18:27 G	42844172.08	42844172.27	42844172.48	0.0275	0.0158
Moon	112591-04-04 22:18 G	42844172.24	42844172.43	42844172.62	0.0275	0.0171 *
Mars	112593-03-15 06:42 G	42844882.61	42844882.78	42844882.96	0.0280	0.0206
Mercury	112598-02-02 04:32 G	42846667.68	42846667.69	42846667.71	0.0291	0.0287
Mercury	112598-05-01 17:15 G	42846756.10	42846756.22	42846756.35	0.0291	0.0114
Mercury	112598-07-29 05:58 G	42846844.62	42846844.75	42846844.88	0.0291	0.0058
Venus	112598-10-19 20:08 G	42846927.16	42846927.34	42846927.53	0.0292	0.0143
Mercury	112598-10-25 18:27 G	42846933.19	42846933.27	42846933.35	0.0292	0.0228
Venus	112599-06-06 19:54 G	42847157.21	42847157.33	42847157.46	0.0292	0.0235
Earth	112603-09-15 08:51 G	42848717.70	42848717.87	42848718.04	0.0288	0.0211
Moon	112603-09-15 11:44 G	42848717.84	42848717.99	42848718.15	0.0288	0.0225 *
Moon	112604-09-28 14:37 G	42849096.86	42849097.11	42849097.37	0.0286	0.0036
Earth	112604-09-28 14:37 G	42849096.87	42849097.11	42849097.36	0.0286	0.0053 *
Mars	112607-04-20 13:10 G	42850030.73	42850031.05	42850031.38	0.0279	0.0047
Mercury	112612-08-23 05:58 G	42851982.65	42851982.75	42851982.87	0.0268	0.0212
Mercury	112612-11-20 02:08 G	42852071.41	42852071.59	42852071.77	0.0268	0.0030
Mercury	112613-02-16 22:03 G	42852160.28	42852160.42	42852160.58	0.0268	0.0154
Venus	112613-04-08 16:32 G	42852211.01	42852211.19	42852211.37	0.0268	0.0138
Venus	112613-11-23 17:30 G	42852440.06	42852440.23	42852440.41	0.0267	0.0147
Moon	112619-03-19 10:18 G	42854381.73	42854381.93	42854382.15	0.0272	0.0153
Earth	112619-03-19 12:13 G	42854381.82	42854382.01	42854382.22	0.0272	0.0159 *
Moon	112620-03-30 11:58 G	42854758.77	42854759.00	42854759.23	0.0274	0.0072
Earth	112620-03-30 14:51 G	42854758.88	42854759.12	42854759.36	0.0274	0.0057 *

Mercury	112627-09-19 18:56 G	42857488.18	42857488.29	42857488.40	0.0292	0.0169
Mercury	112627-12-17 07:39 G	42857576.68	42857576.82	42857576.95	0.0292	0.0007
Mercury	112628-03-14 20:08 G	42857665.23	42857665.34	42857665.45	0.0292	0.0174
Venus	112628-05-02 01:10 G	42857713.35	42857713.55	42857713.75	0.0292	0.0097
Venus	112628-12-18 00:56 G	42857943.49	42857943.54	42857943.59	0.0293	0.0283
Earth	112633-09-22 16:46 G	42859682.96	42859683.20	42859683.44	0.0287	0.0063
Moon	112633-09-22 19:53 G	42859683.09	42859683.33	42859683.56	0.0287	0.0079 *
Earth	112634-10-06 19:53 G	42860062.16	42860062.33	42860062.52	0.0284	0.0196
Moon	112634-10-06 23:29 G	42860062.30	42860062.48	42860062.68	0.0284	0.0183 *
Mercury	112642-01-10 06:56 G	42862714.74	42862714.79	42862714.86	0.0269	0.0251
Mercury	112642-04-09 03:05 G	42862803.45	42862803.63	42862803.80	0.0269	0.0069
Mercury	112642-07-06 23:01 G	42862892.30	42862892.46	42862892.63	0.0268	0.0116
Venus	112642-10-19 23:15 G	42862997.27	42862997.47	42862997.67	0.0268	0.0089
Venus	112643-06-06 00:13 G	42863226.37	42863226.51	42863226.66	0.0268	0.0197
Earth	112648-03-13 21:49 G	42864969.33	42864969.41	42864969.52	0.0271	0.0250
Moon	112648-03-14 01:25 G	42864969.45	42864969.56	42864969.67	0.0271	0.0241 *
Earth	112649-03-25 23:01 G	42865346.22	42865346.46	42865346.70	0.0273	0.0037
Moon	112649-03-26 00:41 G	42865346.28	42865346.53	42865346.78	0.0273	0.0023 *
Moon	112650-04-07 00:56 G	42865723.37	42865723.54	42865723.73	0.0276	0.0192
Earth	112650-04-07 04:17 G	42865723.51	42865723.68	42865723.87	0.0276	0.0184 *
Mercury	112657-02-05 22:32 G	42868220.35	42868220.44	42868220.54	0.0291	0.0196
Mercury	112657-05-05 11:15 G	42868308.84	42868308.97	42868309.11	0.0291	0.0024
Mercury	112657-08-01 23:44 G	42868397.38	42868397.49	42868397.61	0.0291	0.0148
Venus	112657-11-12 13:25 G	42868499.85	42868500.06	42868500.28	0.0292	0.0027
Moon	112662-09-16 20:37 G	42870269.18	42870269.36	42870269.55	0.0288	0.0189
Earth	112662-09-17 00:27 G	42870269.33	42870269.52	42870269.72	0.0288	0.0179 *
Moon	112663-10-01 03:49 G	42870648.43	42870648.66	42870648.89	0.0286	0.0078
Earth	112663-10-01 05:29 G	42870648.50	42870648.73	42870648.97	0.0286	0.0083 *
Mercury	112671-08-27 02:37 G	42873535.45	42873535.61	42873535.78	0.0268	0.0120
Mercury	112671-11-23 22:46 G	42873624.27	42873624.45	42873624.63	0.0268	0.0064

Mercury	112672-02-20 18:56 G	42873713.23	42873713.29	42873713.36	0.0268	0.0248
Venus	112672-05-01 02:51 G	42873783.41	42873783.62	42873783.83	0.0268	0.0050
Venus	112672-12-16 03:49 G	42874012.56	42874012.66	42874012.76	0.0267	0.0235
Earth	112678-03-20 21:34 G	42875933.19	42875933.40	42875933.61	0.0272	0.0133
Moon	112678-03-20 22:03 G	42875933.22	42875933.42	42875933.63	0.0272	0.0120 *
Earth	112679-04-02 00:41 G	42876310.30	42876310.53	42876310.76	0.0274	0.0084
Moon	112679-04-02 04:03 G	42876310.45	42876310.67	42876310.91	0.0274	0.0086 *
Mars	112681-08-10 05:58 G	42877171.51	42877171.75	42877171.99	0.0280	0.0114
Mercury	112686-06-25 23:58 G	42878952.44	42878952.50	42878952.57	0.0291	0.0253
Mercury	112686-09-22 12:41 G	42879040.90	42879041.03	42879041.16	0.0292	0.0080
Mercury	112686-12-20 01:25 G	42879129.43	42879129.56	42879129.68	0.0292	0.0092
Mercury	112687-03-18 13:39 G	42879218.02	42879218.07	42879218.13	0.0292	0.0263
Venus	112687-05-25 17:58 G	42879286.04	42879286.25	42879286.46	0.0292	0.0019
Moon	112692-09-24 05:58 G	42881234.49	42881234.75	42881235.01	0.0287	0.0026
Earth	112692-09-24 07:25 G	42881234.57	42881234.81	42881235.06	0.0287	0.0033 *
Moon	112693-10-08 06:13 G	42881613.64	42881613.76	42881613.91	0.0284	0.0236
Earth	112693-10-08 09:49 G	42881613.78	42881613.91	42881614.08	0.0284	0.0225 *
Mars	112695-09-15 02:08 G	42882320.37	42882320.59	42882320.84	0.0279	0.0194
Mercury	112701-01-14 03:34 G	42884267.51	42884267.65	42884267.80	0.0269	0.0160
Mercury	112701-04-12 23:29 G	42884356.30	42884356.48	42884356.67	0.0269	0.0024
Mercury	112701-07-10 19:53 G	42884445.21	42884445.33	42884445.44	0.0268	0.0209
Venus	112701-11-12 09:20 G	42884569.68	42884569.89	42884570.11	0.0268	0.0006
Moon	112707-03-17 04:17 G	42886520.53	42886520.68	42886520.84	0.0272	0.0213
Earth	112707-03-17 06:41 G	42886520.65	42886520.78	42886520.92	0.0272	0.0225 *
Moon	112708-03-28 05:44 G	42886897.51	42886897.74	42886897.98	0.0274	0.0013
Earth	112708-03-28 08:22 G	42886897.61	42886897.85	42886898.09	0.0274	0.0011 *
Earth	112709-04-09 14:22 G	42887274.95	42887275.10	42887275.26	0.0276	0.0210
Moon	112709-04-09 16:17 G	42887275.03	42887275.18	42887275.35	0.0276	0.0197 *
Mercury	112715-11-14 03:49 G	42889684.63	42889684.66	42889684.70	0.0291	0.0277
Mercury	112716-02-10 16:32 G	42889773.07	42889773.19	42889773.32	0.0291	0.0104

Venus	112716-04-20 08:08 G	42889842.80	42889842.84	42889842.89	0.0291	0.0284
Mercury	112716-05-09 05:15 G	42889861.59	42889861.72	42889861.85	0.0291	0.0068
Mercury	112716-08-05 17:44 G	42889950.16	42889950.24	42889950.31	0.0292	0.0238
Venus	112716-12-06 07:10 G	42890072.60	42890072.80	42890073.01	0.0292	0.0092
Earth	112721-09-19 17:44 G	42891821.02	42891821.24	42891821.45	0.0288	0.0146
Moon	112721-09-19 21:20 G	42891821.17	42891821.39	42891821.61	0.0288	0.0132 *
Earth	112722-10-03 22:03 G	42892200.20	42892200.42	42892200.65	0.0285	0.0115
Moon	112722-10-04 01:25 G	42892200.34	42892200.56	42892200.79	0.0285	0.0131 *
Mercury	112730-06-03 03:49 G	42894999.55	42894999.66	42894999.78	0.0268	0.0205
Mercury	112730-08-30 23:44 G	42895088.31	42895088.49	42895088.67	0.0268	0.0024
Venus	112730-10-08 12:27 G	42895126.94	42895127.02	42895127.10	0.0268	0.0247
Mercury	112730-11-27 19:53 G	42895177.18	42895177.33	42895177.47	0.0268	0.0160
Venus	112731-05-25 13:53 G	42895355.87	42895356.08	42895356.29	0.0268	0.0040
Earth	112737-03-23 07:10 G	42897484.59	42897484.80	42897485.03	0.0272	0.0107
Moon	112737-03-23 07:53 G	42897484.62	42897484.83	42897485.07	0.0272	0.0114 *
Moon	112738-04-04 07:10 G	42897861.58	42897861.80	42897862.04	0.0274	0.0094
Earth	112738-04-04 11:01 G	42897861.74	42897861.96	42897862.18	0.0274	0.0111 *
Mercury	112745-06-29 17:58 G	42900505.14	42900505.25	42900505.36	0.0292	0.0161
Mercury	112745-09-26 06:41 G	42900593.65	42900593.78	42900593.91	0.0292	0.0012
Venus	112745-10-31 12:13 G	42900628.90	42900629.01	42900629.13	0.0292	0.0241
Mercury	112745-12-23 19:10 G	42900682.20	42900682.30	42900682.40	0.0292	0.0182
Venus	112746-06-18 11:29 G	42900858.79	42900858.98	42900859.17	0.0292	0.0137
Moon	112750-09-13 12:27 G	42902406.90	42902407.02	42902407.14	0.0289	0.0248
Earth	112750-09-13 15:34 G	42902407.06	42902407.15	42902407.25	0.0289	0.0265 *
Moon	112751-09-27 22:46 G	42902786.21	42902786.45	42902786.69	0.0286	0.0015
Earth	112751-09-27 23:01 G	42902786.21	42902786.46	42902786.71	0.0286	0.0005 *
Earth	112752-10-11 00:56 G	42903165.44	42903165.54	42903165.65	0.0284	0.0254
Moon	112752-10-11 03:49 G	42903165.58	42903165.66	42903165.75	0.0284	0.0266 *
Mercury	112759-10-21 04:32 G	42905731.62	42905731.69	42905731.75	0.0269	0.0248
Mercury	112760-01-18 00:13 G	42905820.34	42905820.51	42905820.69	0.0269	0.0067

Mercury	112760-04-15 20:22 G	42905909.19	42905909.35	42905909.51	0.0268	0.0118
Venus	112760-04-19 17:58 G	42905913.12	42905913.25	42905913.40	0.0268	0.0202
Venus	112760-12-04 19:53 G	42906142.13	42906142.33	42906142.53	0.0268	0.0086
Earth	112766-03-18 15:05 G	42908071.98	42908072.13	42908072.31	0.0272	0.0200
Moon	112766-03-18 16:32 G	42908072.04	42908072.19	42908072.34	0.0272	0.0210 *
Earth	112767-03-30 17:29 G	42908448.99	42908449.23	42908449.47	0.0274	0.0015
Moon	112767-03-30 20:51 G	42908449.12	42908449.37	42908449.61	0.0274	0.0001 *
Moon	112768-04-10 23:15 G	42908826.35	42908826.47	42908826.63	0.0276	0.0228
Earth	112768-04-10 23:58 G	42908826.39	42908826.50	42908826.64	0.0276	0.0237 *
Mars	112770-01-06 02:08 G	42909461.33	42909461.59	42909461.85	0.0281	0.0030
Mercury	112774-11-16 21:49 G	42911237.31	42911237.41	42911237.51	0.0291	0.0187
Mercury	112775-02-13 10:32 G	42911325.80	42911325.94	42911326.07	0.0291	0.0015
Mercury	112775-05-12 23:01 G	42911414.35	42911414.46	42911414.57	0.0292	0.0156
Venus	112775-05-14 01:10 G	42911415.38	42911415.55	42911415.72	0.0292	0.0170
Venus	112775-12-30 00:13 G	42911645.37	42911645.51	42911645.67	0.0292	0.0209
Moon	112780-09-21 07:39 G	42913372.58	42913372.82	42913373.06	0.0287	0.0101
Earth	112780-09-21 10:17 G	42913372.70	42913372.93	42913373.16	0.0287	0.0112 *
Moon	112781-10-05 10:46 G	42913751.74	42913751.95	42913752.16	0.0285	0.0153
Earth	112781-10-05 14:08 G	42913751.89	42913752.09	42913752.32	0.0285	0.0148 *
Mercury	112789-06-06 00:56 G	42916552.38	42916552.54	42916552.71	0.0268	0.0108
Mercury	112789-09-02 20:51 G	42916641.20	42916641.37	42916641.55	0.0268	0.0074
Venus	112789-10-30 23:58 G	42916699.33	42916699.50	42916699.68	0.0268	0.0157
Mercury	112789-11-30 17:01 G	42916730.17	42916730.21	42916730.26	0.0268	0.0259
Venus	112790-06-17 01:10 G	42916928.37	42916928.55	42916928.74	0.0268	0.0130
Moon	112796-03-24 14:51 G	42919035.91	42919036.12	42919036.35	0.0272	0.0093
Earth	112796-03-24 16:46 G	42919035.97	42919036.20	42919036.44	0.0272	0.0081 *
Earth	112797-04-05 20:22 G	42919413.15	42919413.35	42919413.57	0.0275	0.0138
Moon	112797-04-05 23:29 G	42919413.28	42919413.48	42919413.69	0.0275	0.0137 *
Mercury	112804-04-04 23:01 G	42921969.39	42921969.46	42921969.53	0.0291	0.0247
Mercury	112804-07-02 11:44 G	42922057.86	42922057.99	42922058.12	0.0292	0.0073

Mercury	112804-09-29 00:13 G	42922146.39	42922146.51	42922146.64	0.0292	0.0099
Venus	112804-11-23 04:32 G	42922201.50	42922201.69	42922201.88	0.0292	0.0128
Mercury	112804-12-26 12:41 G	42922234.99	42922235.03	42922235.08	0.0292	0.0269
Venus	112805-07-11 04:03 G	42922431.57	42922431.67	42922431.78	0.0293	0.0253
Earth	112809-09-15 06:41 G	42923958.65	42923958.78	42923958.94	0.0289	0.0234
Moon	112809-09-15 10:46 G	42923958.81	42923958.95	42923959.11	0.0289	0.0233 *
Earth	112810-09-29 14:08 G	42924337.84	42924338.09	42924338.33	0.0286	0.0031
Moon	112810-09-29 16:17 G	42924337.92	42924338.18	42924338.43	0.0286	0.0027 *
Moon	112811-10-13 13:10 G	42924716.99	42924717.05	42924717.13	0.0284	0.0271
Mercury	112818-10-24 00:56 G	42927284.40	42927284.54	42927284.69	0.0268	0.0156
Mercury	112819-01-20 20:51 G	42927373.19	42927373.37	42927373.55	0.0268	0.0027
Mercury	112819-04-19 17:01 G	42927462.10	42927462.21	42927462.32	0.0268	0.0212
Venus	112819-05-13 04:46 G	42927485.51	42927485.70	42927485.89	0.0268	0.0114
Venus	112819-12-28 05:44 G	42927714.59	42927714.74	42927714.91	0.0268	0.0174
Earth	112825-03-19 23:01 G	42929623.29	42929623.46	42929623.66	0.0272	0.0175
Moon	112825-03-19 23:01 G	42929623.29	42929623.46	42929623.66	0.0272	0.0184 *
Moon	112826-03-31 22:03 G	42930000.18	42930000.42	42930000.66	0.0274	0.0046
Earth	112826-04-01 01:39 G	42930000.33	42930000.57	42930000.81	0.0274	0.0040 *
Earth	112827-04-13 08:37 G	42930377.80	42930377.86	42930377.95	0.0277	0.0262
Moon	112827-04-13 07:53 G	42930377.82	42930377.83	42930377.84	0.0277	0.0276 *
Mercury	112833-08-23 02:37 G	42932701.57	42932701.61	42932701.66	0.0291	0.0274
Mercury	112833-11-19 15:20 G	42932790.02	42932790.14	42932790.27	0.0291	0.0101
Mercury	112834-02-16 04:03 G	42932878.54	42932878.67	42932878.80	0.0292	0.0072
Mercury	112834-05-15 16:32 G	42932967.12	42932967.19	42932967.26	0.0292	0.0242
Venus	112834-06-05 17:15 G	42932988.01	42932988.22	42932988.43	0.0292	0.0057
Earth	112839-09-24 01:25 G	42934924.33	42934924.56	42934924.80	0.0287	0.0079
Moon	112839-09-24 02:08 G	42934924.37	42934924.59	42934924.83	0.0287	0.0092 *
Earth	112840-10-07 05:01 G	42935303.53	42935303.71	42935303.91	0.0285	0.0180
Moon	112840-10-07 08:37 G	42935303.66	42935303.86	42935304.06	0.0285	0.0164 *
Mercury	112848-03-12 02:08 G	42938016.46	42938016.59	42938016.71	0.0268	0.0195

Mercury	112848-06-08 21:49 G	42938105.23	42938105.41	42938105.59	0.0268	0.0013
Mercury	112848-09-05 17:44 G	42938194.11	42938194.24	42938194.39	0.0268	0.0170
Venus	112848-11-22 11:01 G	42938271.76	42938271.96	42938272.17	0.0268	0.0067
Venus	112849-07-09 11:44 G	42938500.87	42938500.99	42938501.11	0.0267	0.0218
Earth	112854-03-15 01:39 G	42940210.52	42940210.57	42940210.62	0.0270	0.0263
Moon	112854-03-15 03:05 G	42940210.62	42940210.63	42940210.66	0.0270	0.0269 *
Earth	112855-03-27 01:10 G	42940587.32	42940587.55	42940587.79	0.0272	0.0055
Moon	112855-03-27 04:17 G	42940587.43	42940587.68	42940587.92	0.0272	0.0045 *
Moon	112856-04-07 03:20 G	42940964.47	42940964.64	42940964.84	0.0275	0.0180
Earth	112856-04-07 05:15 G	42940964.53	42940964.72	42940964.92	0.0275	0.0164 *
Mars	112858-06-01 22:17 G	42941750.19	42941750.43	42941750.67	0.0280	0.0118
Mercury	112863-04-08 16:17 G	42943522.07	42943522.18	42943522.29	0.0292	0.0163
Mercury	112863-07-06 05:01 G	42943610.58	42943610.71	42943610.84	0.0292	0.0009
Mercury	112863-10-02 17:29 G	42943699.13	42943699.23	42943699.34	0.0292	0.0181
Venus	112863-12-16 19:39 G	42943774.11	42943774.32	42943774.53	0.0292	0.0018
Moon	112868-09-16 16:17 G	42945510.04	42945510.18	42945510.36	0.0289	0.0221
Earth	112868-09-16 20:08 G	42945510.17	42945510.34	42945510.52	0.0289	0.0203 *
Moon	112869-09-30 23:44 G	42945889.26	42945889.49	42945889.74	0.0286	0.0046
Earth	112869-10-01 02:51 G	42945889.38	42945889.62	42945889.87	0.0286	0.0062 *
Mercury	112877-07-30 01:25 G	42948748.50	42948748.56	42948748.64	0.0268	0.0247
Mercury	112877-10-26 21:20 G	42948837.22	42948837.39	42948837.57	0.0268	0.0065
Mercury	112878-01-23 17:15 G	42948926.06	42948926.22	42948926.39	0.0268	0.0118
Venus	112878-06-04 14:51 G	42949057.91	42949058.12	42949058.33	0.0268	0.0027
Venus	112879-01-19 15:20 G	42949287.10	42949287.14	42949287.21	0.0268	0.0259
Moon	112884-03-21 04:17 G	42951174.49	42951174.68	42951174.89	0.0272	0.0139
Earth	112884-03-21 05:44 G	42951174.54	42951174.74	42951174.95	0.0272	0.0150 *
Earth	112885-04-02 08:08 G	42951551.61	42951551.84	42951552.08	0.0274	0.0065
Moon	112885-04-02 11:29 G	42951551.76	42951551.98	42951552.21	0.0274	0.0081 *
Mercury	112892-08-25 19:39 G	42954254.22	42954254.32	42954254.42	0.0291	0.0195
Mercury	112892-11-22 08:22 G	42954342.72	42954342.85	42954342.99	0.0291	0.0022

Mercury	112893-02-18 20:51 G	42954431.26	42954431.37	42954431.49	0.0292	0.0150
Venus	112893-06-28 07:10 G	42954560.59	42954560.80	42954561.01	0.0292	0.0050
Earth	112898-09-25 13:39 G	42956475.83	42956476.07	42956476.32	0.0287	0.0048
Moon	112898-09-25 14:37 G	42956475.86	42956476.11	42956476.36	0.0287	0.0059 *
Moon	112899-10-09 14:08 G	42956854.93	42956855.09	42956855.28	0.0285	0.0207
Earth	112899-10-09 17:15 G	42956855.05	42956855.22	42956855.39	0.0285	0.0209 *
Mercury	112907-03-16 22:32 G	42959569.27	42959569.44	42959569.61	0.0268	0.0104
Mercury	112907-06-13 18:13 G	42959658.09	42959658.26	42959658.44	0.0268	0.0079
Mercury	112907-09-10 14:22 G	42959747.07	42959747.10	42959747.14	0.0268	0.0263
Venus	112907-12-16 21:05 G	42959844.17	42959844.38	42959844.59	0.0268	0.0020
Moon	112913-03-17 07:10 G	42961761.67	42961761.80	42961761.95	0.0270	0.0225
Earth	112913-03-17 08:08 G	42961761.73	42961761.84	42961761.95	0.0270	0.0239 *
Moon	112914-03-29 04:32 G	42962138.45	42962138.69	42962138.93	0.0272	0.0019
Earth	112914-03-29 07:53 G	42962138.59	42962138.83	42962139.07	0.0272	0.0030 *
Earth	112915-04-10 11:58 G	42962515.83	42962516.00	42962516.18	0.0275	0.0189
Moon	112915-04-10 12:13 G	42962515.84	42962516.01	42962516.18	0.0275	0.0189 *
Mercury	112922-01-13 20:22 G	42964986.29	42964986.35	42964986.41	0.0291	0.0259
Mercury	112922-04-12 09:20 G	42965074.76	42965074.89	42965075.02	0.0292	0.0086
Venus	112922-05-24 10:03 G	42965116.91	42965116.92	42965116.96	0.0292	0.0290
Mercury	112922-07-09 21:49 G	42965163.29	42965163.41	42965163.54	0.0292	0.0087
Mercury	112922-10-06 10:17 G	42965251.87	42965251.93	42965251.99	0.0292	0.0257
Venus	112923-01-09 09:05 G	42965346.68	42965346.88	42965347.09	0.0292	0.0089
Earth	112927-09-20 06:56 G	42967061.60	42967061.79	42967062.00	0.0288	0.0173
Moon	112927-09-20 09:20 G	42967061.71	42967061.89	42967062.09	0.0288	0.0175 *
Earth	112928-10-03 13:25 G	42967440.83	42967441.06	42967441.30	0.0286	0.0090
Moon	112928-10-03 17:01 G	42967440.98	42967441.21	42967441.45	0.0286	0.0096 *
Mercury	112936-08-02 21:20 G	42970301.25	42970301.39	42970301.54	0.0268	0.0161
Mercury	112936-10-30 17:15 G	42970390.04	42970390.22	42970390.40	0.0268	0.0021
Venus	112936-11-10 22:03 G	42970401.32	42970401.42	42970401.52	0.0268	0.0232
Mercury	112937-01-27 13:10 G	42970478.94	42970479.05	42970479.17	0.0268	0.0205

Venus	112937-06-27 23:44 G	42970630.28	42970630.49	42970630.69	0.0268	0.0056
Earth	112943-03-24 10:17 G	42972725.72	42972725.93	42972726.15	0.0272	0.0126
Moon	112943-03-24 12:41 G	42972725.81	42972726.03	42972726.26	0.0272	0.0119 *
Moon	112944-04-04 10:17 G	42973102.70	42973102.93	42973103.17	0.0274	0.0082
Earth	112944-04-04 12:56 G	42973102.82	42973103.04	42973103.27	0.0274	0.0090 *
Mars	112946-10-28 01:39 G	42974039.41	42974039.57	42974039.74	0.0281	0.0218
Mercury	112951-08-30 12:13 G	42975806.89	42975807.01	42975807.13	0.0291	0.0123
Mercury	112951-11-27 00:56 G	42975895.41	42975895.54	42975895.67	0.0292	0.0050
Venus	112951-12-04 20:08 G	42975903.21	42975903.34	42975903.47	0.0292	0.0228
Mercury	112952-02-23 13:25 G	42975983.97	42975984.06	42975984.15	0.0292	0.0220
Venus	112952-07-21 19:10 G	42976133.13	42976133.30	42976133.49	0.0292	0.0151
Moon	112956-09-13 09:34 G	42977647.83	42977647.90	42977647.98	0.0289	0.0275
Earth	112956-09-13 13:25 G	42977648.03	42977648.06	42977648.11	0.0289	0.0284
Moon	112957-09-27 20:22 G	42978027.11	42978027.35	42978027.59	0.0287	0.0009
Earth	112957-09-27 22:32 G	42978027.19	42978027.44	42978027.69	0.0287	0.0020 *
Earth	112958-10-12 01:25 G	42978406.44	42978406.56	42978406.71	0.0284	0.0237
Moon	112958-10-12 03:20 G	42978406.54	42978406.64	42978406.76	0.0284	0.0252 *
Mercury	112965-12-20 22:32 G	42981033.33	42981033.44	42981033.57	0.0268	0.0198
Mercury	112966-03-19 18:27 G	42981122.09	42981122.27	42981122.45	0.0268	0.0018
Venus	112966-05-24 04:32 G	42981187.55	42981187.69	42981187.86	0.0268	0.0184
Mercury	112966-06-16 14:08 G	42981210.96	42981211.09	42981211.24	0.0268	0.0166
Venus	112967-01-08 05:58 G	42981416.56	42981416.75	42981416.94	0.0267	0.0103
Moon	112972-03-18 12:56 G	42983312.90	42983313.04	42983313.18	0.0270	0.0214
Earth	112972-03-18 13:10 G	42983312.91	42983313.05	42983313.20	0.0270	0.0215 *
Earth	112973-03-30 12:56 G	42983689.80	42983690.04	42983690.28	0.0272	0.0005
Moon	112973-03-30 16:32 G	42983689.95	42983690.19	42983690.43	0.0272	0.0018 *
Earth	112974-04-11 17:01 G	42984067.06	42984067.21	42984067.37	0.0275	0.0213
Moon	112974-04-11 18:13 G	42984067.10	42984067.26	42984067.45	0.0275	0.0197 *
Mercury	112981-01-16 12:41 G	42986538.93	42986539.03	42986539.14	0.0291	0.0189
Mercury	112981-04-15 01:39 G	42986627.43	42986627.57	42986627.70	0.0292	0.0018

Venus	112981-06-15 21:05 G	42986689.23	42986689.38	42986689.55	0.0292	0.0192
Mercury	112981-07-12 14:08 G	42986715.98	42986716.09	42986716.20	0.0292	0.0155
Venus	112982-01-31 20:22 G	42986919.19	42986919.35	42986919.52	0.0292	0.0188
Moon	112986-09-21 12:41 G	42988612.81	42988613.03	42988613.27	0.0288	0.0131
Earth	112986-09-21 14:08 G	42988612.88	42988613.09	42988613.31	0.0288	0.0147 *
Moon	112987-10-05 16:32 G	42988991.98	42988992.19	42988992.43	0.0286	0.0130
Earth	112987-10-05 20:22 G	42988992.13	42988992.35	42988992.58	0.0286	0.0116 *
Mercury	112995-05-09 20:51 G	42991765.34	42991765.37	42991765.42	0.0268	0.0261
Mercury	112995-08-06 16:46 G	42991854.02	42991854.20	42991854.37	0.0268	0.0081
Mercury	112995-11-03 12:41 G	42991942.86	42991943.03	42991943.19	0.0268	0.0102
Venus	112995-12-04 05:58 G	42991973.57	42991973.75	42991973.92	0.0268	0.0151
Venus	112996-07-20 06:56 G	42992202.62	42992202.79	42992202.98	0.0267	0.0137

114TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 114th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	113002-03-26 10:03 G	42994276.71	42994276.92	42994277.14	0.0272	0.0119		
Earth	113002-03-26 13:10 G	42994276.83	42994277.05	42994277.28	0.0272	0.0103 *		
Earth	113003-04-07 15:34 G	42994653.93	42994654.15	42994654.37	0.0274	0.0112		
Moon	113003-04-07 16:46 G	42994653.98	42994654.20	42994654.42	0.0274	0.0099 *		
Mercury	113010-06-06 15:20 G	42997271.06	42997271.14	42997271.22	0.0291	0.0231		
Mercury	113010-09-03 04:03 G	42997359.54	42997359.67	42997359.80	0.0292	0.0058		
Mercury	113010-11-30 16:46 G	42997448.08	42997448.20	42997448.32	0.0292	0.0114		

Venus	113010-12-28 05:58 G	42997475.56	42997475.75	42997475.94	0.0292	0.0134
Mercury	113011-02-27 05:15 G	42997536.69	42997536.72	42997536.75	0.0292	0.0284
Venus	113011-08-15 05:15 G	42997705.62	42997705.72	42997705.84	0.0292	0.0247
Earth	113015-09-16 18:56 G	42999199.19	42999199.29	42999199.41	0.0289	0.0258
Moon	113015-09-16 22:17 G	42999199.31	42999199.43	42999199.57	0.0289	0.0245 *
Earth	113016-09-30 04:03 G	42999578.42	42999578.67	42999578.92	0.0287	0.0007
Moon	113016-09-30 06:56 G	42999578.54	42999578.79	42999579.05	0.0287	0.0016 *
Moon	113017-10-14 06:13 G	42999957.67	42999957.76	42999957.87	0.0284	0.0259
Earth	113017-10-14 07:10 G	42999957.71	42999957.80	42999957.90	0.0284	0.0262 *
Mercury	113024-12-24 17:44 G	43002586.08	43002586.24	43002586.41	0.0268	0.0118
Mercury	113025-03-23 13:39 G	43002674.89	43002675.07	43002675.25	0.0268	0.0064
Venus	113025-06-16 12:27 G	43002759.83	43002760.02	43002760.22	0.0268	0.0103
Mercury	113025-06-20 09:20 G	43002763.84	43002763.89	43002763.97	0.0268	0.0248
Venus	113026-01-31 13:10 G	43002988.91	43002989.05	43002989.22	0.0267	0.0184
Earth	113031-03-21 16:17 G	43004864.02	43004864.18	43004864.36	0.0270	0.0192
Moon	113031-03-21 17:29 G	43004864.08	43004864.23	43004864.40	0.0270	0.0207 *
Moon	113032-04-01 12:41 G	43005240.79	43005241.03	43005241.28	0.0272	0.0010
Earth	113032-04-01 16:03 G	43005240.93	43005241.17	43005241.41	0.0272	0.0019 *
Moon	113033-04-13 17:44 G	43005618.14	43005618.24	43005618.36	0.0275	0.0239
Earth	113033-04-13 19:53 G	43005618.22	43005618.33	43005618.47	0.0275	0.0236 *
Mercury	113040-01-21 04:46 G	43008091.58	43008091.70	43008091.82	0.0291	0.0124
Mercury	113040-04-18 17:15 G	43008180.09	43008180.22	43008180.36	0.0292	0.0049
Venus	113040-07-09 06:56 G	43008261.59	43008261.79	43008261.99	0.0292	0.0098
Mercury	113040-07-16 05:44 G	43008268.66	43008268.74	43008268.83	0.0292	0.0219
Venus	113041-02-24 06:13 G	43008491.71	43008491.76	43008491.81	0.0292	0.0283
Earth	113045-09-23 18:13 G	43010164.03	43010164.26	43010164.49	0.0288	0.0122
Moon	113045-09-23 18:13 G	43010164.05	43010164.26	43010164.48	0.0288	0.0126 *
Earth	113046-10-07 23:58 G	43010543.29	43010543.50	43010543.73	0.0286	0.0141
Moon	113046-10-08 03:20 G	43010543.43	43010543.64	43010543.87	0.0286	0.0129 *
Mercury	113054-05-13 15:20 G	43013318.02	43013318.14	43013318.28	0.0268	0.0187

Mercury	113054-08-10 11:15 G	43013406.79	43013406.97	43013407.16	0.0268	0.0008
Mercury	113054-11-07 07:10 G	43013495.67	43013495.80	43013495.94	0.0268	0.0179
Venus	113054-12-27 12:41 G	43013545.82	43013546.03	43013546.23	0.0268	0.0073
Venus	113055-08-13 13:25 G	43013774.94	43013775.06	43013775.20	0.0267	0.0214
Earth	113061-03-27 14:37 G	43015827.88	43015828.11	43015828.34	0.0272	0.0081
Moon	113061-03-27 18:13 G	43015828.03	43015828.26	43015828.50	0.0272	0.0083 *
Earth	113062-04-08 16:46 G	43016205.00	43016205.20	43016205.42	0.0274	0.0135
Moon	113062-04-08 16:46 G	43016205.00	43016205.20	43016205.42	0.0274	0.0144 *
Mercury	113069-06-09 06:41 G	43018823.68	43018823.78	43018823.89	0.0291	0.0172
Mercury	113069-09-05 19:39 G	43018912.18	43018912.32	43018912.45	0.0292	0.0009
Mercury	113069-12-03 08:08 G	43019000.73	43019000.84	43019000.95	0.0292	0.0172
Venus	113070-01-19 13:53 G	43019047.87	43019048.08	43019048.29	0.0292	0.0045
Moon	113074-09-17 17:44 G	43020750.13	43020750.24	43020750.38	0.0289	0.0248
Earth	113074-09-17 20:51 G	43020750.23	43020750.37	43020750.52	0.0289	0.0235 *
Moon	113075-10-02 02:37 G	43021129.36	43021129.61	43021129.85	0.0287	0.0014
Earth	113075-10-02 05:58 G	43021129.50	43021129.75	43021129.99	0.0287	0.0030 *
Moon	113076-10-15 08:37 G	43021508.80	43021508.86	43021508.95	0.0284	0.0270
Earth	113076-10-15 09:05 G	43021508.88	43021508.88	43021508.89	0.0284	0.0284 *
Mercury	113083-09-30 16:32 G	43024050.10	43024050.19	43024050.29	0.0269	0.0224
Mercury	113083-12-28 12:13 G	43024138.84	43024139.01	43024139.19	0.0268	0.0044
Mercury	113084-03-26 08:08 G	43024227.69	43024227.84	43024228.00	0.0268	0.0140
Venus	113084-07-08 18:56 G	43024332.08	43024332.29	43024332.50	0.0268	0.0025
Venus	113085-02-22 19:25 G	43024561.28	43024561.31	43024561.37	0.0267	0.0261
Moon	113090-03-22 16:03 G	43026414.98	43026415.17	43026415.35	0.0270	0.0167
Earth	113090-03-22 17:58 G	43026415.07	43026415.25	43026415.44	0.0270	0.0171 *
Earth	113091-04-03 17:29 G	43026792.00	43026792.23	43026792.48	0.0272	0.0041
Moon	113091-04-03 19:53 G	43026792.11	43026792.33	43026792.57	0.0272	0.0056 *
Earth	113092-04-14 21:20 G	43027169.32	43027169.39	43027169.49	0.0275	0.0257
Moon	113092-04-15 00:27 G	43027169.49	43027169.52	43027169.57	0.0275	0.0271 *
Mercury	113098-10-27 07:25 G	43029555.74	43029555.81	43029555.89	0.0291	0.0237

Mercury	113099-01-23 20:08 G	43029644.21	43029644.34	43029644.48	0.0291	0.0065
Mercury	113099-04-22 08:51 G	43029732.75	43029732.87	43029732.99	0.0292	0.0107
Mercury	113099-07-19 21:20 G	43029821.35	43029821.39	43029821.43	0.0292	0.0277
Venus	113099-08-01 15:05 G	43029833.92	43029834.13	43029834.34	0.0292	0.0008
Earth	113104-09-25 19:53 G	43031715.10	43031715.33	43031715.57	0.0288	0.0099
Moon	113104-09-25 20:37 G	43031715.13	43031715.36	43031715.60	0.0288	0.0113 *
Moon	113105-10-09 22:46 G	43032094.24	43032094.45	43032094.67	0.0286	0.0155
Earth	113105-10-10 01:53 G	43032094.38	43032094.58	43032094.79	0.0286	0.0163 *
Mercury	113113-05-17 09:34 G	43034870.74	43034870.90	43034871.07	0.0268	0.0115
Jupiter	113113-07-19 13:53 G	43034934.01	43034934.08	43034934.16	0.0268	0.0265
Mercury	113113-08-14 05:29 G	43034959.56	43034959.73	43034959.91	0.0268	0.0067
Mercury	113113-11-11 01:39 G	43035048.51	43035048.57	43035048.63	0.0268	0.0251
Venus	113114-01-19 18:13 G	43035118.05	43035118.26	43035118.47	0.0268	0.0003
Moon	113119-03-18 16:17 G	43037002.11	43037002.18	43037002.26	0.0270	0.0257
Earth	113119-03-18 16:32 G	43037002.16	43037002.19	43037002.23	0.0270	0.0267 *
Moon	113120-03-29 11:01 G	43037378.72	43037378.96	43037379.20	0.0272	0.0044
Earth	113120-03-29 14:51 G	43037378.88	43037379.12	43037379.36	0.0272	0.0060 *
Moon	113121-04-10 16:03 G	43037755.99	43037756.17	43037756.36	0.0274	0.0165
Earth	113121-04-10 16:46 G	43037756.01	43037756.20	43037756.41	0.0274	0.0156 *
Mercury	113128-03-16 09:05 G	43040287.87	43040287.88	43040287.90	0.0291	0.0289
Mercury	113128-06-12 22:03 G	43040376.30	43040376.42	43040376.54	0.0291	0.0116
Mercury	113128-09-09 10:46 G	43040464.82	43040464.95	43040465.08	0.0292	0.0056
Mercury	113128-12-06 23:15 G	43040553.39	43040553.47	43040553.55	0.0292	0.0227
Venus	113129-02-11 21:05 G	43040620.17	43040620.38	43040620.59	0.0292	0.0043
Earth	113133-09-19 20:37 G	43042301.21	43042301.36	43042301.54	0.0289	0.0214
Moon	113133-09-19 22:46 G	43042301.30	43042301.45	43042301.61	0.0289	0.0222 *
Earth	113134-10-04 05:29 G	43042680.49	43042680.73	43042680.98	0.0287	0.0051
Moon	113134-10-04 09:05 G	43042680.64	43042680.88	43042681.13	0.0287	0.0051 *
Mercury	113142-10-04 10:32 G	43045602.79	43045602.94	43045603.09	0.0269	0.0155
Venus	113142-12-15 22:17 G	43045675.35	43045675.43	43045675.54	0.0269	0.0240

Mercury	113143-01-01 06:13 G	43045691.58	43045691.76	43045691.95	0.0269	0.0028
Mercury	113143-03-31 02:08 G	43045780.49	43045780.59	43045780.71	0.0268	0.0211
Venus	113143-08-02 00:27 G	43045904.31	43045904.52	43045904.72	0.0268	0.0050
Earth	113149-03-24 18:56 G	43047966.09	43047966.29	43047966.49	0.0271	0.0151
Moon	113149-03-24 22:17 G	43047966.22	43047966.43	43047966.64	0.0271	0.0135 *
Moon	113150-04-05 17:29 G	43048342.99	43048343.23	43048343.47	0.0273	0.0067
Earth	113150-04-05 18:41 G	43048343.05	43048343.28	43048343.52	0.0273	0.0062 *
Moon	113151-04-17 19:39 G	43048720.27	43048720.32	43048720.36	0.0275	0.0269
Mercury	113157-10-30 22:46 G	43051108.35	43051108.45	43051108.56	0.0291	0.0179
Mercury	113158-01-27 11:29 G	43051196.85	43051196.98	43051197.12	0.0291	0.0009
Mercury	113158-04-25 23:58 G	43051285.40	43051285.50	43051285.62	0.0291	0.0164
Venus	113158-08-24 22:32 G	43051406.24	43051406.44	43051406.65	0.0292	0.0082
Moon	113163-09-27 17:44 G	43053266.01	43053266.24	43053266.48	0.0288	0.0070
Earth	113163-09-27 19:39 G	43053266.08	43053266.32	43053266.56	0.0288	0.0078 *
Earth	113164-10-11 01:25 G	43053645.37	43053645.56	43053645.75	0.0286	0.0183
Moon	113164-10-11 03:05 G	43053645.47	43053645.63	43053645.81	0.0286	0.0199 *
Mercury	113172-02-21 07:39 G	43056334.73	43056334.82	43056334.92	0.0269	0.0228
Mercury	113172-05-20 03:20 G	43056423.47	43056423.64	43056423.82	0.0268	0.0048
Venus	113172-06-26 21:05 G	43056461.26	43056461.38	43056461.52	0.0268	0.0213
Mercury	113172-08-16 23:15 G	43056512.32	43056512.47	43056512.63	0.0268	0.0136
Venus	113173-02-10 23:01 G	43056690.26	43056690.46	43056690.67	0.0268	0.0077
Moon	113178-03-19 15:05 G	43058553.02	43058553.13	43058553.24	0.0270	0.0237
Earth	113178-03-19 16:03 G	43058553.08	43058553.17	43058553.27	0.0270	0.0247 *
Earth	113179-03-31 14:22 G	43058929.86	43058930.10	43058930.34	0.0272	0.0040
Moon	113179-03-31 17:44 G	43058930.00	43058930.24	43058930.47	0.0272	0.0041 *
Earth	113180-04-11 16:32 G	43059307.01	43059307.19	43059307.38	0.0274	0.0176
Moon	113180-04-11 18:27 G	43059307.08	43059307.27	43059307.48	0.0274	0.0164 *
Mercury	113187-03-20 00:13 G	43061840.43	43061840.51	43061840.59	0.0291	0.0235
Mercury	113187-06-16 12:56 G	43061928.91	43061929.04	43061929.18	0.0291	0.0063
Venus	113187-07-20 04:46 G	43061962.60	43061962.70	43061962.81	0.0291	0.0249

Mercury	113187-09-13 01:39 G	43062017.45	43062017.57	43062017.70	0.0292	0.0110
Mercury	113187-12-10 14:08 G	43062106.06	43062106.09	43062106.13	0.0292	0.0279
Venus	113188-03-06 03:34 G	43062192.46	43062192.65	43062192.84	0.0292	0.0128
Moon	113192-09-20 18:13 G	43063852.07	43063852.26	43063852.47	0.0289	0.0179
Earth	113192-09-20 19:39 G	43063852.14	43063852.32	43063852.50	0.0289	0.0194 *
Moon	113193-10-05 00:27 G	43064231.28	43064231.52	43064231.76	0.0287	0.0088
Earth	113193-10-05 04:17 G	43064231.44	43064231.68	43064231.92	0.0287	0.0071 *
Mars	113195-12-24 21:05 G	43065042.24	43065042.38	43065042.55	0.0281	0.0246
Mercury	113201-07-10 08:22 G	43067066.85	43067066.85	43067066.87	0.0269	0.0269
Mercury	113201-10-07 04:03 G	43067155.51	43067155.67	43067155.85	0.0269	0.0088
Mercury	113202-01-03 23:58 G	43067244.34	43067244.50	43067244.68	0.0269	0.0096
Venus	113202-01-07 03:20 G	43067247.48	43067247.64	43067247.81	0.0269	0.0165
Venus	113202-08-24 05:01 G	43067476.53	43067476.71	43067476.90	0.0268	0.0125
Moon	113208-03-25 15:34 G	43069516.95	43069517.15	43069517.36	0.0271	0.0139
Earth	113208-03-25 19:10 G	43069517.10	43069517.30	43069517.52	0.0271	0.0131 *
Earth	113209-04-06 19:10 G	43069894.07	43069894.30	43069894.54	0.0273	0.0083
Moon	113209-04-06 19:10 G	43069894.08	43069894.30	43069894.53	0.0273	0.0068 *
Mercury	113216-11-02 14:08 G	43072660.97	43072661.09	43072661.22	0.0291	0.0120
Venus	113217-01-29 07:53 G	43072748.68	43072748.83	43072748.98	0.0291	0.0205
Mercury	113217-01-30 02:51 G	43072749.49	43072749.62	43072749.75	0.0291	0.0051
Mercury	113217-04-28 15:20 G	43072838.06	43072838.14	43072838.23	0.0291	0.0220
Venus	113217-09-16 06:13 G	43072978.59	43072978.76	43072978.93	0.0292	0.0171
Earth	113222-09-28 19:10 G	43074817.06	43074817.30	43074817.54	0.0288	0.0057
Moon	113222-09-28 21:49 G	43074817.16	43074817.41	43074817.67	0.0288	0.0046 *
Moon	113223-10-12 23:58 G	43075196.33	43075196.50	43075196.68	0.0286	0.0209
Earth	113223-10-13 00:27 G	43075196.36	43075196.52	43075196.71	0.0286	0.0204 *
Mercury	113231-02-24 01:10 G	43077887.41	43077887.55	43077887.69	0.0269	0.0162
Mercury	113231-05-23 21:05 G	43077976.20	43077976.38	43077976.56	0.0269	0.0020
Venus	113231-07-20 01:53 G	43078033.40	43078033.58	43078033.76	0.0268	0.0140
Mercury	113231-08-20 17:01 G	43078065.09	43078065.21	43078065.33	0.0268	0.0204

Venus	113232-03-05 03:49 G	43078262.48	43078262.66	43078262.83	0.0268	0.0149
Earth	113237-03-20 16:03 G	43080104.05	43080104.17	43080104.30	0.0270	0.0227
Moon	113237-03-20 18:27 G	43080104.17	43080104.27	43080104.39	0.0270	0.0240 *
Moon	113238-04-01 12:13 G	43080480.77	43080481.01	43080481.26	0.0272	0.0035
Earth	113238-04-01 14:37 G	43080480.87	43080481.11	43080481.36	0.0272	0.0020 *
Moon	113239-04-13 14:08 G	43080857.93	43080858.09	43080858.26	0.0274	0.0191
Earth	113239-04-13 16:46 G	43080858.04	43080858.20	43080858.38	0.0274	0.0196 *
Mercury	113246-03-22 15:34 G	43083393.04	43083393.15	43083393.26	0.0291	0.0178
Mercury	113246-06-19 04:17 G	43083481.55	43083481.68	43083481.82	0.0291	0.0006
Venus	113246-08-11 11:44 G	43083534.82	43083534.99	43083535.17	0.0291	0.0163
Mercury	113246-09-15 16:46 G	43083570.10	43083570.20	43083570.31	0.0291	0.0165
Venus	113247-03-29 10:32 G	43083764.80	43083764.94	43083765.09	0.0292	0.0216
Earth	113251-09-22 18:13 G	43085403.07	43085403.26	43085403.47	0.0289	0.0174
Moon	113251-09-22 18:27 G	43085403.09	43085403.27	43085403.47	0.0289	0.0173 *
Earth	113252-10-06 02:22 G	43085782.37	43085782.60	43085782.84	0.0287	0.0092
Moon	113252-10-06 05:44 G	43085782.51	43085782.74	43085782.98	0.0287	0.0087 *
Mercury	113260-07-13 01:53 G	43088619.47	43088619.58	43088619.70	0.0269	0.0203
Mercury	113260-10-09 21:49 G	43088708.23	43088708.41	43088708.59	0.0269	0.0022
Mercury	113261-01-06 17:44 G	43088797.10	43088797.24	43088797.38	0.0269	0.0163
Venus	113261-01-29 07:53 G	43088819.64	43088819.83	43088820.04	0.0269	0.0092
Venus	113261-09-15 09:49 G	43089048.77	43089048.91	43089049.05	0.0268	0.0198
Earth	113267-03-27 20:08 G	43091068.12	43091068.34	43091068.56	0.0271	0.0111
Moon	113267-03-27 23:44 G	43091068.28	43091068.49	43091068.71	0.0271	0.0125 *
Earth	113268-04-07 20:22 G	43091445.13	43091445.35	43091445.57	0.0273	0.0103
Moon	113268-04-07 21:20 G	43091445.16	43091445.39	43091445.62	0.0273	0.0102 *
Mercury	113275-08-09 17:01 G	43094125.13	43094125.21	43094125.29	0.0290	0.0231
Mercury	113275-11-06 05:44 G	43094213.61	43094213.74	43094213.87	0.0290	0.0060
Mercury	113276-02-02 18:13 G	43094302.14	43094302.26	43094302.39	0.0291	0.0110
Venus	113276-02-21 15:49 G	43094320.97	43094321.16	43094321.36	0.0291	0.0116
Mercury	113276-05-01 06:41 G	43094390.75	43094390.78	43094390.82	0.0291	0.0278

Venus	113276-10-08 14:08 G	43094551.01	43094551.09	43094551.19	0.0291	0.0261
Moon	113281-09-29 16:03 G	43096367.93	43096368.17	43096368.41	0.0288	0.0052
Earth	113281-09-29 19:25 G	43096368.06	43096368.31	43096368.55	0.0288	0.0036 *
Moon	113282-10-13 23:58 G	43096747.34	43096747.50	43096747.67	0.0286	0.0208
Earth	113282-10-14 00:27 G	43096747.37	43096747.52	43096747.68	0.0286	0.0224 *
Mars	113284-05-17 22:32 G	43097329.28	43097329.44	43097329.62	0.0282	0.0238
Mercury	113290-02-26 18:56 G	43099440.12	43099440.29	43099440.46	0.0269	0.0095
Mercury	113290-05-26 14:37 G	43099528.94	43099529.11	43099529.29	0.0269	0.0089
Venus	113290-08-11 06:56 G	43099605.58	43099605.79	43099605.99	0.0268	0.0065
Venus	113291-03-28 08:37 G	43099834.75	43099834.86	43099834.98	0.0268	0.0223
Moon	113296-03-21 13:39 G	43101654.93	43101655.07	43101655.22	0.0270	0.0214
Earth	113296-03-21 16:32 G	43101655.05	43101655.19	43101655.35	0.0270	0.0208 *
Earth	113297-04-02 15:20 G	43102031.90	43102032.14	43102032.39	0.0272	0.0006
Moon	113297-04-02 17:15 G	43102031.98	43102032.22	43102032.45	0.0272	0.0009 *
Earth	113298-04-14 17:44 G	43102409.10	43102409.24	43102409.40	0.0274	0.0217
Moon	113298-04-14 20:51 G	43102409.25	43102409.37	43102409.50	0.0274	0.0232 *
Mercury	113305-03-26 06:56 G	43104945.67	43104945.79	43104945.92	0.0291	0.0118
Mercury	113305-06-22 19:39 G	43105034.19	43105034.32	43105034.45	0.0291	0.0053
Venus	113305-09-03 19:39 G	43105107.12	43105107.32	43105107.53	0.0291	0.0072
Mercury	113305-09-19 08:08 G	43105122.76	43105122.84	43105122.93	0.0291	0.0222
Earth	113310-09-24 18:27 G	43106954.06	43106954.27	43106954.48	0.0289	0.0153
Moon	113310-09-24 18:13 G	43106954.06	43106954.26	43106954.48	0.0289	0.0169 *
Moon	113311-10-08 23:01 G	43107333.23	43107333.46	43107333.71	0.0286	0.0098
Earth	113311-10-09 02:22 G	43107333.37	43107333.60	43107333.83	0.0286	0.0112 *
Mercury	113319-07-17 19:25 G	43110172.16	43110172.31	43110172.47	0.0270	0.0137
Mercury	113319-10-14 15:20 G	43110260.97	43110261.14	43110261.32	0.0269	0.0047
Mercury	113320-01-11 11:29 G	43110349.89	43110349.98	43110350.07	0.0269	0.0232
Venus	113320-02-22 12:56 G	43110391.83	43110392.04	43110392.25	0.0269	0.0017
Moon	113326-03-29 18:41 G	43112619.05	43112619.28	43112619.51	0.0271	0.0077
Earth	113326-03-29 22:03 G	43112619.20	43112619.42	43112619.65	0.0271	0.0091 *

Moon	113327-04-10 21:34 G	43112996.20	43112996.40	43112996.61	0.0273	0.0138
Earth	113327-04-10 22:32 G	43112996.23	43112996.44	43112996.66	0.0273	0.0124 *
Mercury	113334-08-13 08:51 G	43115677.77	43115677.87	43115677.99	0.0290	0.0166
Mercury	113334-11-09 21:34 G	43115766.27	43115766.40	43115766.54	0.0290	0.0010
Mercury	113335-02-06 10:03 G	43115854.82	43115854.92	43115855.03	0.0291	0.0175
Venus	113335-03-17 01:39 G	43115893.36	43115893.57	43115893.78	0.0291	0.0020
Earth	113339-09-18 11:44 G	43117539.94	43117539.99	43117540.06	0.0290	0.0280
Moon	113339-09-18 14:51 G	43117540.11	43117540.12	43117540.16	0.0290	0.0288
Earth	113340-10-01 21:20 G	43117919.15	43117919.39	43117919.64	0.0288	0.0015
Moon	113340-10-02 01:10 G	43117919.30	43117919.55	43117919.80	0.0288	0.0018 *
Earth	113341-10-16 02:08 G	43118298.46	43118298.59	43118298.71	0.0285	0.0245
Moon	113341-10-16 02:51 G	43118298.51	43118298.62	43118298.76	0.0285	0.0247 *
Mercury	113348-12-03 17:01 G	43120904.10	43120904.21	43120904.32	0.0269	0.0208
Mercury	113349-03-02 12:41 G	43120992.85	43120993.03	43120993.21	0.0269	0.0026
Mercury	113349-05-30 08:37 G	43121081.72	43121081.86	43121082.01	0.0269	0.0159
Venus	113349-09-03 12:13 G	43121177.80	43121178.01	43121178.22	0.0269	0.0010
Earth	113355-03-24 18:27 G	43123206.10	43123206.27	43123206.45	0.0270	0.0188
Moon	113355-03-24 21:49 G	43123206.23	43123206.41	43123206.61	0.0270	0.0172 *
Moon	113356-04-04 16:03 G	43123582.92	43123583.17	43123583.42	0.0272	0.0031
Earth	113356-04-04 17:44 G	43123583.00	43123583.24	43123583.48	0.0272	0.0023 *
Moon	113357-04-16 17:44 G	43123960.11	43123960.24	43123960.36	0.0275	0.0233
Earth	113357-04-16 20:37 G	43123960.25	43123960.36	43123960.49	0.0275	0.0240 *
Mercury	113363-12-31 10:03 G	43126409.84	43126409.92	43126410.01	0.0290	0.0225
Mercury	113364-03-28 22:46 G	43126498.32	43126498.45	43126498.59	0.0291	0.0055
Mercury	113364-06-25 11:29 G	43126586.86	43126586.98	43126587.10	0.0291	0.0116
Mercury	113364-09-21 23:44 G	43126675.48	43126675.49	43126675.52	0.0291	0.0286
Venus	113364-09-26 05:01 G	43126679.50	43126679.71	43126679.92	0.0291	0.0022
Moon	113369-09-25 19:39 G	43128505.11	43128505.32	43128505.54	0.0288	0.0123
Earth	113369-09-25 20:22 G	43128505.13	43128505.35	43128505.57	0.0288	0.0131 *
Earth	113370-10-10 03:49 G	43128884.45	43128884.66	43128884.89	0.0286	0.0133

Moon	113370-10-10 06:13 G	43128884.56	43128884.76	43128884.98	0.0286	0.0147	*
Mars	113372-10-12 03:34 G	43129617.39	43129617.65	43129617.93	0.0281	0.0157	
Mercury	113378-04-22 17:44 G	43131636.18	43131636.24	43131636.31	0.0270	0.0249	
Mercury	113378-07-20 13:25 G	43131724.89	43131725.06	43131725.24	0.0270	0.0066	
Venus	113378-07-30 15:20 G	43131735.05	43131735.14	43131735.26	0.0270	0.0235	
Mercury	113378-10-17 09:34 G	43131813.73	43131813.90	43131814.06	0.0270	0.0119	
Venus	113379-03-16 18:27 G	43131964.07	43131964.27	43131964.48	0.0269	0.0060	
Moon	113384-03-19 01:53 G	43133793.54	43133793.58	43133793.64	0.0270	0.0263	
Earth	113385-03-31 01:10 G	43134170.32	43134170.55	43134170.79	0.0272	0.0070	
Moon	113385-03-31 04:17 G	43134170.45	43134170.68	43134170.92	0.0272	0.0066	*
Earth	113386-04-12 02:08 G	43134547.40	43134547.59	43134547.80	0.0273	0.0147	
Moon	113386-04-12 03:34 G	43134547.44	43134547.65	43134547.87	0.0273	0.0135	*
Mercury	113393-05-19 12:41 G	43137141.98	43137142.03	43137142.08	0.0289	0.0265	
Mercury	113393-08-16 01:25 G	43137230.43	43137230.56	43137230.69	0.0290	0.0095	
Mercury	113393-11-12 13:53 G	43137318.96	43137319.08	43137319.21	0.0290	0.0076	
Mercury	113394-02-09 02:22 G	43137407.53	43137407.60	43137407.68	0.0290	0.0243	
Venus	113394-04-08 12:41 G	43137465.83	43137466.03	43137466.24	0.0291	0.0080	
Moon	113398-09-19 14:08 G	43139090.96	43139091.09	43139091.25	0.0289	0.0239	
Earth	113398-09-19 17:29 G	43139091.12	43139091.23	43139091.35	0.0289	0.0256	*
Moon	113399-10-03 22:32 G	43139470.20	43139470.44	43139470.69	0.0287	0.0028	
Earth	113399-10-04 02:22 G	43139470.36	43139470.60	43139470.85	0.0287	0.0012	*
Moon	113400-10-18 04:32 G	43139849.67	43139849.69	43139849.74	0.0285	0.0282	
Earth	113400-10-18 06:13 G	43139849.68	43139849.76	43139849.85	0.0285	0.0267	*
Mercury	113407-12-08 11:15 G	43142456.82	43142456.97	43142457.13	0.0270	0.0134	
Venus	113408-02-10 15:49 G	43142521.02	43142521.16	43142521.30	0.0269	0.0205	
Mercury	113408-03-06 07:10 G	43142545.62	43142545.80	43142545.98	0.0269	0.0049	
Mercury	113408-06-03 03:05 G	43142634.55	43142634.63	43142634.72	0.0269	0.0235	
Venus	113408-09-26 18:27 G	43142750.08	43142750.27	43142750.48	0.0269	0.0089	
Moon	113414-03-26 18:41 G	43144757.10	43144757.28	43144757.47	0.0271	0.0170	
Earth	113414-03-26 21:49 G	43144757.23	43144757.41	43144757.61	0.0271	0.0167	*

Earth	113415-04-07 21:34 G	43145134.17	43145134.40	43145134.64	0.0273	0.0046
Moon	113415-04-07 23:01 G	43145134.23	43145134.46	43145134.70	0.0273	0.0032 *
Earth	113416-04-19 01:25 G	43145511.49	43145511.56	43145511.63	0.0275	0.0262
Moon	113416-04-19 04:46 G	43145511.61	43145511.70	43145511.81	0.0275	0.0249 *
Mercury	113423-01-04 02:37 G	43147962.50	43147962.61	43147962.73	0.0290	0.0153
Venus	113423-03-04 18:56 G	43148022.19	43148022.29	43148022.40	0.0290	0.0250
Mercury	113423-04-02 15:20 G	43148051.01	43148051.14	43148051.28	0.0290	0.0019
Mercury	113423-06-30 03:49 G	43148139.56	43148139.66	43148139.77	0.0291	0.0187
Venus	113423-10-20 16:32 G	43148252.00	43148252.19	43148252.38	0.0291	0.0124
Earth	113428-09-28 01:39 G	43150056.35	43150056.57	43150056.81	0.0288	0.0108
Moon	113428-09-28 03:20 G	43150056.40	43150056.64	43150056.89	0.0288	0.0095 *
Moon	113429-10-12 06:56 G	43150435.58	43150435.79	43150436.00	0.0286	0.0161
Earth	113429-10-12 08:37 G	43150435.67	43150435.86	43150436.08	0.0286	0.0157 *
Mercury	113437-04-26 11:58 G	43153188.87	43153189.00	43153189.14	0.0270	0.0175
Mercury	113437-07-24 07:53 G	43153277.65	43153277.83	43153278.01	0.0270	0.0010
Venus	113437-08-22 22:03 G	43153307.25	43153307.42	43153307.60	0.0270	0.0156
Mercury	113437-10-21 03:49 G	43153366.55	43153366.66	43153366.80	0.0270	0.0195
Venus	113438-04-09 00:56 G	43153536.36	43153536.54	43153536.72	0.0269	0.0138
Earth	113443-03-22 07:10 G	43155344.74	43155344.80	43155344.89	0.0270	0.0257
Moon	113443-03-22 09:20 G	43155344.85	43155344.89	43155344.94	0.0270	0.0265 *
Moon	113444-04-02 02:51 G	43155721.38	43155721.62	43155721.86	0.0272	0.0062
Earth	113444-04-02 05:58 G	43155721.52	43155721.75	43155721.99	0.0272	0.0047 *
Moon	113445-04-14 05:58 G	43156098.57	43156098.75	43156098.95	0.0274	0.0164
Earth	113445-04-14 07:39 G	43156098.64	43156098.82	43156099.02	0.0274	0.0170 *
Mars	113447-02-11 05:15 G	43156766.54	43156766.72	43156766.93	0.0278	0.0190
Mercury	113452-05-23 05:29 G	43158694.63	43158694.73	43158694.84	0.0289	0.0188
Mercury	113452-08-19 18:13 G	43158783.13	43158783.26	43158783.40	0.0290	0.0018
Venus	113452-09-14 04:17 G	43158808.52	43158808.68	43158808.84	0.0290	0.0188
Mercury	113452-11-16 06:41 G	43158871.67	43158871.78	43158871.90	0.0290	0.0151
Venus	113453-05-02 01:53 G	43159038.42	43159038.58	43159038.74	0.0291	0.0185

Earth	113457-09-22 01:39 G	43160642.43	43160642.57	43160642.73	0.0289	0.0229
Moon	113457-09-22 04:03 G	43160642.53	43160642.67	43160642.82	0.0289	0.0230 *
Earth	113458-10-06 10:17 G	43161021.69	43161021.93	43161022.18	0.0287	0.0037
Moon	113458-10-06 14:08 G	43161021.84	43161022.09	43161022.34	0.0287	0.0032 *
Moon	113459-10-20 15:05 G	43161401.11	43161401.13	43161401.19	0.0285	0.0281
Mars	113461-03-08 11:44 G	43161905.68	43161905.99	43161906.31	0.0282	0.0081
Mercury	113466-09-13 10:32 G	43163920.86	43163920.94	43163921.03	0.0270	0.0237
Mercury	113466-12-11 06:13 G	43164009.59	43164009.76	43164009.94	0.0270	0.0055
Venus	113467-03-04 23:29 G	43164093.30	43164093.48	43164093.67	0.0269	0.0122
Mercury	113467-03-10 02:08 G	43164098.44	43164098.59	43164098.76	0.0269	0.0130
Venus	113467-10-20 02:08 G	43164322.43	43164322.59	43164322.76	0.0269	0.0171
Earth	113473-03-28 03:20 G	43166308.45	43166308.64	43166308.86	0.0271	0.0144
Moon	113473-03-28 07:10 G	43166308.60	43166308.80	43166308.99	0.0271	0.0156 *
Moon	113474-04-09 02:37 G	43166685.37	43166685.61	43166685.85	0.0273	0.0072
Earth	113474-04-09 03:34 G	43166685.42	43166685.65	43166685.89	0.0273	0.0070 *
Mercury	113481-10-10 06:41 G	43169426.72	43169426.78	43169426.86	0.0290	0.0246
Mercury	113482-01-06 19:39 G	43169515.19	43169515.32	43169515.45	0.0290	0.0075
Venus	113482-03-27 08:08 G	43169594.66	43169594.84	43169595.03	0.0290	0.0145
Mercury	113482-04-05 08:08 G	43169603.72	43169603.84	43169603.97	0.0290	0.0095
Mercury	113482-07-02 20:37 G	43169692.31	43169692.36	43169692.42	0.0291	0.0263
Venus	113482-11-12 05:29 G	43169824.62	43169824.73	43169824.87	0.0291	0.0230
Moon	113487-09-30 08:08 G	43171607.61	43171607.84	43171608.07	0.0288	0.0095
Earth	113487-09-30 10:17 G	43171607.69	43171607.93	43171608.17	0.0288	0.0080 *
Earth	113488-10-13 16:32 G	43171987.01	43171987.19	43171987.39	0.0286	0.0183
Moon	113488-10-13 17:58 G	43171987.07	43171987.25	43171987.45	0.0286	0.0168 *
Mercury	113496-04-29 07:10 G	43174741.63	43174741.80	43174741.97	0.0270	0.0095
Mercury	113496-07-27 03:05 G	43174830.46	43174830.63	43174830.80	0.0270	0.0089
Venus	113496-09-14 05:58 G	43174879.55	43174879.75	43174879.95	0.0270	0.0073
Venus	113497-05-01 08:22 G	43175108.74	43175108.85	43175108.98	0.0269	0.0221
Moon	113502-03-24 10:32 G	43176895.86	43176895.94	43176896.06	0.0271	0.0244

Earth	113502-03-24 12:56 G	43176895.93	43176896.04	43176896.17	0.0271	0.0235	*
Earth	113503-04-05 12:13 G	43177272.77	43177273.01	43177273.25	0.0272	0.0024	
Moon	113503-04-05 15:05 G	43177272.90	43177273.13	43177273.37	0.0272	0.0016	*
Earth	113504-04-16 14:51 G	43177649.95	43177650.12	43177650.29	0.0274	0.0194	
Moon	113504-04-16 17:29 G	43177650.07	43177650.23	43177650.39	0.0274	0.0209	*
Mercury	113511-02-28 10:03 G	43180158.89	43180158.92	43180158.97	0.0289	0.0275	
Mercury	113511-05-27 23:01 G	43180247.33	43180247.46	43180247.59	0.0289	0.0104	
Mercury	113511-08-24 11:44 G	43180335.85	43180335.99	43180336.12	0.0290	0.0066	
Venus	113511-10-08 19:10 G	43180381.10	43180381.30	43180381.51	0.0290	0.0078	
Mercury	113511-11-20 23:58 G	43180424.43	43180424.50	43180424.58	0.0290	0.0233	
Moon	113516-09-24 12:56 G	43182193.87	43182194.04	43182194.21	0.0289	0.0215	
Earth	113516-09-24 14:22 G	43182193.92	43182194.10	43182194.28	0.0289	0.0199	*
Moon	113517-10-08 18:27 G	43182573.03	43182573.27	43182573.52	0.0287	0.0052	
Earth	113517-10-08 22:03 G	43182573.18	43182573.42	43182573.66	0.0287	0.0066	*
Mercury	113525-09-17 05:58 G	43185473.61	43185473.75	43185473.90	0.0270	0.0153	
Mercury	113525-12-15 01:53 G	43185562.40	43185562.58	43185562.76	0.0270	0.0031	
Mercury	113526-03-13 21:49 G	43185651.31	43185651.41	43185651.53	0.0269	0.0217	
Venus	113526-03-28 08:22 G	43185665.65	43185665.85	43185666.07	0.0269	0.0037	
Venus	113526-11-12 10:46 G	43185894.90	43185894.95	43185895.03	0.0269	0.0256	
Moon	113532-03-30 07:10 G	43187859.59	43187859.80	43187860.03	0.0271	0.0107	
Earth	113532-03-30 10:32 G	43187859.73	43187859.94	43187860.17	0.0271	0.0120	*
Earth	113533-04-11 11:29 G	43188236.75	43188236.98	43188237.21	0.0273	0.0094	
Moon	113533-04-11 11:58 G	43188236.78	43188237.00	43188237.21	0.0273	0.0109	*
Mars	113535-07-08 22:46 G	43189055.21	43189055.45	43189055.70	0.0278	0.0112	
Mercury	113540-10-14 00:27 G	43190979.41	43190979.52	43190979.63	0.0290	0.0161	
Mercury	113541-01-10 12:56 G	43191067.91	43191068.04	43191068.18	0.0290	0.0014	
Mercury	113541-04-09 01:39 G	43191156.46	43191156.57	43191156.67	0.0290	0.0178	
Venus	113541-04-19 23:15 G	43191167.26	43191167.47	43191167.68	0.0291	0.0035	
Earth	113546-10-02 21:49 G	43193159.16	43193159.41	43193159.65	0.0288	0.0052	
Moon	113546-10-03 00:27 G	43193159.27	43193159.52	43193159.78	0.0288	0.0057	*

Moon	113547-10-17 02:08 G	43193538.43	43193538.59	43193538.77	0.0286	0.0215
Earth	113547-10-17 03:20 G	43193538.48	43193538.64	43193538.82	0.0286	0.0210 *
Mars	113549-08-03 14:37 G	43194194.79	43194195.11	43194195.43	0.0281	0.0047
Mercury	113555-02-04 06:56 G	43196205.67	43196205.79	43196205.91	0.0270	0.0194
Mercury	113555-05-04 02:51 G	43196294.44	43196294.62	43196294.80	0.0270	0.0012
Mercury	113555-07-31 22:46 G	43196383.31	43196383.45	43196383.59	0.0270	0.0176
Venus	113555-10-08 15:05 G	43196451.92	43196452.13	43196452.34	0.0270	0.0013
Earth	113561-03-25 20:22 G	43198447.20	43198447.35	43198447.50	0.0271	0.0212
Moon	113561-03-25 22:32 G	43198447.28	43198447.44	43198447.62	0.0271	0.0197 *
Moon	113562-04-06 17:15 G	43198823.97	43198824.22	43198824.46	0.0273	0.0010
Earth	113562-04-06 20:08 G	43198824.10	43198824.34	43198824.58	0.0273	0.0001 *
Moon	113563-04-18 20:22 G	43199201.22	43199201.35	43199201.50	0.0275	0.0218
Earth	113563-04-18 23:29 G	43199201.34	43199201.48	43199201.63	0.0275	0.0219 *
Mercury	113570-03-03 04:03 G	43201711.57	43201711.67	43201711.77	0.0289	0.0187
Mercury	113570-05-30 16:46 G	43201800.06	43201800.20	43201800.33	0.0289	0.0018
Mercury	113570-08-27 05:15 G	43201888.61	43201888.72	43201888.84	0.0290	0.0151
Venus	113570-10-31 11:15 G	43201953.76	43201953.97	43201954.18	0.0290	0.0035
Earth	113575-09-27 05:01 G	43203745.51	43203745.71	43203745.91	0.0288	0.0168
Moon	113575-09-27 05:29 G	43203745.53	43203745.73	43203745.93	0.0288	0.0161 *
Earth	113576-10-10 11:44 G	43204124.76	43204124.99	43204125.23	0.0286	0.0097
Moon	113576-10-10 15:05 G	43204124.91	43204125.13	43204125.37	0.0286	0.0111 *
Mercury	113584-06-23 06:41 G	43206937.71	43206937.78	43206937.85	0.0270	0.0244
Venus	113584-09-02 15:05 G	43207009.05	43207009.13	43207009.23	0.0270	0.0244
Mercury	113584-09-20 02:22 G	43207026.42	43207026.60	43207026.78	0.0270	0.0062
Mercury	113584-12-17 22:17 G	43207115.27	43207115.43	43207115.59	0.0270	0.0122
Venus	113585-04-19 18:41 G	43207238.07	43207238.28	43207238.49	0.0269	0.0052
Earth	113591-04-01 18:56 G	43209411.06	43209411.29	43209411.51	0.0271	0.0095
Moon	113591-04-01 22:17 G	43209411.21	43209411.43	43209411.67	0.0271	0.0093 *
Earth	113592-04-12 20:08 G	43209788.13	43209788.34	43209788.56	0.0273	0.0121
Moon	113592-04-12 20:22 G	43209788.13	43209788.35	43209788.58	0.0273	0.0110 *

Mercury	113599-07-21 05:15 G	43212443.65	43212443.72	43212443.80	0.0290	0.0244
Mercury	113599-10-17 17:58 G	43212532.12	43212532.25	43212532.39	0.0290	0.0074
Mercury	113600-01-14 06:41 G	43212620.65	43212620.78	43212620.91	0.0290	0.0096
Mercury	113600-04-11 19:10 G	43212709.25	43212709.30	43212709.35	0.0291	0.0264
Venus	113600-05-12 15:20 G	43212739.94	43212740.14	43212740.34	0.0291	0.0080
Moon	113604-09-19 22:32 G	43214331.37	43214331.44	43214331.54	0.0289	0.0271
Earth	113604-09-20 02:22 G	43214331.58	43214331.60	43214331.63	0.0289	0.0287
Moon	113605-10-04 09:20 G	43214710.65	43214710.89	43214711.14	0.0288	0.0007
Earth	113605-10-04 12:13 G	43214710.76	43214711.01	43214711.26	0.0288	0.0021 *
Earth	113606-10-18 17:15 G	43215090.08	43215090.22	43215090.35	0.0285	0.0239
Moon	113606-10-18 17:44 G	43215090.14	43215090.24	43215090.37	0.0285	0.0251 *
Mercury	113614-02-07 03:05 G	43217758.46	43217758.63	43217758.80	0.0270	0.0104
Venus	113614-03-15 21:34 G	43217795.25	43217795.40	43217795.54	0.0270	0.0196
Mercury	113614-05-06 23:01 G	43217847.29	43217847.46	43217847.63	0.0270	0.0080
Mercury	113614-08-03 18:56 G	43217936.28	43217936.29	43217936.32	0.0270	0.0267
Venus	113614-10-31 00:56 G	43218024.35	43218024.54	43218024.74	0.0269	0.0100
Moon	113620-03-27 01:39 G	43219998.42	43219998.57	43219998.75	0.0271	0.0193
Earth	113620-03-27 04:03 G	43219998.50	43219998.67	43219998.85	0.0271	0.0187 *
Earth	113621-04-08 04:32 G	43220375.45	43220375.69	43220375.93	0.0273	0.0026
Moon	113621-04-08 06:56 G	43220375.56	43220375.79	43220376.03	0.0273	0.0011 *
Earth	113622-04-20 08:37 G	43220752.75	43220752.86	43220752.97	0.0275	0.0244
Moon	113622-04-20 11:44 G	43220752.86	43220752.99	43220753.13	0.0275	0.0229 *
Mars	113623-12-03 17:29 G	43221344.96	43221345.23	43221345.49	0.0279	0.0030
Mercury	113628-12-07 09:05 G	43223175.84	43223175.88	43223175.93	0.0289	0.0268
Mercury	113629-03-05 22:03 G	43223264.29	43223264.42	43223264.54	0.0289	0.0098
Venus	113629-04-07 06:56 G	43223296.67	43223296.79	43223296.94	0.0289	0.0221
Mercury	113629-06-02 10:32 G	43223352.81	43223352.94	43223353.07	0.0290	0.0072
Mercury	113629-08-29 23:01 G	43223441.39	43223441.46	43223441.54	0.0290	0.0239
Venus	113629-11-23 04:03 G	43223526.49	43223526.67	43223526.85	0.0290	0.0151
Moon	113634-09-28 21:05 G	43225297.15	43225297.38	43225297.62	0.0288	0.0125

Earth	113634-09-28 21:05 G	43225297.17	43225297.38	43225297.61	0.0288	0.0136	*
Moon	113635-10-13 00:13 G	43225676.29	43225676.51	43225676.74	0.0286	0.0129	
Earth	113635-10-13 03:49 G	43225676.44	43225676.66	43225676.88	0.0286	0.0128	*
Mars	113637-12-29 12:56 G	43226484.84	43226485.04	43226485.27	0.0281	0.0214	
Mercury	113643-06-27 03:20 G	43228490.49	43228490.64	43228490.79	0.0270	0.0150	
Mercury	113643-09-23 23:15 G	43228579.29	43228579.47	43228579.65	0.0270	0.0033	
Venus	113643-09-26 02:51 G	43228581.44	43228581.62	43228581.79	0.0270	0.0152	
Mercury	113643-12-21 18:56 G	43228668.20	43228668.29	43228668.41	0.0269	0.0219	
Venus	113644-05-12 05:29 G	43228810.56	43228810.73	43228810.92	0.0269	0.0143	
Moon	113650-04-03 00:27 G	43230962.29	43230962.52	43230962.75	0.0272	0.0084	
Earth	113650-04-03 04:17 G	43230962.45	43230962.68	43230962.91	0.0272	0.0068	*
Moon	113651-04-15 05:29 G	43231339.53	43231339.73	43231339.93	0.0274	0.0140	
Earth	113651-04-15 06:13 G	43231339.55	43231339.76	43231339.96	0.0274	0.0147	*
Mercury	113658-07-23 23:15 G	43233996.36	43233996.47	43233996.58	0.0290	0.0155	
Venus	113658-10-18 10:46 G	43234082.78	43234082.95	43234083.11	0.0290	0.0179	
Mercury	113658-10-20 11:58 G	43234084.86	43234085.00	43234085.13	0.0290	0.0016	
Mercury	113659-01-17 00:27 G	43234173.42	43234173.52	43234173.62	0.0290	0.0184	
Venus	113659-06-05 07:39 G	43234312.67	43234312.82	43234312.99	0.0291	0.0196	
Earth	113663-09-22 17:58 G	43235883.14	43235883.25	43235883.37	0.0289	0.0255	
Moon	113663-09-22 21:05 G	43235883.28	43235883.38	43235883.50	0.0289	0.0257	*
Earth	113664-10-06 03:05 G	43236262.38	43236262.63	43236262.88	0.0287	0.0011	
Moon	113664-10-06 05:58 G	43236262.50	43236262.75	43236263.01	0.0287	0.0005	*
Moon	113665-10-20 06:56 G	43236641.68	43236641.79	43236641.91	0.0285	0.0253	
Earth	113665-10-20 07:25 G	43236641.74	43236641.81	43236641.90	0.0285	0.0269	*
Mercury	113672-11-13 03:34 G	43239222.54	43239222.65	43239222.78	0.0270	0.0196	
Mercury	113673-02-09 23:29 G	43239311.30	43239311.48	43239311.66	0.0270	0.0013	
Venus	113673-04-07 08:22 G	43239367.65	43239367.85	43239368.04	0.0270	0.0106	
Mercury	113673-05-09 19:25 G	43239400.18	43239400.31	43239400.45	0.0270	0.0174	
Venus	113673-11-22 11:29 G	43239596.83	43239596.98	43239597.13	0.0269	0.0189	
Earth	113679-03-29 12:13 G	43241549.82	43241550.01	43241550.21	0.0272	0.0162	

Moon	113679-03-29 14:37 G	43241549.93	43241550.11	43241550.31	0.0272	0.0174	*
Moon	113680-04-09 10:46 G	43241926.71	43241926.95	43241927.20	0.0273	0.0053	
Earth	113680-04-09 13:10 G	43241926.81	43241927.05	43241927.29	0.0273	0.0052	*
Earth	113681-04-21 17:44 G	43242304.20	43242304.24	43242304.29	0.0275	0.0270	
Mercury	113687-12-11 03:05 G	43244728.52	43244728.63	43244728.74	0.0289	0.0179	
Mercury	113688-03-08 15:49 G	43244817.03	43244817.16	43244817.30	0.0290	0.0009	
Venus	113688-04-29 23:29 G	43244869.29	43244869.48	43244869.68	0.0290	0.0107	
Mercury	113688-06-05 04:17 G	43244905.57	43244905.68	43244905.80	0.0290	0.0160	
Venus	113688-12-15 20:37 G	43245099.29	43245099.36	43245099.46	0.0290	0.0268	
Earth	113693-09-30 14:22 G	43246848.87	43246849.10	43246849.33	0.0288	0.0100	
Moon	113693-09-30 14:22 G	43246848.88	43246849.10	43246849.32	0.0288	0.0115	*
Earth	113694-10-14 20:08 G	43247228.15	43247228.34	43247228.55	0.0286	0.0162	
Moon	113694-10-14 23:29 G	43247228.28	43247228.48	43247228.70	0.0286	0.0146	*
Mercury	113702-04-03 04:46 G	43249954.61	43249954.70	43249954.78	0.0270	0.0235	
Mercury	113702-07-01 00:13 G	43250043.34	43250043.51	43250043.69	0.0270	0.0054	
Mercury	113702-09-27 20:08 G	43250132.19	43250132.34	43250132.50	0.0269	0.0131	
Venus	113702-10-19 14:37 G	43250153.90	43250154.11	43250154.32	0.0269	0.0059	
Venus	113703-06-05 17:15 G	43250383.12	43250383.22	43250383.32	0.0269	0.0234	
Earth	113708-03-24 14:37 G	43252137.04	43252137.11	43252137.21	0.0270	0.0251	
Moon	113708-03-24 14:51 G	43252137.06	43252137.12	43252137.21	0.0270	0.0255	*
Earth	113709-04-05 13:25 G	43252513.82	43252514.06	43252514.30	0.0272	0.0042	
Moon	113709-04-05 17:15 G	43252513.98	43252514.22	43252514.46	0.0272	0.0033	*
Earth	113710-04-17 15:34 G	43252890.97	43252891.15	43252891.34	0.0274	0.0173	
Moon	113710-04-17 16:17 G	43252891.01	43252891.18	43252891.37	0.0274	0.0187	*
Mars	113712-04-29 15:34 G	43253633.92	43253634.15	43253634.40	0.0278	0.0125	
Mercury	113717-04-30 04:17 G	43255460.60	43255460.68	43255460.76	0.0290	0.0238	
Mercury	113717-07-27 17:01 G	43255549.08	43255549.21	43255549.34	0.0290	0.0067	
Mercury	113717-10-24 05:44 G	43255637.61	43255637.74	43255637.86	0.0290	0.0103	
Venus	113717-11-11 02:51 G	43255655.41	43255655.62	43255655.82	0.0290	0.0065	
Mercury	113718-01-20 18:13 G	43255726.21	43255726.26	43255726.30	0.0291	0.0270	

Moon	113722-09-25 06:41 G	43257434.64	43257434.78	43257434.93	0.0289	0.0236
Earth	113722-09-25 09:49 G	43257434.77	43257434.91	43257435.08	0.0289	0.0223 *
Moon	113723-10-09 15:34 G	43257813.90	43257814.15	43257814.39	0.0287	0.0034
Earth	113723-10-09 18:27 G	43257814.03	43257814.27	43257814.52	0.0287	0.0043 *
Mercury	113731-11-18 00:27 G	43260775.35	43260775.52	43260775.68	0.0270	0.0102
Mercury	113732-02-14 20:08 G	43260864.17	43260864.34	43260864.52	0.0270	0.0082
Venus	113732-04-30 19:25 G	43260940.09	43260940.31	43260940.52	0.0270	0.0017
Mercury	113732-05-13 16:03 G	43260953.17	43260953.17	43260953.20	0.0269	0.0268
Moon	113738-03-31 17:44 G	43263101.03	43263101.24	43263101.45	0.0272	0.0122
Earth	113738-03-31 20:22 G	43263101.15	43263101.35	43263101.56	0.0272	0.0137 *
Earth	113739-04-12 21:34 G	43263478.17	43263478.40	43263478.63	0.0274	0.0078
Moon	113739-04-12 23:15 G	43263478.25	43263478.47	43263478.69	0.0274	0.0092 *
Mercury	113746-09-17 07:53 G	43266192.78	43266192.83	43266192.88	0.0289	0.0264
Mercury	113746-12-14 20:51 G	43266281.24	43266281.37	43266281.49	0.0290	0.0094
Mercury	113747-03-13 09:20 G	43266369.76	43266369.89	43266370.02	0.0290	0.0077
Venus	113747-05-24 15:20 G	43266441.93	43266442.14	43266442.35	0.0290	0.0006
Mercury	113747-06-09 21:49 G	43266458.34	43266458.41	43266458.49	0.0290	0.0244
Earth	113752-10-03 05:44 G	43268400.50	43268400.74	43268400.98	0.0288	0.0067
Moon	113752-10-03 05:58 G	43268400.51	43268400.75	43268401.01	0.0288	0.0067 *
Moon	113753-10-17 08:22 G	43268779.68	43268779.85	43268780.04	0.0286	0.0202
Earth	113753-10-17 11:29 G	43268779.80	43268779.98	43268780.17	0.0286	0.0194 *
Venus	113761-03-26 22:46 G	43271497.41	43271497.45	43271497.49	0.0270	0.0263
Mercury	113761-04-06 01:25 G	43271507.42	43271507.56	43271507.72	0.0270	0.0140
Mercury	113761-07-03 21:20 G	43271596.21	43271596.39	43271596.57	0.0270	0.0043
Mercury	113761-09-30 17:15 G	43271685.13	43271685.22	43271685.32	0.0269	0.0228
Venus	113761-11-11 02:22 G	43271726.39	43271726.60	43271726.81	0.0269	0.0034
Moon	113767-03-26 23:44 G	43273688.34	43273688.49	43273688.65	0.0270	0.0209
Earth	113767-03-26 23:15 G	43273688.35	43273688.47	43273688.61	0.0270	0.0226 *
Moon	113768-04-06 18:41 G	43274065.03	43274065.28	43274065.52	0.0272	0.0007
Earth	113768-04-06 22:17 G	43274065.18	43274065.43	43274065.67	0.0272	0.0017 *

Moon	113769-04-18 23:01 G	43274442.31	43274442.46	43274442.63	0.0274	0.0197
Earth	113769-04-19 00:13 G	43274442.36	43274442.51	43274442.68	0.0274	0.0200 *
Mercury	113776-05-02 21:34 G	43277013.29	43277013.40	43277013.52	0.0290	0.0155
Mercury	113776-07-30 10:32 G	43277101.80	43277101.94	43277102.07	0.0290	0.0019
Mercury	113776-10-26 23:01 G	43277190.36	43277190.46	43277190.56	0.0290	0.0185
Venus	113776-12-03 17:44 G	43277228.03	43277228.24	43277228.45	0.0291	0.0045
Earth	113781-09-26 23:58 G	43278986.33	43278986.50	43278986.70	0.0289	0.0192
Moon	113781-09-27 02:51 G	43278986.44	43278986.62	43278986.82	0.0289	0.0180 *
Earth	113782-10-11 08:22 G	43279365.61	43279365.85	43279366.09	0.0287	0.0074
Moon	113782-10-11 12:13 G	43279365.77	43279366.01	43279366.25	0.0287	0.0090 *
Mercury	113790-08-24 01:10 G	43282239.43	43282239.55	43282239.68	0.0270	0.0192
Venus	113790-10-07 02:37 G	43282283.49	43282283.61	43282283.73	0.0270	0.0223
Mercury	113790-11-20 20:51 G	43282328.19	43282328.37	43282328.55	0.0270	0.0010
Mercury	113791-02-17 16:46 G	43282417.07	43282417.20	43282417.34	0.0269	0.0175
Venus	113791-05-24 05:58 G	43282512.55	43282512.75	43282512.96	0.0269	0.0074
Earth	113797-04-02 03:05 G	43284652.42	43284652.63	43284652.86	0.0272	0.0112
Moon	113797-04-02 06:41 G	43284652.56	43284652.78	43284653.01	0.0272	0.0106 *
Moon	113798-04-14 03:20 G	43285029.41	43285029.64	43285029.88	0.0274	0.0094
Earth	113798-04-14 04:32 G	43285029.46	43285029.69	43285029.91	0.0274	0.0103 *
Mars	113800-09-25 01:39 G	43285923.45	43285923.57	43285923.71	0.0279	0.0244
Mercury	113805-09-21 01:10 G	43287745.45	43287745.55	43287745.65	0.0290	0.0184
Venus	113805-10-30 08:08 G	43287784.77	43287784.84	43287784.95	0.0290	0.0261
Mercury	113805-12-18 13:53 G	43287833.95	43287834.08	43287834.22	0.0290	0.0014
Mercury	113806-03-17 02:37 G	43287922.50	43287922.61	43287922.72	0.0290	0.0156
Venus	113806-06-17 05:15 G	43288014.53	43288014.72	43288014.92	0.0290	0.0113
Moon	113810-09-22 05:15 G	43289572.69	43289572.72	43289572.78	0.0289	0.0285
Moon	113811-10-06 17:44 G	43289952.00	43289952.24	43289952.48	0.0288	0.0020
Earth	113811-10-06 18:56 G	43289952.05	43289952.29	43289952.54	0.0288	0.0036 *
Earth	113812-10-20 00:27 G	43290331.38	43290331.52	43290331.69	0.0286	0.0225
Moon	113812-10-20 02:22 G	43290331.48	43290331.60	43290331.74	0.0286	0.0240 *

Mercury	113820-01-12 02:22 G	43292971.52	43292971.60	43292971.71	0.0270	0.0228
Mercury	113820-04-09 22:17 G	43293060.25	43293060.43	43293060.60	0.0270	0.0046
Venus	113820-04-19 09:49 G	43293069.75	43293069.91	43293070.08	0.0270	0.0173
Mercury	113820-07-07 17:58 G	43293149.10	43293149.25	43293149.41	0.0269	0.0138
Venus	113820-12-04 12:56 G	43293298.86	43293299.04	43293299.24	0.0269	0.0123
Moon	113826-03-29 05:15 G	43295239.58	43295239.72	43295239.88	0.0270	0.0204
Earth	113826-03-29 06:56 G	43295239.63	43295239.79	43295239.96	0.0270	0.0200 *
Earth	113827-04-10 05:44 G	43295616.50	43295616.74	43295616.98	0.0272	0.0011
Moon	113827-04-10 08:37 G	43295616.63	43295616.86	43295617.10	0.0272	0.0006 *
Earth	113828-04-21 07:53 G	43295993.71	43295993.83	43295993.98	0.0274	0.0226
Moon	113828-04-21 09:49 G	43295993.77	43295993.91	43295994.08	0.0274	0.0212 *
Mercury	113835-02-08 01:53 G	43298477.52	43298477.58	43298477.66	0.0290	0.0247
Mercury	113835-05-07 14:51 G	43298565.99	43298566.12	43298566.25	0.0290	0.0075
Venus	113835-05-12 10:32 G	43298570.81	43298570.94	43298571.08	0.0290	0.0222
Mercury	113835-08-04 03:34 G	43298654.52	43298654.65	43298654.77	0.0290	0.0094
Mercury	113835-10-31 15:49 G	43298743.11	43298743.16	43298743.22	0.0291	0.0263
Venus	113835-12-28 07:25 G	43298800.63	43298800.81	43298800.99	0.0291	0.0152
Moon	113840-09-29 09:34 G	43300537.70	43300537.90	43300538.13	0.0289	0.0153
Earth	113840-09-29 11:58 G	43300537.80	43300538.00	43300538.21	0.0289	0.0161 *
Moon	113841-10-13 16:03 G	43300916.94	43300917.17	43300917.40	0.0287	0.0108
Earth	113841-10-13 19:53 G	43300917.11	43300917.33	43300917.57	0.0287	0.0104 *
Mercury	113849-08-27 21:05 G	43303792.22	43303792.38	43303792.55	0.0270	0.0104
Venus	113849-10-30 12:27 G	43303855.85	43303856.02	43303856.21	0.0270	0.0136
Mercury	113849-11-24 17:01 G	43303881.03	43303881.21	43303881.38	0.0269	0.0079
Mercury	113850-02-21 12:56 G	43303970.01	43303970.04	43303970.07	0.0269	0.0265
Venus	113850-06-16 15:49 G	43304084.99	43304085.16	43304085.33	0.0269	0.0160
Moon	113856-04-04 05:01 G	43306203.50	43306203.71	43306203.94	0.0272	0.0103
Earth	113856-04-04 08:51 G	43306203.64	43306203.87	43306204.10	0.0272	0.0086 *
Earth	113857-04-16 09:49 G	43306580.70	43306580.91	43306581.13	0.0274	0.0128
Moon	113857-04-16 10:03 G	43306580.72	43306580.92	43306581.14	0.0274	0.0120 *

Mercury	113864-06-27 05:01 G	43309209.68	43309209.71	43309209.73	0.0289	0.0283
Mercury	113864-09-23 17:44 G	43309298.12	43309298.24	43309298.37	0.0290	0.0112
Venus	113864-11-21 20:08 G	43309357.17	43309357.34	43309357.52	0.0290	0.0161
Mercury	113864-12-21 06:27 G	43309386.64	43309386.77	43309386.91	0.0290	0.0060
Mercury	113865-03-19 19:10 G	43309475.22	43309475.30	43309475.38	0.0290	0.0227
Venus	113865-07-09 17:15 G	43309587.09	43309587.22	43309587.38	0.0291	0.0215
Earth	113869-09-23 19:10 G	43311124.22	43311124.30	43311124.38	0.0289	0.0271
Moon	113869-09-23 22:46 G	43311124.37	43311124.45	43311124.54	0.0289	0.0271 *
Earth	113870-10-08 05:01 G	43311503.46	43311503.71	43311503.96	0.0288	0.0006
Moon	113870-10-08 07:39 G	43311503.57	43311503.82	43311504.08	0.0288	0.0011 *
Moon	113871-10-22 10:03 G	43311882.79	43311882.92	43311883.06	0.0285	0.0242
Earth	113871-10-22 10:32 G	43311882.84	43311882.94	43311883.06	0.0285	0.0253 *
Mercury	113879-01-14 22:32 G	43314524.30	43314524.44	43314524.60	0.0270	0.0139
Mercury	113879-04-13 18:27 G	43314613.09	43314613.27	43314613.45	0.0270	0.0044
Venus	113879-05-12 20:08 G	43314642.14	43314642.34	43314642.55	0.0270	0.0084
Mercury	113879-07-11 14:08 G	43314702.00	43314702.09	43314702.19	0.0269	0.0229
Venus	113879-12-27 22:46 G	43314871.33	43314871.45	43314871.59	0.0269	0.0211
Earth	113885-03-30 12:41 G	43316790.85	43316791.03	43316791.22	0.0270	0.0175
Moon	113885-03-30 15:05 G	43316790.97	43316791.13	43316791.32	0.0270	0.0191 *
Moon	113886-04-11 09:05 G	43317167.64	43317167.88	43317168.13	0.0272	0.0032
Earth	113886-04-11 11:44 G	43317167.75	43317167.99	43317168.23	0.0272	0.0035 *
Moon	113887-04-23 11:29 G	43317544.92	43317544.98	43317545.05	0.0274	0.0261
Earth	113887-04-23 13:53 G	43317544.99	43317545.08	43317545.19	0.0274	0.0250 *
Mercury	113894-02-10 18:41 G	43320030.17	43320030.28	43320030.39	0.0290	0.0174
Mercury	113894-05-10 07:25 G	43320118.67	43320118.81	43320118.94	0.0290	0.0005
Venus	113894-06-03 22:03 G	43320143.23	43320143.42	43320143.62	0.0290	0.0122
Mercury	113894-08-06 19:53 G	43320207.22	43320207.33	43320207.44	0.0290	0.0166
Venus	113895-01-19 19:10 G	43320373.20	43320373.30	43320373.41	0.0291	0.0253
Earth	113899-10-01 20:37 G	43322089.15	43322089.36	43322089.59	0.0289	0.0133
Moon	113899-10-01 21:49 G	43322089.20	43322089.41	43322089.62	0.0289	0.0148 *

Earth	113900-10-16 04:32 G	43322468.47	43322468.69	43322468.91	0.0287	0.0132
Moon	113900-10-16 08:08 G	43322468.62	43322468.84	43322469.07	0.0287	0.0115 *
Mercury	113908-06-03 21:05 G	43325256.27	43325256.38	43325256.50	0.0270	0.0202
Mercury	113908-08-31 16:46 G	43325345.02	43325345.20	43325345.38	0.0270	0.0020
Venus	113908-11-22 21:34 G	43325428.19	43325428.40	43325428.61	0.0269	0.0051
Mercury	113908-11-28 12:27 G	43325433.88	43325434.02	43325434.17	0.0269	0.0164
Venus	113909-07-09 23:58 G	43325657.43	43325657.50	43325657.60	0.0269	0.0244
Earth	113914-03-26 14:37 G	43327378.10	43327378.11	43327378.15	0.0270	0.0269
Earth	113915-04-07 12:41 G	43327754.80	43327755.03	43327755.27	0.0272	0.0063
Moon	113915-04-07 16:17 G	43327754.95	43327755.18	43327755.42	0.0272	0.0062 *
Earth	113916-04-18 13:39 G	43328131.88	43328132.07	43328132.28	0.0274	0.0152
Moon	113916-04-18 13:53 G	43328131.89	43328132.08	43328132.29	0.0274	0.0165 *
Mercury	113923-07-01 21:05 G	43330762.29	43330762.38	43330762.47	0.0290	0.0215
Mercury	113923-09-28 10:03 G	43330850.78	43330850.92	43330851.05	0.0290	0.0044
Venus	113923-12-16 06:41 G	43330929.57	43330929.78	43330929.99	0.0290	0.0065
Mercury	113923-12-25 22:46 G	43330939.33	43330939.45	43330939.57	0.0290	0.0126
Moon	113928-09-25 22:17 G	43332675.33	43332675.43	43332675.54	0.0289	0.0260
Earth	113928-09-26 02:08 G	43332675.45	43332675.59	43332675.72	0.0289	0.0244 *
Moon	113929-10-10 08:22 G	43333054.61	43333054.85	43333055.10	0.0288	0.0008
Earth	113929-10-10 11:58 G	43333054.75	43333055.00	43333055.24	0.0288	0.0023 *
Moon	113930-10-24 16:32 G	43333434.13	43333434.19	43333434.28	0.0285	0.0270
Earth	113930-10-24 17:01 G	43333434.18	43333434.21	43333434.27	0.0285	0.0280 *
Mercury	113937-10-21 22:32 G	43335988.36	43335988.44	43335988.53	0.0270	0.0237
Mercury	113938-01-18 18:13 G	43336077.08	43336077.26	43336077.43	0.0270	0.0056
Mercury	113938-04-17 13:53 G	43336165.92	43336166.08	43336166.24	0.0270	0.0128
Venus	113938-06-05 05:01 G	43336214.49	43336214.71	43336214.92	0.0269	0.0005
Moon	113944-04-01 13:53 G	43338341.89	43338342.08	43338342.29	0.0270	0.0145
Earth	113944-04-01 17:15 G	43338342.02	43338342.22	43338342.42	0.0270	0.0151 *
Earth	113945-04-13 15:49 G	43338718.93	43338719.16	43338719.40	0.0272	0.0059
Moon	113945-04-13 17:29 G	43338719.01	43338719.23	43338719.46	0.0272	0.0074 *

Earth	113946-04-25 18:13 G	43339096.25	43339096.26	43339096.28	0.0274	0.0273
Mercury	113952-11-17 21:49 G	43341494.38	43341494.41	43341494.45	0.0289	0.0278
Mercury	113953-02-14 10:46 G	43341582.82	43341582.95	43341583.07	0.0290	0.0107
Mercury	113953-05-13 23:29 G	43341671.35	43341671.48	43341671.61	0.0290	0.0063
Venus	113953-06-27 07:53 G	43341715.62	43341715.83	43341716.04	0.0290	0.0028
Mercury	113953-08-10 11:58 G	43341759.92	43341760.00	43341760.08	0.0290	0.0230
Earth	113958-10-04 01:53 G	43343640.35	43343640.58	43343640.81	0.0289	0.0107
Moon	113958-10-04 01:53 G	43343640.35	43343640.58	43343640.83	0.0289	0.0112 *
Moon	113959-10-18 06:41 G	43344019.58	43344019.78	43344020.00	0.0287	0.0158
Earth	113959-10-18 09:49 G	43344019.70	43344019.91	43344020.12	0.0287	0.0157 *
Venus	113967-05-01 01:25 G	43346771.53	43346771.56	43346771.59	0.0270	0.0266
Mercury	113967-06-07 15:49 G	43346809.01	43346809.16	43346809.33	0.0270	0.0124
Mercury	113967-09-04 11:44 G	43346897.81	43346897.99	43346898.17	0.0270	0.0059
Mercury	113967-12-02 07:25 G	43346986.75	43346986.81	43346986.90	0.0269	0.0245
Venus	113967-12-16 05:15 G	43347000.51	43347000.72	43347000.93	0.0269	0.0031
Earth	113973-03-27 17:15 G	43348929.13	43348929.22	43348929.33	0.0270	0.0246
Moon	113973-03-27 18:41 G	43348929.15	43348929.28	43348929.41	0.0270	0.0232 *
Moon	113974-04-08 11:58 G	43349305.76	43349306.00	43349306.25	0.0272	0.0025
Earth	113974-04-08 15:20 G	43349305.90	43349306.14	43349306.38	0.0272	0.0040 *
Moon	113975-04-20 15:05 G	43349682.95	43349683.13	43349683.31	0.0274	0.0177
Earth	113975-04-20 15:49 G	43349682.99	43349683.16	43349683.36	0.0274	0.0175 *
Mercury	113982-07-04 12:56 G	43352314.92	43352315.04	43352315.15	0.0290	0.0153
Mercury	113982-10-01 01:39 G	43352403.44	43352403.57	43352403.71	0.0290	0.0018
Mercury	113982-12-28 14:08 G	43352492.00	43352492.09	43352492.20	0.0290	0.0187
Venus	113983-01-07 15:05 G	43352501.92	43352502.13	43352502.34	0.0290	0.0026
Earth	113987-09-28 05:15 G	43354226.56	43354226.72	43354226.88	0.0289	0.0220
Moon	113987-09-28 08:08 G	43354226.68	43354226.84	43354227.00	0.0289	0.0213 *
Earth	113988-10-11 15:05 G	43354605.89	43354606.13	43354606.38	0.0287	0.0047
Moon	113988-10-11 18:56 G	43354606.05	43354606.29	43354606.54	0.0287	0.0057 *
Mercury	113996-10-24 17:15 G	43357541.08	43357541.22	43357541.36	0.0270	0.0161

Venus	113996-11-10 08:37 G	43357557.74	43357557.86	43357557.99	0.0270	0.0216
Mercury	113997-01-21 12:56 G	43357629.86	43357630.04	43357630.22	0.0270	0.0022
Mercury	113997-04-20 08:37 G	43357718.75	43357718.86	43357718.98	0.0270	0.0206
Venus	113997-06-27 12:13 G	43357786.81	43357787.01	43357787.21	0.0269	0.0082

115TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 115th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	114003-04-03 19:39 G		43359893.12	43359893.32	43359893.54	0.0270	0.0130	
Moon	114003-04-03 23:15 G		43359893.26	43359893.47	43359893.70	0.0270	0.0116	*
Moon	114004-04-14 17:15 G		43360269.98	43360270.22	43360270.46	0.0272	0.0078	
Earth	114004-04-14 18:27 G		43360270.04	43360270.27	43360270.51	0.0272	0.0082	*
Mercury	114011-11-21 13:39 G		43363046.98	43363047.07	43363047.16	0.0289	0.0215	
Mercury	114012-02-18 02:37 G		43363135.47	43363135.61	43363135.74	0.0289	0.0045	
Mercury	114012-05-16 15:05 G		43363224.01	43363224.13	43363224.26	0.0290	0.0124	
Venus	114012-07-19 16:46 G		43363288.00	43363288.20	43363288.41	0.0290	0.0066	
Moon	114017-10-05 03:34 G		43365191.42	43365191.65	43365191.89	0.0289	0.0066	
Earth	114017-10-05 05:01 G		43365191.47	43365191.71	43365191.95	0.0289	0.0083	*
Earth	114018-10-19 12:13 G		43365570.83	43365571.01	43365571.22	0.0287	0.0181	
Moon	114018-10-19 14:22 G		43365570.93	43365571.10	43365571.28	0.0287	0.0197	*
Mercury	114026-03-13 14:37 G		43368273.03	43368273.11	43368273.20	0.0270	0.0232	
Venus	114026-05-23 07:39 G		43368343.68	43368343.82	43368343.99	0.0270	0.0188	
Mercury	114026-06-10 10:17 G		43368361.75	43368361.93	43368362.11	0.0270	0.0051	

Mercury	114026-09-07 05:58 G	43368450.60	43368450.75	43368450.91	0.0270	0.0133
Venus	114027-01-07 11:29 G	43368572.79	43368572.98	43368573.18	0.0269	0.0110
Moon	114032-03-28 16:32 G	43370480.06	43370480.19	43370480.33	0.0270	0.0219
Earth	114032-03-28 18:27 G	43370480.15	43370480.27	43370480.41	0.0270	0.0225 *
Earth	114033-04-09 16:17 G	43370856.94	43370857.18	43370857.42	0.0272	0.0017
Moon	114033-04-09 19:10 G	43370857.07	43370857.30	43370857.54	0.0272	0.0027 *
Earth	114034-04-21 17:01 G	43371234.05	43371234.21	43371234.39	0.0274	0.0196
Moon	114034-04-21 18:56 G	43371234.12	43371234.29	43371234.49	0.0274	0.0180 *
Mercury	114041-04-09 15:20 G	43373779.09	43373779.14	43373779.20	0.0289	0.0267
Venus	114041-06-14 01:39 G	43373844.49	43373844.57	43373844.68	0.0290	0.0258
Mercury	114041-07-07 04:17 G	43373867.55	43373867.68	43373867.81	0.0290	0.0096
Mercury	114041-10-03 17:01 G	43373956.08	43373956.21	43373956.34	0.0290	0.0074
Mercury	114041-12-31 05:29 G	43374044.66	43374044.73	43374044.81	0.0290	0.0242
Venus	114042-01-29 22:17 G	43374074.24	43374074.43	43374074.63	0.0290	0.0114
Moon	114046-09-29 03:20 G	43375777.46	43375777.64	43375777.85	0.0289	0.0183
Earth	114046-09-29 05:58 G	43375777.57	43375777.75	43375777.93	0.0289	0.0198 *
Moon	114047-10-13 11:58 G	43376156.76	43376157.00	43376157.24	0.0287	0.0080
Earth	114047-10-13 15:49 G	43376156.92	43376157.16	43376157.40	0.0287	0.0069 *
Mercury	114055-07-31 15:49 G	43379005.16	43379005.16	43379005.17	0.0271	0.0270
Mercury	114055-10-28 11:15 G	43379093.81	43379093.97	43379094.14	0.0270	0.0089
Venus	114055-12-03 14:51 G	43379129.94	43379130.12	43379130.31	0.0270	0.0137
Mercury	114056-01-25 06:56 G	43379182.63	43379182.79	43379182.97	0.0270	0.0095
Venus	114056-07-19 18:13 G	43379359.09	43379359.26	43379359.43	0.0269	0.0160
Moon	114062-04-04 17:58 G	43381444.04	43381444.25	43381444.47	0.0270	0.0121
Earth	114062-04-04 21:34 G	43381444.18	43381444.40	43381444.62	0.0270	0.0108 *
Earth	114063-04-16 20:08 G	43381821.12	43381821.34	43381821.57	0.0272	0.0104
Moon	114063-04-16 20:37 G	43381821.15	43381821.36	43381821.59	0.0272	0.0092 *
Mercury	114070-11-24 05:15 G	43384599.61	43384599.72	43384599.83	0.0289	0.0155
Venus	114070-12-25 04:17 G	43384630.55	43384630.68	43384630.82	0.0289	0.0216
Mercury	114071-02-20 17:58 G	43384688.12	43384688.25	43384688.39	0.0289	0.0014

Mercury	114071-05-20 06:27 G	43384776.67	43384776.77	43384776.88	0.0290	0.0182
Venus	114071-08-12 00:27 G	43384860.34	43384860.52	43384860.70	0.0290	0.0155
Earth	114076-10-06 05:44 G	43386742.50	43386742.74	43386742.98	0.0289	0.0060
Moon	114076-10-06 07:53 G	43386742.58	43386742.83	43386743.09	0.0289	0.0061 *
Moon	114077-10-20 11:15 G	43387121.79	43387121.97	43387122.17	0.0287	0.0194
Earth	114077-10-20 12:56 G	43387121.88	43387122.04	43387122.23	0.0287	0.0203 *
Mercury	114085-03-16 08:22 G	43389825.72	43389825.85	43389826.00	0.0270	0.0164
Mercury	114085-06-13 04:03 G	43389914.50	43389914.67	43389914.85	0.0270	0.0020
Venus	114085-06-14 13:25 G	43389915.88	43389916.06	43389916.26	0.0270	0.0111
Mercury	114085-09-09 23:58 G	43390003.39	43390003.50	43390003.62	0.0270	0.0204
Venus	114086-01-29 16:46 G	43390145.06	43390145.20	43390145.36	0.0269	0.0186
Earth	114091-03-30 18:41 G	43392031.12	43392031.28	43392031.44	0.0270	0.0204
Moon	114091-03-30 20:51 G	43392031.24	43392031.37	43392031.53	0.0270	0.0219 *
Moon	114092-04-10 13:25 G	43392407.81	43392408.06	43392408.31	0.0272	0.0003
Earth	114092-04-10 16:17 G	43392407.94	43392408.18	43392408.43	0.0272	0.0006 *
Moon	114093-04-22 14:37 G	43392784.98	43392785.11	43392785.25	0.0273	0.0223
Earth	114093-04-22 17:15 G	43392785.08	43392785.22	43392785.37	0.0273	0.0217 *
Mercury	114100-04-13 06:41 G	43395331.69	43395331.78	43395331.87	0.0289	0.0210
Venus	114100-07-07 08:22 G	43395416.69	43395416.85	43395417.03	0.0290	0.0172
Mercury	114100-07-10 19:39 G	43395420.18	43395420.32	43395420.45	0.0290	0.0041
Mercury	114100-10-07 08:08 G	43395508.72	43395508.84	43395508.96	0.0290	0.0129
Venus	114101-02-22 05:01 G	43395646.57	43395646.71	43395646.87	0.0290	0.0202
Earth	114105-10-01 05:29 G	43397328.54	43397328.73	43397328.93	0.0289	0.0176
Moon	114105-10-01 06:56 G	43397328.62	43397328.79	43397328.98	0.0289	0.0190 *
Earth	114106-10-15 15:05 G	43397707.90	43397708.13	43397708.37	0.0287	0.0090
Moon	114106-10-15 18:41 G	43397708.05	43397708.28	43397708.52	0.0287	0.0075 *
Mercury	114114-08-04 09:20 G	43400557.78	43400557.89	43400558.01	0.0271	0.0203
Mercury	114114-11-01 05:01 G	43400646.53	43400646.71	43400646.89	0.0270	0.0021
Venus	114114-12-26 20:08 G	43400702.13	43400702.34	43400702.55	0.0270	0.0061
Mercury	114115-01-29 00:41 G	43400735.39	43400735.53	43400735.68	0.0270	0.0164

Venus	114115-08-12 23:15 G	43400931.38	43400931.47	43400931.58	0.0270	0.0236
Earth	114121-04-06 22:17 G	43402995.20	43402995.43	43402995.66	0.0271	0.0088
Moon	114121-04-07 01:39 G	43402995.35	43402995.57	43402995.80	0.0271	0.0089 *
Moon	114122-04-18 20:51 G	43403372.16	43403372.37	43403372.59	0.0272	0.0137
Earth	114122-04-18 20:51 G	43403372.17	43403372.37	43403372.60	0.0272	0.0126 *
Mercury	114129-08-31 07:53 G	43406063.78	43406063.83	43406063.88	0.0288	0.0266
Mercury	114129-11-27 20:51 G	43406152.24	43406152.37	43406152.50	0.0289	0.0096
Venus	114130-01-17 11:44 G	43406202.81	43406202.99	43406203.19	0.0289	0.0127
Mercury	114130-02-24 09:20 G	43406240.76	43406240.89	43406241.03	0.0289	0.0073
Mercury	114130-05-23 21:49 G	43406329.34	43406329.41	43406329.49	0.0289	0.0240
Venus	114130-09-04 08:08 G	43406432.73	43406432.84	43406432.95	0.0290	0.0244
Moon	114135-10-09 03:20 G	43408293.41	43408293.64	43408293.88	0.0289	0.0054
Earth	114135-10-09 05:29 G	43408293.49	43408293.73	43408293.98	0.0289	0.0039 *
Earth	114136-10-22 12:41 G	43408672.88	43408673.03	43408673.19	0.0287	0.0223
Moon	114136-10-22 14:22 G	43408672.95	43408673.10	43408673.26	0.0287	0.0217 *
Mercury	114144-03-20 01:53 G	43411378.42	43411378.58	43411378.75	0.0270	0.0097
Mercury	114144-06-16 21:49 G	43411467.24	43411467.41	43411467.58	0.0270	0.0087
Venus	114144-07-07 18:41 G	43411488.07	43411488.28	43411488.49	0.0270	0.0035
Venus	114145-02-21 22:03 G	43411717.37	43411717.42	43411717.47	0.0269	0.0261
Moon	114150-04-01 16:46 G	43413582.02	43413582.20	43413582.37	0.0270	0.0179
Earth	114150-04-01 18:41 G	43413582.12	43413582.28	43413582.47	0.0270	0.0185 *
Earth	114151-04-13 16:46 G	43413958.96	43413959.20	43413959.44	0.0272	0.0024
Moon	114151-04-13 19:39 G	43413959.08	43413959.32	43413959.55	0.0272	0.0040 *
Earth	114152-04-24 17:15 G	43414336.12	43414336.22	43414336.35	0.0273	0.0238
Moon	114152-04-24 20:22 G	43414336.26	43414336.35	43414336.45	0.0273	0.0250 *
Mercury	114159-04-16 22:03 G	43416884.30	43416884.42	43416884.53	0.0289	0.0154
Mercury	114159-07-14 10:46 G	43416972.81	43416972.95	43416973.09	0.0289	0.0016
Venus	114159-07-30 15:20 G	43416988.94	43416989.14	43416989.34	0.0289	0.0085
Mercury	114159-10-10 23:15 G	43417061.37	43417061.47	43417061.58	0.0290	0.0184
Venus	114160-03-16 11:44 G	43417218.98	43417218.99	43417219.02	0.0290	0.0288

Moon	114164-10-02 02:37 G	43418879.40	43418879.61	43418879.83	0.0289	0.0159
Earth	114164-10-02 04:17 G	43418879.47	43418879.68	43418879.89	0.0289	0.0156 *
Moon	114165-10-16 10:03 G	43419258.70	43419258.92	43419259.16	0.0287	0.0115
Earth	114165-10-16 13:39 G	43419258.85	43419259.07	43419259.31	0.0287	0.0110 *
Mercury	114173-08-07 02:37 G	43422110.47	43422110.61	43422110.77	0.0271	0.0138
Mercury	114173-11-03 22:32 G	43422199.26	43422199.44	43422199.62	0.0271	0.0046
Venus	114174-01-18 00:56 G	43422274.33	43422274.54	43422274.75	0.0270	0.0015
Mercury	114174-01-31 18:27 G	43422288.18	43422288.27	43422288.36	0.0270	0.0232
Moon	114179-03-28 01:53 G	43424169.54	43424169.58	43424169.65	0.0270	0.0263
Moon	114180-04-07 19:25 G	43424546.07	43424546.31	43424546.54	0.0271	0.0054
Earth	114180-04-07 22:46 G	43424546.22	43424546.45	43424546.69	0.0271	0.0068 *
Earth	114181-04-19 21:49 G	43424923.22	43424923.41	43424923.62	0.0272	0.0145
Moon	114181-04-19 21:34 G	43424923.22	43424923.40	43424923.61	0.0272	0.0151 *
Mercury	114188-09-02 23:44 G	43427616.39	43427616.49	43427616.58	0.0288	0.0205
Mercury	114188-11-30 12:27 G	43427704.88	43427705.02	43427705.15	0.0289	0.0036
Venus	114189-02-08 19:53 G	43427775.12	43427775.33	43427775.54	0.0289	0.0037
Mercury	114189-02-27 00:56 G	43427793.42	43427793.54	43427793.66	0.0289	0.0132
Earth	114193-09-25 19:10 G	43429465.27	43429465.30	43429465.36	0.0290	0.0285
Moon	114193-09-25 23:01 G	43429465.40	43429465.46	43429465.55	0.0290	0.0276
Earth	114194-10-10 06:13 G	43429844.51	43429844.76	43429845.01	0.0288	0.0018
Moon	114194-10-10 08:08 G	43429844.58	43429844.84	43429845.10	0.0288	0.0005 *
Moon	114195-10-24 11:01 G	43430223.86	43430223.96	43430224.07	0.0286	0.0259
Earth	114195-10-24 12:56 G	43430223.92	43430224.04	43430224.18	0.0286	0.0243 *
Venus	114202-12-14 18:41 G	43432831.24	43432831.28	43432831.35	0.0271	0.0261
Mercury	114202-12-25 23:44 G	43432842.39	43432842.49	43432842.61	0.0271	0.0213
Mercury	114203-03-24 19:39 G	43432931.14	43432931.32	43432931.49	0.0270	0.0031
Mercury	114203-06-21 15:20 G	43433020.00	43433020.14	43433020.29	0.0270	0.0155
Venus	114203-07-31 23:29 G	43433060.28	43433060.48	43433060.70	0.0270	0.0041
Earth	114209-04-03 19:10 G	43435133.11	43435133.30	43435133.49	0.0270	0.0165
Moon	114209-04-03 21:05 G	43435133.18	43435133.38	43435133.59	0.0270	0.0157 *

Moon	114210-04-15 14:22 G	43435509.85	43435510.10	43435510.34	0.0272	0.0038
Earth	114210-04-15 17:15 G	43435509.98	43435510.22	43435510.46	0.0272	0.0045 *
Moon	114211-04-27 15:20 G	43435887.05	43435887.14	43435887.26	0.0274	0.0245
Earth	114211-04-27 18:27 G	43435887.19	43435887.27	43435887.34	0.0274	0.0258 *
Mars	114212-08-14 10:32 G	43436361.82	43436361.94	43436362.08	0.0276	0.0239
Mercury	114218-01-22 00:41 G	43438348.48	43438348.53	43438348.58	0.0289	0.0264
Mercury	114218-04-20 13:25 G	43438436.94	43438437.06	43438437.19	0.0289	0.0094
Mercury	114218-07-18 02:08 G	43438525.46	43438525.59	43438525.72	0.0289	0.0075
Venus	114218-08-22 23:01 G	43438561.25	43438561.46	43438561.67	0.0289	0.0006
Mercury	114218-10-14 14:37 G	43438614.04	43438614.11	43438614.19	0.0290	0.0242
Earth	114223-10-05 04:03 G	43440430.46	43440430.67	43440430.89	0.0289	0.0136
Moon	114223-10-05 05:44 G	43440430.53	43440430.74	43440430.97	0.0289	0.0122 *
Earth	114224-10-18 13:10 G	43440809.84	43440810.05	43440810.28	0.0287	0.0130
Moon	114224-10-18 17:01 G	43440810.00	43440810.21	43440810.43	0.0287	0.0142 *
Mars	114226-09-02 03:20 G	43441493.47	43441493.64	43441493.84	0.0283	0.0232
Mercury	114232-05-14 00:27 G	43443574.47	43443574.52	43443574.59	0.0271	0.0255
Venus	114232-06-26 00:56 G	43443617.42	43443617.54	43443617.68	0.0271	0.0213
Mercury	114232-08-10 20:08 G	43443663.17	43443663.34	43443663.52	0.0271	0.0072
Mercury	114232-11-07 15:49 G	43443752.01	43443752.16	43443752.33	0.0271	0.0114
Venus	114233-02-10 05:44 G	43443846.54	43443846.74	43443846.94	0.0271	0.0090
Earth	114238-03-30 03:20 G	43445720.57	43445720.64	43445720.72	0.0270	0.0255
Moon	114238-03-30 03:34 G	43445720.59	43445720.65	43445720.73	0.0270	0.0255 *
Earth	114239-04-11 00:13 G	43446097.27	43446097.51	43446097.75	0.0271	0.0048
Moon	114239-04-11 04:03 G	43446097.43	43446097.67	43446097.91	0.0271	0.0060 *
Earth	114240-04-21 23:29 G	43446474.30	43446474.48	43446474.69	0.0273	0.0167
Moon	114240-04-21 23:58 G	43446474.30	43446474.50	43446474.72	0.0273	0.0151 *
Mercury	114247-09-07 15:34 G	43449169.03	43449169.15	43449169.27	0.0288	0.0140
Mercury	114247-12-05 04:17 G	43449257.54	43449257.68	43449257.81	0.0288	0.0028
Mercury	114248-03-02 16:46 G	43449346.10	43449346.20	43449346.30	0.0289	0.0194
Venus	114248-03-04 04:46 G	43449347.49	43449347.70	43449347.91	0.0289	0.0057

Moon	114252-09-27 18:13 G	43451016.15	43451016.26	43451016.37	0.0290	0.0257
Earth	114252-09-27 21:34 G	43451016.31	43451016.40	43451016.51	0.0290	0.0263 *
Moon	114253-10-12 06:27 G	43451395.53	43451395.77	43451396.01	0.0288	0.0003
Earth	114253-10-12 07:53 G	43451395.58	43451395.83	43451396.08	0.0288	0.0004 *
Earth	114254-10-26 14:08 G	43451775.01	43451775.09	43451775.19	0.0286	0.0264
Moon	114254-10-26 16:03 G	43451775.08	43451775.17	43451775.29	0.0286	0.0257 *
Mercury	114261-12-28 17:29 G	43454395.08	43454395.23	43454395.38	0.0271	0.0145
Venus	114262-01-06 00:13 G	43454403.37	43454403.51	43454403.68	0.0271	0.0184
Mercury	114262-03-27 13:10 G	43454483.88	43454484.05	43454484.23	0.0271	0.0040
Mercury	114262-06-24 09:05 G	43454572.79	43454572.88	43454572.98	0.0270	0.0225
Venus	114262-08-23 05:01 G	43454632.52	43454632.71	43454632.90	0.0270	0.0117
Moon	114268-04-04 18:41 G	43456684.10	43456684.28	43456684.47	0.0270	0.0162
Earth	114268-04-04 20:22 G	43456684.15	43456684.35	43456684.55	0.0270	0.0146 *
Earth	114269-04-16 18:41 G	43457061.05	43457061.28	43457061.52	0.0272	0.0065
Moon	114269-04-16 21:34 G	43457061.17	43457061.40	43457061.63	0.0272	0.0055 *
Mercury	114277-01-24 16:32 G	43459901.09	43459901.19	43459901.29	0.0289	0.0200
Venus	114277-01-27 12:13 G	43459903.95	43459904.01	43459904.09	0.0289	0.0270
Mercury	114277-04-23 05:15 G	43459989.59	43459989.72	43459989.86	0.0289	0.0032
Mercury	114277-07-20 17:58 G	43460078.13	43460078.25	43460078.37	0.0289	0.0136
Venus	114277-09-14 07:39 G	43460133.62	43460133.82	43460134.02	0.0289	0.0098
Moon	114282-10-06 03:20 G	43461981.41	43461981.64	43461981.87	0.0289	0.0129
Earth	114282-10-06 05:44 G	43461981.52	43461981.74	43461981.98	0.0289	0.0115 *
Moon	114283-10-20 11:01 G	43462360.75	43462360.96	43462361.19	0.0287	0.0134
Earth	114283-10-20 15:05 G	43462360.92	43462361.13	43462361.34	0.0287	0.0151 *
Mercury	114291-05-17 18:13 G	43465127.14	43465127.26	43465127.39	0.0272	0.0187
Venus	114291-07-19 06:41 G	43465189.60	43465189.78	43465189.97	0.0271	0.0135
Mercury	114291-08-14 13:53 G	43465215.90	43465216.08	43465216.26	0.0271	0.0004
Mercury	114291-11-11 09:49 G	43465304.78	43465304.91	43465305.04	0.0271	0.0184
Venus	114292-03-04 11:15 G	43465418.81	43465418.97	43465419.14	0.0271	0.0167
Moon	114297-03-31 03:20 G	43467271.55	43467271.64	43467271.75	0.0270	0.0247

Earth	114297-03-31 05:01 G	43467271.60	43467271.71	43467271.83	0.0270	0.0236	*
Moon	114298-04-11 23:01 G	43467648.22	43467648.46	43467648.70	0.0271	0.0028	
Earth	114298-04-12 02:37 G	43467648.37	43467648.61	43467648.85	0.0271	0.0028	*
Earth	114299-04-24 02:22 G	43468025.43	43468025.60	43468025.78	0.0273	0.0187	
Moon	114299-04-24 03:05 G	43468025.48	43468025.63	43468025.80	0.0273	0.0199	*
Mars	114301-01-09 11:29 G	43468650.76	43468650.98	43468651.22	0.0276	0.0139	
Mercury	114306-06-14 18:56 G	43470633.22	43470633.29	43470633.37	0.0288	0.0240	
Venus	114306-08-10 20:08 G	43470690.20	43470690.34	43470690.48	0.0288	0.0212	
Mercury	114306-09-11 07:53 G	43470721.70	43470721.83	43470721.96	0.0288	0.0071	
Mercury	114306-12-08 20:22 G	43470810.23	43470810.35	43470810.48	0.0288	0.0096	
Mercury	114307-03-07 08:51 G	43470898.82	43470898.87	43470898.93	0.0289	0.0261	
Venus	114307-03-28 15:05 G	43470919.96	43470920.13	43470920.31	0.0289	0.0154	
Earth	114311-10-01 02:22 G	43472567.47	43472567.60	43472567.75	0.0289	0.0239	
Moon	114311-10-01 05:44 G	43472567.63	43472567.74	43472567.87	0.0289	0.0254	*
Earth	114312-10-14 12:13 G	43472946.76	43472947.01	43472947.26	0.0288	0.0028	
Moon	114312-10-14 12:56 G	43472946.79	43472947.04	43472947.30	0.0288	0.0016	*
Moon	114313-10-28 15:20 G	43473326.10	43473326.14	43473326.20	0.0286	0.0279	
Mars	114315-01-26 22:17 G	43473781.20	43473781.43	43473781.68	0.0283	0.0188	
Mercury	114320-10-04 16:03 G	43475859.12	43475859.17	43475859.23	0.0271	0.0255	
Mercury	114321-01-01 11:29 G	43475947.81	43475947.98	43475948.16	0.0271	0.0073	
Venus	114321-01-29 06:41 G	43475975.59	43475975.78	43475975.98	0.0271	0.0105	
Mercury	114321-03-31 07:25 G	43476036.65	43476036.81	43476036.98	0.0271	0.0112	
Venus	114321-09-15 11:01 G	43476204.82	43476204.96	43476205.11	0.0270	0.0196	
Earth	114327-04-07 23:15 G	43478235.26	43478235.47	43478235.68	0.0271	0.0125	
Moon	114327-04-08 00:13 G	43478235.29	43478235.51	43478235.74	0.0271	0.0115	*
Moon	114328-04-18 18:56 G	43478612.06	43478612.29	43478612.51	0.0272	0.0102	
Earth	114328-04-18 22:03 G	43478612.20	43478612.42	43478612.66	0.0272	0.0087	*
Mercury	114336-01-29 08:51 G	43481453.75	43481453.87	43481454.00	0.0288	0.0130	
Venus	114336-02-20 22:46 G	43481476.28	43481476.45	43481476.62	0.0289	0.0173	
Mercury	114336-04-26 21:34 G	43481542.27	43481542.40	43481542.54	0.0289	0.0039	

Mercury	114336-07-24 10:17 G	43481630.83	43481630.93	43481631.02	0.0289	0.0205
Venus	114336-10-07 17:58 G	43481706.10	43481706.25	43481706.41	0.0289	0.0196
Earth	114341-10-08 10:03 G	43483532.69	43483532.92	43483533.16	0.0289	0.0092
Moon	114341-10-08 13:24 G	43483532.83	43483533.06	43483533.30	0.0289	0.0087 *
Earth	114342-10-22 18:41 G	43483912.09	43483912.28	43483912.48	0.0287	0.0174
Moon	114342-10-22 22:17 G	43483912.25	43483912.43	43483912.63	0.0287	0.0182 *
Mercury	114350-05-21 12:27 G	43486679.86	43486680.02	43486680.18	0.0272	0.0115
Venus	114350-08-11 13:10 G	43486761.84	43486762.05	43486762.26	0.0271	0.0055
Mercury	114350-08-18 08:08 G	43486768.67	43486768.84	43486769.02	0.0271	0.0071
Mercury	114350-11-15 04:03 G	43486857.62	43486857.67	43486857.73	0.0271	0.0258
Venus	114351-03-28 17:29 G	43486991.15	43486991.23	43486991.32	0.0271	0.0246
Earth	114356-04-02 08:08 G	43488822.71	43488822.84	43488822.99	0.0270	0.0217
Moon	114356-04-02 10:17 G	43488822.79	43488822.93	43488823.10	0.0270	0.0202 *
Earth	114357-04-14 06:27 G	43489199.53	43489199.77	43489200.01	0.0272	0.0006
Moon	114357-04-14 09:34 G	43489199.66	43489199.90	43489200.15	0.0272	0.0008 *
Moon	114358-04-26 04:32 G	43489576.54	43489576.69	43489576.87	0.0273	0.0205
Earth	114358-04-26 06:41 G	43489576.64	43489576.78	43489576.95	0.0273	0.0209 *
Mercury	114365-06-17 11:44 G	43492185.88	43492185.99	43492186.11	0.0288	0.0165
Venus	114365-09-02 07:39 G	43492262.63	43492262.82	43492263.02	0.0288	0.0112
Mercury	114365-09-14 00:27 G	43492274.39	43492274.52	43492274.66	0.0288	0.0008
Mercury	114365-12-11 12:56 G	43492362.94	43492363.04	43492363.16	0.0288	0.0169
Venus	114366-04-20 03:05 G	43492492.54	43492492.63	43492492.73	0.0289	0.0257
Moon	114370-10-02 07:24 G	43494118.64	43494118.81	43494118.99	0.0289	0.0198
Earth	114370-10-02 10:17 G	43494118.77	43494118.93	43494119.10	0.0289	0.0213 *
Earth	114371-10-16 19:39 G	43494498.08	43494498.32	43494498.56	0.0288	0.0053
Moon	114371-10-16 19:39 G	43494498.09	43494498.32	43494498.55	0.0288	0.0070 *
Mercury	114379-10-08 10:46 G	43497411.82	43497411.95	43497412.08	0.0271	0.0178
Mercury	114380-01-05 06:27 G	43497500.59	43497500.77	43497500.95	0.0271	0.0006
Venus	114380-02-21 14:22 G	43497547.89	43497548.10	43497548.32	0.0271	0.0022
Mercury	114380-04-03 02:08 G	43497589.47	43497589.59	43497589.72	0.0271	0.0192

Earth	114386-04-09 03:34 G	43499786.43	43499786.65	43499786.88	0.0271	0.0103
Moon	114386-04-09 03:34 G	43499786.43	43499786.65	43499786.87	0.0271	0.0101 *
Earth	114387-04-21 02:51 G	43500163.40	43500163.62	43500163.85	0.0272	0.0110
Moon	114387-04-21 06:27 G	43500163.55	43500163.77	43500164.00	0.0272	0.0098 *
Mars	114389-06-04 22:46 G	43500939.19	43500939.45	43500939.71	0.0276	0.0078
Mercury	114394-11-04 12:56 G	43502917.96	43502918.04	43502918.13	0.0288	0.0223
Mercury	114395-02-01 01:39 G	43503006.44	43503006.57	43503006.71	0.0288	0.0056
Venus	114395-03-15 11:00 G	43503048.75	43503048.96	43503049.16	0.0289	0.0070
Mercury	114395-04-30 14:22 G	43503094.98	43503095.10	43503095.23	0.0289	0.0112
Mercury	114395-07-28 02:51 G	43503183.59	43503183.62	43503183.66	0.0289	0.0278
Moon	114400-10-09 14:08 G	43505083.84	43505084.09	43505084.34	0.0288	0.0055
Earth	114400-10-09 17:44 G	43505084.00	43505084.24	43505084.49	0.0288	0.0066 *
Moon	114401-10-23 22:32 G	43505463.28	43505463.44	43505463.62	0.0287	0.0205
Earth	114401-10-24 01:39 G	43505463.40	43505463.57	43505463.76	0.0287	0.0199 *
Mars	114403-06-22 14:08 G	43506069.79	43506070.09	43506070.41	0.0283	0.0086
Mercury	114409-02-24 11:15 G	43508143.88	43508143.97	43508144.08	0.0272	0.0222
Mercury	114409-05-24 06:56 G	43508232.62	43508232.79	43508232.97	0.0272	0.0038
Mercury	114409-08-21 02:51 G	43508321.47	43508321.62	43508321.77	0.0271	0.0149
Venus	114409-09-02 20:36 G	43508334.15	43508334.36	43508334.57	0.0271	0.0027
Moon	114415-04-04 10:03 G	43510373.77	43510373.92	43510374.09	0.0271	0.0203
Earth	114415-04-04 12:56 G	43510373.88	43510374.04	43510374.22	0.0271	0.0195 *
Moon	114416-04-15 09:48 G	43510750.67	43510750.91	43510751.14	0.0272	0.0003
Earth	114416-04-15 11:58 G	43510750.75	43510751.00	43510751.24	0.0272	0.0017 *
Earth	114417-04-27 13:10 G	43511127.92	43511128.05	43511128.18	0.0274	0.0232
Moon	114417-04-27 16:03 G	43511128.04	43511128.17	43511128.31	0.0274	0.0224 *
Mercury	114424-03-23 16:17 G	43513650.12	43513650.18	43513650.25	0.0287	0.0253
Mercury	114424-06-20 05:15 G	43513738.59	43513738.72	43513738.85	0.0288	0.0085
Mercury	114424-09-16 17:44 G	43513827.11	43513827.24	43513827.37	0.0288	0.0082
Venus	114424-09-24 21:34 G	43513835.19	43513835.40	43513835.61	0.0288	0.0005
Mercury	114424-12-14 06:12 G	43513915.70	43513915.76	43513915.83	0.0288	0.0247

Earth	114429-10-03 21:05 G	43515670.20	43515670.38	43515670.58	0.0289	0.0185
Moon	114429-10-03 23:58 G	43515670.31	43515670.50	43515670.69	0.0289	0.0188 *
Moon	114430-10-18 05:00 G	43516049.47	43516049.71	43516049.97	0.0287	0.0072
Earth	114430-10-18 05:58 G	43516049.52	43516049.75	43516049.99	0.0287	0.0082 *
Venus	114438-07-29 17:44 G	43518891.15	43518891.24	43518891.35	0.0272	0.0241
Mercury	114438-10-11 05:58 G	43518964.59	43518964.75	43518964.92	0.0271	0.0096
Mercury	114439-01-08 01:39 G	43519053.41	43519053.57	43519053.75	0.0271	0.0089
Venus	114439-03-15 23:15 G	43519120.26	43519120.47	43519120.68	0.0271	0.0064
Moon	114445-04-10 08:36 G	43521337.62	43521337.86	43521338.10	0.0271	0.0089
Earth	114445-04-10 10:03 G	43521337.69	43521337.92	43521338.15	0.0271	0.0079 *
Moon	114446-04-22 06:27 G	43521714.57	43521714.77	43521714.98	0.0272	0.0138
Earth	114446-04-22 09:48 G	43521714.70	43521714.91	43521715.12	0.0272	0.0134 *
Mercury	114453-11-07 06:12 G	43524470.65	43524470.76	43524470.88	0.0288	0.0143
Mercury	114454-02-03 18:56 G	43524559.16	43524559.29	43524559.43	0.0288	0.0026
Venus	114454-04-07 00:41 G	43524621.32	43524621.53	43524621.74	0.0289	0.0037
Mercury	114454-05-03 07:39 G	43524647.72	43524647.82	43524647.92	0.0289	0.0191
Earth	114459-10-12 04:17 G	43526635.43	43526635.68	43526635.93	0.0288	0.0037
Moon	114459-10-12 07:53 G	43526635.59	43526635.83	43526636.08	0.0288	0.0055 *
Earth	114460-10-25 11:29 G	43527014.84	43527014.98	43527015.14	0.0286	0.0225
Moon	114460-10-25 13:10 G	43527014.89	43527015.05	43527015.23	0.0286	0.0212 *
Venus	114468-02-09 00:12 G	43529677.36	43529677.51	43529677.66	0.0272	0.0192
Mercury	114468-02-28 06:41 G	43529696.63	43529696.78	43529696.93	0.0272	0.0139
Mercury	114468-05-27 02:22 G	43529785.43	43529785.60	43529785.78	0.0272	0.0047
Mercury	114468-08-23 22:32 G	43529874.35	43529874.44	43529874.53	0.0271	0.0234
Venus	114468-09-25 05:29 G	43529906.54	43529906.73	43529906.92	0.0271	0.0113
Earth	114474-04-05 19:10 G	43531925.12	43531925.30	43531925.49	0.0271	0.0172
Moon	114474-04-05 22:46 G	43531925.27	43531925.45	43531925.63	0.0271	0.0175 *
Earth	114475-04-17 18:27 G	43532302.04	43532302.27	43532302.51	0.0272	0.0041
Moon	114475-04-17 19:10 G	43532302.05	43532302.30	43532302.54	0.0272	0.0053 *
Moon	114476-04-28 16:46 G	43532679.19	43532679.20	43532679.24	0.0274	0.0272

Earth	114476-04-28 20:22 G	43532679.28	43532679.35	43532679.45	0.0274	0.0256
Mars	114477-10-30 13:39 G	43533228.81	43533229.07	43533229.34	0.0277	0.0053
Jupiter	114482-12-15 15:05 G	43535100.73	43535101.13	43535101.56	0.0287	0.0106
Venus	114483-03-02 17:58 G	43535178.17	43535178.25	43535178.34	0.0287	0.0259
Mercury	114483-03-27 09:48 G	43535202.81	43535202.91	43535203.03	0.0287	0.0169
Mercury	114483-06-23 22:46 G	43535291.31	43535291.45	43535291.58	0.0288	0.0008
Mercury	114483-09-20 11:15 G	43535379.86	43535379.97	43535380.08	0.0288	0.0165
Venus	114483-10-18 12:27 G	43535407.82	43535408.02	43535408.22	0.0288	0.0105
Moon	114488-10-05 09:48 G	43537221.71	43537221.91	43537222.11	0.0289	0.0162
Earth	114488-10-05 11:00 G	43537221.76	43537221.96	43537222.18	0.0289	0.0153 *
Earth	114489-10-19 19:10 G	43537601.08	43537601.30	43537601.53	0.0287	0.0112
Moon	114489-10-19 21:34 G	43537601.18	43537601.40	43537601.63	0.0287	0.0113 *
Mars	114491-11-17 00:27 G	43538359.20	43538359.52	43538359.84	0.0283	0.0051
Mercury	114497-07-17 06:27 G	43540428.65	43540428.77	43540428.90	0.0272	0.0191
Venus	114497-08-21 04:17 G	43540463.51	43540463.68	43540463.86	0.0271	0.0150
Mercury	114497-10-14 02:08 G	43540517.41	43540517.59	43540517.77	0.0271	0.0009
Mercury	114498-01-10 21:48 G	43540606.28	43540606.41	43540606.55	0.0271	0.0179
Venus	114498-04-07 09:05 G	43540692.71	43540692.88	43540693.06	0.0271	0.0154
Moon	114503-04-01 17:00 G	43542512.15	43542512.21	43542512.30	0.0270	0.0255
Earth	114503-04-01 19:39 G	43542512.27	43542512.32	43542512.38	0.0270	0.0262 *
Earth	114504-04-12 17:29 G	43542889.00	43542889.23	43542889.47	0.0271	0.0055
Moon	114504-04-12 20:22 G	43542889.12	43542889.35	43542889.59	0.0271	0.0041 *
Earth	114505-04-24 17:58 G	43543266.05	43543266.25	43543266.44	0.0273	0.0159
Moon	114505-04-24 20:36 G	43543266.17	43543266.36	43543266.56	0.0273	0.0168 *
Mercury	114512-08-14 11:00 G	43545934.88	43545934.96	43545935.05	0.0288	0.0226
Venus	114512-09-12 21:05 G	43545964.25	43545964.38	43545964.52	0.0288	0.0219
Mercury	114512-11-10 23:58 G	43546023.37	43546023.50	43546023.63	0.0288	0.0057
Mercury	114513-02-07 12:41 G	43546111.90	43546112.03	43546112.15	0.0289	0.0110
Venus	114513-04-30 16:03 G	43546193.99	43546194.17	43546194.35	0.0289	0.0148
Mercury	114513-05-07 00:56 G	43546200.51	43546200.54	43546200.58	0.0289	0.0275

Moon	114517-09-30 04:17 G	43547807.59	43547807.68	43547807.79	0.0289	0.0265
Earth	114517-09-30 07:24 G	43547807.74	43547807.81	43547807.90	0.0289	0.0274 *
Moon	114518-10-14 14:22 G	43548186.86	43548187.10	43548187.35	0.0288	0.0008
Earth	114518-10-14 17:44 G	43548186.99	43548187.24	43548187.49	0.0288	0.0008 *
Earth	114519-10-29 00:12 G	43548566.40	43548566.51	43548566.63	0.0286	0.0254
Moon	114519-10-29 00:12 G	43548566.44	43548566.51	43548566.59	0.0286	0.0270 *
Mercury	114526-12-05 06:56 G	43551160.71	43551160.79	43551160.88	0.0272	0.0235
Mercury	114527-03-04 02:36 G	43551249.43	43551249.61	43551249.78	0.0272	0.0052
Venus	114527-03-04 10:03 G	43551249.73	43551249.92	43551250.13	0.0272	0.0104 *
Mercury	114527-05-31 22:17 G	43551338.28	43551338.43	43551338.59	0.0271	0.0135
Venus	114527-10-19 15:20 G	43551479.00	43551479.14	43551479.28	0.0271	0.0201
Moon	114533-04-07 23:15 G	43553476.28	43553476.47	43553476.69	0.0271	0.0139
Earth	114533-04-08 02:36 G	43553476.42	43553476.61	43553476.82	0.0271	0.0148 *
Earth	114534-04-20 02:22 G	43553853.37	43553853.60	43553853.84	0.0273	0.0066
Moon	114534-04-20 03:05 G	43553853.41	43553853.63	43553853.86	0.0273	0.0063 *
Moon	114535-05-02 08:22 G	43554230.81	43554230.85	43554230.91	0.0274	0.0268
Mercury	114542-01-01 14:51 G	43556667.06	43556667.12	43556667.19	0.0287	0.0250
Venus	114542-03-26 09:20 G	43556750.72	43556750.89	43556751.08	0.0288	0.0149
Mercury	114542-03-31 03:48 G	43556755.53	43556755.66	43556755.79	0.0288	0.0082
Mercury	114542-06-27 16:32 G	43556844.06	43556844.19	43556844.32	0.0288	0.0085
Mercury	114542-09-24 04:46 G	43556932.64	43556932.70	43556932.77	0.0288	0.0250
Venus	114542-11-11 04:03 G	43556980.54	43556980.67	43556980.82	0.0288	0.0218
Moon	114547-10-09 02:08 G	43558773.36	43558773.59	43558773.84	0.0288	0.0106
Earth	114547-10-09 02:22 G	43558773.38	43558773.60	43558773.83	0.0288	0.0121 *
Moon	114548-10-22 06:27 G	43559152.57	43559152.77	43559152.99	0.0287	0.0153
Earth	114548-10-22 10:03 G	43559152.72	43559152.92	43559153.15	0.0287	0.0144 *
Mercury	114556-07-21 02:51 G	43561981.46	43561981.62	43561981.79	0.0271	0.0098
Venus	114556-09-13 15:48 G	43562035.95	43562036.16	43562036.37	0.0271	0.0057
Mercury	114556-10-17 22:32 G	43562070.27	43562070.44	43562070.61	0.0271	0.0087
Venus	114557-04-30 20:22 G	43562265.27	43562265.35	43562265.44	0.0271	0.0245

Earth	114562-04-03 04:03 G	43564063.57	43564063.67	43564063.79	0.0270	0.0237
Moon	114562-04-03 04:46 G	43564063.59	43564063.70	43564063.83	0.0270	0.0237 *
Moon	114563-04-14 22:46 G	43564440.21	43564440.45	43564440.69	0.0271	0.0043
Earth	114563-04-15 02:36 G	43564440.37	43564440.61	43564440.85	0.0271	0.0028 *
Moon	114564-04-26 01:39 G	43564817.39	43564817.57	43564817.75	0.0273	0.0171
Earth	114564-04-26 02:51 G	43564817.46	43564817.62	43564817.81	0.0273	0.0186 *
Mars	114566-03-27 11:29 G	43565517.76	43565517.98	43565518.22	0.0277	0.0144
Mercury	114571-08-18 05:00 G	43567487.59	43567487.71	43567487.83	0.0288	0.0139
Venus	114571-10-06 12:27 G	43567536.83	43567537.02	43567537.22	0.0288	0.0108
Mercury	114571-11-14 17:44 G	43567576.10	43567576.24	43567576.38	0.0288	0.0029
Mercury	114572-02-11 06:12 G	43567664.66	43567664.76	43567664.86	0.0289	0.0195
Venus	114572-05-23 07:24 G	43567766.73	43567766.81	43567766.91	0.0289	0.0261
Earth	114576-10-01 22:17 G	43569359.31	43569359.43	43569359.58	0.0289	0.0243
Moon	114576-10-02 02:08 G	43569359.46	43569359.59	43569359.73	0.0289	0.0240 *
Earth	114577-10-16 08:22 G	43569738.60	43569738.85	43569739.10	0.0288	0.0025
Moon	114577-10-16 10:46 G	43569738.69	43569738.95	43569739.20	0.0288	0.0019 *
Moon	114578-10-30 13:24 G	43570117.98	43570118.06	43570118.14	0.0286	0.0271
Earth	114578-10-30 14:22 G	43570118.08	43570118.10	43570118.13	0.0286	0.0284 *
Mars	114580-04-13 07:53 G	43570648.59	43570648.83	43570649.07	0.0283	0.0189
Mercury	114585-12-08 03:05 G	43572713.48	43572713.63	43572713.78	0.0272	0.0145
Mercury	114586-03-06 22:46 G	43572802.28	43572802.45	43572802.63	0.0271	0.0040
Venus	114586-03-26 21:05 G	43572822.17	43572822.38	43572822.60	0.0271	0.0013
Mercury	114586-06-03 18:27 G	43572891.19	43572891.27	43572891.38	0.0271	0.0228
Earth	114592-04-09 10:32 G	43575027.73	43575027.94	43575028.16	0.0272	0.0122
Moon	114592-04-09 13:10 G	43575027.84	43575028.05	43575028.27	0.0272	0.0138 *
Moon	114593-04-21 08:22 G	43575404.62	43575404.85	43575405.09	0.0273	0.0084
Earth	114593-04-21 10:32 G	43575404.72	43575404.94	43575405.17	0.0273	0.0092 *
Mercury	114601-01-05 08:51 G	43578219.76	43578219.87	43578219.98	0.0288	0.0162
Mercury	114601-04-03 21:34 G	43578308.27	43578308.40	43578308.54	0.0288	0.0008
Venus	114601-04-19 01:10 G	43578323.34	43578323.55	43578323.76	0.0288	0.0038

Mercury	114601-07-01 10:17 G	43578396.82	43578396.93	43578397.04	0.0288	0.0171
Earth	114606-10-11 18:56 G	43580325.06	43580325.29	43580325.53	0.0288	0.0086
Moon	114606-10-11 20:51 G	43580325.15	43580325.37	43580325.60	0.0288	0.0102 *
Earth	114607-10-26 02:08 G	43580704.41	43580704.59	43580704.79	0.0287	0.0177
Moon	114607-10-26 06:12 G	43580704.56	43580704.76	43580704.97	0.0286	0.0159 *
Venus	114615-02-20 22:17 G	43583379.41	43583379.43	43583379.46	0.0272	0.0269
Mercury	114615-04-28 04:03 G	43583445.55	43583445.67	43583445.80	0.0272	0.0185
Mercury	114615-07-25 23:44 G	43583534.31	43583534.49	43583534.67	0.0271	0.0002
Venus	114615-10-08 03:48 G	43583608.45	43583608.66	43583608.87	0.0271	0.0037
Mercury	114615-10-22 19:24 G	43583623.18	43583623.31	43583623.45	0.0271	0.0184
Earth	114621-04-05 13:10 G	43585614.90	43585615.05	43585615.20	0.0270	0.0211
Moon	114621-04-05 14:08 G	43585614.96	43585615.09	43585615.22	0.0270	0.0220 *
Earth	114622-04-17 11:29 G	43585991.74	43585991.98	43585992.22	0.0271	0.0003
Moon	114622-04-17 15:20 G	43585991.90	43585992.14	43585992.38	0.0271	0.0002 *
Moon	114623-04-29 12:12 G	43586368.88	43586369.01	43586369.16	0.0273	0.0225
Earth	114623-04-29 12:27 G	43586368.88	43586369.02	43586369.18	0.0273	0.0212 *
Mercury	114630-05-25 09:48 G	43588951.83	43588951.91	43588952.00	0.0288	0.0221
Mercury	114630-08-21 22:46 G	43589040.32	43589040.45	43589040.58	0.0288	0.0052
Venus	114630-10-30 04:03 G	43589109.46	43589109.67	43589109.88	0.0288	0.0005
Mercury	114630-11-18 11:29 G	43589128.85	43589128.98	43589129.10	0.0289	0.0115
Mercury	114631-02-14 23:44 G	43589217.47	43589217.49	43589217.53	0.0289	0.0280
Moon	114635-10-05 10:17 G	43590910.78	43590910.93	43590911.10	0.0289	0.0221
Earth	114635-10-05 13:53 G	43590910.92	43590911.08	43590911.26	0.0289	0.0209 *
Moon	114636-10-18 21:48 G	43591290.18	43591290.41	43591290.65	0.0288	0.0050
Earth	114636-10-18 23:15 G	43591290.23	43591290.47	43591290.71	0.0288	0.0057 *
Venus	114644-09-02 02:36 G	43594165.50	43594165.61	43594165.74	0.0272	0.0226
Mercury	114644-09-14 04:03 G	43594177.59	43594177.67	43594177.76	0.0272	0.0235
Mercury	114644-12-11 23:44 G	43594266.31	43594266.49	43594266.66	0.0271	0.0052
Mercury	114645-03-10 19:24 G	43594355.15	43594355.31	43594355.47	0.0271	0.0134
Venus	114645-04-19 08:22 G	43594394.65	43594394.85	43594395.06	0.0271	0.0081

Moon	114651-04-12 16:46 G	43596578.98	43596579.20	43596579.43	0.0272	0.0083
Earth	114651-04-12 18:27 G	43596579.05	43596579.27	43596579.50	0.0272	0.0096 *
Earth	114652-04-23 18:41 G	43596956.07	43596956.28	43596956.50	0.0273	0.0118
Moon	114652-04-23 21:48 G	43596956.20	43596956.41	43596956.61	0.0273	0.0132 *
Mars	114654-08-23 02:08 G	43597807.56	43597807.59	43597807.61	0.0277	0.0276
Mercury	114659-10-12 13:39 G	43599684.00	43599684.07	43599684.14	0.0288	0.0247
Mercury	114660-01-09 02:22 G	43599772.47	43599772.60	43599772.74	0.0288	0.0079
Mercury	114660-04-06 15:05 G	43599861.01	43599861.13	43599861.26	0.0288	0.0090
Venus	114660-05-11 16:17 G	43599895.98	43599896.18	43599896.39	0.0288	0.0073
Mercury	114660-07-04 03:34 G	43599949.60	43599949.65	43599949.72	0.0289	0.0255
Moon	114665-10-13 07:39 G	43601876.57	43601876.82	43601877.07	0.0288	0.0043
Earth	114665-10-13 10:32 G	43601876.70	43601876.94	43601877.19	0.0288	0.0052 *
Moon	114666-10-27 13:39 G	43602255.93	43602256.07	43602256.24	0.0286	0.0222
Earth	114666-10-27 17:44 G	43602256.07	43602256.24	43602256.41	0.0286	0.0210 *
Mercury	114674-02-01 05:29 G	43604909.72	43604909.73	43604909.75	0.0272	0.0270
Venus	114674-03-15 10:32 G	43604951.78	43604951.94	43604952.11	0.0272	0.0174
Mercury	114674-05-01 00:56 G	43604998.38	43604998.54	43604998.71	0.0271	0.0089
Mercury	114674-07-28 20:36 G	43605087.19	43605087.36	43605087.53	0.0271	0.0096
Venus	114674-10-30 15:48 G	43605180.98	43605181.16	43605181.35	0.0271	0.0131
Moon	114680-04-06 19:53 G	43607166.14	43607166.33	43607166.53	0.0270	0.0168
Earth	114680-04-06 21:48 G	43607166.24	43607166.41	43607166.59	0.0270	0.0185 *
Moon	114681-04-18 17:00 G	43607542.98	43607543.21	43607543.45	0.0272	0.0033
Earth	114681-04-18 20:22 G	43607543.11	43607543.35	43607543.59	0.0272	0.0026 *
Earth	114682-04-30 21:05 G	43607920.28	43607920.38	43607920.51	0.0273	0.0239
Moon	114682-04-30 23:00 G	43607920.35	43607920.46	43607920.59	0.0273	0.0230 *
Venus	114689-04-06 00:27 G	43610452.43	43610452.52	43610452.63	0.0288	0.0252
Mercury	114689-05-28 03:34 G	43610504.53	43610504.65	43610504.77	0.0288	0.0136
Mercury	114689-08-24 16:17 G	43610593.05	43610593.18	43610593.32	0.0288	0.0032
Mercury	114689-11-21 04:46 G	43610681.61	43610681.70	43610681.80	0.0289	0.0198
Venus	114689-11-21 18:56 G	43610682.10	43610682.29	43610682.48	0.0289	0.0114

Earth	114694-10-07 04:46 G	43612462.51	43612462.70	43612462.90	0.0289	0.0177
Moon	114694-10-07 08:08 G	43612462.64	43612462.84	43612463.06	0.0289	0.0159 *
Earth	114695-10-21 13:39 G	43612841.84	43612842.07	43612842.31	0.0287	0.0090
Moon	114695-10-21 14:08 G	43612841.86	43612842.09	43612842.34	0.0287	0.0105 *
Mercury	114703-09-19 00:27 G	43615730.37	43615730.52	43615730.67	0.0271	0.0143
Venus	114703-09-26 14:08 G	43615737.91	43615738.09	43615738.28	0.0271	0.0133
Mercury	114703-12-16 20:08 G	43615819.16	43615819.34	43615819.51	0.0271	0.0041
Mercury	114704-03-14 15:48 G	43615908.07	43615908.16	43615908.26	0.0271	0.0227
Venus	114704-05-12 19:24 G	43615967.15	43615967.31	43615967.48	0.0271	0.0172
Moon	114709-04-03 06:56 G	43617753.76	43617753.79	43617753.85	0.0271	0.0266
Earth	114710-04-15 01:24 G	43618130.33	43618130.56	43618130.80	0.0272	0.0070
Moon	114710-04-15 01:53 G	43618130.35	43618130.58	43618130.83	0.0272	0.0073 *
Moon	114711-04-26 22:32 G	43618507.23	43618507.44	43618507.65	0.0273	0.0128
Earth	114711-04-27 01:53 G	43618507.39	43618507.58	43618507.79	0.0273	0.0145 *
Mercury	114718-10-16 06:56 G	43621236.68	43621236.79	43621236.91	0.0288	0.0166
Venus	114718-10-18 11:29 G	43621238.82	43621238.98	43621239.14	0.0288	0.0187
Mercury	114719-01-12 19:53 G	43621325.19	43621325.33	43621325.46	0.0288	0.0005
Mercury	114719-04-11 08:22 G	43621413.75	43621413.85	43621413.96	0.0288	0.0169
Venus	114719-06-05 06:12 G	43621468.60	43621468.76	43621468.93	0.0289	0.0180
Earth	114723-10-02 13:53 G	43623049.05	43623049.08	43623049.13	0.0289	0.0284
Moon	114723-10-02 14:51 G	43623049.05	43623049.12	43623049.19	0.0289	0.0274 *
Earth	114724-10-16 00:12 G	43623428.26	43623428.51	43623428.76	0.0288	0.0019
Moon	114724-10-16 03:34 G	43623428.40	43623428.65	43623428.89	0.0288	0.0012 *
Earth	114725-10-30 07:10 G	43623807.67	43623807.80	43623807.94	0.0286	0.0241
Moon	114725-10-30 10:17 G	43623807.81	43623807.93	43623808.07	0.0286	0.0242 *
Mercury	114733-02-05 02:08 G	43626462.46	43626462.59	43626462.73	0.0272	0.0177
Venus	114733-04-07 22:17 G	43626524.24	43626524.43	43626524.64	0.0271	0.0080
Mercury	114733-05-04 21:34 G	43626551.22	43626551.40	43626551.58	0.0271	0.0007
Mercury	114733-08-01 17:15 G	43626640.10	43626640.22	43626640.35	0.0271	0.0192
Venus	114733-11-23 03:20 G	43626753.52	43626753.64	43626753.76	0.0271	0.0224

Earth	114739-04-10 05:44 G	43628717.55	43628717.74	43628717.94	0.0270	0.0158
Moon	114739-04-10 08:22 G	43628717.68	43628717.85	43628718.04	0.0270	0.0172 *
Earth	114740-04-21 04:17 G	43629094.44	43629094.68	43629094.92	0.0272	0.0052
Moon	114740-04-21 06:12 G	43629094.52	43629094.76	43629095.01	0.0272	0.0039 *
Moon	114741-05-03 02:08 G	43629471.54	43629471.59	43629471.67	0.0273	0.0264
Earth	114741-05-03 05:15 G	43629471.68	43629471.72	43629471.79	0.0273	0.0265
Mercury	114748-03-04 07:53 G	43631968.75	43631968.83	43631968.92	0.0288	0.0226
Venus	114748-04-29 13:39 G	43632024.90	43632025.07	43632025.26	0.0288	0.0148
Mercury	114748-05-31 20:51 G	43632057.23	43632057.37	43632057.50	0.0288	0.0057
Mercury	114748-08-28 09:34 G	43632145.77	43632145.90	43632146.02	0.0288	0.0110
Mercury	114748-11-24 22:03 G	43632234.38	43632234.42	43632234.46	0.0289	0.0275
Venus	114748-12-15 08:36 G	43632254.72	43632254.86	43632254.99	0.0289	0.0220
Moon	114753-10-09 14:51 G	43634013.92	43634014.12	43634014.32	0.0289	0.0156
Earth	114753-10-09 17:29 G	43634014.01	43634014.23	43634014.44	0.0289	0.0145 *
Earth	114754-10-24 01:53 G	43634393.36	43634393.58	43634393.81	0.0287	0.0120
Moon	114754-10-24 02:51 G	43634393.40	43634393.62	43634393.85	0.0287	0.0107 *
Mercury	114762-06-25 01:10 G	43637194.47	43637194.55	43637194.64	0.0272	0.0235
Mercury	114762-09-21 20:36 G	43637283.19	43637283.36	43637283.54	0.0271	0.0052
Venus	114762-10-19 01:10 G	43637310.34	43637310.55	43637310.76	0.0271	0.0041
Mercury	114762-12-19 16:17 G	43637372.02	43637372.18	43637372.34	0.0271	0.0132
Venus	114763-06-05 05:58 G	43637539.70	43637539.75	43637539.80	0.0270	0.0261
Moon	114768-04-04 05:44 G	43639304.72	43639304.74	43639304.79	0.0270	0.0268
Earth	114768-04-04 09:34 G	43639304.82	43639304.90	43639304.99	0.0270	0.0251
Earth	114769-04-16 07:24 G	43639681.58	43639681.81	43639682.05	0.0272	0.0044
Moon	114769-04-16 08:51 G	43639681.64	43639681.87	43639682.10	0.0272	0.0048 *
Earth	114770-04-28 07:39 G	43640058.64	43640058.82	43640059.02	0.0273	0.0169
Moon	114770-04-28 11:15 G	43640058.79	43640058.97	43640059.16	0.0273	0.0179 *
Mercury	114777-07-22 11:00 G	43642700.90	43642700.96	43642701.01	0.0288	0.0260
Mercury	114777-10-18 23:58 G	43642789.37	43642789.50	43642789.63	0.0288	0.0091
Venus	114777-11-09 23:29 G	43642811.28	43642811.48	43642811.68	0.0288	0.0087

Mercury	114778-01-15 12:41 G	43642877.90	43642878.03	43642878.16	0.0288	0.0077
Mercury	114778-04-14 01:10 G	43642966.48	43642966.55	43642966.62	0.0289	0.0242
Venus	114778-06-27 18:27 G	43643041.24	43643041.27	43643041.32	0.0289	0.0283
Moon	114782-10-03 23:29 G	43644600.40	43644600.48	43644600.58	0.0289	0.0270
Earth	114782-10-04 01:24 G	43644600.45	43644600.56	43644600.68	0.0289	0.0253 *
Moon	114783-10-18 07:53 G	43644979.58	43644979.83	43644980.08	0.0288	0.0003
Earth	114783-10-18 11:29 G	43644979.73	43644979.98	43644980.23	0.0288	0.0012 *
Moon	114784-10-31 16:17 G	43645359.10	43645359.18	43645359.29	0.0286	0.0263
Earth	114784-10-31 18:27 G	43645359.20	43645359.27	43645359.35	0.0286	0.0271 *
Mercury	114791-11-12 03:05 G	43647926.60	43647926.63	43647926.66	0.0272	0.0267
Mercury	114792-02-08 22:17 G	43648015.27	43648015.43	43648015.60	0.0271	0.0086
Venus	114792-04-30 09:20 G	43648096.68	43648096.89	43648097.11	0.0271	0.0013
Mercury	114792-05-07 17:58 G	43648104.08	43648104.25	43648104.42	0.0271	0.0098
Moon	114798-04-11 09:05 G	43650268.66	43650268.88	43650269.09	0.0270	0.0127
Earth	114798-04-11 12:27 G	43650268.81	43650269.02	43650269.23	0.0270	0.0133 *
Moon	114799-04-23 10:03 G	43650645.71	43650645.92	43650646.15	0.0272	0.0094
Earth	114799-04-23 10:46 G	43650645.72	43650645.95	43650646.19	0.0272	0.0078 *
Mercury	114807-03-08 00:41 G	43653521.42	43653521.53	43653521.65	0.0288	0.0151
Venus	114807-05-23 01:39 G	43653597.37	43653597.57	43653597.78	0.0288	0.0047
Mercury	114807-06-04 13:39 G	43653609.93	43653610.07	43653610.20	0.0288	0.0018
Mercury	114807-09-01 02:08 G	43653698.49	43653698.59	43653698.70	0.0289	0.0183
Earth	114812-10-11 03:05 G	43655565.41	43655565.63	43655565.86	0.0289	0.0116
Moon	114812-10-11 04:32 G	43655565.46	43655565.69	43655565.93	0.0289	0.0117 *
Moon	114813-10-25 09:05 G	43655944.67	43655944.88	43655945.10	0.0287	0.0157
Earth	114813-10-25 11:29 G	43655944.78	43655944.98	43655945.20	0.0287	0.0149 *
Venus	114821-03-26 05:00 G	43658653.65	43658653.71	43658653.77	0.0272	0.0260
Mercury	114821-06-27 20:51 G	43658747.22	43658747.37	43658747.52	0.0271	0.0150
Mercury	114821-09-24 16:17 G	43658836.00	43658836.18	43658836.36	0.0271	0.0034
Venus	114821-11-10 11:00 G	43658882.75	43658882.96	43658883.17	0.0271	0.0047
Mercury	114821-12-22 11:58 G	43658924.90	43658925.00	43658925.11	0.0271	0.0219

Earth	114827-04-06 14:08 G	43660855.98	43660856.09	43660856.24	0.0270	0.0228
Moon	114827-04-06 16:46 G	43660856.06	43660856.20	43660856.36	0.0270	0.0215 *
Moon	114828-04-17 09:34 G	43661232.65	43661232.90	43661233.14	0.0272	0.0008
Earth	114828-04-17 12:27 G	43661232.78	43661233.02	43661233.26	0.0272	0.0019 *
Moon	114829-04-29 09:34 G	43661609.75	43661609.90	43661610.07	0.0273	0.0197
Earth	114829-04-29 12:27 G	43661609.86	43661610.02	43661610.20	0.0273	0.0194 *
Mercury	114836-07-25 03:20 G	43664253.54	43664253.64	43664253.74	0.0288	0.0191
Mercury	114836-10-21 16:17 G	43664342.04	43664342.18	43664342.32	0.0288	0.0022
Venus	114836-12-02 10:03 G	43664383.71	43664383.92	43664384.13	0.0288	0.0011
Mercury	114837-01-18 05:00 G	43664430.59	43664430.71	43664430.82	0.0289	0.0145
Earth	114841-10-05 09:05 G	43666151.73	43666151.88	43666152.03	0.0289	0.0226
Moon	114841-10-05 11:29 G	43666151.83	43666151.98	43666152.15	0.0289	0.0214 *
Earth	114842-10-19 18:56 G	43666531.05	43666531.29	43666531.54	0.0288	0.0040
Moon	114842-10-19 22:32 G	43666531.19	43666531.44	43666531.69	0.0288	0.0056 *
Venus	114850-10-06 13:24 G	43669439.93	43669440.06	43669440.20	0.0272	0.0205
Mercury	114850-11-14 22:32 G	43669479.31	43669479.44	43669479.57	0.0272	0.0183
Mercury	114851-02-11 17:58 G	43669568.07	43669568.25	43669568.43	0.0271	0.0001
Mercury	114851-05-11 13:24 G	43669656.94	43669657.06	43669657.20	0.0271	0.0185
Venus	114851-05-23 18:56 G	43669669.10	43669669.29	43669669.49	0.0271	0.0101
Earth	114857-04-12 17:15 G	43671820.01	43671820.22	43671820.45	0.0270	0.0109
Moon	114857-04-12 20:51 G	43671820.15	43671820.37	43671820.60	0.0270	0.0105 *
Moon	114858-04-24 15:05 G	43672196.90	43672197.13	43672197.37	0.0272	0.0093
Earth	114858-04-24 15:34 G	43672196.94	43672197.15	43672197.38	0.0272	0.0103 *
Mercury	114865-12-12 04:17 G	43674985.62	43674985.68	43674985.75	0.0287	0.0251
Mercury	114866-03-10 17:00 G	43675074.09	43675074.21	43675074.35	0.0288	0.0083
Mercury	114866-06-07 05:44 G	43675162.62	43675162.74	43675162.88	0.0288	0.0086
Venus	114866-06-14 11:58 G	43675169.79	43675170.00	43675170.21	0.0288	0.0050
Mercury	114866-09-03 18:27 G	43675251.20	43675251.27	43675251.34	0.0289	0.0250
Earth	114871-10-13 10:03 G	43677116.68	43677116.92	43677117.16	0.0289	0.0089
Moon	114871-10-13 10:32 G	43677116.71	43677116.94	43677117.17	0.0289	0.0080 *

Earth	114872-10-26 18:41 G	43677496.08	43677496.28	43677496.47	0.0287	0.0176
Moon	114872-10-26 22:03 G	43677496.23	43677496.42	43677496.61	0.0287	0.0179 *
Mercury	114880-04-02 20:36 G	43680211.29	43680211.36	43680211.42	0.0272	0.0250
Venus	114880-04-17 13:39 G	43680225.92	43680226.07	43680226.24	0.0272	0.0174
Mercury	114880-06-30 15:48 G	43680299.99	43680300.16	43680300.34	0.0271	0.0068
Mercury	114880-09-27 11:29 G	43680388.82	43680388.98	43680389.14	0.0271	0.0116
Venus	114880-12-02 19:24 G	43680455.13	43680455.31	43680455.50	0.0271	0.0132
Moon	114886-04-07 16:46 G	43682407.06	43682407.20	43682407.35	0.0270	0.0212
Earth	114886-04-07 17:44 G	43682407.08	43682407.24	43682407.40	0.0270	0.0204 *
Earth	114887-04-19 15:20 G	43682783.90	43682784.14	43682784.38	0.0271	0.0005
Moon	114887-04-19 18:56 G	43682784.05	43682784.29	43682784.53	0.0272	0.0012 *
Earth	114888-04-30 15:34 G	43683161.00	43683161.15	43683161.29	0.0273	0.0216
Moon	114888-04-30 17:00 G	43683161.06	43683161.21	43683161.39	0.0273	0.0205 *
Venus	114895-05-10 00:27 G	43685726.45	43685726.52	43685726.62	0.0288	0.0263
Mercury	114895-07-28 19:24 G	43685806.19	43685806.31	43685806.43	0.0288	0.0127
Mercury	114895-10-25 08:08 G	43685894.71	43685894.84	43685894.98	0.0288	0.0041
Venus	114895-12-25 18:41 G	43685956.09	43685956.28	43685956.49	0.0289	0.0104
Mercury	114896-01-21 20:36 G	43685983.28	43685983.36	43685983.46	0.0289	0.0208
Moon	114900-10-07 10:03 G	43687702.76	43687702.92	43687703.11	0.0289	0.0208
Earth	114900-10-07 13:53 G	43687702.91	43687703.08	43687703.26	0.0289	0.0201 *
Moon	114901-10-21 21:20 G	43688082.15	43688082.39	43688082.63	0.0288	0.0054
Earth	114901-10-21 23:58 G	43688082.26	43688082.50	43688082.74	0.0288	0.0065 *
Venus	114909-10-29 21:48 G	43691012.22	43691012.41	43691012.60	0.0272	0.0120
Mercury	114909-11-18 17:15 G	43691032.06	43691032.22	43691032.39	0.0272	0.0104
Mercury	114910-02-15 12:56 G	43691120.87	43691121.04	43691121.21	0.0271	0.0080
Mercury	114910-05-15 08:36 G	43691209.83	43691209.86	43691209.90	0.0271	0.0266
Venus	114910-06-16 03:05 G	43691241.48	43691241.63	43691241.79	0.0271	0.0185
Moon	114916-04-14 18:12 G	43693371.04	43693371.26	43693371.48	0.0270	0.0100
Earth	114916-04-14 21:05 G	43693371.15	43693371.38	43693371.61	0.0270	0.0086 *
Earth	114917-04-26 19:10 G	43693748.09	43693748.30	43693748.52	0.0272	0.0125

Moon	114917-04-26 21:05 G	43693748.17	43693748.38	43693748.59	0.0272	0.0124	*
Venus	114924-11-20 02:51 G	43696512.50	43696512.62	43696512.76	0.0287	0.0222	
Mercury	114924-12-15 20:22 G	43696538.24	43696538.35	43696538.45	0.0287	0.0185	
Mercury	114925-03-14 09:05 G	43696626.75	43696626.88	43696627.02	0.0288	0.0018	
Mercury	114925-06-10 21:48 G	43696715.29	43696715.41	43696715.52	0.0288	0.0148	
Venus	114925-07-07 21:05 G	43696742.19	43696742.38	43696742.56	0.0288	0.0144	
Moon	114930-10-15 11:44 G	43698667.75	43698667.99	43698668.24	0.0289	0.0080	
Earth	114930-10-15 13:53 G	43698667.84	43698668.08	43698668.33	0.0289	0.0064	*
Moon	114931-10-29 18:27 G	43699047.09	43699047.27	43699047.47	0.0287	0.0185	
Earth	114931-10-29 22:17 G	43699047.26	43699047.43	43699047.62	0.0287	0.0200	*
Mercury	114939-04-07 14:51 G	43701763.99	43701764.12	43701764.26	0.0272	0.0175	
Venus	114939-05-11 21:20 G	43701798.19	43701798.39	43701798.59	0.0272	0.0091	
Mercury	114939-07-05 10:32 G	43701852.76	43701852.94	43701853.11	0.0271	0.0010	
Mercury	114939-10-02 05:58 G	43701941.63	43701941.75	43701941.88	0.0271	0.0193	
Venus	114939-12-27 02:36 G	43702027.49	43702027.61	43702027.74	0.0271	0.0214	
Moon	114945-04-09 18:56 G	43703958.11	43703958.29	43703958.48	0.0270	0.0184	
Earth	114945-04-09 19:24 G	43703958.14	43703958.31	43703958.50	0.0270	0.0182	*
Moon	114946-04-21 13:39 G	43704334.83	43704335.07	43704335.31	0.0271	0.0036	
Earth	114946-04-21 17:15 G	43704334.98	43704335.22	43704335.47	0.0271	0.0027	*
Earth	114947-05-03 17:00 G	43704712.11	43704712.21	43704712.34	0.0273	0.0238	
Moon	114947-05-03 17:29 G	43704712.15	43704712.23	43704712.32	0.0273	0.0252	*
Mercury	114954-05-04 21:48 G	43707270.34	43707270.41	43707270.49	0.0288	0.0237	
Venus	114954-06-02 07:53 G	43707298.67	43707298.83	43707299.00	0.0288	0.0175	
Mercury	114954-08-01 10:46 G	43707358.82	43707358.95	43707359.09	0.0288	0.0069	
Mercury	114954-10-28 23:29 G	43707447.36	43707447.48	43707447.61	0.0288	0.0100	
Venus	114955-01-18 02:22 G	43707528.44	43707528.60	43707528.76	0.0289	0.0192	
Mercury	114955-01-25 12:12 G	43707535.96	43707536.01	43707536.06	0.0289	0.0264	
Earth	114959-10-09 15:34 G	43709253.96	43709254.15	43709254.35	0.0289	0.0178	
Moon	114959-10-09 19:24 G	43709254.12	43709254.31	43709254.51	0.0289	0.0184	*
Earth	114960-10-23 01:53 G	43709633.34	43709633.58	43709633.82	0.0288	0.0089	

Moon	114960-10-23 03:34 G	43709633.41	43709633.65	43709633.90	0.0288	0.0088	*
Mercury	114968-08-24 16:03 G	43712496.07	43712496.17	43712496.29	0.0272	0.0213	
Venus	114968-11-21 05:00 G	43712584.50	43712584.71	43712584.92	0.0272	0.0038	
Mercury	114968-11-21 11:44 G	43712584.81	43712584.99	43712585.17	0.0272	0.0029	*
Mercury	114969-02-18 07:24 G	43712673.66	43712673.81	43712673.95	0.0272	0.0156	
Venus	114969-07-08 09:48 G	43712813.89	43712813.91	43712813.96	0.0271	0.0267	
Moon	114974-04-05 06:27 G	43714545.72	43714545.77	43714545.82	0.0270	0.0262	
Earth	114975-04-16 23:15 G	43714922.24	43714922.47	43714922.71	0.0270	0.0065	
Moon	114975-04-17 01:24 G	43714922.32	43714922.56	43714922.81	0.0270	0.0049	*
Moon	114976-04-27 18:12 G	43715299.07	43715299.26	43715299.47	0.0272	0.0156	
Earth	114976-04-27 21:34 G	43715299.20	43715299.40	43715299.60	0.0272	0.0147	*
Mars	114978-02-16 01:53 G	43715958.40	43715958.58	43715958.78	0.0275	0.0193	
Venus	114983-12-13 11:00 G	43718084.78	43718084.96	43718085.15	0.0287	0.0131	
Mercury	114983-12-19 11:58 G	43718090.88	43718091.00	43718091.13	0.0287	0.0124	
Mercury	114984-03-17 00:41 G	43718179.40	43718179.53	43718179.67	0.0288	0.0044	
Mercury	114984-06-13 13:24 G	43718267.97	43718268.06	43718268.15	0.0288	0.0208	
Venus	114984-07-30 05:00 G	43718314.59	43718314.71	43718314.84	0.0288	0.0234	
Earth	114989-10-16 16:03 G	43720218.92	43720219.17	43720219.42	0.0289	0.0041	
Moon	114989-10-16 18:56 G	43720219.05	43720219.29	43720219.53	0.0289	0.0026	*
Earth	114990-10-30 23:58 G	43720598.36	43720598.50	43720598.67	0.0287	0.0223	
Moon	114990-10-31 04:03 G	43720598.53	43720598.67	43720598.81	0.0287	0.0239	*
Mercury	114998-04-10 08:51 G	43723316.71	43723316.87	43723317.03	0.0272	0.0105	
Venus	114998-06-03 03:48 G	43723370.44	43723370.66	43723370.87	0.0272	0.0012	
Mercury	114998-07-08 04:17 G	43723405.51	43723405.68	43723405.86	0.0271	0.0080	
Mercury	114998-10-05 00:12 G	43723494.48	43723494.51	43723494.54	0.0271	0.0266	

116TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 116th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Earth	115004-04-11 20:36	G	43725509.17	43725509.36	43725509.55	0.0270	0.0161	
Moon	115004-04-11 22:03	G	43725509.23	43725509.42	43725509.62	0.0270	0.0149	*
Earth	115005-04-23 18:12	G	43725886.02	43725886.26	43725886.50	0.0271	0.0048	
Moon	115005-04-23 21:20	G	43725886.15	43725886.39	43725886.64	0.0271	0.0049	*
Moon	115006-05-05 16:17	G	43726263.08	43726263.18	43726263.30	0.0273	0.0244	
Earth	115006-05-05 18:12	G	43726263.19	43726263.26	43726263.34	0.0273	0.0259	*
Mercury	115013-05-08 13:24	G	43728822.96	43728823.06	43728823.17	0.0287	0.0178	
Venus	115013-06-25 14:51	G	43728870.93	43728871.12	43728871.33	0.0288	0.0088	
Mercury	115013-08-05 02:22	G	43728911.46	43728911.60	43728911.74	0.0288	0.0010	
Mercury	115013-11-01 14:51	G	43729000.01	43729000.12	43729000.24	0.0288	0.0156	
Venus	115014-02-10 09:20	G	43729100.85	43729100.89	43729100.94	0.0289	0.0280	
Moon	115018-10-11 12:27	G	43730804.82	43730805.02	43730805.25	0.0289	0.0142	
Earth	115018-10-11 15:48	G	43730804.96	43730805.16	43730805.38	0.0289	0.0157	*
Moon	115019-10-26 01:39	G	43731184.36	43731184.57	43731184.79	0.0288	0.0121	
Earth	115019-10-26 01:53	G	43731184.36	43731184.58	43731184.82	0.0288	0.0110	*
Venus	115027-04-30 04:03	G	43733927.65	43733927.67	43733927.71	0.0273	0.0269	
Mercury	115027-08-29 09:48	G	43734048.77	43734048.91	43734049.07	0.0272	0.0144	
Mercury	115027-11-26 05:29	G	43734137.55	43734137.73	43734137.91	0.0272	0.0041	
Venus	115027-12-15 10:46	G	43734156.74	43734156.95	43734157.16	0.0272	0.0041	
Mercury	115028-02-23 01:10	G	43734226.46	43734226.55	43734226.65	0.0272	0.0227	
Moon	115033-04-07 00:12	G	43736096.43	43736096.51	43736096.62	0.0270	0.0247	
Earth	115033-04-07 04:03	G	43736096.59	43736096.67	43736096.77	0.0270	0.0251	*

Moon	115034-04-19 00:27 G	43736473.29	43736473.52	43736473.75	0.0271	0.0053
Earth	115034-04-19 00:41 G	43736473.30	43736473.53	43736473.78	0.0271	0.0044 *
Earth	115035-04-30 22:46 G	43736850.27	43736850.45	43736850.65	0.0272	0.0169
Moon	115035-05-01 02:36 G	43736850.42	43736850.61	43736850.81	0.0272	0.0153 *
Mercury	115042-09-25 14:51 G	43739555.04	43739555.12	43739555.20	0.0287	0.0232
Mercury	115042-12-23 03:34 G	43739643.52	43739643.65	43739643.79	0.0287	0.0065
Venus	115043-01-05 18:27 G	43739657.06	43739657.27	43739657.48	0.0287	0.0043
Mercury	115043-03-21 16:17 G	43739732.06	43739732.18	43739732.31	0.0287	0.0101
Mercury	115043-06-18 04:46 G	43739820.66	43739820.70	43739820.76	0.0288	0.0265
Moon	115047-10-05 04:32 G	43741390.65	43741390.69	43741390.74	0.0290	0.0285
Earth	115047-10-05 05:58 G	43741390.71	43741390.75	43741390.79	0.0290	0.0285 *
Moon	115048-10-18 12:56 G	43741769.79	43741770.04	43741770.29	0.0289	0.0026
Earth	115048-10-18 16:32 G	43741769.95	43741770.19	43741770.44	0.0289	0.0020 *
Moon	115049-11-01 22:03 G	43742149.29	43742149.42	43742149.57	0.0287	0.0233
Earth	115049-11-02 00:41 G	43742149.40	43742149.53	43742149.66	0.0287	0.0243 *
Venus	115056-11-09 02:51 G	43744713.53	43744713.62	43744713.72	0.0273	0.0243
Mercury	115057-01-15 06:56 G	43744780.70	43744780.79	43744780.90	0.0272	0.0219
Mercury	115057-04-14 02:36 G	43744869.43	43744869.61	43744869.78	0.0272	0.0036
Venus	115057-06-26 09:20 G	43744942.69	43744942.89	43744943.10	0.0272	0.0068
Mercury	115057-07-11 22:03 G	43744958.28	43744958.42	43744958.58	0.0272	0.0150
Moon	115063-04-13 18:12 G	43747060.06	43747060.26	43747060.47	0.0270	0.0156
Earth	115063-04-13 20:51 G	43747060.18	43747060.37	43747060.59	0.0270	0.0142 *
Moon	115064-04-24 16:46 G	43747436.98	43747437.20	43747437.43	0.0271	0.0061
Earth	115064-04-24 18:41 G	43747437.05	43747437.28	43747437.52	0.0271	0.0069 *
Mars	115066-07-13 05:29 G	43748246.51	43748246.73	43748246.96	0.0275	0.0150
Mercury	115072-05-11 04:46 G	43750375.58	43750375.70	43750375.83	0.0287	0.0122
Venus	115072-07-17 21:34 G	43750443.19	43750443.40	43750443.61	0.0288	0.0004
Mercury	115072-08-07 17:44 G	43750464.10	43750464.24	43750464.37	0.0288	0.0046
Mercury	115072-11-04 06:12 G	43750552.67	43750552.76	43750552.85	0.0288	0.0211
Earth	115077-10-12 15:20 G	43752355.92	43752356.14	43752356.36	0.0289	0.0136

Moon	115077-10-12 17:44 G	43752356.02	43752356.24	43752356.46	0.0289	0.0151	*
Moon	115078-10-26 23:44 G	43752735.26	43752735.49	43752735.73	0.0288	0.0115	
Earth	115078-10-27 01:10 G	43752735.34	43752735.55	43752735.78	0.0288	0.0131	*
Venus	115086-05-22 09:20 G	43755499.75	43755499.89	43755500.05	0.0273	0.0192	
Mercury	115086-06-04 07:53 G	43755512.79	43755512.83	43755512.89	0.0273	0.0260	
Mercury	115086-09-01 03:20 G	43755601.47	43755601.64	43755601.81	0.0273	0.0077	
Mercury	115086-11-28 23:00 G	43755690.30	43755690.46	43755690.62	0.0272	0.0108	
Venus	115087-01-06 16:03 G	43755728.98	43755729.17	43755729.36	0.0272	0.0118	
Earth	115092-04-08 04:46 G	43757647.58	43757647.70	43757647.82	0.0270	0.0231	
Moon	115092-04-08 08:08 G	43757647.75	43757647.84	43757647.95	0.0270	0.0246	*
Moon	115093-04-20 00:27 G	43758024.27	43758024.52	43758024.77	0.0271	0.0022	
Earth	115093-04-20 01:39 G	43758024.33	43758024.57	43758024.81	0.0271	0.0024	*
Moon	115094-05-01 20:22 G	43758401.21	43758401.35	43758401.52	0.0272	0.0203	
Earth	115094-05-02 00:12 G	43758401.34	43758401.51	43758401.69	0.0272	0.0188	*
Mercury	115101-09-29 06:27 G	43761107.67	43761107.77	43761107.89	0.0286	0.0170	
Mercury	115101-12-26 19:24 G	43761196.17	43761196.31	43761196.44	0.0287	0.0006	
Venus	115102-01-29 02:22 G	43761229.39	43761229.60	43761229.81	0.0287	0.0047	
Mercury	115102-03-25 07:53 G	43761284.72	43761284.83	43761284.95	0.0287	0.0161	
Earth	115106-10-07 06:56 G	43762941.69	43762941.79	43762941.89	0.0289	0.0264	
Moon	115106-10-07 08:51 G	43762941.81	43762941.87	43762941.95	0.0289	0.0277	*
Earth	115107-10-21 17:29 G	43763320.98	43763321.23	43763321.47	0.0288	0.0005	
Moon	115107-10-21 21:05 G	43763321.13	43763321.38	43763321.63	0.0288	0.0005	*
Earth	115108-11-04 00:56 G	43763700.46	43763700.54	43763700.65	0.0287	0.0264	
Moon	115108-11-04 02:36 G	43763700.52	43763700.61	43763700.71	0.0287	0.0265	*
Venus	115115-12-03 08:08 G	43766285.68	43766285.84	43766286.02	0.0273	0.0166	
Mercury	115116-01-20 00:27 G	43766333.38	43766333.52	43766333.67	0.0272	0.0153	
Mercury	115116-04-17 19:53 G	43766422.16	43766422.33	43766422.51	0.0272	0.0032	
Mercury	115116-07-15 15:34 G	43766511.05	43766511.15	43766511.27	0.0272	0.0218	
Venus	115116-07-19 14:51 G	43766514.94	43766515.12	43766515.30	0.0272	0.0144	
Earth	115122-04-15 21:34 G	43768611.19	43768611.40	43768611.62	0.0270	0.0121	

Moon	115122-04-16 00:56 G	43768611.32	43768611.54	43768611.76	0.0270	0.0110	*
Earth	115123-04-27 19:24 G	43768988.09	43768988.31	43768988.54	0.0271	0.0089	
Moon	115123-04-27 20:36 G	43768988.13	43768988.36	43768988.59	0.0271	0.0104	*
Venus	115130-12-24 11:58 G	43771785.94	43771786.00	43771786.06	0.0287	0.0274	
Mercury	115131-02-16 07:24 G	43771839.73	43771839.81	43771839.90	0.0287	0.0230	
Mercury	115131-05-15 20:22 G	43771928.22	43771928.35	43771928.48	0.0287	0.0063	
Venus	115131-08-11 04:46 G	43772015.50	43772015.70	43772015.90	0.0288	0.0087	
Mercury	115131-08-12 09:05 G	43772016.75	43772016.88	43772017.01	0.0288	0.0103	
Mercury	115131-11-08 21:34 G	43772105.36	43772105.40	43772105.45	0.0288	0.0267	
Moon	115136-10-14 13:39 G	43773906.85	43773907.07	43773907.30	0.0289	0.0109	
Earth	115136-10-14 14:36 G	43773906.89	43773907.11	43773907.34	0.0289	0.0117	*
Earth	115137-10-29 00:12 G	43774286.31	43774286.51	43774286.74	0.0287	0.0151	
Moon	115137-10-29 02:51 G	43774286.44	43774286.62	43774286.83	0.0287	0.0166	*
Mercury	115145-06-08 01:10 G	43777065.43	43777065.55	43777065.68	0.0273	0.0195	
Venus	115145-06-14 14:36 G	43777071.92	43777072.11	43777072.31	0.0273	0.0115	
Mercury	115145-09-04 20:36 G	43777154.19	43777154.36	43777154.54	0.0273	0.0013	
Mercury	115145-12-02 16:32 G	43777243.05	43777243.19	43777243.32	0.0272	0.0176	
Venus	115146-01-29 21:05 G	43777301.24	43777301.38	43777301.53	0.0272	0.0195	
Moon	115151-04-11 02:36 G	43779198.46	43779198.61	43779198.78	0.0270	0.0199	
Earth	115151-04-11 05:29 G	43779198.60	43779198.73	43779198.89	0.0270	0.0213	*
Earth	115152-04-22 02:51 G	43779575.38	43779575.62	43779575.86	0.0271	0.0004	
Moon	115152-04-22 05:00 G	43779575.47	43779575.71	43779575.95	0.0271	0.0006	*
Earth	115153-05-04 01:39 G	43779952.42	43779952.57	43779952.73	0.0272	0.0209	
Moon	115153-05-04 05:15 G	43779952.57	43779952.72	43779952.88	0.0272	0.0208	*
Mars	115154-12-08 02:51 G	43780535.36	43780535.62	43780535.89	0.0275	0.0059	
Mercury	115160-07-05 09:34 G	43782571.87	43782571.90	43782571.94	0.0286	0.0274	
Venus	115160-07-05 17:58 G	43782572.12	43782572.25	43782572.38	0.0286	0.0221	
Mercury	115160-10-01 22:32 G	43782660.31	43782660.44	43782660.57	0.0286	0.0107	
Mercury	115160-12-29 11:15 G	43782748.83	43782748.97	43782749.10	0.0287	0.0058	
Venus	115161-02-20 10:32 G	43782801.76	43782801.94	43782802.13	0.0287	0.0139	

Mercury	115161-03-27 23:44 G	43782837.41	43782837.49	43782837.58	0.0287	0.0221
Moon	115165-10-08 05:44 G	43784492.60	43784492.74	43784492.91	0.0289	0.0226
Earth	115165-10-08 08:51 G	43784492.74	43784492.87	43784493.01	0.0289	0.0242 *
Moon	115166-10-22 15:48 G	43784871.92	43784872.16	43784872.40	0.0288	0.0039
Earth	115166-10-22 19:10 G	43784872.05	43784872.30	43784872.54	0.0288	0.0024 *
Earth	115167-11-06 02:22 G	43785251.58	43785251.60	43785251.64	0.0287	0.0285
Mars	115168-12-16 01:39 G	43785657.52	43785657.57	43785657.66	0.0285	0.0278
Mercury	115174-10-25 22:32 G	43787797.42	43787797.44	43787797.47	0.0273	0.0269
Venus	115174-12-25 13:53 G	43787857.88	43787858.08	43787858.28	0.0273	0.0087
Mercury	115175-01-22 17:58 G	43787886.08	43787886.25	43787886.42	0.0273	0.0086
Mercury	115175-04-21 13:39 G	43787974.90	43787975.07	43787975.23	0.0272	0.0100
Venus	115175-08-11 19:53 G	43788087.22	43788087.33	43788087.46	0.0272	0.0222
Moon	115181-04-16 18:41 G	43790162.07	43790162.28	43790162.51	0.0270	0.0104
Earth	115181-04-16 22:32 G	43790162.22	43790162.44	43790162.67	0.0270	0.0102 *
Moon	115182-04-28 20:22 G	43790539.13	43790539.35	43790539.57	0.0272	0.0098
Earth	115182-04-28 20:36 G	43790539.15	43790539.36	43790539.59	0.0272	0.0110 *
Venus	115190-01-15 20:08 G	43793358.18	43793358.34	43793358.50	0.0287	0.0184
Mercury	115190-02-18 23:29 G	43793392.37	43793392.48	43793392.59	0.0287	0.0167
Mercury	115190-05-18 12:12 G	43793480.87	43793481.01	43793481.15	0.0287	0.0002
Mercury	115190-08-15 00:41 G	43793569.43	43793569.53	43793569.65	0.0288	0.0165
Venus	115190-09-02 13:10 G	43793587.89	43793588.05	43793588.22	0.0288	0.0179
Moon	115195-10-16 15:48 G	43795457.92	43795458.16	43795458.41	0.0289	0.0093
Earth	115195-10-16 16:17 G	43795457.95	43795458.18	43795458.41	0.0289	0.0095 *
Moon	115196-10-29 22:03 G	43795837.23	43795837.42	43795837.64	0.0287	0.0167
Earth	115196-10-30 01:39 G	43795837.38	43795837.57	43795837.78	0.0287	0.0172 *
Mercury	115204-06-10 18:41 G	43798618.12	43798618.28	43798618.43	0.0273	0.0129
Venus	115204-07-06 20:08 G	43798644.13	43798644.34	43798644.55	0.0273	0.0037
Mercury	115204-09-07 14:08 G	43798706.92	43798707.09	43798707.27	0.0273	0.0056
Mercury	115204-12-05 10:03 G	43798795.84	43798795.92	43798796.00	0.0272	0.0244
Venus	115205-02-21 02:08 G	43798873.59	43798873.59	43798873.61	0.0272	0.0272

Earth	115210-04-12 06:56 G	43800749.63	43800749.79	43800749.96	0.0270	0.0193
Moon	115210-04-12 09:05 G	43800749.72	43800749.88	43800750.05	0.0270	0.0202 *
Moon	115211-04-24 01:53 G	43801126.34	43801126.58	43801126.83	0.0271	0.0004
Earth	115211-04-24 04:46 G	43801126.46	43801126.70	43801126.94	0.0271	0.0017 *
Moon	115212-05-05 01:24 G	43801503.43	43801503.56	43801503.70	0.0272	0.0220
Earth	115212-05-05 04:03 G	43801503.55	43801503.67	43801503.80	0.0272	0.0230 *
Mercury	115219-07-09 01:53 G	43804124.49	43804124.58	43804124.68	0.0286	0.0206
Venus	115219-07-29 03:34 G	43804144.46	43804144.65	43804144.84	0.0286	0.0127
Mercury	115219-10-05 14:36 G	43804212.98	43804213.11	43804213.25	0.0286	0.0041
Mercury	115220-01-02 03:20 G	43804301.52	43804301.64	43804301.76	0.0287	0.0124
Venus	115220-03-14 20:22 G	43804374.23	43804374.35	43804374.48	0.0287	0.0234
Mercury	115220-03-30 15:48 G	43804390.16	43804390.16	43804390.17	0.0287	0.0286
Earth	115224-10-09 12:41 G	43806043.88	43806044.03	43806044.20	0.0289	0.0219
Moon	115224-10-09 16:32 G	43806044.04	43806044.19	43806044.34	0.0289	0.0231 *
Earth	115225-10-23 22:32 G	43806423.19	43806423.44	43806423.68	0.0288	0.0047
Moon	115225-10-24 01:24 G	43806423.31	43806423.56	43806423.82	0.0288	0.0032 *
Mercury	115233-10-28 16:17 G	43809350.07	43809350.18	43809350.31	0.0273	0.0199
Venus	115234-01-16 20:08 G	43809430.13	43809430.34	43809430.56	0.0273	0.0008
Mercury	115234-01-25 11:58 G	43809438.82	43809439.00	43809439.17	0.0273	0.0016
Mercury	115234-04-24 07:39 G	43809527.68	43809527.82	43809527.96	0.0272	0.0171
Earth	115240-04-18 00:56 G	43811713.31	43811713.54	43811713.77	0.0271	0.0081
Moon	115240-04-18 04:32 G	43811713.46	43811713.69	43811713.92	0.0271	0.0094 *
Moon	115241-04-29 23:00 G	43812090.24	43812090.46	43812090.68	0.0272	0.0131
Earth	115241-04-29 23:29 G	43812090.27	43812090.48	43812090.69	0.0272	0.0131 *
Mars	115243-05-03 08:08 G	43812823.57	43812823.84	43812824.11	0.0275	0.0012
Mercury	115248-11-25 02:36 G	43814856.57	43814856.61	43814856.67	0.0286	0.0267
Venus	115249-02-07 05:29 G	43814930.53	43814930.73	43814930.93	0.0287	0.0089
Mercury	115249-02-21 15:34 G	43814945.02	43814945.15	43814945.28	0.0287	0.0100
Mercury	115249-05-21 04:17 G	43815033.55	43815033.68	43815033.82	0.0287	0.0066
Mercury	115249-08-17 16:46 G	43815122.13	43815122.20	43815122.29	0.0287	0.0230

Venus	115249-09-24 22:46 G	43815160.39	43815160.45	43815160.51	0.0288	0.0274
Earth	115254-10-17 19:39 G	43817009.08	43817009.32	43817009.56	0.0289	0.0072
Moon	115254-10-17 20:51 G	43817009.14	43817009.37	43817009.60	0.0289	0.0086 *
Earth	115255-11-01 04:46 G	43817388.52	43817388.70	43817388.89	0.0287	0.0193
Moon	115255-11-01 08:22 G	43817388.66	43817388.85	43817389.04	0.0287	0.0182 *
Mars	115257-05-11 06:56 G	43817945.58	43817945.79	43817946.04	0.0285	0.0199
Venus	115262-12-12 18:27 G	43819987.26	43819987.27	43819987.29	0.0274	0.0273
Mercury	115263-03-17 16:46 G	43820082.13	43820082.20	43820082.29	0.0273	0.0244
Mercury	115263-06-14 12:27 G	43820170.85	43820171.02	43820171.19	0.0273	0.0059
Venus	115263-07-30 02:22 G	43820216.39	43820216.60	43820216.81	0.0273	0.0042
Mercury	115263-09-11 07:53 G	43820259.68	43820259.83	43820260.00	0.0273	0.0128
Moon	115269-04-13 07:53 G	43822300.66	43822300.83	43822301.02	0.0271	0.0178
Earth	115269-04-13 09:20 G	43822300.71	43822300.89	43822301.08	0.0271	0.0174 *
Earth	115270-04-25 07:39 G	43822677.58	43822677.82	43822678.06	0.0272	0.0038
Moon	115270-04-25 10:32 G	43822677.71	43822677.94	43822678.18	0.0272	0.0047 *
Earth	115271-05-07 07:10 G	43823054.72	43823054.80	43823054.91	0.0273	0.0251
Moon	115271-05-07 08:51 G	43823054.83	43823054.87	43823054.95	0.0273	0.0265 *
Mercury	115278-07-11 18:41 G	43825677.16	43825677.28	43825677.40	0.0286	0.0134
Venus	115278-08-20 14:36 G	43825716.90	43825717.11	43825717.32	0.0286	0.0029
Mercury	115278-10-08 07:24 G	43825765.67	43825765.81	43825765.94	0.0286	0.0032
Mercury	115279-01-04 19:53 G	43825854.23	43825854.33	43825854.43	0.0287	0.0194
Moon	115283-10-11 16:17 G	43827594.99	43827595.18	43827595.36	0.0289	0.0193
Earth	115283-10-11 20:08 G	43827595.16	43827595.34	43827595.53	0.0289	0.0193 *
Moon	115284-10-25 02:36 G	43827974.38	43827974.61	43827974.85	0.0288	0.0077
Earth	115284-10-25 05:15 G	43827974.48	43827974.72	43827974.96	0.0288	0.0073 *
Venus	115292-06-23 20:22 G	43830773.24	43830773.35	43830773.45	0.0274	0.0238
Mercury	115292-10-31 10:32 G	43830902.79	43830902.94	43830903.11	0.0273	0.0125
Mercury	115293-01-28 06:12 G	43830991.59	43830991.76	43830991.94	0.0273	0.0061
Venus	115293-02-08 03:34 G	43831002.44	43831002.65	43831002.85	0.0273	0.0076
Mercury	115293-04-27 01:53 G	43831080.52	43831080.58	43831080.66	0.0272	0.0248

Moon	115298-04-08 04:17 G	43832887.62	43832887.68	43832887.76	0.0270	0.0257
Earth	115298-04-08 06:27 G	43832887.75	43832887.77	43832887.82	0.0270	0.0267 *
Moon	115299-04-20 01:10 G	43833264.32	43833264.55	43833264.79	0.0271	0.0044
Earth	115299-04-20 04:17 G	43833264.45	43833264.68	43833264.93	0.0271	0.0060 *
Earth	115300-05-02 03:20 G	43833641.45	43833641.64	43833641.85	0.0272	0.0153
Moon	115300-05-02 05:15 G	43833641.53	43833641.72	43833641.90	0.0272	0.0162 *
Mercury	115307-11-29 19:39 G	43836409.22	43836409.32	43836409.42	0.0286	0.0193
Mercury	115308-02-26 08:22 G	43836497.71	43836497.85	43836497.99	0.0287	0.0027
Venus	115308-03-02 16:46 G	43836502.99	43836503.20	43836503.41	0.0287	0.0011
Mercury	115308-05-24 20:51 G	43836586.26	43836586.37	43836586.50	0.0287	0.0138
Moon	115313-10-20 00:12 G	43838560.25	43838560.51	43838560.76	0.0288	0.0031
Earth	115313-10-20 01:53 G	43838560.34	43838560.58	43838560.83	0.0288	0.0048 *
Moon	115314-11-03 06:41 G	43838939.65	43838939.78	43838939.94	0.0287	0.0234
Earth	115314-11-03 10:32 G	43838939.79	43838939.94	43838940.11	0.0287	0.0217 *
Venus	115322-01-05 01:53 G	43841559.44	43841559.58	43841559.74	0.0274	0.0190
Mercury	115322-03-21 11:15 G	43841634.83	43841634.97	43841635.11	0.0273	0.0170
Mercury	115322-06-18 06:41 G	43841723.60	43841723.78	43841723.96	0.0273	0.0016
Venus	115322-08-22 09:20 G	43841788.71	43841788.89	43841789.09	0.0273	0.0125
Mercury	115322-09-15 02:36 G	43841812.49	43841812.61	43841812.72	0.0273	0.0203
Earth	115328-04-15 13:24 G	43843851.86	43843852.06	43843852.26	0.0271	0.0152
Moon	115328-04-15 14:22 G	43843851.88	43843852.10	43843852.31	0.0271	0.0138 *
Moon	115329-04-27 08:51 G	43844228.63	43844228.87	43844229.11	0.0272	0.0061
Earth	115329-04-27 12:12 G	43844228.78	43844229.01	43844229.25	0.0272	0.0060 *
Moon	115330-05-09 11:58 G	43844605.94	43844606.00	43844606.07	0.0273	0.0262
Earth	115330-05-09 12:41 G	43844606.03	43844606.03	43844606.04	0.0273	0.0273 *
Mars	115331-09-28 16:32 G	43845112.95	43845113.19	43845113.44	0.0275	0.0105
Venus	115337-01-26 11:00 G	43847059.94	43847059.96	43847060.00	0.0285	0.0283
Mercury	115337-04-17 22:46 G	43847141.37	43847141.45	43847141.54	0.0285	0.0222
Mercury	115337-07-15 11:44 G	43847229.85	43847229.99	43847230.12	0.0286	0.0057
Venus	115337-09-13 03:05 G	43847289.42	43847289.63	43847289.83	0.0286	0.0074

Mercury 115337-10-12 00:27 G 43847318.39 43847318.52 43847318.64 0.0286 0.0107
 Mercury 115338-01-08 12:41 G 43847406.99 43847407.03 43847407.08 0.0287 0.0270
 Earth 115342-10-14 05:29 G 43849146.54 43849146.73 43849146.94 0.0288 0.0166
 Moon 115342-10-14 09:34 G 43849146.69 43849146.90 43849147.12 0.0288 0.0149 *
 Earth 115343-10-28 14:22 G 43849525.87 43849526.10 43849526.34 0.0287 0.0100
 Moon 115343-10-28 16:17 G 43849525.95 43849526.18 43849526.43 0.0287 0.0112 *
 Mars 115345-10-06 00:41 G 43850234.24 43850234.53 43850234.84 0.0284 0.0100
 Venus 115351-07-18 05:15 G 43852345.54 43852345.72 43852345.89 0.0273 0.0151
 Mercury 115351-08-08 10:03 G 43852366.84 43852366.92 43852367.03 0.0273 0.0229
 Mercury 115351-11-05 05:44 G 43852455.56 43852455.74 43852455.91 0.0273 0.0044
 Mercury 115352-02-02 01:10 G 43852544.41 43852544.55 43852544.71 0.0273 0.0143
 Venus 115352-03-03 11:58 G 43852574.84 43852575.00 43852575.18 0.0272 0.0162
 Earth 115357-04-10 11:44 G 43854438.89 43854438.99 43854439.09 0.0270 0.0245
 Moon 115357-04-10 14:22 G 43854438.99 43854439.10 43854439.21 0.0270 0.0238 *
 Earth 115358-04-22 09:34 G 43854815.67 43854815.90 43854816.15 0.0271 0.0037
 Moon 115358-04-22 12:27 G 43854815.77 43854816.02 43854816.26 0.0271 0.0043 *
 Moon 115359-05-04 06:27 G 43855192.57 43855192.77 43855192.97 0.0272 0.0161
 Earth 115359-05-04 09:05 G 43855192.70 43855192.88 43855193.07 0.0272 0.0176 *
 Venus 115366-08-08 13:10 G 43857845.95 43857846.05 43857846.17 0.0286 0.0245
 Mercury 115366-09-04 23:44 G 43857873.47 43857873.49 43857873.52 0.0286 0.0281
 Mercury 115366-12-02 12:41 G 43857961.91 43857962.03 43857962.16 0.0286 0.0115
 Mercury 115367-03-01 01:24 G 43858050.43 43858050.56 43858050.70 0.0287 0.0050
 Venus 115367-03-26 05:29 G 43858075.54 43858075.73 43858075.92 0.0287 0.0115
 Mercury 115367-05-28 13:53 G 43858139.00 43858139.08 43858139.18 0.0287 0.0214
 Moon 115371-10-08 00:41 G 43859732.50 43859732.53 43859732.57 0.0289 0.0285
 Earth 115371-10-08 01:39 G 43859732.54 43859732.57 43859732.61 0.0289 0.0286 *
 Earth 115372-10-21 11:44 G 43860111.74 43860111.99 43860112.24 0.0288 0.0020
 Moon 115372-10-21 14:08 G 43860111.85 43860112.09 43860112.33 0.0288 0.0024 *
 Earth 115373-11-04 19:39 G 43860491.20 43860491.32 43860491.46 0.0287 0.0244
 Moon 115373-11-04 23:15 G 43860491.34 43860491.47 43860491.63 0.0287 0.0233 *

Mercury	115380-12-25 10:46 G	43863098.95	43863098.95	43863098.96	0.0274	0.0273
Venus	115381-01-27 11:00 G	43863131.76	43863131.96	43863132.16	0.0274	0.0103
Mercury	115381-03-24 06:12 G	43863187.59	43863187.76	43863187.93	0.0273	0.0090
Mercury	115381-06-21 01:39 G	43863276.41	43863276.57	43863276.74	0.0273	0.0097
Venus	115381-09-13 17:44 G	43863361.12	43863361.24	43863361.39	0.0273	0.0211
Earth	115387-04-17 18:27 G	43865403.06	43865403.27	43865403.49	0.0271	0.0130
Moon	115387-04-17 18:27 G	43865403.08	43865403.27	43865403.48	0.0271	0.0144 *
Earth	115388-04-28 17:44 G	43865780.01	43865780.24	43865780.47	0.0272	0.0083
Moon	115388-04-28 21:20 G	43865780.16	43865780.39	43865780.62	0.0272	0.0071 *
Venus	115396-02-19 00:41 G	43868632.37	43868632.53	43868632.70	0.0285	0.0178
Mercury	115396-04-20 16:17 G	43868694.06	43868694.18	43868694.30	0.0286	0.0141
Mercury	115396-07-18 05:15 G	43868782.58	43868782.72	43868782.85	0.0286	0.0026
Venus	115396-10-05 17:00 G	43868862.05	43868862.21	43868862.37	0.0286	0.0182
Mercury	115396-10-14 17:44 G	43868871.14	43868871.24	43868871.34	0.0286	0.0187
Moon	115401-10-16 14:51 G	43870697.92	43870698.12	43870698.33	0.0288	0.0150
Earth	115401-10-16 18:41 G	43870698.06	43870698.28	43870698.50	0.0288	0.0135 *
Moon	115402-10-31 01:53 G	43871077.37	43871077.58	43871077.80	0.0287	0.0115
Earth	115402-10-31 02:51 G	43871077.40	43871077.62	43871077.85	0.0287	0.0130 *
Venus	115410-08-10 15:20 G	43873917.93	43873918.14	43873918.35	0.0273	0.0060
Mercury	115410-08-12 05:58 G	43873919.60	43873919.75	43873919.90	0.0273	0.0142
Mercury	115410-11-09 01:24 G	43874008.38	43874008.56	43874008.73	0.0273	0.0043
Mercury	115411-02-05 21:05 G	43874097.29	43874097.38	43874097.48	0.0273	0.0230
Venus	115411-03-27 21:48 G	43874147.34	43874147.41	43874147.50	0.0272	0.0252
Moon	115416-04-12 15:20 G	43875990.03	43875990.14	43875990.27	0.0270	0.0236
Earth	115416-04-12 18:27 G	43875990.14	43875990.27	43875990.41	0.0270	0.0221 *
Moon	115417-04-24 15:20 G	43876366.90	43876367.14	43876367.37	0.0271	0.0015
Earth	115417-04-24 16:46 G	43876366.96	43876367.20	43876367.45	0.0271	0.0013 *
Earth	115418-05-06 16:32 G	43876744.03	43876744.19	43876744.35	0.0272	0.0201
Moon	115418-05-06 19:24 G	43876744.18	43876744.31	43876744.47	0.0272	0.0213 *
Mars	115420-02-23 08:36 G	43877401.68	43877401.86	43877402.08	0.0275	0.0184

Venus	115425-09-01 03:05 G	43879418.45	43879418.63	43879418.82	0.0286	0.0139
Mercury	115425-09-08 17:29 G	43879426.13	43879426.23	43879426.33	0.0286	0.0198
Mercury	115425-12-06 06:12 G	43879514.63	43879514.76	43879514.90	0.0286	0.0033
Mercury	115426-03-04 18:56 G	43879603.17	43879603.29	43879603.41	0.0287	0.0132
Venus	115426-04-18 19:24 G	43879648.19	43879648.31	43879648.45	0.0287	0.0223
Earth	115430-10-10 14:08 G	43881283.99	43881284.09	43881284.22	0.0289	0.0256
Moon	115430-10-10 14:51 G	43881284.03	43881284.12	43881284.21	0.0289	0.0269 *
Moon	115431-10-24 21:05 G	43881663.12	43881663.38	43881663.63	0.0288	0.0003
Earth	115431-10-24 23:58 G	43881663.26	43881663.50	43881663.75	0.0288	0.0012 *
Moon	115432-11-07 04:03 G	43882042.61	43882042.67	43882042.76	0.0287	0.0271
Earth	115432-11-07 07:10 G	43882042.74	43882042.80	43882042.89	0.0287	0.0272 *
Mars	115434-03-03 00:27 G	43882523.20	43882523.52	43882523.84	0.0284	0.0021
Mercury	115439-12-30 06:12 G	43884651.64	43884651.76	43884651.89	0.0273	0.0189
Venus	115440-02-20 21:05 G	43884704.16	43884704.38	43884704.59	0.0273	0.0013
Mercury	115440-03-28 01:39 G	43884740.40	43884740.57	43884740.75	0.0273	0.0005
Mercury	115440-06-24 21:20 G	43884829.26	43884829.39	43884829.53	0.0273	0.0183
Moon	115446-04-19 23:44 G	43886954.26	43886954.49	43886954.73	0.0272	0.0099
Earth	115446-04-20 01:10 G	43886954.33	43886954.55	43886954.78	0.0272	0.0105 *
Moon	115447-05-01 21:20 G	43887331.18	43887331.39	43887331.61	0.0273	0.0124
Earth	115447-05-02 00:41 G	43887331.31	43887331.53	43887331.76	0.0273	0.0108 *
Mercury	115455-01-26 21:05 G	43890158.30	43890158.38	43890158.47	0.0286	0.0223
Venus	115455-03-14 14:51 G	43890204.92	43890205.12	43890205.33	0.0286	0.0071
Mercury	115455-04-25 10:03 G	43890246.79	43890246.92	43890247.06	0.0286	0.0057
Mercury	115455-07-22 22:46 G	43890335.32	43890335.45	43890335.58	0.0286	0.0107
Mercury	115455-10-19 11:15 G	43890423.93	43890423.97	43890424.01	0.0287	0.0270
Earth	115460-10-18 09:20 G	43892249.66	43892249.89	43892250.12	0.0288	0.0102
Moon	115460-10-18 12:41 G	43892249.79	43892250.03	43892250.27	0.0288	0.0099 *
Earth	115461-11-01 17:15 G	43892629.02	43892629.22	43892629.43	0.0287	0.0162
Moon	115461-11-01 17:29 G	43892629.02	43892629.23	43892629.44	0.0287	0.0172 *
Mercury	115469-05-18 06:41 G	43895383.70	43895383.78	43895383.88	0.0273	0.0234

Mercury	115469-08-15 02:08 G	43895472.42	43895472.59	43895472.77	0.0273	0.0050
Venus	115469-09-02 02:51 G	43895490.41	43895490.62	43895490.83	0.0273	0.0035
Mercury	115469-11-11 21:34 G	43895561.25	43895561.40	43895561.56	0.0273	0.0136
Earth	115475-04-15 02:08 G	43897541.44	43897541.59	43897541.77	0.0270	0.0197
Moon	115475-04-15 05:29 G	43897541.57	43897541.73	43897541.92	0.0270	0.0184 *
Earth	115476-04-26 00:56 G	43897918.30	43897918.54	43897918.79	0.0271	0.0015
Moon	115476-04-26 01:53 G	43897918.33	43897918.58	43897918.83	0.0271	0.0027 *
Moon	115477-05-07 21:20 G	43898295.27	43898295.39	43898295.53	0.0273	0.0230
Earth	115477-05-08 00:56 G	43898295.42	43898295.54	43898295.68	0.0273	0.0226 *
Mercury	115484-06-14 22:17 G	43900890.41	43900890.43	43900890.46	0.0286	0.0280
Mercury	115484-09-11 11:15 G	43900978.84	43900978.97	43900979.10	0.0286	0.0113
Venus	115484-09-23 17:44 G	43900991.03	43900991.24	43900991.45	0.0286	0.0030
Mercury	115484-12-08 23:58 G	43901067.37	43901067.50	43901067.64	0.0287	0.0052
Mercury	115485-03-07 12:27 G	43901155.94	43901156.02	43901156.11	0.0287	0.0215
Earth	115489-10-12 05:00 G	43902835.56	43902835.71	43902835.87	0.0289	0.0225
Moon	115489-10-12 05:15 G	43902835.57	43902835.72	43902835.89	0.0289	0.0211 *
Earth	115490-10-26 14:22 G	43903214.85	43903215.10	43903215.35	0.0288	0.0041
Moon	115490-10-26 17:44 G	43903215.00	43903215.24	43903215.49	0.0288	0.0058 *
Venus	115498-07-28 23:58 G	43906047.40	43906047.50	43906047.61	0.0274	0.0237
Mercury	115499-01-02 02:08 G	43906204.43	43906204.59	43906204.76	0.0273	0.0100
Venus	115499-03-15 07:53 G	43906276.63	43906276.83	43906277.04	0.0273	0.0080
Mercury	115499-03-31 21:48 G	43906293.24	43906293.41	43906293.58	0.0273	0.0086
Earth	115505-04-22 08:36 G	43908505.64	43908505.86	43908506.10	0.0272	0.0080
Moon	115505-04-22 11:00 G	43908505.74	43908505.96	43908506.19	0.0272	0.0074 *
Earth	115506-05-04 08:36 G	43908882.65	43908882.86	43908883.07	0.0273	0.0134
Moon	115506-05-04 11:44 G	43908882.79	43908882.99	43908883.22	0.0273	0.0128 *
Mercury	115514-01-30 15:05 G	43911711.01	43911711.13	43911711.25	0.0286	0.0137
Venus	115514-04-07 05:58 G	43911777.54	43911777.75	43911777.96	0.0286	0.0039
Mercury	115514-04-29 03:48 G	43911799.53	43911799.66	43911799.80	0.0286	0.0029
Mercury	115514-07-26 16:32 G	43911888.09	43911888.19	43911888.29	0.0287	0.0192

Moon	115519-10-21 22:32 G	43913801.20	43913801.44	43913801.68	0.0288	0.0059
Earth	115519-10-22 01:10 G	43913801.31	43913801.55	43913801.79	0.0288	0.0068 *
Earth	115520-11-04 08:36 G	43914180.69	43914180.86	43914181.06	0.0287	0.0195
Moon	115520-11-04 09:20 G	43914180.72	43914180.89	43914181.07	0.0287	0.0198 *
Mars	115522-07-30 04:03 G	43914813.47	43914813.67	43914813.91	0.0284	0.0206
Venus	115528-02-09 07:53 G	43916833.67	43916833.83	43916833.99	0.0274	0.0184
Mercury	115528-05-22 03:20 G	43916936.49	43916936.64	43916936.79	0.0273	0.0139
Mercury	115528-08-18 22:46 G	43917025.28	43917025.45	43917025.63	0.0273	0.0046
Venus	115528-09-25 14:51 G	43917062.94	43917063.12	43917063.32	0.0273	0.0131
Mercury	115528-11-15 18:27 G	43917114.18	43917114.27	43917114.36	0.0273	0.0232
Moon	115534-04-17 07:39 G	43919092.64	43919092.82	43919093.01	0.0271	0.0175
Earth	115534-04-17 11:15 G	43919092.79	43919092.97	43919093.16	0.0271	0.0169 *
Moon	115535-04-29 09:48 G	43919469.67	43919469.91	43919470.14	0.0271	0.0027
Earth	115535-04-29 09:48 G	43919469.68	43919469.91	43919470.16	0.0271	0.0042 *
Earth	115536-05-10 10:03 G	43919846.84	43919846.92	43919847.02	0.0273	0.0253
Moon	115536-05-10 13:24 G	43919846.96	43919847.06	43919847.19	0.0273	0.0239 *
Venus	115543-03-02 16:32 G	43922334.15	43922334.19	43922334.24	0.0286	0.0278
Mercury	115543-06-19 16:03 G	43922443.07	43922443.17	43922443.27	0.0286	0.0195
Mercury	115543-09-16 05:00 G	43922531.57	43922531.71	43922531.84	0.0286	0.0029
Venus	115543-10-18 08:22 G	43922563.65	43922563.85	43922564.06	0.0287	0.0080
Mercury	115543-12-13 17:29 G	43922620.12	43922620.23	43922620.36	0.0287	0.0136
Moon	115548-10-14 18:56 G	43924387.11	43924387.29	43924387.48	0.0289	0.0198
Earth	115548-10-14 20:08 G	43924387.17	43924387.34	43924387.54	0.0289	0.0192 *
Moon	115549-10-29 01:39 G	43924766.32	43924766.57	43924766.81	0.0288	0.0061
Earth	115549-10-29 05:15 G	43924766.49	43924766.72	43924766.97	0.0288	0.0075 *
Venus	115557-08-21 12:12 G	43927619.83	43927620.01	43927620.20	0.0273	0.0141
Mercury	115557-10-09 03:05 G	43927668.52	43927668.63	43927668.76	0.0273	0.0191
Mercury	115558-01-05 22:46 G	43927757.27	43927757.45	43927757.62	0.0273	0.0008
Mercury	115558-04-04 18:12 G	43927846.13	43927846.26	43927846.40	0.0273	0.0181
Venus	115558-04-07 19:39 G	43927849.16	43927849.32	43927849.49	0.0273	0.0174

Earth	115563-04-12 17:29 G	43929680.18	43929680.23	43929680.30	0.0271	0.0261
Moon	115563-04-12 19:53 G	43929680.33	43929680.33	43929680.33	0.0271	0.0271
Moon	115564-04-23 13:39 G	43930056.83	43930057.07	43930057.31	0.0272	0.0069
Earth	115564-04-23 16:46 G	43930056.96	43930057.20	43930057.43	0.0272	0.0053 *
Moon	115565-05-05 13:53 G	43930433.89	43930434.08	43930434.28	0.0273	0.0152
Earth	115565-05-05 16:32 G	43930434.00	43930434.19	43930434.39	0.0273	0.0160 *
Venus	115572-09-12 04:03 G	43933120.54	43933120.67	43933120.82	0.0286	0.0213
Mercury	115572-11-05 19:39 G	43933175.24	43933175.32	43933175.42	0.0286	0.0220
Mercury	115573-02-02 08:36 G	43933263.73	43933263.86	43933264.00	0.0286	0.0055
Venus	115573-04-29 20:22 G	43933350.18	43933350.35	43933350.54	0.0287	0.0148
Mercury	115573-05-01 21:20 G	43933352.27	43933352.39	43933352.52	0.0287	0.0112
Mercury	115573-07-29 10:03 G	43933440.88	43933440.92	43933440.96	0.0287	0.0274
Earth	115578-10-23 17:00 G	43935352.96	43935353.21	43935353.46	0.0288	0.0033
Moon	115578-10-23 19:24 G	43935353.06	43935353.31	43935353.56	0.0288	0.0050 *
Moon	115579-11-06 23:29 G	43935732.31	43935732.48	43935732.66	0.0287	0.0212
Earth	115579-11-07 00:27 G	43935732.38	43935732.52	43935732.68	0.0287	0.0228 *
Mercury	115587-02-26 04:46 G	43938400.61	43938400.70	43938400.80	0.0273	0.0225
Venus	115587-03-03 20:36 G	43938406.16	43938406.36	43938406.57	0.0273	0.0086
Mercury	115587-05-26 00:12 G	43938489.33	43938489.51	43938489.68	0.0273	0.0042
Mercury	115587-08-22 19:39 G	43938578.17	43938578.32	43938578.47	0.0273	0.0143
Venus	115587-10-19 03:20 G	43938635.54	43938635.64	43938635.77	0.0272	0.0227
Earth	115593-04-18 20:22 G	43940644.14	43940644.35	43940644.55	0.0271	0.0142
Moon	115593-04-18 23:58 G	43940644.30	43940644.50	43940644.70	0.0271	0.0152 *
Moon	115594-04-30 18:27 G	43941021.04	43941021.27	43941021.52	0.0272	0.0072
Earth	115594-04-30 18:56 G	43941021.06	43941021.29	43941021.53	0.0272	0.0068 *
Venus	115602-03-25 06:41 G	43943906.62	43943906.78	43943906.96	0.0286	0.0172
Mercury	115602-03-25 20:51 G	43943907.34	43943907.37	43943907.40	0.0286	0.0277
Mercury	115602-06-22 09:48 G	43943995.79	43943995.91	43943996.04	0.0286	0.0110
Mercury	115602-09-18 22:32 G	43944084.31	43944084.44	43944084.58	0.0287	0.0056
Venus	115602-11-09 23:00 G	43944136.31	43944136.46	43944136.62	0.0287	0.0189

Mercury	115602-12-16 11:15 G	43944172.88	43944172.97	43944173.06	0.0287	0.0218
Earth	115607-10-17 11:15 G	43945938.77	43945938.97	43945939.18	0.0289	0.0158
Moon	115607-10-17 13:24 G	43945938.87	43945939.06	43945939.26	0.0289	0.0167 *
Earth	115608-10-30 20:08 G	43946318.11	43946318.34	43946318.57	0.0288	0.0107
Moon	115608-10-30 23:58 G	43946318.27	43946318.50	43946318.73	0.0288	0.0103 *
Jupiter	115615-10-30 15:20 G	43948873.75	43948874.14	43948874.58	0.0274	0.0143
Venus	115616-09-13 00:27 G	43949192.31	43949192.52	43949192.73	0.0273	0.0045
Mercury	115616-10-11 23:44 G	43949221.32	43949221.49	43949221.65	0.0273	0.0097
Mercury	115617-01-08 19:10 G	43949310.13	43949310.30	43949310.47	0.0273	0.0088
Venus	115617-04-30 07:10 G	43949421.77	43949421.80	43949421.85	0.0272	0.0267
Moon	115622-04-13 23:58 G	43951231.40	43951231.50	43951231.63	0.0271	0.0235
Earth	115622-04-14 01:10 G	43951231.44	43951231.55	43951231.68	0.0271	0.0235 *
Earth	115623-04-26 00:12 G	43951608.27	43951608.51	43951608.75	0.0272	0.0026
Moon	115623-04-26 03:20 G	43951608.40	43951608.64	43951608.88	0.0272	0.0014 *
Earth	115624-05-07 00:12 G	43951985.34	43951985.51	43951985.69	0.0273	0.0186
Moon	115624-05-07 02:08 G	43951985.43	43951985.59	43951985.76	0.0273	0.0200 *
Venus	115631-10-05 17:29 G	43954693.03	43954693.23	43954693.42	0.0286	0.0108
Mercury	115631-11-09 13:24 G	43954727.94	43954728.06	43954728.18	0.0286	0.0140
Mercury	115632-02-06 02:08 G	43954816.45	43954816.59	43954816.73	0.0286	0.0026
Mercury	115632-05-04 14:51 G	43954905.02	43954905.12	43954905.22	0.0287	0.0190
Venus	115632-05-22 10:03 G	43954922.83	43954922.92	43954923.02	0.0287	0.0254
Moon	115636-10-10 17:44 G	43956525.14	43956525.24	43956525.35	0.0289	0.0258
Earth	115636-10-10 21:20 G	43956525.31	43956525.39	43956525.50	0.0289	0.0265 *
Moon	115637-10-25 05:00 G	43956904.47	43956904.71	43956904.96	0.0288	0.0011
Earth	115637-10-25 07:10 G	43956904.55	43956904.80	43956905.05	0.0288	0.0003 *
Earth	115638-11-08 14:22 G	43957284.01	43957284.10	43957284.21	0.0287	0.0260
Moon	115638-11-08 15:34 G	43957284.10	43957284.15	43957284.23	0.0287	0.0275 *
Mercury	115646-03-01 01:39 G	43959953.41	43959953.57	43959953.72	0.0273	0.0129
Venus	115646-03-26 09:20 G	43959978.68	43959978.89	43959979.11	0.0273	0.0012
Mercury	115646-05-28 20:51 G	43960042.20	43960042.37	43960042.55	0.0273	0.0055

Mercury	115646-08-25 16:17 G	43960131.11	43960131.18	43960131.27	0.0273	0.0242
Moon	115652-04-20 01:24 G	43962195.35	43962195.56	43962195.79	0.0271	0.0100
Earth	115652-04-20 05:00 G	43962195.49	43962195.71	43962195.93	0.0271	0.0115 *
Earth	115653-05-02 03:20 G	43962572.42	43962572.64	43962572.87	0.0272	0.0096
Moon	115653-05-02 04:32 G	43962572.48	43962572.69	43962572.91	0.0272	0.0104 *
Mercury	115661-03-28 14:22 G	43965460.00	43965460.10	43965460.20	0.0286	0.0196
Venus	115661-04-16 20:08 G	43965479.13	43965479.34	43965479.54	0.0286	0.0067
Mercury	115661-06-25 03:05 G	43965548.50	43965548.63	43965548.77	0.0286	0.0032
Mercury	115661-09-21 15:48 G	43965637.04	43965637.16	43965637.28	0.0287	0.0134
Moon	115666-10-18 22:03 G	43967490.19	43967490.42	43967490.66	0.0289	0.0109
Earth	115666-10-19 00:41 G	43967490.31	43967490.53	43967490.76	0.0289	0.0126 *
Moon	115667-11-02 05:29 G	43967869.52	43967869.73	43967869.94	0.0287	0.0155
Earth	115667-11-02 09:20 G	43967869.67	43967869.89	43967870.11	0.0287	0.0138 *
Venus	115675-02-19 04:03 G	43970535.63	43970535.67	43970535.71	0.0274	0.0267
Mercury	115675-07-19 00:27 G	43970685.40	43970685.52	43970685.65	0.0273	0.0189
Venus	115675-10-06 11:58 G	43970764.79	43970765.00	43970765.21	0.0273	0.0049
Mercury	115675-10-15 19:53 G	43970774.15	43970774.33	43970774.51	0.0273	0.0006
Mercury	115676-01-12 15:20 G	43970863.01	43970863.14	43970863.28	0.0273	0.0181
Earth	115681-04-15 07:53 G	43972782.69	43972782.83	43972783.00	0.0271	0.0209
Moon	115681-04-15 08:36 G	43972782.70	43972782.86	43972783.05	0.0271	0.0196 *
Moon	115682-04-27 03:34 G	43973159.40	43973159.65	43973159.89	0.0272	0.0004
Earth	115682-04-27 06:56 G	43973159.55	43973159.79	43973160.03	0.0272	0.0000 *
Moon	115683-05-09 06:12 G	43973536.61	43973536.76	43973536.93	0.0273	0.0200
Earth	115683-05-09 06:56 G	43973536.65	43973536.79	43973536.95	0.0273	0.0212 *
Mercury	115690-08-15 17:15 G	43976192.15	43976192.22	43976192.31	0.0286	0.0230
Venus	115690-10-28 05:29 G	43976265.52	43976265.73	43976265.95	0.0286	0.0010
Mercury	115690-11-12 06:12 G	43976280.63	43976280.76	43976280.90	0.0286	0.0064
Mercury	115691-02-08 19:10 G	43976369.17	43976369.30	43976369.43	0.0287	0.0102
Mercury	115691-05-08 07:39 G	43976457.77	43976457.82	43976457.87	0.0287	0.0265
Earth	115695-10-13 09:20 G	43978076.76	43978076.89	43978077.05	0.0289	0.0234

Moon	115695-10-13 13:10 G	43978076.90	43978077.05	43978077.22	0.0289	0.0222	*
Earth	115696-10-26 19:10 G	43978456.05	43978456.30	43978456.54	0.0288	0.0032	
Moon	115696-10-26 20:36 G	43978456.11	43978456.36	43978456.62	0.0288	0.0038	*
Venus	115704-09-01 13:10 G	43981321.92	43981322.05	43981322.19	0.0274	0.0209	
Mercury	115704-12-06 02:22 G	43981417.51	43981417.60	43981417.71	0.0273	0.0221	
Mercury	115705-03-04 21:48 G	43981506.24	43981506.41	43981506.59	0.0273	0.0037	
Venus	115705-04-18 20:51 G	43981551.18	43981551.37	43981551.57	0.0273	0.0107	
Mercury	115705-06-01 17:15 G	43981595.07	43981595.22	43981595.37	0.0273	0.0148	
Earth	115711-04-23 12:27 G	43983746.79	43983747.02	43983747.25	0.0271	0.0089	
Moon	115711-04-23 15:20 G	43983746.92	43983747.14	43983747.38	0.0271	0.0097	*
Moon	115712-05-04 08:22 G	43984123.63	43984123.85	43984124.08	0.0272	0.0108	
Earth	115712-05-04 10:46 G	43984123.74	43984123.95	43984124.17	0.0272	0.0122	*
Mercury	115720-04-01 07:24 G	43987012.68	43987012.81	43987012.93	0.0286	0.0121	
Venus	115720-05-10 08:08 G	43987051.63	43987051.84	43987052.05	0.0286	0.0034	
Mercury	115720-06-28 20:08 G	43987101.21	43987101.34	43987101.48	0.0286	0.0045	
Mercury	115720-09-25 08:51 G	43987189.78	43987189.87	43987189.96	0.0287	0.0208	
Earth	115725-10-21 11:15 G	43989041.74	43989041.97	43989042.21	0.0289	0.0096	
Moon	115725-10-21 13:53 G	43989041.86	43989042.08	43989042.31	0.0289	0.0107	*
Earth	115726-11-04 19:39 G	43989421.12	43989421.32	43989421.53	0.0287	0.0169	
Moon	115726-11-04 23:15 G	43989421.26	43989421.47	43989421.68	0.0287	0.0154	*
Venus	115734-03-14 14:51 G	43992107.96	43992108.12	43992108.29	0.0274	0.0174	
Mercury	115734-07-22 20:22 G	43992238.19	43992238.35	43992238.51	0.0273	0.0101	
Mercury	115734-10-19 15:48 G	43992326.99	43992327.16	43992327.33	0.0273	0.0084	
Venus	115734-10-29 22:32 G	43992337.27	43992337.44	43992337.63	0.0273	0.0142	
Mercury	115735-01-16 11:15 G	43992415.96	43992415.97	43992416.00	0.0272	0.0270	
Earth	115740-04-17 14:08 G	43994333.91	43994334.09	43994334.27	0.0271	0.0183	
Moon	115740-04-17 13:53 G	43994333.94	43994334.08	43994334.25	0.0271	0.0199	*
Earth	115741-04-29 12:27 G	43994710.78	43994711.02	43994711.26	0.0272	0.0026	
Moon	115741-04-29 15:48 G	43994710.92	43994711.16	43994711.41	0.0272	0.0016	*
Earth	115742-05-11 12:12 G	43995087.90	43995088.01	43995088.14	0.0273	0.0237	

Moon	115742-05-11 12:12 G	43995087.90	43995088.01	43995088.13	0.0273	0.0240	*
Mars	115743-08-20 16:17 G	43995554.01	43995554.18	43995554.38	0.0275	0.0201	
Venus	115749-04-05 00:12 G	43997608.45	43997608.51	43997608.59	0.0286	0.0268	
Mercury	115749-08-19 10:03 G	43997744.80	43997744.92	43997745.03	0.0286	0.0159	
Mercury	115749-11-15 22:46 G	43997833.32	43997833.45	43997833.59	0.0287	0.0012	
Venus	115749-11-20 16:03 G	43997837.97	43997838.17	43997838.37	0.0287	0.0091	
Mercury	115750-02-12 11:29 G	43997921.88	43997921.98	43997922.09	0.0287	0.0171	
Moon	115754-10-15 14:51 G	43999627.97	43999628.12	43999628.28	0.0289	0.0222	
Earth	115754-10-15 18:12 G	43999628.10	43999628.26	43999628.44	0.0289	0.0204	*
Moon	115755-10-30 03:20 G	44000007.40	44000007.64	44000007.88	0.0288	0.0047	
Earth	115755-10-30 03:48 G	44000007.42	44000007.66	44000007.91	0.0288	0.0061	*
Venus	115763-09-24 23:58 G	44002894.31	44002894.50	44002894.70	0.0274	0.0116	
Mercury	115763-12-09 22:03 G	44002970.28	44002970.42	44002970.58	0.0273	0.0134	
Mercury	115764-03-07 17:29 G	44003059.06	44003059.23	44003059.41	0.0273	0.0051	
Venus	115764-05-11 07:24 G	44003123.66	44003123.81	44003123.95	0.0273	0.0198	
Mercury	115764-06-04 12:56 G	44003147.97	44003148.04	44003148.14	0.0273	0.0238	
Earth	115769-04-12 21:05 G	44004921.38	44004921.38	44004921.38	0.0270	0.0270	
Moon	115770-04-24 16:17 G	44005297.95	44005298.18	44005298.41	0.0271	0.0066	
Earth	115770-04-24 18:12 G	44005298.03	44005298.26	44005298.50	0.0271	0.0064	*
Earth	115771-05-06 16:46 G	44005674.99	44005675.20	44005675.40	0.0272	0.0147	
Moon	115771-05-06 19:39 G	44005675.14	44005675.32	44005675.52	0.0272	0.0161	*
Venus	115778-10-16 02:51 G	44008394.50	44008394.62	44008394.76	0.0285	0.0226	
Mercury	115779-01-06 11:00 G	44008476.87	44008476.96	44008477.05	0.0286	0.0215	
Mercury	115779-04-04 23:58 G	44008565.37	44008565.50	44008565.64	0.0286	0.0050	
Venus	115779-06-02 18:41 G	44008624.10	44008624.28	44008624.47	0.0286	0.0133	
Mercury	115779-07-02 12:41 G	44008653.91	44008654.03	44008654.16	0.0286	0.0115	
Mercury	115779-09-29 01:10 G	44008742.52	44008742.55	44008742.59	0.0287	0.0277	
Moon	115784-10-22 16:17 G	44010592.93	44010593.18	44010593.42	0.0289	0.0069	
Earth	115784-10-22 19:24 G	44010593.08	44010593.31	44010593.56	0.0289	0.0068	*
Moon	115785-11-06 00:56 G	44010972.38	44010972.54	44010972.72	0.0287	0.0203	

Earth	115785-11-06 03:48 G	44010972.49	44010972.66	44010972.85	0.0287	0.0197	*
Venus	115793-04-06 00:27 G	44013680.32	44013680.52	44013680.73	0.0273	0.0084	
Mercury	115793-04-27 20:08 G	44013702.23	44013702.34	44013702.47	0.0273	0.0201	
Mercury	115793-07-25 15:34 G	44013790.97	44013791.15	44013791.33	0.0273	0.0018	
Mercury	115793-10-22 11:00 G	44013879.82	44013879.96	44013880.10	0.0273	0.0168	
Venus	115793-11-21 07:53 G	44013909.72	44013909.83	44013909.95	0.0272	0.0230	
Moon	115799-04-19 17:00 G	44015885.01	44015885.21	44015885.42	0.0271	0.0151	
Earth	115799-04-19 18:12 G	44015885.07	44015885.26	44015885.46	0.0271	0.0159	*
Moon	115800-05-01 13:10 G	44016261.82	44016262.05	44016262.28	0.0272	0.0066	
Earth	115800-05-01 16:32 G	44016261.95	44016262.19	44016262.43	0.0272	0.0050	*
Earth	115801-05-13 16:03 G	44016639.11	44016639.17	44016639.25	0.0273	0.0261	
Moon	115801-05-13 17:00 G	44016639.20	44016639.21	44016639.24	0.0273	0.0271	*
Venus	115808-04-28 09:20 G	44019180.73	44019180.89	44019181.06	0.0286	0.0175	
Mercury	115808-05-26 13:10 G	44019209.00	44019209.05	44019209.11	0.0286	0.0260	
Mercury	115808-08-23 02:08 G	44019297.46	44019297.59	44019297.72	0.0286	0.0093	
Mercury	115808-11-19 14:51 G	44019385.99	44019386.12	44019386.26	0.0287	0.0073	
Venus	115808-12-14 01:24 G	44019410.40	44019410.56	44019410.72	0.0287	0.0185	
Mercury	115809-02-16 03:34 G	44019474.58	44019474.65	44019474.73	0.0287	0.0235	
Earth	115813-10-17 23:58 G	44021179.31	44021179.50	44021179.70	0.0289	0.0179	
Moon	115813-10-18 02:36 G	44021179.42	44021179.61	44021179.83	0.0289	0.0170	*
Moon	115814-11-01 08:36 G	44021558.62	44021558.86	44021559.11	0.0288	0.0101	
Earth	115814-11-01 09:20 G	44021558.66	44021558.89	44021559.13	0.0288	0.0087	*
Mercury	115822-09-15 21:48 G	44024434.34	44024434.41	44024434.51	0.0274	0.0235	
Venus	115822-10-18 09:05 G	44024466.67	44024466.88	44024467.10	0.0274	0.0028	
Mercury	115822-12-13 17:15 G	44024523.05	44024523.22	44024523.39	0.0273	0.0052	
Mercury	115823-03-12 12:41 G	44024611.88	44024612.03	44024612.19	0.0273	0.0134	
Earth	115828-04-15 01:39 G	44026472.48	44026472.57	44026472.67	0.0270	0.0247	
Moon	115828-04-15 04:32 G	44026472.59	44026472.69	44026472.83	0.0270	0.0234	*
Earth	115829-04-26 22:46 G	44026849.21	44026849.45	44026849.69	0.0271	0.0040	
Moon	115829-04-26 23:44 G	44026849.24	44026849.49	44026849.74	0.0271	0.0029	*

Moon	115830-05-08 17:29 G	44027226.05	44027226.23	44027226.43	0.0272	0.0169
Earth	115830-05-08 21:05 G	44027226.20	44027226.38	44027226.57	0.0272	0.0171 *
Mars	115832-01-15 13:24 G	44027842.81	44027843.06	44027843.31	0.0274	0.0103
Venus	115837-11-08 12:12 G	44029966.82	44029967.01	44029967.19	0.0285	0.0133
Mercury	115838-01-10 03:20 G	44030029.52	44030029.64	44030029.76	0.0286	0.0149
Mercury	115838-04-08 16:03 G	44030118.04	44030118.17	44030118.31	0.0286	0.0017
Venus	115838-06-26 03:48 G	44030196.54	44030196.66	44030196.80	0.0286	0.0227
Mercury	115838-07-06 04:46 G	44030206.60	44030206.70	44030206.81	0.0286	0.0179
Earth	115843-10-26 00:27 G	44032144.27	44032144.52	44032144.77	0.0289	0.0042
Moon	115843-10-26 04:03 G	44032144.43	44032144.67	44032144.92	0.0289	0.0029 *
Earth	115844-11-08 08:51 G	44032523.72	44032523.87	44032524.03	0.0287	0.0222
Moon	115844-11-08 11:00 G	44032523.82	44032523.96	44032524.13	0.0287	0.0230 *
Venus	115852-04-29 08:51 G	44035252.66	44035252.87	44035253.08	0.0273	0.0002
Mercury	115852-05-01 14:51 G	44035254.97	44035255.12	44035255.28	0.0273	0.0124
Mercury	115852-07-29 10:17 G	44035343.76	44035343.93	44035344.10	0.0273	0.0060
Mercury	115852-10-26 05:44 G	44035432.67	44035432.74	44035432.82	0.0273	0.0247
Earth	115858-04-21 20:51 G	44037436.16	44037436.37	44037436.58	0.0271	0.0137
Moon	115858-04-21 23:15 G	44037436.27	44037436.47	44037436.68	0.0271	0.0135 *
Earth	115859-05-03 18:56 G	44037813.06	44037813.29	44037813.52	0.0271	0.0073
Moon	115859-05-03 22:03 G	44037813.18	44037813.42	44037813.66	0.0271	0.0062 *
Moon	115860-05-14 16:46 G	44038190.16	44038190.20	44038190.26	0.0273	0.0267
Venus	115867-05-21 17:00 G	44040753.02	44040753.21	44040753.42	0.0286	0.0086
Mercury	115867-05-30 05:00 G	44040761.61	44040761.71	44040761.81	0.0286	0.0198
Mercury	115867-08-26 17:58 G	44040850.11	44040850.25	44040850.39	0.0286	0.0032
Mercury	115867-11-23 06:41 G	44040938.66	44040938.78	44040938.90	0.0287	0.0132
Venus	115868-01-06 09:20 G	44040982.84	44040982.89	44040982.95	0.0287	0.0275
Moon	115872-10-19 01:24 G	44042730.36	44042730.56	44042730.77	0.0289	0.0155
Earth	115872-10-19 03:05 G	44042730.43	44042730.63	44042730.85	0.0289	0.0155 *
Earth	115873-11-02 12:56 G	44043109.81	44043110.04	44043110.27	0.0288	0.0111
Moon	115873-11-02 14:36 G	44043109.89	44043110.11	44043110.34	0.0288	0.0104 *

Venus	115881-03-25 08:08 G	44045809.79	44045809.84	44045809.91	0.0275	0.0262
Mercury	115881-09-18 16:17 G	44045987.04	44045987.18	44045987.33	0.0274	0.0160
Venus	115881-11-09 17:00 G	44046039.00	44046039.21	44046039.42	0.0274	0.0058
Mercury	115881-12-16 11:44 G	44046075.81	44046075.99	44046076.16	0.0273	0.0025
Mercury	115882-03-15 07:10 G	44046164.69	44046164.80	44046164.92	0.0273	0.0211
Moon	115887-04-17 01:10 G	44048023.43	44048023.55	44048023.67	0.0270	0.0234
Earth	115887-04-17 04:32 G	44048023.56	44048023.69	44048023.83	0.0270	0.0226 *
Earth	115888-04-28 01:39 G	44048400.33	44048400.57	44048400.81	0.0271	0.0018
Moon	115888-04-28 01:39 G	44048400.34	44048400.57	44048400.81	0.0271	0.0034 *
Earth	115889-05-09 23:44 G	44048777.33	44048777.49	44048777.67	0.0272	0.0193
Moon	115889-05-10 03:34 G	44048777.47	44048777.65	44048777.83	0.0272	0.0180 *
Mercury	115896-10-16 06:12 G	44051493.70	44051493.76	44051493.83	0.0285	0.0251
Venus	115896-11-30 20:22 G	44051539.15	44051539.35	44051539.56	0.0285	0.0042
Mercury	115897-01-12 19:10 G	44051582.17	44051582.30	44051582.44	0.0285	0.0086
Mercury	115897-04-11 08:08 G	44051670.70	44051670.84	44051670.97	0.0286	0.0078
Mercury	115897-07-08 20:36 G	44051759.29	44051759.36	44051759.43	0.0286	0.0240
Earth	115901-10-13 17:29 G	44053316.19	44053316.23	44053316.29	0.0289	0.0282
Moon	115902-10-27 23:44 G	44053695.24	44053695.49	44053695.73	0.0288	0.0036
Earth	115902-10-28 03:20 G	44053695.39	44053695.64	44053695.89	0.0288	0.0018 *
Moon	115903-11-11 10:03 G	44054074.78	44054074.92	44054075.07	0.0287	0.0228
Earth	115903-11-11 11:44 G	44054074.86	44054074.99	44054075.12	0.0287	0.0245 *
Venus	115910-10-06 07:24 G	44056595.70	44056595.81	44056595.92	0.0274	0.0234
Mercury	115911-02-06 13:39 G	44056718.99	44056719.07	44056719.16	0.0274	0.0234
Mercury	115911-05-06 08:51 G	44056807.70	44056807.87	44056808.05	0.0273	0.0052
Venus	115911-05-23 15:48 G	44056824.96	44056825.16	44056825.37	0.0273	0.0085
Mercury	115911-08-03 04:17 G	44056896.53	44056896.68	44056896.84	0.0273	0.0134
Moon	115917-04-23 19:10 G	44058987.09	44058987.30	44058987.52	0.0271	0.0128
Earth	115917-04-23 22:32 G	44058987.23	44058987.44	44058987.66	0.0271	0.0115 *
Moon	115918-05-05 18:27 G	44059364.05	44059364.27	44059364.49	0.0271	0.0093
Earth	115918-05-05 20:36 G	44059364.14	44059364.36	44059364.59	0.0271	0.0095 *

Mars	115920-06-10 20:36 G	44060131.09	44060131.36	44060131.63	0.0274	0.0049
Mercury	115926-06-02 20:36 G	44062314.24	44062314.36	44062314.48	0.0286	0.0139
Venus	115926-06-13 23:58 G	44062325.29	44062325.50	44062325.72	0.0286	0.0007
Mercury	115926-08-30 09:34 G	44062402.76	44062402.90	44062403.03	0.0286	0.0026
Mercury	115926-11-26 22:03 G	44062491.32	44062491.42	44062491.53	0.0287	0.0189
Earth	115931-10-22 03:48 G	44064281.44	44064281.66	44064281.88	0.0289	0.0133
Moon	115931-10-22 04:17 G	44064281.46	44064281.68	44064281.91	0.0289	0.0144 *
Moon	115932-11-04 10:46 G	44064660.72	44064660.95	44064661.18	0.0288	0.0126
Earth	115932-11-04 13:24 G	44064660.85	44064661.06	44064661.29	0.0288	0.0133 *
Venus	115940-04-17 14:51 G	44067381.97	44067382.12	44067382.29	0.0275	0.0179
Mercury	115940-06-25 14:51 G	44067451.11	44067451.12	44067451.15	0.0274	0.0272
Mercury	115940-09-22 10:03 G	44067539.76	44067539.92	44067540.09	0.0274	0.0090
Venus	115940-12-02 23:29 G	44067611.30	44067611.48	44067611.66	0.0274	0.0139
Mercury	115940-12-20 05:29 G	44067628.57	44067628.73	44067628.90	0.0274	0.0096
Earth	115946-04-19 05:58 G	44069574.60	44069574.75	44069574.91	0.0270	0.0207
Moon	115946-04-19 09:20 G	44069574.75	44069574.89	44069575.05	0.0270	0.0211 *
Moon	115947-05-01 02:36 G	44069951.36	44069951.61	44069951.86	0.0271	0.0011
Earth	115947-05-01 03:20 G	44069951.40	44069951.64	44069951.89	0.0271	0.0006 *
Moon	115948-05-11 22:17 G	44070328.31	44070328.43	44070328.56	0.0272	0.0229
Earth	115948-05-12 01:24 G	44070328.43	44070328.56	44070328.72	0.0272	0.0214 *
Mercury	115955-10-20 22:03 G	44073046.32	44073046.42	44073046.53	0.0285	0.0190
Venus	115955-12-25 04:03 G	44073111.46	44073111.67	44073111.88	0.0285	0.0047
Mercury	115956-01-17 11:00 G	44073134.82	44073134.96	44073135.10	0.0285	0.0025
Mercury	115956-04-14 23:44 G	44073223.37	44073223.49	44073223.61	0.0286	0.0137
Earth	115960-10-14 19:24 G	44074867.21	44074867.31	44074867.42	0.0289	0.0260
Moon	115960-10-14 22:32 G	44074867.34	44074867.44	44074867.56	0.0289	0.0256 *
Earth	115961-10-29 04:46 G	44075246.46	44075246.70	44075246.95	0.0288	0.0007
Moon	115961-10-29 08:36 G	44075246.60	44075246.86	44075247.11	0.0288	0.0014 *
Earth	115962-11-12 12:56 G	44075625.96	44075626.04	44075626.14	0.0287	0.0266
Moon	115962-11-12 13:53 G	44075626.02	44075626.08	44075626.15	0.0287	0.0278 *

Venus	115969-10-28 13:39 G	44078167.90	44078168.07	44078168.25	0.0274	0.0153
Mercury	115970-02-09 07:10 G	44078271.67	44078271.80	44078271.95	0.0274	0.0166
Mercury	115970-05-09 02:36 G	44078360.44	44078360.61	44078360.79	0.0273	0.0019
Venus	115970-06-14 22:03 G	44078397.26	44078397.42	44078397.59	0.0273	0.0166
Mercury	115970-08-05 22:03 G	44078449.31	44078449.42	44078449.54	0.0273	0.0205
Earth	115976-04-24 23:15 G	44080538.24	44080538.47	44080538.70	0.0271	0.0096
Moon	115976-04-25 02:51 G	44080538.39	44080538.62	44080538.85	0.0271	0.0080 *
Earth	115977-05-06 21:20 G	44080915.17	44080915.39	44080915.61	0.0271	0.0115
Moon	115977-05-06 22:46 G	44080915.23	44080915.45	44080915.67	0.0271	0.0126 *
Venus	115984-11-18 15:48 G	44083668.10	44083668.16	44083668.24	0.0285	0.0267
Mercury	115985-03-08 23:15 G	44083778.40	44083778.47	44083778.54	0.0285	0.0247
Mercury	115985-06-05 12:12 G	44083866.87	44083867.01	44083867.14	0.0286	0.0081
Venus	115985-07-06 06:41 G	44083897.59	44083897.78	44083897.99	0.0286	0.0089
Mercury	115985-09-02 00:56 G	44083955.41	44083955.54	44083955.67	0.0286	0.0083
Mercury	115985-11-29 13:24 G	44084044.00	44084044.06	44084044.14	0.0286	0.0245
Earth	115990-10-23 03:34 G	44085832.42	44085832.65	44085832.88	0.0289	0.0113
Moon	115990-10-23 03:48 G	44085832.44	44085832.66	44085832.89	0.0289	0.0096 *
Earth	115991-11-06 13:10 G	44086211.84	44086212.05	44086212.27	0.0288	0.0153
Moon	115991-11-06 16:17 G	44086211.99	44086212.18	44086212.38	0.0288	0.0170 *
Venus	115999-05-10 20:36 G	44088954.16	44088954.36	44088954.56	0.0275	0.0100
Mercury	115999-06-29 08:22 G	44089003.73	44089003.85	44089003.96	0.0274	0.0207
Mercury	115999-09-26 03:34 G	44089092.47	44089092.65	44089092.82	0.0274	0.0023
Mercury	115999-12-23 23:00 G	44089181.32	44089181.46	44089181.60	0.0274	0.0164
Venus	115999-12-26 05:00 G	44089183.59	44089183.71	44089183.84	0.0274	0.0218

117TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 117th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	116005-04-20 04:03	G	44091125.49	44091125.67	44091125.86	0.0271	0.0173	
Earth	116005-04-20 06:56	G	44091125.63	44091125.79	44091125.97	0.0271	0.0188	*
Earth	116006-05-02 04:46	G	44091502.45	44091502.70	44091502.94	0.0271	0.0023	
Moon	116006-05-02 06:27	G	44091502.53	44091502.77	44091503.00	0.0271	0.0027	*
Earth	116007-05-14 03:05	G	44091879.52	44091879.63	44091879.76	0.0272	0.0234	
Moon	116007-05-14 05:58	G	44091879.62	44091879.75	44091879.90	0.0272	0.0223	*
Mars	116008-11-04 16:46	G	44092419.94	44092420.20	44092420.47	0.0274	0.0040	
Venus	116014-05-31 21:05	G	44094454.25	44094454.38	44094454.52	0.0284	0.0217	
Mercury	116014-10-23 13:53	G	44094598.96	44094599.08	44094599.21	0.0285	0.0128	
Venus	116015-01-16 11:44	G	44094683.81	44094683.99	44094684.18	0.0285	0.0136	
Mercury	116015-01-20 02:51	G	44094687.48	44094687.62	44094687.75	0.0285	0.0036	
Mercury	116015-04-18 15:20	G	44094776.04	44094776.14	44094776.24	0.0285	0.0197	
Moon	116019-10-16 16:32	G	44096418.05	44096418.19	44096418.35	0.0289	0.0230	
Earth	116019-10-16 20:08	G	44096418.22	44096418.34	44096418.50	0.0289	0.0240	*
Moon	116020-10-30 02:51	G	44096797.38	44096797.62	44096797.86	0.0288	0.0031	
Earth	116020-10-30 05:44	G	44096797.50	44096797.74	44096797.99	0.0288	0.0026	*
Earth	116021-11-13 13:39	G	44097177.06	44097177.07	44097177.09	0.0287	0.0287	
Moon	116021-11-13 14:08	G	44097177.07	44097177.09	44097177.13	0.0287	0.0284	*
Venus	116028-11-19 19:39	G	44099740.11	44099740.32	44099740.53	0.0274	0.0073	
Mercury	116029-02-12 00:41	G	44099824.37	44099824.53	44099824.69	0.0274	0.0099	
Mercury	116029-05-11 20:08	G	44099913.17	44099913.34	44099913.51	0.0274	0.0086	
Venus	116029-07-07 03:34	G	44099969.57	44099969.65	44099969.76	0.0273	0.0245	
Moon	116035-04-26 20:08	G	44102089.11	44102089.34	44102089.57	0.0271	0.0083	
Earth	116035-04-26 23:44	G	44102089.26	44102089.49	44102089.73	0.0271	0.0076	*
Earth	116036-05-07 21:48	G	44102466.21	44102466.41	44102466.63	0.0271	0.0135	

Moon	116036-05-07 21:48 G	44102466.21	44102466.41	44102466.63	0.0271	0.0122	*
Venus	116043-12-11 22:46 G	44105240.29	44105240.45	44105240.61	0.0285	0.0180	
Mercury	116044-03-11 14:51 G	44105331.02	44105331.12	44105331.22	0.0285	0.0188	
Mercury	116044-06-08 03:48 G	44105419.52	44105419.66	44105419.79	0.0286	0.0024	
Venus	116044-07-28 13:24 G	44105469.91	44105470.06	44105470.24	0.0286	0.0176	
Mercury	116044-09-04 16:17 G	44105508.07	44105508.18	44105508.31	0.0286	0.0140	
Moon	116049-10-24 02:08 G	44107383.35	44107383.59	44107383.83	0.0288	0.0103	
Earth	116049-10-24 03:20 G	44107383.41	44107383.64	44107383.88	0.0288	0.0093	*
Moon	116050-11-07 09:20 G	44107762.69	44107762.89	44107763.10	0.0288	0.0158	
Earth	116050-11-07 12:56 G	44107762.85	44107763.04	44107763.24	0.0288	0.0173	*
Venus	116058-06-02 02:08 G	44110526.38	44110526.59	44110526.80	0.0275	0.0022	
Mercury	116058-07-02 01:24 G	44110556.41	44110556.56	44110556.71	0.0275	0.0142	
Mercury	116058-09-28 20:51 G	44110645.20	44110645.37	44110645.54	0.0274	0.0044	
Mercury	116058-12-26 16:17 G	44110734.10	44110734.18	44110734.28	0.0274	0.0232	
Earth	116064-04-21 07:24 G	44112676.63	44112676.81	44112677.01	0.0271	0.0169	
Moon	116064-04-21 10:03 G	44112676.74	44112676.92	44112677.11	0.0271	0.0181	*
Moon	116065-05-03 02:36 G	44113053.37	44113053.61	44113053.86	0.0271	0.0031	
Earth	116065-05-03 05:29 G	44113053.50	44113053.73	44113053.97	0.0271	0.0043	*
Moon	116066-05-15 02:22 G	44113430.52	44113430.60	44113430.68	0.0272	0.0255	
Earth	116066-05-15 04:17 G	44113430.60	44113430.68	44113430.78	0.0272	0.0253	*
Venus	116073-06-23 05:00 G	44116026.53	44116026.71	44116026.90	0.0284	0.0128	
Mercury	116073-07-29 17:00 G	44116063.13	44116063.21	44116063.29	0.0284	0.0230	
Mercury	116073-10-26 05:58 G	44116151.61	44116151.75	44116151.88	0.0285	0.0066	
Mercury	116074-01-22 18:41 G	44116240.15	44116240.28	44116240.41	0.0285	0.0096	
Venus	116074-02-07 19:39 G	44116256.20	44116256.32	44116256.45	0.0285	0.0227	
Mercury	116074-04-21 07:10 G	44116328.74	44116328.80	44116328.86	0.0285	0.0257	
Earth	116078-10-17 22:17 G	44117969.28	44117969.43	44117969.60	0.0289	0.0217	
Moon	116078-10-18 02:08 G	44117969.46	44117969.59	44117969.74	0.0289	0.0235	*
Earth	116079-11-01 07:24 G	44118348.57	44118348.81	44118349.06	0.0288	0.0048	
Moon	116079-11-01 09:34 G	44118348.65	44118348.90	44118349.16	0.0288	0.0034	*

Mercury	116087-11-18 22:46 G	44121288.35	44121288.45	44121288.56	0.0274	0.0217
Venus	116087-12-13 01:24 G	44121312.35	44121312.56	44121312.77	0.0274	0.0007
Mercury	116088-02-15 18:12 G	44121377.08	44121377.26	44121377.43	0.0274	0.0033
Mercury	116088-05-14 13:39 G	44121465.92	44121466.07	44121466.22	0.0274	0.0154
Earth	116093-04-16 02:36 G	44123263.57	44123263.61	44123263.67	0.0270	0.0263
Earth	116094-04-28 00:41 G	44123640.29	44123640.53	44123640.77	0.0271	0.0056
Moon	116094-04-28 04:03 G	44123640.43	44123640.67	44123640.91	0.0271	0.0061 *
Moon	116095-05-09 21:34 G	44124017.22	44124017.40	44124017.61	0.0272	0.0167
Earth	116095-05-09 23:15 G	44124017.27	44124017.47	44124017.67	0.0272	0.0155 *
Mars	116097-03-30 19:10 G	44124708.04	44124708.30	44124708.56	0.0274	0.0079
Venus	116103-01-04 06:27 G	44126812.58	44126812.77	44126812.98	0.0285	0.0092
Mercury	116103-03-16 06:41 G	44126883.66	44126883.78	44126883.90	0.0285	0.0126
Mercury	116103-06-12 19:24 G	44126972.18	44126972.31	44126972.45	0.0285	0.0038
Venus	116103-08-21 21:20 G	44127042.33	44127042.39	44127042.48	0.0286	0.0266
Mercury	116103-09-09 08:08 G	44127060.74	44127060.84	44127060.94	0.0286	0.0199
Earth	116108-10-26 04:03 G	44128934.43	44128934.67	44128934.91	0.0288	0.0072
Moon	116108-10-26 06:12 G	44128934.53	44128934.76	44128935.00	0.0288	0.0073 *
Earth	116109-11-09 13:24 G	44129313.88	44129314.06	44129314.24	0.0287	0.0193
Moon	116109-11-09 17:00 G	44129314.03	44129314.21	44129314.39	0.0287	0.0200 *
Venus	116116-11-07 21:34 G	44131869.37	44131869.40	44131869.46	0.0276	0.0268
Mercury	116117-04-07 23:29 G	44132020.43	44132020.48	44132020.53	0.0275	0.0261
Venus	116117-06-25 07:39 G	44132098.61	44132098.82	44132099.03	0.0275	0.0057
Mercury	116117-07-05 18:41 G	44132109.11	44132109.28	44132109.45	0.0275	0.0077
Mercury	116117-10-02 14:08 G	44132197.93	44132198.09	44132198.26	0.0274	0.0110
Moon	116123-04-24 07:24 G	44134227.62	44134227.81	44134228.01	0.0271	0.0145
Earth	116123-04-24 08:51 G	44134227.67	44134227.87	44134228.07	0.0271	0.0149 *
Earth	116124-05-05 06:56 G	44134604.56	44134604.79	44134605.03	0.0271	0.0062
Moon	116124-05-05 10:32 G	44134604.71	44134604.94	44134605.17	0.0271	0.0078 *
Venus	116132-07-16 13:53 G	44137598.87	44137599.08	44137599.29	0.0284	0.0036
Mercury	116132-08-02 09:05 G	44137615.77	44137615.88	44137616.00	0.0284	0.0165

Mercury 116132-10-29 22:03 G 44137704.28 44137704.42 44137704.56 0.0284 0.0005

Mercury 116133-01-26 10:32 G 44137792.83 44137792.94 44137793.06 0.0285 0.0160

Moon 116137-10-19 22:17 G 44139520.25 44139520.43 44139520.63 0.0288 0.0183

Earth 116137-10-20 01:53 G 44139520.40 44139520.58 44139520.76 0.0288 0.0195 *

Moon 116138-11-03 10:03 G 44139899.69 44139899.92 44139900.15 0.0288 0.0086

Earth 116138-11-03 10:46 G 44139899.71 44139899.95 44139900.19 0.0288 0.0070 *

Venus 116146-05-20 22:17 G 44142655.33 44142655.43 44142655.54 0.0275 0.0235

Mercury 116146-11-22 16:32 G 44142841.05 44142841.19 44142841.34 0.0275 0.0148

Venus 116147-01-05 07:53 G 44142884.63 44142884.83 44142885.03 0.0274 0.0088

Mercury 116147-02-19 11:58 G 44142929.82 44142930.00 44142930.17 0.0274 0.0038

Mercury 116147-05-19 07:24 G 44143018.72 44143018.81 44143018.91 0.0274 0.0225

Moon 116152-04-18 01:53 G 44144814.46 44144814.58 44144814.72 0.0270 0.0230

Earth 116152-04-18 04:03 G 44144814.58 44144814.67 44144814.78 0.0270 0.0244 *

Moon 116153-04-29 23:58 G 44145191.26 44145191.50 44145191.74 0.0271 0.0023

Earth 116153-04-30 02:36 G 44145191.37 44145191.61 44145191.85 0.0271 0.0036 *

Earth 116154-05-12 01:10 G 44145568.37 44145568.55 44145568.74 0.0272 0.0176

Moon 116154-05-12 03:20 G 44145568.46 44145568.64 44145568.82 0.0272 0.0177 *

Mercury 116161-12-20 10:03 G 44148347.83 44148347.92 44148348.00 0.0285 0.0225

Venus 116162-01-26 15:20 G 44148384.93 44148385.14 44148385.35 0.0285 0.0004

Mercury 116162-03-18 22:46 G 44148436.32 44148436.45 44148436.59 0.0285 0.0061

Mercury 116162-06-15 11:29 G 44148524.86 44148524.98 44148525.11 0.0285 0.0102

Mercury 116162-09-11 23:58 G 44148613.46 44148613.50 44148613.56 0.0286 0.0263

Moon 116167-10-28 03:48 G 44150485.41 44150485.66 44150485.91 0.0288 0.0040

Earth 116167-10-28 06:56 G 44150485.55 44150485.79 44150486.04 0.0288 0.0051 *

Moon 116168-11-10 12:41 G 44150864.88 44150865.03 44150865.19 0.0287 0.0221

Earth 116168-11-10 16:03 G 44150865.01 44150865.17 44150865.34 0.0287 0.0214 *

Venus 116175-12-01 04:17 G 44153441.52 44153441.68 44153441.83 0.0276 0.0187

Mercury 116176-04-10 16:46 G 44153573.09 44153573.20 44153573.33 0.0275 0.0194

Mercury 116176-07-08 12:12 G 44153661.84 44153662.01 44153662.19 0.0275 0.0010

Venus 116176-07-17 13:39 G 44153670.89 44153671.07 44153671.26 0.0275 0.0137

Mercury 116176-10-05 07:39 G 44153750.70 44153750.82 44153750.96 0.0274 0.0179

Moon 116182-04-25 10:17 G 44155778.72 44155778.93 44155779.16 0.0271 0.0124

Earth 116182-04-25 10:32 G 44155778.73 44155778.94 44155779.16 0.0271 0.0129 *

Moon 116183-05-07 05:29 G 44156155.50 44156155.73 44156155.97 0.0272 0.0073

Earth 116183-05-07 09:20 G 44156155.66 44156155.89 44156156.12 0.0272 0.0083 *

Mars 116185-08-25 21:48 G 44156997.22 44156997.41 44156997.63 0.0274 0.0183

Mercury 116191-05-09 12:56 G 44159079.98 44159080.04 44159080.10 0.0284 0.0258

Mercury 116191-08-06 01:53 G 44159168.45 44159168.58 44159168.71 0.0284 0.0094

Venus 116191-08-09 00:12 G 44159171.30 44159171.51 44159171.71 0.0284 0.0060

Mercury 116191-11-02 14:36 G 44159256.98 44159257.11 44159257.24 0.0284 0.0068

Mercury 116192-01-30 03:05 G 44159345.55 44159345.63 44159345.71 0.0285 0.0228

Earth 116196-10-21 07:53 G 44161071.63 44161071.83 44161072.03 0.0288 0.0169

Moon 116196-10-21 10:46 G 44161071.75 44161071.95 44161072.16 0.0288 0.0170 *

Moon 116197-11-04 15:48 G 44161450.92 44161451.16 44161451.41 0.0288 0.0086

Earth 116197-11-04 16:03 G 44161450.95 44161451.17 44161451.42 0.0288 0.0096 *

Mars 116199-08-25 21:34 G 44162110.21 44162110.40 44162110.61 0.0285 0.0222

Venus 116205-06-13 05:58 G 44164227.57 44164227.75 44164227.92 0.0275 0.0152

Mercury 116205-08-29 15:20 G 44164305.09 44164305.14 44164305.20 0.0275 0.0259

Mercury 116205-11-26 10:32 G 44164393.77 44164393.94 44164394.11 0.0275 0.0075

Venus 116206-01-28 15:05 G 44164456.96 44164457.13 44164457.29 0.0274 0.0171

Mercury 116206-02-23 05:58 G 44164482.59 44164482.75 44164482.91 0.0274 0.0111

Earth 116211-04-21 06:41 G 44166365.66 44166365.78 44166365.93 0.0271 0.0224

Moon 116211-04-21 09:34 G 44166365.79 44166365.90 44166366.04 0.0271 0.0230 *

Earth 116212-05-02 05:29 G 44166742.49 44166742.73 44166742.97 0.0271 0.0014

Moon 116212-05-02 07:39 G 44166742.57 44166742.82 44166743.07 0.0271 0.0030 *

Moon 116213-05-14 02:08 G 44167119.41 44167119.59 44167119.77 0.0272 0.0184

Earth 116213-05-14 04:46 G 44167119.54 44167119.70 44167119.87 0.0272 0.0197 *

Venus 116220-07-04 11:44 G 44169727.90 44169727.99 44169728.08 0.0284 0.0255

Mercury 116220-12-24 02:36 G 44169900.49 44169900.61 44169900.73 0.0285 0.0155

Venus 116221-02-19 01:24 G 44169957.37 44169957.56 44169957.76 0.0285 0.0097

Mercury	116221-03-22 15:20 G	44169989.01	44169989.14	44169989.28	0.0285	0.0011
Mercury	116221-06-19 04:03 G	44170077.56	44170077.67	44170077.78	0.0285	0.0170
Earth	116226-10-30 12:12 G	44172036.77	44172037.01	44172037.26	0.0288	0.0026
Moon	116226-10-30 16:03 G	44172036.93	44172037.17	44172037.42	0.0288	0.0043 *
Earth	116227-11-13 20:36 G	44172416.24	44172416.36	44172416.51	0.0287	0.0238
Moon	116227-11-13 23:58 G	44172416.34	44172416.50	44172416.67	0.0287	0.0220 *
Venus	116234-12-24 11:29 G	44175013.79	44175013.98	44175014.18	0.0275	0.0104
Mercury	116235-04-15 11:00 G	44175125.80	44175125.96	44175126.11	0.0275	0.0122
Mercury	116235-07-13 06:27 G	44175214.60	44175214.77	44175214.94	0.0275	0.0065
Venus	116235-08-10 20:36 G	44175243.25	44175243.36	44175243.50	0.0275	0.0220
Mercury	116235-10-10 01:53 G	44175303.52	44175303.58	44175303.65	0.0274	0.0253
Earth	116241-04-27 13:39 G	44177329.85	44177330.07	44177330.30	0.0272	0.0108
Moon	116241-04-27 14:51 G	44177329.92	44177330.12	44177330.33	0.0272	0.0122 *
Earth	116242-05-09 12:56 G	44177706.82	44177707.04	44177707.26	0.0272	0.0105
Moon	116242-05-09 16:32 G	44177706.97	44177707.19	44177707.42	0.0272	0.0099 *
Venus	116250-01-14 21:48 G	44180514.26	44180514.41	44180514.56	0.0283	0.0193
Mercury	116250-05-13 05:44 G	44180632.64	44180632.74	44180632.85	0.0284	0.0184
Mercury	116250-08-09 18:41 G	44180721.14	44180721.28	44180721.42	0.0284	0.0021
Venus	116250-09-01 11:29 G	44180743.81	44180743.98	44180744.16	0.0284	0.0159
Mercury	116250-11-06 07:24 G	44180809.69	44180809.81	44180809.93	0.0285	0.0140
Moon	116255-10-24 14:22 G	44182622.91	44182623.10	44182623.31	0.0288	0.0153
Earth	116255-10-24 16:46 G	44182622.98	44182623.20	44182623.42	0.0288	0.0141 *
Earth	116256-11-07 00:41 G	44183002.31	44183002.53	44183002.76	0.0287	0.0122
Moon	116256-11-07 01:39 G	44183002.36	44183002.57	44183002.80	0.0287	0.0116 *
Venus	116264-07-05 14:36 G	44185799.91	44185800.11	44185800.32	0.0275	0.0064
Mercury	116264-09-01 10:03 G	44185857.79	44185857.92	44185858.05	0.0275	0.0181
Mercury	116264-11-29 05:15 G	44185946.55	44185946.72	44185946.90	0.0275	0.0006
Venus	116265-02-19 23:29 G	44186029.41	44186029.48	44186029.55	0.0274	0.0257
Mercury	116265-02-26 00:41 G	44186035.41	44186035.53	44186035.66	0.0274	0.0191
Moon	116270-04-22 07:39 G	44187916.66	44187916.82	44187916.97	0.0271	0.0206

Earth	116270-04-22 11:15 G	44187916.81	44187916.97	44187917.13	0.0271	0.0201	*
Moon	116271-05-04 08:36 G	44188293.62	44188293.86	44188294.09	0.0271	0.0015	
Earth	116271-05-04 10:03 G	44188293.68	44188293.92	44188294.16	0.0271	0.0009	*
Earth	116272-05-15 09:20 G	44188670.76	44188670.89	44188671.04	0.0272	0.0220	
Moon	116272-05-15 12:27 G	44188670.91	44188671.02	44188671.15	0.0272	0.0236	*
Mars	116274-01-20 08:36 G	44189285.75	44189285.86	44189285.99	0.0274	0.0245	
Venus	116279-07-27 23:15 G	44191300.30	44191300.47	44191300.65	0.0284	0.0156	
Mercury	116279-09-30 06:41 G	44191364.71	44191364.78	44191364.85	0.0284	0.0243	
Mercury	116279-12-27 19:39 G	44191453.19	44191453.32	44191453.45	0.0285	0.0079	
Venus	116280-03-13 13:24 G	44191529.91	44191530.06	44191530.21	0.0285	0.0198	
Mercury	116280-03-25 08:22 G	44191541.72	44191541.85	44191541.98	0.0285	0.0083	
Mercury	116280-06-21 20:51 G	44191630.31	44191630.37	44191630.44	0.0285	0.0244	
Moon	116284-10-17 09:48 G	44193208.81	44193208.91	44193209.04	0.0288	0.0257	
Earth	116284-10-17 12:12 G	44193208.92	44193209.01	44193209.12	0.0288	0.0262	*
Moon	116285-10-31 17:00 G	44193587.97	44193588.21	44193588.46	0.0288	0.0013	
Earth	116285-10-31 21:05 G	44193588.13	44193588.38	44193588.63	0.0288	0.0001	*
Moon	116286-11-15 02:36 G	44193967.55	44193967.61	44193967.68	0.0287	0.0276	
Earth	116286-11-15 05:00 G	44193967.62	44193967.71	44193967.81	0.0287	0.0263	*
Mars	116288-01-20 11:29 G	44194398.70	44194398.98	44194399.27	0.0285	0.0127	
Venus	116294-01-15 20:08 G	44196586.13	44196586.34	44196586.55	0.0275	0.0017	
Mercury	116294-01-19 10:03 G	44196589.84	44196589.92	44196590.03	0.0275	0.0230	
Mercury	116294-04-18 05:29 G	44196678.56	44196678.73	44196678.90	0.0275	0.0045	
Mercury	116294-07-16 00:56 G	44196767.39	44196767.54	44196767.69	0.0275	0.0143	
Moon	116300-04-29 16:17 G	44198880.94	44198881.18	44198881.42	0.0272	0.0070	
Earth	116300-04-29 18:12 G	44198881.03	44198881.26	44198881.49	0.0272	0.0085	*
Moon	116301-05-11 14:36 G	44199257.91	44199258.11	44199258.32	0.0272	0.0143	
Earth	116301-05-11 17:58 G	44199258.04	44199258.25	44199258.47	0.0272	0.0128	*
Venus	116309-02-07 10:03 G	44202086.73	44202086.92	44202087.12	0.0284	0.0091	
Mercury	116309-02-17 10:17 G	44202096.89	44202096.93	44202096.97	0.0284	0.0269	
Mercury	116309-05-16 23:15 G	44202185.34	44202185.47	44202185.60	0.0284	0.0105	

Mercury	116309-08-13 11:58 G	44202273.87	44202274.00	44202274.14	0.0284	0.0057
Venus	116309-09-25 00:12 G	44202316.44	44202316.51	44202316.59	0.0285	0.0263
Mercury	116309-11-10 00:41 G	44202362.44	44202362.53	44202362.61	0.0285	0.0217
Earth	116314-10-27 03:48 G	44204174.44	44204174.66	44204174.90	0.0288	0.0112
Moon	116314-10-27 05:44 G	44204174.51	44204174.74	44204174.99	0.0288	0.0095 *
Moon	116315-11-10 10:03 G	44204553.72	44204553.92	44204554.14	0.0287	0.0167
Earth	116315-11-10 11:44 G	44204553.78	44204553.99	44204554.20	0.0287	0.0151 *
Venus	116323-07-30 00:56 G	44207372.33	44207372.54	44207372.75	0.0275	0.0028
Mercury	116323-09-06 05:15 G	44207410.56	44207410.72	44207410.89	0.0275	0.0098
Mercury	116323-12-04 00:41 G	44207499.36	44207499.53	44207499.70	0.0274	0.0088
Earth	116329-04-24 17:15 G	44209468.04	44209468.22	44209468.41	0.0271	0.0177
Moon	116329-04-24 20:51 G	44209468.19	44209468.37	44209468.58	0.0271	0.0161 *
Earth	116330-05-06 16:32 G	44209844.95	44209845.19	44209845.43	0.0271	0.0034
Moon	116330-05-06 17:15 G	44209844.97	44209845.22	44209845.47	0.0271	0.0040 *
Moon	116331-05-18 12:27 G	44210221.91	44210222.02	44210222.16	0.0272	0.0234
Earth	116331-05-18 16:03 G	44210222.08	44210222.17	44210222.29	0.0272	0.0245 *
Venus	116338-08-20 11:58 G	44212872.80	44212873.00	44212873.21	0.0284	0.0053
Mercury	116338-10-04 00:12 G	44212917.40	44212917.51	44212917.62	0.0284	0.0163
Mercury	116338-12-31 12:56 G	44213005.91	44213006.04	44213006.18	0.0285	0.0008
Mercury	116339-03-30 01:39 G	44213094.46	44213094.57	44213094.68	0.0285	0.0161
Earth	116343-10-20 23:29 G	44214760.35	44214760.48	44214760.64	0.0288	0.0234
Moon	116343-10-21 02:08 G	44214760.45	44214760.59	44214760.75	0.0288	0.0223 *
Earth	116344-11-03 08:08 G	44215139.59	44215139.84	44215140.09	0.0288	0.0031
Moon	116344-11-03 11:58 G	44215139.75	44215140.00	44215140.25	0.0288	0.0039 *
Venus	116352-06-23 19:39 G	44217929.25	44217929.32	44217929.42	0.0276	0.0253
Mercury	116353-01-23 05:29 G	44218142.58	44218142.73	44218142.87	0.0275	0.0147
Venus	116353-02-08 05:58 G	44218158.55	44218158.75	44218158.96	0.0275	0.0074
Mercury	116353-04-22 00:41 G	44218231.36	44218231.53	44218231.71	0.0275	0.0039
Mercury	116353-07-19 20:22 G	44218320.25	44218320.35	44218320.45	0.0274	0.0227
Moon	116358-04-19 21:34 G	44220055.34	44220055.40	44220055.47	0.0272	0.0261

Earth	116358-04-19 23:44 G	44220055.48	44220055.49	44220055.53	0.0272	0.0270
Earth	116359-05-01 23:44 G	44220432.26	44220432.49	44220432.73	0.0272	0.0060
Moon	116359-05-02 02:08 G	44220432.36	44220432.59	44220432.82	0.0272	0.0063 *
Earth	116360-05-12 23:44 G	44220809.30	44220809.49	44220809.70	0.0273	0.0153
Moon	116360-05-13 02:22 G	44220809.40	44220809.60	44220809.82	0.0273	0.0139 *
Mercury	116368-02-21 03:48 G	44223649.56	44223649.66	44223649.77	0.0284	0.0187
Venus	116368-03-01 23:29 G	44223659.27	44223659.48	44223659.69	0.0284	0.0015
Mercury	116368-05-19 16:46 G	44223738.06	44223738.20	44223738.34	0.0284	0.0025
Mercury	116368-08-16 05:29 G	44223826.61	44223826.73	44223826.85	0.0285	0.0138
Moon	116373-10-28 16:32 G	44225725.96	44225726.19	44225726.42	0.0288	0.0087
Earth	116373-10-28 17:58 G	44225726.01	44225726.25	44225726.49	0.0288	0.0079 *
Earth	116374-11-12 01:24 G	44226105.37	44226105.56	44226105.75	0.0287	0.0183
Moon	116374-11-12 03:34 G	44226105.46	44226105.65	44226105.85	0.0287	0.0171 *
Mars	116376-06-17 04:46 G	44226688.38	44226688.70	44226689.01	0.0285	0.0032
Venus	116382-01-04 02:22 G	44228715.47	44228715.60	44228715.75	0.0276	0.0203
Mercury	116382-06-12 05:58 G	44228874.63	44228874.75	44228874.88	0.0275	0.0193
Venus	116382-08-21 12:12 G	44228944.82	44228945.01	44228945.20	0.0275	0.0122
Mercury	116382-09-09 01:10 G	44228963.38	44228963.55	44228963.73	0.0275	0.0009
Mercury	116382-12-06 20:36 G	44229052.23	44229052.36	44229052.50	0.0274	0.0179
Moon	116388-04-25 20:51 G	44231019.19	44231019.37	44231019.57	0.0271	0.0164
Earth	116388-04-26 00:27 G	44231019.33	44231019.52	44231019.73	0.0271	0.0152 *
Earth	116389-05-07 23:58 G	44231396.27	44231396.50	44231396.74	0.0272	0.0059
Moon	116389-05-08 00:27 G	44231396.29	44231396.52	44231396.75	0.0272	0.0046 *
Earth	116390-05-19 23:44 G	44231773.47	44231773.49	44231773.53	0.0272	0.0270
Moon	116390-05-20 03:20 G	44231773.61	44231773.64	44231773.71	0.0272	0.0267
Mercury	116397-07-10 05:00 G	44234381.64	44234381.71	44234381.78	0.0284	0.0244
Venus	116397-09-12 01:39 G	44234445.37	44234445.57	44234445.78	0.0284	0.0054
Mercury	116397-10-06 17:44 G	44234470.11	44234470.24	44234470.38	0.0285	0.0081
Mercury	116398-01-03 06:41 G	44234558.64	44234558.78	44234558.91	0.0285	0.0082
Mercury	116398-04-01 19:10 G	44234647.23	44234647.30	44234647.37	0.0285	0.0242

Moon	116402-10-22 10:32 G	44236311.78	44236311.94	44236312.11	0.0288	0.0218
Earth	116402-10-22 13:24 G	44236311.89	44236312.06	44236312.24	0.0288	0.0201 *
Moon	116403-11-05 18:12 G	44236691.01	44236691.26	44236691.50	0.0288	0.0047
Earth	116403-11-05 21:34 G	44236691.16	44236691.40	44236691.64	0.0288	0.0062 *
Venus	116411-07-17 07:10 G	44239501.63	44239501.80	44239501.98	0.0276	0.0158
Mercury	116411-10-30 05:58 G	44239606.68	44239606.75	44239606.83	0.0275	0.0243
Mercury	116412-01-27 01:10 G	44239695.38	44239695.55	44239695.72	0.0275	0.0059
Venus	116412-03-02 17:00 G	44239731.04	44239731.21	44239731.38	0.0275	0.0167
Mercury	116412-04-24 20:36 G	44239784.20	44239784.36	44239784.52	0.0274	0.0127
Earth	116417-04-21 06:41 G	44241606.69	44241606.78	44241606.89	0.0272	0.0244
Moon	116417-04-21 08:36 G	44241606.80	44241606.86	44241606.94	0.0272	0.0259 *
Moon	116418-05-03 03:48 G	44241983.42	44241983.66	44241983.91	0.0272	0.0043
Earth	116418-05-03 06:56 G	44241983.55	44241983.79	44241984.03	0.0272	0.0034 *
Moon	116419-05-15 05:29 G	44242360.57	44242360.73	44242360.91	0.0273	0.0185
Earth	116419-05-15 07:24 G	44242360.62	44242360.81	44242360.99	0.0273	0.0178 *
Venus	116426-08-07 23:29 G	44245002.37	44245002.48	44245002.61	0.0283	0.0232
Mercury	116426-11-27 08:36 G	44245113.82	44245113.86	44245113.90	0.0284	0.0268
Mercury	116427-02-23 21:34 G	44245202.27	44245202.40	44245202.53	0.0284	0.0105
Venus	116427-03-25 13:24 G	44245231.87	44245232.06	44245232.25	0.0284	0.0120
Mercury	116427-05-23 10:32 G	44245290.80	44245290.94	44245291.07	0.0285	0.0058
Mercury	116427-08-19 23:00 G	44245379.38	44245379.46	44245379.55	0.0285	0.0219
Earth	116432-10-30 08:51 G	44247277.62	44247277.87	44247278.11	0.0287	0.0045
Moon	116432-10-30 09:34 G	44247277.64	44247277.90	44247278.15	0.0287	0.0052 *
Moon	116433-11-13 12:56 G	44247656.89	44247657.04	44247657.21	0.0287	0.0219
Earth	116433-11-13 16:03 G	44247657.02	44247657.17	44247657.34	0.0287	0.0216 *
Venus	116441-01-26 15:20 G	44250287.94	44250288.14	44250288.34	0.0275	0.0103
Mercury	116441-06-15 02:22 G	44250427.44	44250427.60	44250427.76	0.0275	0.0099
Mercury	116441-09-11 21:34 G	44250516.24	44250516.40	44250516.57	0.0274	0.0087
Venus	116441-09-13 00:12 G	44250517.40	44250517.51	44250517.65	0.0274	0.0220
Earth	116447-04-28 08:51 G	44252570.66	44252570.87	44252571.09	0.0271	0.0125

Moon	116447-04-28 12:12 G	44252570.80	44252571.01	44252571.23	0.0271	0.0127	*
Moon	116448-05-09 06:41 G	44252947.55	44252947.78	44252948.02	0.0272	0.0099	
Earth	116448-05-09 08:22 G	44252947.62	44252947.85	44252948.08	0.0272	0.0086	*
Venus	116456-02-18 02:08 G	44255788.44	44255788.59	44255788.75	0.0284	0.0192	
Mercury	116456-07-12 22:46 G	44255934.33	44255934.45	44255934.56	0.0284	0.0160	
Venus	116456-10-04 15:48 G	44256017.99	44256018.16	44256018.34	0.0285	0.0161	
Mercury	116456-10-09 11:29 G	44256022.85	44256022.98	44256023.12	0.0285	0.0010	
Mercury	116457-01-06 00:12 G	44256111.40	44256111.51	44256111.63	0.0285	0.0164	
Earth	116461-10-24 04:17 G	44257863.49	44257863.68	44257863.89	0.0288	0.0169	
Moon	116461-10-24 07:24 G	44257863.62	44257863.81	44257864.02	0.0288	0.0161	*
Earth	116462-11-07 12:27 G	44258242.79	44258243.02	44258243.26	0.0287	0.0095	
Moon	116462-11-07 15:34 G	44258242.92	44258243.15	44258243.39	0.0287	0.0109	*
Mars	116464-11-11 06:41 G	44258977.52	44258977.78	44258978.05	0.0285	0.0156	
Venus	116470-08-08 19:39 G	44261074.11	44261074.32	44261074.53	0.0275	0.0060	
Mercury	116470-11-02 02:08 G	44261159.45	44261159.59	44261159.73	0.0275	0.0152	
Mercury	116471-01-29 21:20 G	44261248.22	44261248.39	44261248.56	0.0275	0.0033	
Venus	116471-03-26 04:46 G	44261303.64	44261303.70	44261303.76	0.0274	0.0262	
Mercury	116471-04-28 16:46 G	44261337.10	44261337.20	44261337.31	0.0274	0.0220	
Moon	116476-04-22 13:10 G	44263157.91	44263158.05	44263158.20	0.0272	0.0210	
Earth	116476-04-22 14:08 G	44263157.96	44263158.09	44263158.24	0.0272	0.0218	*
Earth	116477-05-04 14:22 G	44263534.86	44263535.10	44263535.34	0.0272	0.0008	
Moon	116477-05-04 17:44 G	44263535.00	44263535.24	44263535.48	0.0272	0.0008	*
Earth	116478-05-16 14:36 G	44263911.96	44263912.11	44263912.28	0.0273	0.0204	
Moon	116478-05-16 16:03 G	44263912.01	44263912.17	44263912.32	0.0273	0.0211	*
Venus	116485-08-30 13:10 G	44266574.87	44266575.05	44266575.24	0.0284	0.0127	
Mercury	116485-11-30 02:22 G	44266666.50	44266666.60	44266666.71	0.0284	0.0186	
Mercury	116486-02-26 15:20 G	44266755.00	44266755.14	44266755.28	0.0285	0.0022	
Venus	116486-04-17 03:20 G	44266804.52	44266804.64	44266804.77	0.0285	0.0228	
Mercury	116486-05-26 04:03 G	44266843.55	44266843.67	44266843.79	0.0285	0.0140	
Moon	116490-10-18 13:10 G	44268449.95	44268450.05	44268450.17	0.0288	0.0257	

Earth	116490-10-18 16:17 G	44268450.12	44268450.18	44268450.27	0.0288	0.0273	*
Earth	116491-11-02 00:12 G	44268829.26	44268829.51	44268829.76	0.0287	0.0012	
Moon	116491-11-02 00:27 G	44268829.29	44268829.52	44268829.76	0.0287	0.0006	*
Earth	116492-11-15 07:10 G	44269208.69	44269208.80	44269208.93	0.0287	0.0249	
Moon	116492-11-15 10:46 G	44269208.86	44269208.95	44269209.05	0.0287	0.0261	*
Venus	116500-02-19 04:32 G	44271860.48	44271860.69	44271860.90	0.0275	0.0003	
Mercury	116500-03-22 03:48 G	44271891.54	44271891.66	44271891.79	0.0275	0.0187	
Mercury	116500-06-18 23:00 G	44271980.28	44271980.46	44271980.63	0.0275	0.0003	
Mercury	116500-09-15 18:12 G	44272069.14	44272069.26	44272069.40	0.0274	0.0184	
Moon	116506-04-30 15:20 G	44274121.92	44274122.14	44274122.37	0.0271	0.0088	
Earth	116506-04-30 17:58 G	44274122.03	44274122.25	44274122.48	0.0271	0.0098	*
Earth	116507-05-12 17:15 G	44274499.01	44274499.22	44274499.45	0.0272	0.0114	
Moon	116507-05-12 19:24 G	44274499.11	44274499.31	44274499.54	0.0272	0.0111	*
Mars	116509-02-20 11:00 G	44275148.86	44275148.96	44275149.10	0.0274	0.0245	
Venus	116515-03-13 15:48 G	44277360.96	44277361.16	44277361.36	0.0284	0.0086	
Mercury	116515-04-20 03:34 G	44277398.58	44277398.65	44277398.72	0.0284	0.0241	
Mercury	116515-07-17 16:32 G	44277487.05	44277487.19	44277487.32	0.0284	0.0077	
Mercury	116515-10-14 05:15 G	44277575.59	44277575.72	44277575.85	0.0285	0.0085	
Venus	116515-10-29 05:44 G	44277590.68	44277590.74	44277590.82	0.0285	0.0269	
Mercury	116516-01-10 17:58 G	44277664.18	44277664.25	44277664.32	0.0285	0.0245	
Moon	116520-10-26 15:34 G	44279414.94	44279415.15	44279415.38	0.0288	0.0132	
Earth	116520-10-26 19:10 G	44279415.09	44279415.30	44279415.53	0.0288	0.0136	*
Moon	116521-11-10 00:12 G	44279794.30	44279794.51	44279794.74	0.0287	0.0126	
Earth	116521-11-10 03:05 G	44279794.41	44279794.63	44279794.85	0.0287	0.0128	*
Mercury	116529-08-09 03:20 G	44282623.56	44282623.64	44282623.72	0.0275	0.0242	
Venus	116529-09-01 08:08 G	44282646.63	44282646.84	44282647.05	0.0275	0.0038	
Mercury	116529-11-05 22:17 G	44282712.27	44282712.43	44282712.61	0.0275	0.0060	
Mercury	116530-02-02 17:44 G	44282801.09	44282801.24	44282801.40	0.0274	0.0127	
Moon	116535-04-25 21:48 G	44284709.24	44284709.41	44284709.60	0.0272	0.0189	
Earth	116535-04-25 21:48 G	44284709.25	44284709.41	44284709.59	0.0272	0.0192	*

Moon	116536-05-06 18:12 G	44285086.02	44285086.26	44285086.51	0.0272	0.0007
Earth	116536-05-06 22:03 G	44285086.18	44285086.42	44285086.66	0.0272	0.0019 *
Moon	116537-05-18 21:20 G	44285463.26	44285463.39	44285463.55	0.0273	0.0216
Earth	116537-05-18 22:03 G	44285463.31	44285463.42	44285463.56	0.0273	0.0231 *
Mercury	116544-09-06 06:41 G	44288130.75	44288130.78	44288130.83	0.0284	0.0270
Venus	116544-09-23 02:08 G	44288147.38	44288147.59	44288147.80	0.0284	0.0023
Mercury	116544-12-03 19:53 G	44288219.20	44288219.33	44288219.46	0.0285	0.0106
Mercury	116545-03-02 08:51 G	44288307.73	44288307.87	44288308.00	0.0285	0.0058
Mercury	116545-05-29 21:34 G	44288396.31	44288396.40	44288396.48	0.0285	0.0219
Earth	116549-10-21 06:41 G	44290001.66	44290001.78	44290001.93	0.0288	0.0240
Moon	116549-10-21 09:20 G	44290001.77	44290001.89	44290002.04	0.0288	0.0245 *
Moon	116550-11-04 13:53 G	44290380.82	44290381.08	44290381.34	0.0287	0.0009
Earth	116550-11-04 14:51 G	44290380.88	44290381.12	44290381.37	0.0287	0.0023 *
Moon	116551-11-18 18:12 G	44290760.17	44290760.26	44290760.37	0.0287	0.0264
Earth	116551-11-18 21:48 G	44290760.38	44290760.41	44290760.47	0.0287	0.0282
Venus	116558-07-28 07:39 G	44293203.71	44293203.82	44293203.95	0.0276	0.0228
Mercury	116558-12-27 05:29 G	44293355.71	44293355.73	44293355.75	0.0275	0.0272
Venus	116559-03-14 17:29 G	44293433.04	44293433.23	44293433.44	0.0275	0.0098
Mercury	116559-03-26 00:27 G	44293444.36	44293444.52	44293444.69	0.0275	0.0090
Mercury	116559-06-22 19:39 G	44293533.16	44293533.32	44293533.49	0.0274	0.0095
Earth	116565-05-02 02:51 G	44295673.38	44295673.62	44295673.85	0.0271	0.0070
Moon	116565-05-02 05:00 G	44295673.47	44295673.71	44295673.95	0.0271	0.0086 *
Moon	116566-05-13 23:29 G	44296050.26	44296050.48	44296050.70	0.0272	0.0129
Earth	116566-05-14 01:53 G	44296050.38	44296050.58	44296050.79	0.0272	0.0141 *
Venus	116574-04-05 05:00 G	44298933.50	44298933.71	44298933.92	0.0284	0.0019
Mercury	116574-04-22 21:05 G	44298951.26	44298951.38	44298951.49	0.0284	0.0160
Mercury	116574-07-20 10:03 G	44299039.78	44299039.92	44299040.05	0.0285	0.0009
Mercury	116574-10-16 22:46 G	44299128.34	44299128.45	44299128.56	0.0285	0.0164
Earth	116579-10-29 08:51 G	44300966.65	44300966.87	44300967.11	0.0288	0.0103
Moon	116579-10-29 12:41 G	44300966.81	44300967.03	44300967.26	0.0288	0.0119 *

Earth	116580-11-11 16:32 G	44301345.99	44301346.19	44301346.41	0.0287	0.0160
Moon	116580-11-11 19:24 G	44301346.09	44301346.31	44301346.53	0.0287	0.0146 *
Venus	116588-02-07 10:17 G	44303989.79	44303989.93	44303990.09	0.0276	0.0190
Mercury	116588-08-11 23:29 G	44304176.34	44304176.48	44304176.63	0.0275	0.0150
Venus	116588-09-23 20:08 G	44304219.16	44304219.34	44304219.53	0.0275	0.0136
Mercury	116588-11-08 18:41 G	44304265.11	44304265.28	44304265.45	0.0274	0.0034
Mercury	116589-02-05 13:53 G	44304353.99	44304354.08	44304354.19	0.0274	0.0221
Earth	116594-04-27 05:15 G	44306260.54	44306260.72	44306260.92	0.0272	0.0165
Moon	116594-04-27 06:27 G	44306260.59	44306260.77	44306260.95	0.0272	0.0177 *
Earth	116595-05-09 05:15 G	44306637.48	44306637.72	44306637.96	0.0272	0.0046
Moon	116595-05-09 09:05 G	44306637.64	44306637.88	44306638.12	0.0272	0.0044 *
Earth	116596-05-20 05:44 G	44307014.66	44307014.74	44307014.82	0.0273	0.0256
Moon	116596-05-20 05:29 G	44307014.68	44307014.73	44307014.79	0.0273	0.0266 *
Mars	116597-07-17 16:46 G	44307437.97	44307438.20	44307438.45	0.0274	0.0132
Venus	116603-03-02 00:27 G	44309490.48	44309490.52	44309490.58	0.0284	0.0273
Mercury	116603-09-10 23:58 G	44309683.40	44309683.50	44309683.61	0.0284	0.0193
Venus	116603-10-17 14:08 G	44309719.89	44309720.09	44309720.29	0.0285	0.0078
Mercury	116603-12-08 13:10 G	44309771.91	44309772.05	44309772.19	0.0285	0.0030
Mercury	116604-03-06 01:53 G	44309860.46	44309860.58	44309860.70	0.0285	0.0133
Moon	116608-10-23 17:00 G	44311553.06	44311553.21	44311553.38	0.0288	0.0216
Earth	116608-10-23 18:56 G	44311553.13	44311553.29	44311553.47	0.0288	0.0209 *
Earth	116609-11-07 03:05 G	44311932.39	44311932.63	44311932.88	0.0287	0.0054
Moon	116609-11-07 04:32 G	44311932.46	44311932.69	44311932.93	0.0287	0.0053 *
Venus	116617-08-20 20:36 G	44314776.17	44314776.36	44314776.55	0.0276	0.0128
Mercury	116617-12-31 01:39 G	44314908.45	44314908.57	44314908.71	0.0275	0.0180
Mercury	116618-03-29 20:51 G	44314997.20	44314997.37	44314997.54	0.0275	0.0004
Venus	116618-04-07 05:58 G	44315005.61	44315005.75	44315005.90	0.0275	0.0196
Mercury	116618-06-26 16:03 G	44315086.05	44315086.17	44315086.30	0.0274	0.0191
Moon	116623-04-23 08:22 G	44316847.79	44316847.85	44316847.94	0.0271	0.0257
Earth	116623-04-23 11:58 G	44316847.92	44316848.00	44316848.09	0.0271	0.0252 *

Moon	116624-05-04 09:05 G	44317224.65	44317224.88	44317225.12	0.0271	0.0036
Earth	116624-05-04 11:00 G	44317224.72	44317224.96	44317225.20	0.0271	0.0044 *
Earth	116625-05-16 09:48 G	44317601.73	44317601.91	44317602.11	0.0272	0.0167
Moon	116625-05-16 12:27 G	44317601.86	44317602.02	44317602.20	0.0272	0.0183 *
Venus	116632-09-11 03:20 G	44320276.53	44320276.64	44320276.77	0.0283	0.0231
Mercury	116633-01-28 01:10 G	44320415.49	44320415.55	44320415.62	0.0284	0.0248
Mercury	116633-04-26 14:08 G	44320503.96	44320504.09	44320504.23	0.0284	0.0084
Venus	116633-04-28 16:46 G	44320506.01	44320506.20	44320506.40	0.0284	0.0120
Mercury	116633-07-24 03:05 G	44320592.50	44320592.63	44320592.76	0.0285	0.0078
Mercury	116633-10-20 15:34 G	44320681.09	44320681.15	44320681.23	0.0285	0.0239
Moon	116638-10-31 16:46 G	44322517.96	44322518.20	44322518.45	0.0288	0.0058
Earth	116638-10-31 20:51 G	44322518.13	44322518.37	44322518.61	0.0288	0.0072 *
Moon	116639-11-15 02:08 G	44322897.43	44322897.59	44322897.76	0.0287	0.0206
Earth	116639-11-15 04:17 G	44322897.50	44322897.68	44322897.87	0.0287	0.0190 *
Venus	116647-03-02 22:17 G	44325562.23	44325562.43	44325562.64	0.0275	0.0093
Mercury	116647-05-20 00:27 G	44325640.44	44325640.52	44325640.60	0.0275	0.0243
Mercury	116647-08-16 19:24 G	44325729.14	44325729.31	44325729.48	0.0275	0.0060
Venus	116647-10-18 07:39 G	44325791.72	44325791.82	44325791.94	0.0274	0.0231
Mercury	116647-11-13 14:36 G	44325817.96	44325818.11	44325818.27	0.0274	0.0125
Moon	116653-04-29 10:03 G	44327811.71	44327811.92	44327812.15	0.0271	0.0123
Earth	116653-04-29 11:58 G	44327811.79	44327812.00	44327812.21	0.0271	0.0139 *
Moon	116654-05-11 07:53 G	44328188.60	44328188.83	44328189.06	0.0272	0.0086
Earth	116654-05-11 11:15 G	44328188.74	44328188.97	44328189.21	0.0272	0.0072 *
Venus	116662-03-24 11:00 G	44331062.80	44331062.96	44331063.12	0.0284	0.0177
Mercury	116662-09-13 16:46 G	44331236.08	44331236.20	44331236.33	0.0285	0.0122
Venus	116662-11-09 00:41 G	44331292.37	44331292.53	44331292.70	0.0285	0.0176
Mercury	116662-12-11 05:44 G	44331324.61	44331324.74	44331324.88	0.0285	0.0043
Mercury	116663-03-09 18:27 G	44331413.18	44331413.27	44331413.37	0.0285	0.0204
Earth	116667-10-26 04:46 G	44333104.52	44333104.70	44333104.90	0.0288	0.0180
Moon	116667-10-26 06:27 G	44333104.56	44333104.77	44333104.99	0.0288	0.0162 *

Moon	116668-11-08 11:15 G	44333483.74	44333483.97	44333484.22	0.0287	0.0099
Earth	116668-11-08 13:10 G	44333483.81	44333484.05	44333484.29	0.0287	0.0084 *
Venus	116676-09-12 08:08 G	44336348.63	44336348.84	44336349.05	0.0275	0.0032
Mercury	116676-10-06 02:22 G	44336372.59	44336372.60	44336372.63	0.0275	0.0274
Mercury	116677-01-02 21:34 G	44336461.23	44336461.40	44336461.56	0.0275	0.0091
Mercury	116677-04-01 16:46 G	44336550.03	44336550.20	44336550.36	0.0275	0.0094
Earth	116682-04-24 18:41 G	44338399.17	44338399.28	44338399.42	0.0271	0.0228
Moon	116682-04-24 22:32 G	44338399.30	44338399.44	44338399.59	0.0271	0.0212 *
Earth	116683-05-06 17:44 G	44338776.00	44338776.24	44338776.48	0.0271	0.0019
Moon	116683-05-06 19:10 G	44338776.05	44338776.30	44338776.55	0.0271	0.0012 *
Moon	116684-05-17 13:24 G	44339152.88	44339153.06	44339153.24	0.0272	0.0183
Earth	116684-05-17 16:32 G	44339153.03	44339153.19	44339153.37	0.0272	0.0193 *
Mars	116685-12-12 18:41 G	44339727.00	44339727.28	44339727.55	0.0273	0.0022
Venus	116691-10-04 14:08 G	44341848.91	44341849.09	44341849.28	0.0283	0.0134
Mercury	116692-01-31 17:58 G	44341968.15	44341968.25	44341968.37	0.0284	0.0175
Mercury	116692-04-29 07:10 G	44342056.66	44342056.80	44342056.93	0.0284	0.0015
Venus	116692-05-21 04:03 G	44342078.53	44342078.67	44342078.80	0.0284	0.0219
Mercury	116692-07-26 19:53 G	44342145.21	44342145.33	44342145.44	0.0285	0.0150
Earth	116697-11-02 05:44 G	44344069.50	44344069.74	44344069.99	0.0288	0.0043
Moon	116697-11-02 09:34 G	44344069.66	44344069.90	44344070.15	0.0288	0.0041 *
Earth	116698-11-16 13:24 G	44344448.90	44344449.06	44344449.22	0.0287	0.0219
Moon	116698-11-16 14:51 G	44344448.96	44344449.12	44344449.30	0.0287	0.0215 *
Venus	116706-03-26 08:51 G	44347134.66	44347134.87	44347135.09	0.0275	0.0002
Mercury	116706-05-23 19:39 G	44347193.18	44347193.32	44347193.46	0.0275	0.0159
Mercury	116706-08-20 14:51 G	44347281.95	44347282.12	44347282.29	0.0275	0.0025
Mercury	116706-11-17 10:17 G	44347370.82	44347370.93	44347371.04	0.0274	0.0212
Earth	116712-05-01 17:00 G	44349363.00	44349363.21	44349363.43	0.0271	0.0114
Moon	116712-05-01 19:10 G	44349363.09	44349363.30	44349363.51	0.0271	0.0118 *
Earth	116713-05-13 16:03 G	44349739.95	44349740.17	44349740.40	0.0272	0.0097
Moon	116713-05-13 19:10 G	44349740.07	44349740.30	44349740.54	0.0272	0.0083 *

Venus	116721-04-16 20:08 G	44352635.14	44352635.34	44352635.54	0.0284	0.0084
Mercury	116721-06-20 20:08 G	44352700.26	44352700.34	44352700.43	0.0284	0.0218
Mercury	116721-09-17 09:20 G	44352788.75	44352788.89	44352789.02	0.0285	0.0055
Venus	116721-12-02 10:03 G	44352864.86	44352864.92	44352864.99	0.0285	0.0270
Mercury	116721-12-14 22:03 G	44352877.29	44352877.42	44352877.55	0.0285	0.0108
Mercury	116722-03-13 10:46 G	44352965.91	44352965.95	44352965.99	0.0285	0.0268
Moon	116726-10-28 10:17 G	44354655.74	44354655.93	44354656.14	0.0288	0.0165
Earth	116726-10-28 11:29 G	44354655.78	44354655.98	44354656.20	0.0288	0.0153 *
Earth	116727-11-11 19:39 G	44355035.10	44355035.32	44355035.56	0.0287	0.0112
Moon	116727-11-11 22:03 G	44355035.20	44355035.42	44355035.65	0.0287	0.0096 *
Venus	116735-02-19 07:24 G	44357691.77	44357691.81	44357691.88	0.0276	0.0268
Venus	116735-10-06 18:12 G	44357921.05	44357921.26	44357921.47	0.0275	0.0061
Mercury	116735-10-10 21:34 G	44357925.29	44357925.40	44357925.53	0.0275	0.0191
Mercury	116736-01-07 16:46 G	44358014.03	44358014.20	44358014.38	0.0275	0.0007
Mercury	116736-04-05 11:58 G	44358102.88	44358103.00	44358103.14	0.0275	0.0180
Moon	116741-04-26 20:51 G	44359950.23	44359950.37	44359950.52	0.0271	0.0217
Earth	116741-04-27 00:41 G	44359950.37	44359950.53	44359950.69	0.0271	0.0203 *
Moon	116742-05-08 22:46 G	44360327.21	44360327.45	44360327.68	0.0271	0.0009
Earth	116742-05-08 23:15 G	44360327.23	44360327.47	44360327.71	0.0271	0.0007 *
Earth	116743-05-20 21:34 G	44360704.27	44360704.40	44360704.56	0.0272	0.0217
Moon	116743-05-21 01:24 G	44360704.42	44360704.56	44360704.71	0.0272	0.0214 *
Venus	116750-10-27 23:29 G	44363421.27	44363421.48	44363421.69	0.0283	0.0040
Mercury	116750-11-07 21:20 G	44363432.36	44363432.39	44363432.44	0.0283	0.0270
Mercury	116751-02-04 10:32 G	44363520.81	44363520.94	44363521.07	0.0284	0.0107
Mercury	116751-05-03 23:29 G	44363609.34	44363609.48	44363609.61	0.0284	0.0056
Mercury	116751-07-31 12:12 G	44363697.92	44363698.01	44363698.10	0.0285	0.0216
Earth	116755-10-22 03:48 G	44365241.61	44365241.66	44365241.74	0.0288	0.0278
Moon	116756-11-04 08:36 G	44365620.62	44365620.86	44365621.11	0.0288	0.0031
Earth	116756-11-04 12:12 G	44365620.76	44365621.01	44365621.26	0.0288	0.0016 *
Moon	116757-11-18 19:10 G	44366000.18	44366000.30	44366000.45	0.0287	0.0239

Earth	116757-11-18 19:39 G	44366000.20	44366000.32	44366000.46	0.0287	0.0245	*
Venus	116764-08-31 07:24 G	44368477.71	44368477.81	44368477.92	0.0276	0.0237	
Mercury	116765-02-26 19:24 G	44368657.27	44368657.31	44368657.36	0.0275	0.0262	
Venus	116765-04-17 17:58 G	44368707.05	44368707.25	44368707.46	0.0275	0.0090	
Mercury	116765-05-26 14:22 G	44368745.94	44368746.10	44368746.27	0.0275	0.0080	
Mercury	116765-08-23 09:48 G	44368834.74	44368834.91	44368835.07	0.0275	0.0106	
Moon	116771-05-03 17:58 G	44370914.03	44370914.25	44370914.49	0.0271	0.0099	
Earth	116771-05-03 20:51 G	44370914.14	44370914.37	44370914.60	0.0271	0.0091	*
Moon	116772-05-14 17:29 G	44371291.03	44371291.23	44371291.45	0.0272	0.0127	
Earth	116772-05-14 19:39 G	44371291.11	44371291.32	44371291.54	0.0272	0.0120	*
Mars	116774-05-09 08:22 G	44372015.58	44372015.85	44372016.12	0.0274	0.0050	
Venus	116780-05-09 04:17 G	44374207.47	44374207.68	44374207.89	0.0284	0.0009	
Mercury	116780-06-23 12:12 G	44374252.90	44374253.01	44374253.13	0.0284	0.0155	
Mercury	116780-09-20 01:24 G	44374341.42	44374341.56	44374341.69	0.0285	0.0012	
Mercury	116780-12-17 14:08 G	44374429.98	44374430.09	44374430.20	0.0285	0.0170	
Earth	116785-10-29 15:34 G	44376206.93	44376207.15	44376207.38	0.0288	0.0128	
Moon	116785-10-29 15:48 G	44376206.94	44376207.16	44376207.40	0.0288	0.0130	*
Moon	116786-11-12 20:51 G	44376586.15	44376586.37	44376586.59	0.0287	0.0143	
Earth	116786-11-12 23:58 G	44376586.29	44376586.50	44376586.72	0.0287	0.0135	*
Venus	116794-03-13 16:03 G	44379264.02	44379264.17	44379264.34	0.0276	0.0180	
Mercury	116794-10-13 16:03 G	44379478.02	44379478.17	44379478.33	0.0275	0.0114	
Venus	116794-10-29 02:36 G	44379493.44	44379493.61	44379493.79	0.0275	0.0149	
Mercury	116795-01-10 11:15 G	44379566.80	44379566.97	44379567.14	0.0275	0.0071	
Mercury	116795-04-09 06:41 G	44379655.73	44379655.78	44379655.84	0.0275	0.0259	
Earth	116800-04-28 04:32 G	44381501.51	44381501.69	44381501.87	0.0271	0.0181	
Moon	116800-04-28 08:22 G	44381501.67	44381501.85	44381502.02	0.0271	0.0182	*
Moon	116801-05-10 02:22 G	44381878.35	44381878.60	44381878.84	0.0271	0.0042	
Earth	116801-05-10 02:51 G	44381878.39	44381878.62	44381878.87	0.0271	0.0030	*
Moon	116802-05-21 22:03 G	44382255.34	44382255.42	44382255.51	0.0272	0.0253	
Earth	116802-05-22 01:39 G	44382255.47	44382255.57	44382255.69	0.0272	0.0239	*

Mercury 116809-11-10 13:39 G 44384984.98 44384985.07 44384985.17 0.0283 0.0205

Venus 116809-11-19 07:53 G 44384993.63 44384993.83 44384994.04 0.0283 0.0051

Mercury 116810-02-07 02:36 G 44385073.48 44385073.61 44385073.75 0.0284 0.0043

Mercury 116810-05-06 15:34 G 44385162.02 44385162.15 44385162.27 0.0284 0.0119

Mercury 116810-08-03 04:03 G 44385250.65 44385250.67 44385250.70 0.0284 0.0278

Earth 116814-10-23 07:24 G 44386792.71 44386792.81 44386792.94 0.0288 0.0254

Moon 116814-10-23 11:00 G 44386792.83 44386792.96 44386793.10 0.0288 0.0241 *

Earth 116815-11-06 15:34 G 44387171.91 44387172.15 44387172.40 0.0288 0.0010

Moon 116815-11-06 18:41 G 44387172.02 44387172.28 44387172.53 0.0288 0.0024 *

Earth 116816-11-19 23:15 G 44387551.40 44387551.47 44387551.57 0.0287 0.0269

Moon 116816-11-19 22:17 G 44387551.41 44387551.43 44387551.49 0.0287 0.0284 *

Venus 116823-09-23 15:34 G 44390049.97 44390050.15 44390050.33 0.0276 0.0150

Mercury 116824-03-01 13:39 G 44390209.95 44390210.07 44390210.20 0.0275 0.0188

Venus 116824-05-10 01:53 G 44390279.42 44390279.58 44390279.75 0.0275 0.0176

Mercury 116824-05-29 08:36 G 44390298.69 44390298.86 44390299.04 0.0275 0.0008

Mercury 116824-08-26 04:03 G 44390387.54 44390387.67 44390387.80 0.0275 0.0182

Moon 116829-04-22 22:17 G 44392088.41 44392088.43 44392088.48 0.0271 0.0267

Earth 116830-05-04 23:15 G 44392465.24 44392465.47 44392465.71 0.0271 0.0069

Moon 116830-05-05 02:22 G 44392465.37 44392465.60 44392465.84 0.0271 0.0054 *

Earth 116831-05-16 22:03 G 44392842.22 44392842.42 44392842.63 0.0272 0.0142

Moon 116831-05-16 23:29 G 44392842.28 44392842.48 44392842.70 0.0272 0.0147 *

Venus 116838-10-14 22:32 G 44395550.36 44395550.44 44395550.54 0.0283 0.0255

Mercury 116839-03-30 15:05 G 44395717.07 44395717.13 44395717.18 0.0284 0.0258

Venus 116839-06-01 11:29 G 44395779.78 44395779.98 44395780.18 0.0284 0.0094

Mercury 116839-06-27 04:03 G 44395805.54 44395805.67 44395805.80 0.0284 0.0095

Mercury 116839-09-23 17:00 G 44395894.07 44395894.21 44395894.34 0.0285 0.0068

Mercury 116839-12-21 05:29 G 44395982.66 44395982.73 44395982.82 0.0285 0.0228

Earth 116844-10-30 17:15 G 44397757.99 44397758.22 44397758.45 0.0288 0.0106

Moon 116844-10-30 17:58 G 44397758.03 44397758.25 44397758.48 0.0288 0.0095 *

Earth 116845-11-14 01:39 G 44398137.37 44398137.57 44398137.78 0.0287 0.0158

Moon	116845-11-14 05:00 G	44398137.52	44398137.71	44398137.93	0.0287	0.0165	*
Venus	116853-04-04 23:29 G	44400836.28	44400836.48	44400836.69	0.0276	0.0095	
Mercury	116853-07-19 14:51 G	44400942.03	44400942.12	44400942.23	0.0276	0.0226	
Mercury	116853-10-16 10:03 G	44401030.75	44401030.92	44401031.09	0.0275	0.0042	
Venus	116853-11-20 09:48 G	44401065.80	44401065.91	44401066.03	0.0275	0.0232	
Mercury	116854-01-13 05:15 G	44401119.58	44401119.72	44401119.87	0.0275	0.0144	
Moon	116859-04-30 03:34 G	44403052.46	44403052.65	44403052.85	0.0271	0.0149	
Earth	116859-04-30 06:41 G	44403052.60	44403052.78	44403052.98	0.0271	0.0161	*
Earth	116860-05-11 05:15 G	44403429.48	44403429.72	44403429.96	0.0271	0.0050	
Moon	116860-05-11 06:56 G	44403429.56	44403429.79	44403430.02	0.0271	0.0046	*
Earth	116861-05-23 04:03 G	44403806.61	44403806.67	44403806.74	0.0272	0.0260	
Moon	116861-05-23 07:24 G	44403806.72	44403806.81	44403806.93	0.0272	0.0246	*
Mars	116862-10-03 06:12 G	44404304.54	44404304.76	44404305.00	0.0273	0.0147	
Venus	116868-04-26 03:20 G	44406336.50	44406336.64	44406336.79	0.0282	0.0207	
Mercury	116868-11-13 05:44 G	44406537.62	44406537.74	44406537.86	0.0283	0.0142	
Venus	116868-12-11 15:48 G	44406565.98	44406566.16	44406566.35	0.0283	0.0141	
Mercury	116869-02-09 18:41 G	44406626.14	44406626.28	44406626.42	0.0284	0.0020	
Mercury	116869-05-09 07:24 G	44406714.70	44406714.81	44406714.91	0.0284	0.0179	
Moon	116873-10-24 06:56 G	44408343.64	44408343.79	44408343.93	0.0288	0.0232	
Earth	116873-10-24 10:17 G	44408343.79	44408343.93	44408344.08	0.0288	0.0231	*
Moon	116874-11-07 16:03 G	44408722.93	44408723.17	44408723.41	0.0288	0.0023	
Earth	116874-11-07 18:12 G	44408723.01	44408723.26	44408723.51	0.0288	0.0031	*
Moon	116875-11-22 02:36 G	44409102.57	44409102.61	44409102.68	0.0287	0.0278	
Venus	116882-10-15 22:32 G	44411622.23	44411622.44	44411622.65	0.0276	0.0067	
Mercury	116883-03-05 07:10 G	44411762.65	44411762.80	44411762.96	0.0275	0.0120	
Mercury	116883-06-02 02:22 G	44411851.44	44411851.60	44411851.77	0.0275	0.0066	
Venus	116883-06-02 08:22 G	44411851.79	44411851.85	44411851.93	0.0275	0.0259	
Mercury	116883-08-29 21:48 G	44411940.35	44411940.41	44411940.48	0.0275	0.0254	
Earth	116888-04-24 01:24 G	44413639.49	44413639.56	44413639.64	0.0271	0.0256	
Moon	116888-04-24 02:22 G	44413639.51	44413639.60	44413639.69	0.0271	0.0252	*

Moon	116889-05-05 21:05 G	44414016.14	44414016.38	44414016.62	0.0271	0.0061
Earth	116889-05-06 00:27 G	44414016.29	44414016.52	44414016.77	0.0271	0.0048 *
Moon	116890-05-17 22:32 G	44414393.24	44414393.44	44414393.64	0.0272	0.0148
Earth	116890-05-17 23:29 G	44414393.29	44414393.48	44414393.68	0.0272	0.0163 *
Venus	116897-11-06 05:15 G	44417122.56	44417122.72	44417122.89	0.0283	0.0169
Mercury	116898-04-02 06:41 G	44417269.68	44417269.78	44417269.88	0.0284	0.0199
Venus	116898-06-23 18:12 G	44417352.10	44417352.26	44417352.43	0.0284	0.0181
Mercury	116898-06-29 19:39 G	44417358.18	44417358.32	44417358.46	0.0284	0.0037
Mercury	116898-09-26 08:22 G	44417446.73	44417446.85	44417446.98	0.0284	0.0126
Mercury	116898-12-23 21:05 G	44417535.38	44417535.38	44417535.39	0.0285	0.0284
Moon	116903-11-02 15:20 G	44419308.90	44419309.14	44419309.38	0.0288	0.0101
Earth	116903-11-02 17:15 G	44419308.98	44419309.22	44419309.46	0.0288	0.0085 *
Moon	116904-11-15 21:48 G	44419688.21	44419688.41	44419688.62	0.0287	0.0161
Earth	116904-11-16 01:39 G	44419688.39	44419688.57	44419688.77	0.0287	0.0179 *
Venus	116912-04-28 05:44 G	44422408.53	44422408.74	44422408.96	0.0276	0.0013
Mercury	116912-07-23 08:22 G	44422494.71	44422494.85	44422494.99	0.0276	0.0159
Mercury	116912-10-20 03:34 G	44422583.47	44422583.65	44422583.82	0.0276	0.0026
Mercury	116913-01-16 22:46 G	44422672.35	44422672.45	44422672.56	0.0275	0.0214
Earth	116918-05-02 08:08 G	44424603.64	44424603.84	44424604.05	0.0271	0.0141
Moon	116918-05-02 11:00 G	44424603.76	44424603.96	44424604.17	0.0271	0.0155 *
Moon	116919-05-14 04:46 G	44424980.46	44424980.70	44424980.94	0.0271	0.0060
Earth	116919-05-14 06:56 G	44424980.56	44424980.79	44424981.02	0.0271	0.0071 *
Venus	116927-05-20 10:46 G	44427908.76	44427908.95	44427909.14	0.0282	0.0119
Mercury	116927-08-21 08:36 G	44428001.79	44428001.86	44428001.93	0.0283	0.0243
Mercury	116927-11-17 21:34 G	44428090.27	44428090.40	44428090.54	0.0283	0.0082
Venus	116928-01-04 23:15 G	44428138.36	44428138.47	44428138.60	0.0283	0.0229
Mercury	116928-02-14 10:32 G	44428178.80	44428178.94	44428179.07	0.0283	0.0079
Mercury	116928-05-12 23:00 G	44428267.39	44428267.46	44428267.54	0.0284	0.0238
Earth	116932-10-26 11:29 G	44429894.82	44429894.98	44429895.16	0.0288	0.0210
Moon	116932-10-26 15:05 G	44429894.99	44429895.13	44429895.30	0.0288	0.0222 *

Earth	116933-11-09 19:24 G	44430274.06	44430274.31	44430274.55	0.0288	0.0053
Moon	116933-11-09 21:05 G	44430274.13	44430274.38	44430274.64	0.0288	0.0046 *
Venus	116941-11-08 04:46 G	44433194.49	44433194.70	44433194.92	0.0276	0.0016
Mercury	116941-12-10 05:29 G	44433226.65	44433226.73	44433226.83	0.0276	0.0236
Mercury	116942-03-09 00:41 G	44433315.36	44433315.53	44433315.70	0.0276	0.0052
Mercury	116942-06-05 19:53 G	44433404.18	44433404.33	44433404.49	0.0275	0.0135
Earth	116947-04-27 01:53 G	44435190.47	44435190.58	44435190.71	0.0271	0.0237
Moon	116947-04-27 02:08 G	44435190.51	44435190.59	44435190.68	0.0271	0.0249 *
Earth	116948-05-08 01:10 G	44435567.31	44435567.55	44435567.79	0.0271	0.0028
Moon	116948-05-08 05:00 G	44435567.47	44435567.71	44435567.95	0.0271	0.0028 *
Earth	116949-05-19 23:58 G	44435944.34	44435944.50	44435944.69	0.0272	0.0183
Moon	116949-05-20 00:56 G	44435944.37	44435944.54	44435944.72	0.0272	0.0193 *
Mars	116951-02-27 08:08 G	44436592.65	44436592.84	44436593.05	0.0273	0.0188
Venus	116956-11-29 12:12 G	44438694.81	44438695.01	44438695.21	0.0283	0.0083
Mercury	116957-04-05 22:32 G	44438822.32	44438822.44	44438822.56	0.0284	0.0140
Mercury	116957-07-03 11:29 G	44438910.84	44438910.98	44438911.11	0.0284	0.0024
Venus	116957-07-17 00:56 G	44438924.48	44438924.54	44438924.62	0.0284	0.0268
Mercury	116957-09-29 23:58 G	44438999.40	44438999.50	44438999.61	0.0284	0.0183
Earth	116962-11-03 17:15 G	44440859.98	44440860.22	44440860.46	0.0288	0.0065
Moon	116962-11-03 19:39 G	44440860.08	44440860.32	44440860.56	0.0288	0.0056 *
Earth	116963-11-18 01:39 G	44441239.40	44441239.57	44441239.76	0.0287	0.0198
Moon	116963-11-18 05:44 G	44441239.57	44441239.74	44441239.91	0.0287	0.0211 *
Venus	116970-10-03 23:29 G	44443751.43	44443751.48	44443751.55	0.0277	0.0266
Venus	116971-05-21 11:15 G	44443980.77	44443980.97	44443981.18	0.0276	0.0067
Mercury	116971-07-27 01:24 G	44444047.40	44444047.56	44444047.72	0.0276	0.0095
Mercury	116971-10-23 20:36 G	44444136.20	44444136.36	44444136.53	0.0276	0.0091
Moon	116977-05-03 06:27 G	44446154.56	44446154.77	44446154.99	0.0271	0.0113
Earth	116977-05-03 08:51 G	44446154.65	44446154.87	44446155.09	0.0271	0.0121 *
Earth	116978-05-15 07:39 G	44446531.60	44446531.82	44446532.06	0.0272	0.0091
Moon	116978-05-15 10:03 G	44446531.71	44446531.92	44446532.14	0.0272	0.0107 *

Jupiter	116985-05-14 01:39 G	44449087.15	44449087.57	44449088.01	0.0280	0.0064
Venus	116986-06-11 18:41 G	44449481.07	44449481.28	44449481.49	0.0282	0.0031
Mercury	116986-08-24 00:41 G	44449554.42	44449554.53	44449554.64	0.0282	0.0181
Mercury	116986-11-20 13:39 G	44449642.93	44449643.07	44449643.21	0.0283	0.0020
Mercury	116987-02-17 02:22 G	44449731.48	44449731.60	44449731.72	0.0283	0.0140
Moon	116991-10-28 09:48 G	44451445.72	44451445.91	44451446.11	0.0288	0.0171
Earth	116991-10-28 13:39 G	44451445.88	44451446.07	44451446.26	0.0288	0.0188 *
Moon	116992-11-10 19:24 G	44451825.09	44451825.31	44451825.55	0.0287	0.0092
Earth	116992-11-10 20:51 G	44451825.13	44451825.37	44451825.62	0.0287	0.0074 *
Venus	117000-04-15 23:15 G	44454537.36	44454537.47	44454537.58	0.0277	0.0236
Venus	117000-12-01 10:46 G	44454766.76	44454766.95	44454767.16	0.0276	0.0096
Mercury	117000-12-13 23:00 G	44454779.32	44454779.46	44454779.59	0.0276	0.0170

118TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 118th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Mercury	117001-03-12 17:58 G		44454868.08	44454868.25	44454868.43	0.0276	0.0016	
Mercury	117001-06-09 13:24 G		44454956.94	44454957.06	44454957.18	0.0275	0.0202	
Moon	117006-04-29 01:24 G		44456741.41	44456741.56	44456741.74	0.0271	0.0203	
Earth	117006-04-29 02:51 G		44456741.48	44456741.62	44456741.76	0.0271	0.0218 *	
Moon	117007-05-10 22:32 G		44457118.20	44457118.44	44457118.68	0.0271	0.0006	
Earth	117007-05-11 02:08 G		44457118.35	44457118.59	44457118.84	0.0271	0.0010 *	
Earth	117008-05-22 01:10 G		44457495.40	44457495.55	44457495.72	0.0272	0.0203	

Moon	117008-05-22 01:24 G	44457495.42	44457495.56	44457495.72	0.0272	0.0204	*
Venus	117015-12-23 19:39 G	44460267.11	44460267.32	44460267.53	0.0283	0.0008	
Mercury	117016-01-12 01:24 G	44460286.48	44460286.56	44460286.63	0.0283	0.0241	
Mercury	117016-04-09 14:22 G	44460374.96	44460375.10	44460375.23	0.0283	0.0079	
Mercury	117016-07-07 03:05 G	44460463.50	44460463.63	44460463.76	0.0284	0.0082	
Mercury	117016-10-03 15:48 G	44460552.09	44460552.16	44460552.23	0.0284	0.0240	
Moon	117021-11-05 14:36 G	44462410.86	44462411.11	44462411.36	0.0288	0.0038	
Earth	117021-11-05 17:29 G	44462410.99	44462411.23	44462411.48	0.0288	0.0045	*
Moon	117022-11-19 22:03 G	44462790.27	44462790.42	44462790.59	0.0287	0.0220	
Earth	117022-11-20 01:39 G	44462790.42	44462790.57	44462790.74	0.0287	0.0219	*
Venus	117029-10-27 05:15 G	44465323.57	44465323.72	44465323.89	0.0277	0.0186	
Mercury	117030-05-02 23:29 G	44465511.38	44465511.48	44465511.59	0.0276	0.0216	
Venus	117030-06-13 16:46 G	44465553.03	44465553.20	44465553.39	0.0276	0.0147	
Mercury	117030-07-30 18:27 G	44465600.10	44465600.27	44465600.45	0.0276	0.0032	
Mercury	117030-10-27 13:53 G	44465688.94	44465689.08	44465689.22	0.0276	0.0157	
Earth	117036-05-05 09:05 G	44467705.67	44467705.88	44467706.12	0.0272	0.0103	
Moon	117036-05-05 11:15 G	44467705.74	44467705.97	44467706.21	0.0272	0.0096	*
Moon	117037-05-17 05:58 G	44468082.52	44468082.75	44468082.98	0.0272	0.0101	
Earth	117037-05-17 08:51 G	44468082.65	44468082.87	44468083.09	0.0272	0.0110	*
Mercury	117045-05-31 03:48 G	44471018.64	44471018.66	44471018.68	0.0282	0.0278	
Venus	117045-07-05 02:51 G	44471053.42	44471053.62	44471053.83	0.0282	0.0060	
Mercury	117045-08-27 16:46 G	44471107.08	44471107.20	44471107.33	0.0282	0.0117	
Mercury	117045-11-24 05:44 G	44471195.60	44471195.74	44471195.88	0.0283	0.0044	
Mercury	117046-02-20 18:27 G	44471284.17	44471284.27	44471284.36	0.0283	0.0202	
Earth	117050-10-30 16:46 G	44472997.00	44472997.20	44472997.41	0.0287	0.0165	
Moon	117050-10-30 20:22 G	44472997.16	44472997.35	44472997.56	0.0287	0.0172	*
Earth	117051-11-13 23:58 G	44473376.27	44473376.50	44473376.74	0.0287	0.0098	
Moon	117051-11-14 00:41 G	44473376.29	44473376.53	44473376.78	0.0287	0.0086	*
Venus	117059-05-09 05:58 G	44476109.58	44476109.75	44476109.93	0.0277	0.0154	
Mercury	117059-12-17 16:17 G	44476332.03	44476332.18	44476332.35	0.0276	0.0103	

Venus	117059-12-24 17:29 G	44476339.06	44476339.23	44476339.39	0.0276	0.0177
Mercury	117060-03-15 11:29 G	44476420.82	44476420.98	44476421.15	0.0276	0.0084
Mercury	117060-06-12 06:56 G	44476509.77	44476509.79	44476509.82	0.0275	0.0272
Earth	117065-04-30 03:48 G	44478292.50	44478292.66	44478292.83	0.0271	0.0198
Moon	117065-04-30 05:29 G	44478292.58	44478292.73	44478292.89	0.0271	0.0205 *
Earth	117066-05-12 03:20 G	44478669.40	44478669.64	44478669.89	0.0271	0.0014
Moon	117066-05-12 06:56 G	44478669.55	44478669.79	44478670.04	0.0271	0.0003 *
Moon	117067-05-24 01:10 G	44479046.41	44479046.55	44479046.72	0.0272	0.0213
Earth	117067-05-24 02:51 G	44479046.49	44479046.62	44479046.76	0.0272	0.0223 *
Venus	117074-05-30 16:03 G	44481610.08	44481610.17	44481610.27	0.0282	0.0250
Mercury	117075-01-14 17:29 G	44481839.12	44481839.23	44481839.34	0.0283	0.0177
Venus	117075-01-15 03:48 G	44481839.46	44481839.66	44481839.86	0.0283	0.0095
Mercury	117075-04-13 06:27 G	44481927.63	44481927.77	44481927.91	0.0283	0.0015
Mercury	117075-07-10 19:10 G	44482016.18	44482016.30	44482016.42	0.0284	0.0144
Earth	117079-10-24 12:12 G	44483582.99	44483583.01	44483583.06	0.0288	0.0284
Earth	117080-11-06 19:53 G	44483962.08	44483962.33	44483962.58	0.0288	0.0023
Moon	117080-11-06 22:46 G	44483962.21	44483962.45	44483962.70	0.0288	0.0040 *
Earth	117081-11-21 03:34 G	44484341.52	44484341.65	44484341.79	0.0287	0.0239
Moon	117081-11-21 06:41 G	44484341.64	44484341.78	44484341.95	0.0287	0.0226 *
Venus	117088-11-18 11:29 G	44486895.79	44486895.98	44486896.18	0.0277	0.0106
Mercury	117089-05-05 16:46 G	44487064.05	44487064.20	44487064.34	0.0277	0.0151
Venus	117089-07-05 22:46 G	44487125.34	44487125.45	44487125.58	0.0276	0.0227
Mercury	117089-08-02 11:44 G	44487152.82	44487152.99	44487153.17	0.0276	0.0036
Mercury	117089-10-30 07:10 G	44487241.71	44487241.80	44487241.91	0.0276	0.0224
Moon	117095-05-07 09:20 G	44489256.68	44489256.89	44489257.12	0.0272	0.0097
Earth	117095-05-07 10:46 G	44489256.72	44489256.95	44489257.18	0.0272	0.0082 *
Earth	117096-05-18 10:32 G	44489633.73	44489633.94	44489634.16	0.0272	0.0131
Moon	117096-05-18 13:53 G	44489633.87	44489634.08	44489634.29	0.0272	0.0127 *
Venus	117103-12-12 00:41 G	44492396.38	44492396.53	44492396.68	0.0281	0.0192
Mercury	117104-06-03 20:22 G	44492571.26	44492571.35	44492571.45	0.0282	0.0210

Venus	117104-07-28 11:58 G	44492625.84	44492626.00	44492626.19	0.0282	0.0154
Mercury	117104-08-31 09:20 G	44492659.75	44492659.89	44492660.03	0.0282	0.0049
Mercury	117104-11-27 22:03 G	44492748.30	44492748.42	44492748.55	0.0283	0.0111
Mercury	117105-02-24 10:32 G	44492836.91	44492836.94	44492836.99	0.0283	0.0268
Moon	117109-11-01 18:27 G	44494548.07	44494548.27	44494548.49	0.0287	0.0149
Earth	117109-11-01 21:48 G	44494548.20	44494548.41	44494548.63	0.0287	0.0140 *
Earth	117110-11-16 04:32 G	44494927.47	44494927.69	44494927.92	0.0287	0.0121
Moon	117110-11-16 04:46 G	44494927.49	44494927.70	44494927.93	0.0287	0.0122 *
Venus	117118-06-01 13:24 G	44497681.86	44497682.06	44497682.27	0.0277	0.0069
Mercury	117118-09-23 15:05 G	44497796.03	44497796.13	44497796.24	0.0276	0.0216
Mercury	117118-12-21 10:17 G	44497884.76	44497884.93	44497885.10	0.0276	0.0031
Venus	117119-01-17 00:27 G	44497911.46	44497911.52	44497911.59	0.0276	0.0261
Mercury	117119-03-20 05:29 G	44497973.59	44497973.73	44497973.88	0.0276	0.0156
Moon	117124-05-02 03:48 G	44499843.48	44499843.66	44499843.84	0.0271	0.0186
Earth	117124-05-02 05:58 G	44499843.57	44499843.75	44499843.94	0.0271	0.0178 *
Moon	117125-05-14 03:05 G	44500220.40	44500220.63	44500220.87	0.0272	0.0039
Earth	117125-05-14 05:58 G	44500220.51	44500220.75	44500220.99	0.0272	0.0033 *
Earth	117126-05-26 05:29 G	44500597.64	44500597.73	44500597.85	0.0272	0.0244
Moon	117126-05-26 07:53 G	44500597.77	44500597.83	44500597.90	0.0272	0.0259 *
Venus	117133-06-23 01:10 G	44503182.38	44503182.55	44503182.73	0.0282	0.0158
Mercury	117133-10-21 20:51 G	44503303.34	44503303.37	44503303.41	0.0283	0.0271
Mercury	117134-01-18 10:03 G	44503391.79	44503391.92	44503392.05	0.0283	0.0109
Venus	117134-02-07 13:10 G	44503411.90	44503412.05	44503412.21	0.0283	0.0188
Mercury	117134-04-16 22:46 G	44503480.32	44503480.45	44503480.59	0.0283	0.0052
Mercury	117134-07-14 11:29 G	44503568.89	44503568.98	44503569.07	0.0284	0.0210
Moon	117138-10-26 16:32 G	44505134.09	44505134.19	44505134.33	0.0288	0.0253
Earth	117138-10-26 17:15 G	44505134.13	44505134.22	44505134.34	0.0288	0.0261 *
Moon	117139-11-09 21:20 G	44505513.14	44505513.39	44505513.64	0.0287	0.0015
Earth	117139-11-10 00:41 G	44505513.28	44505513.53	44505513.78	0.0287	0.0003 *
Moon	117140-11-23 05:44 G	44505892.69	44505892.74	44505892.80	0.0287	0.0278

Earth	117140-11-23 08:22 G	44505892.75	44505892.85	44505892.95	0.0287	0.0261	*
Mars	117141-12-10 23:15 G	44506275.32	44506275.47	44506275.65	0.0286	0.0241	
Venus	117147-12-12 18:56 G	44508468.08	44508468.29	44508468.51	0.0277	0.0022	
Mercury	117148-02-10 15:20 G	44508528.10	44508528.14	44508528.19	0.0277	0.0265	
Mercury	117148-05-09 10:32 G	44508616.77	44508616.94	44508617.10	0.0276	0.0081	
Mercury	117148-08-06 05:44 G	44508705.58	44508705.74	44508705.90	0.0276	0.0106	
Earth	117153-04-27 11:58 G	44510430.99	44510431.00	44510431.03	0.0272	0.0271	
Moon	117153-04-27 16:03 G	44510431.14	44510431.17	44510431.19	0.0272	0.0271	
Earth	117154-05-09 12:56 G	44510807.81	44510808.04	44510808.28	0.0272	0.0061	
Moon	117154-05-09 13:24 G	44510807.82	44510808.06	44510808.31	0.0272	0.0049	*
Moon	117155-05-21 09:34 G	44511184.72	44511184.90	44511185.10	0.0273	0.0165	
Earth	117155-05-21 13:24 G	44511184.86	44511185.06	44511185.26	0.0273	0.0152	*
Venus	117163-01-03 11:00 G	44513968.76	44513968.96	44513969.16	0.0282	0.0097	
Mercury	117163-06-07 13:10 G	44514123.93	44514124.05	44514124.18	0.0282	0.0138	
Venus	117163-08-20 22:46 G	44514198.36	44514198.45	44514198.55	0.0283	0.0250	
Mercury	117163-09-04 02:08 G	44514212.45	44514212.59	44514212.73	0.0283	0.0023	
Mercury	117163-12-01 14:51 G	44514301.02	44514301.12	44514301.23	0.0283	0.0181	
Earth	117168-11-03 05:44 G	44516099.51	44516099.74	44516099.97	0.0287	0.0113	
Moon	117168-11-03 08:22 G	44516099.61	44516099.85	44516100.09	0.0287	0.0097	*
Moon	117169-11-17 10:46 G	44516478.74	44516478.95	44516479.17	0.0287	0.0158	
Earth	117169-11-17 11:58 G	44516478.80	44516479.00	44516479.23	0.0287	0.0148	*
Venus	117177-06-23 22:17 G	44519254.21	44519254.43	44519254.64	0.0277	0.0020	
Mercury	117177-09-26 09:34 G	44519348.75	44519348.90	44519349.05	0.0276	0.0141	
Mercury	117177-12-24 04:32 G	44519437.52	44519437.69	44519437.87	0.0276	0.0046	
Mercury	117178-03-22 23:58 G	44519526.41	44519526.50	44519526.59	0.0276	0.0233	
Earth	117183-05-04 09:34 G	44521394.71	44521394.90	44521395.10	0.0272	0.0156	
Moon	117183-05-04 12:12 G	44521394.81	44521395.01	44521395.21	0.0272	0.0141	*
Earth	117184-05-15 09:48 G	44521771.68	44521771.91	44521772.15	0.0272	0.0056	
Moon	117184-05-15 12:12 G	44521771.77	44521772.01	44521772.25	0.0272	0.0062	*
Moon	117185-05-27 07:10 G	44522148.73	44522148.80	44522148.89	0.0272	0.0257	

Earth	117185-05-27 10:17 G	44522148.88	44522148.93	44522148.98	0.0272	0.0266	*
Venus	117192-07-15 11:58 G	44524754.80	44524755.00	44524755.21	0.0282	0.0062	
Mercury	117192-10-24 13:53 G	44524855.99	44524856.08	44524856.18	0.0283	0.0198	
Mercury	117193-01-21 03:05 G	44524944.49	44524944.63	44524944.76	0.0283	0.0037	
Mercury	117193-04-19 15:48 G	44525033.03	44525033.16	44525033.28	0.0283	0.0123	
Mercury	117193-07-17 04:17 G	44525121.67	44525121.68	44525121.70	0.0284	0.0281	
Earth	117197-10-28 01:10 G	44526685.42	44526685.55	44526685.70	0.0287	0.0234	
Moon	117197-10-28 02:36 G	44526685.48	44526685.61	44526685.76	0.0287	0.0228	*
Earth	117198-11-11 08:08 G	44527064.59	44527064.84	44527065.09	0.0287	0.0027	
Moon	117198-11-11 11:44 G	44527064.75	44527064.99	44527065.24	0.0287	0.0025	*
Earth	117199-11-25 15:20 G	44527444.13	44527444.14	44527444.15	0.0287	0.0286	
Moon	117199-11-25 17:15 G	44527444.17	44527444.22	44527444.29	0.0287	0.0278	
Venus	117206-05-19 14:51 G	44529811.08	44529811.12	44529811.17	0.0278	0.0270	
Venus	117207-01-04 03:20 G	44530040.43	44530040.64	44530040.85	0.0277	0.0065	
Mercury	117207-02-13 09:34 G	44530080.78	44530080.90	44530081.03	0.0277	0.0191	
Mercury	117207-05-13 04:46 G	44530169.52	44530169.70	44530169.87	0.0276	0.0007	
Mercury	117207-08-09 23:58 G	44530258.37	44530258.50	44530258.63	0.0276	0.0183	
Moon	117212-04-28 11:58 G	44531981.89	44531982.00	44531982.12	0.0272	0.0237	
Earth	117212-04-28 15:20 G	44531982.06	44531982.14	44531982.25	0.0272	0.0250	*
Earth	117213-05-10 16:46 G	44532358.97	44532359.20	44532359.45	0.0272	0.0039	
Moon	117213-05-10 17:29 G	44532359.00	44532359.23	44532359.47	0.0272	0.0042	*
Earth	117214-05-22 17:29 G	44532736.05	44532736.23	44532736.42	0.0273	0.0175	
Moon	117214-05-22 21:05 G	44532736.19	44532736.38	44532736.59	0.0273	0.0160	*
Venus	117222-01-25 22:17 G	44535541.22	44535541.43	44535541.64	0.0282	0.0001	
Mercury	117222-03-13 17:29 G	44535588.15	44535588.23	44535588.31	0.0282	0.0224	
Mercury	117222-06-10 06:27 G	44535676.64	44535676.77	44535676.91	0.0282	0.0063	
Mercury	117222-09-06 19:10 G	44535765.17	44535765.30	44535765.44	0.0283	0.0097	
Mercury	117222-12-04 07:53 G	44535853.77	44535853.83	44535853.89	0.0283	0.0254	
Moon	117227-11-05 14:22 G	44537650.87	44537651.10	44537651.32	0.0287	0.0096	
Earth	117227-11-05 16:03 G	44537650.94	44537651.17	44537651.41	0.0287	0.0084	*

Earth	117228-11-18 22:17 G	44538030.24	44538030.43	44538030.63	0.0287	0.0177
Moon	117228-11-18 23:58 G	44538030.31	44538030.50	44538030.71	0.0287	0.0161 *
Mars	117230-05-07 02:08 G	44538564.31	44538564.59	44538564.88	0.0286	0.0117
Venus	117235-11-29 20:22 G	44540597.23	44540597.35	44540597.49	0.0278	0.0223
Mercury	117236-07-02 09:34 G	44540812.83	44540812.90	44540812.99	0.0277	0.0242
Venus	117236-07-16 08:22 G	44540826.66	44540826.85	44540827.05	0.0277	0.0111
Mercury	117236-09-29 04:32 G	44540901.52	44540901.69	44540901.86	0.0276	0.0058
Mercury	117236-12-26 23:44 G	44540990.34	44540990.49	44540990.65	0.0276	0.0128
Moon	117242-05-05 11:44 G	44542945.79	44542945.99	44542946.21	0.0272	0.0144
Earth	117242-05-05 15:05 G	44542945.92	44542946.13	44542946.34	0.0272	0.0132 *
Moon	117243-05-17 13:53 G	44543322.85	44543323.08	44543323.31	0.0272	0.0065
Earth	117243-05-17 15:34 G	44543322.92	44543323.15	44543323.38	0.0272	0.0080 *
Venus	117251-08-07 23:44 G	44546327.28	44546327.49	44546327.70	0.0282	0.0038
Mercury	117251-10-28 07:24 G	44546408.68	44546408.81	44546408.93	0.0283	0.0121
Mercury	117252-01-24 20:08 G	44546497.21	44546497.34	44546497.48	0.0283	0.0041
Mercury	117252-04-22 08:51 G	44546585.78	44546585.87	44546585.97	0.0283	0.0198
Moon	117256-10-29 09:34 G	44548236.75	44548236.90	44548237.07	0.0287	0.0220
Earth	117256-10-29 11:58 G	44548236.83	44548237.00	44548237.18	0.0287	0.0205 *
Moon	117257-11-12 14:36 G	44548615.87	44548616.11	44548616.36	0.0287	0.0043
Earth	117257-11-12 18:27 G	44548616.03	44548616.27	44548616.52	0.0287	0.0056 *
Venus	117265-06-11 00:56 G	44551383.39	44551383.54	44551383.71	0.0277	0.0178
Venus	117266-01-26 13:10 G	44551612.87	44551613.05	44551613.22	0.0277	0.0156
Mercury	117266-02-16 04:17 G	44551633.53	44551633.68	44551633.85	0.0276	0.0112
Mercury	117266-05-15 23:44 G	44551722.32	44551722.49	44551722.65	0.0276	0.0076
Mercury	117266-08-12 19:10 G	44551811.25	44551811.30	44551811.35	0.0276	0.0264
Earth	117271-04-30 20:22 G	44553533.22	44553533.35	44553533.49	0.0273	0.0225
Moon	117271-04-30 23:29 G	44553533.38	44553533.48	44553533.61	0.0273	0.0240 *
Moon	117272-05-11 20:36 G	44553910.11	44553910.36	44553910.61	0.0273	0.0023
Earth	117272-05-11 22:03 G	44553910.18	44553910.42	44553910.66	0.0273	0.0014 *
Moon	117273-05-23 19:24 G	44554287.16	44554287.31	44554287.48	0.0273	0.0201

Earth	117273-05-23 23:00 G	44554287.31	44554287.46	44554287.63	0.0273	0.0199	*
Venus	117280-07-02 23:29 G	44556884.38	44556884.48	44556884.59	0.0281	0.0241	
Venus	117281-02-17 10:46 G	44557113.76	44557113.95	44557114.15	0.0282	0.0103	
Mercury	117281-03-16 11:00 G	44557140.84	44557140.96	44557141.08	0.0282	0.0145	
Mercury	117281-06-12 23:58 G	44557229.36	44557229.50	44557229.64	0.0283	0.0016	
Mercury	117281-09-09 12:41 G	44557317.92	44557318.03	44557318.14	0.0283	0.0174	
Earth	117286-11-07 04:46 G	44559202.46	44559202.70	44559202.95	0.0287	0.0052	
Moon	117286-11-07 06:12 G	44559202.51	44559202.76	44559203.02	0.0287	0.0054	*
Moon	117287-11-21 08:51 G	44559581.71	44559581.87	44559582.05	0.0286	0.0212	
Earth	117287-11-21 11:00 G	44559581.79	44559581.96	44559582.13	0.0286	0.0207	*
Venus	117294-12-22 08:08 G	44562169.66	44562169.84	44562170.04	0.0277	0.0126	
Mercury	117295-07-06 05:15 G	44562365.58	44562365.72	44562365.86	0.0277	0.0156	
Venus	117295-08-08 19:24 G	44562399.18	44562399.31	44562399.46	0.0276	0.0206	
Mercury	117295-10-03 00:12 G	44562454.34	44562454.51	44562454.68	0.0276	0.0029	
Mercury	117295-12-30 19:24 G	44562543.21	44562543.31	44562543.42	0.0276	0.0217	
Earth	117301-05-07 22:03 G	44564497.20	44564497.42	44564497.64	0.0272	0.0106	
Moon	117301-05-08 01:24 G	44564497.35	44564497.56	44564497.79	0.0272	0.0106	*
Earth	117302-05-19 22:32 G	44564874.22	44564874.44	44564874.67	0.0272	0.0106	
Moon	117302-05-19 23:58 G	44564874.29	44564874.50	44564874.74	0.0272	0.0117	*
Venus	117310-01-14 01:10 G	44567670.41	44567670.55	44567670.70	0.0282	0.0204	
Mercury	117310-08-04 11:44 G	44567872.90	44567872.99	44567873.09	0.0282	0.0203	
Venus	117310-08-31 12:27 G	44567899.84	44567900.02	44567900.21	0.0283	0.0141	
Mercury	117310-11-01 00:56 G	44567961.40	44567961.54	44567961.68	0.0283	0.0041	
Mercury	117311-01-28 13:39 G	44568049.95	44568050.07	44568050.20	0.0283	0.0119	
Mercury	117311-04-27 02:22 G	44568138.57	44568138.60	44568138.63	0.0284	0.0276	
Earth	117315-11-02 00:41 G	44569788.34	44569788.53	44569788.73	0.0287	0.0174	
Moon	117315-11-02 03:20 G	44569788.45	44569788.64	44569788.84	0.0287	0.0162	*
Earth	117316-11-15 06:56 G	44570167.56	44570167.79	44570168.03	0.0287	0.0086	
Moon	117316-11-15 10:46 G	44570167.72	44570167.95	44570168.19	0.0287	0.0103	*
Mars	117318-10-01 21:48 G	44570853.09	44570853.41	44570853.72	0.0286	0.0010	

Venus	117324-07-04 12:41 G	44572955.83	44572956.03	44572956.24	0.0277	0.0082
Mercury	117324-11-23 05:00 G	44573097.60	44573097.71	44573097.82	0.0277	0.0209
Venus	117325-02-18 23:58 G	44573185.43	44573185.50	44573185.60	0.0276	0.0251
Mercury	117325-02-19 23:58 G	44573186.33	44573186.50	44573186.68	0.0276	0.0025
Mercury	117325-05-19 19:10 G	44573275.17	44573275.30	44573275.45	0.0276	0.0163
Moon	117330-05-02 23:58 G	44575084.34	44575084.50	44575084.67	0.0273	0.0192
Earth	117330-05-03 02:51 G	44575084.46	44575084.62	44575084.79	0.0273	0.0200 *
Earth	117331-05-15 04:32 G	44575461.45	44575461.69	44575461.93	0.0273	0.0012
Moon	117331-05-15 06:12 G	44575461.53	44575461.76	44575462.00	0.0273	0.0028 *
Earth	117332-05-26 05:29 G	44575838.61	44575838.73	44575838.88	0.0273	0.0224
Moon	117332-05-26 09:05 G	44575838.77	44575838.88	44575839.01	0.0273	0.0237 *
Venus	117339-07-27 11:58 G	44578456.82	44578457.00	44578457.18	0.0282	0.0140
Mercury	117339-12-22 15:34 G	44578605.07	44578605.15	44578605.24	0.0282	0.0226
Venus	117340-03-12 23:44 G	44578686.35	44578686.49	44578686.63	0.0283	0.0207
Mercury	117340-03-20 04:46 G	44578693.56	44578693.70	44578693.83	0.0283	0.0065
Mercury	117340-06-16 17:29 G	44578782.10	44578782.23	44578782.36	0.0283	0.0095
Mercury	117340-09-13 06:12 G	44578870.70	44578870.76	44578870.82	0.0283	0.0253
Moon	117344-10-26 10:03 G	44580374.82	44580374.92	44580375.03	0.0287	0.0259
Earth	117344-10-26 13:39 G	44580375.01	44580375.07	44580375.14	0.0287	0.0276 *
Moon	117345-11-09 17:44 G	44580754.00	44580754.24	44580754.48	0.0287	0.0004
Earth	117345-11-09 19:10 G	44580754.05	44580754.30	44580754.55	0.0287	0.0019 *
Earth	117346-11-24 00:56 G	44581133.42	44581133.54	44581133.69	0.0286	0.0240
Moon	117346-11-24 02:51 G	44581133.52	44581133.62	44581133.75	0.0286	0.0253 *
Venus	117354-01-14 21:05 G	44583742.17	44583742.38	44583742.59	0.0277	0.0026
Mercury	117354-04-12 06:27 G	44583829.70	44583829.77	44583829.85	0.0277	0.0247
Mercury	117354-07-10 01:10 G	44583918.39	44583918.55	44583918.72	0.0276	0.0064
Mercury	117354-10-06 20:22 G	44584007.20	44584007.35	44584007.51	0.0276	0.0122
Moon	117360-05-09 02:22 G	44586048.37	44586048.60	44586048.84	0.0272	0.0066
Earth	117360-05-09 06:12 G	44586048.53	44586048.76	44586048.99	0.0272	0.0079 *
Moon	117361-05-21 05:29 G	44586425.53	44586425.73	44586425.94	0.0272	0.0137

Earth	117361-05-21 06:56 G	44586425.58	44586425.79	44586426.00	0.0272	0.0133	*
Mars	117363-01-17 21:34 G	44587032.21	44587032.40	44587032.60	0.0273	0.0190	
Venus	117369-02-05 14:22 G	44589242.91	44589243.10	44589243.30	0.0282	0.0100	
Mercury	117369-05-10 16:32 G	44589337.19	44589337.19	44589337.20	0.0282	0.0282	
Mercury	117369-08-07 05:44 G	44589425.61	44589425.74	44589425.87	0.0283	0.0119	
Venus	117369-09-23 02:08 G	44589472.49	44589472.59	44589472.69	0.0283	0.0247	
Mercury	117369-11-03 18:41 G	44589514.14	44589514.28	44589514.42	0.0283	0.0041	
Mercury	117370-01-31 07:24 G	44589602.71	44589602.81	44589602.91	0.0283	0.0200	
Moon	117374-11-03 12:41 G	44591339.81	44591340.03	44591340.26	0.0287	0.0137	
Earth	117374-11-03 15:20 G	44591339.93	44591340.14	44591340.36	0.0287	0.0141	*
Moon	117375-11-17 17:44 G	44591719.01	44591719.24	44591719.46	0.0287	0.0118	
Earth	117375-11-17 21:34 G	44591719.17	44591719.40	44591719.63	0.0287	0.0119	*
Venus	117383-07-28 01:10 G	44594528.34	44594528.55	44594528.77	0.0277	0.0017	
Mercury	117383-11-27 00:56 G	44594650.38	44594650.54	44594650.69	0.0276	0.0119	
Mercury	117384-02-23 19:53 G	44594739.17	44594739.33	44594739.50	0.0276	0.0067	
Mercury	117384-05-22 15:05 G	44594828.08	44594828.13	44594828.21	0.0276	0.0255	
Earth	117389-05-04 10:03 G	44596635.74	44596635.92	44596636.12	0.0273	0.0173	
Moon	117389-05-04 12:56 G	44596635.85	44596636.04	44596636.24	0.0273	0.0165	*
Moon	117390-05-16 10:03 G	44597012.67	44597012.92	44597013.17	0.0273	0.0033	
Earth	117390-05-16 11:58 G	44597012.76	44597013.00	44597013.24	0.0273	0.0040	*
Moon	117391-05-28 10:03 G	44597389.81	44597389.92	44597390.05	0.0273	0.0236	
Earth	117391-05-28 13:10 G	44597389.96	44597390.05	44597390.15	0.0273	0.0251	*
Venus	117398-08-19 00:41 G	44600029.33	44600029.53	44600029.74	0.0282	0.0038	
Mercury	117398-12-25 09:20 G	44600157.77	44600157.89	44600158.01	0.0283	0.0145	
Mercury	117399-03-23 22:17 G	44600246.29	44600246.43	44600246.57	0.0283	0.0016	
Mercury	117399-06-20 11:00 G	44600334.86	44600334.96	44600335.07	0.0283	0.0175	
Earth	117403-10-30 04:03 G	44601926.55	44601926.67	44601926.81	0.0287	0.0243	
Moon	117403-10-30 08:08 G	44601926.73	44601926.84	44601926.96	0.0287	0.0251	*
Earth	117404-11-12 10:03 G	44602305.67	44602305.92	44602306.16	0.0287	0.0016	
Moon	117404-11-12 11:29 G	44602305.73	44602305.98	44602306.24	0.0287	0.0006	*

Moon	117405-11-26 13:39 G	44602684.97	44602685.07	44602685.20	0.0286	0.0257
Earth	117405-11-26 15:48 G	44602685.10	44602685.16	44602685.25	0.0286	0.0273 *
Mars	117407-02-28 03:48 G	44603143.44	44603143.66	44603143.90	0.0285	0.0190
Venus	117412-06-22 22:17 G	44605085.37	44605085.43	44605085.52	0.0278	0.0259
Venus	117413-02-07 10:32 G	44605314.74	44605314.94	44605315.15	0.0277	0.0077
Mercury	117413-04-16 02:51 G	44605382.48	44605382.62	44605382.76	0.0277	0.0152
Mercury	117413-07-13 21:48 G	44605471.24	44605471.41	44605471.58	0.0276	0.0033
Mercury	117413-10-10 17:00 G	44605560.11	44605560.21	44605560.32	0.0276	0.0220
Earth	117418-04-30 13:53 G	44607223.02	44607223.08	44607223.15	0.0272	0.0262
Moon	117418-04-30 14:08 G	44607223.05	44607223.09	44607223.15	0.0272	0.0265 *
Earth	117419-05-12 15:20 G	44607599.90	44607600.14	44607600.38	0.0272	0.0051
Moon	117419-05-12 19:10 G	44607600.06	44607600.30	44607600.53	0.0272	0.0065 *
Earth	117420-05-23 15:48 G	44607976.97	44607977.16	44607977.36	0.0272	0.0160
Moon	117420-05-23 16:32 G	44607976.99	44607977.19	44607977.41	0.0272	0.0147 *
Venus	117428-03-01 03:34 G	44610815.44	44610815.65	44610815.86	0.0282	0.0006
Mercury	117428-05-14 10:17 G	44610889.84	44610889.93	44610890.04	0.0282	0.0199
Mercury	117428-08-10 23:29 G	44610978.34	44610978.48	44610978.62	0.0283	0.0038
Mercury	117428-11-07 12:12 G	44611066.89	44611067.01	44611067.14	0.0283	0.0122
Mercury	117429-02-04 00:56 G	44611155.52	44611155.54	44611155.56	0.0284	0.0279
Earth	117433-11-06 05:58 G	44612891.52	44612891.75	44612891.98	0.0287	0.0107
Moon	117433-11-06 08:22 G	44612891.64	44612891.85	44612892.08	0.0287	0.0125 *
Earth	117434-11-20 11:58 G	44613270.80	44613271.00	44613271.22	0.0287	0.0153
Moon	117434-11-20 15:48 G	44613270.94	44613271.16	44613271.38	0.0287	0.0138 *
Venus	117442-01-03 01:53 G	44615871.46	44615871.58	44615871.72	0.0277	0.0218
Venus	117442-08-20 14:08 G	44616100.90	44616101.09	44616101.28	0.0277	0.0117
Mercury	117442-09-03 02:08 G	44616114.49	44616114.59	44616114.71	0.0276	0.0210
Mercury	117442-11-30 21:05 G	44616203.21	44616203.38	44616203.55	0.0276	0.0026
Mercury	117443-02-27 16:17 G	44616292.04	44616292.18	44616292.32	0.0276	0.0161
Moon	117448-05-06 15:34 G	44618186.96	44618187.15	44618187.34	0.0273	0.0162
Earth	117448-05-06 17:58 G	44618187.06	44618187.25	44618187.47	0.0273	0.0146 *

Earth	117449-05-18 19:39 G	44618564.08	44618564.32	44618564.55	0.0273	0.0067
Moon	117449-05-18 21:48 G	44618564.18	44618564.41	44618564.64	0.0273	0.0059 *
Mars	117451-06-15 05:58 G	44619321.48	44619321.75	44619322.02	0.0274	0.0067
Venus	117457-01-25 02:08 G	44621372.57	44621372.59	44621372.63	0.0282	0.0278
Venus	117457-09-11 13:24 G	44621601.86	44621602.06	44621602.27	0.0283	0.0066
Mercury	117457-10-01 13:39 G	44621621.99	44621622.07	44621622.16	0.0283	0.0228
Mercury	117457-12-29 02:51 G	44621710.49	44621710.62	44621710.76	0.0283	0.0065
Mercury	117458-03-27 15:48 G	44621799.03	44621799.16	44621799.29	0.0283	0.0095
Mercury	117458-06-24 04:32 G	44621887.63	44621887.69	44621887.75	0.0284	0.0253
Moon	117462-10-31 15:05 G	44623477.98	44623478.13	44623478.29	0.0287	0.0220
Earth	117462-10-31 18:41 G	44623478.13	44623478.28	44623478.46	0.0287	0.0210 *
Moon	117463-11-14 23:29 G	44623857.24	44623857.48	44623857.72	0.0287	0.0045
Earth	117463-11-15 00:41 G	44623857.29	44623857.53	44623857.78	0.0287	0.0049 *
Venus	117471-07-16 12:27 G	44626657.84	44626658.02	44626658.20	0.0277	0.0155
Mercury	117472-01-21 04:17 G	44626846.61	44626846.68	44626846.77	0.0277	0.0240
Venus	117472-03-01 23:58 G	44626887.34	44626887.50	44626887.67	0.0277	0.0179
Mercury	117472-04-18 23:15 G	44626935.30	44626935.47	44626935.64	0.0276	0.0056
Mercury	117472-07-16 18:27 G	44627024.11	44627024.27	44627024.42	0.0276	0.0129
Moon	117477-05-01 22:32 G	44628774.34	44628774.44	44628774.56	0.0272	0.0245
Earth	117477-05-01 23:15 G	44628774.35	44628774.47	44628774.60	0.0272	0.0234 *
Moon	117478-05-13 20:51 G	44629151.13	44629151.37	44629151.61	0.0272	0.0024
Earth	117478-05-14 00:27 G	44629151.28	44629151.52	44629151.76	0.0272	0.0024 *
Earth	117479-05-26 00:56 G	44629528.36	44629528.54	44629528.71	0.0272	0.0188
Moon	117479-05-26 00:56 G	44629528.39	44629528.54	44629528.70	0.0272	0.0201 *
Venus	117486-08-07 05:15 G	44632158.61	44632158.72	44632158.83	0.0281	0.0236
Mercury	117487-02-18 14:51 G	44632354.11	44632354.12	44632354.14	0.0282	0.0280
Venus	117487-03-24 16:17 G	44632387.99	44632388.18	44632388.38	0.0282	0.0108
Mercury	117487-05-18 04:03 G	44632442.55	44632442.67	44632442.80	0.0283	0.0118
Mercury	117487-08-14 17:00 G	44632531.07	44632531.21	44632531.35	0.0283	0.0043
Mercury	117487-11-11 05:44 G	44632619.65	44632619.74	44632619.84	0.0283	0.0201

Moon	117492-11-07 17:00 G	44634442.96	44634443.21	44634443.46	0.0287	0.0063
Earth	117492-11-07 19:53 G	44634443.09	44634443.33	44634443.57	0.0287	0.0075 *
Moon	117493-11-21 22:32 G	44634822.27	44634822.44	44634822.62	0.0287	0.0200
Earth	117493-11-22 01:39 G	44634822.39	44634822.57	44634822.77	0.0287	0.0185 *
Venus	117501-01-26 15:05 G	44637443.94	44637444.13	44637444.33	0.0277	0.0116
Mercury	117501-09-06 22:17 G	44637667.28	44637667.43	44637667.59	0.0276	0.0117
Venus	117501-09-13 02:51 G	44637673.49	44637673.62	44637673.75	0.0276	0.0217
Mercury	117501-12-04 17:15 G	44637756.06	44637756.22	44637756.39	0.0276	0.0068
Mercury	117502-03-03 12:27 G	44637844.97	44637845.02	44637845.09	0.0276	0.0256
Earth	117507-05-10 01:53 G	44639738.37	44639738.58	44639738.81	0.0272	0.0119
Moon	117507-05-10 04:17 G	44639738.46	44639738.68	44639738.92	0.0272	0.0110 *
Moon	117508-05-21 00:27 G	44640115.30	44640115.52	44640115.75	0.0273	0.0108
Earth	117508-05-21 03:20 G	44640115.42	44640115.64	44640115.87	0.0273	0.0094 *
Venus	117516-02-18 13:39 G	44642944.91	44642945.07	44642945.23	0.0282	0.0179
Venus	117516-10-05 01:10 G	44643174.38	44643174.55	44643174.72	0.0283	0.0167
Mercury	117516-10-05 07:10 G	44643174.68	44643174.80	44643174.92	0.0283	0.0150 *
Mercury	117517-01-01 20:08 G	44643263.20	44643263.34	44643263.48	0.0283	0.0012
Mercury	117517-03-31 09:05 G	44643351.77	44643351.88	44643351.99	0.0283	0.0170
Earth	117521-11-03 07:10 G	44645029.62	44645029.80	44645030.01	0.0287	0.0179
Moon	117521-11-03 11:15 G	44645029.76	44645029.97	44645030.17	0.0287	0.0161 *
Earth	117522-11-17 13:24 G	44645408.83	44645409.06	44645409.30	0.0287	0.0081
Moon	117522-11-17 14:08 G	44645408.85	44645409.09	44645409.34	0.0287	0.0094 *
Venus	117530-08-09 01:53 G	44648230.37	44648230.58	44648230.79	0.0277	0.0052
Mercury	117531-01-25 00:41 G	44648399.39	44648399.53	44648399.68	0.0277	0.0145
Mercury	117531-04-23 19:39 G	44648488.15	44648488.32	44648488.49	0.0276	0.0039
Mercury	117531-07-21 14:51 G	44648577.02	44648577.12	44648577.22	0.0276	0.0226
Earth	117536-05-04 07:53 G	44650325.69	44650325.83	44650326.00	0.0272	0.0208
Moon	117536-05-04 08:51 G	44650325.71	44650325.87	44650326.04	0.0272	0.0193 *
Earth	117537-05-16 08:51 G	44650702.63	44650702.87	44650703.11	0.0272	0.0004
Moon	117537-05-16 12:27 G	44650702.77	44650703.02	44650703.26	0.0272	0.0017 *

Moon	117538-05-28 08:08 G	44651079.69	44651079.84	44651080.00	0.0272	0.0211
Earth	117538-05-28 09:05 G	44651079.74	44651079.88	44651080.03	0.0272	0.0214 *
Mars	117539-11-10 10:03 G	44651610.66	44651610.92	44651611.20	0.0273	0.0052
Venus	117545-08-30 17:00 G	44653731.03	44653731.21	44653731.39	0.0282	0.0136
Mercury	117546-02-22 08:22 G	44653906.76	44653906.85	44653906.95	0.0282	0.0202
Venus	117546-04-17 04:17 G	44653960.55	44653960.68	44653960.82	0.0283	0.0210
Mercury	117546-05-21 21:34 G	44653995.26	44653995.40	44653995.54	0.0283	0.0041
Mercury	117546-08-18 10:17 G	44654083.81	44654083.93	44654084.06	0.0283	0.0119
Mercury	117546-11-14 23:00 G	44654172.44	44654172.46	44654172.49	0.0283	0.0276
Earth	117551-11-11 08:22 G	44655994.61	44655994.85	44655995.10	0.0287	0.0043
Moon	117551-11-11 11:29 G	44655994.74	44655994.98	44655995.22	0.0287	0.0040 *
Earth	117552-11-24 14:36 G	44656373.95	44656374.11	44656374.27	0.0287	0.0216
Moon	117552-11-24 17:29 G	44656374.07	44656374.23	44656374.41	0.0287	0.0211 *
Venus	117560-02-19 03:34 G	44659016.44	44659016.65	44659016.87	0.0277	0.0017
Mercury	117560-06-12 23:15 G	44659131.37	44659131.47	44659131.59	0.0276	0.0210
Mercury	117560-09-09 18:12 G	44659220.09	44659220.26	44659220.44	0.0276	0.0027
Mercury	117560-12-07 13:24 G	44659308.92	44659309.06	44659309.20	0.0276	0.0160
Moon	117566-05-11 07:24 G	44661289.59	44661289.81	44661290.03	0.0272	0.0088
Earth	117566-05-11 09:05 G	44661289.65	44661289.88	44661290.11	0.0272	0.0092 *
Earth	117567-05-23 09:48 G	44661666.70	44661666.91	44661667.13	0.0273	0.0121
Moon	117567-05-23 13:10 G	44661666.84	44661667.05	44661667.27	0.0273	0.0109 *
Venus	117575-03-12 23:58 G	44664517.31	44664517.50	44664517.71	0.0282	0.0083
Mercury	117575-07-12 10:46 G	44664638.89	44664638.95	44664639.03	0.0283	0.0240
Mercury	117575-10-09 00:12 G	44664727.37	44664727.51	44664727.64	0.0283	0.0077
Venus	117575-10-28 11:58 G	44664746.93	44664747.00	44664747.07	0.0283	0.0266
Mercury	117576-01-05 13:10 G	44664815.91	44664816.05	44664816.18	0.0283	0.0084
Mercury	117576-04-03 01:53 G	44664904.51	44664904.58	44664904.65	0.0284	0.0242
Moon	117580-11-04 14:36 G	44666580.91	44666581.11	44666581.32	0.0287	0.0158
Earth	117580-11-04 17:44 G	44666581.03	44666581.24	44666581.46	0.0287	0.0149 *
Earth	117581-11-18 23:58 G	44666960.28	44666960.50	44666960.73	0.0287	0.0111

Moon	117581-11-19 00:12 G	44666960.29	44666960.51	44666960.74	0.0287	0.0097	*
Venus	117589-08-31 14:08 G	44669802.88	44669803.09	44669803.30	0.0277	0.0048	
Mercury	117589-10-31 01:39 G	44669863.49	44669863.57	44669863.66	0.0277	0.0238	
Mercury	117590-01-27 20:36 G	44669952.19	44669952.36	44669952.53	0.0277	0.0055	
Mercury	117590-04-26 15:34 G	44670041.00	44670041.15	44670041.31	0.0276	0.0131	
Moon	117595-05-06 14:36 G	44671876.94	44671877.11	44671877.31	0.0272	0.0187	
Earth	117595-05-06 16:03 G	44671877.00	44671877.17	44671877.36	0.0272	0.0182	*
Moon	117596-05-17 13:39 G	44672253.83	44672254.07	44672254.31	0.0272	0.0015	
Earth	117596-05-17 16:46 G	44672253.96	44672254.20	44672254.44	0.0272	0.0030	*
Earth	117597-05-29 16:17 G	44672631.08	44672631.18	44672631.31	0.0272	0.0241	
Moon	117597-05-29 17:44 G	44672631.12	44672631.24	44672631.37	0.0272	0.0229	*
Venus	117604-09-22 03:48 G	44675303.45	44675303.66	44675303.86	0.0282	0.0039	
Mercury	117605-02-25 01:24 G	44675459.44	44675459.56	44675459.69	0.0282	0.0128	
Mercury	117605-05-24 14:22 G	44675547.96	44675548.10	44675548.24	0.0283	0.0033	
Mercury	117605-08-21 03:05 G	44675636.54	44675636.63	44675636.74	0.0283	0.0191	
Earth	117609-10-29 12:41 G	44677166.95	44677167.03	44677167.12	0.0287	0.0270	
Moon	117609-10-29 11:58 G	44677166.99	44677167.00	44677167.04	0.0287	0.0285	*
Moon	117610-11-12 14:36 G	44677545.86	44677546.11	44677546.36	0.0287	0.0027	
Earth	117610-11-12 18:12 G	44677546.01	44677546.26	44677546.51	0.0287	0.0013	*
Moon	117611-11-26 21:20 G	44677925.26	44677925.39	44677925.53	0.0287	0.0235	
Earth	117611-11-27 00:12 G	44677925.39	44677925.51	44677925.64	0.0287	0.0245	*
Venus	117618-07-27 02:08 G	44680359.52	44680359.59	44680359.69	0.0278	0.0256	
Venus	117619-03-13 15:05 G	44680588.92	44680589.13	44680589.33	0.0277	0.0081	
Mercury	117619-06-16 18:56 G	44680684.14	44680684.29	44680684.44	0.0276	0.0123	
Mercury	117619-09-13 13:53 G	44680772.91	44680773.08	44680773.25	0.0276	0.0061	
Mercury	117619-12-11 08:51 G	44680861.81	44680861.87	44680861.95	0.0276	0.0249	
Earth	117625-05-12 14:51 G	44682840.89	44682841.12	44682841.36	0.0272	0.0067	
Moon	117625-05-12 15:34 G	44682840.91	44682841.15	44682841.39	0.0272	0.0079	*
Moon	117626-05-24 11:44 G	44683217.79	44683217.99	44683218.20	0.0272	0.0144	
Earth	117626-05-24 15:20 G	44683217.95	44683218.14	44683218.36	0.0272	0.0146	*

Mars	117628-04-05 06:27 G	44683899.54	44683899.77	44683900.01	0.0274	0.0143
Venus	117634-04-04 09:20 G	44686089.69	44686089.89	44686090.10	0.0282	0.0013
Mercury	117634-07-15 03:34 G	44686191.54	44686191.65	44686191.76	0.0283	0.0170
Mercury	117634-10-11 16:46 G	44686280.06	44686280.20	44686280.34	0.0283	0.0011
Mercury	117635-01-08 05:29 G	44686368.62	44686368.73	44686368.85	0.0283	0.0151
Earth	117639-11-07 01:24 G	44688132.34	44688132.56	44688132.79	0.0287	0.0122
Moon	117639-11-07 04:03 G	44688132.45	44688132.67	44688132.91	0.0287	0.0126 *
Moon	117640-11-20 07:10 G	44688511.58	44688511.80	44688512.03	0.0287	0.0142
Earth	117640-11-20 07:53 G	44688511.62	44688511.83	44688512.06	0.0287	0.0139 *
Venus	117648-02-06 12:27 G	44691145.87	44691146.02	44691146.18	0.0278	0.0193
Venus	117648-09-23 00:56 G	44691375.36	44691375.54	44691375.73	0.0277	0.0143
Mercury	117648-11-02 20:51 G	44691416.24	44691416.37	44691416.52	0.0277	0.0154
Mercury	117649-01-30 15:48 G	44691504.99	44691505.16	44691505.34	0.0276	0.0032
Mercury	117649-04-29 11:00 G	44691593.86	44691593.96	44691594.07	0.0276	0.0218
Earth	117654-05-07 22:32 G	44693428.24	44693428.44	44693428.63	0.0272	0.0157
Moon	117654-05-08 00:27 G	44693428.34	44693428.52	44693428.71	0.0272	0.0164 *
Earth	117655-05-19 22:46 G	44693805.21	44693805.45	44693805.69	0.0272	0.0054
Moon	117655-05-20 01:39 G	44693805.33	44693805.57	44693805.81	0.0272	0.0062 *
Earth	117656-05-30 22:32 G	44694182.39	44694182.44	44694182.50	0.0272	0.0264
Venus	117663-10-15 13:24 G	44696875.85	44696876.06	44696876.26	0.0282	0.0057
Mercury	117663-12-02 05:00 G	44696923.63	44696923.71	44696923.80	0.0282	0.0219
Mercury	117664-02-28 18:12 G	44697012.12	44697012.26	44697012.40	0.0282	0.0058
Mercury	117664-05-27 06:56 G	44697100.67	44697100.79	44697100.93	0.0283	0.0102
Mercury	117664-08-23 19:53 G	44697189.27	44697189.33	44697189.38	0.0283	0.0258
Earth	117668-10-30 19:39 G	44698718.20	44698718.32	44698718.46	0.0287	0.0245
Moon	117668-10-30 21:20 G	44698718.26	44698718.39	44698718.53	0.0287	0.0234 *
Earth	117669-11-14 01:24 G	44699097.31	44699097.56	44699097.81	0.0287	0.0013
Moon	117669-11-14 05:15 G	44699097.48	44699097.72	44699097.97	0.0287	0.0030 *
Earth	117670-11-28 07:24 G	44699476.74	44699476.81	44699476.90	0.0287	0.0271
Venus	117677-08-18 12:41 G	44701931.86	44701932.03	44701932.20	0.0278	0.0162

Mercury	117678-03-22 18:56 G	44702148.19	44702148.29	44702148.39	0.0277	0.0225
Venus	117678-04-05 00:41 G	44702161.38	44702161.53	44702161.71	0.0277	0.0174
Mercury	117678-06-19 13:39 G	44702236.90	44702237.07	44702237.24	0.0276	0.0042
Mercury	117678-09-16 08:36 G	44702325.72	44702325.86	44702326.02	0.0276	0.0144
Moon	117683-05-02 14:36 G	44704015.03	44704015.11	44704015.22	0.0272	0.0250
Earth	117683-05-02 17:58 G	44704015.18	44704015.25	44704015.36	0.0272	0.0253 *
Earth	117684-05-13 19:39 G	44704392.08	44704392.32	44704392.56	0.0272	0.0043
Moon	117684-05-13 19:53 G	44704392.10	44704392.33	44704392.57	0.0272	0.0029 *
Earth	117685-05-25 19:53 G	44704769.15	44704769.33	44704769.52	0.0272	0.0168
Moon	117685-05-25 23:44 G	44704769.31	44704769.49	44704769.67	0.0272	0.0184 *
Venus	117692-09-09 06:56 G	44707432.69	44707432.79	44707432.90	0.0281	0.0240
Mercury	117693-04-20 06:41 G	44707655.74	44707655.78	44707655.82	0.0282	0.0267
Venus	117693-04-26 17:44 G	44707662.05	44707662.24	44707662.44	0.0282	0.0103
Mercury	117693-07-17 19:53 G	44707744.20	44707744.33	44707744.46	0.0283	0.0105
Mercury	117693-10-14 08:51 G	44707832.74	44707832.87	44707833.01	0.0283	0.0055
Mercury	117694-01-10 21:48 G	44707921.32	44707921.41	44707921.50	0.0283	0.0214
Moon	117698-11-08 04:03 G	44709683.45	44709683.67	44709683.91	0.0287	0.0083
Earth	117698-11-08 06:12 G	44709683.53	44709683.76	44709683.99	0.0287	0.0097 *
Earth	117699-11-22 12:41 G	44710062.83	44710063.03	44710063.24	0.0287	0.0163
Moon	117699-11-22 13:53 G	44710062.90	44710063.08	44710063.28	0.0287	0.0176 *
Venus	117707-03-01 22:03 G	44712718.22	44712718.42	44712718.62	0.0278	0.0101
Mercury	117707-08-10 20:36 G	44712880.31	44712880.36	44712880.43	0.0277	0.0259
Venus	117707-10-17 10:03 G	44712947.82	44712947.92	44712948.04	0.0277	0.0234
Mercury	117707-11-07 15:34 G	44712968.99	44712969.15	44712969.32	0.0277	0.0075
Mercury	117708-02-04 10:32 G	44713057.79	44713057.94	44713058.10	0.0277	0.0111
Moon	117713-05-10 00:12 G	44714979.29	44714979.51	44714979.73	0.0272	0.0120
Earth	117713-05-10 03:05 G	44714979.43	44714979.63	44714979.85	0.0272	0.0135 *
Moon	117714-05-22 00:41 G	44715356.31	44715356.53	44715356.76	0.0272	0.0085
Earth	117714-05-22 03:20 G	44715356.41	44715356.64	44715356.87	0.0272	0.0077 *
Mars	117716-08-31 08:08 G	44716188.74	44716188.84	44716188.96	0.0273	0.0250

Venus	117722-03-23 11:15 G	44718218.82	44718218.97	44718219.12	0.0281	0.0194
Venus	117722-11-07 21:48 G	44718448.24	44718448.41	44718448.59	0.0282	0.0148
Mercury	117722-12-05 21:20 G	44718476.28	44718476.39	44718476.51	0.0282	0.0154
Mercury	117723-03-04 10:32 G	44718564.80	44718564.94	44718565.08	0.0282	0.0009
Mercury	117723-05-31 23:15 G	44718653.36	44718653.47	44718653.58	0.0282	0.0165
Moon	117727-11-02 22:03 G	44720269.27	44720269.42	44720269.59	0.0287	0.0219
Earth	117727-11-03 00:41 G	44720269.38	44720269.53	44720269.69	0.0287	0.0220 *
Moon	117728-11-16 02:22 G	44720648.36	44720648.60	44720648.85	0.0287	0.0035
Earth	117728-11-16 06:27 G	44720648.52	44720648.77	44720649.02	0.0287	0.0038 *
Venus	117736-09-10 21:34 G	44723504.20	44723504.40	44723504.61	0.0278	0.0072
Mercury	117737-03-26 13:10 G	44723700.91	44723701.05	44723701.20	0.0277	0.0150
Venus	117737-04-28 09:34 G	44723733.85	44723733.90	44723733.98	0.0277	0.0263
Mercury	117737-06-23 08:08 G	44723789.67	44723789.84	44723790.01	0.0276	0.0035
Mercury	117737-09-20 03:20 G	44723878.54	44723878.64	44723878.74	0.0276	0.0222
Earth	117742-05-04 21:34 G	44725566.28	44725566.40	44725566.53	0.0272	0.0231
Moon	117742-05-05 00:41 G	44725566.40	44725566.53	44725566.68	0.0272	0.0222 *
Moon	117743-05-16 21:48 G	44725943.17	44725943.41	44725943.66	0.0272	0.0026
Earth	117743-05-16 22:46 G	44725943.21	44725943.45	44725943.70	0.0272	0.0021 *
Moon	117744-05-27 19:10 G	44726320.13	44726320.30	44726320.49	0.0272	0.0176
Earth	117744-05-27 23:00 G	44726320.29	44726320.46	44726320.63	0.0272	0.0191 *
Venus	117751-10-03 14:08 G	44729004.92	44729005.09	44729005.27	0.0281	0.0153
Mercury	117752-04-23 22:46 G	44729208.35	44729208.45	44729208.55	0.0282	0.0205
Venus	117752-05-20 01:10 G	44729234.40	44729234.55	44729234.71	0.0282	0.0191
Mercury	117752-07-21 11:44 G	44729296.86	44729296.99	44729297.13	0.0283	0.0045
Mercury	117752-10-18 00:41 G	44729385.41	44729385.53	44729385.66	0.0283	0.0116
Mercury	117753-01-14 13:24 G	44729474.03	44729474.06	44729474.10	0.0283	0.0273
Earth	117757-11-10 08:22 G	44731234.62	44731234.85	44731235.10	0.0287	0.0075
Moon	117757-11-10 10:03 G	44731234.68	44731234.92	44731235.17	0.0287	0.0090 *
Moon	117758-11-24 13:10 G	44731613.85	44731614.05	44731614.27	0.0287	0.0169
Earth	117758-11-24 15:20 G	44731613.96	44731614.14	44731614.33	0.0287	0.0186 *

Venus 117766-03-24 05:58 G 44734290.54 44734290.75 44734290.97 0.0278 0.0014

Mercury 117766-08-13 14:36 G 44734432.99 44734433.11 44734433.24 0.0277 0.0187

Mercury 117766-11-10 09:34 G 44734521.73 44734521.90 44734522.07 0.0277 0.0003

Mercury 117767-02-07 04:46 G 44734610.57 44734610.70 44734610.83 0.0277 0.0185

Earth 117772-05-11 06:12 G 44736530.54 44736530.76 44736530.98 0.0272 0.0113

Moon 117772-05-11 09:34 G 44736530.70 44736530.90 44736531.12 0.0272 0.0127 *

Earth 117773-05-23 06:27 G 44736907.54 44736907.77 44736907.99 0.0272 0.0099

Moon 117773-05-23 08:22 G 44736907.62 44736907.85 44736908.09 0.0272 0.0084 *

Venus 117781-04-14 19:10 G 44739791.11 44739791.30 44739791.50 0.0281 0.0105

Mercury 117781-09-11 00:27 G 44739940.46 44739940.52 44739940.59 0.0281 0.0250

Venus 117781-11-30 05:43 G 44740020.64 44740020.74 44740020.86 0.0282 0.0238

Mercury 117781-12-08 13:39 G 44740028.94 44740029.07 44740029.20 0.0282 0.0090

Mercury 117782-03-07 02:36 G 44740117.47 44740117.61 44740117.74 0.0282 0.0069

Mercury 117782-06-03 15:19 G 44740206.06 44740206.14 44740206.22 0.0282 0.0226

Earth 117786-11-04 03:34 G 44741820.47 44741820.65 44741820.83 0.0287 0.0197

Moon 117786-11-04 06:27 G 44741820.61 44741820.77 44741820.93 0.0287 0.0213 *

Earth 117787-11-18 09:05 G 44742199.64 44742199.88 44742200.13 0.0287 0.0062

Moon 117787-11-18 12:55 G 44742199.79 44742200.04 44742200.29 0.0287 0.0050 *

Venus 117795-10-04 05:15 G 44745076.50 44745076.72 44745076.93 0.0278 0.0015

Mercury 117795-12-31 12:12 G 44745164.96 44745165.01 44745165.07 0.0277 0.0261

Mercury 117796-03-29 06:55 G 44745253.63 44745253.79 44745253.96 0.0277 0.0079

Mercury 117796-06-26 01:53 G 44745342.43 44745342.58 44745342.74 0.0277 0.0108

Moon 117801-05-06 20:36 G 44747117.24 44747117.36 44747117.50 0.0272 0.0227

Earth 117801-05-06 23:43 G 44747117.34 44747117.49 44747117.65 0.0272 0.0210 *

Earth 117802-05-19 00:55 G 44747494.29 44747494.54 44747494.78 0.0272 0.0004

Moon 117802-05-19 02:22 G 44747494.36 44747494.60 44747494.83 0.0272 0.0008 *

Earth 117803-05-31 00:41 G 44747871.39 44747871.53 44747871.69 0.0272 0.0212

Moon 117803-05-31 04:03 G 44747871.53 44747871.67 44747871.82 0.0272 0.0216 *

Venus 117810-10-26 20:51 G 44750577.17 44750577.37 44750577.58 0.0281 0.0068

Mercury 117811-04-28 14:36 G 44750760.99 44750761.11 44750761.23 0.0282 0.0146

Venus	117811-06-13 07:53 G	44750806.80	44750806.83	44750806.87	0.0282	0.0277
Mercury	117811-07-26 03:34 G	44750849.51	44750849.65	44750849.79	0.0283	0.0015
Mercury	117811-10-22 16:17 G	44750938.08	44750938.18	44750938.30	0.0283	0.0173
Moon	117816-11-12 08:36 G	44752785.62	44752785.86	44752786.10	0.0287	0.0051
Earth	117816-11-12 09:19 G	44752785.64	44752785.89	44752786.13	0.0287	0.0054 *
Earth	117817-11-26 15:48 G	44753165.00	44753165.16	44753165.35	0.0287	0.0207
Moon	117817-11-26 18:41 G	44753165.13	44753165.28	44753165.45	0.0287	0.0218 *
Venus	117824-08-29 23:00 G	44755633.43	44755633.46	44755633.52	0.0279	0.0271
Venus	117825-04-16 12:55 G	44755862.83	44755863.04	44755863.25	0.0278	0.0070
Mercury	117825-08-17 08:07 G	44755985.69	44755985.84	44755986.00	0.0277	0.0119
Mercury	117825-11-14 03:05 G	44756074.46	44756074.63	44756074.80	0.0277	0.0067
Mercury	117826-02-10 22:17 G	44756163.37	44756163.43	44756163.50	0.0277	0.0256
Moon	117831-05-14 04:17 G	44758081.46	44758081.68	44758081.92	0.0272	0.0092
Earth	117831-05-14 08:07 G	44758081.62	44758081.84	44758082.07	0.0272	0.0093 *
Moon	117832-05-25 07:24 G	44758458.61	44758458.81	44758459.01	0.0272	0.0132
Earth	117832-05-25 08:22 G	44758458.63	44758458.85	44758459.07	0.0272	0.0119 *
Venus	117840-05-08 02:36 G	44761363.41	44761363.61	44761363.82	0.0281	0.0019
Mercury	117840-09-14 16:31 G	44761493.09	44761493.19	44761493.30	0.0281	0.0188
Mercury	117840-12-12 05:43 G	44761581.60	44761581.74	44761581.88	0.0281	0.0029
Mercury	117841-03-10 18:27 G	44761670.15	44761670.27	44761670.40	0.0282	0.0129
Moon	117845-11-06 02:36 G	44763371.40	44763371.61	44763371.82	0.0287	0.0159
Earth	117845-11-06 05:43 G	44763371.55	44763371.74	44763371.94	0.0287	0.0176 *
Moon	117846-11-20 08:07 G	44763750.61	44763750.84	44763751.07	0.0287	0.0099
Earth	117846-11-20 11:00 G	44763750.73	44763750.96	44763751.21	0.0287	0.0084 *
Venus	117854-03-11 22:31 G	44766419.34	44766419.44	44766419.55	0.0279	0.0242
Venus	117854-10-27 11:58 G	44766648.80	44766649.00	44766649.20	0.0278	0.0098
Mercury	117855-01-04 05:43 G	44766717.62	44766717.74	44766717.86	0.0277	0.0195
Mercury	117855-04-03 00:27 G	44766806.35	44766806.52	44766806.69	0.0277	0.0011
Mercury	117855-06-30 19:24 G	44766895.18	44766895.31	44766895.45	0.0277	0.0177
Earth	117860-05-08 00:41 G	44768668.37	44768668.53	44768668.71	0.0272	0.0191

Moon	117860-05-08 03:05 G	44768668.46	44768668.63	44768668.83	0.0272	0.0179	*
Moon	117861-05-19 23:29 G	44769045.24	44769045.48	44769045.73	0.0272	0.0036	
Earth	117861-05-20 01:53 G	44769045.34	44769045.58	44769045.83	0.0272	0.0022	*
Moon	117862-05-31 23:43 G	44769422.39	44769422.49	44769422.62	0.0272	0.0236	
Earth	117862-06-01 02:07 G	44769422.47	44769422.59	44769422.73	0.0272	0.0231	*
Venus	117869-11-18 03:48 G	44772149.45	44772149.66	44772149.87	0.0281	0.0018	
Mercury	117870-02-01 17:15 G	44772225.16	44772225.22	44772225.29	0.0282	0.0247	
Mercury	117870-05-01 06:27 G	44772313.63	44772313.77	44772313.90	0.0282	0.0086	
Mercury	117870-07-28 19:24 G	44772402.17	44772402.31	44772402.44	0.0282	0.0073	
Mercury	117870-10-25 08:07 G	44772490.76	44772490.84	44772490.92	0.0283	0.0230	
Moon	117874-10-31 06:55 G	44773957.72	44773957.79	44773957.86	0.0287	0.0275	
Moon	117875-11-14 08:36 G	44774336.60	44774336.86	44774337.12	0.0287	0.0027	
Earth	117875-11-14 09:19 G	44774336.64	44774336.89	44774337.14	0.0287	0.0034	*
Moon	117876-11-27 12:27 G	44774715.87	44774716.02	44774716.18	0.0287	0.0224	
Earth	117876-11-27 15:48 G	44774716.03	44774716.16	44774716.33	0.0287	0.0227	*
Venus	117883-09-22 05:00 G	44777205.56	44777205.71	44777205.88	0.0279	0.0190	
Venus	117884-05-08 18:41 G	44777435.10	44777435.28	44777435.46	0.0278	0.0151	
Mercury	117884-05-23 06:12 G	44777449.69	44777449.76	44777449.86	0.0278	0.0239	
Mercury	117884-08-20 01:10 G	44777538.39	44777538.55	44777538.72	0.0278	0.0055	
Mercury	117884-11-16 20:22 G	44777627.20	44777627.35	44777627.50	0.0277	0.0133	
Moon	117889-05-03 07:24 G	44779255.79	44779255.81	44779255.86	0.0273	0.0269	
Earth	117890-05-15 08:51 G	44779632.64	44779632.87	44779633.11	0.0272	0.0073	
Moon	117890-05-15 12:41 G	44779632.79	44779633.03	44779633.26	0.0272	0.0061	*
Moon	117891-05-27 08:51 G	44780009.66	44780009.87	44780010.09	0.0272	0.0135	
Earth	117891-05-27 09:34 G	44780009.69	44780009.90	44780010.11	0.0272	0.0140	*
Venus	117898-10-14 00:27 G	44782706.47	44782706.52	44782706.58	0.0280	0.0268	
Venus	117899-05-31 10:17 G	44782935.72	44782935.93	44782936.13	0.0281	0.0070	
Mercury	117899-09-18 08:36 G	44783045.74	44783045.86	44783045.99	0.0281	0.0126	
Mercury	117899-12-15 21:34 G	44783134.26	44783134.40	44783134.54	0.0281	0.0033	
Mercury	117900-03-14 10:17 G	44783222.83	44783222.93	44783223.04	0.0282	0.0189	

Earth	117904-11-08 07:10 G	44784922.60	44784922.80	44784923.02	0.0287	0.0154
Moon	117904-11-08 11:00 G	44784922.76	44784922.96	44784923.17	0.0287	0.0160 *
Earth	117905-11-22 12:27 G	44785301.79	44785302.02	44785302.26	0.0287	0.0106
Moon	117905-11-22 14:51 G	44785301.87	44785302.12	44785302.36	0.0287	0.0092 *
Venus	117913-04-04 05:15 G	44787991.55	44787991.72	44787991.90	0.0279	0.0159
Venus	117913-11-19 18:27 G	44788221.12	44788221.27	44788221.44	0.0278	0.0181
Mercury	117914-01-07 23:00 G	44788270.31	44788270.46	44788270.61	0.0277	0.0129
Mercury	117914-04-06 17:43 G	44788359.08	44788359.24	44788359.41	0.0277	0.0057
Mercury	117914-07-04 12:55 G	44788447.97	44788448.04	44788448.13	0.0277	0.0245
Moon	117919-05-10 23:58 G	44790219.33	44790219.50	44790219.70	0.0272	0.0171
Earth	117919-05-11 01:53 G	44790219.39	44790219.58	44790219.77	0.0272	0.0171 *
Earth	117920-05-22 02:51 G	44790596.39	44790596.62	44790596.86	0.0272	0.0042
Moon	117920-05-22 06:12 G	44790596.52	44790596.76	44790597.00	0.0272	0.0028 *
Earth	117921-06-03 03:05 G	44790973.56	44790973.63	44790973.74	0.0272	0.0252
Moon	117921-06-03 05:15 G	44790973.60	44790973.72	44790973.84	0.0272	0.0236 *
Venus	117928-04-26 00:41 G	44793492.43	44793492.53	44793492.66	0.0280	0.0236
Venus	117928-12-11 10:46 G	44793721.75	44793721.95	44793722.14	0.0281	0.0104
Mercury	117929-02-05 09:05 G	44793777.78	44793777.88	44793777.99	0.0282	0.0187
Mercury	117929-05-04 22:17 G	44793866.29	44793866.43	44793866.57	0.0282	0.0027
Mercury	117929-08-01 11:15 G	44793954.84	44793954.97	44793955.09	0.0282	0.0132
Moon	117933-11-02 02:36 G	44795508.60	44795508.61	44795508.64	0.0287	0.0286
Earth	117933-11-02 04:31 G	44795508.62	44795508.69	44795508.78	0.0287	0.0270 *
Earth	117934-11-16 09:34 G	44795887.65	44795887.90	44795888.15	0.0287	0.0013
Moon	117934-11-16 11:43 G	44795887.75	44795887.99	44795888.23	0.0287	0.0027 *
Earth	117935-11-30 16:03 G	44796267.05	44796267.17	44796267.31	0.0287	0.0246
Moon	117935-11-30 20:07 G	44796267.20	44796267.34	44796267.49	0.0287	0.0234 *
Venus	117942-10-15 11:00 G	44798777.77	44798777.96	44798778.16	0.0279	0.0110
Mercury	117943-05-27 23:15 G	44799002.34	44799002.47	44799002.60	0.0278	0.0176
Venus	117943-06-02 00:27 G	44799007.40	44799007.52	44799007.64	0.0278	0.0230
Mercury	117943-08-24 18:12 G	44799091.09	44799091.26	44799091.43	0.0278	0.0009

Mercury	117943-11-21 13:10 G	44799179.94	44799180.05	44799180.18	0.0277	0.0198
Earth	117948-05-05 06:41 G	44800806.74	44800806.78	44800806.85	0.0273	0.0265
Moon	117949-05-17 06:27 G	44801183.54	44801183.77	44801184.00	0.0273	0.0068
Earth	117949-05-17 09:34 G	44801183.66	44801183.90	44801184.14	0.0273	0.0053 *
Earth	117950-05-29 10:17 G	44801560.74	44801560.93	44801561.13	0.0273	0.0160
Moon	117950-05-29 11:58 G	44801560.81	44801561.00	44801561.20	0.0273	0.0153 *
Venus	117957-11-06 08:22 G	44804278.70	44804278.85	44804279.01	0.0280	0.0180
Venus	117958-06-23 18:12 G	44804508.09	44804508.26	44804508.44	0.0281	0.0159
Mercury	117958-06-25 11:43 G	44804509.91	44804509.99	44804510.08	0.0281	0.0222
Mercury	117958-09-22 00:55 G	44804598.40	44804598.54	44804598.68	0.0281	0.0063
Mercury	117958-12-19 13:53 G	44804686.95	44804687.08	44804687.21	0.0281	0.0095
Mercury	117959-03-18 02:22 G	44804775.55	44804775.60	44804775.67	0.0282	0.0251
Moon	117963-11-10 06:55 G	44806473.57	44806473.79	44806474.01	0.0286	0.0134
Earth	117963-11-10 10:17 G	44806473.72	44806473.93	44806474.16	0.0286	0.0131 *
Moon	117964-11-23 14:07 G	44806852.88	44806853.09	44806853.31	0.0286	0.0131
Earth	117964-11-23 15:19 G	44806852.92	44806853.14	44806853.36	0.0286	0.0128 *
Venus	117972-04-26 11:58 G	44809563.80	44809564.00	44809564.21	0.0279	0.0076
Mercury	117972-10-13 21:19 G	44809734.32	44809734.39	44809734.47	0.0278	0.0246
Venus	117972-12-12 00:55 G	44809793.48	44809793.54	44809793.62	0.0278	0.0263
Mercury	117973-01-10 16:03 G	44809823.01	44809823.17	44809823.34	0.0278	0.0063
Mercury	117973-04-09 11:00 G	44809911.81	44809911.96	44809912.12	0.0277	0.0125
Earth	117978-05-12 02:36 G	44811770.42	44811770.61	44811770.82	0.0272	0.0151
Moon	117978-05-12 02:51 G	44811770.43	44811770.62	44811770.83	0.0272	0.0160 *
Moon	117979-05-24 00:27 G	44812147.29	44812147.52	44812147.76	0.0272	0.0068
Earth	117979-05-24 04:03 G	44812147.44	44812147.67	44812147.91	0.0272	0.0062 *
Earth	117980-06-04 04:46 G	44812524.68	44812524.70	44812524.73	0.0272	0.0271
Venus	117987-05-19 08:36 G	44815064.69	44815064.86	44815065.04	0.0280	0.0148
Venus	117988-01-03 18:27 G	44815294.12	44815294.27	44815294.43	0.0281	0.0193
Mercury	117988-02-09 01:24 G	44815330.43	44815330.56	44815330.69	0.0281	0.0124
Mercury	117988-05-07 14:22 G	44815418.96	44815419.10	44815419.24	0.0282	0.0035

Mercury	117988-08-04 03:05 G	44815507.53	44815507.63	44815507.73	0.0282	0.0192
Moon	117992-11-03 06:41 G	44817059.65	44817059.78	44817059.93	0.0286	0.0239
Earth	117992-11-03 06:27 G	44817059.66	44817059.77	44817059.90	0.0286	0.0249 *
Moon	117993-11-17 08:07 G	44817438.58	44817438.84	44817439.09	0.0287	0.0025
Earth	117993-11-17 11:15 G	44817438.72	44817438.97	44817439.22	0.0287	0.0009 *
Moon	117994-12-01 13:39 G	44817818.05	44817818.07	44817818.10	0.0286	0.0284
Earth	117994-12-01 17:15 G	44817818.14	44817818.22	44817818.32	0.0286	0.0267

119TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 119th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	118001-11-06 17:29 G	44820350.02	44820350.23	44820350.44	0.0279	0.0028		
Mercury	118002-05-30 16:17 G	44820555.03	44820555.18	44820555.34	0.0278	0.0113		
Mercury	118002-08-27 11:15 G	44820643.81	44820643.97	44820644.14	0.0278	0.0075		
Mercury	118002-11-24 06:41 G	44820732.73	44820732.78	44820732.83	0.0277	0.0263		
Earth	118007-05-07 07:24 G	44822357.72	44822357.81	44822357.93	0.0273	0.0245		
Moon	118007-05-07 10:03 G	44822357.83	44822357.92	44822358.03	0.0273	0.0246 *		
Earth	118008-05-18 10:17 G	44822734.70	44822734.93	44822735.18	0.0273	0.0033		
Moon	118008-05-18 12:41 G	44822734.79	44822735.03	44822735.28	0.0273	0.0020 *		
Moon	118009-05-30 09:19 G	44823111.72	44823111.89	44823112.07	0.0273	0.0195		
Earth	118009-05-30 11:43 G	44823111.82	44823111.99	44823112.18	0.0273	0.0180 *		
Venus	118016-11-28 16:46 G	44825851.01	44825851.20	44825851.40	0.0280	0.0091		
Mercury	118017-06-28 04:17 G	44826062.56	44826062.68	44826062.80	0.0281	0.0156		

Venus	118017-07-16 02:51 G	44826080.53	44826080.62	44826080.72	0.0281	0.0249
Mercury	118017-09-24 17:15 G	44826151.08	44826151.22	44826151.36	0.0281	0.0005
Mercury	118017-12-22 05:58 G	44826239.64	44826239.75	44826239.87	0.0281	0.0159
Earth	118022-11-11 14:36 G	44828024.89	44828025.11	44828025.35	0.0286	0.0106
Moon	118022-11-11 17:58 G	44828025.02	44828025.25	44828025.50	0.0286	0.0091 *
Earth	118023-11-25 19:24 G	44828404.11	44828404.31	44828404.53	0.0286	0.0152
Moon	118023-11-25 19:53 G	44828404.12	44828404.33	44828404.55	0.0286	0.0163 *
Venus	118031-05-19 19:24 G	44831136.10	44831136.31	44831136.53	0.0279	0.0011
Mercury	118031-10-17 14:51 G	44831287.00	44831287.12	44831287.26	0.0278	0.0178
Mercury	118032-01-14 09:48 G	44831375.74	44831375.91	44831376.08	0.0278	0.0007
Mercury	118032-04-12 05:00 G	44831464.59	44831464.71	44831464.83	0.0277	0.0195
Earth	118037-05-13 04:17 G	44833321.47	44833321.68	44833321.90	0.0272	0.0130
Moon	118037-05-13 05:29 G	44833321.53	44833321.73	44833321.95	0.0272	0.0116 *
Earth	118038-05-25 05:58 G	44833698.52	44833698.75	44833698.98	0.0272	0.0083
Moon	118038-05-25 09:48 G	44833698.68	44833698.91	44833699.14	0.0272	0.0092 *
Venus	118046-06-10 17:15 G	44836637.02	44836637.22	44836637.43	0.0280	0.0058
Mercury	118046-11-15 04:46 G	44836794.61	44836794.70	44836794.79	0.0281	0.0217
Mercury	118047-02-11 17:58 G	44836883.11	44836883.25	44836883.38	0.0281	0.0058
Mercury	118047-05-11 06:41 G	44836971.65	44836971.78	44836971.91	0.0282	0.0101
Mercury	118047-08-07 19:24 G	44837060.26	44837060.31	44837060.37	0.0282	0.0256
Earth	118051-11-05 10:46 G	44838610.82	44838610.95	44838611.12	0.0286	0.0226
Moon	118051-11-05 11:58 G	44838610.86	44838611.00	44838611.15	0.0286	0.0225 *
Earth	118052-11-18 15:19 G	44838989.89	44838990.14	44838990.39	0.0287	0.0032
Moon	118052-11-18 18:55 G	44838990.04	44838990.29	44838990.53	0.0287	0.0028 *
Moon	118053-12-03 00:27 G	44839369.47	44839369.52	44839369.58	0.0286	0.0279
Venus	118060-11-29 00:27 G	44841922.31	44841922.52	44841922.73	0.0279	0.0056
Mercury	118061-03-05 15:05 G	44842019.03	44842019.13	44842019.22	0.0278	0.0230
Mercury	118061-06-02 09:48 G	44842107.74	44842107.91	44842108.08	0.0278	0.0045
Mercury	118061-08-30 04:46 G	44842196.56	44842196.70	44842196.85	0.0278	0.0143
Moon	118066-05-08 05:15 G	44843908.58	44843908.72	44843908.88	0.0273	0.0215

Earth	118066-05-08 08:51 G	44843908.74	44843908.87	44843909.02	0.0273	0.0224	*
Moon	118067-05-20 10:31 G	44844285.71	44844285.94	44844286.18	0.0273	0.0014	
Earth	118067-05-20 11:58 G	44844285.76	44844286.00	44844286.25	0.0273	0.0012	*
Earth	118068-05-31 13:39 G	44844662.92	44844663.07	44844663.24	0.0273	0.0202	
Moon	118068-05-31 16:46 G	44844663.03	44844663.20	44844663.37	0.0273	0.0189	*
Venus	118075-12-22 02:22 G	44847423.39	44847423.60	44847423.81	0.0280	0.0004	
Mercury	118076-04-03 07:53 G	44847526.77	44847526.83	44847526.90	0.0280	0.0246	
Mercury	118076-06-30 21:05 G	44847615.25	44847615.38	44847615.52	0.0281	0.0086	
Mercury	118076-09-27 10:03 G	44847703.78	44847703.92	44847704.06	0.0281	0.0071	
Mercury	118076-12-24 22:46 G	44847792.37	44847792.45	44847792.53	0.0281	0.0227	
Moon	118081-11-12 18:27 G	44849576.05	44849576.27	44849576.51	0.0286	0.0096	
Earth	118081-11-12 21:19 G	44849576.16	44849576.39	44849576.63	0.0286	0.0079	*
Earth	118082-11-27 01:39 G	44849955.38	44849955.57	44849955.77	0.0286	0.0178	
Moon	118082-11-27 02:22 G	44849955.40	44849955.60	44849955.80	0.0286	0.0162	*
Mars	118084-03-27 00:27 G	44850441.35	44850441.52	44850441.71	0.0286	0.0230	
Venus	118089-10-24 13:53 G	44852478.99	44852479.08	44852479.19	0.0279	0.0245	
Venus	118090-06-11 04:03 G	44852708.47	44852708.67	44852708.87	0.0278	0.0098	
Mercury	118090-10-20 08:51 G	44852839.72	44852839.87	44852840.04	0.0278	0.0105	
Mercury	118091-01-17 03:48 G	44852928.50	44852928.66	44852928.83	0.0278	0.0082	
Mercury	118091-04-15 23:00 G	44853017.43	44853017.46	44853017.50	0.0277	0.0270	
Moon	118096-05-14 05:00 G	44854872.50	44854872.71	44854872.94	0.0273	0.0121	
Earth	118096-05-14 07:39 G	44854872.60	44854872.82	44854873.04	0.0273	0.0107	*
Moon	118097-05-26 06:12 G	44855249.54	44855249.76	44855249.99	0.0272	0.0091	
Earth	118097-05-26 09:34 G	44855249.68	44855249.90	44855250.13	0.0272	0.0106	*
Venus	118105-07-04 03:05 G	44858209.42	44858209.63	44858209.84	0.0281	0.0036	
Mercury	118105-11-18 21:34 G	44858347.28	44858347.40	44858347.53	0.0281	0.0147	
Mercury	118106-02-15 10:46 G	44858435.81	44858435.95	44858436.09	0.0281	0.0015	
Mercury	118106-05-14 23:29 G	44858524.37	44858524.48	44858524.59	0.0282	0.0169	
Moon	118110-11-07 15:48 G	44860162.00	44860162.16	44860162.34	0.0286	0.0213	
Earth	118110-11-07 17:29 G	44860162.06	44860162.23	44860162.42	0.0286	0.0199	*

Moon	118111-11-21 17:58 G	44860541.01	44860541.25	44860541.50	0.0286	0.0050
Earth	118111-11-21 21:48 G	44860541.17	44860541.41	44860541.66	0.0286	0.0058 *
Venus	118119-05-07 18:27 G	44863265.13	44863265.27	44863265.42	0.0279	0.0200
Venus	118119-12-23 08:36 G	44863494.68	44863494.86	44863495.05	0.0278	0.0143
Mercury	118120-03-09 08:51 G	44863571.73	44863571.87	44863572.01	0.0278	0.0158
Mercury	118120-06-06 03:48 G	44863660.49	44863660.66	44863660.83	0.0278	0.0028
Mercury	118120-09-02 22:46 G	44863749.35	44863749.45	44863749.56	0.0277	0.0216
Earth	118125-05-10 11:15 G	44865459.82	44865459.97	44865460.14	0.0274	0.0202
Moon	118125-05-10 15:05 G	44865459.99	44865460.13	44865460.28	0.0274	0.0218 *
Earth	118126-05-22 14:51 G	44865836.88	44865837.12	44865837.36	0.0273	0.0012
Moon	118126-05-22 15:34 G	44865836.90	44865837.15	44865837.40	0.0273	0.0001 *
Moon	118127-06-03 13:39 G	44866213.94	44866214.07	44866214.20	0.0273	0.0229
Earth	118127-06-03 17:00 G	44866214.08	44866214.21	44866214.35	0.0273	0.0223 *
Mars	118128-07-20 11:29 G	44866626.82	44866626.98	44866627.17	0.0274	0.0213
Venus	118134-05-30 03:34 G	44868766.55	44868766.65	44868766.76	0.0280	0.0240
Venus	118135-01-14 12:55 G	44868995.85	44868996.04	44868996.24	0.0280	0.0097
Mercury	118135-04-08 01:10 G	44869079.44	44869079.55	44869079.66	0.0281	0.0173
Mercury	118135-07-05 14:07 G	44869167.95	44869168.09	44869168.23	0.0281	0.0014
Mercury	118135-10-02 02:51 G	44869256.51	44869256.62	44869256.75	0.0281	0.0143
Earth	118140-11-15 06:41 G	44871127.54	44871127.78	44871128.03	0.0286	0.0051
Moon	118140-11-15 09:05 G	44871127.63	44871127.88	44871128.14	0.0286	0.0047 *
Moon	118141-11-29 09:05 G	44871506.73	44871506.88	44871507.06	0.0286	0.0217
Earth	118141-11-29 11:00 G	44871506.80	44871506.96	44871507.14	0.0286	0.0206 *
Venus	118148-11-17 00:12 G	44874051.34	44874051.51	44874051.70	0.0279	0.0152
Venus	118149-07-04 13:53 G	44874280.93	44874281.08	44874281.24	0.0278	0.0189
Mercury	118149-07-27 08:51 G	44874303.77	44874303.87	44874303.99	0.0278	0.0210
Mercury	118149-10-24 03:34 G	44874392.48	44874392.65	44874392.83	0.0278	0.0027
Mercury	118150-01-20 22:46 G	44874481.31	44874481.45	44874481.59	0.0277	0.0162
Earth	118155-05-17 11:43 G	44876423.77	44876423.99	44876424.23	0.0273	0.0084
Moon	118155-05-17 14:36 G	44876423.89	44876424.11	44876424.34	0.0273	0.0083 *

Earth	118156-05-28 14:07 G	44876800.88	44876801.09	44876801.31	0.0273	0.0129
Moon	118156-05-28 16:46 G	44876800.99	44876801.20	44876801.41	0.0273	0.0141 *
Venus	118163-12-10 04:31 G	44879552.56	44879552.69	44879552.84	0.0280	0.0205
Venus	118164-07-26 13:53 G	44879781.90	44879782.08	44879782.27	0.0281	0.0134
Mercury	118164-08-25 01:39 G	44879811.50	44879811.57	44879811.65	0.0281	0.0231
Mercury	118164-11-21 14:51 G	44879899.98	44879900.12	44879900.26	0.0281	0.0072
Mercury	118165-02-18 03:48 G	44879988.53	44879988.66	44879988.79	0.0282	0.0086
Mercury	118165-05-17 16:31 G	44880077.12	44880077.19	44880077.26	0.0282	0.0242
Earth	118169-11-09 03:05 G	44881713.44	44881713.63	44881713.83	0.0286	0.0171
Moon	118169-11-09 05:15 G	44881713.52	44881713.72	44881713.93	0.0286	0.0155 *
Earth	118170-11-23 06:55 G	44882092.56	44882092.79	44882093.03	0.0286	0.0086
Moon	118170-11-23 10:31 G	44882092.71	44882092.94	44882093.18	0.0286	0.0102 *
Mars	118172-08-21 12:27 G	44882729.76	44882730.02	44882730.29	0.0286	0.0145
Venus	118178-05-30 04:31 G	44884837.49	44884837.69	44884837.89	0.0279	0.0108
Mercury	118178-12-14 08:51 G	44885035.82	44885035.87	44885035.92	0.0278	0.0264
Venus	118179-01-14 18:12 G	44885067.15	44885067.26	44885067.38	0.0278	0.0233
Mercury	118179-03-13 03:19 G	44885124.48	44885124.64	44885124.81	0.0278	0.0081
Mercury	118179-06-09 22:17 G	44885213.28	44885213.43	44885213.59	0.0278	0.0107
Moon	118184-05-11 11:58 G	44887010.82	44887011.00	44887011.20	0.0274	0.0167
Earth	118184-05-11 15:48 G	44887010.98	44887011.16	44887011.34	0.0274	0.0178 *
Earth	118185-05-23 19:24 G	44887388.07	44887388.31	44887388.55	0.0273	0.0036
Moon	118185-05-23 19:53 G	44887388.10	44887388.33	44887388.56	0.0273	0.0050 *
Earth	118186-06-04 21:34 G	44887765.31	44887765.40	44887765.52	0.0274	0.0248
Moon	118186-06-05 01:24 G	44887765.47	44887765.56	44887765.65	0.0274	0.0254 *
Venus	118193-06-21 14:51 G	44890338.94	44890339.12	44890339.30	0.0280	0.0143
Mercury	118194-01-12 05:15 G	44890543.67	44890543.72	44890543.78	0.0281	0.0256
Venus	118194-02-06 00:12 G	44890568.37	44890568.51	44890568.67	0.0281	0.0197
Mercury	118194-04-10 18:27 G	44890632.14	44890632.27	44890632.40	0.0281	0.0097
Mercury	118194-07-08 07:24 G	44890720.67	44890720.81	44890720.95	0.0281	0.0061
Mercury	118194-10-04 20:07 G	44890809.26	44890809.34	44890809.43	0.0281	0.0217

Moon	118198-11-03 12:12 G	44892299.91	44892300.01	44892300.12	0.0285	0.0257
Earth	118198-11-03 16:03 G	44892300.10	44892300.17	44892300.25	0.0285	0.0272 *
Moon	118199-11-17 17:15 G	44892678.98	44892679.22	44892679.46	0.0286	0.0012
Earth	118199-11-17 18:27 G	44892679.02	44892679.27	44892679.52	0.0286	0.0020 *
Earth	118200-12-01 22:17 G	44893058.30	44893058.43	44893058.58	0.0286	0.0236
Moon	118200-12-02 00:55 G	44893058.42	44893058.54	44893058.69	0.0286	0.0235 *
Venus	118207-12-11 11:58 G	44895623.79	44895624.00	44895624.22	0.0279	0.0054
Mercury	118208-07-31 04:03 G	44895856.53	44895856.67	44895856.83	0.0278	0.0125
Mercury	118208-10-27 23:00 G	44895945.29	44895945.46	44895945.63	0.0278	0.0061
Mercury	118209-01-24 17:58 G	44896034.18	44896034.25	44896034.33	0.0277	0.0249
Moon	118213-05-07 15:19 G	44897598.06	44897598.14	44897598.24	0.0273	0.0254
Earth	118213-05-07 14:07 G	44897598.07	44897598.09	44897598.13	0.0273	0.0271 *
Moon	118214-05-19 14:51 G	44897974.88	44897975.12	44897975.37	0.0273	0.0048
Earth	118214-05-19 18:12 G	44897975.02	44897975.26	44897975.50	0.0273	0.0058 *
Moon	118215-05-31 19:10 G	44898352.11	44898352.30	44898352.50	0.0273	0.0151
Earth	118215-05-31 20:22 G	44898352.16	44898352.35	44898352.56	0.0273	0.0155 *
Mars	118216-12-15 03:05 G	44898915.39	44898915.63	44898915.89	0.0273	0.0128
Venus	118223-01-02 16:17 G	44901124.99	44901125.18	44901125.37	0.0280	0.0106
Venus	118223-08-20 01:53 G	44901354.47	44901354.58	44901354.70	0.0281	0.0234
Mercury	118223-08-29 19:10 G	44901364.19	44901364.30	44901364.42	0.0281	0.0154
Mercury	118223-11-26 08:22 G	44901452.71	44901452.85	44901452.99	0.0281	0.0006
Mercury	118224-02-22 21:05 G	44901541.27	44901541.38	44901541.50	0.0282	0.0163
Moon	118228-11-11 12:12 G	44903264.80	44903265.01	44903265.24	0.0286	0.0148
Earth	118228-11-11 15:19 G	44903264.93	44903265.14	44903265.36	0.0286	0.0140 *
Moon	118229-11-25 15:34 G	44903643.93	44903644.15	44903644.39	0.0286	0.0103
Earth	118229-11-25 18:55 G	44903644.07	44903644.29	44903644.52	0.0286	0.0117 *
Venus	118237-06-22 16:17 G	44906409.96	44906410.18	44906410.39	0.0279	0.0012
Mercury	118237-12-18 03:48 G	44906588.54	44906588.66	44906588.79	0.0278	0.0180
Mercury	118238-03-16 22:46 G	44906677.27	44906677.45	44906677.62	0.0278	0.0008
Mercury	118238-06-13 17:29 G	44906766.12	44906766.23	44906766.36	0.0277	0.0193

Earth	118243-05-14 21:05 G	44908562.19	44908562.38	44908562.59	0.0274	0.0153
Moon	118243-05-15 00:27 G	44908562.32	44908562.52	44908562.73	0.0274	0.0149 *
Moon	118244-05-25 23:15 G	44908939.22	44908939.47	44908939.72	0.0274	0.0049
Earth	118244-05-26 01:10 G	44908939.31	44908939.55	44908939.78	0.0274	0.0062 *
Moon	118245-06-07 00:12 G	44909316.44	44909316.51	44909316.60	0.0274	0.0257
Earth	118245-06-07 03:48 G	44909316.64	44909316.66	44909316.68	0.0274	0.0272
Venus	118252-07-15 02:36 G	44911911.40	44911911.61	44911911.82	0.0280	0.0044
Mercury	118253-01-15 23:00 G	44912096.35	44912096.46	44912096.57	0.0281	0.0178
Mercury	118253-04-14 11:58 G	44912184.86	44912185.00	44912185.15	0.0281	0.0020
Mercury	118253-07-12 00:55 G	44912273.42	44912273.54	44912273.66	0.0282	0.0139
Earth	118257-11-06 05:15 G	44913851.59	44913851.72	44913851.85	0.0285	0.0240
Moon	118257-11-06 08:36 G	44913851.75	44913851.86	44913851.98	0.0285	0.0254 *
Moon	118258-11-20 07:53 G	44914230.57	44914230.83	44914231.09	0.0286	0.0002
Earth	118258-11-20 07:53 G	44914230.58	44914230.83	44914231.08	0.0286	0.0013 *
Moon	118259-12-04 08:22 G	44914609.75	44914609.85	44914609.98	0.0286	0.0254
Earth	118259-12-04 11:58 G	44914609.92	44914610.00	44914610.09	0.0286	0.0267 *
Mars	118261-01-17 11:43 G	44915019.68	44915019.99	44915020.30	0.0285	0.0033
Venus	118267-01-03 00:55 G	44917196.33	44917196.54	44917196.75	0.0279	0.0047
Mercury	118267-05-07 05:15 G	44917320.62	44917320.72	44917320.83	0.0278	0.0218
Mercury	118267-08-03 23:58 G	44917409.33	44917409.50	44917409.67	0.0278	0.0035
Mercury	118267-10-31 18:55 G	44917498.15	44917498.29	44917498.43	0.0278	0.0152
Earth	118272-05-08 22:17 G	44919149.32	44919149.43	44919149.54	0.0273	0.0244
Moon	118272-05-08 21:48 G	44919149.33	44919149.41	44919149.50	0.0273	0.0252 *
Earth	118273-05-21 02:07 G	44919526.35	44919526.59	44919526.83	0.0273	0.0031
Moon	118273-05-21 05:29 G	44919526.49	44919526.73	44919526.97	0.0273	0.0046 *
Earth	118274-06-02 04:17 G	44919903.51	44919903.68	44919903.87	0.0273	0.0181
Moon	118274-06-02 04:46 G	44919903.52	44919903.70	44919903.90	0.0273	0.0172 *
Venus	118282-01-25 04:46 G	44922697.49	44922697.70	44922697.91	0.0280	0.0005
Mercury	118282-06-04 23:43 G	44922828.42	44922828.49	44922828.58	0.0281	0.0233
Mercury	118282-09-01 13:10 G	44922916.91	44922917.05	44922917.18	0.0281	0.0073

Mercury	118282-11-29 01:53 G	44923005.45	44923005.58	44923005.72	0.0281	0.0086
Mercury	118283-02-25 14:51 G	44923094.05	44923094.12	44923094.19	0.0282	0.0241
Earth	118287-11-14 04:46 G	44924816.47	44924816.70	44924816.93	0.0286	0.0108
Moon	118287-11-14 08:07 G	44924816.62	44924816.84	44924817.08	0.0286	0.0112 *
Earth	118288-11-27 08:22 G	44925195.64	44925195.85	44925196.06	0.0286	0.0148
Moon	118288-11-27 11:15 G	44925195.76	44925195.97	44925196.19	0.0286	0.0150 *
Venus	118295-11-28 14:22 G	44927753.02	44927753.10	44927753.19	0.0279	0.0254
Venus	118296-07-15 04:46 G	44927982.50	44927982.70	44927982.91	0.0278	0.0089
Mercury	118296-09-23 04:46 G	44928052.69	44928052.70	44928052.74	0.0278	0.0274
Mercury	118296-12-20 23:29 G	44928141.32	44928141.48	44928141.64	0.0278	0.0092
Mercury	118297-03-19 18:27 G	44928230.11	44928230.27	44928230.43	0.0277	0.0094
Moon	118302-05-17 03:05 G	44930113.43	44930113.63	44930113.84	0.0274	0.0134
Earth	118302-05-17 04:17 G	44930113.47	44930113.68	44930113.90	0.0274	0.0126 *
Earth	118303-05-29 08:07 G	44930490.61	44930490.84	44930491.07	0.0274	0.0088
Moon	118303-05-29 11:29 G	44930490.76	44930490.98	44930491.21	0.0274	0.0096 *
Mars	118305-05-12 12:12 G	44931204.73	44931205.01	44931205.29	0.0274	0.0005
Venus	118311-08-08 14:36 G	44933483.91	44933484.11	44933484.32	0.0281	0.0057
Mercury	118311-10-24 03:19 G	44933560.59	44933560.64	44933560.69	0.0281	0.0259
Mercury	118312-01-20 16:31 G	44933649.06	44933649.19	44933649.32	0.0281	0.0099
Mercury	118312-04-18 05:29 G	44933737.60	44933737.73	44933737.87	0.0282	0.0060
Mercury	118312-07-15 18:27 G	44933826.18	44933826.27	44933826.36	0.0282	0.0216
Moon	118316-11-08 18:27 G	44935403.10	44935403.27	44935403.45	0.0285	0.0195
Earth	118316-11-08 19:24 G	44935403.14	44935403.31	44935403.48	0.0285	0.0208 *
Earth	118317-11-22 22:17 G	44935782.18	44935782.43	44935782.67	0.0286	0.0046
Moon	118317-11-23 00:41 G	44935782.30	44935782.53	44935782.77	0.0286	0.0064 *
Venus	118325-06-11 00:27 G	44938539.38	44938539.52	44938539.69	0.0279	0.0193
Venus	118326-01-26 14:36 G	44938768.93	44938769.11	44938769.29	0.0278	0.0151
Mercury	118326-05-11 01:39 G	44938873.42	44938873.57	44938873.72	0.0278	0.0124
Mercury	118326-08-07 20:22 G	44938962.18	44938962.35	44938962.52	0.0278	0.0061
Mercury	118326-11-04 15:19 G	44939051.07	44939051.14	44939051.22	0.0277	0.0248

Moon	118331-05-12 03:48 G	44940700.51	44940700.66	44940700.83	0.0273	0.0206
Earth	118331-05-12 07:24 G	44940700.66	44940700.81	44940700.96	0.0273	0.0217 *
Moon	118332-05-23 09:19 G	44941077.65	44941077.89	44941078.12	0.0273	0.0013
Earth	118332-05-23 11:00 G	44941077.72	44941077.96	44941078.20	0.0273	0.0004 *
Earth	118333-06-04 12:55 G	44941454.90	44941455.04	44941455.21	0.0273	0.0208
Moon	118333-06-04 15:34 G	44941455.03	44941455.15	44941455.30	0.0273	0.0219 *
Venus	118340-07-03 08:22 G	44944040.74	44944040.85	44944040.96	0.0280	0.0239
Venus	118341-02-17 17:15 G	44944270.03	44944270.22	44944270.43	0.0281	0.0099
Mercury	118341-06-08 17:43 G	44944381.12	44944381.24	44944381.36	0.0281	0.0151
Mercury	118341-09-05 06:55 G	44944469.64	44944469.79	44944469.93	0.0281	0.0012
Mercury	118341-12-02 19:39 G	44944558.21	44944558.32	44944558.44	0.0282	0.0165
Moon	118346-11-16 17:00 G	44946367.98	44946368.21	44946368.44	0.0286	0.0072
Earth	118346-11-16 19:10 G	44946368.07	44946368.30	44946368.55	0.0286	0.0075 *
Earth	118347-11-30 22:46 G	44946747.27	44946747.45	44946747.65	0.0286	0.0181
Moon	118347-11-30 23:58 G	44946747.32	44946747.50	44946747.69	0.0286	0.0178 *
Mars	118349-06-14 10:17 G	44947308.67	44947308.93	44947309.20	0.0285	0.0145
Venus	118354-12-22 04:03 G	44949325.49	44949325.67	44949325.85	0.0279	0.0151
Venus	118355-08-08 17:58 G	44949555.10	44949555.25	44949555.41	0.0278	0.0190
Mercury	118355-09-28 00:55 G	44949605.42	44949605.54	44949605.67	0.0278	0.0183
Mercury	118355-12-25 19:39 G	44949694.15	44949694.32	44949694.49	0.0278	0.0001
Mercury	118356-03-23 14:36 G	44949782.99	44949783.11	44949783.24	0.0277	0.0187
Moon	118361-05-18 09:05 G	44951664.66	44951664.88	44951665.12	0.0274	0.0095
Earth	118361-05-18 12:27 G	44951664.80	44951665.02	44951665.25	0.0274	0.0098 *
Moon	118362-05-30 13:24 G	44952041.84	44952042.06	44952042.27	0.0274	0.0108
Earth	118362-05-30 15:48 G	44952041.95	44952042.16	44952042.38	0.0274	0.0116 *
Venus	118370-01-13 17:29 G	44954827.07	44954827.23	44954827.38	0.0280	0.0181
Venus	118370-08-31 02:51 G	44955056.45	44955056.62	44955056.79	0.0281	0.0159
Mercury	118370-10-26 21:05 G	44955113.27	44955113.38	44955113.49	0.0281	0.0179
Mercury	118371-01-23 10:17 G	44955201.79	44955201.93	44955202.07	0.0282	0.0021
Mercury	118371-04-21 23:15 G	44955290.35	44955290.47	44955290.59	0.0282	0.0138

Moon	118375-11-11 06:12 G	44956954.58	44956954.76	44956954.95	0.0285	0.0191
Earth	118375-11-11 09:34 G	44956954.70	44956954.90	44956955.09	0.0285	0.0175 *
Moon	118376-11-24 09:05 G	44957333.64	44957333.88	44957334.12	0.0286	0.0063
Earth	118376-11-24 12:27 G	44957333.78	44957334.02	44957334.26	0.0286	0.0079 *
Venus	118384-07-03 15:05 G	44960111.93	44960112.13	44960112.34	0.0279	0.0086
Mercury	118385-02-14 03:19 G	44960337.53	44960337.64	44960337.75	0.0278	0.0212
Venus	118385-02-18 04:31 G	44960341.61	44960341.69	44960341.78	0.0278	0.0254
Mercury	118385-05-13 22:03 G	44960426.25	44960426.42	44960426.59	0.0278	0.0029
Mercury	118385-08-10 16:46 G	44960515.06	44960515.20	44960515.34	0.0278	0.0158
Earth	118390-05-13 17:00 G	44962252.04	44962252.21	44962252.39	0.0273	0.0189
Moon	118390-05-13 19:10 G	44962252.15	44962252.30	44962252.48	0.0273	0.0201 *
Moon	118391-05-25 17:58 G	44962629.00	44962629.25	44962629.50	0.0273	0.0009
Earth	118391-05-25 20:22 G	44962629.11	44962629.35	44962629.59	0.0273	0.0025 *
Moon	118392-06-05 19:39 G	44963006.21	44963006.32	44963006.46	0.0273	0.0231
Earth	118392-06-05 22:31 G	44963006.32	44963006.44	44963006.56	0.0273	0.0235 *
Mars	118393-10-06 17:00 G	44963493.96	44963494.21	44963494.46	0.0273	0.0116
Venus	118399-07-26 20:22 G	44965613.17	44965613.35	44965613.53	0.0280	0.0139
Venus	118400-03-12 05:43 G	44965842.60	44965842.74	44965842.89	0.0281	0.0201
Mercury	118400-03-14 22:17 G	44965845.35	44965845.43	44965845.51	0.0281	0.0231
Mercury	118400-06-11 11:29 G	44965933.84	44965933.98	44965934.12	0.0281	0.0071
Mercury	118400-09-08 00:27 G	44966022.39	44966022.52	44966022.65	0.0281	0.0087
Mercury	118400-12-05 13:10 G	44966110.99	44966111.05	44966111.12	0.0282	0.0243
Moon	118405-11-18 07:10 G	44967919.55	44967919.80	44967920.05	0.0286	0.0042
Earth	118405-11-18 09:05 G	44967919.64	44967919.88	44967920.13	0.0286	0.0042 *
Moon	118406-12-02 09:19 G	44968298.74	44968298.89	44968299.05	0.0286	0.0222
Earth	118406-12-02 12:55 G	44968298.88	44968299.04	44968299.21	0.0286	0.0213 *
Venus	118414-01-13 17:58 G	44970898.04	44970898.25	44970898.46	0.0279	0.0047
Mercury	118414-07-04 02:22 G	44971069.58	44971069.60	44971069.64	0.0278	0.0272
Mercury	118414-09-30 21:05 G	44971158.22	44971158.38	44971158.54	0.0278	0.0090
Mercury	118414-12-28 15:48 G	44971247.00	44971247.16	44971247.32	0.0277	0.0096

Earth	118420-05-19 20:36 G	44973216.13	44973216.36	44973216.60	0.0273	0.0070
Moon	118420-05-19 23:43 G	44973216.25	44973216.49	44973216.73	0.0273	0.0074 *
Moon	118421-05-31 21:34 G	44973593.19	44973593.40	44973593.60	0.0273	0.0155
Earth	118421-05-31 23:43 G	44973593.29	44973593.49	44973593.70	0.0273	0.0143 *
Venus	118429-02-05 04:31 G	44976399.49	44976399.69	44976399.89	0.0280	0.0082
Mercury	118429-08-02 01:10 G	44976577.50	44976577.55	44976577.60	0.0281	0.0263
Venus	118429-09-22 14:07 G	44976629.03	44976629.09	44976629.19	0.0281	0.0260
Mercury	118429-10-29 14:22 G	44976665.97	44976666.10	44976666.24	0.0281	0.0103
Mercury	118430-01-26 03:34 G	44976754.51	44976754.65	44976754.79	0.0282	0.0056
Mercury	118430-04-24 16:17 G	44976843.10	44976843.18	44976843.28	0.0282	0.0213
Earth	118434-11-12 22:17 G	44978506.22	44978506.43	44978506.65	0.0286	0.0144
Moon	118434-11-13 01:10 G	44978506.33	44978506.55	44978506.79	0.0286	0.0129 *
Moon	118435-11-27 00:41 G	44978885.30	44978885.53	44978885.77	0.0286	0.0126
Earth	118435-11-27 01:24 G	44978885.34	44978885.56	44978885.80	0.0286	0.0112 *
Venus	118443-07-27 05:00 G	44981684.50	44981684.71	44981684.93	0.0279	0.0019
Mercury	118444-02-17 23:29 G	44981890.33	44981890.48	44981890.64	0.0278	0.0118
Mercury	118444-05-16 18:12 G	44981979.10	44981979.26	44981979.43	0.0278	0.0067
Mercury	118444-08-13 13:10 G	44982067.99	44982068.05	44982068.12	0.0277	0.0254
Earth	118449-05-15 02:22 G	44983803.41	44983803.60	44983803.80	0.0273	0.0161
Moon	118449-05-15 04:03 G	44983803.48	44983803.67	44983803.87	0.0273	0.0149 *
Earth	118450-05-27 05:15 G	44984180.49	44984180.72	44984180.96	0.0273	0.0052
Moon	118450-05-27 08:22 G	44984180.61	44984180.85	44984181.09	0.0273	0.0066 *
Moon	118451-06-08 05:29 G	44984557.67	44984557.73	44984557.79	0.0273	0.0263
Earth	118451-06-08 07:10 G	44984557.74	44984557.80	44984557.87	0.0273	0.0262 *
Venus	118458-08-18 08:22 G	44987185.64	44987185.85	44987186.05	0.0280	0.0038
Mercury	118459-03-18 15:48 G	44987398.04	44987398.16	44987398.28	0.0281	0.0152
Mercury	118459-06-15 05:00 G	44987486.57	44987486.71	44987486.85	0.0281	0.0007
Mercury	118459-09-11 17:58 G	44987575.13	44987575.25	44987575.36	0.0281	0.0164
Earth	118463-11-06 19:39 G	44989092.23	44989092.32	44989092.42	0.0286	0.0262
Moon	118463-11-06 22:03 G	44989092.33	44989092.42	44989092.54	0.0286	0.0258 *

Earth	118464-11-19 21:48 G	44989471.17	44989471.41	44989471.66	0.0286	0.0012
Moon	118464-11-20 01:24 G	44989471.31	44989471.56	44989471.81	0.0286	0.0013 *
Earth	118465-12-04 01:53 G	44989850.46	44989850.58	44989850.71	0.0286	0.0244
Moon	118465-12-04 02:36 G	44989850.47	44989850.61	44989850.76	0.0286	0.0234 *
Venus	118473-02-05 06:55 G	44992470.58	44992470.79	44992471.00	0.0279	0.0056
Mercury	118473-07-06 22:17 G	44992622.31	44992622.43	44992622.56	0.0278	0.0182
Mercury	118473-10-03 17:00 G	44992711.04	44992711.21	44992711.38	0.0278	0.0002
Mercury	118473-12-31 11:43 G	44992799.87	44992799.99	44992800.12	0.0277	0.0189
Moon	118478-05-09 20:36 G	44994390.27	44994390.36	44994390.48	0.0273	0.0243
Earth	118478-05-09 23:58 G	44994390.42	44994390.50	44994390.59	0.0273	0.0255 *
Earth	118479-05-22 04:31 G	44994767.45	44994767.69	44994767.93	0.0273	0.0043
Moon	118479-05-22 06:12 G	44994767.53	44994767.76	44994767.99	0.0273	0.0046 *
Earth	118480-06-02 07:10 G	44995144.62	44995144.80	44995145.00	0.0273	0.0169
Moon	118480-06-02 10:46 G	44995144.76	44995144.95	44995145.16	0.0273	0.0155 *
Mars	118482-03-02 19:10 G	44995783.16	44995783.30	44995783.47	0.0274	0.0226
Venus	118488-02-28 15:05 G	44997971.92	44997972.13	44997972.34	0.0281	0.0015
Mercury	118488-08-04 18:12 G	44998130.16	44998130.26	44998130.37	0.0281	0.0189
Mercury	118488-11-01 07:39 G	44998218.68	44998218.82	44998218.96	0.0282	0.0030
Mercury	118489-01-28 20:36 G	44998307.23	44998307.36	44998307.48	0.0282	0.0129
Earth	118493-11-14 08:51 G	45000057.65	45000057.87	45000058.10	0.0286	0.0114
Moon	118493-11-14 10:17 G	45000057.73	45000057.93	45000058.15	0.0286	0.0131 *
Earth	118494-11-28 12:27 G	45000436.81	45000437.02	45000437.25	0.0286	0.0142
Moon	118494-11-28 16:31 G	45000436.97	45000437.19	45000437.41	0.0286	0.0125 *
Venus	118502-01-02 03:34 G	45003027.53	45003027.65	45003027.79	0.0280	0.0223
Venus	118502-08-19 17:58 G	45003257.07	45003257.25	45003257.45	0.0279	0.0122
Mercury	118502-11-25 00:55 G	45003354.43	45003354.54	45003354.65	0.0278	0.0208
Mercury	118503-02-21 19:24 G	45003443.15	45003443.31	45003443.48	0.0278	0.0027
Mercury	118503-05-21 14:22 G	45003531.96	45003532.10	45003532.24	0.0278	0.0160
Moon	118508-05-17 07:53 G	45005354.64	45005354.83	45005355.04	0.0273	0.0150
Earth	118508-05-17 11:15 G	45005354.77	45005354.97	45005355.19	0.0273	0.0134 *

Earth	118509-05-29 13:53 G	45005731.85	45005732.08	45005732.31	0.0273	0.0079
Moon	118509-05-29 14:36 G	45005731.89	45005732.11	45005732.34	0.0273	0.0066 *
Venus	118517-01-24 10:17 G	45008528.91	45008528.93	45008528.97	0.0279	0.0276
Venus	118517-09-10 18:55 G	45008758.09	45008758.29	45008758.50	0.0280	0.0060
Mercury	118517-12-23 19:53 G	45008862.25	45008862.33	45008862.40	0.0280	0.0237
Mercury	118518-03-22 09:05 G	45008950.74	45008950.88	45008951.02	0.0281	0.0077
Mercury	118518-06-18 22:03 G	45009039.29	45009039.42	45009039.56	0.0281	0.0081
Mercury	118518-09-15 10:46 G	45009127.89	45009127.95	45009128.03	0.0281	0.0237
Moon	118522-11-09 02:36 G	45010643.49	45010643.61	45010643.76	0.0286	0.0236
Earth	118522-11-09 05:58 G	45010643.62	45010643.75	45010643.90	0.0286	0.0233 *
Moon	118523-11-23 08:22 G	45011022.61	45011022.85	45011023.09	0.0286	0.0024
Earth	118523-11-23 08:36 G	45011022.61	45011022.86	45011023.11	0.0286	0.0020 *
Earth	118524-12-06 12:27 G	45011401.96	45011402.02	45011402.10	0.0286	0.0274
Moon	118524-12-06 15:48 G	45011402.14	45011402.16	45011402.18	0.0286	0.0284
Venus	118531-07-15 04:46 G	45013813.55	45013813.70	45013813.86	0.0279	0.0189
Venus	118532-02-29 18:55 G	45014043.12	45014043.29	45014043.48	0.0278	0.0156
Mercury	118532-04-12 23:15 G	45014086.46	45014086.47	45014086.49	0.0278	0.0276
Mercury	118532-07-10 17:43 G	45014175.09	45014175.24	45014175.40	0.0278	0.0095
Mercury	118532-10-07 12:41 G	45014263.86	45014264.03	45014264.19	0.0278	0.0091
Moon	118537-05-12 05:43 G	45015941.63	45015941.74	45015941.87	0.0273	0.0237
Earth	118537-05-12 07:10 G	45015941.67	45015941.80	45015941.93	0.0273	0.0230 *
Moon	118538-05-24 07:24 G	45016318.57	45016318.81	45016319.05	0.0273	0.0013
Earth	118538-05-24 11:15 G	45016318.73	45016318.97	45016319.21	0.0273	0.0017 *
Earth	118539-06-05 13:39 G	45016695.91	45016696.07	45016696.24	0.0273	0.0194
Moon	118539-06-05 13:39 G	45016695.93	45016696.07	45016696.23	0.0273	0.0208 *
Venus	118546-08-06 15:34 G	45019315.04	45019315.15	45019315.28	0.0280	0.0228
Venus	118547-03-24 00:41 G	45019544.34	45019544.53	45019544.72	0.0281	0.0110
Mercury	118547-05-12 21:48 G	45019594.40	45019594.41	45019594.43	0.0281	0.0279
Mercury	118547-08-09 11:15 G	45019682.84	45019682.97	45019683.10	0.0281	0.0118
Mercury	118547-11-06 00:27 G	45019771.38	45019771.52	45019771.66	0.0282	0.0041

Mercury	118548-02-02 13:10 G	45019859.96	45019860.05	45019860.16	0.0282	0.0198
Moon	118552-11-16 13:24 G	45021608.82	45021609.06	45021609.31	0.0286	0.0069
Earth	118552-11-16 17:15 G	45021608.99	45021609.22	45021609.46	0.0286	0.0087 *
Moon	118553-11-30 19:39 G	45021988.14	45021988.32	45021988.51	0.0286	0.0184
Earth	118553-11-30 21:34 G	45021988.20	45021988.40	45021988.60	0.0286	0.0169 *
Venus	118561-01-24 15:34 G	45024599.96	45024600.15	45024600.34	0.0279	0.0124
Venus	118561-09-11 05:29 G	45024829.61	45024829.73	45024829.87	0.0279	0.0220
Mercury	118561-11-27 20:07 G	45024907.19	45024907.34	45024907.49	0.0278	0.0123
Mercury	118562-02-24 14:51 G	45024995.95	45024996.12	45024996.29	0.0278	0.0061
Mercury	118562-05-24 09:48 G	45025084.84	45025084.91	45025084.99	0.0278	0.0248
Moon	118567-05-19 18:27 G	45026906.04	45026906.27	45026906.51	0.0273	0.0094
Earth	118567-05-19 18:27 G	45026906.05	45026906.27	45026906.50	0.0273	0.0110 *
Moon	118568-05-30 17:29 G	45027283.01	45027283.23	45027283.45	0.0273	0.0115
Earth	118568-05-30 21:05 G	45027283.15	45027283.38	45027283.60	0.0273	0.0104 *
Venus	118576-02-16 20:07 G	45030101.19	45030101.34	45030101.50	0.0279	0.0182
Venus	118576-10-03 05:00 G	45030330.53	45030330.71	45030330.88	0.0280	0.0154
Mercury	118576-12-26 12:41 G	45030414.92	45030415.03	45030415.15	0.0280	0.0165
Mercury	118577-03-25 01:53 G	45030503.44	45030503.58	45030503.73	0.0281	0.0011
Mercury	118577-06-21 14:51 G	45030592.01	45030592.12	45030592.24	0.0281	0.0150
Moon	118581-11-10 12:55 G	45032194.88	45032195.04	45032195.23	0.0286	0.0205
Earth	118581-11-10 13:53 G	45032194.91	45032195.08	45032195.25	0.0286	0.0206 *
Moon	118582-11-24 12:55 G	45032573.79	45032574.04	45032574.29	0.0286	0.0039
Earth	118582-11-24 16:31 G	45032573.95	45032574.19	45032574.44	0.0286	0.0048 *
Venus	118590-08-06 16:03 G	45035385.96	45035386.17	45035386.37	0.0279	0.0091
Venus	118591-03-24 05:58 G	45035615.66	45035615.75	45035615.85	0.0278	0.0251
Mercury	118591-04-16 18:12 G	45035639.14	45035639.26	45035639.38	0.0278	0.0194
Mercury	118591-07-14 12:55 G	45035727.87	45035728.04	45035728.21	0.0278	0.0011
Mercury	118591-10-11 07:39 G	45035816.69	45035816.82	45035816.96	0.0278	0.0176
Earth	118596-05-13 13:10 G	45037492.89	45037493.05	45037493.21	0.0273	0.0206
Moon	118596-05-13 16:46 G	45037493.04	45037493.20	45037493.37	0.0273	0.0197 *

Earth	118597-05-25 16:46 G	45037869.96	45037870.20	45037870.45	0.0273	0.0009
Moon	118597-05-25 17:29 G	45037869.97	45037870.23	45037870.48	0.0273	0.0005 *
Moon	118598-06-06 15:19 G	45038246.99	45038247.14	45038247.31	0.0273	0.0202
Earth	118598-06-06 18:55 G	45038247.16	45038247.29	45038247.44	0.0273	0.0219 *
Venus	118605-08-29 23:58 G	45040887.32	45040887.50	45040887.68	0.0280	0.0138
Venus	118606-04-16 09:05 G	45041116.74	45041116.88	45041117.03	0.0281	0.0201
Mercury	118606-05-16 14:22 G	45041147.01	45041147.10	45041147.20	0.0281	0.0212
Mercury	118606-08-13 03:34 G	45041235.52	45041235.65	45041235.79	0.0281	0.0053
Mercury	118606-11-09 16:46 G	45041324.07	45041324.20	45041324.33	0.0282	0.0105
Mercury	118607-02-06 05:29 G	45041412.68	45041412.73	45041412.78	0.0282	0.0261
Earth	118611-11-19 22:31 G	45043160.20	45043160.44	45043160.69	0.0286	0.0061
Moon	118611-11-19 23:15 G	45043160.22	45043160.47	45043160.72	0.0286	0.0075 *
Moon	118612-12-02 23:58 G	45043539.31	45043539.50	45043539.69	0.0286	0.0184
Earth	118612-12-03 03:05 G	45043539.45	45043539.63	45043539.81	0.0286	0.0195 *
Venus	118620-02-18 01:53 G	45046172.36	45046172.58	45046172.79	0.0279	0.0029
Mercury	118620-09-03 20:07 G	45046371.25	45046371.34	45046371.45	0.0279	0.0227
Mercury	118620-12-01 14:51 G	45046459.95	45046460.12	45046460.29	0.0278	0.0043
Mercury	118621-02-28 09:34 G	45046548.76	45046548.90	45046549.05	0.0278	0.0143
Earth	118626-05-21 23:58 G	45048457.27	45048457.50	45048457.73	0.0273	0.0085
Moon	118626-05-22 03:05 G	45048457.42	45048457.63	45048457.86	0.0273	0.0101 *
Earth	118627-06-03 02:07 G	45048834.38	45048834.59	45048834.81	0.0273	0.0128
Moon	118627-06-03 02:51 G	45048834.40	45048834.62	45048834.85	0.0273	0.0121 *
Jupiter	118633-11-24 20:51 G	45051200.97	45051201.37	45051201.77	0.0277	0.0114
Venus	118635-03-12 05:00 G	45051673.51	45051673.71	45051673.91	0.0279	0.0090
Mercury	118635-10-03 16:17 G	45051879.12	45051879.18	45051879.23	0.0280	0.0256
Venus	118635-10-27 13:39 G	45051902.99	45051903.07	45051903.18	0.0280	0.0247
Mercury	118635-12-31 05:29 G	45051967.60	45051967.73	45051967.86	0.0280	0.0097
Mercury	118636-03-28 18:27 G	45052056.14	45052056.27	45052056.41	0.0281	0.0060
Mercury	118636-06-25 07:24 G	45052144.72	45052144.81	45052144.90	0.0281	0.0215
Earth	118640-11-12 19:39 G	45053746.13	45053746.32	45053746.51	0.0286	0.0181

Moon	118640-11-12 23:15 G	45053746.28	45053746.47	45053746.67	0.0286	0.0177	*
Earth	118641-11-26 22:31 G	45054125.20	45054125.44	45054125.68	0.0286	0.0073	
Moon	118641-11-27 00:12 G	45054125.27	45054125.51	45054125.76	0.0286	0.0084	*
Venus	118649-08-30 01:39 G	45056958.35	45056958.57	45056958.78	0.0279	0.0003	
Mercury	118650-04-20 12:41 G	45057191.88	45057192.03	45057192.18	0.0278	0.0118	
Mercury	118650-07-18 07:24 G	45057280.64	45057280.81	45057280.97	0.0278	0.0067	
Mercury	118650-10-15 02:07 G	45057369.53	45057369.59	45057369.67	0.0278	0.0255	
Moon	118655-05-16 16:03 G	45059044.01	45059044.17	45059044.35	0.0273	0.0187	
Earth	118655-05-16 17:00 G	45059044.04	45059044.21	45059044.40	0.0273	0.0183	*
Earth	118656-05-27 20:36 G	45059421.12	45059421.36	45059421.61	0.0273	0.0031	
Moon	118656-05-28 00:12 G	45059421.28	45059421.51	45059421.75	0.0273	0.0043	*
Earth	118657-06-08 22:46 G	45059798.34	45059798.45	45059798.56	0.0273	0.0240	
Moon	118657-06-08 23:58 G	45059798.43	45059798.50	45059798.60	0.0273	0.0256	*
Venus	118664-09-21 07:39 G	45062459.61	45062459.82	45062460.03	0.0280	0.0050	
Mercury	118665-05-19 06:41 G	45062699.66	45062699.78	45062699.90	0.0281	0.0148	
Mercury	118665-08-15 19:53 G	45062788.19	45062788.33	45062788.47	0.0281	0.0010	
Mercury	118665-11-12 08:51 G	45062876.76	45062876.87	45062876.98	0.0282	0.0167	
Moon	118669-11-06 23:43 G	45064332.44	45064332.49	45064332.56	0.0286	0.0276	
Earth	118670-11-21 01:39 G	45064711.32	45064711.57	45064711.81	0.0286	0.0039	
Moon	118670-11-21 05:15 G	45064711.47	45064711.72	45064711.96	0.0286	0.0024	*
Earth	118671-12-05 05:43 G	45065090.60	45065090.74	45065090.92	0.0286	0.0218	
Moon	118671-12-05 09:05 G	45065090.75	45065090.88	45065091.05	0.0286	0.0229	*
Venus	118679-03-12 10:17 G	45067744.73	45067744.93	45067745.14	0.0279	0.0061	
Mercury	118679-09-07 14:07 G	45067923.96	45067924.09	45067924.24	0.0279	0.0154	
Mercury	118679-12-05 08:51 G	45068012.70	45068012.87	45068013.04	0.0278	0.0031	
Mercury	118680-03-03 03:48 G	45068101.56	45068101.66	45068101.77	0.0278	0.0219	
Moon	118684-05-10 20:07 G	45069631.28	45069631.34	45069631.42	0.0274	0.0263	
Moon	118685-05-23 02:22 G	45070008.38	45070008.60	45070008.84	0.0273	0.0050	
Earth	118685-05-23 03:48 G	45070008.43	45070008.66	45070008.90	0.0273	0.0063	*
Earth	118686-06-04 05:58 G	45070385.55	45070385.75	45070385.96	0.0273	0.0150	

Moon	118686-06-04 08:51 G	45070385.69	45070385.87	45070386.08	0.0273	0.0157 *
Venus	118694-04-03 12:55 G	45073245.83	45073246.04	45073246.25	0.0279	0.0001
Mercury	118694-10-06 08:36 G	45073431.76	45073431.86	45073431.96	0.0280	0.0191
Mercury	118695-01-02 21:48 G	45073520.27	45073520.41	45073520.55	0.0280	0.0033
Mercury	118695-04-01 10:46 G	45073608.82	45073608.95	45073609.08	0.0280	0.0123
Mercury	118695-06-28 23:29 G	45073697.46	45073697.48	45073697.50	0.0281	0.0277
Moon	118699-11-14 22:17 G	45075297.24	45075297.43	45075297.63	0.0286	0.0165
Earth	118699-11-14 23:15 G	45075297.26	45075297.47	45075297.68	0.0286	0.0158 *
Earth	118700-11-29 01:53 G	45075676.35	45075676.58	45075676.82	0.0286	0.0097
Moon	118700-11-29 04:17 G	45075676.46	45075676.68	45075676.92	0.0286	0.0085 *
Venus	118708-02-05 18:27 G	45078301.20	45078301.27	45078301.37	0.0280	0.0257
Venus	118708-09-22 10:03 G	45078530.71	45078530.92	45078531.12	0.0279	0.0091
Mercury	118709-01-25 11:58 G	45078655.91	45078656.00	45078656.10	0.0279	0.0228
Mercury	118709-04-24 06:27 G	45078744.60	45078744.77	45078744.94	0.0278	0.0045
Mercury	118709-07-22 01:10 G	45078833.41	45078833.55	45078833.70	0.0278	0.0141
Moon	118714-05-18 16:31 G	45080595.00	45080595.19	45080595.39	0.0273	0.0164
Earth	118714-05-18 19:53 G	45080595.14	45080595.33	45080595.53	0.0273	0.0162 *
Moon	118715-05-30 21:19 G	45080972.15	45080972.39	45080972.62	0.0273	0.0040
Earth	118715-05-30 23:15 G	45080972.24	45080972.47	45080972.71	0.0273	0.0052 *
Earth	118716-06-11 00:41 G	45081349.48	45081349.53	45081349.62	0.0273	0.0262
Moon	118716-06-11 03:48 G	45081349.57	45081349.66	45081349.76	0.0273	0.0248 *
Venus	118723-10-15 14:22 G	45084031.90	45084032.10	45084032.31	0.0280	0.0037
Mercury	118724-02-24 09:19 G	45084163.83	45084163.89	45084163.96	0.0280	0.0247
Mercury	118724-05-22 22:46 G	45084252.31	45084252.45	45084252.58	0.0281	0.0088
Mercury	118724-08-19 11:43 G	45084340.86	45084340.99	45084341.13	0.0281	0.0070
Mercury	118724-11-16 00:27 G	45084429.45	45084429.52	45084429.61	0.0281	0.0226
Earth	118728-11-09 00:27 G	45085883.46	45085883.52	45085883.61	0.0286	0.0270
Moon	118729-11-23 00:55 G	45086262.30	45086262.54	45086262.78	0.0286	0.0030
Earth	118729-11-23 03:19 G	45086262.39	45086262.64	45086262.88	0.0286	0.0017 *
Earth	118730-12-07 07:24 G	45086641.69	45086641.81	45086641.96	0.0286	0.0239

Moon	118730-12-07 09:19 G	45086641.76	45086641.89	45086642.03	0.0286	0.0235	*
Venus	118737-08-18 02:22 G	45089087.46	45089087.60	45089087.75	0.0280	0.0202	
Venus	118738-04-04 17:29 G	45089317.06	45089317.23	45089317.42	0.0279	0.0147	
Mercury	118738-06-14 13:10 G	45089388.01	45089388.05	45089388.10	0.0279	0.0268	
Mercury	118738-09-11 07:39 G	45089476.66	45089476.82	45089476.98	0.0279	0.0085	
Mercury	118738-12-09 02:22 G	45089565.45	45089565.60	45089565.76	0.0278	0.0101	
Earth	118743-05-14 01:24 G	45091182.48	45091182.56	45091182.65	0.0274	0.0255	
Moon	118743-05-14 03:19 G	45091182.61	45091182.64	45091182.69	0.0274	0.0270	*
Moon	118744-05-25 03:19 G	45091559.40	45091559.64	45091559.88	0.0273	0.0056	
Earth	118744-05-25 05:58 G	45091559.51	45091559.75	45091559.99	0.0273	0.0042	*
Moon	118745-06-06 05:43 G	45091936.57	45091936.74	45091936.94	0.0273	0.0170	
Earth	118745-06-06 08:07 G	45091936.66	45091936.84	45091937.04	0.0273	0.0171	*
Venus	118752-09-09 12:41 G	45094588.93	45094589.03	45094589.12	0.0278	0.0246	
Venus	118753-04-26 20:22 G	45094818.16	45094818.35	45094818.55	0.0279	0.0086	
Mercury	118753-10-10 00:41 G	45094984.41	45094984.53	45094984.66	0.0280	0.0129	
Mercury	118754-01-06 13:53 G	45095072.94	45095073.08	45095073.22	0.0280	0.0029	
Mercury	118754-04-05 02:51 G	45095161.51	45095161.62	45095161.72	0.0280	0.0183	
Moon	118758-11-16 22:17 G	45096848.21	45096848.43	45096848.67	0.0285	0.0126	
Earth	118758-11-17 01:39 G	45096848.35	45096848.57	45096848.79	0.0285	0.0136	*
Moon	118759-12-01 01:24 G	45097227.35	45097227.56	45097227.78	0.0286	0.0134	
Earth	118759-12-01 04:03 G	45097227.45	45097227.67	45097227.91	0.0286	0.0119	*
Venus	118767-02-28 02:07 G	45099873.43	45099873.59	45099873.76	0.0280	0.0171	
Venus	118767-10-15 17:00 G	45100103.05	45100103.21	45100103.38	0.0279	0.0176	
Mercury	118768-01-29 05:15 G	45100208.59	45100208.72	45100208.86	0.0279	0.0161	
Mercury	118768-04-26 23:58 G	45100297.33	45100297.50	45100297.67	0.0278	0.0024	
Mercury	118768-07-24 18:41 G	45100386.18	45100386.28	45100386.40	0.0278	0.0211	
Earth	118773-05-19 21:34 G	45102146.20	45102146.40	45102146.61	0.0273	0.0141	
Moon	118773-05-20 00:12 G	45102146.30	45102146.51	45102146.73	0.0273	0.0139	*
Moon	118774-05-31 22:17 G	45102523.20	45102523.43	45102523.67	0.0273	0.0087	
Earth	118774-06-01 01:10 G	45102523.32	45102523.55	45102523.78	0.0273	0.0072	*

Venus	118782-03-22 12:55 G	45105374.91	45105375.04	45105375.18	0.0279	0.0213
Venus	118782-11-06 21:05 G	45105604.20	45105604.38	45105604.57	0.0280	0.0122
Mercury	118783-02-27 01:24 G	45105716.45	45105716.56	45105716.67	0.0280	0.0187
Mercury	118783-05-26 14:36 G	45105804.97	45105805.11	45105805.25	0.0281	0.0029
Mercury	118783-08-23 03:34 G	45105893.53	45105893.65	45105893.78	0.0281	0.0128
Earth	118787-11-11 00:41 G	45107434.43	45107434.53	45107434.66	0.0285	0.0250
Moon	118787-11-11 02:22 G	45107434.46	45107434.60	45107434.74	0.0285	0.0236 *
Moon	118788-11-24 00:27 G	45107813.27	45107813.52	45107813.78	0.0286	0.0009
Earth	118788-11-24 03:19 G	45107813.39	45107813.64	45107813.89	0.0286	0.0003 *
Moon	118789-12-08 03:48 G	45108192.56	45108192.66	45108192.77	0.0286	0.0258
Earth	118789-12-08 07:39 G	45108192.72	45108192.82	45108192.93	0.0286	0.0258 *
Venus	118796-09-09 08:51 G	45110659.68	45110659.87	45110660.07	0.0280	0.0118
Venus	118797-04-26 23:58 G	45110889.38	45110889.50	45110889.63	0.0279	0.0229
Mercury	118797-06-17 05:58 G	45110940.65	45110940.75	45110940.87	0.0279	0.0205
Mercury	118797-09-14 00:41 G	45111029.36	45111029.53	45111029.70	0.0279	0.0022
Mercury	118797-12-11 19:39 G	45111118.19	45111118.32	45111118.46	0.0279	0.0166
Earth	118802-05-15 02:22 G	45112733.48	45112733.60	45112733.73	0.0274	0.0236
Moon	118802-05-15 04:31 G	45112733.56	45112733.69	45112733.83	0.0274	0.0221 *
Earth	118803-05-27 07:10 G	45113110.56	45113110.80	45113111.04	0.0274	0.0022
Moon	118803-05-27 09:48 G	45113110.67	45113110.91	45113111.16	0.0274	0.0012 *
Moon	118804-06-07 07:10 G	45113487.62	45113487.80	45113487.98	0.0273	0.0186
Earth	118804-06-07 09:34 G	45113487.73	45113487.90	45113488.08	0.0273	0.0191 *
Mars	118805-08-26 23:15 G	45113933.39	45113933.47	45113933.55	0.0273	0.0261
Venus	118811-10-02 19:24 G	45116161.15	45116161.31	45116161.49	0.0278	0.0162
Venus	118812-05-19 03:34 G	45116390.49	45116390.65	45116390.82	0.0279	0.0173
Mercury	118812-07-16 03:48 G	45116448.58	45116448.66	45116448.74	0.0279	0.0225
Mercury	118812-10-12 17:00 G	45116537.07	45116537.21	45116537.35	0.0280	0.0067
Mercury	118813-01-09 05:58 G	45116625.62	45116625.75	45116625.88	0.0280	0.0089
Mercury	118813-04-07 18:41 G	45116714.22	45116714.28	45116714.35	0.0280	0.0243
Earth	118817-11-18 03:48 G	45118399.43	45118399.66	45118399.89	0.0285	0.0113

Moon	118817-11-18 05:58 G	45118399.52	45118399.75	45118399.98	0.0285	0.0126	*
Moon	118818-12-02 04:31 G	45118778.47	45118778.69	45118778.93	0.0286	0.0124	
Earth	118818-12-02 06:12 G	45118778.55	45118778.76	45118778.98	0.0286	0.0141	*
Venus	118826-03-22 09:19 G	45121445.69	45121445.89	45121446.10	0.0280	0.0086	
Mercury	118826-11-04 04:03 G	45121672.66	45121672.67	45121672.69	0.0279	0.0277	
Venus	118826-11-07 00:12 G	45121675.43	45121675.51	45121675.58	0.0279	0.0260	
Mercury	118827-01-31 22:31 G	45121761.28	45121761.44	45121761.60	0.0279	0.0095	
Mercury	118827-04-30 17:15 G	45121850.06	45121850.22	45121850.38	0.0278	0.0091	
Earth	118832-05-20 22:17 G	45123697.23	45123697.43	45123697.66	0.0273	0.0122	
Moon	118832-05-21 00:41 G	45123697.33	45123697.53	45123697.75	0.0273	0.0131	*
Earth	118833-06-02 01:53 G	45124074.36	45124074.58	45124074.81	0.0273	0.0093	
Moon	118833-06-02 05:00 G	45124074.48	45124074.71	45124074.95	0.0273	0.0076	*
Venus	118841-04-13 19:39 G	45126947.14	45126947.32	45126947.51	0.0279	0.0129	
Venus	118841-11-29 03:48 G	45127176.53	45127176.66	45127176.81	0.0280	0.0207	
Mercury	118842-03-01 17:29 G	45127269.10	45127269.23	45127269.36	0.0280	0.0127	
Mercury	118842-05-29 06:41 G	45127357.63	45127357.78	45127357.92	0.0280	0.0032	
Mercury	118842-08-25 19:24 G	45127446.21	45127446.31	45127446.42	0.0281	0.0186	
Earth	118846-11-12 01:39 G	45128985.43	45128985.57	45128985.72	0.0285	0.0229	
Moon	118846-11-12 05:00 G	45128985.59	45128985.71	45128985.85	0.0285	0.0240	*
Earth	118847-11-26 03:34 G	45129364.41	45129364.65	45129364.90	0.0286	0.0024	
Moon	118847-11-26 07:10 G	45129364.55	45129364.80	45129365.05	0.0286	0.0018	*
Earth	118848-12-09 07:39 G	45129743.78	45129743.82	45129743.89	0.0286	0.0278	
Moon	118848-12-09 07:53 G	45129743.79	45129743.83	45129743.90	0.0286	0.0279	*
Venus	118855-10-02 14:51 G	45132231.91	45132232.12	45132232.34	0.0280	0.0037	
Mercury	118856-06-19 23:00 G	45132493.31	45132493.46	45132493.60	0.0279	0.0143	
Mercury	118856-09-16 17:43 G	45132582.07	45132582.24	45132582.40	0.0279	0.0042	
Mercury	118856-12-14 12:27 G	45132670.93	45132671.02	45132671.12	0.0279	0.0231	
Moon	118861-05-15 23:29 G	45134284.37	45134284.48	45134284.62	0.0274	0.0233	
Earth	118861-05-16 02:36 G	45134284.47	45134284.61	45134284.76	0.0274	0.0216	*
Earth	118862-05-28 07:39 G	45134661.58	45134661.82	45134662.07	0.0274	0.0004	

Moon	118862-05-28 09:19 G	45134661.66	45134661.89	45134662.13	0.0274	0.0011	*
Earth	118863-06-09 10:17 G	45135038.79	45135038.93	45135039.09	0.0273	0.0211	
Moon	118863-06-09 13:53 G	45135038.94	45135039.08	45135039.24	0.0273	0.0215	*
Venus	118870-10-25 03:05 G	45137733.43	45137733.63	45137733.84	0.0278	0.0075	
Venus	118871-06-11 11:15 G	45137962.91	45137962.97	45137963.05	0.0279	0.0260	
Mercury	118871-07-19 20:07 G	45138001.22	45138001.34	45138001.46	0.0279	0.0162	
Mercury	118871-10-16 09:05 G	45138089.74	45138089.88	45138090.03	0.0280	0.0011	
Mercury	118872-01-12 22:03 G	45138178.30	45138178.42	45138178.54	0.0280	0.0150	
Earth	118876-11-19 06:12 G	45139950.53	45139950.76	45139951.00	0.0285	0.0091	
Moon	118876-11-19 08:22 G	45139950.62	45139950.85	45139951.08	0.0285	0.0076	*
Earth	118877-12-03 08:22 G	45140329.65	45140329.85	45140330.06	0.0285	0.0163	
Moon	118877-12-03 11:43 G	45140329.81	45140329.99	45140330.20	0.0285	0.0180	*
Venus	118885-04-13 16:17 G	45143017.97	45143018.18	45143018.40	0.0280	0.0002	
Mercury	118885-11-06 21:05 G	45143225.28	45143225.38	45143225.50	0.0279	0.0213	
Mercury	118886-02-03 15:48 G	45143313.99	45143314.16	45143314.33	0.0279	0.0029	
Mercury	118886-05-03 10:31 G	45143402.80	45143402.94	45143403.08	0.0279	0.0158	
Moon	118891-05-22 20:22 G	45145248.12	45145248.35	45145248.57	0.0273	0.0089	
Earth	118891-05-22 23:43 G	45145248.26	45145248.49	45145248.71	0.0273	0.0101	*
Earth	118892-06-03 03:05 G	45145625.41	45145625.63	45145625.85	0.0273	0.0113	
Moon	118892-06-03 04:03 G	45145625.47	45145625.67	45145625.88	0.0273	0.0128	*
Mars	118894-01-19 21:05 G	45146221.23	45146221.38	45146221.56	0.0273	0.0221	
Venus	118900-05-07 02:51 G	45148519.41	45148519.62	45148519.83	0.0279	0.0043	
Mercury	118900-12-06 20:07 G	45148733.26	45148733.34	45148733.43	0.0280	0.0224	
Mercury	118901-03-05 09:34 G	45148821.76	45148821.90	45148822.04	0.0280	0.0066	
Mercury	118901-06-01 22:31 G	45148910.31	45148910.44	45148910.58	0.0280	0.0090	
Mercury	118901-08-29 11:15 G	45148998.91	45148998.97	45148999.04	0.0281	0.0245	
Moon	118905-11-14 00:27 G	45150536.36	45150536.52	45150536.71	0.0285	0.0199	
Earth	118905-11-14 03:19 G	45150536.48	45150536.64	45150536.82	0.0285	0.0208	*
Earth	118906-11-28 05:00 G	45150915.47	45150915.71	45150915.96	0.0286	0.0045	
Moon	118906-11-28 05:58 G	45150915.52	45150915.75	45150915.99	0.0286	0.0046	*

Venus	118914-10-25 21:19 G	45153804.18	45153804.39	45153804.61	0.0280	0.0046
Mercury	118915-03-27 21:19 G	45153957.34	45153957.39	45153957.45	0.0279	0.0264
Mercury	118915-06-24 16:03 G	45154046.00	45154046.17	45154046.33	0.0279	0.0080
Mercury	118915-09-21 10:31 G	45154134.79	45154134.94	45154135.11	0.0279	0.0107
Moon	118920-05-18 01:39 G	45155835.38	45155835.57	45155835.76	0.0274	0.0181
Earth	118920-05-18 02:51 G	45155835.46	45155835.62	45155835.79	0.0274	0.0196 *
Moon	118921-05-30 04:46 G	45156212.46	45156212.70	45156212.94	0.0274	0.0024
Earth	118921-05-30 08:22 G	45156212.61	45156212.85	45156213.09	0.0274	0.0019 *
Earth	118922-06-11 11:15 G	45156589.85	45156589.97	45156590.11	0.0274	0.0231
Moon	118922-06-11 12:27 G	45156589.88	45156590.02	45156590.15	0.0274	0.0221 *
Venus	118929-11-17 11:00 G	45159305.75	45159305.96	45159306.17	0.0279	0.0013
Mercury	118930-04-25 23:15 G	45159465.41	45159465.47	45159465.53	0.0279	0.0255
Mercury	118930-07-23 12:27 G	45159553.89	45159554.02	45159554.16	0.0279	0.0097
Mercury	118930-10-20 01:24 G	45159642.43	45159642.56	45159642.70	0.0280	0.0059
Mercury	118931-01-16 14:22 G	45159731.01	45159731.10	45159731.19	0.0280	0.0212
Moon	118935-11-22 07:10 G	45161501.56	45161501.80	45161502.03	0.0285	0.0082
Earth	118935-11-22 10:17 G	45161501.69	45161501.93	45161502.18	0.0285	0.0066 *
Earth	118936-12-05 12:12 G	45161880.82	45161881.01	45161881.20	0.0285	0.0186
Moon	118936-12-05 11:58 G	45161880.82	45161881.00	45161881.20	0.0285	0.0173 *
Venus	118943-09-20 07:39 G	45164360.77	45164360.82	45164360.90	0.0281	0.0267
Venus	118944-05-06 23:43 G	45164590.28	45164590.49	45164590.69	0.0280	0.0084
Mercury	118944-11-10 14:36 G	45164777.97	45164778.11	45164778.25	0.0279	0.0145
Mercury	118945-02-07 09:05 G	45164866.72	45164866.88	45164867.05	0.0279	0.0040
Mercury	118945-05-07 04:03 G	45164955.58	45164955.67	45164955.77	0.0279	0.0227
Moon	118950-05-25 00:27 G	45166799.28	45166799.52	45166799.76	0.0274	0.0091
Earth	118950-05-25 00:55 G	45166799.32	45166799.54	45166799.78	0.0274	0.0080 *
Moon	118951-06-06 01:24 G	45167176.35	45167176.56	45167176.78	0.0273	0.0121
Earth	118951-06-06 05:00 G	45167176.50	45167176.71	45167176.92	0.0273	0.0134 *
Venus	118959-05-30 11:00 G	45170091.76	45170091.96	45170092.17	0.0279	0.0046
Mercury	118959-12-10 12:41 G	45170285.92	45170286.03	45170286.15	0.0280	0.0159

Mercury	118960-03-08 01:53 G	45170374.44	45170374.58	45170374.73	0.0280	0.0010
Mercury	118960-06-04 14:51 G	45170463.01	45170463.12	45170463.24	0.0280	0.0154
Moon	118964-11-15 05:00 G	45172087.52	45172087.71	45172087.90	0.0285	0.0186
Earth	118964-11-15 06:55 G	45172087.62	45172087.79	45172087.99	0.0285	0.0185 *
Moon	118965-11-29 04:31 G	45172466.45	45172466.69	45172466.93	0.0285	0.0074
Earth	118965-11-29 08:22 G	45172466.61	45172466.85	45172467.09	0.0285	0.0068 *
Venus	118973-04-01 12:12 G	45175146.89	45175147.01	45175147.15	0.0281	0.0222
Venus	118973-11-17 04:17 G	45175376.49	45175376.68	45175376.87	0.0280	0.0129
Mercury	118974-03-30 14:22 G	45175509.99	45175510.10	45175510.22	0.0279	0.0200
Mercury	118974-06-27 09:05 G	45175598.71	45175598.88	45175599.05	0.0279	0.0015
Mercury	118974-09-24 03:48 G	45175687.53	45175687.66	45175687.80	0.0279	0.0173
Earth	118979-05-20 03:48 G	45177386.48	45177386.66	45177386.85	0.0275	0.0175
Moon	118979-05-20 07:24 G	45177386.63	45177386.81	45177386.99	0.0275	0.0188 *
Moon	118980-05-31 08:51 G	45177763.63	45177763.87	45177764.13	0.0274	0.0043
Earth	118980-05-31 09:34 G	45177763.66	45177763.90	45177764.14	0.0274	0.0040 *
Moon	118981-06-12 09:19 G	45178140.84	45178140.89	45178140.96	0.0274	0.0265
Earth	118981-06-12 12:55 G	45178140.96	45178141.04	45178141.15	0.0274	0.0252 *
Mars	118982-06-16 20:51 G	45178510.13	45178510.37	45178510.64	0.0274	0.0121
Venus	118988-04-24 11:58 G	45180648.90	45180649.00	45180649.13	0.0278	0.0229
Venus	118988-12-09 19:39 G	45180878.13	45180878.32	45180878.52	0.0279	0.0103
Mercury	118989-04-28 15:48 G	45181018.06	45181018.16	45181018.27	0.0279	0.0188
Mercury	118989-07-26 05:15 G	45181106.57	45181106.72	45181106.86	0.0279	0.0032
Mercury	118989-10-22 17:58 G	45181195.13	45181195.25	45181195.38	0.0280	0.0125
Mercury	118990-01-19 06:55 G	45181283.77	45181283.79	45181283.81	0.0280	0.0277
Moon	118993-11-09 19:39 G	45182674.25	45182674.32	45182674.39	0.0284	0.0271
Moon	118994-11-23 15:05 G	45183052.87	45183053.13	45183053.38	0.0285	0.0024
Earth	118994-11-23 15:48 G	45183052.92	45183053.16	45183053.41	0.0285	0.0041 *
Moon	118995-12-07 14:07 G	45183431.94	45183432.09	45183432.25	0.0285	0.0226
Earth	118995-12-07 17:43 G	45183432.08	45183432.24	45183432.41	0.0285	0.0211 *

120TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 120th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	119002-10-13 16:46	G	45185933.03	45185933.20	45185933.37	0.0281	0.0177	
Venus	119003-05-31 08:07	G	45186162.68	45186162.84	45186163.01	0.0280	0.0172	
Mercury	119003-08-18 13:53	G	45186242.02	45186242.08	45186242.15	0.0280	0.0257	
Mercury	119003-11-15 08:22	G	45186330.69	45186330.85	45186331.02	0.0279	0.0074	
Mercury	119004-02-12 03:05	G	45186419.48	45186419.63	45186419.79	0.0279	0.0112	
Moon	119008-05-14 21:05	G	45187973.34	45187973.38	45187973.43	0.0274	0.0268	
Earth	119008-05-14 21:05	G	45187973.35	45187973.38	45187973.42	0.0274	0.0271	*
Earth	119009-05-27 03:48	G	45188350.42	45188350.66	45188350.89	0.0274	0.0057	
Moon	119009-05-27 07:24	G	45188350.57	45188350.81	45188351.05	0.0274	0.0041	*
Earth	119010-06-08 07:39	G	45188727.63	45188727.82	45188728.03	0.0273	0.0157	
Moon	119010-06-08 08:22	G	45188727.66	45188727.85	45188728.05	0.0273	0.0170	*
Venus	119017-11-05 12:12	G	45191434.87	45191435.01	45191435.17	0.0278	0.0197	
Venus	119018-06-22 20:07	G	45191664.16	45191664.34	45191664.52	0.0279	0.0136	
Mercury	119018-09-16 16:17	G	45191750.12	45191750.18	45191750.25	0.0279	0.0248	
Mercury	119018-12-14 05:29	G	45191838.60	45191838.73	45191838.87	0.0280	0.0091	
Mercury	119019-03-12 18:41	G	45191927.14	45191927.28	45191927.42	0.0280	0.0066	
Mercury	119019-06-09 07:24	G	45192015.73	45192015.81	45192015.90	0.0280	0.0220	
Earth	119023-11-18 13:10	G	45193638.85	45193639.05	45193639.26	0.0285	0.0159	
Moon	119023-11-18 16:46	G	45193639.00	45193639.20	45193639.42	0.0285	0.0156	*
Earth	119024-12-01 13:53	G	45194017.85	45194018.08	45194018.32	0.0285	0.0094	

Moon	119024-12-01 15:19 G	45194017.90	45194018.14	45194018.39	0.0285	0.0090	*
Mars	119026-07-14 08:22 G	45194607.71	45194607.85	45194608.04	0.0285	0.0239	
Venus	119032-04-24 20:36 G	45196719.18	45196719.36	45196719.56	0.0280	0.0134	
Venus	119032-12-10 12:27 G	45196948.89	45196949.02	45196949.16	0.0280	0.0216	
Mercury	119033-04-03 08:07 G	45197062.69	45197062.84	45197062.99	0.0279	0.0130	
Mercury	119033-07-01 02:51 G	45197151.45	45197151.62	45197151.79	0.0279	0.0056	
Mercury	119033-09-27 21:48 G	45197240.33	45197240.41	45197240.49	0.0279	0.0244	
Moon	119038-05-22 05:15 G	45198937.53	45198937.72	45198937.93	0.0275	0.0143	
Earth	119038-05-22 05:43 G	45198937.55	45198937.74	45198937.95	0.0275	0.0153	*
Earth	119039-06-03 11:29 G	45199314.75	45199314.98	45199315.22	0.0274	0.0064	
Moon	119039-06-03 15:05 G	45199314.90	45199315.13	45199315.37	0.0274	0.0063	*
Earth	119040-06-14 15:34 G	45199692.15	45199692.15	45199692.17	0.0274	0.0274	
Moon	119040-06-14 17:15 G	45199692.16	45199692.22	45199692.30	0.0274	0.0262	*
Venus	119047-05-18 21:34 G	45202221.23	45202221.40	45202221.59	0.0278	0.0137	
Venus	119048-01-03 05:29 G	45202450.59	45202450.73	45202450.88	0.0279	0.0196	
Mercury	119048-02-03 19:39 G	45202482.30	45202482.32	45202482.34	0.0279	0.0275	
Mercury	119048-05-02 08:51 G	45202570.75	45202570.87	45202571.01	0.0279	0.0118	
Mercury	119048-07-29 22:03 G	45202659.28	45202659.42	45202659.56	0.0280	0.0040	
Mercury	119048-10-26 11:00 G	45202747.86	45202747.96	45202748.06	0.0280	0.0193	
Earth	119052-11-12 01:24 G	45204225.46	45204225.56	45204225.66	0.0284	0.0258	
Moon	119052-11-12 01:39 G	45204225.52	45204225.57	45204225.64	0.0284	0.0274	*
Earth	119053-11-26 00:12 G	45204604.26	45204604.51	45204604.76	0.0285	0.0012	
Moon	119053-11-26 03:34 G	45204604.41	45204604.65	45204604.90	0.0285	0.0029	*
Earth	119054-12-10 01:39 G	45204983.45	45204983.57	45204983.72	0.0285	0.0239	
Moon	119054-12-10 04:31 G	45204983.55	45204983.69	45204983.86	0.0285	0.0224	*
Venus	119061-11-05 02:36 G	45207505.41	45207505.61	45207505.82	0.0280	0.0084	
Venus	119062-06-22 17:43 G	45207735.18	45207735.24	45207735.32	0.0280	0.0264	
Mercury	119062-08-21 08:07 G	45207794.72	45207794.84	45207794.98	0.0279	0.0182	
Mercury	119062-11-18 02:51 G	45207883.45	45207883.62	45207883.79	0.0279	0.0003	
Mercury	119063-02-14 21:34 G	45207972.28	45207972.40	45207972.53	0.0279	0.0190	

Moon	119067-05-16 21:34 G	45209524.31	45209524.40	45209524.50	0.0275	0.0254
Earth	119067-05-17 00:55 G	45209524.45	45209524.54	45209524.65	0.0275	0.0247 *
Moon	119068-05-28 05:43 G	45209901.51	45209901.74	45209901.97	0.0274	0.0047
Earth	119068-05-28 07:39 G	45209901.59	45209901.82	45209902.07	0.0274	0.0033 *
Earth	119069-06-09 11:58 G	45210278.83	45210279.00	45210279.19	0.0274	0.0181
Moon	119069-06-09 14:36 G	45210278.93	45210279.11	45210279.31	0.0274	0.0168 *
Mars	119070-11-11 05:00 G	45210798.44	45210798.71	45210798.99	0.0274	0.0053
Venus	119076-11-27 22:17 G	45213007.24	45213007.43	45213007.63	0.0278	0.0103
Venus	119077-07-15 06:12 G	45213236.65	45213236.76	45213236.88	0.0279	0.0231
Mercury	119077-09-19 09:34 G	45213302.79	45213302.90	45213303.01	0.0279	0.0176
Mercury	119077-12-16 22:46 G	45213391.30	45213391.45	45213391.59	0.0280	0.0019
Mercury	119078-03-15 11:43 G	45213479.87	45213479.99	45213480.11	0.0280	0.0136
Moon	119082-11-19 19:39 G	45215190.12	45215190.32	45215190.54	0.0285	0.0138
Earth	119082-11-19 21:19 G	45215190.18	45215190.39	45215190.62	0.0285	0.0131 *
Earth	119083-12-03 22:03 G	45215569.20	45215569.42	45215569.65	0.0285	0.0121
Moon	119083-12-04 00:27 G	45215569.31	45215569.52	45215569.74	0.0285	0.0124 *
Venus	119091-05-18 06:41 G	45218291.57	45218291.78	45218291.99	0.0280	0.0041
Mercury	119092-01-08 08:07 G	45218526.75	45218526.84	45218526.92	0.0279	0.0237
Mercury	119092-04-06 02:22 G	45218615.44	45218615.60	45218615.77	0.0279	0.0054
Mercury	119092-07-03 21:05 G	45218704.24	45218704.38	45218704.53	0.0279	0.0133
Moon	119097-05-23 07:10 G	45220488.59	45220488.80	45220489.02	0.0275	0.0141
Earth	119097-05-23 09:34 G	45220488.69	45220488.90	45220489.12	0.0275	0.0128 *
Moon	119098-06-04 12:41 G	45220865.81	45220866.03	45220866.26	0.0274	0.0085
Earth	119098-06-04 15:34 G	45220865.93	45220866.15	45220866.39	0.0274	0.0088 *
Venus	119106-06-11 08:07 G	45223793.63	45223793.84	45223794.04	0.0279	0.0043
Mercury	119107-02-07 12:55 G	45224034.94	45224035.04	45224035.14	0.0279	0.0202
Mercury	119107-05-07 02:07 G	45224123.45	45224123.59	45224123.74	0.0280	0.0045
Mercury	119107-08-03 15:19 G	45224212.01	45224212.14	45224212.27	0.0280	0.0112
Mercury	119107-10-31 04:03 G	45224300.63	45224300.67	45224300.72	0.0280	0.0265
Moon	119111-11-15 08:36 G	45225776.71	45225776.86	45225777.03	0.0284	0.0218

Earth	119111-11-15 11:58 G	45225776.85	45225777.00	45225777.14	0.0284	0.0229	*
Moon	119112-11-28 07:39 G	45226155.58	45226155.82	45226156.07	0.0284	0.0034	
Earth	119112-11-28 10:46 G	45226155.70	45226155.95	45226156.20	0.0284	0.0018	*
Earth	119113-12-12 12:12 G	45226534.94	45226535.01	45226535.10	0.0285	0.0268	
Moon	119113-12-12 12:27 G	45226535.02	45226535.02	45226535.06	0.0285	0.0284	*
Mars	119114-12-09 19:39 G	45226897.03	45226897.32	45226897.61	0.0285	0.0090	
Venus	119120-11-28 14:07 G	45229077.88	45229078.09	45229078.31	0.0280	0.0015	
Mercury	119121-08-25 03:05 G	45229347.48	45229347.63	45229347.79	0.0279	0.0099	
Mercury	119121-11-21 21:48 G	45229436.25	45229436.41	45229436.57	0.0279	0.0086	
Mercury	119122-02-18 16:46 G	45229525.17	45229525.20	45229525.23	0.0279	0.0274	
Earth	119126-05-19 06:27 G	45231075.64	45231075.77	45231075.93	0.0275	0.0223	
Moon	119126-05-19 10:17 G	45231075.79	45231075.93	45231076.07	0.0275	0.0222	*
Moon	119127-05-31 12:12 G	45231452.76	45231453.01	45231453.26	0.0274	0.0005	
Earth	119127-05-31 13:24 G	45231452.82	45231453.06	45231453.30	0.0274	0.0008	*
Moon	119128-06-11 14:22 G	45231829.97	45231830.10	45231830.25	0.0274	0.0220	
Earth	119128-06-11 17:43 G	45231830.09	45231830.24	45231830.41	0.0274	0.0205	*
Venus	119135-12-22 09:19 G	45234579.68	45234579.89	45234580.10	0.0279	0.0008	
Mercury	119136-06-26 13:39 G	45234767.02	45234767.07	45234767.13	0.0279	0.0258	
Mercury	119136-09-23 03:05 G	45234855.50	45234855.63	45234855.76	0.0280	0.0099	
Mercury	119136-12-20 16:03 G	45234944.04	45234944.17	45234944.31	0.0280	0.0058	
Mercury	119137-03-19 05:00 G	45235032.62	45235032.71	45235032.80	0.0280	0.0211	
Moon	119141-11-22 06:41 G	45236741.54	45236741.78	45236742.03	0.0285	0.0094	
Earth	119141-11-22 08:36 G	45236741.63	45236741.86	45236742.10	0.0285	0.0101	*
Moon	119142-12-06 05:29 G	45237120.52	45237120.73	45237120.95	0.0285	0.0149	
Earth	119142-12-06 09:19 G	45237120.68	45237120.89	45237121.11	0.0285	0.0151	*
Venus	119150-06-10 17:58 G	45239864.04	45239864.25	45239864.46	0.0280	0.0056	
Mercury	119151-01-12 02:51 G	45240079.48	45240079.62	45240079.76	0.0279	0.0156	
Mercury	119151-04-10 21:19 G	45240168.22	45240168.39	45240168.56	0.0279	0.0028	
Mercury	119151-07-08 16:03 G	45240257.07	45240257.17	45240257.28	0.0279	0.0215	
Earth	119156-05-25 14:36 G	45242039.89	45242040.11	45242040.34	0.0275	0.0102	

Moon	119156-05-25 18:12 G	45242040.03	45242040.26	45242040.49	0.0275	0.0087	*
Moon	119157-06-06 20:22 G	45242417.13	45242417.35	45242417.59	0.0275	0.0115	
Earth	119157-06-06 20:51 G	45242417.15	45242417.37	45242417.59	0.0275	0.0113	*
Mars	119159-04-08 10:31 G	45243087.67	45243087.94	45243088.22	0.0275	0.0066	
Venus	119164-11-16 11:29 G	45245136.97	45245136.98	45245137.01	0.0278	0.0277	
Venus	119165-07-03 19:10 G	45245366.09	45245366.30	45245366.50	0.0279	0.0055	
Mercury	119166-02-10 06:27 G	45245587.65	45245587.77	45245587.90	0.0280	0.0125	
Mercury	119166-05-09 19:39 G	45245676.18	45245676.32	45245676.46	0.0280	0.0032	
Mercury	119166-08-06 08:36 G	45245764.76	45245764.86	45245764.97	0.0280	0.0187	
Earth	119170-11-16 23:58 G	45247328.32	45247328.50	45247328.68	0.0284	0.0198	
Moon	119170-11-17 03:05 G	45247328.47	45247328.63	45247328.82	0.0284	0.0207	*
Earth	119171-11-30 23:00 G	45247707.22	45247707.46	45247707.71	0.0284	0.0051	
Moon	119171-11-30 23:29 G	45247707.22	45247707.48	45247707.73	0.0284	0.0035	*
Moon	119172-12-13 21:19 G	45248086.37	45248086.39	45248086.45	0.0285	0.0281	
Venus	119179-05-06 11:00 G	45250420.85	45250420.96	45250421.08	0.0281	0.0235	
Venus	119179-12-22 03:05 G	45250650.43	45250650.63	45250650.83	0.0280	0.0115	
Mercury	119180-05-31 04:17 G	45250811.56	45250811.68	45250811.80	0.0279	0.0194	
Mercury	119180-08-27 22:46 G	45250900.28	45250900.45	45250900.62	0.0279	0.0011	
Mercury	119180-11-24 17:29 G	45250989.10	45250989.23	45250989.36	0.0279	0.0176	
Moon	119185-05-20 13:53 G	45252626.91	45252627.08	45252627.24	0.0275	0.0194	
Earth	119185-05-20 14:22 G	45252626.94	45252627.10	45252627.28	0.0275	0.0196	*
Earth	119186-06-01 20:51 G	45253004.13	45253004.37	45253004.61	0.0274	0.0020	
Moon	119186-06-02 00:27 G	45253004.28	45253004.52	45253004.76	0.0274	0.0007	*
Earth	119187-06-14 01:10 G	45253381.43	45253381.55	45253381.68	0.0274	0.0232	
Moon	119187-06-14 02:36 G	45253381.46	45253381.61	45253381.77	0.0274	0.0215	*
Venus	119194-05-29 13:39 G	45255922.97	45255923.07	45255923.18	0.0278	0.0238	
Venus	119195-01-13 21:05 G	45256152.19	45256152.38	45256152.58	0.0279	0.0093	
Mercury	119195-06-30 07:24 G	45256319.70	45256319.81	45256319.92	0.0279	0.0179	
Mercury	119195-09-26 20:36 G	45256408.22	45256408.36	45256408.51	0.0280	0.0022	
Mercury	119195-12-24 09:34 G	45256496.78	45256496.90	45256497.03	0.0280	0.0134	

Earth	119200-11-23 21:19 G	45258293.15	45258293.39	45258293.64	0.0285	0.0069
Moon	119200-11-24 01:10 G	45258293.32	45258293.55	45258293.79	0.0285	0.0080 *
Earth	119201-12-07 22:03 G	45258672.23	45258672.42	45258672.61	0.0285	0.0182
Moon	119201-12-08 00:41 G	45258672.34	45258672.53	45258672.74	0.0285	0.0175 *
Mars	119203-05-05 13:10 G	45259185.74	45259186.05	45259186.35	0.0285	0.0008
Venus	119208-11-15 14:36 G	45261206.96	45261207.11	45261207.27	0.0280	0.0193
Venus	119209-07-03 06:27 G	45261436.60	45261436.77	45261436.95	0.0280	0.0156
Mercury	119209-10-18 03:48 G	45261543.60	45261543.66	45261543.74	0.0279	0.0252
Mercury	119210-01-14 22:17 G	45261632.27	45261632.43	45261632.59	0.0279	0.0070
Mercury	119210-04-13 16:46 G	45261721.05	45261721.20	45261721.36	0.0279	0.0116
Moon	119215-05-27 19:39 G	45263591.11	45263591.32	45263591.55	0.0275	0.0090
Earth	119215-05-27 21:19 G	45263591.16	45263591.39	45263591.62	0.0275	0.0075 *
Earth	119216-06-08 03:05 G	45263968.43	45263968.63	45263968.85	0.0275	0.0140
Moon	119216-06-08 06:12 G	45263968.56	45263968.76	45263968.97	0.0275	0.0133 *
Venus	119223-12-09 22:31 G	45266709.29	45266709.44	45266709.61	0.0279	0.0180
Venus	119224-07-26 06:27 G	45266938.61	45266938.77	45266938.95	0.0279	0.0155
Mercury	119224-11-16 10:46 G	45267051.86	45267051.95	45267052.05	0.0280	0.0205
Mercury	119225-02-13 00:12 G	45267140.37	45267140.51	45267140.65	0.0280	0.0047
Mercury	119225-05-12 13:10 G	45267228.92	45267229.05	45267229.18	0.0280	0.0109
Mercury	119225-08-09 02:07 G	45267317.55	45267317.59	45267317.64	0.0280	0.0263
Moon	119229-11-18 12:27 G	45268879.82	45268880.02	45268880.22	0.0284	0.0160
Earth	119229-11-18 13:24 G	45268879.87	45268880.06	45268880.27	0.0284	0.0166 *
Earth	119230-12-02 13:10 G	45269258.81	45269259.05	45269259.28	0.0284	0.0083
Moon	119230-12-02 15:05 G	45269258.91	45269259.13	45269259.37	0.0284	0.0096 *
Venus	119238-05-29 01:10 G	45271993.36	45271993.55	45271993.74	0.0280	0.0129
Venus	119239-01-13 16:46 G	45272223.07	45272223.20	45272223.33	0.0280	0.0219
Mercury	119239-06-04 00:12 G	45272364.36	45272364.51	45272364.67	0.0279	0.0102
Mercury	119239-08-31 18:41 G	45272453.12	45272453.28	45272453.45	0.0279	0.0083
Mercury	119239-11-28 13:24 G	45272542.03	45272542.06	45272542.11	0.0279	0.0270
Moon	119244-05-21 20:22 G	45274178.16	45274178.35	45274178.55	0.0275	0.0170

Earth	119244-05-21 23:00 G	45274178.28	45274178.46	45274178.66	0.0275	0.0169	*
Moon	119245-06-03 02:22 G	45274555.37	45274555.60	45274555.84	0.0274	0.0057	
Earth	119245-06-03 05:29 G	45274555.49	45274555.73	45274555.97	0.0274	0.0047	*
Earth	119246-06-15 09:34 G	45274932.83	45274932.90	45274932.99	0.0274	0.0258	
Mars	119247-09-02 10:31 G	45275376.74	45275376.94	45275377.17	0.0274	0.0178	
Venus	119253-06-21 01:39 G	45277495.39	45277495.57	45277495.76	0.0278	0.0138	
Venus	119254-02-05 09:19 G	45277724.75	45277724.89	45277725.04	0.0279	0.0195	
Mercury	119254-04-05 11:58 G	45277783.95	45277784.00	45277784.05	0.0279	0.0257	
Mercury	119254-07-03 01:24 G	45277872.42	45277872.56	45277872.69	0.0280	0.0099	
Mercury	119254-09-29 14:22 G	45277960.97	45277961.10	45277961.24	0.0280	0.0058	
Mercury	119254-12-27 03:19 G	45278049.55	45278049.64	45278049.74	0.0280	0.0212	
Moon	119258-11-12 09:34 G	45279465.82	45279465.90	45279466.00	0.0284	0.0264	
Earth	119258-11-12 13:10 G	45279466.03	45279466.05	45279466.09	0.0284	0.0281	
Moon	119259-11-26 08:07 G	45279844.60	45279844.84	45279845.08	0.0285	0.0021	
Earth	119259-11-26 11:15 G	45279844.72	45279844.97	45279845.22	0.0285	0.0036	*
Earth	119260-12-09 11:43 G	45280223.84	45280223.99	45280224.16	0.0285	0.0214	
Moon	119260-12-09 12:27 G	45280223.87	45280224.02	45280224.17	0.0285	0.0222	*
Venus	119267-12-09 04:17 G	45282779.48	45282779.68	45282779.89	0.0280	0.0089	
Venus	119268-07-25 19:53 G	45283009.26	45283009.33	45283009.41	0.0279	0.0259	
Mercury	119268-10-20 23:29 G	45283096.35	45283096.48	45283096.62	0.0279	0.0162	
Mercury	119269-01-17 17:58 G	45283185.08	45283185.25	45283185.42	0.0279	0.0022	
Mercury	119269-04-16 12:41 G	45283273.92	45283274.03	45283274.15	0.0279	0.0208	
Earth	119273-05-16 21:19 G	45284765.32	45284765.39	45284765.46	0.0275	0.0263	
Moon	119273-05-17 00:12 G	45284765.42	45284765.51	45284765.61	0.0275	0.0250	*
Moon	119274-05-29 03:48 G	45285142.42	45285142.66	45285142.91	0.0275	0.0032	
Earth	119274-05-29 05:15 G	45285142.49	45285142.72	45285142.96	0.0275	0.0048	*
Moon	119275-06-10 07:24 G	45285519.64	45285519.81	45285520.01	0.0275	0.0177	
Earth	119275-06-10 11:00 G	45285519.78	45285519.96	45285520.16	0.0275	0.0167	*
Venus	119283-01-01 10:17 G	45288281.73	45288281.93	45288282.13	0.0279	0.0081	
Venus	119283-08-18 18:12 G	45288511.18	45288511.26	45288511.35	0.0280	0.0254	

Mercury	119283-11-20 04:31 G	45288604.56	45288604.69	45288604.82	0.0280	0.0127
Mercury	119284-02-16 17:43 G	45288693.10	45288693.24	45288693.38	0.0280	0.0031
Mercury	119284-05-15 06:41 G	45288781.68	45288781.78	45288781.89	0.0280	0.0186
Moon	119288-11-20 01:10 G	45290431.33	45290431.55	45290431.79	0.0284	0.0135
Earth	119288-11-20 02:51 G	45290431.41	45290431.62	45290431.85	0.0284	0.0134 *
Moon	119289-12-03 23:00 G	45290810.24	45290810.46	45290810.70	0.0284	0.0107
Earth	119289-12-04 02:51 G	45290810.40	45290810.62	45290810.85	0.0284	0.0115 *
Mars	119291-09-30 19:24 G	45291476.12	45291476.31	45291476.53	0.0285	0.0210
Venus	119297-06-20 15:48 G	45293565.95	45293566.16	45293566.38	0.0280	0.0022
Mercury	119298-03-10 02:07 G	45293828.47	45293828.59	45293828.71	0.0279	0.0190
Mercury	119298-06-06 20:22 G	45293917.19	45293917.35	45293917.52	0.0279	0.0010
Mercury	119298-09-03 15:05 G	45294006.00	45294006.13	45294006.26	0.0279	0.0179
Earth	119303-05-25 08:51 G	45295729.66	45295729.87	45295730.08	0.0275	0.0141
Moon	119303-05-25 12:41 G	45295729.82	45295730.03	45295730.25	0.0275	0.0132 *
Earth	119304-06-05 14:51 G	45296106.89	45296107.12	45296107.35	0.0274	0.0075
Moon	119304-06-05 15:05 G	45296106.89	45296107.13	45296107.38	0.0274	0.0070 *
Moon	119305-06-17 15:19 G	45296484.10	45296484.14	45296484.18	0.0274	0.0269
Venus	119312-07-14 13:39 G	45299067.86	45299068.07	45299068.28	0.0279	0.0038
Mercury	119313-04-09 05:43 G	45299336.63	45299336.74	45299336.86	0.0279	0.0177
Mercury	119313-07-06 19:10 G	45299425.15	45299425.30	45299425.44	0.0280	0.0020
Mercury	119313-10-03 08:07 G	45299513.72	45299513.84	45299513.97	0.0280	0.0136
Earth	119317-11-15 02:51 G	45301017.51	45301017.62	45301017.74	0.0284	0.0249
Moon	119317-11-15 06:12 G	45301017.69	45301017.76	45301017.87	0.0284	0.0266 *
Earth	119318-11-29 01:24 G	45301396.31	45301396.56	45301396.81	0.0285	0.0003
Moon	119318-11-29 01:39 G	45301396.31	45301396.57	45301396.82	0.0285	0.0018 *
Moon	119319-12-12 22:46 G	45301775.32	45301775.45	45301775.60	0.0285	0.0237
Earth	119319-12-13 02:22 G	45301775.48	45301775.60	45301775.73	0.0285	0.0246 *
Venus	119327-01-01 18:41 G	45304352.06	45304352.28	45304352.49	0.0280	0.0017
Mercury	119327-07-29 01:10 G	45304560.49	45304560.55	45304560.63	0.0279	0.0251
Mercury	119327-10-25 19:24 G	45304649.15	45304649.31	45304649.48	0.0279	0.0070

Mercury 119328-01-22 14:07 G 45304737.94 45304738.09 45304738.25 0.0279 0.0115
 Moon 119332-05-19 05:15 G 45306316.62 45306316.72 45306316.83 0.0275 0.0245
 Earth 119332-05-19 05:43 G 45306316.63 45306316.74 45306316.87 0.0275 0.0235 *
 Earth 119333-05-31 13:24 G 45306693.82 45306694.06 45306694.31 0.0275 0.0021
 Moon 119333-05-31 16:46 G 45306693.97 45306694.20 45306694.44 0.0275 0.0036 *
 Earth 119334-06-12 18:55 G 45307071.12 45307071.29 45307071.46 0.0274 0.0193
 Moon 119334-06-12 19:53 G 45307071.15 45307071.33 45307071.52 0.0274 0.0183 *
 Venus 119342-01-24 21:19 G 45309854.19 45309854.39 45309854.60 0.0279 0.0018
 Mercury 119342-08-27 08:36 G 45310068.77 45310068.86 45310068.96 0.0280 0.0209
 Mercury 119342-11-23 22:03 G 45310157.28 45310157.42 45310157.56 0.0280 0.0050
 Mercury 119343-02-20 11:15 G 45310245.84 45310245.97 45310246.10 0.0280 0.0106
 Mercury 119343-05-20 00:12 G 45310334.46 45310334.51 45310334.56 0.0281 0.0260
 Earth 119347-11-23 15:48 G 45311982.93 45311983.16 45311983.39 0.0284 0.0103
 Moon 119347-11-23 19:24 G 45311983.08 45311983.31 45311983.54 0.0284 0.0106 *
 Earth 119348-12-06 16:03 G 45312361.96 45312362.17 45312362.38 0.0285 0.0147
 Moon 119348-12-06 18:12 G 45312362.05 45312362.26 45312362.48 0.0285 0.0153 *
 Venus 119355-11-27 13:53 G 45314909.02 45314909.08 45314909.15 0.0281 0.0266
 Venus 119356-07-14 06:12 G 45315138.56 45315138.76 45315138.97 0.0280 0.0085
 Mercury 119356-12-15 04:03 G 45315292.65 45315292.67 45315292.69 0.0280 0.0277
 Mercury 119357-03-13 22:17 G 45315381.27 45315381.43 45315381.59 0.0279 0.0096
 Mercury 119357-06-10 16:46 G 45315470.04 45315470.20 45315470.36 0.0279 0.0088
 Mercury 119357-09-07 11:29 G 45315558.96 45315558.98 45315559.01 0.0279 0.0275
 Moon 119362-05-26 16:46 G 45317280.99 45317281.20 45317281.41 0.0274 0.0124
 Earth 119362-05-26 18:55 G 45317281.07 45317281.29 45317281.51 0.0274 0.0112 *
 Earth 119363-06-08 00:27 G 45317658.30 45317658.52 45317658.74 0.0274 0.0103
 Moon 119363-06-08 03:19 G 45317658.42 45317658.64 45317658.86 0.0274 0.0108 *
 Venus 119370-12-20 18:12 G 45320411.21 45320411.26 45320411.31 0.0278 0.0268
 Venus 119371-08-07 01:10 G 45320640.35 45320640.55 45320640.76 0.0279 0.0062
 Mercury 119372-01-14 10:03 G 45320800.87 45320800.92 45320800.98 0.0279 0.0256
 Mercury 119372-04-11 23:29 G 45320889.35 45320889.48 45320889.62 0.0279 0.0098

Mercury	119372-07-09 12:41 G	45320977.89	45320978.03	45320978.17	0.0280	0.0058
Mercury	119372-10-06 01:39 G	45321066.48	45321066.57	45321066.66	0.0280	0.0213
Moon	119376-11-16 14:36 G	45322568.95	45322569.11	45322569.28	0.0284	0.0206
Earth	119376-11-16 15:19 G	45322568.99	45322569.14	45322569.30	0.0284	0.0219 *
Earth	119377-11-30 14:07 G	45322947.85	45322948.09	45322948.34	0.0285	0.0028
Moon	119377-11-30 17:15 G	45322947.98	45322948.22	45322948.46	0.0285	0.0045 *
Earth	119378-12-14 15:05 G	45323327.09	45323327.13	45323327.20	0.0285	0.0277
Venus	119385-06-08 15:48 G	45325695.05	45325695.16	45325695.29	0.0281	0.0229
Venus	119386-01-24 08:07 G	45325924.66	45325924.84	45325925.04	0.0280	0.0122
Mercury	119386-07-31 21:05 G	45326113.24	45326113.38	45326113.52	0.0279	0.0160
Mercury	119386-10-28 15:34 G	45326201.98	45326202.15	45326202.32	0.0279	0.0023
Mercury	119387-01-25 10:03 G	45326290.82	45326290.92	45326291.04	0.0279	0.0209
Moon	119391-05-21 12:12 G	45327867.85	45327868.01	45327868.19	0.0275	0.0203
Earth	119391-05-21 14:22 G	45327867.96	45327868.10	45327868.27	0.0275	0.0209 *
Moon	119392-06-01 19:24 G	45328245.07	45328245.31	45328245.54	0.0274	0.0022
Earth	119392-06-01 22:03 G	45328245.17	45328245.42	45328245.66	0.0274	0.0007 *
Earth	119393-06-14 02:51 G	45328622.48	45328622.62	45328622.77	0.0274	0.0219
Moon	119393-06-14 04:46 G	45328622.59	45328622.70	45328622.83	0.0274	0.0233 *
Venus	119400-07-03 00:12 G	45331197.39	45331197.51	45331197.64	0.0279	0.0218
Venus	119401-02-17 07:39 G	45331426.64	45331426.82	45331427.02	0.0279	0.0115
Mercury	119401-08-31 02:07 G	45331621.46	45331621.59	45331621.71	0.0280	0.0134
Mercury	119401-11-27 15:19 G	45331710.00	45331710.14	45331710.28	0.0280	0.0023
Mercury	119402-02-24 04:17 G	45331798.58	45331798.68	45331798.79	0.0281	0.0179
Moon	119406-11-26 00:12 G	45333534.28	45333534.51	45333534.75	0.0284	0.0070
Earth	119406-11-26 02:51 G	45333534.39	45333534.62	45333534.87	0.0284	0.0074 *
Earth	119407-12-10 03:48 G	45333913.47	45333913.66	45333913.85	0.0285	0.0177
Moon	119407-12-10 04:17 G	45333913.50	45333913.68	45333913.88	0.0285	0.0176 *
Venus	119414-12-21 03:48 G	45336481.50	45336481.66	45336481.85	0.0281	0.0161
Venus	119415-08-07 19:53 G	45336711.18	45336711.33	45336711.49	0.0280	0.0190
Mercury	119415-12-19 23:43 G	45336845.37	45336845.49	45336845.62	0.0280	0.0186

Mercury	119416-03-17 18:12 G	45336934.09	45336934.26	45336934.43	0.0279	0.0004
Mercury	119416-06-14 12:41 G	45337022.91	45337023.03	45337023.16	0.0279	0.0182
Moon	119421-05-29 02:36 G	45338832.38	45338832.61	45338832.86	0.0274	0.0076
Earth	119421-05-29 04:17 G	45338832.45	45338832.68	45338832.91	0.0274	0.0086 *
Moon	119422-06-10 05:43 G	45339209.53	45339209.74	45339209.95	0.0274	0.0128
Earth	119422-06-10 09:19 G	45339209.68	45339209.89	45339210.11	0.0274	0.0129 *
Venus	119430-01-13 04:46 G	45341983.54	45341983.70	45341983.87	0.0278	0.0172
Venus	119430-08-30 11:58 G	45342212.84	45342213.00	45342213.18	0.0279	0.0160
Mercury	119431-01-18 03:34 G	45342353.54	45342353.65	45342353.76	0.0279	0.0180
Mercury	119431-04-16 17:00 G	45342442.06	45342442.21	45342442.35	0.0279	0.0023
Mercury	119431-07-14 05:58 G	45342530.63	45342530.75	45342530.88	0.0280	0.0133
Moon	119435-11-19 23:29 G	45344120.31	45344120.48	45344120.67	0.0284	0.0204
Earth	119435-11-20 02:07 G	45344120.42	45344120.59	45344120.78	0.0284	0.0190 *
Moon	119436-12-02 21:34 G	45344499.16	45344499.40	45344499.65	0.0285	0.0041
Earth	119436-12-03 01:24 G	45344499.32	45344499.56	45344499.81	0.0285	0.0058 *
Venus	119444-07-02 05:00 G	45347267.53	45347267.71	45347267.91	0.0281	0.0126
Venus	119445-02-16 20:51 G	45347497.26	45347497.37	45347497.51	0.0280	0.0224
Mercury	119445-05-07 22:17 G	45347577.37	45347577.43	45347577.50	0.0280	0.0254
Mercury	119445-08-04 16:31 G	45347666.03	45347666.19	45347666.35	0.0279	0.0072
Mercury	119445-11-01 11:00 G	45347754.81	45347754.96	45347755.12	0.0279	0.0112
Earth	119450-05-23 22:46 G	45349419.27	45349419.45	45349419.63	0.0275	0.0182
Moon	119450-05-24 02:07 G	45349419.42	45349419.59	45349419.77	0.0275	0.0186 *
Moon	119451-06-05 05:29 G	45349796.48	45349796.73	45349796.98	0.0274	0.0019
Earth	119451-06-05 05:29 G	45349796.49	45349796.73	45349796.98	0.0274	0.0034 *
Moon	119452-06-16 06:41 G	45350173.66	45350173.78	45350173.92	0.0274	0.0229
Earth	119452-06-16 10:03 G	45350173.83	45350173.92	45350174.04	0.0274	0.0246 *
Venus	119459-07-26 09:48 G	45352769.73	45352769.91	45352770.10	0.0279	0.0125
Venus	119460-03-11 17:29 G	45352999.10	45352999.23	45352999.37	0.0279	0.0209
Mercury	119460-06-06 05:43 G	45353085.65	45353085.74	45353085.82	0.0280	0.0221
Mercury	119460-09-02 19:10 G	45353174.16	45353174.30	45353174.44	0.0280	0.0063

Mercury	119460-11-30 08:07 G	45353262.71	45353262.84	45353262.98	0.0280	0.0094
Mercury	119461-02-26 21:05 G	45353351.32	45353351.38	45353351.45	0.0281	0.0248
Moon	119465-11-27 11:29 G	45355085.73	45355085.98	45355086.24	0.0285	0.0056
Earth	119465-11-27 11:29 G	45355085.74	45355085.98	45355086.23	0.0285	0.0046 *
Moon	119466-12-11 09:34 G	45355464.73	45355464.90	45355465.08	0.0285	0.0203
Earth	119466-12-11 12:41 G	45355464.87	45355465.03	45355465.21	0.0285	0.0205 *
Venus	119474-01-12 16:31 G	45358053.98	45358054.19	45358054.40	0.0281	0.0059
Mercury	119474-12-22 19:10 G	45358398.14	45358398.30	45358398.46	0.0280	0.0100
Mercury	119475-03-21 13:38 G	45358486.91	45358487.07	45358487.23	0.0279	0.0085
Mercury	119475-06-18 08:22 G	45358575.82	45358575.85	45358575.89	0.0279	0.0272
Earth	119479-05-19 04:46 G	45360006.70	45360006.70	45360006.73	0.0275	0.0274
Earth	119480-05-30 12:12 G	45360383.78	45360384.01	45360384.25	0.0274	0.0060
Moon	119480-05-30 15:48 G	45360383.94	45360384.16	45360384.40	0.0274	0.0074 *
Earth	119481-06-11 17:00 G	45360761.02	45360761.21	45360761.42	0.0274	0.0155
Moon	119481-06-11 18:55 G	45360761.09	45360761.29	45360761.51	0.0274	0.0150 *
Venus	119489-02-04 14:36 G	45363555.92	45363556.11	45363556.32	0.0278	0.0078
Venus	119489-09-21 21:48 G	45363785.34	45363785.41	45363785.51	0.0279	0.0255
Mercury	119489-10-24 07:10 G	45363817.77	45363817.80	45363817.85	0.0279	0.0266
Mercury	119490-01-20 20:36 G	45363906.23	45363906.36	45363906.50	0.0279	0.0108
Mercury	119490-04-19 09:48 G	45363994.78	45363994.91	45363995.06	0.0279	0.0050
Mercury	119490-07-16 22:46 G	45364083.36	45364083.45	45364083.55	0.0280	0.0203
Earth	119494-11-21 10:31 G	45365671.75	45365671.94	45365672.16	0.0284	0.0164
Moon	119494-11-21 14:36 G	45365671.91	45365672.11	45365672.32	0.0284	0.0153 *
Earth	119495-12-05 10:17 G	45366050.69	45366050.93	45366051.17	0.0285	0.0086
Moon	119495-12-05 12:12 G	45366050.77	45366051.01	45366051.25	0.0285	0.0100 *
Venus	119503-07-26 17:14 G	45368840.01	45368840.22	45368840.44	0.0280	0.0026
Mercury	119504-05-11 17:29 G	45369130.10	45369130.23	45369130.36	0.0279	0.0170
Mercury	119504-08-08 11:43 G	45369218.83	45369218.99	45369219.16	0.0279	0.0014
Mercury	119504-11-05 06:26 G	45369307.65	45369307.77	45369307.89	0.0279	0.0199
Moon	119509-05-26 03:34 G	45370970.47	45370970.65	45370970.85	0.0274	0.0158

Earth	119509-05-26 05:29 G	45370970.54	45370970.73	45370970.93	0.0274	0.0157	*
Earth	119510-06-07 11:43 G	45371347.76	45371347.99	45371348.24	0.0274	0.0059	
Moon	119510-06-07 14:36 G	45371347.88	45371348.11	45371348.34	0.0274	0.0070	*
Earth	119511-06-19 16:17 G	45371725.14	45371725.18	45371725.23	0.0274	0.0268	
Venus	119518-08-18 18:26 G	45374342.07	45374342.27	45374342.48	0.0279	0.0034	
Mercury	119519-06-10 22:17 G	45374638.31	45374638.43	45374638.55	0.0280	0.0153	
Mercury	119519-09-07 11:43 G	45374726.85	45374726.99	45374727.13	0.0280	0.0005	
Mercury	119519-12-05 00:41 G	45374815.42	45374815.53	45374815.65	0.0280	0.0160	
Moon	119523-11-16 17:58 G	45376258.15	45376258.25	45376258.37	0.0284	0.0253	
Earth	119523-11-16 18:55 G	45376258.21	45376258.29	45376258.37	0.0284	0.0267	*
Earth	119524-11-29 17:43 G	45376636.99	45376637.24	45376637.49	0.0285	0.0021	
Moon	119524-11-29 20:36 G	45376637.12	45376637.36	45376637.60	0.0285	0.0010	*
Earth	119525-12-13 19:10 G	45377016.17	45377016.30	45377016.46	0.0285	0.0230	
Moon	119525-12-13 22:31 G	45377016.30	45377016.44	45377016.59	0.0285	0.0233	*
Venus	119533-02-05 03:34 G	45379626.43	45379626.65	45379626.86	0.0281	0.0038	
Mercury	119533-09-28 19:38 G	45379862.21	45379862.32	45379862.43	0.0280	0.0201	
Mercury	119533-12-26 13:53 G	45379950.91	45379951.08	45379951.25	0.0280	0.0019	
Mercury	119534-03-25 08:22 G	45380039.72	45380039.85	45380039.99	0.0279	0.0168	
Moon	119538-05-21 08:50 G	45381557.75	45381557.87	45381558.00	0.0275	0.0235	
Earth	119538-05-21 11:29 G	45381557.89	45381557.98	45381558.08	0.0275	0.0250	*
Moon	119539-06-02 15:34 G	45381934.92	45381935.15	45381935.39	0.0274	0.0020	
Earth	119539-06-02 18:55 G	45381935.05	45381935.29	45381935.53	0.0274	0.0035	*
Earth	119540-06-13 23:14 G	45382312.30	45382312.47	45382312.66	0.0274	0.0179	
Moon	119540-06-14 01:10 G	45382312.38	45382312.55	45382312.73	0.0274	0.0183	*
Venus	119548-02-28 23:58 G	45385128.29	45385128.50	45385128.71	0.0278	0.0015	
Mercury	119548-10-28 00:12 G	45385370.41	45385370.51	45385370.62	0.0279	0.0195	
Mercury	119549-01-24 13:38 G	45385458.93	45385459.07	45385459.21	0.0279	0.0039	
Mercury	119549-04-23 02:36 G	45385547.49	45385547.61	45385547.75	0.0279	0.0117	
Mercury	119549-07-20 15:34 G	45385636.12	45385636.15	45385636.19	0.0280	0.0269	
Moon	119553-11-23 14:50 G	45387222.92	45387223.12	45387223.34	0.0284	0.0144	

Earth	119553-11-23 17:14 G	45387223.01	45387223.22	45387223.44	0.0284	0.0137	*
Earth	119554-12-07 16:46 G	45387601.97	45387602.20	45387602.43	0.0285	0.0112	
Moon	119554-12-07 18:41 G	45387602.05	45387602.28	45387602.50	0.0285	0.0098	*
Venus	119562-08-18 03:48 G	45390412.45	45390412.66	45390412.87	0.0280	0.0070	
Mercury	119563-02-15 17:29 G	45390594.21	45390594.23	45390594.27	0.0280	0.0273	
Mercury	119563-05-15 11:58 G	45390682.84	45390683.00	45390683.15	0.0280	0.0092	
Mercury	119563-08-12 06:12 G	45390771.61	45390771.76	45390771.93	0.0279	0.0093	
Moon	119568-05-27 09:48 G	45392521.69	45392521.91	45392522.13	0.0274	0.0129	
Earth	119568-05-27 10:46 G	45392521.75	45392521.95	45392522.17	0.0274	0.0134	*
Moon	119569-06-08 13:38 G	45392898.84	45392899.07	45392899.30	0.0274	0.0071	
Earth	119569-06-08 17:00 G	45392898.98	45392899.21	45392899.44	0.0274	0.0082	*
Mars	119571-02-26 21:48 G	45393527.38	45393527.41	45393527.46	0.0274	0.0271	
Venus	119577-01-23 19:24 G	45395685.29	45395685.31	45395685.35	0.0278	0.0275	
Venus	119577-09-10 02:07 G	45395914.39	45395914.59	45395914.80	0.0279	0.0055	
Mercury	119578-03-17 01:10 G	45396102.49	45396102.55	45396102.62	0.0279	0.0248	
Mercury	119578-06-13 14:50 G	45396190.98	45396191.12	45396191.26	0.0280	0.0089	
Mercury	119578-09-10 04:02 G	45396279.53	45396279.67	45396279.81	0.0280	0.0067	
Mercury	119578-12-07 17:00 G	45396368.13	45396368.21	45396368.30	0.0280	0.0221	
Moon	119582-11-17 19:24 G	45397809.23	45397809.31	45397809.43	0.0284	0.0260	
Earth	119582-11-17 22:02 G	45397809.31	45397809.42	45397809.56	0.0284	0.0246	*
Moon	119583-12-01 17:58 G	45398188.01	45398188.25	45398188.50	0.0285	0.0010	
Earth	119583-12-01 21:19 G	45398188.14	45398188.39	45398188.64	0.0285	0.0004	*
Moon	119584-12-14 22:31 G	45398567.33	45398567.44	45398567.56	0.0285	0.0247	
Earth	119584-12-14 23:00 G	45398567.36	45398567.46	45398567.58	0.0285	0.0253	*
Venus	119591-07-13 20:07 G	45400969.21	45400969.34	45400969.47	0.0281	0.0224	
Venus	119592-02-28 12:55 G	45401198.85	45401199.04	45401199.23	0.0281	0.0130	
Mercury	119592-10-01 13:38 G	45401414.92	45401415.07	45401415.22	0.0280	0.0127	
Mercury	119592-12-29 08:07 G	45401503.68	45401503.84	45401504.01	0.0280	0.0058	
Mercury	119593-03-28 02:50 G	45401592.54	45401592.62	45401592.70	0.0279	0.0245	
Earth	119597-05-22 16:02 G	45403109.05	45403109.17	45403109.32	0.0275	0.0228	

Moon	119597-05-22 19:53 G	45403109.22	45403109.33	45403109.46	0.0275	0.0237	*
Earth	119598-06-03 23:29 G	45403486.24	45403486.48	45403486.73	0.0274	0.0013	
Moon	119598-06-03 23:43 G	45403486.24	45403486.49	45403486.74	0.0274	0.0026	*
Moon	119599-06-16 00:12 G	45403863.36	45403863.51	45403863.69	0.0274	0.0195	
Earth	119599-06-16 04:02 G	45403863.52	45403863.67	45403863.84	0.0274	0.0202	*
Venus	119606-08-06 01:24 G	45406471.45	45406471.56	45406471.69	0.0277	0.0224	
Venus	119607-03-23 07:53 G	45406700.64	45406700.83	45406701.03	0.0278	0.0104	
Mercury	119607-10-31 16:46 G	45406923.08	45406923.20	45406923.33	0.0279	0.0130	
Mercury	119608-01-28 06:12 G	45407011.61	45407011.76	45407011.90	0.0279	0.0027	
Mercury	119608-04-25 19:10 G	45407100.19	45407100.30	45407100.41	0.0279	0.0179	
Moon	119612-11-24 20:07 G	45408774.11	45408774.34	45408774.59	0.0284	0.0106	
Earth	119612-11-24 21:48 G	45408774.18	45408774.41	45408774.64	0.0284	0.0113	*
Moon	119613-12-08 17:14 G	45409153.02	45409153.22	45409153.44	0.0285	0.0150	
Earth	119613-12-08 21:19 G	45409153.17	45409153.39	45409153.61	0.0285	0.0136	*
Venus	119621-01-22 20:07 G	45411755.19	45411755.34	45411755.50	0.0281	0.0192	
Venus	119621-09-09 12:55 G	45411984.86	45411985.04	45411985.21	0.0280	0.0161	
Mercury	119622-02-18 11:29 G	45412146.87	45412146.98	45412147.10	0.0280	0.0201	
Mercury	119622-05-18 05:58 G	45412235.58	45412235.75	45412235.91	0.0280	0.0019	
Mercury	119622-08-15 00:26 G	45412324.39	45412324.52	45412324.66	0.0279	0.0168	
Earth	119627-05-29 14:22 G	45414072.88	45414073.10	45414073.33	0.0274	0.0111	
Moon	119627-05-29 17:43 G	45414073.03	45414073.24	45414073.46	0.0274	0.0116	*
Earth	119628-06-09 20:22 G	45414450.13	45414450.35	45414450.58	0.0274	0.0104	
Moon	119628-06-09 21:19 G	45414450.17	45414450.39	45414450.63	0.0274	0.0113	*
Venus	119636-02-16 02:36 G	45417257.47	45417257.61	45417257.77	0.0278	0.0189	
Venus	119636-10-02 09:34 G	45417486.72	45417486.90	45417487.08	0.0279	0.0141	
Mercury	119637-03-19 17:43 G	45417655.13	45417655.24	45417655.35	0.0279	0.0184	
Mercury	119637-06-16 06:55 G	45417743.65	45417743.79	45417743.94	0.0279	0.0028	
Mercury	119637-09-12 20:07 G	45417832.21	45417832.34	45417832.47	0.0280	0.0128	
Earth	119641-11-19 00:12 G	45419360.37	45419360.51	45419360.67	0.0284	0.0224	
Moon	119641-11-19 04:02 G	45419360.50	45419360.67	45419360.85	0.0284	0.0206	*

Earth	119642-12-02 23:29 G	45419739.23	45419739.48	45419739.72	0.0285	0.0024
Moon	119642-12-03 00:41 G	45419739.27	45419739.53	45419739.78	0.0285	0.0039 *
Moon	119643-12-16 22:31 G	45420118.42	45420118.44	45420118.48	0.0285	0.0283
Earth	119643-12-17 00:55 G	45420118.49	45420118.54	45420118.62	0.0285	0.0274
Venus	119650-08-05 04:02 G	45422541.48	45422541.67	45422541.86	0.0281	0.0136
Venus	119651-03-22 20:50 G	45422771.23	45422771.37	45422771.50	0.0281	0.0217
Mercury	119651-07-08 12:55 G	45422878.96	45422879.04	45422879.12	0.0280	0.0241
Mercury	119651-10-05 07:10 G	45422967.64	45422967.80	45422967.96	0.0280	0.0058
Mercury	119652-01-02 01:38 G	45423056.42	45423056.57	45423056.72	0.0280	0.0127
Moon	119656-05-23 17:14 G	45424660.06	45424660.22	45424660.38	0.0275	0.0198
Earth	119656-05-23 19:10 G	45424660.14	45424660.30	45424660.46	0.0275	0.0206 *
Earth	119657-06-05 02:22 G	45425037.36	45425037.60	45425037.84	0.0275	0.0010
Moon	119657-06-05 05:29 G	45425037.49	45425037.73	45425037.96	0.0275	0.0027 *
Earth	119658-06-17 06:55 G	45425414.66	45425414.79	45425414.94	0.0274	0.0223
Moon	119658-06-17 09:48 G	45425414.80	45425414.91	45425415.05	0.0274	0.0235 *
Mars	119659-07-24 01:53 G	45425816.36	45425816.58	45425816.82	0.0274	0.0158
Venus	119665-08-28 08:50 G	45428043.70	45428043.87	45428044.06	0.0277	0.0138
Venus	119666-04-14 15:34 G	45428273.00	45428273.15	45428273.31	0.0278	0.0191
Mercury	119666-08-06 19:38 G	45428387.24	45428387.32	45428387.41	0.0278	0.0223
Mercury	119666-11-03 09:19 G	45428475.75	45428475.89	45428476.03	0.0278	0.0067
Mercury	119667-01-30 22:17 G	45428564.30	45428564.43	45428564.57	0.0279	0.0088
Mercury	119667-04-29 11:14 G	45428652.90	45428652.97	45428653.04	0.0279	0.0240
Earth	119671-11-27 00:12 G	45430325.28	45430325.51	45430325.75	0.0284	0.0091
Moon	119671-11-27 03:48 G	45430325.43	45430325.66	45430325.90	0.0284	0.0093 *
Earth	119672-12-09 23:43 G	45430704.29	45430704.49	45430704.70	0.0285	0.0159
Moon	119672-12-10 02:50 G	45430704.41	45430704.62	45430704.84	0.0285	0.0151 *
Venus	119680-02-15 04:31 G	45433327.49	45433327.69	45433327.89	0.0281	0.0104
Venus	119680-10-01 20:50 G	45433557.28	45433557.37	45433557.47	0.0280	0.0249
Mercury	119681-02-21 05:00 G	45433699.57	45433699.71	45433699.86	0.0280	0.0132
Mercury	119681-05-20 23:29 G	45433788.31	45433788.48	45433788.65	0.0280	0.0052

Mercury	119681-08-17 18:12 G	45433877.17	45433877.26	45433877.35	0.0279	0.0239
Moon	119686-05-30 14:22 G	45435623.87	45435624.10	45435624.32	0.0274	0.0083
Earth	119686-05-30 17:00 G	45435623.98	45435624.21	45435624.44	0.0274	0.0090 *
Earth	119687-06-11 22:46 G	45436001.24	45436001.45	45436001.67	0.0274	0.0125
Moon	119687-06-12 00:26 G	45436001.32	45436001.52	45436001.74	0.0274	0.0121 *
Venus	119695-03-10 09:19 G	45438829.70	45438829.89	45438830.08	0.0278	0.0105
Venus	119695-10-25 16:02 G	45439059.06	45439059.17	45439059.30	0.0279	0.0226
Mercury	119696-03-22 09:48 G	45439207.78	45439207.91	45439208.04	0.0279	0.0124
Mercury	119696-06-18 23:00 G	45439296.32	45439296.46	45439296.60	0.0279	0.0032
Mercury	119696-09-15 11:58 G	45439384.90	45439385.00	45439385.11	0.0280	0.0186
Moon	119700-11-20 23:29 G	45440911.33	45440911.48	45440911.63	0.0284	0.0220
Earth	119700-11-21 01:10 G	45440911.39	45440911.55	45440911.73	0.0284	0.0203 *
Earth	119701-12-04 23:58 G	45441290.26	45441290.50	45441290.75	0.0285	0.0046
Moon	119701-12-05 02:07 G	45441290.35	45441290.59	45441290.83	0.0285	0.0030 *
Moon	119702-12-19 05:00 G	45441669.70	45441669.71	45441669.74	0.0285	0.0284
Venus	119709-08-28 11:00 G	45444113.75	45444113.96	45444114.17	0.0281	0.0052
Mercury	119710-07-12 05:43 G	45444431.62	45444431.74	45444431.87	0.0280	0.0177
Mercury	119710-10-09 00:12 G	45444520.34	45444520.51	45444520.68	0.0280	0.0007
Mercury	119711-01-05 18:55 G	45444609.17	45444609.29	45444609.41	0.0280	0.0193
Moon	119715-05-26 18:26 G	45446211.10	45446211.27	45446211.45	0.0275	0.0193
Earth	119715-05-26 20:07 G	45446211.17	45446211.34	45446211.53	0.0275	0.0185 *
Moon	119716-06-07 00:12 G	45446588.27	45446588.51	45446588.75	0.0275	0.0016
Earth	119716-06-07 03:48 G	45446588.42	45446588.66	45446588.90	0.0275	0.0032 *
Earth	119717-06-19 08:36 G	45446965.76	45446965.86	45446965.97	0.0274	0.0244
Moon	119717-06-19 09:19 G	45446965.77	45446965.89	45446966.01	0.0274	0.0234 *
Venus	119724-09-20 16:17 G	45449615.98	45449616.18	45449616.39	0.0277	0.0053
Venus	119725-05-07 22:46 G	45449845.45	45449845.45	45449845.48	0.0278	0.0277
Mercury	119725-08-10 12:12 G	45449939.89	45449940.01	45449940.13	0.0278	0.0160
Mercury	119725-11-07 01:38 G	45450028.42	45450028.57	45450028.71	0.0278	0.0009
Mercury	119726-02-03 14:36 G	45450116.99	45450117.11	45450117.23	0.0279	0.0149

Moon	119730-11-28 23:43 G	45451876.25	45451876.49	45451876.73	0.0284	0.0069
Earth	119730-11-29 02:50 G	45451876.38	45451876.62	45451876.86	0.0284	0.0067 *
Earth	119731-12-13 02:07 G	45452255.40	45452255.59	45452255.78	0.0284	0.0181
Moon	119731-12-13 02:22 G	45452255.44	45452255.60	45452255.79	0.0284	0.0191 *
Venus	119739-03-10 11:43 G	45454899.78	45454899.99	45454900.21	0.0281	0.0018
Mercury	119739-11-29 03:48 G	45455163.60	45455163.66	45455163.74	0.0280	0.0249
Mercury	119740-02-25 22:17 G	45455252.26	45455252.43	45455252.59	0.0280	0.0066
Mercury	119740-05-24 16:46 G	45455341.05	45455341.20	45455341.35	0.0280	0.0119
Moon	119745-06-01 17:58 G	45457175.01	45457175.25	45457175.50	0.0275	0.0079
Earth	119745-06-01 17:58 G	45457175.02	45457175.25	45457175.49	0.0275	0.0069 *
Moon	119746-06-13 20:50 G	45457552.17	45457552.37	45457552.57	0.0274	0.0150
Earth	119746-06-14 00:12 G	45457552.31	45457552.51	45457552.72	0.0274	0.0146 *
Mars	119747-12-18 00:12 G	45458104.26	45458104.51	45458104.77	0.0274	0.0116
Venus	119754-04-02 16:02 G	45460401.96	45460402.17	45460402.38	0.0278	0.0021
Mercury	119754-12-28 12:26 G	45460671.94	45460672.02	45460672.11	0.0279	0.0221
Mercury	119755-03-27 01:53 G	45460760.44	45460760.58	45460760.72	0.0279	0.0064
Mercury	119755-06-23 15:05 G	45460848.99	45460849.13	45460849.26	0.0279	0.0091
Mercury	119755-09-20 03:48 G	45460937.60	45460937.66	45460937.74	0.0279	0.0244
Moon	119759-11-22 23:58 G	45462462.30	45462462.50	45462462.71	0.0284	0.0168
Earth	119759-11-23 01:38 G	45462462.39	45462462.57	45462462.77	0.0284	0.0183 *
Moon	119760-12-05 20:50 G	45462841.13	45462841.37	45462841.60	0.0284	0.0081
Earth	119760-12-06 00:26 G	45462841.28	45462841.52	45462841.76	0.0284	0.0065 *
Venus	119768-09-19 17:14 G	45465686.01	45465686.22	45465686.44	0.0281	0.0032
Mercury	119769-07-14 22:31 G	45465984.29	45465984.44	45465984.60	0.0280	0.0116
Mercury	119769-10-11 17:00 G	45466073.05	45466073.21	45466073.38	0.0280	0.0069
Mercury	119770-01-08 11:43 G	45466161.93	45466161.99	45466162.06	0.0280	0.0257
Earth	119774-05-27 20:36 G	45467762.17	45467762.36	45467762.56	0.0276	0.0165
Moon	119774-05-28 00:12 G	45467762.32	45467762.51	45467762.70	0.0276	0.0161 *
Earth	119775-06-09 04:31 G	45468139.46	45468139.69	45468139.93	0.0275	0.0052
Moon	119775-06-09 05:58 G	45468139.50	45468139.75	45468139.99	0.0275	0.0065 *

Earth	119776-06-20 09:34 G	45468516.85	45468516.90	45468516.98	0.0275	0.0264
Venus	119783-10-13 23:29 G	45471188.27	45471188.48	45471188.69	0.0277	0.0033
Mercury	119784-05-16 15:05 G	45471404.08	45471404.13	45471404.19	0.0278	0.0255
Mercury	119784-08-13 04:31 G	45471492.56	45471492.69	45471492.83	0.0278	0.0098
Mercury	119784-11-09 17:43 G	45471581.10	45471581.24	45471581.38	0.0278	0.0056
Mercury	119785-02-06 06:41 G	45471669.69	45471669.78	45471669.87	0.0279	0.0208
Moon	119788-11-16 12:41 G	45473048.98	45473049.03	45473049.10	0.0283	0.0274
Moon	119789-11-30 04:46 G	45473427.45	45473427.70	45473427.96	0.0284	0.0045
Earth	119789-11-30 05:14 G	45473427.47	45473427.72	45473427.97	0.0284	0.0044 *
Moon	119790-12-14 00:26 G	45473806.35	45473806.52	45473806.71	0.0284	0.0195
Earth	119790-12-14 04:02 G	45473806.51	45473806.67	45473806.85	0.0284	0.0203 *
Venus	119798-04-01 18:55 G	45476472.08	45476472.29	45476472.50	0.0281	0.0068
Mercury	119798-12-01 21:05 G	45476716.26	45476716.38	45476716.51	0.0280	0.0184
Mercury	119799-02-28 15:19 G	45476804.97	45476805.14	45476805.31	0.0280	0.0004
Mercury	119799-05-28 09:48 G	45476893.79	45476893.91	45476894.04	0.0280	0.0186
Moon	119803-05-23 08:07 G	45478348.75	45478348.84	45478348.95	0.0276	0.0249
Earth	119803-05-23 09:19 G	45478348.84	45478348.89	45478348.97	0.0276	0.0264 *
Earth	119804-06-03 18:55 G	45478726.05	45478726.29	45478726.53	0.0275	0.0048
Moon	119804-06-03 22:02 G	45478726.19	45478726.42	45478726.66	0.0275	0.0039 *
Earth	119805-06-16 01:10 G	45479103.36	45479103.55	45479103.74	0.0274	0.0167
Moon	119805-06-16 02:36 G	45479103.42	45479103.61	45479103.82	0.0274	0.0162 *
Venus	119812-09-08 16:46 G	45481745.15	45481745.20	45481745.27	0.0277	0.0263
Venus	119813-04-25 23:00 G	45481974.25	45481974.46	45481974.66	0.0278	0.0064
Mercury	119814-01-01 04:46 G	45482224.58	45482224.70	45482224.82	0.0279	0.0159
Mercury	119814-03-30 17:58 G	45482313.11	45482313.25	45482313.40	0.0279	0.0005
Mercury	119814-06-27 07:10 G	45482401.68	45482401.80	45482401.92	0.0279	0.0150
Earth	119818-11-25 03:19 G	45484013.45	45484013.64	45484013.86	0.0284	0.0161
Moon	119818-11-25 07:10 G	45484013.61	45484013.80	45484014.00	0.0284	0.0177 *
Earth	119819-12-09 01:38 G	45484392.34	45484392.57	45484392.81	0.0284	0.0088
Moon	119819-12-09 02:50 G	45484392.37	45484392.62	45484392.87	0.0284	0.0071 *

Venus	119827-02-26 05:58 G	45487028.65	45487028.75	45487028.87	0.0282	0.0243
Venus	119827-10-13 23:43 G	45487258.29	45487258.49	45487258.69	0.0281	0.0114
Mercury	119828-04-20 21:05 G	45487448.30	45487448.38	45487448.47	0.0281	0.0237
Mercury	119828-07-18 15:19 G	45487536.98	45487537.14	45487537.31	0.0280	0.0054
Mercury	119828-10-15 09:48 G	45487625.77	45487625.91	45487626.06	0.0280	0.0132
Moon	119833-05-29 19:24 G	45489313.12	45489313.31	45489313.51	0.0276	0.0154
Earth	119833-05-29 20:22 G	45489313.15	45489313.35	45489313.56	0.0276	0.0144 *
Earth	119834-06-11 04:46 G	45489690.47	45489690.70	45489690.93	0.0275	0.0073
Moon	119834-06-11 08:07 G	45489690.61	45489690.84	45489691.08	0.0275	0.0057 *
Moon	119835-06-23 12:26 G	45490067.99	45490068.02	45490068.06	0.0275	0.0272
Mars	119836-05-13 22:46 G	45490393.17	45490393.45	45490393.74	0.0275	0.0018
Venus	119842-03-22 00:41 G	45492531.40	45492531.53	45492531.68	0.0277	0.0208
Venus	119842-11-06 06:55 G	45492760.60	45492760.79	45492760.98	0.0277	0.0119
Mercury	119843-05-21 07:38 G	45492956.72	45492956.82	45492956.92	0.0278	0.0191
Mercury	119843-08-17 20:50 G	45493045.23	45493045.37	45493045.52	0.0278	0.0036
Mercury	119843-11-14 10:02 G	45493133.79	45493133.92	45493134.05	0.0278	0.0118
Mercury	119844-02-10 22:46 G	45493222.43	45493222.45	45493222.49	0.0279	0.0270
Earth	119847-11-19 12:55 G	45494599.96	45494600.04	45494600.14	0.0283	0.0262
Moon	119847-11-19 14:36 G	45494600.04	45494600.11	45494600.20	0.0283	0.0265 *
Earth	119848-12-02 08:36 G	45494978.61	45494978.86	45494979.11	0.0283	0.0021
Moon	119848-12-02 12:26 G	45494978.77	45494979.02	45494979.27	0.0283	0.0016 *
Earth	119849-12-16 07:24 G	45495357.66	45495357.81	45495357.96	0.0284	0.0226
Moon	119849-12-16 09:05 G	45495357.75	45495357.88	45495358.03	0.0284	0.0236 *
Venus	119856-09-07 09:05 G	45497814.74	45497814.88	45497815.04	0.0282	0.0202
Venus	119857-04-25 02:22 G	45498044.42	45498044.60	45498044.78	0.0281	0.0153
Mercury	119857-12-05 14:07 G	45498268.94	45498269.09	45498269.25	0.0280	0.0119
Mercury	119858-03-04 08:36 G	45498357.70	45498357.86	45498358.02	0.0280	0.0066
Mercury	119858-06-01 03:19 G	45498446.57	45498446.64	45498446.71	0.0280	0.0253
Moon	119862-05-24 06:55 G	45499899.71	45499899.79	45499899.89	0.0276	0.0255
Earth	119862-05-24 10:31 G	45499899.84	45499899.94	45499900.07	0.0276	0.0243 *

Moon	119863-06-05 19:10 G	45500277.07	45500277.30	45500277.54	0.0275	0.0028
Earth	119863-06-05 20:22 G	45500277.11	45500277.35	45500277.59	0.0275	0.0026 *
Earth	119864-06-17 02:36 G	45500654.44	45500654.61	45500654.79	0.0274	0.0188
Moon	119864-06-17 05:43 G	45500654.58	45500654.74	45500654.91	0.0274	0.0198 *
Venus	119871-10-02 00:12 G	45503317.36	45503317.51	45503317.68	0.0277	0.0178
Venus	119872-05-18 06:26 G	45503546.60	45503546.77	45503546.95	0.0278	0.0150
Mercury	119872-10-07 07:38 G	45503688.77	45503688.82	45503688.88	0.0278	0.0253
Mercury	119873-01-03 21:05 G	45503777.25	45503777.38	45503777.52	0.0278	0.0096
Mercury	119873-04-02 10:17 G	45503865.79	45503865.93	45503866.07	0.0279	0.0059
Mercury	119873-06-29 23:29 G	45503954.39	45503954.48	45503954.57	0.0279	0.0211
Earth	119877-11-26 06:26 G	45505564.56	45505564.77	45505564.99	0.0284	0.0138
Moon	119877-11-26 07:10 G	45505564.59	45505564.80	45505565.02	0.0284	0.0123 *
Earth	119878-12-10 04:17 G	45505943.45	45505943.68	45505943.91	0.0284	0.0110
Moon	119878-12-10 07:38 G	45505943.60	45505943.82	45505944.05	0.0284	0.0120 *
Venus	119886-03-20 13:24 G	45508600.88	45508601.06	45508601.24	0.0282	0.0158
Venus	119886-11-05 06:41 G	45508830.63	45508830.78	45508830.93	0.0281	0.0197
Mercury	119887-04-24 14:07 G	45509000.96	45509001.09	45509001.22	0.0281	0.0174
Mercury	119887-07-22 08:22 G	45509089.68	45509089.85	45509090.02	0.0280	0.0010
Mercury	119887-10-19 02:50 G	45509178.51	45509178.62	45509178.75	0.0280	0.0197
Moon	119892-05-30 17:14 G	45510863.99	45510864.22	45510864.44	0.0276	0.0106
Earth	119892-05-30 20:50 G	45510864.16	45510864.37	45510864.59	0.0276	0.0123 *
Moon	119893-06-12 04:02 G	45511241.45	45511241.67	45511241.88	0.0275	0.0107
Earth	119893-06-12 05:14 G	45511241.50	45511241.72	45511241.96	0.0275	0.0094 *
Venus	119901-04-14 08:36 G	45514103.67	45514103.86	45514104.05	0.0277	0.0121
Venus	119901-11-29 14:50 G	45514332.99	45514333.12	45514333.26	0.0278	0.0207
Mercury	119902-05-25 00:12 G	45514509.38	45514509.51	45514509.64	0.0278	0.0126
Mercury	119902-08-21 13:38 G	45514597.92	45514598.07	45514598.21	0.0278	0.0031
Mercury	119902-11-18 02:36 G	45514686.50	45514686.61	45514686.72	0.0279	0.0182
Moon	119906-11-21 14:50 G	45516151.00	45516151.12	45516151.25	0.0282	0.0241
Earth	119906-11-21 18:12 G	45516151.13	45516151.26	45516151.40	0.0282	0.0237 *

Earth	119907-12-05 13:53 G	45516529.83	45516530.08	45516530.32	0.0283	0.0007
Moon	119907-12-05 14:07 G	45516529.85	45516530.09	45516530.33	0.0283	0.0007 *
Earth	119908-12-18 12:12 G	45516908.90	45516909.01	45516909.13	0.0284	0.0251
Moon	119908-12-18 15:48 G	45516909.03	45516909.16	45516909.31	0.0284	0.0234 *
Venus	119915-10-01 17:43 G	45519387.05	45519387.24	45519387.45	0.0282	0.0113
Venus	119916-05-18 10:31 G	45519616.85	45519616.94	45519617.06	0.0281	0.0242
Mercury	119916-09-11 13:38 G	45519732.98	45519733.07	45519733.16	0.0281	0.0231
Mercury	119916-12-09 07:53 G	45519821.66	45519821.83	45519821.99	0.0280	0.0049
Mercury	119917-03-08 02:22 G	45519910.45	45519910.60	45519910.74	0.0280	0.0137
Earth	119921-05-26 12:26 G	45521450.88	45521451.02	45521451.17	0.0276	0.0221
Moon	119921-05-26 12:55 G	45521450.89	45521451.04	45521451.21	0.0276	0.0213 *
Moon	119922-06-07 18:55 G	45521828.04	45521828.29	45521828.53	0.0275	0.0011
Earth	119922-06-07 22:17 G	45521828.19	45521828.43	45521828.67	0.0275	0.0004 *
Moon	119923-06-20 03:48 G	45522205.51	45522205.66	45522205.84	0.0275	0.0196
Earth	119923-06-20 04:46 G	45522205.55	45522205.70	45522205.86	0.0275	0.0210 *
Mars	119924-10-07 23:58 G	45522681.22	45522681.50	45522681.79	0.0274	0.0034
Venus	119930-10-25 08:36 G	45524889.66	45524889.86	45524890.06	0.0277	0.0090
Venus	119931-06-11 15:05 G	45525119.03	45525119.13	45525119.23	0.0278	0.0239
Mercury	119931-10-12 00:26 G	45525241.42	45525241.52	45525241.63	0.0278	0.0186
Mercury	119932-01-08 13:53 G	45525329.94	45525330.08	45525330.22	0.0279	0.0030
Mercury	119932-04-06 03:05 G	45525418.50	45525418.63	45525418.75	0.0279	0.0124
Mercury	119932-07-03 15:48 G	45525507.15	45525507.16	45525507.19	0.0279	0.0275
Moon	119936-11-28 08:36 G	45527115.64	45527115.86	45527116.08	0.0283	0.0121
Earth	119936-11-28 11:43 G	45527115.77	45527115.99	45527116.22	0.0283	0.0112 *
Earth	119937-12-12 09:05 G	45527494.66	45527494.88	45527495.10	0.0284	0.0134
Moon	119937-12-12 08:50 G	45527494.66	45527494.87	45527495.09	0.0284	0.0134 *
Venus	119945-04-12 21:34 G	45530173.19	45530173.40	45530173.61	0.0281	0.0070
Mercury	119946-04-28 07:24 G	45530553.66	45530553.81	45530553.96	0.0280	0.0107
Mercury	119946-07-26 01:53 G	45530642.42	45530642.58	45530642.74	0.0280	0.0078
Mercury	119946-10-22 20:36 G	45530731.31	45530731.36	45530731.41	0.0280	0.0265

Earth	119951-06-02 22:17 G	45532415.21	45532415.43	45532415.66	0.0276	0.0100
Moon	119951-06-02 23:00 G	45532415.23	45532415.46	45532415.69	0.0276	0.0114 *
Moon	119952-06-14 03:19 G	45532792.43	45532792.64	45532792.87	0.0276	0.0113
Earth	119952-06-14 07:10 G	45532792.58	45532792.80	45532793.02	0.0276	0.0117 *
Venus	119960-05-06 17:29 G	45535676.02	45535676.23	45535676.43	0.0277	0.0032
Mercury	119961-02-28 03:48 G	45535973.57	45535973.66	45535973.75	0.0278	0.0213
Mercury	119961-05-27 17:14 G	45536062.08	45536062.22	45536062.36	0.0278	0.0058
Mercury	119961-08-24 06:12 G	45536150.63	45536150.76	45536150.90	0.0278	0.0097
Mercury	119961-11-20 19:10 G	45536239.25	45536239.30	45536239.37	0.0279	0.0249
Moon	119965-11-22 23:00 G	45537702.29	45537702.46	45537702.65	0.0282	0.0197
Earth	119965-11-23 01:10 G	45537702.40	45537702.55	45537702.73	0.0282	0.0211 *
Moon	119966-12-06 16:46 G	45538080.96	45538081.20	45538081.45	0.0283	0.0050
Earth	119966-12-06 20:50 G	45538081.12	45538081.37	45538081.62	0.0283	0.0032 *
Earth	119967-12-20 19:24 G	45538460.26	45538460.31	45538460.37	0.0284	0.0276
Mars	119968-10-31 07:10 G	45538775.57	45538775.80	45538776.05	0.0284	0.0172
Venus	119974-10-24 03:48 G	45540959.44	45540959.66	45540959.87	0.0281	0.0020
Mercury	119975-09-15 07:38 G	45541285.69	45541285.82	45541285.96	0.0281	0.0157
Mercury	119975-12-13 01:53 G	45541374.41	45541374.58	45541374.75	0.0280	0.0026
Mercury	119976-03-10 20:22 G	45541463.25	45541463.35	45541463.46	0.0280	0.0212
Earth	119980-05-27 15:34 G	45543002.00	45543002.15	45543002.33	0.0276	0.0198
Moon	119980-05-27 19:24 G	45543002.14	45543002.31	45543002.48	0.0276	0.0196 *
Earth	119981-06-09 01:38 G	45543379.33	45543379.57	45543379.81	0.0275	0.0020
Moon	119981-06-09 01:53 G	45543379.33	45543379.58	45543379.83	0.0275	0.0033 *
Moon	119982-06-21 04:31 G	45543756.61	45543756.69	45543756.81	0.0275	0.0249
Earth	119982-06-21 08:22 G	45543756.73	45543756.85	45543756.98	0.0275	0.0233 *
Venus	119989-11-16 17:43 G	45546462.03	45546462.24	45546462.45	0.0277	0.0001
Mercury	119990-07-18 03:48 G	45546705.65	45546705.66	45546705.70	0.0278	0.0273
Mercury	119990-10-14 17:29 G	45546794.10	45546794.23	45546794.37	0.0278	0.0116
Mercury	119991-01-11 06:55 G	45546882.65	45546882.79	45546882.93	0.0279	0.0039
Mercury	119991-04-09 19:53 G	45546971.23	45546971.33	45546971.43	0.0279	0.0192

Moon	119995-11-30 17:58 G	45548667.01	45548667.25	45548667.50	0.0283	0.0082
Earth	119995-11-30 19:24 G	45548667.07	45548667.31	45548667.55	0.0283	0.0085 *
Moon	119996-12-13 12:55 G	45549045.83	45549046.04	45549046.25	0.0284	0.0155
Earth	119996-12-13 16:31 G	45549045.99	45549046.19	45549046.40	0.0284	0.0161 *

121ST MILLENNIUM CE

This is a list of transits visible from Saturn in the 121st millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	120004-05-05 07:24 G	45551745.59	45551745.81	45551746.02	0.0281	0.0022		
Mercury	120005-02-01 07:10 G	45552017.70	45552017.80	45552017.91	0.0281	0.0215		
Mercury	120005-05-01 01:24 G	45552106.40	45552106.56	45552106.73	0.0280	0.0033		
Mercury	120005-07-28 19:53 G	45552195.19	45552195.33	45552195.47	0.0280	0.0152		
Earth	120010-06-04 01:10 G	45553966.32	45553966.55	45553966.79	0.0276	0.0076		
Moon	120010-06-04 05:00 G	45553966.48	45553966.71	45553966.95	0.0276	0.0065 *		
Earth	120011-06-16 09:48 G	45554343.71	45554343.91	45554344.13	0.0276	0.0141		
Moon	120011-06-16 11:00 G	45554343.75	45554343.96	45554344.18	0.0276	0.0140 *		
Mars	120013-03-04 01:10 G	45554970.32	45554970.55	45554970.81	0.0275	0.0142		
Venus	120018-10-12 20:50 G	45557019.32	45557019.37	45557019.43	0.0277	0.0266		
Venus	120019-05-30 02:50 G	45557248.42	45557248.62	45557248.83	0.0278	0.0060		
Mercury	120020-03-02 20:50 G	45557526.25	45557526.37	45557526.50	0.0278	0.0142		
Mercury	120020-05-30 10:17 G	45557614.79	45557614.93	45557615.08	0.0278	0.0014		
Mercury	120020-08-26 23:29 G	45557703.36	45557703.48	45557703.59	0.0279	0.0167		
Earth	120024-11-24 10:46 G	45559253.77	45559253.95	45559254.15	0.0282	0.0181		

Moon	120024-11-24 14:22 G	45559253.93	45559254.10	45559254.29	0.0282	0.0197	*
Moon	120025-12-08 05:58 G	45559632.50	45559632.75	45559633.01	0.0283	0.0047	
Earth	120025-12-08 06:12 G	45559632.52	45559632.76	45559633.01	0.0283	0.0062	*
Venus	120033-03-30 21:19 G	45562302.37	45562302.39	45562302.42	0.0282	0.0279	
Venus	120033-11-15 14:50 G	45562531.92	45562532.12	45562532.33	0.0281	0.0078	
Mercury	120034-06-21 08:07 G	45562749.78	45562749.84	45562749.90	0.0281	0.0259	
Mercury	120034-09-18 02:07 G	45562838.44	45562838.59	45562838.75	0.0280	0.0079	
Mercury	120034-12-15 20:36 G	45562927.20	45562927.36	45562927.52	0.0280	0.0106	
Earth	120039-05-29 21:05 G	45564553.20	45564553.38	45564553.57	0.0276	0.0172	
Moon	120039-05-29 21:19 G	45564553.22	45564553.39	45564553.57	0.0276	0.0183	*
Earth	120040-06-10 06:41 G	45564930.54	45564930.78	45564931.02	0.0275	0.0045	
Moon	120040-06-10 10:17 G	45564930.69	45564930.93	45564931.17	0.0275	0.0029	*
Moon	120041-06-22 13:53 G	45565307.99	45565308.08	45565308.20	0.0275	0.0248	
Earth	120041-06-22 13:24 G	45565308.00	45565308.06	45565308.16	0.0275	0.0258	*
Venus	120048-04-23 21:48 G	45567805.31	45567805.41	45567805.54	0.0277	0.0231	
Venus	120048-12-09 04:02 G	45568034.47	45568034.67	45568034.87	0.0278	0.0096	
Mercury	120049-07-20 21:34 G	45568258.30	45568258.40	45568258.50	0.0278	0.0198	
Mercury	120049-10-17 11:00 G	45568346.82	45568346.96	45568347.10	0.0278	0.0042	
Mercury	120050-01-14 00:12 G	45568435.38	45568435.51	45568435.64	0.0279	0.0112	
Mercury	120050-04-12 13:10 G	45568524.01	45568524.05	45568524.09	0.0279	0.0263	
Earth	120054-12-02 05:14 G	45570218.48	45570218.72	45570218.96	0.0283	0.0055	
Moon	120054-12-02 08:36 G	45570218.61	45570218.86	45570219.11	0.0283	0.0051	*
Earth	120055-12-16 02:22 G	45570597.42	45570597.60	45570597.79	0.0284	0.0190	
Moon	120055-12-16 02:22 G	45570597.42	45570597.60	45570597.78	0.0284	0.0202	*
Mars	120057-03-26 17:58 G	45571063.98	45571064.25	45571064.54	0.0284	0.0095	
Venus	120062-10-11 00:41 G	45573088.42	45573088.53	45573088.65	0.0282	0.0238	
Venus	120063-05-28 18:12 G	45573318.07	45573318.26	45573318.46	0.0281	0.0119	
Mercury	120064-02-05 01:38 G	45573570.43	45573570.57	45573570.72	0.0280	0.0137	
Mercury	120064-05-03 20:07 G	45573659.17	45573659.34	45573659.50	0.0280	0.0047	
Mercury	120064-07-31 14:36 G	45573748.02	45573748.11	45573748.20	0.0280	0.0233	

Earth	120068-05-23 17:43 G	45575140.20	45575140.24	45575140.32	0.0277	0.0268
Moon	120069-06-05 05:43 G	45575517.51	45575517.74	45575517.97	0.0276	0.0056
Earth	120069-06-05 05:58 G	45575517.52	45575517.75	45575517.99	0.0276	0.0051 *
Earth	120070-06-17 14:36 G	45575894.93	45575895.11	45575895.31	0.0276	0.0166
Moon	120070-06-17 18:12 G	45575895.08	45575895.26	45575895.45	0.0276	0.0176 *
Venus	120077-11-04 06:41 G	45578591.62	45578591.78	45578591.95	0.0277	0.0173
Venus	120078-06-21 13:10 G	45578820.88	45578821.05	45578821.22	0.0278	0.0155
Mercury	120078-12-08 00:41 G	45578990.45	45578990.53	45578990.62	0.0278	0.0226
Mercury	120079-03-06 14:22 G	45579078.96	45579079.10	45579079.24	0.0279	0.0068
Mercury	120079-06-03 03:34 G	45579167.52	45579167.65	45579167.79	0.0279	0.0086
Mercury	120079-08-30 16:31 G	45579256.12	45579256.19	45579256.27	0.0279	0.0239
Earth	120083-11-26 21:48 G	45580805.21	45580805.41	45580805.63	0.0282	0.0152
Moon	120083-11-26 23:58 G	45580805.29	45580805.50	45580805.71	0.0282	0.0137 *
Earth	120084-12-09 17:29 G	45581184.00	45581184.23	45581184.47	0.0283	0.0092
Moon	120084-12-09 21:19 G	45581184.16	45581184.39	45581184.62	0.0283	0.0103 *
Venus	120092-04-22 10:31 G	45583874.77	45583874.94	45583875.11	0.0282	0.0176
Venus	120092-12-08 03:34 G	45584104.49	45584104.65	45584104.82	0.0281	0.0180
Mercury	120093-06-24 03:19 G	45584302.52	45584302.64	45584302.77	0.0281	0.0174
Mercury	120093-09-20 21:34 G	45584391.23	45584391.40	45584391.57	0.0280	0.0008
Mercury	120093-12-18 15:48 G	45584480.05	45584480.16	45584480.29	0.0280	0.0194
Moon	120098-05-31 00:55 G	45586104.33	45586104.54	45586104.75	0.0276	0.0132
Earth	120098-05-31 04:17 G	45586104.48	45586104.68	45586104.90	0.0276	0.0146 *
Earth	120099-06-12 13:38 G	45586481.84	45586482.07	45586482.31	0.0275	0.0071
Moon	120099-06-12 13:53 G	45586481.86	45586482.08	45586482.30	0.0275	0.0084 *
Mars	120101-07-29 19:38 G	45587259.20	45587259.32	45587259.47	0.0275	0.0239
Venus	120107-05-18 08:50 G	45589377.69	45589377.87	45589378.06	0.0277	0.0135
Venus	120108-01-02 15:05 G	45589606.98	45589607.13	45589607.28	0.0278	0.0193
Mercury	120108-07-24 15:19 G	45589811.01	45589811.14	45589811.27	0.0278	0.0121
Mercury	120108-10-21 04:31 G	45589899.55	45589899.69	45589899.84	0.0279	0.0034
Mercury	120109-01-17 17:43 G	45589988.13	45589988.24	45589988.34	0.0279	0.0187

Moon	120112-11-20 21:05 G	45591391.31	45591391.38	45591391.46	0.0282	0.0268
Earth	120112-11-20 23:29 G	45591391.39	45591391.48	45591391.57	0.0282	0.0263 *
Earth	120113-12-04 17:14 G	45591769.97	45591770.22	45591770.47	0.0283	0.0024
Moon	120113-12-04 18:55 G	45591770.05	45591770.29	45591770.53	0.0283	0.0037 *
Earth	120114-12-18 14:22 G	45592148.95	45592149.10	45592149.26	0.0284	0.0221
Moon	120114-12-18 18:26 G	45592149.10	45592149.27	45592149.44	0.0284	0.0204 *
Venus	120121-11-03 13:38 G	45594660.88	45594661.07	45594661.25	0.0281	0.0136
Venus	120122-06-21 06:41 G	45594890.65	45594890.78	45594890.92	0.0281	0.0219
Mercury	120122-11-12 02:50 G	45595034.53	45595034.62	45595034.71	0.0280	0.0234
Mercury	120123-02-08 20:50 G	45595123.21	45595123.37	45595123.54	0.0280	0.0053
Mercury	120123-05-08 15:05 G	45595211.99	45595212.13	45595212.29	0.0280	0.0132
Moon	120127-05-26 23:43 G	45596691.36	45596691.49	45596691.63	0.0277	0.0233
Earth	120127-05-27 00:12 G	45596691.41	45596691.51	45596691.64	0.0277	0.0242 *
Moon	120128-06-07 08:36 G	45597068.63	45597068.86	45597069.10	0.0276	0.0031
Earth	120128-06-07 12:12 G	45597068.77	45597069.01	45597069.26	0.0276	0.0024 *
Moon	120129-06-19 20:36 G	45597446.19	45597446.36	45597446.55	0.0276	0.0178
Earth	120129-06-19 20:50 G	45597446.21	45597446.37	45597446.55	0.0276	0.0192 *
Venus	120136-11-27 17:29 G	45600164.03	45600164.23	45600164.43	0.0278	0.0077
Venus	120137-07-14 23:58 G	45600393.43	45600393.50	45600393.60	0.0278	0.0254
Mercury	120137-12-11 18:26 G	45600543.15	45600543.27	45600543.40	0.0279	0.0148
Mercury	120138-03-10 07:53 G	45600631.69	45600631.83	45600631.98	0.0279	0.0011
Mercury	120138-06-06 21:05 G	45600720.27	45600720.38	45600720.50	0.0279	0.0162
Moon	120142-11-29 07:10 G	45602356.60	45602356.80	45602357.03	0.0282	0.0134
Earth	120142-11-29 10:31 G	45602356.72	45602356.94	45602357.17	0.0282	0.0120 *
Earth	120143-12-13 06:26 G	45602735.55	45602735.77	45602736.00	0.0283	0.0124
Moon	120143-12-13 06:41 G	45602735.56	45602735.78	45602736.00	0.0283	0.0117 *
Mars	120145-08-22 19:53 G	45603354.05	45603354.33	45603354.62	0.0284	0.0092
Venus	120151-05-17 00:26 G	45605447.31	45605447.52	45605447.73	0.0281	0.0070
Mercury	120152-03-31 05:00 G	45605766.66	45605766.71	45605766.76	0.0281	0.0265
Mercury	120152-06-27 23:00 G	45605855.30	45605855.46	45605855.62	0.0280	0.0085

Mercury	120152-09-24 17:14 G	45605944.06	45605944.22	45605944.38	0.0280	0.0099
Moon	120157-06-02 12:26 G	45607655.80	45607656.02	45607656.24	0.0276	0.0133
Earth	120157-06-02 13:10 G	45607655.83	45607656.05	45607656.27	0.0276	0.0118 *
Moon	120158-06-14 18:12 G	45608033.04	45608033.26	45608033.50	0.0275	0.0089
Earth	120158-06-14 22:02 G	45608033.20	45608033.42	45608033.65	0.0275	0.0100 *
Venus	120166-06-09 20:22 G	45610950.14	45610950.35	45610950.56	0.0277	0.0037
Mercury	120167-04-30 19:38 G	45611275.22	45611275.32	45611275.42	0.0278	0.0199
Mercury	120167-07-28 09:05 G	45611363.74	45611363.88	45611364.02	0.0278	0.0043
Mercury	120167-10-24 22:17 G	45611452.30	45611452.43	45611452.56	0.0279	0.0111
Mercury	120168-01-21 11:14 G	45611540.93	45611540.97	45611541.02	0.0279	0.0263
Moon	120171-11-23 09:19 G	45612942.74	45612942.89	45612943.05	0.0283	0.0222
Earth	120171-11-23 11:58 G	45612942.87	45612943.00	45612943.15	0.0283	0.0232 *
Moon	120172-12-06 02:36 G	45613321.37	45613321.61	45613321.86	0.0283	0.0023
Earth	120172-12-06 06:12 G	45613321.52	45613321.76	45613322.01	0.0283	0.0009 *
Earth	120173-12-20 03:34 G	45613700.55	45613700.65	45613700.78	0.0284	0.0252
Moon	120173-12-20 03:19 G	45613700.57	45613700.64	45613700.73	0.0284	0.0267 *
Venus	120180-11-26 03:34 G	45616233.43	45616233.65	45616233.86	0.0281	0.0030
Mercury	120181-11-14 22:17 G	45616587.29	45616587.43	45616587.57	0.0280	0.0145
Mercury	120182-02-11 16:31 G	45616676.03	45616676.19	45616676.36	0.0280	0.0037
Mercury	120182-05-11 11:00 G	45616764.86	45616764.96	45616765.06	0.0280	0.0223
Earth	120186-05-28 08:36 G	45618242.72	45618242.86	45618243.02	0.0277	0.0214
Moon	120186-05-28 12:26 G	45618242.87	45618243.02	45618243.18	0.0277	0.0216 *
Earth	120187-06-09 20:07 G	45618620.10	45618620.34	45618620.58	0.0276	0.0004
Moon	120187-06-09 20:22 G	45618620.10	45618620.35	45618620.60	0.0276	0.0013 *
Moon	120188-06-21 01:10 G	45618997.43	45618997.55	45618997.68	0.0276	0.0234
Earth	120188-06-21 04:17 G	45618997.55	45618997.68	45618997.84	0.0276	0.0219 *
Venus	120195-12-21 04:31 G	45621736.48	45621736.69	45621736.90	0.0278	0.0020
Mercury	120196-09-16 22:31 G	45622007.37	45622007.44	45622007.53	0.0279	0.0229
Mercury	120196-12-14 12:12 G	45622095.87	45622096.01	45622096.15	0.0279	0.0071
Mercury	120197-03-13 01:24 G	45622184.43	45622184.56	45622184.70	0.0279	0.0084

Mercury	120197-06-09 14:36 G	45622273.04	45622273.11	45622273.19	0.0279	0.0236
Moon	120201-12-01 22:17 G	45623908.19	45623908.43	45623908.68	0.0283	0.0079
Earth	120201-12-01 23:29 G	45623908.25	45623908.48	45623908.72	0.0283	0.0088 *
Moon	120202-12-15 16:17 G	45624286.98	45624287.18	45624287.39	0.0283	0.0155
Earth	120202-12-15 19:53 G	45624287.13	45624287.33	45624287.55	0.0283	0.0156 *
Venus	120210-06-09 15:05 G	45627019.92	45627020.13	45627020.35	0.0281	0.0038
Mercury	120211-04-05 00:55 G	45627319.41	45627319.54	45627319.67	0.0281	0.0173
Mercury	120211-07-02 18:55 G	45627408.13	45627408.29	45627408.46	0.0280	0.0011
Mercury	120211-09-29 13:24 G	45627496.94	45627497.06	45627497.18	0.0280	0.0194
Earth	120216-06-04 22:46 G	45629207.22	45629207.45	45629207.68	0.0276	0.0090
Moon	120216-06-05 02:22 G	45629207.37	45629207.60	45629207.84	0.0276	0.0074 *
Earth	120217-06-17 07:24 G	45629584.60	45629584.81	45629585.03	0.0275	0.0127
Moon	120217-06-17 08:07 G	45629584.62	45629584.84	45629585.06	0.0275	0.0132 *
Venus	120224-11-16 01:53 G	45632293.53	45632293.58	45632293.66	0.0277	0.0263
Venus	120225-07-03 08:07 G	45632522.64	45632522.84	45632523.05	0.0277	0.0063
Mercury	120226-02-04 23:58 G	45632739.49	45632739.50	45632739.51	0.0278	0.0276
Mercury	120226-05-04 13:38 G	45632827.94	45632828.07	45632828.20	0.0278	0.0119
Mercury	120226-08-01 02:50 G	45632916.48	45632916.62	45632916.77	0.0278	0.0037
Mercury	120226-10-28 16:02 G	45633005.07	45633005.17	45633005.28	0.0279	0.0189
Earth	120230-11-26 01:24 G	45634494.39	45634494.56	45634494.74	0.0283	0.0201
Moon	120230-11-26 04:31 G	45634494.53	45634494.69	45634494.86	0.0283	0.0211 *
Moon	120231-12-09 19:10 G	45634873.04	45634873.30	45634873.56	0.0283	0.0025
Earth	120231-12-09 20:07 G	45634873.09	45634873.34	45634873.58	0.0283	0.0041 *
Moon	120232-12-22 13:38 G	45635252.01	45635252.07	45635252.17	0.0284	0.0268
Earth	120232-12-22 17:43 G	45635252.24	45635252.24	45635252.26	0.0284	0.0283
Mars	120234-01-17 17:14 G	45635643.02	45635643.22	45635643.45	0.0284	0.0197
Venus	120239-05-04 23:29 G	45637576.48	45637576.48	45637576.51	0.0282	0.0281
Venus	120239-12-20 17:43 G	45637806.03	45637806.24	45637806.45	0.0281	0.0076
Mercury	120240-08-21 23:58 G	45638051.42	45638051.50	45638051.59	0.0280	0.0235
Mercury	120240-11-18 18:12 G	45638140.09	45638140.26	45638140.42	0.0280	0.0055

Mercury	120241-02-15 12:26 G	45638228.87	45638229.02	45638229.17	0.0280	0.0129
Moon	120245-05-30 17:29 G	45639794.07	45639794.23	45639794.41	0.0276	0.0187
Earth	120245-05-30 17:43 G	45639794.07	45639794.24	45639794.43	0.0276	0.0186 *
Earth	120246-06-12 04:31 G	45640171.45	45640171.69	45640171.93	0.0276	0.0032
Moon	120246-06-12 08:07 G	45640171.60	45640171.84	45640172.08	0.0276	0.0019 *
Earth	120247-06-24 12:41 G	45640548.93	45640549.03	45640549.14	0.0276	0.0245
Moon	120247-06-24 13:24 G	45640548.93	45640549.06	45640549.20	0.0276	0.0230 *
Venus	120254-05-29 09:05 G	45643079.75	45643079.88	45643080.02	0.0278	0.0210
Venus	120255-01-13 15:19 G	45643308.96	45643309.14	45643309.33	0.0278	0.0118
Mercury	120255-09-21 16:17 G	45643560.06	45643560.18	45643560.30	0.0279	0.0152
Mercury	120255-12-19 05:43 G	45643648.60	45643648.74	45643648.89	0.0279	0.0007
Mercury	120256-03-16 18:55 G	45643737.18	45643737.29	45643737.41	0.0279	0.0159
Earth	120260-12-03 11:43 G	45645459.75	45645459.99	45645460.24	0.0283	0.0058
Moon	120260-12-03 15:19 G	45645459.90	45645460.14	45645460.39	0.0283	0.0061 *
Earth	120261-12-17 08:50 G	45645838.69	45645838.87	45645839.06	0.0283	0.0187
Moon	120261-12-17 09:34 G	45645838.72	45645838.90	45645839.10	0.0283	0.0190 *
Venus	120268-11-14 12:12 G	45648362.87	45648363.01	45648363.16	0.0282	0.0210
Venus	120269-07-02 05:43 G	45648592.56	45648592.74	45648592.93	0.0281	0.0146
Mercury	120270-01-09 02:50 G	45648783.57	45648783.62	45648783.69	0.0281	0.0260
Mercury	120270-04-07 20:50 G	45648872.22	45648872.37	45648872.53	0.0280	0.0080
Mercury	120270-07-05 15:05 G	45648960.98	45648961.13	45648961.29	0.0280	0.0104
Moon	120275-06-07 08:50 G	45650758.65	45650758.87	45650759.10	0.0276	0.0072
Earth	120275-06-07 09:19 G	45650758.65	45650758.89	45650759.13	0.0276	0.0061 *
Earth	120276-06-18 17:29 G	45651136.04	45651136.23	45651136.44	0.0275	0.0155
Moon	120276-06-18 21:05 G	45651136.19	45651136.38	45651136.59	0.0275	0.0157 *
Jupiter	120282-05-29 12:41 G	45653306.59	45653307.03	45653307.46	0.0276	0.0006
Venus	120283-12-09 13:24 G	45653865.90	45653866.06	45653866.23	0.0277	0.0165
Venus	120284-07-25 19:24 G	45654095.15	45654095.31	45654095.49	0.0277	0.0163
Mercury	120285-02-07 17:43 G	45654292.14	45654292.24	45654292.35	0.0278	0.0198
Mercury	120285-05-07 07:24 G	45654380.67	45654380.81	45654380.95	0.0278	0.0041

Mercury	120285-08-03 20:36 G	45654469.23	45654469.36	45654469.49	0.0279	0.0113
Mercury	120285-10-31 09:34 G	45654557.86	45654557.90	45654557.95	0.0279	0.0265
Earth	120289-11-27 13:38 G	45656045.89	45656046.07	45656046.28	0.0283	0.0171
Moon	120289-11-27 15:48 G	45656045.96	45656046.16	45656046.36	0.0283	0.0155 *
Earth	120290-12-11 09:05 G	45656424.64	45656424.88	45656425.12	0.0283	0.0072
Moon	120290-12-11 12:55 G	45656424.81	45656425.04	45656425.28	0.0283	0.0089 *
Venus	120298-05-27 14:22 G	45659148.93	45659149.10	45659149.27	0.0282	0.0173
Venus	120299-01-12 07:53 G	45659378.67	45659378.83	45659379.00	0.0281	0.0183
Mercury	120299-08-25 19:53 G	45659604.19	45659604.33	45659604.47	0.0280	0.0145
Mercury	120299-11-22 13:53 G	45659692.92	45659693.08	45659693.25	0.0280	0.0038
Mercury	120300-02-19 08:22 G	45659781.75	45659781.85	45659781.95	0.0280	0.0223
Moon	120304-06-01 23:14 G	45661345.28	45661345.47	45661345.69	0.0276	0.0150
Earth	120304-06-02 03:05 G	45661345.44	45661345.63	45661345.83	0.0276	0.0159 *
Moon	120305-06-14 12:26 G	45661722.80	45661723.02	45661723.25	0.0276	0.0075
Earth	120305-06-14 13:24 G	45661722.82	45661723.06	45661723.29	0.0276	0.0059 *
Earth	120306-06-26 20:50 G	45662100.34	45662100.37	45662100.42	0.0275	0.0271
Venus	120313-06-21 19:38 G	45664652.13	45664652.32	45664652.51	0.0278	0.0114
Venus	120314-02-06 01:53 G	45664881.46	45664881.58	45664881.72	0.0278	0.0215
Mercury	120314-06-28 20:07 G	45665024.27	45665024.34	45665024.42	0.0279	0.0234
Mercury	120314-09-25 09:48 G	45665112.77	45665112.91	45665113.05	0.0279	0.0076
Mercury	120314-12-22 23:14 G	45665201.33	45665201.47	45665201.61	0.0279	0.0079
Mercury	120315-03-21 12:26 G	45665289.94	45665290.02	45665290.10	0.0279	0.0232
Moon	120318-11-23 01:38 G	45666632.50	45666632.57	45666632.68	0.0282	0.0261
Earth	120318-11-23 04:46 G	45666632.64	45666632.70	45666632.79	0.0282	0.0268 *
Earth	120319-12-06 23:14 G	45667011.22	45667011.47	45667011.72	0.0283	0.0028
Moon	120319-12-06 23:29 G	45667011.24	45667011.48	45667011.72	0.0283	0.0027 *
Earth	120320-12-19 20:36 G	45667390.21	45667390.36	45667390.53	0.0283	0.0217
Moon	120320-12-19 23:58 G	45667390.34	45667390.50	45667390.67	0.0283	0.0210 *
Venus	120327-12-09 02:36 G	45669935.41	45669935.61	45669935.82	0.0282	0.0103
Venus	120328-07-25 19:53 G	45670165.24	45670165.33	45670165.43	0.0281	0.0252

Mercury	120329-01-12 22:31 G	45670336.32	45670336.44	45670336.58	0.0281	0.0170
Mercury	120329-04-11 16:46 G	45670425.03	45670425.20	45670425.37	0.0280	0.0012
Mercury	120329-07-09 11:00 G	45670513.85	45670513.96	45670514.08	0.0280	0.0197
Earth	120333-05-28 07:53 G	45671932.74	45671932.83	45671932.94	0.0277	0.0252
Moon	120333-05-28 08:50 G	45671932.75	45671932.87	45671933.00	0.0277	0.0236 *
Moon	120334-06-09 15:34 G	45672309.90	45672310.15	45672310.39	0.0276	0.0024
Earth	120334-06-09 19:10 G	45672310.06	45672310.30	45672310.54	0.0276	0.0034 *
Moon	120335-06-22 00:41 G	45672687.37	45672687.53	45672687.72	0.0275	0.0182
Earth	120335-06-22 02:50 G	45672687.45	45672687.62	45672687.81	0.0275	0.0182 *
Venus	120343-01-02 00:26 G	45675438.32	45675438.52	45675438.72	0.0277	0.0067
Venus	120343-08-19 06:26 G	45675667.71	45675667.77	45675667.85	0.0278	0.0261
Mercury	120343-11-15 22:02 G	45675756.41	45675756.42	45675756.42	0.0278	0.0277
Mercury	120344-02-12 11:29 G	45675844.85	45675844.98	45675845.11	0.0278	0.0120
Mercury	120344-05-11 00:55 G	45675933.40	45675933.54	45675933.68	0.0278	0.0035
Mercury	120344-08-07 14:07 G	45676021.99	45676022.09	45676022.19	0.0279	0.0187
Moon	120348-11-29 21:05 G	45677597.18	45677597.38	45677597.59	0.0283	0.0157
Earth	120348-11-30 00:55 G	45677597.33	45677597.54	45677597.76	0.0283	0.0141 *
Moon	120349-12-13 18:41 G	45677976.05	45677976.28	45677976.51	0.0283	0.0087
Earth	120349-12-13 20:22 G	45677976.12	45677976.35	45677976.59	0.0283	0.0102 *
Venus	120357-06-20 04:02 G	45680721.47	45680721.67	45680721.88	0.0282	0.0068
Mercury	120358-06-01 21:19 G	45681068.31	45681068.39	45681068.48	0.0281	0.0236
Mercury	120358-08-29 15:19 G	45681156.98	45681157.14	45681157.31	0.0280	0.0056
Mercury	120358-11-26 09:34 G	45681245.76	45681245.90	45681246.05	0.0280	0.0128
Earth	120363-06-04 11:58 G	45682896.79	45682897.00	45682897.22	0.0276	0.0131
Moon	120363-06-04 14:22 G	45682896.89	45682897.10	45682897.33	0.0276	0.0136 *
Moon	120364-06-15 19:38 G	45683274.09	45683274.32	45683274.57	0.0275	0.0072
Earth	120364-06-15 21:48 G	45683274.18	45683274.41	45683274.64	0.0275	0.0086 *
Venus	120372-07-14 05:29 G	45686224.52	45686224.73	45686224.93	0.0278	0.0021
Mercury	120373-07-01 13:24 G	45686576.95	45686577.06	45686577.18	0.0279	0.0161
Mercury	120373-09-28 03:05 G	45686665.48	45686665.63	45686665.77	0.0279	0.0008

Mercury	120373-12-25 16:17 G	45686754.06	45686754.18	45686754.30	0.0279	0.0149
Earth	120377-11-24 13:24 G	45688183.94	45688184.06	45688184.19	0.0283	0.0241
Moon	120377-11-24 14:50 G	45688184.01	45688184.12	45688184.23	0.0283	0.0254 *
Moon	120378-12-08 05:29 G	45688562.48	45688562.73	45688562.99	0.0283	0.0006
Earth	120378-12-08 08:22 G	45688562.60	45688562.85	45688563.10	0.0283	0.0003 *
Moon	120379-12-22 02:50 G	45688941.52	45688941.62	45688941.75	0.0284	0.0250
Earth	120379-12-22 05:58 G	45688941.64	45688941.75	45688941.89	0.0284	0.0245 *
Venus	120386-12-31 16:02 G	45691507.95	45691508.17	45691508.38	0.0282	0.0002
Mercury	120387-10-20 00:12 G	45691800.45	45691800.51	45691800.57	0.0281	0.0262
Mercury	120388-01-16 17:58 G	45691889.10	45691889.25	45691889.41	0.0281	0.0083
Mercury	120388-04-14 12:12 G	45691977.86	45691978.01	45691978.17	0.0280	0.0101
Earth	120392-05-29 17:14 G	45693484.08	45693484.22	45693484.36	0.0277	0.0225
Moon	120392-05-29 18:55 G	45693484.18	45693484.29	45693484.41	0.0277	0.0241 *
Earth	120393-06-11 03:48 G	45693861.42	45693861.66	45693861.90	0.0276	0.0007
Moon	120393-06-11 07:24 G	45693861.57	45693861.81	45693862.06	0.0276	0.0023 *
Moon	120394-06-23 10:31 G	45694238.79	45694238.94	45694239.12	0.0275	0.0205
Earth	120394-06-23 11:29 G	45694238.82	45694238.98	45694239.14	0.0275	0.0208 *
Venus	120402-01-24 10:46 G	45697010.74	45697010.95	45697011.16	0.0277	0.0028
Mercury	120402-11-18 15:19 G	45697309.04	45697309.14	45697309.24	0.0278	0.0203
Mercury	120403-02-15 04:46 G	45697397.56	45697397.70	45697397.85	0.0278	0.0048
Mercury	120403-05-14 18:12 G	45697486.13	45697486.26	45697486.39	0.0278	0.0107
Mercury	120403-08-11 07:10 G	45697574.75	45697574.80	45697574.86	0.0278	0.0258
Earth	120407-12-02 10:17 G	45699148.71	45699148.93	45699149.16	0.0283	0.0114
Moon	120407-12-02 13:10 G	45699148.82	45699149.05	45699149.29	0.0283	0.0104 *
Moon	120408-12-15 05:00 G	45699527.49	45699527.71	45699527.93	0.0283	0.0145
Earth	120408-12-15 06:12 G	45699527.54	45699527.76	45699527.98	0.0283	0.0130 *
Venus	120416-07-12 17:00 G	45702293.99	45702294.21	45702294.42	0.0281	0.0035
Mercury	120417-06-04 16:31 G	45702621.05	45702621.19	45702621.33	0.0281	0.0152
Mercury	120417-09-01 10:31 G	45702709.78	45702709.94	45702710.11	0.0280	0.0030
Mercury	120417-11-29 05:00 G	45702798.60	45702798.71	45702798.82	0.0280	0.0215

Moon	120422-06-05 19:10 G	45704448.09	45704448.30	45704448.52	0.0276	0.0109
Earth	120422-06-05 19:24 G	45704448.09	45704448.31	45704448.54	0.0276	0.0106 *
Earth	120423-06-18 04:46 G	45704825.49	45704825.70	45704825.93	0.0275	0.0111
Moon	120423-06-18 08:22 G	45704825.64	45704825.85	45704826.07	0.0275	0.0122 *
Mars	120425-01-22 05:29 G	45705409.55	45705409.73	45705409.94	0.0275	0.0202
Venus	120430-12-20 08:22 G	45707567.78	45707567.85	45707567.94	0.0277	0.0255
Venus	120431-08-06 14:07 G	45707796.90	45707797.09	45707797.30	0.0278	0.0072
Mercury	120432-04-06 16:46 G	45708041.14	45708041.20	45708041.27	0.0278	0.0249
Mercury	120432-07-04 06:26 G	45708129.63	45708129.77	45708129.91	0.0279	0.0092
Mercury	120432-09-30 19:53 G	45708218.19	45708218.33	45708218.47	0.0279	0.0063
Mercury	120432-12-28 09:05 G	45708306.79	45708306.88	45708306.97	0.0279	0.0216
Earth	120436-11-25 19:53 G	45709735.18	45709735.33	45709735.49	0.0283	0.0217
Moon	120436-11-25 21:34 G	45709735.23	45709735.40	45709735.56	0.0283	0.0203 *
Earth	120437-12-09 15:05 G	45710113.88	45710114.13	45710114.38	0.0283	0.0025
Moon	120437-12-09 18:41 G	45710114.04	45710114.28	45710114.53	0.0283	0.0035 *
Earth	120438-12-23 13:10 G	45710492.99	45710493.05	45710493.14	0.0284	0.0270
Moon	120438-12-23 15:05 G	45710493.06	45710493.13	45710493.20	0.0284	0.0272 *
Venus	120445-06-07 09:05 G	45712850.80	45712850.88	45712850.97	0.0282	0.0258
Venus	120446-01-23 03:34 G	45713080.45	45713080.65	45713080.85	0.0282	0.0100
Mercury	120446-10-22 18:41 G	45713353.16	45713353.28	45713353.41	0.0281	0.0182
Mercury	120447-01-19 12:55 G	45713441.87	45713442.04	45713442.20	0.0281	0.0004
Mercury	120447-04-18 07:10 G	45713530.68	45713530.80	45713530.93	0.0280	0.0185
Moon	120451-05-31 21:19 G	45715035.22	45715035.39	45715035.58	0.0277	0.0189
Earth	120451-06-01 00:55 G	45715035.37	45715035.54	45715035.70	0.0277	0.0200 *
Moon	120452-06-12 09:19 G	45715412.66	45715412.89	45715413.13	0.0276	0.0033
Earth	120452-06-12 11:14 G	45715412.73	45715412.97	45715413.21	0.0276	0.0018 *
Earth	120453-06-24 18:26 G	45715790.15	45715790.27	45715790.41	0.0275	0.0232
Moon	120453-06-24 21:34 G	45715790.29	45715790.40	45715790.52	0.0275	0.0240 *
Venus	120460-07-01 14:36 G	45718353.98	45718354.11	45718354.25	0.0276	0.0204
Venus	120461-02-15 20:07 G	45718583.15	45718583.34	45718583.53	0.0277	0.0120

Mercury	120461-11-21 08:36 G	45718861.73	45718861.86	45718861.99	0.0278	0.0132
Mercury	120462-02-17 22:02 G	45718950.27	45718950.42	45718950.56	0.0278	0.0024
Mercury	120462-05-17 11:00 G	45719038.86	45719038.96	45719039.08	0.0278	0.0175
Moon	120466-12-03 17:00 G	45720699.99	45720700.21	45720700.44	0.0283	0.0095
Earth	120466-12-03 17:14 G	45720699.99	45720700.22	45720700.46	0.0283	0.0088 *
Earth	120467-12-17 13:10 G	45721078.85	45721079.05	45721079.26	0.0283	0.0156
Moon	120467-12-17 16:17 G	45721078.98	45721079.18	45721079.40	0.0283	0.0142 *
Venus	120474-12-18 10:02 G	45723636.80	45723636.92	45723637.06	0.0282	0.0224
Venus	120475-08-05 04:17 G	45723866.49	45723866.68	45723866.87	0.0281	0.0133
Mercury	120476-03-10 17:00 G	45724085.15	45724085.21	45724085.29	0.0281	0.0252
Mercury	120476-06-07 11:00 G	45724173.80	45724173.96	45724174.12	0.0281	0.0072
Mercury	120476-09-04 05:14 G	45724262.57	45724262.72	45724262.88	0.0280	0.0112
Moon	120481-06-06 23:14 G	45725999.24	45725999.47	45725999.72	0.0276	0.0076
Earth	120481-06-07 01:38 G	45725999.35	45725999.57	45725999.81	0.0276	0.0082 *
Moon	120482-06-19 07:53 G	45726376.62	45726376.83	45726377.04	0.0275	0.0127
Earth	120482-06-19 10:31 G	45726376.74	45726376.94	45726377.16	0.0275	0.0136 *
Venus	120490-01-11 16:31 G	45729140.03	45729140.19	45729140.36	0.0277	0.0167
Venus	120490-08-28 22:17 G	45729369.26	45729369.43	45729369.60	0.0278	0.0160
Mercury	120491-04-10 09:34 G	45729593.79	45729593.90	45729594.01	0.0278	0.0183
Mercury	120491-07-07 23:00 G	45729682.32	45729682.46	45729682.61	0.0279	0.0028
Mercury	120491-10-04 12:26 G	45729770.89	45729771.02	45729771.15	0.0279	0.0127
Mercury	120492-01-01 01:24 G	45729859.56	45729859.56	45729859.57	0.0279	0.0279
Moon	120495-11-27 20:22 G	45731286.20	45731286.35	45731286.53	0.0283	0.0211
Earth	120495-11-28 00:12 G	45731286.34	45731286.51	45731286.70	0.0283	0.0194 *
Moon	120496-12-10 17:00 G	45731664.97	45731665.21	45731665.45	0.0283	0.0034
Earth	120496-12-10 19:38 G	45731665.08	45731665.32	45731665.57	0.0283	0.0049 *
Moon	120497-12-24 18:55 G	45732044.29	45732044.29	45732044.30	0.0284	0.0284
Venus	120504-06-30 19:24 G	45734423.14	45734423.31	45734423.49	0.0282	0.0164
Venus	120505-02-15 13:38 G	45734652.92	45734653.07	45734653.23	0.0282	0.0194
Mercury	120505-10-26 12:55 G	45734905.89	45734906.04	45734906.20	0.0281	0.0107

Mercury	120506-01-23 07:10 G	45734994.64	45734994.80	45734994.96	0.0281	0.0077
Mercury	120506-04-22 01:38 G	45735083.52	45735083.57	45735083.63	0.0280	0.0263
Earth	120510-06-03 06:12 G	45736586.57	45736586.76	45736586.94	0.0277	0.0176
Moon	120510-06-03 09:34 G	45736586.72	45736586.90	45736587.08	0.0277	0.0181 *
Moon	120511-06-15 15:34 G	45736963.91	45736964.15	45736964.40	0.0276	0.0027
Earth	120511-06-15 16:31 G	45736963.96	45736964.19	45736964.43	0.0276	0.0042 *
Moon	120512-06-26 20:22 G	45737341.23	45737341.35	45737341.46	0.0275	0.0241
Earth	120512-06-26 23:43 G	45737341.42	45737341.49	45737341.59	0.0275	0.0256 *
Mars	120513-06-19 15:34 G	45737698.87	45737699.15	45737699.43	0.0275	0.0072
Venus	120519-07-25 23:00 G	45739926.27	45739926.46	45739926.65	0.0276	0.0115
Venus	120520-03-11 04:17 G	45740155.56	45740155.68	45740155.83	0.0277	0.0210
Mercury	120520-08-28 11:43 G	45740325.90	45740325.99	45740326.08	0.0277	0.0221
Mercury	120520-11-25 01:10 G	45740414.41	45740414.55	45740414.70	0.0278	0.0066
Mercury	120521-02-21 14:36 G	45740502.97	45740503.11	45740503.25	0.0278	0.0088
Mercury	120521-05-21 03:34 G	45740591.59	45740591.65	45740591.73	0.0278	0.0239
Moon	120525-12-05 20:07 G	45742251.10	45742251.34	45742251.60	0.0283	0.0062
Earth	120525-12-05 22:31 G	45742251.20	45742251.44	45742251.68	0.0283	0.0063 *
Moon	120526-12-19 14:50 G	45742629.93	45742630.12	45742630.30	0.0283	0.0188
Earth	120526-12-19 18:12 G	45742630.08	45742630.26	45742630.47	0.0283	0.0181 *
Venus	120534-01-10 20:22 G	45745209.16	45745209.35	45745209.54	0.0282	0.0131
Venus	120534-08-28 13:53 G	45745438.96	45745439.08	45745439.22	0.0281	0.0227
Mercury	120535-03-15 11:00 G	45745637.84	45745637.96	45745638.09	0.0281	0.0179
Mercury	120535-06-12 05:14 G	45745726.55	45745726.72	45745726.88	0.0281	0.0007
Mercury	120535-09-08 23:29 G	45745815.36	45745815.48	45745815.60	0.0280	0.0188
Earth	120539-05-28 18:12 G	45747173.24	45747173.26	45747173.28	0.0277	0.0275
Earth	120540-06-09 06:12 G	45747550.53	45747550.76	45747551.00	0.0276	0.0058
Moon	120540-06-09 10:02 G	45747550.68	45747550.92	45747551.15	0.0276	0.0069 *
Earth	120541-06-21 15:19 G	45747927.94	45747928.14	45747928.33	0.0275	0.0158
Moon	120541-06-21 16:02 G	45747927.98	45747928.17	45747928.39	0.0275	0.0158 *
Venus	120549-02-03 23:58 G	45750712.30	45750712.50	45750712.70	0.0277	0.0080

Venus	120549-09-21 05:29 G	45750941.65	45750941.73	45750941.84	0.0278	0.0247
Mercury	120550-01-15 12:12 G	45751058.00	45751058.01	45751058.03	0.0278	0.0276
Mercury	120550-04-14 02:07 G	45751146.45	45751146.59	45751146.72	0.0278	0.0119
Mercury	120550-07-11 15:34 G	45751235.00	45751235.15	45751235.29	0.0278	0.0036
Mercury	120550-10-08 04:31 G	45751323.59	45751323.69	45751323.80	0.0279	0.0189
Earth	120554-11-30 02:36 G	45752837.42	45752837.61	45752837.81	0.0283	0.0173
Moon	120554-11-30 06:12 G	45752837.56	45752837.76	45752837.97	0.0283	0.0157 *
Earth	120555-12-13 21:48 G	45753216.17	45753216.41	45753216.65	0.0283	0.0070
Moon	120555-12-13 22:17 G	45753216.19	45753216.43	45753216.68	0.0283	0.0086 *
Venus	120563-07-24 04:17 G	45755995.47	45755995.68	45755995.89	0.0282	0.0074
Mercury	120564-08-01 12:26 G	45756369.93	45756370.02	45756370.13	0.0281	0.0218
Mercury	120564-10-29 06:26 G	45756458.61	45756458.77	45756458.94	0.0281	0.0038
Mercury	120565-01-26 00:41 G	45756547.40	45756547.53	45756547.68	0.0281	0.0148
Moon	120569-06-04 08:07 G	45758137.65	45758137.84	45758138.04	0.0277	0.0152
Earth	120569-06-04 09:34 G	45758137.71	45758137.90	45758138.11	0.0277	0.0154 *
Earth	120570-06-16 20:07 G	45758515.11	45758515.34	45758515.58	0.0276	0.0064
Moon	120570-06-16 23:00 G	45758515.24	45758515.46	45758515.69	0.0276	0.0078 *
Venus	120578-08-17 06:41 G	45761498.57	45761498.78	45761498.98	0.0276	0.0029
Mercury	120579-09-01 04:17 G	45761878.56	45761878.68	45761878.80	0.0277	0.0156
Mercury	120579-11-28 17:43 G	45761967.10	45761967.24	45761967.39	0.0277	0.0007
Mercury	120580-02-25 06:55 G	45762055.67	45762055.79	45762055.92	0.0278	0.0151
Moon	120583-11-24 10:02 G	45763423.85	45763423.92	45763424.01	0.0282	0.0264
Earth	120583-11-24 09:34 G	45763423.86	45763423.90	45763423.95	0.0282	0.0276 *
Earth	120584-12-07 01:38 G	45763802.33	45763802.57	45763802.82	0.0282	0.0041
Moon	120584-12-07 05:14 G	45763802.48	45763802.72	45763802.97	0.0282	0.0033 *
Earth	120585-12-20 22:02 G	45764181.24	45764181.42	45764181.59	0.0283	0.0203
Moon	120585-12-21 00:12 G	45764181.33	45764181.51	45764181.69	0.0283	0.0199 *
Venus	120593-02-02 05:14 G	45766781.50	45766781.72	45766781.93	0.0282	0.0040
Mercury	120594-03-18 04:46 G	45767190.55	45767190.70	45767190.85	0.0281	0.0109
Mercury	120594-06-14 22:46 G	45767279.29	45767279.45	45767279.61	0.0281	0.0074

Mercury	120594-09-11 17:14 G	45767368.16	45767368.22	45767368.28	0.0281	0.0260
Moon	120598-05-29 17:58 G	45768724.13	45768724.25	45768724.38	0.0277	0.0238
Earth	120598-05-29 20:50 G	45768724.29	45768724.37	45768724.48	0.0277	0.0254 *
Moon	120599-06-11 06:26 G	45769101.53	45769101.77	45769102.00	0.0276	0.0021
Earth	120599-06-11 09:19 G	45769101.65	45769101.89	45769102.13	0.0276	0.0036 *
Earth	120600-06-23 17:58 G	45769479.08	45769479.25	45769479.44	0.0275	0.0180
Moon	120600-06-23 19:38 G	45769479.15	45769479.32	45769479.50	0.0275	0.0185 *
Mars	120601-11-13 17:00 G	45769986.92	45769987.21	45769987.50	0.0275	0.0020
Venus	120608-02-28 06:55 G	45772284.58	45772284.79	45772285.00	0.0277	0.0005
Mercury	120609-01-19 04:46 G	45772610.61	45772610.70	45772610.79	0.0278	0.0214
Mercury	120609-04-17 18:12 G	45772699.12	45772699.26	45772699.41	0.0278	0.0059
Mercury	120609-07-15 07:38 G	45772787.69	45772787.82	45772787.96	0.0278	0.0095
Mercury	120609-10-11 20:36 G	45772876.30	45772876.36	45772876.43	0.0279	0.0247
Moon	120613-12-02 02:22 G	45774388.41	45774388.60	45774388.80	0.0282	0.0162
Earth	120613-12-02 04:02 G	45774388.47	45774388.67	45774388.89	0.0282	0.0151 *
Earth	120614-12-15 23:00 G	45774767.23	45774767.46	45774767.70	0.0283	0.0092
Moon	120614-12-16 01:38 G	45774767.34	45774767.57	45774767.80	0.0283	0.0076 *
Venus	120622-08-16 11:43 G	45777567.77	45777567.99	45777568.20	0.0282	0.0012
Mercury	120623-08-06 05:29 G	45777922.60	45777922.73	45777922.87	0.0281	0.0155
Mercury	120623-11-02 23:29 G	45778011.32	45778011.48	45778011.65	0.0281	0.0029
Mercury	120624-01-30 17:58 G	45778100.15	45778100.25	45778100.36	0.0281	0.0214
Moon	120628-06-06 10:17 G	45779688.71	45779688.93	45779689.16	0.0277	0.0128
Earth	120628-06-06 11:14 G	45779688.76	45779688.97	45779689.19	0.0277	0.0132 *
Moon	120629-06-18 18:26 G	45780066.05	45780066.27	45780066.51	0.0276	0.0079
Earth	120629-06-18 22:02 G	45780066.20	45780066.42	45780066.66	0.0276	0.0086 *
Venus	120637-01-23 08:50 G	45782841.83	45782841.87	45782841.93	0.0276	0.0266
Venus	120637-09-09 13:53 G	45783070.88	45783071.08	45783071.29	0.0276	0.0056
Mercury	120638-06-08 07:10 G	45783342.74	45783342.80	45783342.87	0.0277	0.0249
Mercury	120638-09-04 20:50 G	45783431.23	45783431.37	45783431.51	0.0277	0.0093
Mercury	120638-12-02 10:17 G	45783519.79	45783519.93	45783520.07	0.0277	0.0060

Mercury	120639-02-28 23:14 G	45783608.38	45783608.47	45783608.57	0.0278	0.0211
Moon	120642-11-26 09:05 G	45784974.82	45784974.88	45784974.97	0.0281	0.0268
Earth	120642-11-26 11:58 G	45784974.91	45784975.00	45784975.12	0.0281	0.0254 *
Moon	120643-12-10 01:24 G	45785353.32	45785353.56	45785353.80	0.0282	0.0026
Earth	120643-12-10 04:17 G	45785353.44	45785353.68	45785353.93	0.0282	0.0017 *
Earth	120644-12-22 23:58 G	45785732.36	45785732.50	45785732.66	0.0283	0.0225
Moon	120644-12-23 00:41 G	45785732.40	45785732.53	45785732.68	0.0283	0.0225 *
Venus	120652-02-26 12:55 G	45788353.83	45788354.04	45788354.25	0.0282	0.0047
Mercury	120652-12-23 04:02 G	45788654.57	45788654.67	45788654.77	0.0281	0.0224
Mercury	120653-03-21 21:48 G	45788743.25	45788743.41	45788743.58	0.0281	0.0044
Mercury	120653-06-18 16:02 G	45788832.03	45788832.17	45788832.32	0.0281	0.0141
Earth	120657-05-31 22:31 G	45790275.32	45790275.44	45790275.58	0.0277	0.0232
Moon	120657-06-01 02:22 G	45790275.49	45790275.60	45790275.72	0.0277	0.0244 *
Earth	120658-06-13 11:14 G	45790652.72	45790652.97	45790653.21	0.0276	0.0015
Moon	120658-06-13 11:58 G	45790652.75	45790653.00	45790653.25	0.0276	0.0029 *
Moon	120659-06-25 16:31 G	45791030.02	45791030.19	45791030.37	0.0275	0.0193
Earth	120659-06-25 20:07 G	45791030.18	45791030.34	45791030.51	0.0275	0.0200 *
Venus	120666-08-05 08:07 G	45793627.75	45793627.84	45793627.96	0.0276	0.0237
Venus	120667-03-22 13:24 G	45793856.86	45793857.06	45793857.26	0.0277	0.0087
Mercury	120668-01-22 20:50 G	45794163.25	45794163.37	45794163.50	0.0278	0.0154
Mercury	120668-04-20 10:31 G	45794251.79	45794251.94	45794252.08	0.0278	0.0007
Mercury	120668-07-17 23:43 G	45794340.37	45794340.49	45794340.61	0.0278	0.0153
Moon	120672-12-03 03:19 G	45795939.41	45795939.64	45795939.88	0.0282	0.0121
Earth	120672-12-03 05:00 G	45795939.49	45795939.71	45795939.93	0.0282	0.0130 *
Moon	120673-12-16 19:53 G	45796318.11	45796318.33	45796318.56	0.0283	0.0128
Earth	120673-12-16 23:43 G	45796318.27	45796318.49	45796318.73	0.0283	0.0112 *
Venus	120681-01-20 23:29 G	45798910.42	45798910.48	45798910.56	0.0283	0.0265
Venus	120681-09-07 18:26 G	45799140.07	45799140.27	45799140.48	0.0282	0.0095
Mercury	120682-05-12 04:17 G	45799386.65	45799386.68	45799386.73	0.0282	0.0274
Mercury	120682-08-08 22:17 G	45799475.28	45799475.43	45799475.59	0.0281	0.0093

Mercury	120682-11-05 16:31 G	45799564.03	45799564.19	45799564.35	0.0281	0.0091
Mercury	120683-02-02 10:46 G	45799652.94	45799652.95	45799652.98	0.0281	0.0278
Earth	120687-06-08 11:58 G	45801239.78	45801240.00	45801240.23	0.0277	0.0110
Moon	120687-06-08 14:50 G	45801239.91	45801240.12	45801240.34	0.0277	0.0120 *
Earth	120688-06-19 23:00 G	45801617.24	45801617.46	45801617.69	0.0276	0.0107
Moon	120688-06-20 00:55 G	45801617.32	45801617.54	45801617.78	0.0276	0.0112 *
Mars	120690-04-09 17:00 G	45802275.94	45802276.21	45802276.49	0.0275	0.0086
Venus	120696-02-15 15:48 G	45804414.01	45804414.16	45804414.32	0.0276	0.0183
Venus	120696-10-01 20:50 G	45804643.19	45804643.37	45804643.55	0.0276	0.0140
Mercury	120697-06-10 23:29 G	45804895.38	45804895.48	45804895.59	0.0277	0.0187
Mercury	120697-09-07 13:10 G	45804983.91	45804984.05	45804984.19	0.0277	0.0032
Mercury	120697-12-05 02:22 G	45805072.47	45805072.60	45805072.73	0.0277	0.0120
Mercury	120698-03-03 15:34 G	45805161.12	45805161.15	45805161.18	0.0278	0.0270
Earth	120701-11-28 14:36 G	45806525.98	45806526.11	45806526.26	0.0281	0.0231
Moon	120701-11-28 18:12 G	45806526.11	45806526.26	45806526.43	0.0281	0.0214 *
Earth	120702-12-12 06:41 G	45806904.54	45806904.78	45806905.03	0.0282	0.0008
Moon	120702-12-12 07:24 G	45806904.56	45806904.81	45806905.07	0.0282	0.0020 *
Moon	120703-12-25 23:14 G	45807283.38	45807283.47	45807283.60	0.0283	0.0254
Earth	120703-12-26 02:22 G	45807283.49	45807283.60	45807283.73	0.0283	0.0247 *
Venus	120710-08-04 01:53 G	45809696.46	45809696.58	45809696.71	0.0283	0.0227
Venus	120711-03-21 20:22 G	45809926.16	45809926.35	45809926.54	0.0282	0.0133
Mercury	120711-12-27 20:50 G	45810207.24	45810207.37	45810207.51	0.0281	0.0160
Mercury	120712-03-25 14:50 G	45810295.96	45810296.12	45810296.29	0.0281	0.0023
Mercury	120712-06-22 09:05 G	45810384.78	45810384.88	45810385.00	0.0281	0.0207
Moon	120716-06-02 20:50 G	45811826.22	45811826.37	45811826.53	0.0277	0.0206
Earth	120716-06-02 23:29 G	45811826.33	45811826.48	45811826.64	0.0277	0.0211 *
Earth	120717-06-15 12:12 G	45812203.76	45812204.01	45812204.25	0.0276	0.0008
Moon	120717-06-15 14:22 G	45812203.87	45812204.10	45812204.34	0.0276	0.0023 *
Earth	120718-06-27 21:05 G	45812581.25	45812581.38	45812581.54	0.0275	0.0222
Moon	120718-06-28 00:26 G	45812581.40	45812581.52	45812581.66	0.0275	0.0235 *

Venus	120725-08-28 15:19 G	45815199.96	45815200.14	45815200.31	0.0276	0.0153
Venus	120726-04-14 20:07 G	45815429.18	45815429.34	45815429.51	0.0277	0.0171
Mercury	120726-10-29 23:43 G	45815627.43	45815627.49	45815627.55	0.0277	0.0248
Mercury	120727-01-26 13:24 G	45815715.92	45815716.06	45815716.19	0.0278	0.0093
Mercury	120727-04-25 02:36 G	45815804.47	45815804.61	45815804.76	0.0278	0.0061
Mercury	120727-07-22 15:48 G	45815893.07	45815893.16	45815893.25	0.0278	0.0212
Earth	120731-12-06 06:26 G	45817490.54	45817490.77	45817491.00	0.0282	0.0108
Moon	120731-12-06 10:02 G	45817490.70	45817490.92	45817491.15	0.0282	0.0113 *
Earth	120732-12-19 00:41 G	45817869.32	45817869.53	45817869.76	0.0283	0.0134
Moon	120732-12-19 04:02 G	45817869.44	45817869.67	45817869.90	0.0283	0.0123 *
Venus	120740-02-14 05:58 G	45820482.60	45820482.75	45820482.93	0.0282	0.0183
Venus	120740-10-01 00:41 G	45820712.37	45820712.53	45820712.71	0.0282	0.0178
Mercury	120741-05-15 20:50 G	45820939.27	45820939.37	45820939.48	0.0282	0.0215
Mercury	120741-08-12 14:50 G	45821027.96	45821028.12	45821028.29	0.0281	0.0033
Mercury	120741-11-09 09:05 G	45821116.75	45821116.88	45821117.03	0.0281	0.0152
Moon	120746-06-10 08:50 G	45822790.65	45822790.87	45822791.10	0.0277	0.0079
Earth	120746-06-10 12:12 G	45822790.78	45822791.01	45822791.24	0.0277	0.0089 *
Earth	120747-06-22 23:29 G	45823168.27	45823168.48	45823168.69	0.0277	0.0129
Moon	120747-06-22 23:58 G	45823168.31	45823168.50	45823168.72	0.0277	0.0129 *
Venus	120755-03-10 22:46 G	45825986.26	45825986.45	45825986.65	0.0276	0.0099
Venus	120755-10-26 04:02 G	45826215.55	45826215.67	45826215.79	0.0277	0.0225
Mercury	120756-06-14 16:02 G	45826448.04	45826448.17	45826448.31	0.0277	0.0125
Mercury	120756-09-11 05:29 G	45826536.59	45826536.73	45826536.88	0.0277	0.0030
Mercury	120756-12-08 18:41 G	45826625.18	45826625.28	45826625.39	0.0277	0.0181
Moon	120760-11-29 15:48 G	45828077.03	45828077.16	45828077.31	0.0281	0.0223
Earth	120760-11-29 17:58 G	45828077.09	45828077.25	45828077.42	0.0281	0.0206 *
Earth	120761-12-13 09:34 G	45828455.66	45828455.90	45828456.15	0.0282	0.0031
Moon	120761-12-13 11:14 G	45828455.73	45828455.97	45828456.22	0.0282	0.0015 *
Earth	120762-12-27 04:46 G	45828834.64	45828834.70	45828834.79	0.0283	0.0270
Moon	120762-12-27 08:22 G	45828834.77	45828834.85	45828834.97	0.0283	0.0258 *

Venus	120769-08-26 09:48 G	45831268.72	45831268.91	45831269.10	0.0283	0.0139
Venus	120770-04-13 04:02 G	45831498.54	45831498.67	45831498.80	0.0282	0.0219
Mercury	120770-10-02 20:07 G	45831671.31	45831671.34	45831671.38	0.0282	0.0275
Mercury	120770-12-30 13:53 G	45831759.93	45831760.08	45831760.24	0.0281	0.0096
Mercury	120771-03-29 08:07 G	45831848.68	45831848.84	45831849.00	0.0281	0.0088
Mercury	120771-06-26 02:36 G	45831937.58	45831937.61	45831937.64	0.0281	0.0274
Earth	120775-06-05 00:41 G	45833377.36	45833377.53	45833377.71	0.0277	0.0190
Moon	120775-06-05 00:55 G	45833377.37	45833377.54	45833377.73	0.0277	0.0190 *
Moon	120776-06-16 09:48 G	45833754.67	45833754.91	45833755.16	0.0276	0.0016
Earth	120776-06-16 13:24 G	45833754.82	45833755.06	45833755.31	0.0276	0.0030 *
Moon	120777-06-28 20:50 G	45834132.24	45834132.37	45834132.50	0.0276	0.0228
Earth	120777-06-28 22:46 G	45834132.34	45834132.45	45834132.57	0.0276	0.0243 *
Mars	120778-09-03 13:38 G	45834563.83	45834564.07	45834564.34	0.0275	0.0130
Venus	120784-09-19 22:17 G	45836772.23	45836772.43	45836772.63	0.0276	0.0069
Venus	120785-05-07 03:05 G	45837001.57	45837001.63	45837001.72	0.0277	0.0256
Mercury	120785-11-01 16:17 G	45837180.07	45837180.18	45837180.28	0.0277	0.0186
Mercury	120786-01-29 05:43 G	45837268.60	45837268.74	45837268.88	0.0277	0.0031
Mercury	120786-04-27 18:55 G	45837357.16	45837357.29	45837357.42	0.0278	0.0122
Mercury	120786-07-25 07:53 G	45837445.81	45837445.83	45837445.87	0.0278	0.0272
Moon	120790-12-07 05:14 G	45839041.48	45839041.72	45839041.95	0.0282	0.0093
Earth	120790-12-07 09:05 G	45839041.64	45839041.88	45839042.12	0.0282	0.0085 *
Moon	120791-12-21 01:24 G	45839420.36	45839420.56	45839420.76	0.0283	0.0156
Earth	120791-12-21 03:05 G	45839420.43	45839420.63	45839420.84	0.0283	0.0156 *
Venus	120799-03-08 13:24 G	45842054.86	45842055.06	45842055.26	0.0282	0.0097
Venus	120799-10-24 07:38 G	45842284.75	45842284.82	45842284.90	0.0282	0.0262
Mercury	120800-05-18 13:38 G	45842491.94	45842492.07	45842492.21	0.0281	0.0153
Mercury	120800-08-15 07:38 G	45842580.66	45842580.82	45842580.99	0.0281	0.0031
Mercury	120800-11-12 02:07 G	45842669.49	45842669.59	45842669.70	0.0281	0.0215
Earth	120805-06-11 11:58 G	45844341.77	45844342.00	45844342.24	0.0277	0.0067
Moon	120805-06-11 15:05 G	45844341.90	45844342.13	45844342.37	0.0277	0.0084 *

Moon	120806-06-23 22:31 G	45844719.23	45844719.44	45844719.66	0.0277	0.0137
Earth	120806-06-23 23:29 G	45844719.29	45844719.48	45844719.69	0.0277	0.0151 *
Venus	120814-04-02 06:26 G	45847558.56	45847558.77	45847558.98	0.0276	0.0013
Mercury	120815-03-21 19:10 G	45847912.21	45847912.30	45847912.39	0.0277	0.0215
Mercury	120815-06-18 08:50 G	45848000.73	45848000.87	45848001.01	0.0277	0.0060
Mercury	120815-09-14 22:02 G	45848089.29	45848089.42	45848089.56	0.0277	0.0093
Mercury	120815-12-12 11:14 G	45848177.90	45848177.97	45848178.04	0.0277	0.0243
Earth	120819-12-01 22:46 G	45849628.26	45849628.45	45849628.64	0.0281	0.0181
Moon	120819-12-02 00:55 G	45849628.35	45849628.54	45849628.75	0.0281	0.0179 *
Moon	120820-12-14 12:41 G	45850006.78	45850007.03	45850007.28	0.0282	0.0066
Earth	120820-12-14 14:22 G	45850006.86	45850007.10	45850007.35	0.0282	0.0055 *
Mars	120822-09-24 00:55 G	45850655.34	45850655.54	45850655.74	0.0283	0.0208
Venus	120828-09-17 18:12 G	45852841.05	45852841.26	45852841.47	0.0282	0.0051
Mercury	120829-10-05 13:24 G	45853223.96	45853224.06	45853224.17	0.0282	0.0209
Mercury	120830-01-02 07:24 G	45853312.64	45853312.81	45853312.97	0.0281	0.0029
Mercury	120830-04-01 01:24 G	45853401.43	45853401.56	45853401.71	0.0281	0.0156
Earth	120834-06-06 02:07 G	45854928.40	45854928.59	45854928.79	0.0277	0.0167
Moon	120834-06-06 02:07 G	45854928.42	45854928.59	45854928.77	0.0277	0.0180 *
Earth	120835-06-18 15:05 G	45855305.89	45855306.13	45855306.37	0.0277	0.0052
Moon	120835-06-18 18:41 G	45855306.05	45855306.28	45855306.52	0.0277	0.0047 *
Earth	120836-06-30 00:26 G	45855683.47	45855683.52	45855683.60	0.0276	0.0265
Moon	120836-06-30 02:22 G	45855683.56	45855683.60	45855683.64	0.0276	0.0271 *
Venus	120843-10-13 05:58 G	45858344.55	45858344.75	45858344.96	0.0276	0.0019
Mercury	120844-08-07 19:10 G	45858644.30	45858644.30	45858644.31	0.0277	0.0276
Mercury	120844-11-04 08:50 G	45858732.74	45858732.87	45858733.00	0.0277	0.0120
Mercury	120845-01-31 22:17 G	45858821.29	45858821.43	45858821.58	0.0277	0.0034
Mercury	120845-04-30 11:29 G	45858909.88	45858909.98	45858910.09	0.0278	0.0185
Moon	120848-11-25 01:10 G	45860214.53	45860214.55	45860214.59	0.0281	0.0278
Earth	120849-12-08 13:24 G	45860592.82	45860593.06	45860593.30	0.0282	0.0060
Moon	120849-12-08 17:14 G	45860592.97	45860593.22	45860593.46	0.0282	0.0043 *

Earth	120850-12-22 06:55 G	45860971.61	45860971.79	45860971.99	0.0283	0.0181
Moon	120850-12-22 08:22 G	45860971.67	45860971.85	45860972.05	0.0283	0.0193 *
Venus	120858-03-30 21:34 G	45863627.18	45863627.40	45863627.62	0.0282	0.0009
Mercury	120859-02-22 12:55 G	45863956.00	45863956.04	45863956.10	0.0282	0.0268
Mercury	120859-05-22 06:55 G	45864044.63	45864044.79	45864044.94	0.0281	0.0088
Mercury	120859-08-19 00:55 G	45864133.39	45864133.54	45864133.70	0.0281	0.0096
Moon	120863-05-31 18:41 G	45865515.21	45865515.28	45865515.35	0.0278	0.0267
Earth	120863-05-31 21:48 G	45865515.33	45865515.41	45865515.48	0.0278	0.0264 *
Moon	120864-06-12 10:02 G	45865892.69	45865892.92	45865893.16	0.0278	0.0039
Earth	120864-06-12 13:10 G	45865892.81	45865893.05	45865893.29	0.0278	0.0045 *
Earth	120865-06-25 00:55 G	45866270.36	45866270.54	45866270.73	0.0277	0.0173
Moon	120865-06-25 02:22 G	45866270.43	45866270.60	45866270.77	0.0277	0.0187 *
Mars	120867-01-28 10:31 G	45866852.80	45866852.94	45866853.11	0.0276	0.0232
Venus	120872-09-07 09:34 G	45868901.82	45868901.90	45868901.99	0.0276	0.0248
Venus	120873-04-24 14:22 G	45869130.90	45869131.10	45869131.30	0.0277	0.0075
Mercury	120874-03-24 11:58 G	45869464.88	45869465.00	45869465.13	0.0277	0.0149
Mercury	120874-06-21 01:38 G	45869553.42	45869553.57	45869553.71	0.0277	0.0007
Mercury	120874-09-17 14:50 G	45869642.00	45869642.12	45869642.24	0.0277	0.0157
Moon	120878-12-03 02:50 G	45871179.41	45871179.62	45871179.83	0.0281	0.0142
Earth	120878-12-03 04:46 G	45871179.50	45871179.70	45871179.92	0.0281	0.0155 *
Earth	120879-12-16 20:36 G	45871558.12	45871558.36	45871558.60	0.0282	0.0082
Moon	120879-12-16 22:31 G	45871558.21	45871558.44	45871558.67	0.0282	0.0086 *
Venus	120887-10-11 03:48 G	45874413.45	45874413.66	45874413.87	0.0282	0.0042
Mercury	120888-10-08 07:10 G	45874776.66	45874776.80	45874776.94	0.0282	0.0138
Mercury	120889-01-05 01:10 G	45874865.39	45874865.55	45874865.71	0.0281	0.0044
Mercury	120889-04-03 19:24 G	45874954.22	45874954.31	45874954.41	0.0281	0.0229
Moon	120893-06-07 04:46 G	45876479.49	45876479.70	45876479.93	0.0277	0.0130
Earth	120893-06-07 05:00 G	45876479.51	45876479.71	45876479.92	0.0277	0.0144 *
Moon	120894-06-19 14:36 G	45876856.88	45876857.11	45876857.34	0.0277	0.0091
Earth	120894-06-19 17:58 G	45876857.02	45876857.25	45876857.49	0.0277	0.0075 *

Venus	120902-03-21 09:48 G	45879687.79	45879687.91	45879688.05	0.0276	0.0215
Venus	120902-11-05 14:36 G	45879916.92	45879917.11	45879917.31	0.0277	0.0108
Mercury	120903-08-12 12:12 G	45880196.92	45880197.01	45880197.11	0.0277	0.0207
Mercury	120903-11-09 01:53 G	45880285.44	45880285.58	45880285.73	0.0277	0.0052
Mercury	120904-02-05 15:19 G	45880374.01	45880374.14	45880374.27	0.0278	0.0101
Mercury	120904-05-04 04:31 G	45880462.63	45880462.69	45880462.75	0.0278	0.0251
Moon	120907-11-28 05:00 G	45881765.63	45881765.71	45881765.81	0.0281	0.0263
Earth	120907-11-28 06:41 G	45881765.71	45881765.78	45881765.87	0.0281	0.0265 *
Moon	120908-12-10 17:00 G	45882143.96	45882144.21	45882144.45	0.0282	0.0041
Earth	120908-12-10 20:36 G	45882144.11	45882144.36	45882144.61	0.0282	0.0032 *
Moon	120909-12-24 13:10 G	45882522.87	45882523.05	45882523.22	0.0282	0.0193
Earth	120909-12-24 13:53 G	45882522.92	45882523.08	45882523.26	0.0282	0.0207 *
Mars	120911-02-18 04:31 G	45882943.44	45882943.69	45882943.94	0.0283	0.0151
Venus	120916-09-05 11:43 G	45884969.97	45884969.99	45884970.03	0.0282	0.0279
Venus	120917-04-23 06:55 G	45885199.58	45885199.79	45885199.99	0.0282	0.0082
Mercury	120918-02-26 06:26 G	45885508.66	45885508.77	45885508.89	0.0281	0.0199
Mercury	120918-05-26 00:26 G	45885597.36	45885597.52	45885597.69	0.0281	0.0018
Mercury	120918-08-22 18:41 G	45885686.15	45885686.28	45885686.42	0.0281	0.0167
Earth	120922-06-02 23:43 G	45887066.38	45887066.49	45887066.62	0.0278	0.0241
Moon	120922-06-03 02:50 G	45887066.49	45887066.62	45887066.76	0.0278	0.0225 *
Earth	120923-06-15 15:19 G	45887443.90	45887444.14	45887444.38	0.0278	0.0021
Moon	120923-06-15 18:26 G	45887444.02	45887444.27	45887444.52	0.0278	0.0009 *
Moon	120924-06-27 01:24 G	45887821.38	45887821.56	45887821.74	0.0277	0.0191
Earth	120924-06-27 03:19 G	45887821.47	45887821.64	45887821.81	0.0277	0.0196 *
Venus	120931-10-01 18:12 G	45890474.09	45890474.26	45890474.43	0.0277	0.0159
Venus	120932-05-17 23:14 G	45890703.31	45890703.47	45890703.64	0.0277	0.0165
Mercury	120932-12-29 15:34 G	45890929.07	45890929.15	45890929.22	0.0277	0.0235
Mercury	120933-03-28 05:14 G	45891017.58	45891017.72	45891017.86	0.0277	0.0079
Mercury	120933-06-24 18:41 G	45891106.14	45891106.28	45891106.42	0.0278	0.0074
Mercury	120933-09-21 07:53 G	45891194.75	45891194.83	45891194.91	0.0278	0.0225

Earth	120937-12-05 13:10 G	45892730.83	45892731.05	45892731.28	0.0281	0.0127
Moon	120937-12-05 15:05 G	45892730.92	45892731.13	45892731.36	0.0281	0.0140 *
Moon	120938-12-19 02:22 G	45893109.36	45893109.60	45893109.85	0.0282	0.0096
Earth	120938-12-19 04:46 G	45893109.48	45893109.70	45893109.94	0.0282	0.0111 *
Venus	120946-03-18 19:53 G	45895756.21	45895756.33	45895756.47	0.0283	0.0221
Venus	120946-11-03 14:36 G	45895985.92	45895986.11	45895986.30	0.0282	0.0138
Mercury	120947-07-16 07:38 G	45896240.74	45896240.82	45896240.91	0.0282	0.0241
Mercury	120947-10-13 01:24 G	45896329.40	45896329.56	45896329.72	0.0281	0.0062
Mercury	120948-01-09 19:38 G	45896418.17	45896418.32	45896418.47	0.0281	0.0122
Earth	120952-06-09 09:48 G	45898030.70	45898030.91	45898031.13	0.0278	0.0119
Moon	120952-06-09 09:48 G	45898030.71	45898030.91	45898031.13	0.0278	0.0119 *
Earth	120953-06-21 22:31 G	45898408.22	45898408.44	45898408.67	0.0277	0.0101
Moon	120953-06-22 02:07 G	45898408.37	45898408.59	45898408.82	0.0277	0.0089 *
Venus	120961-04-12 19:10 G	45901260.12	45901260.30	45901260.49	0.0276	0.0124
Venus	120961-11-28 00:12 G	45901489.37	45901489.51	45901489.66	0.0277	0.0200
Mercury	120962-08-15 05:43 G	45901749.61	45901749.74	45901749.87	0.0277	0.0135
Mercury	120962-11-11 19:10 G	45901838.16	45901838.30	45901838.45	0.0277	0.0020
Mercury	120963-02-08 08:22 G	45901926.74	45901926.85	45901926.97	0.0278	0.0171
Earth	120966-11-29 15:19 G	45903317.02	45903317.14	45903317.28	0.0281	0.0237
Moon	120966-11-29 16:46 G	45903317.11	45903317.20	45903317.32	0.0281	0.0252 *
Earth	120967-12-13 05:14 G	45903695.47	45903695.72	45903695.97	0.0282	0.0005
Moon	120967-12-13 08:50 G	45903695.62	45903695.87	45903696.12	0.0282	0.0012 *
Earth	120968-12-25 22:46 G	45904074.32	45904074.45	45904074.59	0.0282	0.0235
Moon	120968-12-25 23:29 G	45904074.36	45904074.48	45904074.64	0.0282	0.0236 *
Venus	120975-09-28 23:00 G	45906542.30	45906542.46	45906542.63	0.0282	0.0181
Venus	120976-05-15 17:43 G	45906772.07	45906772.24	45906772.41	0.0282	0.0178
Mercury	120977-03-01 00:55 G	45907061.39	45907061.54	45907061.69	0.0281	0.0122
Mercury	120977-05-28 18:55 G	45907150.13	45907150.29	45907150.45	0.0281	0.0060
Mercury	120977-08-25 13:10 G	45907238.97	45907239.05	45907239.13	0.0281	0.0245
Moon	120981-06-04 00:55 G	45908617.40	45908617.54	45908617.68	0.0278	0.0227

Earth	120981-06-04 03:48 G	45908617.52	45908617.66	45908617.82	0.0278	0.0216	*
Moon	120982-06-16 16:46 G	45908994.97	45908995.20	45908995.44	0.0278	0.0011	
Earth	120982-06-16 19:24 G	45908995.07	45908995.31	45908995.55	0.0278	0.0005	*
Earth	120983-06-29 06:55 G	45909372.66	45909372.79	45909372.95	0.0277	0.0221	
Moon	120983-06-29 09:19 G	45909372.75	45909372.89	45909373.05	0.0277	0.0212	*
Venus	120990-10-24 03:34 G	45912046.45	45912046.65	45912046.85	0.0277	0.0067	
Venus	120991-06-10 08:50 G	45912275.80	45912275.87	45912275.95	0.0277	0.0258	
Mercury	120992-01-02 08:50 G	45912481.75	45912481.87	45912481.99	0.0277	0.0162	
Mercury	120992-03-30 22:31 G	45912570.29	45912570.44	45912570.58	0.0278	0.0008	
Mercury	120992-06-27 11:58 G	45912658.87	45912659.00	45912659.12	0.0278	0.0145	
Moon	120996-12-06 22:02 G	45914282.20	45914282.42	45914282.65	0.0281	0.0095	
Earth	120996-12-06 23:43 G	45914282.26	45914282.49	45914282.72	0.0281	0.0097	*
Earth	120997-12-20 15:19 G	45914660.93	45914661.14	45914661.36	0.0282	0.0140	
Moon	120997-12-20 17:58 G	45914661.05	45914661.25	45914661.45	0.0282	0.0152	*
Mars	120999-07-15 20:22 G	45915233.06	45915233.35	45915233.65	0.0283	0.0011	

122ND MILLENNIUM CE

This is a list of transits visible from Saturn in the 122nd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	121005-04-11 08:36 G	45917328.67	45917328.86	45917329.06	0.0282	0.0120		
Venus	121005-11-27 02:50 G	45917558.52	45917558.62	45917558.74	0.0282	0.0239		
Mercury	121006-07-20 02:22 G	45917793.47	45917793.60	45917793.74	0.0282	0.0160		

Mercury	121006-10-16 20:22 G	45917882.19	45917882.35	45917882.52	0.0281	0.0022
Mercury	121007-01-13 14:22 G	45917971.00	45917971.10	45917971.22	0.0281	0.0206
Moon	121011-06-12 16:02 G	45919581.94	45919582.17	45919582.41	0.0278	0.0106
Earth	121011-06-12 16:17 G	45919581.96	45919582.18	45919582.41	0.0278	0.0093 *
Moon	121012-06-24 01:10 G	45919959.35	45919959.55	45919959.78	0.0277	0.0126
Earth	121012-06-24 04:46 G	45919959.49	45919959.70	45919959.92	0.0277	0.0127 *
Venus	121020-05-06 05:29 G	45922832.53	45922832.73	45922832.94	0.0276	0.0030
Mercury	121021-05-22 09:34 G	45923213.81	45923213.90	45923214.00	0.0277	0.0215
Mercury	121021-08-18 23:14 G	45923302.33	45923302.47	45923302.62	0.0277	0.0060
Mercury	121021-11-15 12:41 G	45923390.90	45923391.03	45923391.17	0.0277	0.0093
Mercury	121022-02-12 01:53 G	45923479.52	45923479.58	45923479.65	0.0278	0.0244
Moon	121025-12-01 23:58 G	45924868.33	45924868.50	45924868.69	0.0281	0.0195
Earth	121025-12-02 02:07 G	45924868.43	45924868.59	45924868.76	0.0281	0.0208 *
Moon	121026-12-15 12:41 G	45925246.79	45925247.03	45925247.28	0.0282	0.0043
Earth	121026-12-15 16:17 G	45925246.94	45925247.18	45925247.43	0.0282	0.0027 *
Moon	121027-12-29 08:36 G	45925625.84	45925625.86	45925625.90	0.0282	0.0280
Earth	121027-12-29 10:02 G	45925625.84	45925625.92	45925626.01	0.0282	0.0264 *
Venus	121034-10-22 11:29 G	45928114.77	45928114.98	45928115.19	0.0282	0.0080
Venus	121035-06-09 05:43 G	45928344.72	45928344.74	45928344.78	0.0282	0.0278
Mercury	121035-12-07 01:38 G	45928525.48	45928525.57	45928525.68	0.0281	0.0221
Mercury	121036-03-04 19:38 G	45928614.16	45928614.32	45928614.48	0.0281	0.0040
Mercury	121036-06-01 13:38 G	45928702.93	45928703.07	45928703.22	0.0281	0.0143
Earth	121040-06-06 10:02 G	45930168.75	45930168.92	45930169.11	0.0278	0.0190
Moon	121040-06-06 12:55 G	45930168.89	45930169.04	45930169.22	0.0278	0.0198 *
Earth	121041-06-19 01:24 G	45930546.32	45930546.56	45930546.80	0.0278	0.0031
Moon	121041-06-19 03:48 G	45930546.41	45930546.66	45930546.90	0.0278	0.0037 *
Moon	121042-07-01 10:17 G	45930923.86	45930923.93	45930924.02	0.0277	0.0262
Earth	121042-07-01 12:55 G	45930923.94	45930924.04	45930924.16	0.0277	0.0246 *
Venus	121049-11-16 13:38 G	45933618.86	45933619.07	45933619.28	0.0277	0.0027
Mercury	121050-10-09 12:41 G	45933945.97	45933946.03	45933946.10	0.0278	0.0244

Mercury	121051-01-06 02:36 G	45934034.47	45934034.61	45934034.75	0.0278	0.0088
Mercury	121051-04-04 16:02 G	45934123.03	45934123.17	45934123.31	0.0278	0.0066
Mercury	121051-07-02 05:14 G	45934211.63	45934211.72	45934211.81	0.0278	0.0218
Earth	121055-12-10 11:00 G	45935833.72	45935833.96	45935834.21	0.0281	0.0067
Moon	121055-12-10 12:26 G	45935833.77	45935834.02	45935834.28	0.0281	0.0055 *
Moon	121056-12-23 00:41 G	45936212.34	45936212.53	45936212.74	0.0282	0.0176
Earth	121056-12-23 03:05 G	45936212.44	45936212.63	45936212.84	0.0282	0.0171 *
Venus	121064-05-03 22:46 G	45938901.23	45938901.45	45938901.66	0.0282	0.0014
Mercury	121065-04-25 04:02 G	45939257.61	45939257.67	45939257.75	0.0282	0.0251
Mercury	121065-07-22 21:48 G	45939346.26	45939346.41	45939346.57	0.0281	0.0072
Mercury	121065-10-19 15:48 G	45939435.01	45939435.16	45939435.32	0.0281	0.0111
Earth	121070-06-14 00:41 G	45941133.30	45941133.53	45941133.77	0.0278	0.0066
Moon	121070-06-14 01:10 G	45941133.33	45941133.55	45941133.79	0.0278	0.0054 *
Earth	121071-06-26 12:55 G	45941510.84	45941511.04	45941511.24	0.0277	0.0153
Moon	121071-06-26 16:31 G	45941511.00	45941511.19	45941511.39	0.0277	0.0168 *
Venus	121078-10-12 11:29 G	45944175.91	45944175.98	45944176.06	0.0276	0.0255
Venus	121079-05-29 16:17 G	45944404.98	45944405.18	45944405.39	0.0277	0.0067
Mercury	121080-05-25 03:34 G	45944766.52	45944766.65	45944766.78	0.0277	0.0138
Mercury	121080-08-21 17:00 G	45944855.07	45944855.21	45944855.36	0.0277	0.0018
Mercury	121080-11-18 06:26 G	45944943.66	45944943.77	45944943.88	0.0278	0.0168
Earth	121084-12-03 14:22 G	45946419.92	45946420.10	45946420.30	0.0281	0.0177
Moon	121084-12-03 16:31 G	45946420.02	45946420.19	45946420.39	0.0281	0.0177 *
Earth	121085-12-17 04:46 G	45946798.46	45946798.70	45946798.95	0.0282	0.0058
Moon	121085-12-17 08:50 G	45946798.62	45946798.87	45946799.11	0.0282	0.0051 *
Moon	121086-12-31 00:12 G	45947177.51	45947177.51	45947177.53	0.0282	0.0282
Mars	121087-12-10 14:07 G	45947521.82	45947522.09	45947522.37	0.0283	0.0104
Venus	121093-11-14 01:24 G	45949687.34	45949687.56	45949687.77	0.0282	0.0026
Mercury	121094-12-09 21:05 G	45950078.24	45950078.38	45950078.53	0.0281	0.0134
Mercury	121095-03-08 15:05 G	45950166.97	45950167.13	45950167.29	0.0281	0.0047
Mercury	121095-06-05 09:05 G	45950255.80	45950255.88	45950255.98	0.0281	0.0232

Moon	121099-06-08 14:50 G	45951719.92	45951720.12	45951720.34	0.0278	0.0147
Earth	121099-06-08 17:58 G	45951720.06	45951720.25	45951720.46	0.0278	0.0163 *
Moon	121100-06-21 06:55 G	45952097.56	45952097.79	45952098.02	0.0277	0.0066
Earth	121100-06-21 08:50 G	45952097.63	45952097.87	45952098.10	0.0277	0.0058 *
Earth	121101-07-03 20:07 G	45952475.30	45952475.34	45952475.39	0.0277	0.0272
Moon	121101-07-03 22:31 G	45952475.39	45952475.44	45952475.50	0.0277	0.0269 *
Venus	121108-04-24 18:55 G	45954962.15	45954962.29	45954962.43	0.0277	0.0201
Venus	121108-12-09 23:58 G	45955191.32	45955191.50	45955191.69	0.0277	0.0124
Mercury	121109-10-13 06:26 G	45955498.65	45955498.77	45955498.89	0.0278	0.0168
Mercury	121110-01-09 20:07 G	45955587.19	45955587.34	45955587.49	0.0278	0.0012
Mercury	121110-04-08 09:34 G	45955675.78	45955675.90	45955676.02	0.0278	0.0141
Moon	121113-11-29 06:26 G	45957006.75	45957006.77	45957006.81	0.0281	0.0278
Earth	121113-11-29 09:48 G	45957006.86	45957006.91	45957007.00	0.0281	0.0269
Moon	121114-12-12 21:48 G	45957385.18	45957385.41	45957385.65	0.0281	0.0052
Earth	121114-12-12 23:29 G	45957385.23	45957385.48	45957385.73	0.0281	0.0036 *
Earth	121115-12-26 15:48 G	45957764.00	45957764.16	45957764.35	0.0282	0.0202
Moon	121115-12-26 18:12 G	45957764.08	45957764.26	45957764.44	0.0282	0.0185 *
Venus	121122-10-10 18:12 G	45960244.20	45960244.26	45960244.34	0.0282	0.0266
Venus	121123-05-28 13:10 G	45960473.85	45960474.05	45960474.26	0.0282	0.0094
Mercury	121124-04-28 23:43 G	45960810.36	45960810.49	45960810.63	0.0281	0.0161
Mercury	121124-07-26 17:43 G	45960899.07	45960899.24	45960899.40	0.0281	0.0020
Mercury	121124-10-23 11:43 G	45960987.88	45960987.99	45960988.11	0.0281	0.0203
Earth	121128-06-03 19:10 G	45962307.22	45962307.30	45962307.39	0.0278	0.0257
Moon	121128-06-03 22:46 G	45962307.33	45962307.45	45962307.57	0.0278	0.0244 *
Moon	121129-06-16 09:34 G	45962684.66	45962684.90	45962685.15	0.0277	0.0039
Earth	121129-06-16 10:31 G	45962684.71	45962684.94	45962685.19	0.0277	0.0038 *
Moon	121130-06-28 18:26 G	45963062.09	45963062.27	45963062.47	0.0277	0.0168
Earth	121130-06-28 22:17 G	45963062.26	45963062.43	45963062.62	0.0277	0.0181 *
Venus	121137-11-04 22:46 G	45965748.28	45965748.45	45965748.62	0.0276	0.0158
Venus	121138-06-22 03:48 G	45965977.50	45965977.66	45965977.83	0.0277	0.0166

Mercury	121139-03-02 07:53 G	45966230.73	45966230.83	45966230.92	0.0277	0.0215
Mercury	121139-05-29 21:34 G	45966319.25	45966319.40	45966319.54	0.0277	0.0059
Mercury	121139-08-26 11:00 G	45966407.82	45966407.96	45966408.09	0.0277	0.0094
Mercury	121139-11-23 00:12 G	45966496.45	45966496.51	45966496.58	0.0278	0.0244
Moon	121143-12-07 00:55 G	45967971.33	45967971.54	45967971.75	0.0281	0.0161
Earth	121143-12-07 03:19 G	45967971.43	45967971.64	45967971.85	0.0281	0.0146 *
Moon	121144-12-19 14:07 G	45968349.85	45968350.09	45968350.33	0.0282	0.0077
Earth	121144-12-19 17:58 G	45968350.02	45968350.25	45968350.49	0.0282	0.0089 *
Venus	121152-04-21 20:50 G	45971030.25	45971030.37	45971030.50	0.0282	0.0227
Venus	121152-12-07 15:48 G	45971259.97	45971260.16	45971260.35	0.0282	0.0132
Mercury	121153-09-15 23:00 G	45971542.37	45971542.46	45971542.56	0.0281	0.0223
Mercury	121153-12-13 16:46 G	45971631.04	45971631.20	45971631.36	0.0281	0.0044
Mercury	121154-03-12 10:46 G	45971719.81	45971719.95	45971720.10	0.0281	0.0138
Earth	121158-06-11 03:19 G	45973271.43	45973271.64	45973271.86	0.0278	0.0135
Moon	121158-06-11 06:41 G	45973271.58	45973271.78	45973271.98	0.0278	0.0145 *
Earth	121159-06-23 17:29 G	45973649.00	45973649.23	45973649.46	0.0277	0.0085
Moon	121159-06-23 19:24 G	45973649.07	45973649.31	45973649.55	0.0277	0.0069 *
Venus	121167-05-18 05:14 G	45976534.53	45976534.72	45976534.91	0.0277	0.0106
Venus	121168-01-02 10:31 G	45976763.82	45976763.94	45976764.07	0.0277	0.0220
Mercury	121168-07-19 10:17 G	45976962.87	45976962.93	45976963.00	0.0278	0.0248
Mercury	121168-10-16 00:12 G	45977051.37	45977051.51	45977051.65	0.0278	0.0092
Mercury	121169-01-12 13:38 G	45977139.93	45977140.07	45977140.22	0.0278	0.0063
Mercury	121169-04-11 03:05 G	45977228.54	45977228.63	45977228.72	0.0278	0.0214
Earth	121172-11-30 21:19 G	45978558.27	45978558.39	45978558.52	0.0281	0.0240
Moon	121172-12-01 01:10 G	45978558.44	45978558.55	45978558.67	0.0281	0.0248 *
Earth	121173-12-14 11:29 G	45978936.73	45978936.98	45978937.23	0.0281	0.0007
Moon	121173-12-14 13:24 G	45978936.80	45978937.06	45978937.31	0.0281	0.0008 *
Moon	121174-12-28 02:50 G	45979315.49	45979315.62	45979315.76	0.0282	0.0238
Earth	121174-12-28 05:00 G	45979315.57	45979315.71	45979315.85	0.0282	0.0231 *
Venus	121181-11-02 09:48 G	45981816.73	45981816.91	45981817.09	0.0282	0.0156

Venus	121182-06-20 04:17 G	45982046.53	45982046.68	45982046.83	0.0282	0.0203
Mercury	121183-02-03 02:07 G	45982274.51	45982274.59	45982274.66	0.0282	0.0247
Mercury	121183-05-02 19:38 G	45982363.16	45982363.32	45982363.48	0.0281	0.0069
Mercury	121183-07-30 13:38 G	45982451.92	45982452.07	45982452.22	0.0281	0.0113
Moon	121187-06-06 02:50 G	45983858.52	45983858.62	45983858.75	0.0278	0.0244
Earth	121187-06-06 06:12 G	45983858.63	45983858.76	45983858.90	0.0278	0.0229 *
Earth	121188-06-17 21:05 G	45984236.14	45984236.38	45984236.63	0.0277	0.0009
Moon	121188-06-17 22:17 G	45984236.19	45984236.43	45984236.66	0.0277	0.0022 *
Earth	121189-06-30 08:07 G	45984613.70	45984613.84	45984614.01	0.0277	0.0209
Moon	121189-06-30 12:12 G	45984613.85	45984614.01	45984614.18	0.0277	0.0203 *
Mars	121190-07-23 15:19 G	45985002.08	45985002.14	45985002.24	0.0276	0.0267
Venus	121196-11-27 09:48 G	45987320.71	45987320.91	45987321.12	0.0276	0.0061
Venus	121197-07-14 15:05 G	45987550.08	45987550.13	45987550.20	0.0277	0.0264
Mercury	121198-03-05 01:38 G	45987783.45	45987783.57	45987783.70	0.0277	0.0136
Mercury	121198-06-01 15:19 G	45987872.00	45987872.14	45987872.29	0.0277	0.0019
Mercury	121198-08-29 04:45 G	45987960.59	45987960.70	45987960.81	0.0278	0.0170
Earth	121202-12-08 15:33 G	45989522.93	45989523.15	45989523.38	0.0281	0.0117
Moon	121202-12-08 17:43 G	45989523.02	45989523.24	45989523.47	0.0281	0.0105 *
Earth	121203-12-22 06:41 G	45989901.56	45989901.78	45989902.01	0.0282	0.0120
Moon	121203-12-22 10:31 G	45989901.73	45989901.94	45989902.16	0.0282	0.0136 *
Venus	121211-05-15 11:29 G	45992602.79	45992602.98	45992603.18	0.0282	0.0119
Venus	121211-12-31 05:57 G	45992832.65	45992832.75	45992832.88	0.0282	0.0240
Mercury	121212-09-18 18:26 G	45993095.13	45993095.27	45993095.42	0.0281	0.0134
Mercury	121212-12-16 12:26 G	45993183.86	45993184.02	45993184.18	0.0281	0.0047
Mercury	121213-03-15 06:26 G	45993272.69	45993272.77	45993272.87	0.0281	0.0231
Moon	121217-06-12 09:33 G	45994822.68	45994822.90	45994823.13	0.0278	0.0111
Earth	121217-06-12 13:09 G	45994822.83	45994823.05	45994823.28	0.0278	0.0107 *
Moon	121218-06-25 00:26 G	45995200.31	45995200.52	45995200.74	0.0277	0.0119
Earth	121218-06-25 02:21 G	45995200.39	45995200.60	45995200.83	0.0277	0.0113 *
Venus	121226-06-09 15:48 G	45998106.95	45998107.16	45998107.37	0.0277	0.0010

Mercury	121227-07-23 04:02 G	45998515.56	45998515.67	45998515.79	0.0278	0.0172
Mercury	121227-10-19 17:43 G	45998604.10	45998604.24	45998604.39	0.0278	0.0017
Mercury	121228-01-16 07:09 G	45998692.68	45998692.80	45998692.93	0.0278	0.0137
Moon	121231-12-03 04:02 G	46000109.50	46000109.67	46000109.85	0.0281	0.0195
Earth	121231-12-03 07:53 G	46000109.68	46000109.83	46000110.00	0.0281	0.0213 *
Moon	121232-12-15 20:36 G	46000488.12	46000488.36	46000488.60	0.0282	0.0038
Earth	121232-12-15 22:31 G	46000488.19	46000488.44	46000488.69	0.0282	0.0023 *
Earth	121233-12-29 16:17 G	46000867.10	46000867.18	46000867.28	0.0282	0.0260
Moon	121233-12-29 18:41 G	46000867.21	46000867.28	46000867.35	0.0282	0.0268 *
Venus	121240-11-25 00:12 G	46003389.30	46003389.51	46003389.73	0.0282	0.0048
Mercury	121242-02-05 21:33 G	46003827.27	46003827.40	46003827.54	0.0282	0.0158
Mercury	121242-05-05 15:33 G	46003915.98	46003916.15	46003916.31	0.0281	0.0024
Mercury	121242-08-02 09:33 G	46004004.79	46004004.90	46004005.01	0.0281	0.0206
Earth	121246-06-07 17:00 G	46005410.05	46005410.21	46005410.39	0.0278	0.0201
Moon	121246-06-07 20:07 G	46005410.18	46005410.34	46005410.53	0.0278	0.0198 *
Moon	121247-06-20 06:41 G	46005787.53	46005787.78	46005788.03	0.0277	0.0033
Earth	121247-06-20 07:38 G	46005787.58	46005787.82	46005788.06	0.0277	0.0020 *
Moon	121248-07-01 14:50 G	46006165.04	46006165.12	46006165.23	0.0277	0.0252
Earth	121248-07-01 18:55 G	46006165.16	46006165.29	46006165.41	0.0277	0.0235 *
Venus	121255-12-20 20:50 G	46008893.16	46008893.37	46008893.58	0.0276	0.0037
Mercury	121256-12-09 05:43 G	46009247.65	46009247.74	46009247.83	0.0277	0.0215
Mercury	121257-03-07 19:24 G	46009336.17	46009336.31	46009336.46	0.0277	0.0060
Mercury	121257-06-04 09:05 G	46009424.74	46009424.88	46009425.01	0.0277	0.0094
Mercury	121257-08-31 22:17 G	46009513.36	46009513.43	46009513.50	0.0277	0.0244
Moon	121261-12-10 00:55 G	46011074.29	46011074.54	46011074.78	0.0281	0.0081
Earth	121261-12-10 02:50 G	46011074.39	46011074.62	46011074.86	0.0281	0.0087 *
Moon	121262-12-23 15:05 G	46011452.92	46011453.13	46011453.34	0.0282	0.0146
Earth	121262-12-23 18:26 G	46011453.07	46011453.27	46011453.49	0.0282	0.0150 *
Venus	121270-06-07 02:07 G	46014175.37	46014175.59	46014175.80	0.0282	0.0011
Mercury	121271-06-25 20:36 G	46014559.26	46014559.36	46014559.46	0.0281	0.0223

Mercury	121271-09-22 14:07 G	46014647.93	46014648.09	46014648.26	0.0281	0.0045
Mercury	121271-12-20 08:07 G	46014736.70	46014736.84	46014736.99	0.0281	0.0138
Earth	121276-06-13 22:45 G	46016374.22	46016374.45	46016374.69	0.0277	0.0080
Moon	121276-06-14 02:21 G	46016374.37	46016374.60	46016374.84	0.0277	0.0063 *
Earth	121277-06-26 11:29 G	46016751.78	46016751.98	46016752.20	0.0277	0.0140
Moon	121277-06-26 13:53 G	46016751.87	46016752.08	46016752.29	0.0277	0.0150 *
Mars	121278-12-17 13:09 G	46017290.82	46017291.05	46017291.31	0.0276	0.0159
Venus	121284-11-14 20:21 G	46019450.26	46019450.35	46019450.46	0.0277	0.0240
Venus	121285-07-02 01:24 G	46019679.37	46019679.56	46019679.77	0.0277	0.0085
Mercury	121286-04-28 07:38 G	46019979.76	46019979.82	46019979.87	0.0278	0.0256
Mercury	121286-07-25 21:19 G	46020068.26	46020068.39	46020068.53	0.0278	0.0100
Mercury	121286-10-22 11:00 G	46020156.82	46020156.96	46020157.11	0.0278	0.0055
Mercury	121287-01-19 00:26 G	46020245.43	46020245.52	46020245.62	0.0278	0.0207
Earth	121290-12-04 16:45 G	46021661.02	46021661.20	46021661.39	0.0281	0.0186
Moon	121290-12-04 20:36 G	46021661.19	46021661.36	46021661.55	0.0281	0.0191 *
Earth	121291-12-18 07:53 G	46022039.58	46022039.83	46022040.07	0.0282	0.0050
Moon	121291-12-18 09:33 G	46022039.64	46022039.90	46022040.15	0.0282	0.0039 *
Moon	121292-12-30 23:29 G	46022418.42	46022418.48	46022418.56	0.0282	0.0272
Venus	121299-12-18 13:53 G	46024961.87	46024962.08	46024962.30	0.0282	0.0058
Mercury	121300-11-12 23:29 G	46025291.40	46025291.48	46025291.55	0.0282	0.0249
Mercury	121301-02-09 17:00 G	46025380.05	46025380.21	46025380.37	0.0282	0.0071
Mercury	121301-05-09 10:45 G	46025468.80	46025468.95	46025469.11	0.0281	0.0112
Moon	121305-06-09 23:57 G	46026961.31	46026961.50	46026961.70	0.0278	0.0162
Earth	121305-06-10 02:50 G	46026961.44	46026961.62	46026961.82	0.0278	0.0174 *
Earth	121306-06-22 17:00 G	46027338.97	46027339.21	46027339.45	0.0277	0.0047
Moon	121306-06-22 17:57 G	46027339.02	46027339.25	46027339.48	0.0277	0.0049 *
Earth	121307-07-05 03:33 G	46027716.59	46027716.65	46027716.74	0.0277	0.0262
Moon	121307-07-05 07:09 G	46027716.71	46027716.80	46027716.91	0.0277	0.0251 *
Venus	121314-05-29 02:50 G	46030236.47	46030236.62	46030236.77	0.0276	0.0189
Venus	121315-01-13 07:24 G	46030465.63	46030465.81	46030465.99	0.0276	0.0132

Mercury	121315-12-13 23:29 G	46030800.35	46030800.48	46030800.61	0.0277	0.0139
Mercury	121316-03-11 13:09 G	46030888.90	46030889.05	46030889.19	0.0277	0.0015
Mercury	121316-06-08 02:36 G	46030977.49	46030977.61	46030977.72	0.0277	0.0167
Earth	121320-12-12 12:41 G	46032625.79	46032626.03	46032626.27	0.0281	0.0059
Moon	121320-12-12 14:36 G	46032625.88	46032626.11	46032626.35	0.0281	0.0075 *
Earth	121321-12-26 04:31 G	46033004.51	46033004.69	46033004.89	0.0282	0.0178
Moon	121321-12-26 08:07 G	46033004.65	46033004.84	46033005.05	0.0282	0.0167 *
Venus	121328-11-12 19:53 G	46035518.28	46035518.33	46035518.41	0.0283	0.0269
Venus	121329-06-30 15:19 G	46035747.94	46035748.14	46035748.34	0.0282	0.0092
Mercury	121330-06-29 15:33 G	46036112.01	46036112.15	46036112.29	0.0282	0.0139
Mercury	121330-09-26 09:19 G	46036200.73	46036200.89	46036201.06	0.0281	0.0042
Mercury	121330-12-24 03:33 G	46036289.55	46036289.65	46036289.75	0.0281	0.0225
Moon	121334-06-04 15:05 G	46037548.09	46037548.13	46037548.20	0.0278	0.0270
Earth	121334-06-04 15:05 G	46037548.10	46037548.13	46037548.19	0.0278	0.0272 *
Moon	121335-06-17 03:48 G	46037925.43	46037925.66	46037925.90	0.0277	0.0063
Earth	121335-06-17 07:24 G	46037925.58	46037925.81	46037926.05	0.0277	0.0053 *
Moon	121336-06-28 18:12 G	46038303.07	46038303.26	46038303.46	0.0277	0.0152
Earth	121336-06-28 19:53 G	46038303.14	46038303.33	46038303.53	0.0277	0.0166 *
Venus	121343-12-09 05:43 G	46041022.57	46041022.74	46041022.92	0.0277	0.0148
Venus	121344-07-25 10:31 G	46041251.79	46041251.94	46041252.11	0.0277	0.0176
Mercury	121345-05-02 00:55 G	46041532.43	46041532.54	46041532.65	0.0278	0.0185
Mercury	121345-07-29 14:36 G	46041620.97	46041621.11	46041621.26	0.0278	0.0030
Mercury	121345-10-26 04:02 G	46041709.54	46041709.67	46041709.80	0.0278	0.0124
Mercury	121346-01-22 17:14 G	46041798.21	46041798.22	46041798.25	0.0278	0.0274
Moon	121349-12-06 19:53 G	46043212.15	46043212.33	46043212.54	0.0281	0.0172
Earth	121349-12-06 23:43 G	46043212.29	46043212.49	46043212.70	0.0281	0.0161 *
Moon	121350-12-20 14:07 G	46043590.86	46043591.09	46043591.32	0.0282	0.0076
Earth	121350-12-20 15:05 G	46043590.89	46043591.13	46043591.37	0.0282	0.0076 *
Venus	121358-05-26 07:09 G	46046304.65	46046304.80	46046304.95	0.0283	0.0203
Venus	121359-01-11 02:21 G	46046534.43	46046534.60	46046534.78	0.0282	0.0158

Mercury	121359-11-16 17:57 G	46046844.13	46046844.25	46046844.39	0.0282	0.0168
Mercury	121360-02-13 11:57 G	46046932.83	46046933.00	46046933.16	0.0282	0.0013
Mercury	121360-05-12 05:43 G	46047021.63	46047021.74	46047021.87	0.0281	0.0197
Earth	121364-06-11 11:29 G	46048512.78	46048512.98	46048513.19	0.0278	0.0147
Moon	121364-06-11 14:50 G	46048512.92	46048513.12	46048513.32	0.0278	0.0162 *
Moon	121365-06-24 00:12 G	46048890.27	46048890.51	46048890.76	0.0277	0.0059
Earth	121365-06-24 01:24 G	46048890.33	46048890.56	46048890.80	0.0277	0.0073 *
Mars	121367-05-15 05:57 G	46049580.46	46049580.75	46049581.05	0.0276	0.0009
Venus	121373-06-20 12:12 G	46051808.82	46051809.01	46051809.21	0.0276	0.0097
Venus	121374-02-04 17:00 G	46052038.09	46052038.21	46052038.33	0.0276	0.0225
Mercury	121374-09-19 02:50 G	46052264.54	46052264.62	46052264.71	0.0277	0.0223
Mercury	121374-12-16 16:45 G	46052353.06	46052353.20	46052353.34	0.0277	0.0068
Mercury	121375-03-15 06:12 G	46052441.63	46052441.76	46052441.90	0.0277	0.0085
Mercury	121375-06-11 19:24 G	46052530.24	46052530.31	46052530.39	0.0277	0.0236
Earth	121378-12-01 07:53 G	46053798.76	46053798.83	46053798.92	0.0280	0.0263
Moon	121378-12-01 09:48 G	46053798.83	46053798.91	46053799.00	0.0280	0.0262 *
Moon	121379-12-14 17:43 G	46054176.98	46054177.24	46054177.49	0.0281	0.0021
Earth	121379-12-14 20:21 G	46054177.10	46054177.35	46054177.59	0.0281	0.0033 *
Moon	121380-12-27 09:05 G	46054555.74	46054555.88	46054556.04	0.0282	0.0221
Earth	121380-12-27 12:26 G	46054555.86	46054556.02	46054556.20	0.0282	0.0204 *
Venus	121387-12-06 08:21 G	46057090.68	46057090.85	46057091.03	0.0283	0.0168
Venus	121388-07-23 03:19 G	46057320.49	46057320.64	46057320.80	0.0282	0.0192
Mercury	121389-04-04 16:45 G	46057576.11	46057576.20	46057576.28	0.0282	0.0236
Mercury	121389-07-02 10:17 G	46057664.77	46057664.93	46057665.09	0.0282	0.0058
Mercury	121389-09-29 04:02 G	46057753.53	46057753.67	46057753.83	0.0281	0.0125
Earth	121393-06-05 22:45 G	46059099.34	46059099.45	46059099.56	0.0278	0.0247
Moon	121393-06-05 22:45 G	46059099.38	46059099.45	46059099.53	0.0278	0.0262 *
Earth	121394-06-18 14:21 G	46059476.86	46059477.10	46059477.35	0.0277	0.0027
Moon	121394-06-18 17:57 G	46059477.01	46059477.25	46059477.49	0.0277	0.0035 *
Earth	121395-07-01 02:36 G	46059854.44	46059854.61	46059854.79	0.0277	0.0190

Moon	121395-07-01 03:48 G	46059854.49	46059854.66	46059854.84	0.0277	0.0196	*
Venus	121403-01-01 14:07 G	46062594.89	46062595.09	46062595.30	0.0277	0.0059	
Venus	121403-08-18 19:09 G	46062824.25	46062824.30	46062824.36	0.0277	0.0265	
Mercury	121404-02-07 03:48 G	46062996.65	46062996.66	46062996.69	0.0277	0.0274	
Mercury	121404-05-05 17:43 G	46063085.11	46063085.24	46063085.38	0.0278	0.0117	
Mercury	121404-08-02 07:24 G	46063173.67	46063173.81	46063173.96	0.0278	0.0038	
Mercury	121404-10-29 20:50 G	46063262.27	46063262.37	46063262.48	0.0278	0.0189	
Earth	121408-12-09 04:45 G	46064763.49	46064763.70	46064763.92	0.0281	0.0138	
Moon	121408-12-09 08:07 G	46064763.63	46064763.84	46064764.08	0.0281	0.0123	*
Earth	121409-12-22 20:21 G	46065142.12	46065142.35	46065142.58	0.0282	0.0100	
Moon	121409-12-22 20:36 G	46065142.13	46065142.36	46065142.61	0.0282	0.0113	*
Venus	121417-06-18 17:43 G	46067877.05	46067877.24	46067877.45	0.0283	0.0108	
Venus	121418-02-03 12:55 G	46068106.95	46068107.04	46068107.14	0.0282	0.0253	
Mercury	121418-08-23 18:41 G	46068308.24	46068308.28	46068308.33	0.0282	0.0270	
Mercury	121418-11-20 12:12 G	46068396.86	46068397.01	46068397.17	0.0282	0.0093	
Mercury	121419-02-17 06:12 G	46068485.60	46068485.76	46068485.92	0.0282	0.0089	
Mercury	121419-05-17 00:12 G	46068574.49	46068574.51	46068574.55	0.0281	0.0275	
Moon	121423-06-14 14:50 G	46070063.90	46070064.12	46070064.33	0.0278	0.0121	
Earth	121423-06-14 17:43 G	46070064.03	46070064.24	46070064.46	0.0278	0.0122	*
Earth	121424-06-26 07:38 G	46070441.59	46070441.82	46070442.05	0.0277	0.0098	
Moon	121424-06-26 09:05 G	46070441.67	46070441.88	46070442.10	0.0277	0.0111	*
Venus	121432-07-13 21:05 G	46073381.17	46073381.38	46073381.59	0.0276	0.0008	
Mercury	121433-09-22 20:07 G	46073817.22	46073817.34	46073817.46	0.0277	0.0154	
Mercury	121433-12-20 09:48 G	46073905.76	46073905.91	46073906.06	0.0277	0.0001	
Mercury	121434-03-18 23:00 G	46073994.35	46073994.46	46073994.59	0.0277	0.0152	
Moon	121437-12-03 12:12 G	46075349.88	46075350.01	46075350.15	0.0280	0.0228	
Earth	121437-12-03 13:24 G	46075349.94	46075350.06	46075350.19	0.0280	0.0239	*
Earth	121438-12-17 01:53 G	46075728.33	46075728.58	46075728.82	0.0281	0.0009	
Moon	121438-12-17 04:45 G	46075728.46	46075728.70	46075728.94	0.0281	0.0006	*
Earth	121439-12-30 17:57 G	46076107.12	46076107.25	46076107.40	0.0282	0.0229	

Moon	121439-12-30 21:48 G	46076107.26	46076107.41	46076107.56	0.0282	0.0223	*
Venus	121446-12-29 19:09 G	46078663.10	46078663.30	46078663.51	0.0283	0.0072	
Mercury	121448-04-08 10:45 G	46079128.82	46079128.95	46079129.08	0.0282	0.0162	
Mercury	121448-07-06 04:31 G	46079217.52	46079217.69	46079217.85	0.0282	0.0018	
Mercury	121448-10-02 22:31 G	46079306.33	46079306.44	46079306.56	0.0281	0.0201	
Moon	121452-06-08 04:02 G	46080650.52	46080650.67	46080650.84	0.0278	0.0210	
Earth	121452-06-08 04:17 G	46080650.54	46080650.68	46080650.83	0.0278	0.0223	*
Moon	121453-06-20 16:45 G	46081027.95	46081028.20	46081028.44	0.0277	0.0014	
Earth	121453-06-20 20:07 G	46081028.10	46081028.34	46081028.58	0.0277	0.0003	*
Moon	121454-07-03 07:24 G	46081405.68	46081405.81	46081405.96	0.0277	0.0221	
Earth	121454-07-03 07:53 G	46081405.69	46081405.83	46081406.00	0.0277	0.0214	*
Mars	121455-10-09 12:26 G	46081868.74	46081869.02	46081869.31	0.0276	0.0061	
Venus	121462-01-23 21:48 G	46084167.21	46084167.41	46084167.62	0.0277	0.0029	
Mercury	121463-02-09 20:36 G	46084549.27	46084549.36	46084549.46	0.0277	0.0208	
Mercury	121463-05-09 10:31 G	46084637.79	46084637.94	46084638.08	0.0277	0.0053	
Mercury	121463-08-05 23:57 G	46084726.37	46084726.50	46084726.64	0.0278	0.0100	
Mercury	121463-11-02 13:24 G	46084815.00	46084815.06	46084815.12	0.0278	0.0250	
Moon	121467-12-11 04:31 G	46086314.48	46086314.69	46086314.91	0.0281	0.0125	
Earth	121467-12-11 07:53 G	46086314.61	46086314.83	46086315.06	0.0281	0.0115	*
Earth	121468-12-23 23:14 G	46086693.25	46086693.47	46086693.70	0.0282	0.0122	
Moon	121468-12-23 23:14 G	46086693.25	46086693.47	46086693.69	0.0282	0.0107	*
Venus	121476-07-11 03:19 G	46089449.42	46089449.64	46089449.85	0.0283	0.0017	
Mercury	121477-08-26 12:12 G	46089860.90	46089861.01	46089861.12	0.0282	0.0202	
Mercury	121477-11-23 05:57 G	46089949.58	46089949.75	46089949.91	0.0282	0.0022	
Mercury	121478-02-19 23:57 G	46090038.36	46090038.50	46090038.63	0.0282	0.0161	
Earth	121482-06-15 21:48 G	46091615.19	46091615.41	46091615.64	0.0278	0.0099	
Moon	121482-06-16 00:26 G	46091615.29	46091615.52	46091615.77	0.0278	0.0086	*
Moon	121483-06-28 09:33 G	46091992.67	46091992.90	46091993.12	0.0277	0.0118	
Earth	121483-06-28 11:43 G	46091992.78	46091992.99	46091993.21	0.0277	0.0121	*
Venus	121490-12-20 00:41 G	46094724.43	46094724.53	46094724.63	0.0276	0.0240	

Venus	121491-08-06 05:00 G	46094953.51	46094953.71	46094953.91	0.0276	0.0080
Mercury	121492-06-28 23:00 G	46095281.40	46095281.46	46095281.54	0.0276	0.0243
Mercury	121492-09-25 12:55 G	46095369.90	46095370.04	46095370.18	0.0276	0.0088
Mercury	121492-12-23 02:36 G	46095458.47	46095458.61	46095458.75	0.0277	0.0065
Mercury	121493-03-21 15:48 G	46095547.07	46095547.16	46095547.25	0.0277	0.0214
Earth	121496-12-04 17:29 G	46096901.09	46096901.23	46096901.40	0.0280	0.0215
Moon	121496-12-04 18:12 G	46096901.12	46096901.26	46096901.41	0.0280	0.0229 *
Moon	121497-12-18 02:50 G	46097279.36	46097279.62	46097279.87	0.0281	0.0003
Earth	121497-12-18 06:12 G	46097279.51	46097279.76	46097280.01	0.0281	0.0017 *
Moon	121498-12-31 19:09 G	46097658.17	46097658.30	46097658.43	0.0282	0.0240
Earth	121498-12-31 22:17 G	46097658.33	46097658.43	46097658.55	0.0282	0.0252 *
Venus	121506-01-22 04:45 G	46100235.48	46100235.70	46100235.91	0.0283	0.0021
Mercury	121507-01-14 10:45 G	46100592.91	46100592.95	46100593.00	0.0282	0.0270
Mercury	121507-04-13 04:17 G	46100681.53	46100681.68	46100681.84	0.0282	0.0092
Mercury	121507-07-10 22:02 G	46100770.27	46100770.42	46100770.58	0.0282	0.0090
Mercury	121507-10-07 16:17 G	46100859.15	46100859.18	46100859.22	0.0282	0.0274
Earth	121511-06-11 07:38 G	46102201.66	46102201.82	46102202.00	0.0278	0.0200
Moon	121511-06-11 08:07 G	46102201.69	46102201.84	46102202.01	0.0278	0.0200 *
Earth	121512-06-22 23:29 G	46102579.24	46102579.48	46102579.72	0.0277	0.0021
Moon	121512-06-23 03:05 G	46102579.39	46102579.63	46102579.87	0.0277	0.0009 *
Earth	121513-07-05 11:29 G	46102956.86	46102956.98	46102957.11	0.0277	0.0236
Moon	121513-07-05 11:57 G	46102956.86	46102957.00	46102957.16	0.0277	0.0219 *
Venus	121520-07-02 00:41 G	46105510.40	46105510.53	46105510.67	0.0276	0.0208
Venus	121521-02-16 05:00 G	46105739.52	46105739.71	46105739.90	0.0276	0.0113
Mercury	121522-02-13 13:09 G	46106101.93	46106102.05	46106102.18	0.0277	0.0146
Mercury	121522-05-13 02:50 G	46106190.48	46106190.62	46106190.77	0.0277	0.0010
Mercury	121522-08-09 16:17 G	46106279.07	46106279.18	46106279.30	0.0277	0.0160
Earth	121526-12-13 09:33 G	46107865.67	46107865.90	46107866.14	0.0281	0.0094
Moon	121526-12-13 12:55 G	46107865.81	46107866.04	46107866.28	0.0281	0.0100 *
Moon	121527-12-27 00:55 G	46108244.32	46108244.54	46108244.76	0.0282	0.0144

Earth	121527-12-27 00:55 G	46108244.33	46108244.54	46108244.75	0.0282	0.0143	*
Jupiter	121533-06-27 00:12 G	46110253.04	46110253.51	46110254.01	0.0283	0.0069	
Venus	121535-08-04 11:00 G	46111021.76	46111021.96	46111022.18	0.0283	0.0072	
Mercury	121536-08-30 05:14 G	46111413.58	46111413.72	46111413.86	0.0282	0.0138	
Mercury	121536-11-26 23:00 G	46111502.30	46111502.46	46111502.63	0.0282	0.0044	
Mercury	121537-02-23 17:00 G	46111591.12	46111591.21	46111591.31	0.0282	0.0228	
Moon	121541-06-17 22:17 G	46113166.21	46113166.43	46113166.65	0.0278	0.0091	
Earth	121541-06-18 00:12 G	46113166.28	46113166.51	46113166.75	0.0278	0.0076	*
Earth	121542-06-30 14:21 G	46113543.90	46113544.10	46113544.31	0.0278	0.0144	
Moon	121542-06-30 17:00 G	46113544.01	46113544.21	46113544.42	0.0278	0.0132	*
Mars	121544-03-05 17:29 G	46114158.01	46114158.23	46114158.45	0.0276	0.0181	
Venus	121550-01-12 07:53 G	46116296.67	46116296.83	46116297.01	0.0276	0.0156	
Venus	121550-08-29 12:12 G	46116525.85	46116526.01	46116526.18	0.0276	0.0165	
Mercury	121551-07-03 15:48 G	46116834.05	46116834.16	46116834.27	0.0276	0.0179	
Mercury	121551-09-30 05:29 G	46116922.59	46116922.73	46116922.88	0.0276	0.0026	
Mercury	121551-12-27 18:55 G	46117011.16	46117011.29	46117011.42	0.0277	0.0126	
Mercury	121552-03-25 08:07 G	46117099.83	46117099.84	46117099.86	0.0277	0.0274	
Earth	121555-12-07 20:36 G	46118452.18	46118452.36	46118452.54	0.0280	0.0192	
Moon	121555-12-07 20:21 G	46118452.18	46118452.35	46118452.53	0.0280	0.0187	*
Earth	121556-12-20 08:50 G	46118830.62	46118830.87	46118831.11	0.0281	0.0039	
Moon	121556-12-20 11:57 G	46118830.77	46118831.00	46118831.25	0.0281	0.0053	*
Earth	121558-01-03 00:41 G	46119209.49	46119209.53	46119209.60	0.0282	0.0274	
Venus	121564-06-28 17:29 G	46121578.14	46121578.23	46121578.32	0.0283	0.0253	
Venus	121565-02-13 12:55 G	46121807.84	46121808.04	46121808.24	0.0283	0.0109	
Mercury	121566-01-17 04:02 G	46122145.56	46122145.67	46122145.78	0.0282	0.0204	
Mercury	121566-04-15 21:33 G	46122234.24	46122234.40	46122234.56	0.0282	0.0026	
Mercury	121566-07-13 15:33 G	46122323.01	46122323.15	46122323.29	0.0282	0.0157	
Moon	121570-06-12 08:21 G	46123752.68	46123752.85	46123753.05	0.0278	0.0190	
Earth	121570-06-12 09:48 G	46123752.73	46123752.91	46123753.10	0.0278	0.0178	*
Moon	121571-06-24 22:17 G	46124130.19	46124130.43	46124130.67	0.0278	0.0041	

Earth	121571-06-25 01:53 G	46124130.34	46124130.58	46124130.82	0.0278	0.0043	*
Earth	121572-07-06 13:53 G	46124508.00	46124508.08	46124508.17	0.0277	0.0257	
Moon	121572-07-06 13:24 G	46124508.01	46124508.06	46124508.13	0.0277	0.0267	*
Venus	121579-07-25 07:24 G	46127082.63	46127082.81	46127083.00	0.0276	0.0126	
Venus	121580-03-10 11:43 G	46127311.85	46127311.99	46127312.14	0.0276	0.0196	
Mercury	121580-11-19 15:48 G	46127566.09	46127566.16	46127566.23	0.0277	0.0240	
Mercury	121581-02-16 05:29 G	46127654.59	46127654.73	46127654.87	0.0277	0.0085	
Mercury	121581-05-15 19:09 G	46127743.16	46127743.30	46127743.44	0.0277	0.0068	
Mercury	121581-08-12 08:21 G	46127831.77	46127831.85	46127831.95	0.0277	0.0219	
Moon	121585-12-14 08:07 G	46129416.60	46129416.84	46129417.08	0.0281	0.0055	
Earth	121585-12-14 11:14 G	46129416.73	46129416.97	46129417.21	0.0281	0.0072	*
Earth	121586-12-28 02:07 G	46129795.39	46129795.59	46129795.79	0.0282	0.0164	
Moon	121586-12-28 02:21 G	46129795.42	46129795.60	46129795.79	0.0282	0.0177	*
Venus	121594-01-08 22:31 G	46132364.30	46132364.44	46132364.59	0.0283	0.0207	
Venus	121594-08-26 18:12 G	46132594.09	46132594.26	46132594.44	0.0283	0.0156	
Mercury	121595-06-06 04:17 G	46132877.62	46132877.68	46132877.75	0.0282	0.0255	
Mercury	121595-09-02 22:02 G	46132966.26	46132966.42	46132966.57	0.0282	0.0077	
Mercury	121595-11-30 15:48 G	46133055.01	46133055.16	46133055.32	0.0282	0.0106	
Earth	121599-06-07 06:26 G	46134339.74	46134339.77	46134339.82	0.0279	0.0275	
Earth	121600-06-19 00:55 G	46134717.30	46134717.54	46134717.78	0.0279	0.0054	
Moon	121600-06-19 02:36 G	46134717.36	46134717.61	46134717.85	0.0279	0.0047	*
Moon	121601-07-01 12:12 G	46135094.84	46135095.01	46135095.21	0.0278	0.0181	
Earth	121601-07-01 15:19 G	46135094.95	46135095.14	46135095.34	0.0278	0.0165	*
Venus	121609-02-03 15:05 G	46137868.93	46137869.13	46137869.33	0.0276	0.0072	
Venus	121609-09-20 18:55 G	46138098.22	46138098.29	46138098.39	0.0276	0.0249	
Mercury	121610-04-08 18:26 G	46138298.25	46138298.27	46138298.29	0.0276	0.0272	
Mercury	121610-07-06 08:21 G	46138386.72	46138386.85	46138386.98	0.0276	0.0117	
Mercury	121610-10-02 22:02 G	46138475.27	46138475.42	46138475.56	0.0276	0.0036	
Mercury	121610-12-30 11:14 G	46138563.87	46138563.97	46138564.08	0.0277	0.0186	
Moon	121614-12-08 23:00 G	46140003.25	46140003.46	46140003.67	0.0280	0.0159	

Earth	121614-12-08 23:00 G	46140003.27	46140003.46	46140003.66	0.0280	0.0170	*
Moon	121615-12-22 07:38 G	46140381.58	46140381.82	46140382.07	0.0281	0.0064	
Earth	121615-12-22 11:14 G	46140381.73	46140381.97	46140382.21	0.0281	0.0062	*
Venus	121623-07-22 01:09 G	46143150.38	46143150.55	46143150.73	0.0283	0.0167	
Venus	121624-03-07 20:21 G	46143380.21	46143380.35	46143380.52	0.0283	0.0196	
Mercury	121625-01-19 20:50 G	46143698.23	46143698.37	46143698.51	0.0282	0.0141	
Mercury	121625-04-18 14:36 G	46143786.95	46143787.11	46143787.27	0.0282	0.0039	
Mercury	121625-07-16 08:21 G	46143875.76	46143875.85	46143875.96	0.0282	0.0223	
Earth	121629-06-13 11:00 G	46145303.76	46145303.96	46145304.16	0.0279	0.0157	
Moon	121629-06-13 12:55 G	46145303.84	46145304.04	46145304.25	0.0279	0.0142	*
Earth	121630-06-26 03:05 G	46145681.40	46145681.63	46145681.87	0.0278	0.0064	
Moon	121630-06-26 06:41 G	46145681.55	46145681.78	46145682.02	0.0278	0.0081	*
Mars	121632-07-29 13:09 G	46146445.88	46146446.05	46146446.22	0.0276	0.0223	
Venus	121638-08-16 14:07 G	46148654.89	46148655.09	46148655.30	0.0276	0.0043	
Mercury	121639-11-23 08:07 G	46149118.73	46149118.84	46149118.96	0.0277	0.0179	
Mercury	121640-02-19 22:02 G	46149207.27	46149207.42	46149207.56	0.0277	0.0025	
Mercury	121640-05-18 11:29 G	46149295.85	46149295.98	46149296.11	0.0277	0.0127	
Mercury	121640-08-15 00:41 G	46149384.52	46149384.53	46149384.54	0.0277	0.0276	
Earth	121643-12-03 01:53 G	46150589.56	46150589.58	46150589.62	0.0280	0.0277	
Earth	121644-12-15 12:26 G	46150967.77	46150968.02	46150968.26	0.0281	0.0050	
Moon	121644-12-15 15:33 G	46150967.90	46150968.15	46150968.40	0.0281	0.0059	*
Moon	121645-12-29 01:38 G	46151346.38	46151346.57	46151346.79	0.0281	0.0171	
Earth	121645-12-29 02:50 G	46151346.44	46151346.62	46151346.82	0.0281	0.0186	*
Venus	121653-01-31 05:29 G	46153936.54	46153936.73	46153936.93	0.0283	0.0123	
Venus	121653-09-18 01:09 G	46154166.43	46154166.55	46154166.66	0.0283	0.0239	
Mercury	121654-06-08 20:50 G	46154430.26	46154430.37	46154430.49	0.0282	0.0196	
Mercury	121654-09-05 14:36 G	46154518.95	46154519.11	46154519.27	0.0282	0.0016	
Mercury	121654-12-03 08:21 G	46154607.73	46154607.85	46154607.99	0.0282	0.0167	
Moon	121658-06-08 02:36 G	46155890.50	46155890.61	46155890.74	0.0280	0.0239	
Earth	121658-06-08 06:26 G	46155890.67	46155890.77	46155890.87	0.0280	0.0254	*

Moon	121659-06-20 23:57 G	46156268.26	46156268.50	46156268.73	0.0279	0.0025
Earth	121659-06-21 00:55 G	46156268.30	46156268.54	46156268.79	0.0279	0.0033 *
Earth	121660-07-02 15:33 G	46156645.98	46156646.15	46156646.33	0.0278	0.0186
Moon	121660-07-02 18:12 G	46156646.10	46156646.26	46156646.45	0.0278	0.0184 *
Venus	121668-02-26 21:33 G	46159441.20	46159441.40	46159441.61	0.0276	0.0013
Mercury	121669-04-11 11:00 G	46159850.87	46159850.96	46159851.06	0.0276	0.0210
Mercury	121669-07-09 00:41 G	46159939.39	46159939.53	46159939.68	0.0276	0.0057
Mercury	121669-10-05 14:21 G	46160027.96	46160028.10	46160028.24	0.0276	0.0096
Mercury	121670-01-02 03:33 G	46160116.59	46160116.65	46160116.72	0.0277	0.0245
Earth	121673-12-10 01:53 G	46161554.38	46161554.58	46161554.80	0.0279	0.0146
Moon	121673-12-10 02:07 G	46161554.40	46161554.59	46161554.79	0.0279	0.0161 *
Earth	121674-12-23 13:53 G	46161932.85	46161933.08	46161933.32	0.0280	0.0086
Moon	121674-12-23 17:29 G	46161932.99	46161933.23	46161933.46	0.0280	0.0072 *
Mars	121676-08-17 17:14 G	46162536.03	46162536.22	46162536.42	0.0282	0.0209
Venus	121682-08-13 09:19 G	46164722.69	46164722.89	46164723.10	0.0283	0.0079
Venus	121683-03-31 04:17 G	46164952.68	46164952.68	46164952.70	0.0283	0.0282
Mercury	121683-10-26 20:21 G	46165162.29	46165162.35	46165162.42	0.0282	0.0255
Mercury	121684-01-23 13:53 G	46165250.92	46165251.08	46165251.24	0.0282	0.0078
Mercury	121684-04-21 07:38 G	46165339.67	46165339.82	46165339.97	0.0282	0.0104
Moon	121688-06-14 09:19 G	46166854.68	46166854.89	46166855.11	0.0279	0.0140
Earth	121688-06-14 11:57 G	46166854.79	46166855.00	46166855.22	0.0279	0.0135 *
Moon	121689-06-27 00:41 G	46167232.30	46167232.53	46167232.76	0.0278	0.0073
Earth	121689-06-27 04:02 G	46167232.45	46167232.67	46167232.91	0.0278	0.0087 *
Venus	121697-09-07 20:50 G	46170227.17	46170227.37	46170227.58	0.0276	0.0041
Mercury	121698-08-29 10:45 G	46170582.93	46170582.95	46170582.98	0.0276	0.0272
Mercury	121698-11-26 00:41 G	46170671.40	46170671.53	46170671.67	0.0277	0.0117
Mercury	121699-02-22 14:21 G	46170759.96	46170760.10	46170760.25	0.0277	0.0036
Mercury	121699-05-22 03:48 G	46170848.55	46170848.66	46170848.77	0.0277	0.0186
Moon	121702-12-05 00:55 G	46172140.46	46172140.54	46172140.62	0.0280	0.0265
Earth	121702-12-05 04:45 G	46172140.60	46172140.70	46172140.80	0.0280	0.0254 *

Moon	121703-12-18 12:41 G	46172518.79	46172519.03	46172519.27	0.0280	0.0028
Earth	121703-12-18 14:36 G	46172518.87	46172519.11	46172519.36	0.0280	0.0027 *
Earth	121704-12-31 04:45 G	46172897.54	46172897.70	46172897.88	0.0281	0.0207
Moon	121704-12-31 07:24 G	46172897.66	46172897.81	46172897.96	0.0281	0.0218 *
Venus	121712-02-24 12:41 G	46175508.81	46175509.03	46175509.24	0.0283	0.0038
Mercury	121713-06-12 13:24 G	46175982.92	46175983.06	46175983.21	0.0282	0.0137
Mercury	121713-09-09 07:09 G	46176071.64	46176071.80	46176071.97	0.0282	0.0045
Mercury	121713-12-07 01:24 G	46176160.46	46176160.56	46176160.65	0.0282	0.0228
Earth	121717-06-10 05:43 G	46177441.61	46177441.74	46177441.88	0.0280	0.0232
Moon	121717-06-10 09:19 G	46177441.79	46177441.89	46177442.01	0.0280	0.0248 *
Moon	121718-06-23 00:55 G	46177819.29	46177819.54	46177819.79	0.0279	0.0026
Earth	121718-06-23 00:55 G	46177819.30	46177819.54	46177819.78	0.0279	0.0010 *
Moon	121719-07-05 12:12 G	46178196.86	46178197.01	46178197.19	0.0278	0.0202
Earth	121719-07-05 15:48 G	46178197.01	46178197.16	46178197.33	0.0278	0.0208 *
Venus	121726-08-05 00:41 G	46180784.42	46180784.53	46180784.66	0.0276	0.0224
Venus	121727-03-22 04:45 G	46181013.51	46181013.70	46181013.90	0.0276	0.0096
Mercury	121728-04-15 03:33 G	46181403.53	46181403.65	46181403.78	0.0276	0.0147
Mercury	121728-07-12 17:29 G	46181492.08	46181492.23	46181492.37	0.0276	0.0010
Mercury	121728-10-09 06:41 G	46181580.67	46181580.78	46181580.91	0.0276	0.0158
Moon	121732-12-12 04:02 G	46183105.43	46183105.67	46183105.90	0.0279	0.0109
Earth	121732-12-12 05:57 G	46183105.53	46183105.75	46183105.98	0.0279	0.0121 *
Moon	121733-12-25 14:21 G	46183483.88	46183484.10	46183484.32	0.0280	0.0127
Earth	121733-12-25 17:43 G	46183484.02	46183484.24	46183484.47	0.0280	0.0110 *
Venus	121741-09-05 17:43 G	46186295.02	46186295.24	46186295.45	0.0283	0.0010
Mercury	121742-10-30 13:24 G	46186714.94	46186715.06	46186715.18	0.0282	0.0191
Mercury	121743-01-27 06:55 G	46186803.63	46186803.79	46186803.96	0.0282	0.0013
Mercury	121743-04-26 00:55 G	46186892.41	46186892.54	46186892.67	0.0282	0.0170
Earth	121747-06-17 13:24 G	46188405.84	46188406.06	46188406.28	0.0279	0.0112
Moon	121747-06-17 16:45 G	46188405.99	46188406.20	46188406.42	0.0279	0.0118 *
Earth	121748-06-29 05:29 G	46188783.52	46188783.73	46188783.96	0.0278	0.0109

Moon	121748-06-29 07:38 G	46188783.60	46188783.82	46188784.05	0.0278	0.0115	*
Venus	121756-02-14 23:57 G	46191570.37	46191570.50	46191570.66	0.0276	0.0195	
Venus	121756-10-01 04:17 G	46191799.49	46191799.68	46191799.86	0.0276	0.0125	
Mercury	121757-09-02 03:33 G	46192135.55	46192135.65	46192135.75	0.0276	0.0208	
Mercury	121757-11-29 17:29 G	46192224.08	46192224.23	46192224.37	0.0276	0.0054	
Mercury	121758-02-26 06:55 G	46192312.66	46192312.79	46192312.93	0.0277	0.0098	
Mercury	121758-05-25 20:07 G	46192401.29	46192401.34	46192401.41	0.0277	0.0248	
Earth	121761-12-06 08:21 G	46193691.72	46193691.85	46193691.99	0.0279	0.0230	
Moon	121761-12-06 11:57 G	46193691.84	46193692.00	46193692.16	0.0279	0.0214	*
Moon	121762-12-19 18:12 G	46194070.00	46194070.26	46194070.51	0.0280	0.0007	
Earth	121762-12-19 18:26 G	46194070.02	46194070.27	46194070.52	0.0280	0.0003	*
Moon	121764-01-02 04:45 G	46194448.56	46194448.70	46194448.85	0.0281	0.0230	
Earth	121764-01-02 08:21 G	46194448.72	46194448.85	46194449.00	0.0281	0.0231	*
Mars	121765-01-11 16:31 G	46194823.96	46194824.19	46194824.42	0.0282	0.0168	
Venus	121771-03-18 20:36 G	46197081.15	46197081.36	46197081.58	0.0283	0.0050	
Mercury	121772-03-18 12:55 G	46197446.97	46197447.04	46197447.12	0.0282	0.0250	
Mercury	121772-06-15 06:26 G	46197535.61	46197535.77	46197535.93	0.0282	0.0073	
Mercury	121772-09-12 00:12 G	46197624.36	46197624.51	46197624.66	0.0282	0.0109	
Moon	121776-06-11 03:33 G	46198992.49	46198992.65	46198992.82	0.0280	0.0202	
Earth	121776-06-11 06:12 G	46198992.61	46198992.76	46198992.93	0.0280	0.0210	*
Earth	121777-06-24 01:24 G	46199370.32	46199370.56	46199370.80	0.0279	0.0012	
Moon	121777-06-24 03:19 G	46199370.40	46199370.64	46199370.87	0.0279	0.0027	*
Earth	121778-07-06 16:31 G	46199748.06	46199748.19	46199748.33	0.0278	0.0230	
Moon	121778-07-06 19:38 G	46199748.21	46199748.32	46199748.45	0.0278	0.0242	*
Venus	121785-08-27 08:07 G	46202356.66	46202356.84	46202357.02	0.0276	0.0139	
Venus	121786-04-13 12:12 G	46202585.86	46202586.01	46202586.17	0.0276	0.0181	
Mercury	121787-01-20 06:41 G	46202867.70	46202867.78	46202867.85	0.0276	0.0237	
Mercury	121787-04-18 20:21 G	46202956.21	46202956.35	46202956.50	0.0276	0.0082	
Mercury	121787-07-16 10:02 G	46203044.78	46203044.92	46203045.06	0.0277	0.0071	
Mercury	121787-10-12 23:29 G	46203133.39	46203133.48	46203133.57	0.0277	0.0220	

Earth	121791-12-14 11:29 G	46204656.75	46204656.98	46204657.22	0.0279	0.0095
Moon	121791-12-14 14:50 G	46204656.90	46204657.12	46204657.35	0.0279	0.0101 *
Earth	121792-12-26 23:14 G	46205035.26	46205035.47	46205035.69	0.0280	0.0136
Moon	121792-12-27 01:53 G	46205035.36	46205035.58	46205035.82	0.0280	0.0123 *
Venus	121800-02-11 07:24 G	46207637.73	46207637.81	46207637.89	0.0283	0.0261
Venus	121800-09-29 02:50 G	46207867.42	46207867.62	46207867.82	0.0283	0.0101
Mercury	121801-11-03 06:41 G	46208267.64	46208267.78	46208267.93	0.0282	0.0124
Mercury	121802-01-31 00:26 G	46208356.36	46208356.52	46208356.68	0.0282	0.0057
Mercury	121802-04-29 18:26 G	46208445.19	46208445.27	46208445.36	0.0282	0.0241
Moon	121806-06-19 12:26 G	46209956.79	46209957.02	46209957.25	0.0279	0.0076
Earth	121806-06-19 15:48 G	46209956.94	46209957.16	46209957.40	0.0279	0.0089 *
Earth	121807-07-02 08:07 G	46210334.63	46210334.84	46210335.06	0.0278	0.0132
Moon	121807-07-02 08:21 G	46210334.65	46210334.85	46210335.06	0.0278	0.0132 *
Venus	121815-03-10 08:07 G	46213142.66	46213142.84	46213143.04	0.0276	0.0108
Venus	121815-10-25 12:26 G	46213371.89	46213372.02	46213372.15	0.0276	0.0213
Mercury	121816-09-05 20:36 G	46213688.24	46213688.36	46213688.49	0.0276	0.0140
Mercury	121816-12-03 10:17 G	46213776.79	46213776.93	46213777.08	0.0276	0.0016
Mercury	121817-03-01 23:43 G	46213865.38	46213865.49	46213865.61	0.0277	0.0164
Moon	121820-12-08 12:12 G	46215242.87	46215243.01	46215243.17	0.0279	0.0219
Earth	121820-12-08 14:21 G	46215242.94	46215243.10	46215243.28	0.0279	0.0203 *
Earth	121821-12-22 00:12 G	46215621.27	46215621.51	46215621.76	0.0280	0.0025
Moon	121821-12-22 02:07 G	46215621.35	46215621.59	46215621.84	0.0280	0.0011 *
Earth	121823-01-04 14:07 G	46215999.99	46216000.09	46216000.19	0.0281	0.0256
Moon	121823-01-04 17:43 G	46216000.13	46216000.24	46216000.37	0.0281	0.0245 *
Venus	121829-08-24 09:48 G	46218423.79	46218423.91	46218424.05	0.0283	0.0223
Venus	121830-04-11 05:29 G	46218653.55	46218653.73	46218653.92	0.0283	0.0140
Mercury	121831-03-23 06:12 G	46218999.64	46218999.76	46218999.89	0.0282	0.0184
Mercury	121831-06-19 23:57 G	46219088.33	46219088.50	46219088.66	0.0282	0.0009
Mercury	121831-09-16 17:43 G	46219177.12	46219177.24	46219177.37	0.0282	0.0178
Earth	121835-06-14 07:53 G	46220543.66	46220543.83	46220544.02	0.0280	0.0187

Moon	121835-06-14 09:05 G	46220543.70	46220543.88	46220544.08	0.0280	0.0185	*
Moon	121836-06-25 23:43 G	46220921.25	46220921.49	46220921.74	0.0279	0.0024	
Earth	121836-06-26 03:19 G	46220921.40	46220921.64	46220921.88	0.0279	0.0036	*
Moon	121837-07-08 16:17 G	46221299.07	46221299.18	46221299.31	0.0278	0.0237	
Earth	121837-07-08 18:26 G	46221299.18	46221299.27	46221299.37	0.0278	0.0253	*
Venus	121844-09-19 16:02 G	46223928.97	46223929.17	46223929.38	0.0276	0.0052	
Venus	121845-05-06 20:21 G	46224158.31	46224158.35	46224158.40	0.0276	0.0269	
Mercury	121846-01-23 23:43 G	46224420.37	46224420.49	46224420.60	0.0277	0.0169	
Mercury	121846-04-22 13:24 G	46224508.91	46224509.06	46224509.21	0.0277	0.0015	
Mercury	121846-07-20 02:50 G	46224597.50	46224597.62	46224597.75	0.0277	0.0137	
Moon	121850-12-16 14:50 G	46226207.88	46226208.12	46226208.36	0.0279	0.0072	
Earth	121850-12-16 18:41 G	46226208.04	46226208.28	46226208.52	0.0279	0.0067	*
Moon	121851-12-30 05:00 G	46226586.52	46226586.71	46226586.91	0.0280	0.0167	
Earth	121851-12-30 06:26 G	46226586.58	46226586.77	46226586.98	0.0280	0.0164	*
Mars	121853-06-08 22:31 G	46227113.16	46227113.44	46227113.73	0.0281	0.0034	
Venus	121859-03-06 18:12 G	46229210.09	46229210.26	46229210.44	0.0283	0.0165	
Venus	121859-10-22 13:24 G	46229439.92	46229440.06	46229440.22	0.0283	0.0197	
Mercury	121860-08-09 07:24 G	46229731.72	46229731.81	46229731.91	0.0282	0.0226	
Mercury	121860-11-06 00:55 G	46229820.38	46229820.54	46229820.70	0.0282	0.0048	
Mercury	121861-02-02 18:41 G	46229909.14	46229909.28	46229909.43	0.0282	0.0133	
Earth	121865-06-20 20:21 G	46231508.11	46231508.35	46231508.58	0.0279	0.0063	
Moon	121865-06-20 22:45 G	46231508.21	46231508.45	46231508.69	0.0279	0.0079	*
Moon	121866-07-03 10:31 G	46231885.73	46231885.94	46231886.15	0.0278	0.0148	
Earth	121866-07-03 12:12 G	46231885.82	46231886.01	46231886.22	0.0278	0.0158	*
Venus	121874-04-01 17:00 G	46234715.01	46234715.21	46234715.42	0.0276	0.0018	
Mercury	121875-06-12 23:57 G	46235152.42	46235152.50	46235152.59	0.0276	0.0225	
Mercury	121875-09-09 13:53 G	46235240.94	46235241.08	46235241.22	0.0276	0.0070	
Mercury	121875-12-07 03:33 G	46235329.51	46235329.65	46235329.79	0.0277	0.0082	
Mercury	121876-03-04 16:45 G	46235418.13	46235418.20	46235418.29	0.0277	0.0232	
Earth	121879-12-10 22:02 G	46236794.24	46236794.42	46236794.63	0.0279	0.0177	

Moon	121879-12-10 23:00 G	46236794.26	46236794.46	46236794.67	0.0279	0.0165	*
Moon	121880-12-23 05:29 G	46237172.48	46237172.73	46237172.97	0.0280	0.0069	
Earth	121880-12-23 08:21 G	46237172.61	46237172.85	46237173.10	0.0280	0.0053	*
Venus	121888-09-15 20:36 G	46239996.17	46239996.36	46239996.55	0.0283	0.0127	
Venus	121889-05-03 16:02 G	46240226.05	46240226.17	46240226.29	0.0282	0.0234	
Mercury	121890-03-26 00:12 G	46240552.36	46240552.51	46240552.66	0.0282	0.0111	
Mercury	121890-06-22 17:43 G	46240641.09	46240641.24	46240641.40	0.0282	0.0069	
Mercury	121890-09-19 11:43 G	46240729.92	46240729.99	46240730.07	0.0282	0.0252	
Earth	121894-06-15 11:29 G	46242094.79	46242094.98	46242095.19	0.0280	0.0162	
Moon	121894-06-15 12:41 G	46242094.86	46242095.03	46242095.23	0.0280	0.0169	*
Earth	121895-06-28 06:26 G	46242472.54	46242472.77	46242473.01	0.0279	0.0061	
Moon	121895-06-28 10:17 G	46242472.70	46242472.93	46242473.17	0.0279	0.0066	*
Earth	121896-07-09 21:48 G	46242850.39	46242850.41	46242850.43	0.0278	0.0277	
Venus	121903-10-14 00:55 G	46245501.34	46245501.54	46245501.75	0.0276	0.0039	
Mercury	121904-10-31 02:50 G	46245884.57	46245884.62	46245884.69	0.0277	0.0254	
Mercury	121905-01-27 17:00 G	46245973.07	46245973.21	46245973.35	0.0277	0.0098	
Mercury	121905-04-26 06:41 G	46246061.64	46246061.78	46246061.93	0.0277	0.0055	
Mercury	121905-07-23 20:07 G	46246150.25	46246150.34	46246150.44	0.0277	0.0206	
Earth	121908-12-05 19:09 G	46247381.24	46247381.30	46247381.40	0.0279	0.0264	
Moon	121908-12-05 22:31 G	46247381.34	46247381.44	46247381.56	0.0279	0.0247	*
Earth	121909-12-19 03:48 G	46247759.42	46247759.66	46247759.91	0.0279	0.0039	
Moon	121909-12-19 07:24 G	46247759.56	46247759.81	46247760.06	0.0279	0.0024	*
Moon	121911-01-01 15:19 G	46248137.97	46248138.14	46248138.33	0.0280	0.0198	
Earth	121911-01-01 15:48 G	46248137.99	46248138.16	46248138.35	0.0280	0.0192	*
Venus	121918-03-30 06:26 G	46250782.56	46250782.77	46250782.98	0.0283	0.0064	
Mercury	121919-08-14 01:53 G	46251284.44	46251284.58	46251284.72	0.0282	0.0148	
Mercury	121919-11-10 19:24 G	46251373.15	46251373.31	46251373.47	0.0282	0.0031	
Mercury	121920-02-07 13:24 G	46251461.95	46251462.06	46251462.16	0.0282	0.0213	
Moon	121923-06-11 02:50 G	46252681.52	46252681.62	46252681.73	0.0280	0.0253	
Earth	121923-06-11 06:12 G	46252681.69	46252681.76	46252681.86	0.0280	0.0260	*

Moon	121924-06-23 01:09 G	46253059.32	46253059.55	46253059.79	0.0279	0.0023
Earth	121924-06-23 02:07 G	46253059.36	46253059.59	46253059.84	0.0279	0.0038 *
Earth	121925-07-05 18:12 G	46253437.08	46253437.26	46253437.44	0.0278	0.0183
Moon	121925-07-05 21:05 G	46253437.22	46253437.38	46253437.55	0.0278	0.0199 *
Jupiter	121930-11-26 02:36 G	46255406.36	46255406.61	46255406.91	0.0276	0.0215
Venus	121932-09-07 22:31 G	46256058.36	46256058.44	46256058.55	0.0276	0.0244
Venus	121933-04-25 02:36 G	46256287.42	46256287.61	46256287.82	0.0276	0.0076
Mercury	121934-06-16 17:43 G	46256705.12	46256705.24	46256705.36	0.0276	0.0151
Mercury	121934-09-13 07:24 G	46256793.67	46256793.81	46256793.96	0.0276	0.0009
Mercury	121934-12-10 21:05 G	46256882.26	46256882.38	46256882.50	0.0277	0.0153
Earth	121938-12-13 07:53 G	46258345.63	46258345.83	46258346.05	0.0279	0.0147
Moon	121938-12-13 08:21 G	46258345.66	46258345.85	46258346.07	0.0279	0.0148 *
Earth	121939-12-26 18:12 G	46258724.02	46258724.26	46258724.50	0.0280	0.0082
Moon	121939-12-26 21:48 G	46258724.17	46258724.41	46258724.65	0.0280	0.0074 *
Mars	121941-11-03 11:00 G	46259401.67	46259401.96	46259402.25	0.0281	0.0042
Venus	121947-10-10 08:50 G	46261568.65	46261568.87	46261569.08	0.0283	0.0026
Mercury	121948-12-31 01:09 G	46262016.45	46262016.55	46262016.66	0.0282	0.0210
Mercury	121949-03-29 18:41 G	46262105.12	46262105.28	46262105.44	0.0282	0.0032
Mercury	121949-06-26 12:26 G	46262193.88	46262194.02	46262194.16	0.0282	0.0149
Moon	121953-06-17 14:36 G	46263645.89	46263646.11	46263646.34	0.0280	0.0121
Earth	121953-06-17 17:43 G	46263646.03	46263646.24	46263646.45	0.0280	0.0136 *
Moon	121954-06-30 08:50 G	46264023.65	46264023.87	46264024.10	0.0279	0.0095
Earth	121954-06-30 12:12 G	46264023.78	46264024.01	46264024.24	0.0279	0.0087 *
Venus	121962-03-21 05:57 G	46266844.61	46266844.75	46266844.91	0.0277	0.0190
Venus	121962-11-05 10:31 G	46267073.76	46267073.94	46267074.12	0.0277	0.0131
Mercury	121963-11-03 20:36 G	46267437.25	46267437.36	46267437.47	0.0277	0.0180
Mercury	121964-01-31 10:31 G	46267525.79	46267525.94	46267526.09	0.0277	0.0026
Mercury	121964-04-29 00:12 G	46267614.38	46267614.51	46267614.64	0.0277	0.0126
Mercury	121964-07-26 13:38 G	46267703.05	46267703.07	46267703.08	0.0277	0.0276
Moon	121967-12-08 01:38 G	46268932.47	46268932.57	46268932.70	0.0279	0.0248

Earth	121967-12-08 05:29 G	46268932.61	46268932.73	46268932.87	0.0279	0.0235	*
Moon	121968-12-20 12:12 G	46269310.77	46269311.01	46269311.25	0.0280	0.0024	
Earth	121968-12-20 14:21 G	46269310.86	46269311.10	46269311.35	0.0280	0.0011	*
Earth	121970-01-03 02:36 G	46269689.47	46269689.61	46269689.78	0.0280	0.0222	
Moon	121970-01-03 04:45 G	46269689.56	46269689.70	46269689.87	0.0280	0.0211	*
Venus	121977-04-21 19:53 G	46272355.12	46272355.33	46272355.55	0.0283	0.0041	
Mercury	121978-05-20 03:33 G	46272748.57	46272748.65	46272748.73	0.0282	0.0240	
Mercury	121978-08-16 20:50 G	46272837.22	46272837.37	46272837.53	0.0282	0.0064	
Mercury	121978-11-13 14:36 G	46272925.96	46272926.11	46272926.26	0.0282	0.0117	
Earth	121982-06-12 14:36 G	46274232.98	46274233.11	46274233.25	0.0280	0.0233	
Moon	121982-06-12 17:57 G	46274233.12	46274233.25	46274233.41	0.0280	0.0228	*
Moon	121983-06-25 10:02 G	46274610.67	46274610.92	46274611.17	0.0279	0.0016	
Earth	121983-06-25 10:02 G	46274610.68	46274610.92	46274611.17	0.0279	0.0010	*
Moon	121984-07-06 22:02 G	46274988.26	46274988.42	46274988.60	0.0278	0.0195	
Earth	121984-07-07 01:38 G	46274988.42	46274988.57	46274988.73	0.0278	0.0209	*
Venus	121991-10-01 09:05 G	46277630.71	46277630.88	46277631.06	0.0276	0.0149	
Venus	121992-05-17 13:09 G	46277859.90	46277860.05	46277860.22	0.0276	0.0171	
Mercury	121993-03-22 21:33 G	46278169.32	46278169.40	46278169.48	0.0276	0.0230	
Mercury	121993-06-19 11:29 G	46278257.84	46278257.98	46278258.13	0.0276	0.0075	
Mercury	121993-09-16 01:09 G	46278346.41	46278346.55	46278346.69	0.0277	0.0078	
Mercury	121993-12-13 14:36 G	46278435.03	46278435.11	46278435.20	0.0277	0.0227	
Moon	121997-12-14 17:43 G	46279897.01	46279897.24	46279897.47	0.0279	0.0127	
Earth	121997-12-14 19:38 G	46279897.10	46279897.32	46279897.55	0.0279	0.0117	*
Moon	121998-12-28 02:50 G	46280275.40	46280275.62	46280275.85	0.0280	0.0113	
Earth	121998-12-28 06:12 G	46280275.54	46280275.76	46280275.99	0.0280	0.0113	*

123RD MILLENNIUM CE

This is a list of transits visible from Saturn in the 123rd millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	122006-11-01 22:17	G	46283141.22	46283141.43	46283141.64	0.0283	0.0078	
Mercury	122008-01-03 20:07	G	46283569.20	46283569.34	46283569.49	0.0282	0.0127	
Mercury	122008-04-01 13:38	G	46283657.91	46283658.07	46283658.23	0.0282	0.0053	
Mercury	122008-06-29 07:38	G	46283746.73	46283746.82	46283746.91	0.0282	0.0235	
Earth	122012-06-19 00:55	G	46285197.32	46285197.54	46285197.77	0.0279	0.0109	
Moon	122012-06-19 04:31	G	46285197.48	46285197.69	46285197.90	0.0279	0.0124	*
Earth	122013-07-01 19:09	G	46285575.08	46285575.30	46285575.53	0.0279	0.0114	
Moon	122013-07-01 21:19	G	46285575.16	46285575.39	46285575.63	0.0279	0.0100	*
Venus	122021-04-12 16:02	G	46288416.97	46288417.17	46288417.36	0.0277	0.0096	
Venus	122021-11-27 20:36	G	46288646.24	46288646.36	46288646.48	0.0277	0.0226	
Mercury	122022-08-10 00:12	G	46288901.47	46288901.51	46288901.56	0.0277	0.0261	
Mercury	122022-11-06 14:21	G	46288989.96	46288990.10	46288990.24	0.0277	0.0105	
Mercury	122023-02-03 04:02	G	46289078.53	46289078.67	46289078.82	0.0277	0.0049	
Mercury	122023-05-02 17:43	G	46289167.14	46289167.24	46289167.34	0.0277	0.0199	
Earth	122026-12-09 16:17	G	46290484.02	46290484.18	46290484.34	0.0279	0.0207	
Moon	122026-12-09 19:53	G	46290484.17	46290484.33	46290484.50	0.0279	0.0208	*
Earth	122027-12-23 01:53	G	46290862.33	46290862.58	46290862.83	0.0280	0.0020	
Moon	122027-12-23 02:36	G	46290862.35	46290862.61	46290862.87	0.0280	0.0031	*
Moon	122029-01-04 11:14	G	46291240.91	46291240.97	46291241.06	0.0280	0.0268	
Earth	122029-01-04 14:36	G	46291241.02	46291241.11	46291241.23	0.0280	0.0251	*
Mars	122030-03-31 10:02	G	46291691.77	46291691.92	46291692.12	0.0281	0.0224	
Venus	122035-09-27 14:50	G	46293697.99	46293698.12	46293698.27	0.0283	0.0213	

Venus	122036-05-14 10:17 G	46293927.75	46293927.93	46293928.12	0.0283	0.0148
Mercury	122037-05-22 22:45 G	46294301.32	46294301.45	46294301.59	0.0282	0.0154
Mercury	122037-08-19 16:31 G	46294390.02	46294390.19	46294390.35	0.0282	0.0026
Mercury	122037-11-16 10:17 G	46294478.82	46294478.93	46294479.04	0.0282	0.0207
Moon	122041-06-13 22:02 G	46295784.28	46295784.42	46295784.57	0.0280	0.0220
Earth	122041-06-14 00:55 G	46295784.38	46295784.54	46295784.71	0.0280	0.0205 *
Earth	122042-06-26 19:53 G	46296162.09	46296162.33	46296162.58	0.0279	0.0019
Moon	122042-06-26 21:19 G	46296162.15	46296162.39	46296162.62	0.0279	0.0013 *
Earth	122043-07-09 11:00 G	46296539.84	46296539.96	46296540.09	0.0278	0.0236
Moon	122043-07-09 14:21 G	46296539.99	46296540.10	46296540.22	0.0278	0.0245 *
Mars	122044-06-16 03:19 G	46296882.54	46296882.64	46296882.78	0.0278	0.0254
Venus	122050-10-23 20:07 G	46299203.13	46299203.34	46299203.54	0.0276	0.0053
Venus	122051-06-10 00:26 G	46299432.47	46299432.52	46299432.57	0.0276	0.0267
Mercury	122052-03-25 15:33 G	46299722.03	46299722.15	46299722.28	0.0276	0.0152
Mercury	122052-06-22 05:29 G	46299810.58	46299810.73	46299810.88	0.0277	0.0004
Mercury	122052-09-18 19:09 G	46299899.18	46299899.30	46299899.42	0.0277	0.0153
Earth	122056-12-16 07:38 G	46301448.59	46301448.82	46301449.06	0.0279	0.0087
Moon	122056-12-16 10:45 G	46301448.72	46301448.95	46301449.19	0.0279	0.0072 *
Earth	122057-12-29 18:26 G	46301827.07	46301827.27	46301827.49	0.0280	0.0144
Moon	122057-12-29 21:33 G	46301827.20	46301827.40	46301827.62	0.0280	0.0155 *
Venus	122065-04-08 17:00 G	46304484.05	46304484.21	46304484.39	0.0283	0.0176
Venus	122065-11-24 12:26 G	46304713.87	46304714.02	46304714.19	0.0282	0.0186
Mercury	122066-10-09 22:02 G	46305033.32	46305033.42	46305033.53	0.0282	0.0216
Mercury	122067-01-06 15:33 G	46305121.99	46305122.15	46305122.31	0.0282	0.0039
Mercury	122067-04-05 09:05 G	46305210.74	46305210.88	46305211.03	0.0282	0.0142
Moon	122071-06-21 06:41 G	46306748.55	46306748.78	46306749.02	0.0279	0.0074
Earth	122071-06-21 10:17 G	46306748.70	46306748.93	46306749.16	0.0279	0.0081 *
Moon	122072-07-03 03:19 G	46307126.45	46307126.64	46307126.83	0.0279	0.0156
Earth	122072-07-03 03:48 G	46307126.45	46307126.66	46307126.87	0.0279	0.0141 *
Venus	122080-05-05 02:07 G	46309989.38	46309989.59	46309989.80	0.0277	0.0003

Mercury	122081-08-12 17:57 G	46310454.15	46310454.25	46310454.37	0.0277	0.0186
Mercury	122081-11-09 08:07 G	46310542.69	46310542.84	46310542.99	0.0277	0.0030
Mercury	122082-02-05 21:48 G	46310631.28	46310631.41	46310631.54	0.0277	0.0123
Mercury	122082-05-05 11:14 G	46310719.95	46310719.97	46310720.00	0.0277	0.0272
Moon	122085-12-11 00:26 G	46312035.33	46312035.52	46312035.71	0.0279	0.0171
Earth	122085-12-11 03:19 G	46312035.46	46312035.64	46312035.84	0.0279	0.0180 *
Earth	122086-12-24 13:38 G	46312413.83	46312414.07	46312414.31	0.0280	0.0050
Moon	122086-12-24 14:21 G	46312413.86	46312414.10	46312414.34	0.0280	0.0049 *
Moon	122088-01-07 06:55 G	46312792.74	46312792.79	46312792.85	0.0280	0.0273
Venus	122094-10-20 05:57 G	46315270.55	46315270.75	46315270.96	0.0283	0.0104
Venus	122095-06-07 01:24 G	46315500.47	46315500.56	46315500.65	0.0282	0.0256
Mercury	122096-02-27 01:09 G	46315765.47	46315765.55	46315765.64	0.0282	0.0239
Mercury	122096-05-25 18:26 G	46315854.12	46315854.27	46315854.43	0.0282	0.0063
Mercury	122096-08-22 11:57 G	46315942.86	46315943.00	46315943.16	0.0282	0.0117
Earth	122100-06-16 11:43 G	46317335.81	46317335.99	46317336.19	0.0280	0.0177
Moon	122100-06-16 13:53 G	46317335.88	46317336.08	46317336.29	0.0280	0.0162 *
Moon	122101-06-29 03:33 G	46317713.41	46317713.65	46317713.89	0.0279	0.0058
Earth	122101-06-29 06:26 G	46317713.53	46317713.77	46317714.01	0.0279	0.0046 *
Moon	122102-07-11 18:12 G	46318091.20	46318091.26	46318091.33	0.0278	0.0267
Earth	122102-07-11 21:05 G	46318091.31	46318091.38	46318091.46	0.0278	0.0263 *
Venus	122109-04-01 03:05 G	46320546.61	46320546.63	46320546.65	0.0276	0.0274
Venus	122109-11-16 07:09 G	46320775.59	46320775.80	46320776.00	0.0276	0.0045
Mercury	122110-12-31 19:38 G	46321186.24	46321186.32	46321186.41	0.0276	0.0228
Mercury	122111-03-30 09:48 G	46321274.76	46321274.91	46321275.05	0.0276	0.0073
Mercury	122111-06-26 23:29 G	46321363.34	46321363.48	46321363.62	0.0277	0.0079
Mercury	122111-09-23 12:55 G	46321451.96	46321452.04	46321452.12	0.0277	0.0229
Moon	122115-12-19 16:17 G	46322999.94	46323000.18	46323000.42	0.0280	0.0072
Earth	122115-12-19 20:07 G	46323000.09	46323000.34	46323000.58	0.0280	0.0057 *
Moon	122117-01-01 04:45 G	46323378.51	46323378.70	46323378.91	0.0280	0.0158
Earth	122117-01-01 07:24 G	46323378.61	46323378.81	46323379.00	0.0280	0.0174 *

Venus	122124-05-02 08:07 G	46326056.63	46326056.84	46326057.05	0.0283	0.0067
Mercury	122125-10-13 17:43 G	46326586.09	46326586.24	46326586.38	0.0282	0.0127
Mercury	122126-01-10 11:00 G	46326674.80	46326674.96	46326675.13	0.0282	0.0052
Mercury	122126-04-09 05:00 G	46326763.62	46326763.71	46326763.80	0.0282	0.0233
Earth	122129-06-10 23:43 G	46327922.46	46327922.49	46327922.54	0.0280	0.0275
Moon	122129-06-11 01:38 G	46327922.50	46327922.57	46327922.66	0.0280	0.0262 *
Earth	122130-06-23 20:21 G	46328300.12	46328300.35	46328300.59	0.0279	0.0053
Moon	122130-06-23 23:43 G	46328300.25	46328300.49	46328300.74	0.0279	0.0049 *
Moon	122131-07-06 12:12 G	46328677.81	46328678.01	46328678.23	0.0278	0.0158
Earth	122131-07-06 13:09 G	46328677.87	46328678.05	46328678.25	0.0278	0.0169 *
Mars	122132-11-11 02:50 G	46329171.37	46329171.62	46329171.89	0.0278	0.0139
Venus	122138-10-12 07:53 G	46331332.73	46331332.83	46331332.96	0.0277	0.0228
Venus	122139-05-29 12:26 G	46331561.83	46331562.02	46331562.22	0.0277	0.0094
Mercury	122140-05-19 21:33 G	46331918.37	46331918.40	46331918.45	0.0277	0.0267
Mercury	122140-08-16 11:57 G	46332006.86	46332007.00	46332007.13	0.0277	0.0110
Mercury	122140-11-13 01:38 G	46332095.43	46332095.57	46332095.72	0.0277	0.0045
Mercury	122141-02-09 15:19 G	46332184.04	46332184.14	46332184.24	0.0277	0.0196
Earth	122144-12-13 13:38 G	46333586.87	46333587.07	46333587.28	0.0279	0.0152
Moon	122144-12-13 15:33 G	46333586.96	46333587.15	46333587.37	0.0279	0.0168 *
Moon	122145-12-26 22:31 G	46333965.20	46333965.44	46333965.69	0.0280	0.0067
Earth	122145-12-27 00:12 G	46333965.28	46333965.51	46333965.76	0.0280	0.0079 *
Venus	122153-11-12 21:05 G	46336843.16	46336843.38	46336843.59	0.0283	0.0005
Mercury	122155-03-02 20:50 G	46337318.23	46337318.37	46337318.50	0.0282	0.0150
Mercury	122155-05-30 14:07 G	46337406.93	46337407.09	46337407.26	0.0282	0.0028
Mercury	122155-08-27 07:53 G	46337495.73	46337495.83	46337495.94	0.0282	0.0209
Moon	122159-06-18 22:45 G	46338887.25	46338887.45	46338887.64	0.0280	0.0156
Earth	122159-06-18 23:14 G	46338887.26	46338887.47	46338887.67	0.0280	0.0148 *
Earth	122160-06-30 17:14 G	46339264.98	46339265.22	46339265.45	0.0279	0.0075
Moon	122160-06-30 20:36 G	46339265.13	46339265.36	46339265.60	0.0279	0.0059 *
Moon	122161-07-13 09:33 G	46339642.87	46339642.90	46339642.94	0.0278	0.0275

Venus	122168-04-23 13:53 G	46342118.92	46342119.08	46342119.24	0.0276	0.0178
Venus	122168-12-08 17:57 G	46342348.08	46342348.25	46342348.43	0.0276	0.0141
Mercury	122170-01-03 13:38 G	46342738.95	46342739.07	46342739.20	0.0276	0.0150
Mercury	122170-04-02 03:33 G	46342827.51	46342827.65	46342827.80	0.0276	0.0006
Mercury	122170-06-29 17:14 G	46342916.10	46342916.22	46342916.34	0.0277	0.0155
Earth	122173-12-07 23:14 G	46344173.38	46344173.47	46344173.58	0.0279	0.0253
Moon	122173-12-08 01:38 G	46344173.49	46344173.57	46344173.67	0.0279	0.0257 *
Earth	122174-12-21 07:38 G	46344551.57	46344551.82	46344552.06	0.0280	0.0028
Moon	122174-12-21 11:29 G	46344551.73	46344551.98	46344552.23	0.0280	0.0024 *
Earth	122176-01-03 19:24 G	46344930.14	46344930.31	46344930.48	0.0280	0.0203
Moon	122176-01-03 20:07 G	46344930.19	46344930.34	46344930.52	0.0280	0.0213 *
Venus	122183-05-25 23:00 G	46347629.25	46347629.46	46347629.67	0.0283	0.0042
Mercury	122184-07-19 19:38 G	46348050.22	46348050.32	46348050.43	0.0282	0.0215
Mercury	122184-10-16 13:09 G	46348138.89	46348139.05	46348139.21	0.0282	0.0039
Mercury	122185-01-13 06:41 G	46348227.64	46348227.78	46348227.92	0.0282	0.0142
Moon	122188-06-12 06:55 G	46349473.72	46349473.79	46349473.88	0.0280	0.0263
Earth	122188-06-12 10:31 G	46349473.83	46349473.94	46349474.06	0.0280	0.0247 *
Moon	122189-06-25 05:00 G	46349851.48	46349851.71	46349851.95	0.0279	0.0034
Earth	122189-06-25 06:41 G	46349851.54	46349851.78	46349852.02	0.0279	0.0025 *
Earth	122190-07-07 22:45 G	46350229.28	46350229.45	46350229.63	0.0278	0.0195
Moon	122190-07-08 01:09 G	46350229.40	46350229.55	46350229.73	0.0278	0.0197 *
Venus	122197-11-03 17:57 G	46352905.07	46352905.25	46352905.43	0.0277	0.0134
Venus	122198-06-20 22:31 G	46353134.29	46353134.44	46353134.59	0.0277	0.0188
Mercury	122199-05-23 15:33 G	46353471.04	46353471.15	46353471.25	0.0277	0.0191
Mercury	122199-08-20 05:29 G	46353559.58	46353559.73	46353559.88	0.0277	0.0036
Mercury	122199-11-16 19:09 G	46353648.17	46353648.30	46353648.44	0.0277	0.0117
Mercury	122200-02-13 08:36 G	46353736.83	46353736.86	46353736.90	0.0277	0.0267
Earth	122203-12-16 23:00 G	46355138.24	46355138.46	46355138.68	0.0280	0.0126
Moon	122203-12-16 23:14 G	46355138.25	46355138.47	46355138.69	0.0280	0.0110 *
Earth	122204-12-29 09:48 G	46355516.69	46355516.91	46355517.15	0.0280	0.0105

Moon	122204-12-29 13:09 G	46355516.84	46355517.05	46355517.28	0.0280	0.0121	*
Venus	122212-04-20 15:05 G	46358186.04	46358186.13	46358186.24	0.0283	0.0252	
Venus	122212-12-06 11:00 G	46358415.77	46358415.96	46358416.16	0.0283	0.0110	
Mercury	122213-12-07 22:45 G	46358782.37	46358782.45	46358782.53	0.0282	0.0240	
Mercury	122214-03-06 16:02 G	46358871.01	46358871.17	46358871.33	0.0282	0.0064	
Mercury	122214-06-03 09:33 G	46358959.75	46358959.90	46358960.05	0.0282	0.0116	
Moon	122218-06-21 06:41 G	46360438.56	46360438.78	46360439.02	0.0280	0.0111	
Earth	122218-06-21 09:48 G	46360438.70	46360438.91	46360439.13	0.0280	0.0120	*
Moon	122219-07-04 00:12 G	46360816.30	46360816.51	46360816.73	0.0279	0.0118	
Earth	122219-07-04 03:19 G	46360816.42	46360816.64	46360816.87	0.0279	0.0103	*
Mars	122221-04-08 23:57 G	46361461.20	46361461.50	46361461.80	0.0278	0.0023	
Venus	122227-05-18 00:26 G	46363691.33	46363691.52	46363691.72	0.0276	0.0083	
Venus	122228-01-02 04:31 G	46363920.59	46363920.69	46363920.80	0.0276	0.0237	
Mercury	122228-10-10 17:29 G	46364203.15	46364203.23	46364203.32	0.0276	0.0229	
Mercury	122229-01-07 07:38 G	46364291.68	46364291.82	46364291.96	0.0276	0.0074	
Mercury	122229-04-05 21:19 G	46364380.25	46364380.39	46364380.53	0.0276	0.0078	
Mercury	122229-07-03 10:45 G	46364468.88	46364468.95	46364469.04	0.0276	0.0228	
Moon	122232-12-10 05:14 G	46365724.57	46365724.72	46365724.88	0.0279	0.0218	
Earth	122232-12-10 09:05 G	46365724.74	46365724.88	46365725.03	0.0279	0.0226	*
Moon	122233-12-23 16:17 G	46366102.94	46366103.18	46366103.42	0.0280	0.0002	
Earth	122233-12-23 17:29 G	46366102.98	46366103.23	46366103.48	0.0280	0.0003	*
Earth	122235-01-06 05:43 G	46366481.60	46366481.74	46366481.88	0.0280	0.0230	
Moon	122235-01-06 08:36 G	46366481.72	46366481.86	46366482.02	0.0280	0.0218	*
Venus	122241-10-31 17:14 G	46368972.08	46368972.22	46368972.36	0.0283	0.0214	
Venus	122242-06-18 12:41 G	46369201.86	46369202.03	46369202.23	0.0283	0.0148	
Mercury	122243-07-24 14:50 G	46369602.98	46369603.12	46369603.27	0.0282	0.0130	
Mercury	122243-10-21 08:21 G	46369691.69	46369691.85	46369692.01	0.0282	0.0049	
Mercury	122244-01-18 02:07 G	46369780.50	46369780.59	46369780.69	0.0282	0.0230	
Earth	122247-06-15 20:07 G	46371025.21	46371025.34	46371025.50	0.0280	0.0221	
Moon	122247-06-15 22:45 G	46371025.30	46371025.45	46371025.64	0.0280	0.0204	*

Moon	122248-06-27 14:36 G	46371402.86	46371403.11	46371403.36	0.0279	0.0014
Earth	122248-06-27 16:17 G	46371402.94	46371403.18	46371403.42	0.0279	0.0003 *
Moon	122249-07-10 04:31 G	46371780.55	46371780.69	46371780.84	0.0278	0.0220
Earth	122249-07-10 07:53 G	46371780.69	46371780.83	46371780.98	0.0278	0.0221 *
Venus	122256-11-27 03:19 G	46374477.43	46374477.64	46374477.85	0.0277	0.0042
Mercury	122258-02-27 18:41 G	46374935.28	46374935.28	46374935.29	0.0277	0.0276
Mercury	122258-05-27 08:50 G	46375023.74	46375023.87	46375024.01	0.0277	0.0120
Mercury	122258-08-23 22:45 G	46375112.31	46375112.45	46375112.60	0.0277	0.0034
Mercury	122258-11-20 12:26 G	46375200.91	46375201.02	46375201.13	0.0277	0.0185
Moon	122262-12-18 02:50 G	46376689.40	46376689.62	46376689.86	0.0280	0.0117
Earth	122262-12-18 06:12 G	46376689.54	46376689.76	46376690.00	0.0280	0.0101 *
Moon	122263-12-31 15:19 G	46377067.93	46377068.14	46377068.37	0.0280	0.0119
Earth	122263-12-31 17:43 G	46377068.03	46377068.24	46377068.46	0.0280	0.0131 *
Venus	122271-05-14 04:17 G	46379758.50	46379758.68	46379758.87	0.0283	0.0149
Venus	122271-12-29 23:57 G	46379988.37	46379988.50	46379988.65	0.0283	0.0213
Mercury	122272-12-10 17:29 G	46380335.10	46380335.23	46380335.37	0.0282	0.0158
Mercury	122273-03-09 11:00 G	46380423.80	46380423.96	46380424.12	0.0282	0.0020
Mercury	122273-06-06 04:45 G	46380512.59	46380512.70	46380512.81	0.0282	0.0201
Earth	122277-06-22 18:55 G	46381990.07	46381990.29	46381990.52	0.0280	0.0093
Moon	122277-06-22 22:31 G	46381990.22	46381990.44	46381990.68	0.0280	0.0097 *
Moon	122278-07-05 11:57 G	46382367.78	46382368.00	46382368.23	0.0279	0.0116
Earth	122278-07-05 12:12 G	46382367.80	46382368.01	46382368.23	0.0279	0.0130 *
Venus	122286-06-09 10:17 G	46385263.72	46385263.93	46385264.14	0.0276	0.0010
Mercury	122287-10-14 11:00 G	46385755.85	46385755.96	46385756.09	0.0276	0.0156
Mercury	122288-01-11 01:09 G	46385844.40	46385844.55	46385844.70	0.0276	0.0004
Mercury	122288-04-08 14:50 G	46385932.99	46385933.12	46385933.24	0.0276	0.0149
Earth	122291-12-12 17:00 G	46387276.05	46387276.21	46387276.39	0.0279	0.0200
Moon	122291-12-12 18:41 G	46387276.13	46387276.28	46387276.46	0.0279	0.0208 *
Moon	122292-12-24 22:45 G	46387654.20	46387654.45	46387654.71	0.0280	0.0032
Earth	122292-12-25 01:38 G	46387654.33	46387654.57	46387654.82	0.0280	0.0027 *

Moon	122294-01-07 10:31 G	46388032.89	46388032.94	46388033.02	0.0280	0.0269
Earth	122294-01-07 14:07 G	46388033.00	46388033.09	46388033.20	0.0280	0.0256 *
Venus	122300-11-24 05:57 G	46390544.56	46390544.75	46390544.95	0.0283	0.0113
Venus	122301-07-12 01:38 G	46390774.47	46390774.57	46390774.67	0.0283	0.0248
Mercury	122302-04-30 16:17 G	46391067.09	46391067.18	46391067.28	0.0282	0.0225
Mercury	122302-07-28 09:33 G	46391155.74	46391155.90	46391156.06	0.0282	0.0049
Mercury	122302-10-25 03:19 G	46391244.49	46391244.64	46391244.78	0.0282	0.0131
Earth	122306-06-18 04:31 G	46392576.53	46392576.69	46392576.88	0.0280	0.0194
Moon	122306-06-18 05:00 G	46392576.57	46392576.71	46392576.88	0.0280	0.0211 *
Earth	122307-07-01 00:12 G	46392954.27	46392954.51	46392954.75	0.0279	0.0029
Moon	122307-07-01 03:48 G	46392954.42	46392954.66	46392954.90	0.0279	0.0018 *
Earth	122308-07-12 15:33 G	46393332.05	46393332.15	46393332.27	0.0278	0.0246
Moon	122308-07-12 16:02 G	46393332.07	46393332.17	46393332.29	0.0278	0.0247 *
Mars	122309-09-03 12:41 G	46393749.77	46393750.03	46393750.31	0.0277	0.0112
Venus	122315-05-06 08:07 G	46395820.81	46395820.84	46395820.88	0.0276	0.0272
Venus	122315-12-21 12:12 G	46396049.81	46396050.01	46396050.21	0.0276	0.0048
Mercury	122317-03-03 11:57 G	46396487.91	46396488.00	46396488.10	0.0277	0.0206
Mercury	122317-05-31 02:07 G	46396576.44	46396576.59	46396576.73	0.0277	0.0051
Mercury	122317-08-27 15:48 G	46396665.03	46396665.16	46396665.30	0.0277	0.0102
Mercury	122317-11-24 05:14 G	46396753.67	46396753.72	46396753.79	0.0277	0.0251
Earth	122321-12-20 11:43 G	46398240.76	46398240.99	46398241.24	0.0280	0.0077
Moon	122321-12-20 14:36 G	46398240.86	46398241.11	46398241.36	0.0280	0.0060 *
Moon	122323-01-02 22:02 G	46398619.22	46398619.42	46398619.63	0.0280	0.0169
Earth	122323-01-02 23:29 G	46398619.27	46398619.48	46398619.69	0.0280	0.0155 *
Venus	122330-06-06 15:48 G	46401330.94	46401331.16	46401331.37	0.0283	0.0052
Mercury	122331-09-17 18:41 G	46401799.22	46401799.28	46401799.34	0.0283	0.0258
Mercury	122331-12-15 11:43 G	46401887.84	46401887.99	46401888.15	0.0282	0.0082
Mercury	122332-03-13 05:14 G	46401976.57	46401976.72	46401976.88	0.0282	0.0098
Mercury	122332-06-09 23:14 G	46402065.46	46402065.47	46402065.49	0.0282	0.0280
Moon	122336-06-25 01:38 G	46403541.35	46403541.57	46403541.80	0.0280	0.0062

Earth	122336-06-25 02:21 G	46403541.37	46403541.60	46403541.84	0.0280	0.0067	*
Earth	122337-07-07 19:24 G	46403919.12	46403919.31	46403919.52	0.0279	0.0155	
Moon	122337-07-07 23:00 G	46403919.28	46403919.46	46403919.66	0.0279	0.0171	*
Venus	122344-11-15 15:19 G	46406607.02	46406607.14	46406607.27	0.0276	0.0219	
Venus	122345-07-02 19:09 G	46406836.11	46406836.30	46406836.50	0.0276	0.0100	
Mercury	122346-07-21 14:21 G	46407220.03	46407220.10	46407220.17	0.0276	0.0241	
Mercury	122346-10-18 04:31 G	46407308.55	46407308.69	46407308.83	0.0276	0.0086	
Mercury	122347-01-14 18:12 G	46407397.12	46407397.26	46407397.41	0.0276	0.0066	
Mercury	122347-04-13 07:53 G	46407485.74	46407485.83	46407485.92	0.0276	0.0215	
Earth	122350-12-14 23:14 G	46408827.28	46408827.47	46408827.66	0.0279	0.0175	
Moon	122350-12-15 01:38 G	46408827.38	46408827.57	46408827.76	0.0279	0.0169	*
Earth	122351-12-28 07:38 G	46409205.58	46409205.82	46409206.07	0.0279	0.0052	
Moon	122351-12-28 11:43 G	46409205.74	46409205.99	46409206.23	0.0279	0.0051	*
Moon	122353-01-09 21:19 G	46409584.33	46409584.39	46409584.46	0.0280	0.0271	
Venus	122359-12-17 17:43 G	46412117.02	46412117.24	46412117.45	0.0283	0.0015	
Mercury	122361-05-03 10:31 G	46412619.81	46412619.94	46412620.08	0.0282	0.0149	
Mercury	122361-07-31 04:02 G	46412708.51	46412708.67	46412708.83	0.0282	0.0029	
Mercury	122361-10-27 21:33 G	46412797.30	46412797.40	46412797.51	0.0282	0.0210	
Moon	122365-06-19 07:53 G	46414127.64	46414127.83	46414128.05	0.0280	0.0153	
Earth	122365-06-19 11:29 G	46414127.79	46414127.98	46414128.18	0.0280	0.0169	*
Moon	122366-07-02 05:14 G	46414505.50	46414505.72	46414505.95	0.0279	0.0065	
Earth	122366-07-02 06:41 G	46414505.55	46414505.78	46414506.02	0.0279	0.0054	*
Earth	122367-07-14 22:17 G	46414883.37	46414883.43	46414883.48	0.0278	0.0269	
Moon	122367-07-15 00:41 G	46414883.49	46414883.53	46414883.59	0.0278	0.0271	
Venus	122374-05-28 16:02 G	46417393.03	46417393.17	46417393.33	0.0276	0.0185	
Venus	122375-01-12 20:07 G	46417622.16	46417622.34	46417622.52	0.0276	0.0135	
Mercury	122376-03-06 05:00 G	46418040.58	46418040.71	46418040.84	0.0277	0.0140	
Mercury	122376-06-02 18:55 G	46418129.14	46418129.29	46418129.44	0.0277	0.0014	
Mercury	122376-08-30 08:36 G	46418217.74	46418217.86	46418217.98	0.0277	0.0165	
Earth	122379-12-09 08:21 G	46419413.83	46419413.85	46419413.88	0.0279	0.0277	

Earth	122380-12-21 15:33 G	46419791.91	46419792.15	46419792.40	0.0280	0.0053
Moon	122380-12-21 16:17 G	46419791.95	46419792.18	46419792.41	0.0280	0.0069 *
Earth	122382-01-04 03:05 G	46420170.45	46420170.63	46420170.83	0.0280	0.0178
Moon	122382-01-04 06:41 G	46420170.58	46420170.78	46420170.98	0.0280	0.0162 *
Venus	122389-06-29 01:24 G	46422903.35	46422903.56	46422903.78	0.0283	0.0041
Mercury	122390-09-20 12:12 G	46423351.89	46423352.01	46423352.13	0.0283	0.0189
Mercury	122390-12-18 05:29 G	46423440.57	46423440.73	46423440.89	0.0283	0.0012
Mercury	122391-03-16 23:00 G	46423529.34	46423529.46	46423529.60	0.0282	0.0170
Earth	122394-06-14 09:19 G	46424714.83	46424714.89	46424714.98	0.0281	0.0265
Moon	122394-06-14 11:00 G	46424714.87	46424714.96	46424715.07	0.0281	0.0257 *
Moon	122395-06-27 04:17 G	46425092.44	46425092.68	46425092.92	0.0280	0.0048
Earth	122395-06-27 07:24 G	46425092.57	46425092.81	46425093.05	0.0280	0.0041 *
Moon	122396-07-08 21:48 G	46425470.22	46425470.41	46425470.60	0.0279	0.0165
Earth	122396-07-09 00:41 G	46425470.35	46425470.53	46425470.72	0.0279	0.0179 *
Mars	122398-01-29 01:09 G	46426039.44	46426039.55	46426039.68	0.0278	0.0253
Venus	122403-12-08 23:43 G	46428179.31	46428179.49	46428179.68	0.0276	0.0131
Venus	122404-07-25 03:33 G	46428408.51	46428408.65	46428408.81	0.0276	0.0187
Mercury	122405-07-24 07:38 G	46428772.70	46428772.82	46428772.93	0.0276	0.0173
Mercury	122405-10-20 21:33 G	46428861.25	46428861.40	46428861.55	0.0276	0.0020
Mercury	122406-01-17 11:14 G	46428949.84	46428949.97	46428950.10	0.0276	0.0131
Moon	122409-12-15 23:57 G	46430378.31	46430378.50	46430378.71	0.0278	0.0160
Earth	122409-12-16 03:48 G	46430378.46	46430378.66	46430378.88	0.0278	0.0151 *
Moon	122410-12-29 11:29 G	46430756.75	46430756.98	46430757.21	0.0279	0.0077
Earth	122410-12-29 12:26 G	46430756.79	46430757.02	46430757.26	0.0279	0.0076 *
Venus	122419-01-09 03:33 G	46433689.44	46433689.65	46433689.86	0.0283	0.0078
Mercury	122420-02-07 11:00 G	46434083.90	46434083.96	46434084.03	0.0283	0.0254
Mercury	122420-05-06 04:17 G	46434172.52	46434172.68	46434172.83	0.0283	0.0079
Mercury	122420-08-02 21:48 G	46434261.26	46434261.41	46434261.56	0.0282	0.0101
Earth	122424-06-20 16:02 G	46435678.96	46435679.17	46435679.38	0.0280	0.0144
Moon	122424-06-20 18:12 G	46435679.07	46435679.26	46435679.48	0.0280	0.0161 *

Moon	122425-07-03 09:19 G	46436056.65	46436056.89	46436057.14	0.0279	0.0066
Earth	122425-07-03 11:14 G	46436056.74	46436056.97	46436057.21	0.0279	0.0079 *
Venus	122433-06-19 23:43 G	46438965.30	46438965.49	46438965.69	0.0276	0.0100
Venus	122434-02-04 03:19 G	46439194.53	46439194.64	46439194.78	0.0276	0.0220
Mercury	122434-12-11 07:38 G	46439504.74	46439504.82	46439504.90	0.0276	0.0232
Mercury	122435-03-09 21:33 G	46439593.26	46439593.40	46439593.55	0.0276	0.0078
Mercury	122435-06-06 11:29 G	46439681.84	46439681.98	46439682.12	0.0277	0.0076
Mercury	122435-09-03 01:09 G	46439770.46	46439770.55	46439770.63	0.0277	0.0225
Moon	122438-12-10 10:45 G	46440964.84	46440964.95	46440965.08	0.0279	0.0245
Earth	122438-12-10 10:45 G	46440964.86	46440964.95	46440965.06	0.0279	0.0255 *
Moon	122439-12-23 14:21 G	46441342.86	46441343.10	46441343.36	0.0280	0.0017
Earth	122439-12-23 17:57 G	46441343.00	46441343.25	46441343.50	0.0280	0.0031 *
Moon	122441-01-05 03:19 G	46441721.49	46441721.64	46441721.80	0.0280	0.0213
Earth	122441-01-05 05:29 G	46441721.55	46441721.73	46441721.90	0.0280	0.0199 *
Mars	122442-02-16 22:17 G	46442129.33	46442129.43	46442129.56	0.0281	0.0257
Venus	122447-12-04 13:38 G	46444245.96	46444246.07	46444246.20	0.0283	0.0234
Venus	122448-07-21 10:02 G	46444475.73	46444475.92	46444476.12	0.0283	0.0129
Mercury	122449-09-23 05:14 G	46444904.58	46444904.72	46444904.87	0.0283	0.0124
Mercury	122449-12-20 22:45 G	46444993.29	46444993.45	46444993.61	0.0283	0.0055
Mercury	122450-03-19 16:17 G	46445082.10	46445082.18	46445082.28	0.0283	0.0238
Earth	122453-06-15 12:26 G	46446265.91	46446266.02	46446266.16	0.0281	0.0241
Moon	122453-06-15 15:05 G	46446266.02	46446266.13	46446266.24	0.0281	0.0248 *
Earth	122454-06-28 10:31 G	46446643.70	46446643.94	46446644.18	0.0280	0.0018
Moon	122454-06-28 14:07 G	46446643.84	46446644.09	46446644.33	0.0280	0.0015 *
Moon	122455-07-11 03:19 G	46447021.49	46447021.64	46447021.81	0.0279	0.0214
Earth	122455-07-11 04:02 G	46447021.51	46447021.67	46447021.84	0.0279	0.0202 *
Venus	122462-12-31 07:09 G	46449751.60	46449751.80	46449752.01	0.0276	0.0047
Venus	122463-08-17 11:14 G	46449980.94	46449980.97	46449981.00	0.0276	0.0272
Mercury	122464-04-29 10:17 G	46450236.89	46450236.93	46450236.97	0.0276	0.0264
Mercury	122464-07-27 00:26 G	46450325.38	46450325.52	46450325.65	0.0276	0.0109

Mercury	122464-10-23 14:07 G	46450413.95	46450414.09	46450414.24	0.0276	0.0044
Mercury	122465-01-20 03:48 G	46450502.56	46450502.66	46450502.77	0.0276	0.0193
Earth	122468-12-17 07:24 G	46451929.59	46451929.81	46451930.03	0.0278	0.0127
Moon	122468-12-17 08:36 G	46451929.64	46451929.86	46451930.10	0.0278	0.0118 *
Moon	122469-12-30 12:41 G	46452307.80	46452308.03	46452308.27	0.0279	0.0096
Earth	122469-12-30 15:48 G	46452307.93	46452308.16	46452308.40	0.0279	0.0100 *
Venus	122477-06-15 16:17 G	46455032.03	46455032.18	46455032.34	0.0283	0.0195
Venus	122478-01-31 12:12 G	46455261.84	46455262.01	46455262.19	0.0283	0.0168
Mercury	122479-02-10 04:02 G	46455636.56	46455636.67	46455636.80	0.0283	0.0189
Mercury	122479-05-09 21:33 G	46455725.23	46455725.40	46455725.56	0.0283	0.0013
Mercury	122479-08-06 15:05 G	46455814.00	46455814.13	46455814.26	0.0283	0.0168
Earth	122483-06-22 18:41 G	46457230.06	46457230.28	46457230.50	0.0280	0.0121
Moon	122483-06-22 19:24 G	46457230.10	46457230.31	46457230.53	0.0280	0.0106 *
Earth	122484-07-04 14:07 G	46457607.86	46457608.09	46457608.31	0.0279	0.0101
Moon	122484-07-04 17:29 G	46457608.01	46457608.23	46457608.46	0.0279	0.0114 *
Venus	122492-07-12 06:55 G	46460537.58	46460537.79	46460538.00	0.0276	0.0016
Mercury	122493-12-14 00:12 G	46461057.40	46461057.51	46461057.63	0.0276	0.0169
Mercury	122494-03-12 14:21 G	46461145.95	46461146.10	46461146.25	0.0276	0.0015
Mercury	122494-06-09 04:02 G	46461234.54	46461234.67	46461234.80	0.0276	0.0136
Earth	122497-12-11 12:41 G	46462515.91	46462516.03	46462516.18	0.0279	0.0233
Moon	122497-12-11 16:02 G	46462516.06	46462516.17	46462516.30	0.0279	0.0243 *
Earth	122498-12-24 19:38 G	46462894.07	46462894.32	46462894.57	0.0279	0.0009
Moon	122498-12-24 22:02 G	46462894.17	46462894.42	46462894.68	0.0279	0.0024 *
Moon	122500-01-07 05:14 G	46463272.54	46463272.72	46463272.89	0.0280	0.0205
Earth	122500-01-07 06:55 G	46463272.64	46463272.79	46463272.94	0.0280	0.0220 *
Venus	122506-12-27 21:19 G	46465818.21	46465818.39	46465818.58	0.0283	0.0149
Venus	122507-08-14 17:14 G	46466048.09	46466048.22	46466048.37	0.0283	0.0214
Mercury	122508-06-30 04:31 G	46466368.62	46466368.69	46466368.78	0.0283	0.0240
Mercury	122508-09-26 21:48 G	46466457.26	46466457.41	46466457.57	0.0283	0.0064
Mercury	122508-12-24 15:19 G	46466546.00	46466546.14	46466546.29	0.0283	0.0117

Moon	122512-06-17 10:02 G	46467816.76	46467816.92	46467817.08	0.0281	0.0209
Earth	122512-06-17 13:24 G	46467816.92	46467817.06	46467817.23	0.0281	0.0219 *
Moon	122513-06-30 11:29 G	46468194.74	46468194.98	46468195.21	0.0280	0.0005
Earth	122513-06-30 11:43 G	46468194.75	46468194.99	46468195.23	0.0280	0.0006 *
Earth	122514-07-13 05:29 G	46468572.59	46468572.73	46468572.88	0.0279	0.0225
Moon	122514-07-13 09:05 G	46468572.73	46468572.88	46468573.04	0.0279	0.0209 *
Venus	122522-01-23 14:21 G	46471323.89	46471324.10	46471324.31	0.0276	0.0038
Mercury	122523-05-04 02:50 G	46471789.53	46471789.62	46471789.73	0.0276	0.0201
Mercury	122523-07-31 17:00 G	46471878.07	46471878.21	46471878.36	0.0276	0.0047
Mercury	122523-10-28 06:41 G	46471966.65	46471966.78	46471966.92	0.0276	0.0105
Mercury	122524-01-24 20:21 G	46472055.29	46472055.35	46472055.40	0.0276	0.0252
Earth	122527-12-20 09:48 G	46473480.68	46473480.91	46473481.14	0.0278	0.0103
Moon	122527-12-20 12:26 G	46473480.80	46473481.02	46473481.25	0.0278	0.0111 *
Earth	122529-01-01 18:12 G	46473859.04	46473859.26	46473859.48	0.0279	0.0123
Moon	122529-01-01 21:48 G	46473859.19	46473859.41	46473859.64	0.0279	0.0123 *
Mars	122530-07-14 08:07 G	46474417.64	46474417.84	46474418.07	0.0280	0.0182
Venus	122536-07-09 00:26 G	46476604.33	46476604.52	46476604.73	0.0283	0.0107
Venus	122537-02-23 20:21 G	46476834.26	46476834.35	46476834.45	0.0283	0.0255
Mercury	122538-02-13 21:05 G	46477189.24	46477189.38	46477189.53	0.0283	0.0126
Mercury	122538-05-13 14:36 G	46477277.95	46477278.11	46477278.27	0.0283	0.0053
Mercury	122538-08-10 08:07 G	46477366.76	46477366.84	46477366.93	0.0283	0.0234
Moon	122542-06-24 17:00 G	46478780.99	46478781.21	46478781.44	0.0280	0.0114
Earth	122542-06-24 20:36 G	46478781.13	46478781.36	46478781.59	0.0280	0.0098 *
Moon	122543-07-07 14:50 G	46479158.92	46479159.12	46479159.34	0.0279	0.0113
Earth	122543-07-07 16:02 G	46479158.96	46479159.17	46479159.39	0.0279	0.0124 *
Venus	122550-12-19 09:48 G	46481880.83	46481880.91	46481881.00	0.0276	0.0251
Venus	122551-08-05 13:38 G	46482109.87	46482110.07	46482110.27	0.0276	0.0067
Mercury	122552-09-20 02:36 G	46482521.57	46482521.61	46482521.66	0.0276	0.0263
Mercury	122552-12-17 16:45 G	46482610.07	46482610.20	46482610.34	0.0276	0.0108
Mercury	122553-03-16 06:41 G	46482698.64	46482698.78	46482698.93	0.0276	0.0045

Mercury	122553-06-12 20:21 G	46482787.25	46482787.35	46482787.45	0.0276	0.0194
Moon	122556-12-13 11:57 G	46484066.83	46484067.00	46484067.17	0.0278	0.0199
Earth	122556-12-13 14:36 G	46484066.95	46484067.11	46484067.28	0.0278	0.0210 *
Earth	122557-12-26 21:05 G	46484445.13	46484445.38	46484445.63	0.0279	0.0014
Moon	122557-12-26 22:17 G	46484445.19	46484445.43	46484445.67	0.0279	0.0030 *
Earth	122559-01-09 07:38 G	46484823.71	46484823.82	46484823.96	0.0280	0.0242
Moon	122559-01-09 11:29 G	46484823.89	46484823.98	46484824.08	0.0280	0.0257 *
Venus	122566-01-19 04:31 G	46487390.48	46487390.69	46487390.90	0.0283	0.0064
Mercury	122567-07-03 21:05 G	46487921.26	46487921.38	46487921.50	0.0283	0.0181
Mercury	122567-09-30 14:21 G	46488009.94	46488010.10	46488010.27	0.0283	0.0007
Mercury	122567-12-28 08:07 G	46488098.71	46488098.84	46488098.97	0.0283	0.0177
Earth	122571-06-19 13:09 G	46489367.89	46489368.05	46489368.23	0.0281	0.0197
Moon	122571-06-19 14:21 G	46489367.93	46489368.10	46489368.28	0.0281	0.0203 *
Moon	122572-07-01 08:21 G	46489745.60	46489745.85	46489746.09	0.0280	0.0034
Earth	122572-07-01 11:43 G	46489745.75	46489745.99	46489746.23	0.0280	0.0028 *
Moon	122573-07-14 03:05 G	46490123.55	46490123.63	46490123.72	0.0279	0.0260
Earth	122573-07-14 05:57 G	46490123.64	46490123.75	46490123.86	0.0279	0.0246 *
Venus	122580-06-30 17:29 G	46492667.09	46492667.23	46492667.38	0.0276	0.0197
Venus	122581-02-14 21:05 G	46492896.20	46492896.38	46492896.57	0.0276	0.0121
Mercury	122582-05-06 19:38 G	46493342.19	46493342.32	46493342.45	0.0276	0.0138
Mercury	122582-08-03 09:33 G	46493430.75	46493430.90	46493431.05	0.0276	0.0015
Mercury	122582-10-30 23:14 G	46493519.35	46493519.47	46493519.59	0.0276	0.0164
Moon	122586-12-21 09:05 G	46495031.65	46495031.88	46495032.13	0.0278	0.0069
Earth	122586-12-21 12:55 G	46495031.81	46495032.04	46495032.28	0.0278	0.0079 *
Moon	122588-01-03 20:36 G	46495410.16	46495410.36	46495410.56	0.0279	0.0147
Earth	122588-01-03 21:05 G	46495410.17	46495410.38	46495410.60	0.0279	0.0147 *
Venus	122595-08-01 08:21 G	46498176.64	46498176.85	46498177.07	0.0283	0.0021
Mercury	122596-11-19 20:50 G	46498653.29	46498653.37	46498653.45	0.0283	0.0239
Mercury	122597-02-16 13:53 G	46498741.93	46498742.08	46498742.24	0.0283	0.0064
Mercury	122597-05-16 07:24 G	46498830.66	46498830.81	46498830.96	0.0283	0.0116

Earth	122601-06-26 21:05 G	46500332.15	46500332.38	46500332.62	0.0280	0.0077
Moon	122601-06-26 23:14 G	46500332.23	46500332.47	46500332.72	0.0280	0.0059 *
Moon	122602-07-09 14:50 G	46500709.91	46500710.12	46500710.32	0.0279	0.0159
Earth	122602-07-09 17:00 G	46500710.01	46500710.21	46500710.42	0.0279	0.0146 *
Venus	122610-01-11 16:31 G	46503453.03	46503453.19	46503453.36	0.0276	0.0168
Venus	122610-08-28 20:21 G	46503682.18	46503682.35	46503682.52	0.0276	0.0150
Mercury	122611-09-24 19:24 G	46504074.21	46504074.31	46504074.41	0.0276	0.0200
Mercury	122611-12-22 09:19 G	46504162.75	46504162.89	46504163.04	0.0276	0.0047
Mercury	122612-03-19 23:14 G	46504251.33	46504251.47	46504251.61	0.0276	0.0105
Mercury	122612-06-16 12:41 G	46504339.98	46504340.03	46504340.09	0.0276	0.0253
Moon	122615-12-16 16:31 G	46505618.01	46505618.19	46505618.38	0.0278	0.0194
Earth	122615-12-16 16:45 G	46505618.03	46505618.20	46505618.39	0.0278	0.0186 *
Moon	122616-12-28 19:38 G	46505996.07	46505996.32	46505996.57	0.0279	0.0022
Earth	122616-12-28 23:14 G	46505996.23	46505996.47	46505996.72	0.0279	0.0037 *
Moon	122618-01-11 07:53 G	46506374.74	46506374.83	46506374.95	0.0280	0.0251
Earth	122618-01-11 09:33 G	46506374.83	46506374.90	46506374.99	0.0280	0.0264 *
Mars	122618-12-08 05:57 G	46506705.52	46506705.75	46506706.01	0.0280	0.0147
Venus	122625-02-11 11:43 G	46508962.77	46508962.99	46508963.20	0.0283	0.0021
Mercury	122626-07-07 13:38 G	46509473.92	46509474.07	46509474.21	0.0283	0.0122
Mercury	122626-10-04 06:55 G	46509562.63	46509562.79	46509562.95	0.0283	0.0056
Mercury	122627-01-01 00:41 G	46509651.45	46509651.53	46509651.62	0.0283	0.0238
Earth	122630-06-21 12:55 G	46510918.86	46510919.04	46510919.24	0.0281	0.0175
Moon	122630-06-21 15:48 G	46510918.97	46510919.16	46510919.35	0.0281	0.0167 *
Earth	122631-07-04 11:29 G	46511296.75	46511296.98	46511297.22	0.0280	0.0050
Moon	122631-07-04 15:05 G	46511296.89	46511297.13	46511297.37	0.0280	0.0049 *
Moon	122632-07-16 04:45 G	46511674.61	46511674.70	46511674.81	0.0280	0.0255
Earth	122632-07-16 05:57 G	46511674.69	46511674.75	46511674.82	0.0280	0.0268 *
Venus	122639-07-25 00:12 G	46514239.33	46514239.51	46514239.71	0.0276	0.0114
Venus	122640-03-10 04:02 G	46514468.53	46514468.67	46514468.81	0.0276	0.0204
Mercury	122641-02-10 22:02 G	46514806.35	46514806.42	46514806.51	0.0276	0.0231

Mercury	122641-05-10 12:12 G	46514894.87	46514895.01	46514895.16	0.0276	0.0077
Mercury	122641-08-07 02:07 G	46514983.45	46514983.59	46514983.73	0.0276	0.0076
Mercury	122641-11-03 15:48 G	46515072.08	46515072.16	46515072.24	0.0276	0.0224
Earth	122644-12-10 12:41 G	46516204.99	46516205.03	46516205.08	0.0277	0.0272
Earth	122645-12-23 16:31 G	46516582.95	46516583.19	46516583.43	0.0278	0.0054
Moon	122645-12-23 17:43 G	46516583.00	46516583.24	46516583.50	0.0278	0.0065 *
Moon	122647-01-05 21:05 G	46516961.19	46516961.38	46516961.59	0.0279	0.0173
Earth	122647-01-06 00:26 G	46516961.33	46516961.52	46516961.72	0.0279	0.0171 *
Venus	122654-08-24 16:45 G	46519748.99	46519749.20	46519749.41	0.0283	0.0069
Mercury	122655-11-24 13:38 G	46520205.95	46520206.07	46520206.20	0.0283	0.0176
Mercury	122656-02-21 06:55 G	46520294.63	46520294.79	46520294.95	0.0283	0.0002
Mercury	122656-05-20 00:26 G	46520383.40	46520383.52	46520383.65	0.0283	0.0181
Earth	122659-06-15 22:45 G	46521505.42	46521505.45	46521505.49	0.0281	0.0277
Earth	122660-06-27 22:17 G	46521883.20	46521883.43	46521883.68	0.0280	0.0054
Moon	122660-06-27 23:14 G	46521883.25	46521883.47	46521883.71	0.0280	0.0070 *
Earth	122661-07-10 18:12 G	46522261.07	46522261.26	46522261.45	0.0280	0.0169
Moon	122661-07-10 21:33 G	46522261.20	46522261.40	46522261.61	0.0280	0.0155 *
Venus	122669-02-02 23:43 G	46525025.29	46525025.49	46525025.69	0.0276	0.0084
Venus	122669-09-20 03:19 G	46525254.54	46525254.64	46525254.75	0.0276	0.0234
Mercury	122670-09-27 12:12 G	46525626.88	46525627.01	46525627.14	0.0276	0.0137
Mercury	122670-12-25 02:07 G	46525715.44	46525715.59	46525715.74	0.0276	0.0016
Mercury	122671-03-23 15:48 G	46525804.04	46525804.16	46525804.28	0.0276	0.0166
Earth	122674-12-17 20:21 G	46527169.16	46527169.35	46527169.56	0.0278	0.0162
Moon	122674-12-17 23:43 G	46527169.29	46527169.49	46527169.70	0.0278	0.0154 *
Earth	122675-12-31 02:36 G	46527547.38	46527547.61	46527547.86	0.0279	0.0062
Moon	122675-12-31 05:00 G	46527547.47	46527547.71	46527547.96	0.0279	0.0077 *
Venus	122683-07-19 23:00 G	46530305.37	46530305.46	46530305.55	0.0283	0.0256
Venus	122684-03-05 19:09 G	46530535.11	46530535.30	46530535.51	0.0283	0.0107
Mercury	122685-04-12 13:09 G	46530937.97	46530938.05	46530938.14	0.0283	0.0237
Mercury	122685-07-10 06:12 G	46531026.61	46531026.76	46531026.92	0.0283	0.0062

Mercury	122685-10-06 23:43 G	46531115.35	46531115.49	46531115.64	0.0283	0.0118
Moon	122689-06-22 09:05 G	46532469.69	46532469.88	46532470.08	0.0281	0.0164
Earth	122689-06-22 12:55 G	46532469.84	46532470.04	46532470.24	0.0281	0.0152 *
Earth	122690-07-05 11:29 G	46532847.75	46532847.98	46532848.22	0.0280	0.0072
Moon	122690-07-05 11:29 G	46532847.76	46532847.98	46532848.21	0.0280	0.0075 *
Venus	122698-08-16 07:24 G	46535811.60	46535811.81	46535812.01	0.0276	0.0030
Mercury	122700-02-14 15:05 G	46536359.01	46536359.13	46536359.25	0.0276	0.0166
Mercury	122700-05-14 05:00 G	46536447.56	46536447.71	46536447.86	0.0276	0.0014
Mercury	122700-08-10 18:41 G	46536536.16	46536536.28	46536536.41	0.0276	0.0138
Moon	122703-12-13 15:05 G	46537756.01	46537756.13	46537756.27	0.0277	0.0234
Earth	122703-12-13 17:14 G	46537756.12	46537756.22	46537756.33	0.0277	0.0248 *
Earth	122704-12-25 21:19 G	46538134.14	46538134.39	46538134.64	0.0278	0.0029
Moon	122704-12-25 23:43 G	46538134.25	46538134.49	46538134.73	0.0278	0.0018 *
Earth	122706-01-08 05:00 G	46538512.54	46538512.71	46538512.90	0.0279	0.0196
Moon	122706-01-08 09:05 G	46538512.71	46538512.88	46538513.05	0.0279	0.0200 *
Mars	122707-05-05 04:02 G	46538994.39	46538994.67	46538994.96	0.0280	0.0034
Venus	122713-01-30 05:43 G	46541091.60	46541091.74	46541091.90	0.0283	0.0203
Venus	122713-09-17 01:38 G	46541321.40	46541321.57	46541321.75	0.0283	0.0159
Mercury	122714-11-28 06:55 G	46541758.64	46541758.79	46541758.94	0.0283	0.0110
Mercury	122715-02-25 00:12 G	46541847.35	46541847.51	46541847.67	0.0283	0.0068
Mercury	122715-05-24 17:43 G	46541936.17	46541936.24	46541936.32	0.0283	0.0249
Moon	122718-06-18 00:41 G	46543056.43	46543056.53	46543056.67	0.0281	0.0248
Earth	122718-06-18 00:55 G	46543056.44	46543056.54	46543056.64	0.0281	0.0255 *
Moon	122719-06-30 21:19 G	46543434.14	46543434.39	46543434.63	0.0280	0.0015
Earth	122719-07-01 00:41 G	46543434.29	46543434.53	46543434.77	0.0280	0.0030 *
Moon	122720-07-12 19:09 G	46543812.15	46543812.30	46543812.46	0.0280	0.0206
Earth	122720-07-12 20:21 G	46543812.18	46543812.35	46543812.53	0.0280	0.0192 *
Venus	122728-02-27 07:24 G	46546597.60	46546597.81	46546598.02	0.0276	0.0002
Mercury	122729-07-04 14:50 G	46547091.04	46547091.12	46547091.21	0.0276	0.0226
Mercury	122729-10-01 05:00 G	46547179.57	46547179.71	46547179.86	0.0276	0.0072

Mercury	122729-12-28 18:55 G	46547268.15	46547268.29	46547268.43	0.0276	0.0081
Mercury	122730-03-27 08:36 G	46547356.78	46547356.86	46547356.94	0.0276	0.0229
Moon	122733-12-19 22:31 G	46548720.24	46548720.44	46548720.65	0.0278	0.0144
Earth	122733-12-20 01:38 G	46548720.36	46548720.57	46548720.79	0.0278	0.0136 *
Earth	122735-01-02 07:38 G	46549098.59	46549098.82	46549099.06	0.0279	0.0087
Moon	122735-01-02 08:21 G	46549098.62	46549098.85	46549099.08	0.0279	0.0074 *
Venus	122742-08-12 07:53 G	46551877.66	46551877.83	46551878.01	0.0283	0.0166
Venus	122743-03-30 04:02 G	46552107.52	46552107.67	46552107.83	0.0283	0.0196
Mercury	122744-04-16 06:12 G	46552490.64	46552490.76	46552490.89	0.0283	0.0172
Mercury	122744-07-13 23:29 G	46552579.32	46552579.48	46552579.64	0.0283	0.0004
Mercury	122744-10-10 17:00 G	46552668.09	46552668.21	46552668.33	0.0283	0.0185
Earth	122748-06-24 14:07 G	46554020.88	46554021.09	46554021.31	0.0281	0.0130
Moon	122748-06-24 15:19 G	46554020.91	46554021.14	46554021.37	0.0281	0.0119 *
Moon	122749-07-07 09:19 G	46554398.67	46554398.89	46554399.13	0.0280	0.0093
Earth	122749-07-07 12:41 G	46554398.81	46554399.03	46554399.26	0.0280	0.0096 *
Venus	122757-01-22 10:45 G	46557154.90	46557154.95	46557155.02	0.0276	0.0262
Venus	122757-09-08 14:50 G	46557383.91	46557384.12	46557384.32	0.0276	0.0056
Mercury	122758-11-21 17:29 G	46557823.19	46557823.23	46557823.30	0.0276	0.0256
Mercury	122759-02-18 07:53 G	46557911.70	46557911.83	46557911.97	0.0276	0.0101
Mercury	122759-05-17 22:02 G	46558000.27	46558000.42	46558000.56	0.0276	0.0053
Mercury	122759-08-14 11:43 G	46558088.89	46558088.99	46558089.09	0.0276	0.0202
Moon	122762-12-14 21:19 G	46559307.28	46559307.39	46559307.54	0.0277	0.0239
Earth	122762-12-14 23:14 G	46559307.33	46559307.47	46559307.62	0.0277	0.0222 *
Moon	122763-12-27 23:43 G	46559685.25	46559685.49	46559685.74	0.0278	0.0018
Earth	122763-12-28 03:48 G	46559685.41	46559685.66	46559685.91	0.0278	0.0004 *
Moon	122765-01-09 10:31 G	46560063.79	46560063.94	46560064.09	0.0279	0.0216
Earth	122765-01-09 11:43 G	46560063.85	46560063.99	46560064.15	0.0279	0.0222 *
Venus	122772-02-22 16:17 G	46562663.98	46562664.18	46562664.38	0.0283	0.0108
Venus	122772-10-09 11:57 G	46562893.91	46562894.00	46562894.10	0.0283	0.0253
Mercury	122773-09-03 07:24 G	46563222.71	46563222.81	46563222.92	0.0283	0.0214

Mercury	122773-12-01 00:26 G	46563311.37	46563311.52	46563311.68	0.0283	0.0040
Mercury	122774-02-27 17:57 G	46563400.11	46563400.25	46563400.39	0.0283	0.0140
Earth	122777-06-19 04:31 G	46564607.56	46564607.69	46564607.83	0.0281	0.0230
Moon	122777-06-19 07:38 G	46564607.70	46564607.82	46564607.95	0.0281	0.0238 *
Earth	122778-07-02 04:17 G	46564985.43	46564985.68	46564985.92	0.0281	0.0007
Moon	122778-07-02 06:41 G	46564985.53	46564985.78	46564986.03	0.0281	0.0021 *
Moon	122779-07-14 21:48 G	46565363.25	46565363.41	46565363.59	0.0280	0.0200
Earth	122779-07-14 23:43 G	46565363.34	46565363.49	46565363.65	0.0280	0.0216 *
Venus	122786-08-04 11:57 G	46567940.89	46567941.00	46567941.12	0.0276	0.0228
Venus	122787-03-21 15:33 G	46568169.96	46568170.15	46568170.35	0.0276	0.0090
Mercury	122788-07-07 08:07 G	46568643.72	46568643.84	46568643.97	0.0276	0.0157
Mercury	122788-10-03 22:17 G	46568732.28	46568732.43	46568732.58	0.0276	0.0006
Mercury	122788-12-31 12:12 G	46568820.88	46568821.01	46568821.13	0.0276	0.0147
Earth	122792-12-21 08:36 G	46570271.64	46570271.86	46570272.09	0.0278	0.0109
Moon	122792-12-21 09:05 G	46570271.65	46570271.88	46570272.12	0.0278	0.0106 *
Moon	122794-01-03 11:29 G	46570649.76	46570649.98	46570650.21	0.0279	0.0126
Earth	122794-01-03 14:36 G	46570649.90	46570650.11	46570650.35	0.0279	0.0115 *
Mars	122795-09-28 09:48 G	46571282.63	46571282.91	46571283.20	0.0280	0.0024
Venus	122801-09-03 18:12 G	46573450.05	46573450.26	46573450.47	0.0283	0.0072
Mercury	122803-01-21 06:41 G	46573954.76	46573954.78	46573954.81	0.0283	0.0276
Mercury	122803-04-19 23:43 G	46574043.34	46574043.49	46574043.64	0.0283	0.0103
Mercury	122803-07-17 17:00 G	46574132.06	46574132.21	46574132.37	0.0283	0.0075
Mercury	122803-10-14 10:31 G	46574220.89	46574220.94	46574221.02	0.0283	0.0257
Earth	122807-06-26 17:00 G	46575571.99	46575572.21	46575572.45	0.0281	0.0105
Moon	122807-06-26 19:38 G	46575572.10	46575572.32	46575572.53	0.0281	0.0116 *
Earth	122808-07-08 15:33 G	46575949.94	46575950.15	46575950.37	0.0280	0.0120
Moon	122808-07-08 19:09 G	46575950.08	46575950.30	46575950.53	0.0280	0.0116 *
Venus	122816-02-14 18:55 G	46578727.14	46578727.29	46578727.46	0.0276	0.0175
Venus	122816-09-30 22:45 G	46578956.29	46578956.45	46578956.64	0.0276	0.0146
Mercury	122817-11-24 11:00 G	46579375.86	46579375.96	46579376.08	0.0276	0.0186

Mercury	122818-02-21 01:09 G	46579464.41	46579464.55	46579464.70	0.0276	0.0033
Mercury	122818-05-20 15:05 G	46579553.00	46579553.13	46579553.26	0.0276	0.0119
Mercury	122818-08-17 04:45 G	46579641.67	46579641.70	46579641.73	0.0276	0.0268
Earth	122821-12-16 06:41 G	46580858.61	46580858.78	46580858.96	0.0277	0.0197
Moon	122821-12-16 10:02 G	46580858.75	46580858.92	46580859.12	0.0277	0.0182 *
Earth	122822-12-29 11:29 G	46581236.73	46581236.98	46581237.23	0.0278	0.0025
Moon	122822-12-29 13:53 G	46581236.82	46581237.08	46581237.33	0.0278	0.0039 *
Moon	122824-01-11 17:14 G	46581615.13	46581615.22	46581615.34	0.0279	0.0254
Earth	122824-01-11 19:53 G	46581615.23	46581615.33	46581615.45	0.0279	0.0249 *
Venus	122831-03-17 04:02 G	46584236.46	46584236.67	46584236.89	0.0283	0.0010
Mercury	122832-09-06 01:38 G	46584775.43	46584775.57	46584775.71	0.0283	0.0139
Mercury	122832-12-03 18:41 G	46584864.13	46584864.28	46584864.45	0.0283	0.0039
Mercury	122833-03-02 12:12 G	46584952.91	46584953.01	46584953.12	0.0283	0.0218
Moon	122836-06-20 07:09 G	46586158.64	46586158.80	46586158.97	0.0281	0.0200
Earth	122836-06-20 10:31 G	46586158.78	46586158.94	46586159.11	0.0281	0.0205 *
Earth	122837-07-03 09:48 G	46586536.67	46586536.91	46586537.16	0.0281	0.0020
Moon	122837-07-03 10:17 G	46586536.70	46586536.93	46586537.16	0.0281	0.0033 *
Earth	122838-07-16 05:14 G	46586914.60	46586914.72	46586914.84	0.0280	0.0240
Moon	122838-07-16 08:36 G	46586914.77	46586914.86	46586914.96	0.0280	0.0256 *
Venus	122845-08-26 20:50 G	46589513.20	46589513.37	46589513.55	0.0276	0.0138
Venus	122846-04-13 00:26 G	46589742.38	46589742.52	46589742.69	0.0276	0.0181
Mercury	122847-04-13 11:29 G	46590107.91	46590107.98	46590108.06	0.0276	0.0240
Mercury	122847-07-11 01:53 G	46590196.43	46590196.58	46590196.72	0.0276	0.0085
Mercury	122847-10-07 15:48 G	46590285.01	46590285.16	46590285.30	0.0276	0.0067
Mercury	122848-01-04 05:29 G	46590373.64	46590373.73	46590373.82	0.0276	0.0216
Earth	122851-12-23 17:29 G	46591822.99	46591823.23	46591823.47	0.0278	0.0081
Moon	122851-12-23 20:07 G	46591823.11	46591823.34	46591823.57	0.0278	0.0082 *
Earth	122853-01-04 23:43 G	46592201.29	46592201.49	46592201.71	0.0279	0.0143
Moon	122853-01-05 03:05 G	46592201.40	46592201.63	46592201.85	0.0279	0.0131 *
Venus	122860-09-26 06:12 G	46595022.54	46595022.76	46595022.97	0.0283	0.0028

Mercury	122862-01-24 00:55 G	46595507.43	46595507.54	46595507.65	0.0283	0.0201
Mercury	122862-04-22 17:57 G	46595596.09	46595596.25	46595596.41	0.0283	0.0027
Mercury	122862-07-20 11:29 G	46595684.84	46595684.98	46595685.12	0.0282	0.0153
Moon	122866-06-27 18:41 G	46597123.05	46597123.28	46597123.52	0.0281	0.0065
Earth	122866-06-27 22:31 G	46597123.21	46597123.44	46597123.68	0.0281	0.0080 *
Moon	122867-07-10 19:38 G	46597501.13	46597501.32	46597501.53	0.0280	0.0149
Earth	122867-07-10 20:36 G	46597501.15	46597501.36	46597501.57	0.0280	0.0145 *
Venus	122875-03-09 03:48 G	46600299.47	46600299.66	46600299.86	0.0277	0.0085
Venus	122875-10-24 07:38 G	46600528.73	46600528.82	46600528.94	0.0277	0.0236
Mercury	122876-08-30 14:07 G	46600840.07	46600840.09	46600840.12	0.0277	0.0271
Mercury	122876-11-27 04:31 G	46600928.56	46600928.69	46600928.83	0.0277	0.0115
Mercury	122877-02-23 18:41 G	46601017.13	46601017.28	46601017.42	0.0277	0.0038
Mercury	122877-05-23 08:21 G	46601105.74	46601105.85	46601105.96	0.0277	0.0189
Moon	122880-12-17 12:55 G	46602409.86	46602410.04	46602410.22	0.0278	0.0183
Earth	122880-12-17 15:33 G	46602409.97	46602410.15	46602410.36	0.0278	0.0170 *
Earth	122881-12-30 21:05 G	46602788.13	46602788.38	46602788.62	0.0278	0.0053
Moon	122881-12-30 22:31 G	46602788.20	46602788.44	46602788.68	0.0278	0.0039 *
Earth	122883-01-13 05:43 G	46603166.73	46603166.74	46603166.78	0.0279	0.0277
Moon	122883-01-13 09:33 G	46603166.84	46603166.90	46603166.99	0.0279	0.0266
Mars	122884-02-23 02:07 G	46603572.39	46603572.59	46603572.81	0.0279	0.0185
Venus	122889-08-21 21:05 G	46605579.32	46605579.38	46605579.46	0.0283	0.0267
Venus	122890-04-08 17:00 G	46605809.01	46605809.21	46605809.42	0.0283	0.0094
Mercury	122891-06-13 03:19 G	46606239.55	46606239.64	46606239.73	0.0283	0.0232
Mercury	122891-09-09 20:21 G	46606328.19	46606328.35	46606328.50	0.0283	0.0058
Mercury	122891-12-07 13:38 G	46606416.92	46606417.07	46606417.22	0.0283	0.0120
Earth	122895-06-22 18:12 G	46607710.08	46607710.26	46607710.46	0.0281	0.0179
Moon	122895-06-22 19:09 G	46607710.12	46607710.30	46607710.50	0.0281	0.0178 *
Moon	122896-07-04 14:07 G	46608087.85	46608088.09	46608088.33	0.0281	0.0034
Earth	122896-07-04 17:14 G	46608087.99	46608088.22	46608088.46	0.0281	0.0048 *
Moon	122897-07-17 10:31 G	46608465.84	46608465.94	46608466.05	0.0280	0.0251

Earth	122897-07-17 12:12 G	46608465.95	46608466.01	46608466.09	0.0280	0.0267 *
Mars	122898-05-09 21:19 G	46608762.28	46608762.39	46608762.53	0.0279	0.0255
Venus	122904-09-19 06:55 G	46611085.59	46611085.79	46611086.00	0.0276	0.0044
Venus	122905-05-06 10:45 G	46611314.94	46611314.95	46611314.98	0.0276	0.0274
Mercury	122906-04-17 05:29 G	46611660.61	46611660.73	46611660.85	0.0276	0.0164
Mercury	122906-07-14 19:38 G	46611749.17	46611749.32	46611749.47	0.0276	0.0011
Mercury	122906-10-11 09:33 G	46611837.77	46611837.90	46611838.02	0.0276	0.0140
Earth	122909-12-13 00:41 G	46612996.49	46612996.53	46612996.60	0.0277	0.0269
Moon	122910-12-26 00:26 G	46613374.28	46613374.52	46613374.76	0.0278	0.0052
Earth	122910-12-26 04:02 G	46613374.42	46613374.67	46613374.91	0.0278	0.0052 *
Moon	122912-01-08 10:17 G	46613752.75	46613752.93	46613753.12	0.0279	0.0180
Earth	122912-01-08 10:31 G	46613752.76	46613752.94	46613753.15	0.0279	0.0172 *
Venus	122919-03-04 23:00 G	46616365.34	46616365.46	46616365.59	0.0283	0.0230
Venus	122919-10-20 18:55 G	46616595.11	46616595.29	46616595.49	0.0283	0.0131
Mercury	122921-01-27 19:24 G	46617060.17	46617060.31	46617060.46	0.0283	0.0122
Mercury	122921-04-26 12:41 G	46617148.87	46617149.03	46617149.19	0.0282	0.0055
Mercury	122921-07-24 06:12 G	46617237.68	46617237.76	46617237.85	0.0282	0.0236
Earth	122924-06-17 04:17 G	46618296.66	46618296.68	46618296.73	0.0281	0.0278
Earth	122925-06-30 05:57 G	46618674.51	46618674.75	46618674.99	0.0281	0.0052
Moon	122925-06-30 07:53 G	46618674.59	46618674.83	46618675.08	0.0281	0.0066 *
Moon	122926-07-13 00:41 G	46619052.33	46619052.53	46619052.73	0.0280	0.0167
Earth	122926-07-13 03:19 G	46619052.46	46619052.64	46619052.84	0.0280	0.0171 *
Venus	122934-04-01 13:09 G	46621871.85	46621872.05	46621872.26	0.0277	0.0010
Mercury	122935-09-04 07:53 G	46622392.73	46622392.83	46622392.94	0.0277	0.0197
Mercury	122935-12-01 22:17 G	46622481.28	46622481.43	46622481.58	0.0277	0.0042
Mercury	122936-02-28 12:12 G	46622569.87	46622570.01	46622570.14	0.0277	0.0110
Mercury	122936-05-27 01:53 G	46622658.53	46622658.58	46622658.63	0.0277	0.0259
Moon	122939-12-21 01:09 G	46623961.32	46623961.55	46623961.78	0.0278	0.0128
Earth	122939-12-21 01:38 G	46623961.35	46623961.57	46623961.78	0.0278	0.0142 *
Moon	122941-01-02 03:33 G	46624339.42	46624339.65	46624339.89	0.0278	0.0099

Earth	122941-01-02 07:24 G	46624339.58	46624339.81	46624340.05	0.0278	0.0082	*
Venus	122948-09-14 11:29 G	46627151.81	46627151.98	46627152.17	0.0282	0.0161	
Venus	122949-05-02 07:24 G	46627381.66	46627381.81	46627381.96	0.0283	0.0200	
Mercury	122950-06-16 22:17 G	46627792.30	46627792.43	46627792.57	0.0283	0.0147	
Mercury	122950-09-13 15:33 G	46627880.99	46627881.15	46627881.31	0.0283	0.0029	
Mercury	122950-12-11 08:50 G	46627969.77	46627969.87	46627969.98	0.0283	0.0208	
Earth	122954-06-25 04:17 G	46629261.48	46629261.68	46629261.89	0.0281	0.0150	
Moon	122954-06-25 06:41 G	46629261.59	46629261.78	46629261.99	0.0281	0.0150	*
Earth	122955-07-08 02:36 G	46629639.38	46629639.61	46629639.85	0.0280	0.0075	
Moon	122955-07-08 05:43 G	46629639.51	46629639.74	46629639.98	0.0280	0.0087	*
Venus	122963-02-25 13:24 G	46632429.02	46632429.06	46632429.12	0.0276	0.0267	
Venus	122963-10-12 17:29 G	46632658.02	46632658.23	46632658.43	0.0276	0.0051	
Mercury	122965-01-21 09:05 G	46633124.82	46633124.88	46633124.96	0.0276	0.0243	
Mercury	122965-04-19 23:29 G	46633213.34	46633213.48	46633213.63	0.0276	0.0088	
Mercury	122965-07-17 13:38 G	46633301.92	46633302.07	46633302.21	0.0276	0.0065	
Mercury	122965-10-14 03:19 G	46633390.55	46633390.64	46633390.73	0.0276	0.0214	
Earth	122968-12-14 11:43 G	46634547.88	46634547.99	46634548.12	0.0277	0.0241	
Moon	122968-12-14 15:19 G	46634548.02	46634548.14	46634548.29	0.0277	0.0229	*
Earth	122969-12-27 15:19 G	46634925.89	46634926.14	46634926.39	0.0278	0.0023	
Moon	122969-12-27 17:00 G	46634925.95	46634926.21	46634926.47	0.0278	0.0017	*
Moon	122971-01-09 19:53 G	46635304.16	46635304.33	46635304.52	0.0279	0.0196	
Earth	122971-01-09 22:31 G	46635304.28	46635304.44	46635304.62	0.0279	0.0202	*
Mars	122972-07-19 20:36 G	46635861.34	46635861.36	46635861.39	0.0280	0.0278	
Venus	122978-03-27 13:24 G	46637937.87	46637938.06	46637938.26	0.0283	0.0124	
Venus	122978-11-12 09:05 G	46638167.77	46638167.88	46638168.01	0.0283	0.0236	
Mercury	122979-11-03 21:33 G	46638524.30	46638524.40	46638524.51	0.0283	0.0211	
Mercury	122980-01-31 14:36 G	46638612.95	46638613.11	46638613.27	0.0282	0.0036	
Mercury	122980-04-29 07:53 G	46638701.69	46638701.83	46638701.97	0.0282	0.0142	
Moon	122983-06-19 11:29 G	46639847.86	46639847.98	46639848.11	0.0281	0.0236	
Earth	122983-06-19 14:07 G	46639847.99	46639848.09	46639848.21	0.0281	0.0250	*

Earth	122984-07-01 15:05 G	46640225.88	46640226.13	46640226.37	0.0281	0.0025
Moon	122984-07-01 16:31 G	46640225.96	46640226.19	46640226.43	0.0281	0.0011 *
Earth	122985-07-14 11:57 G	46640603.83	46640604.00	46640604.17	0.0280	0.0197
Moon	122985-07-14 15:33 G	46640604.00	46640604.15	46640604.32	0.0280	0.0208 *
Mars	122986-10-04 17:43 G	46641050.99	46641051.24	46641051.50	0.0279	0.0143
Venus	122992-09-06 19:09 G	46643215.17	46643215.30	46643215.43	0.0277	0.0218
Venus	122993-04-23 23:14 G	46643444.28	46643444.47	46643444.66	0.0277	0.0102
Mercury	122994-09-07 01:53 G	46643945.45	46643945.58	46643945.72	0.0277	0.0122
Mercury	122994-12-04 16:02 G	46644034.02	46644034.17	46644034.32	0.0277	0.0032
Mercury	122995-03-03 05:43 G	46644122.64	46644122.74	46644122.86	0.0277	0.0183
Earth	122998-12-22 11:57 G	46645512.78	46645513.00	46645513.23	0.0278	0.0114
Moon	122998-12-22 14:50 G	46645512.91	46645513.12	46645513.34	0.0278	0.0126 *
Earth	123000-01-04 18:26 G	46645891.04	46645891.27	46645891.50	0.0278	0.0110
Moon	123000-01-04 21:33 G	46645891.17	46645891.40	46645891.64	0.0278	0.0095 *

124TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 124th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Venus	123007-10-09 02:21 G	46648724.39	46648724.60	46648724.82	0.0282	0.0053		
Mercury	123009-03-24 00:41 G	46649256.45	46649256.53	46649256.62	0.0283	0.0234		
Mercury	123009-06-20 17:43 G	46649345.08	46649345.24	46649345.40	0.0283	0.0060		
Mercury	123009-09-17 11:00 G	46649433.81	46649433.96	46649434.11	0.0283	0.0117		
Moon	123013-06-27 11:43 G	46650812.78	46650812.99	46650813.21	0.0281	0.0120		

Earth	123013-06-27 15:19 G	46650812.93	46650813.14	46650813.37	0.0281	0.0122	*
Moon	123014-07-10 12:55 G	46651190.82	46651191.04	46651191.26	0.0280	0.0097	
Earth	123014-07-10 13:24 G	46651190.84	46651191.06	46651191.29	0.0280	0.0104	*
Venus	123022-03-21 00:26 G	46654001.36	46654001.52	46654001.69	0.0276	0.0171	
Venus	123022-11-05 04:31 G	46654230.51	46654230.69	46654230.86	0.0276	0.0147	
Mercury	123024-01-26 03:19 G	46654677.53	46654677.64	46654677.77	0.0276	0.0165	
Mercury	123024-04-23 17:43 G	46654766.09	46654766.24	46654766.39	0.0276	0.0013	
Mercury	123024-07-21 07:24 G	46654854.69	46654854.81	46654854.94	0.0276	0.0141	
Moon	123027-12-17 20:07 G	46656099.22	46656099.34	46656099.49	0.0277	0.0230	
Earth	123027-12-17 22:45 G	46656099.31	46656099.45	46656099.62	0.0277	0.0213	*
Earth	123028-12-30 02:50 G	46656477.38	46656477.62	46656477.87	0.0278	0.0009	
Moon	123028-12-30 04:31 G	46656477.45	46656477.69	46656477.93	0.0278	0.0004	*
Earth	123030-01-12 10:31 G	46656855.81	46656855.94	46656856.09	0.0279	0.0231	
Moon	123030-01-12 14:21 G	46656855.96	46656856.10	46656856.23	0.0279	0.0234	*
Venus	123037-04-20 04:45 G	46659510.48	46659510.70	46659510.91	0.0283	0.0016	
Mercury	123038-11-07 17:00 G	46660077.07	46660077.21	46660077.35	0.0283	0.0123	
Mercury	123039-02-04 10:02 G	46660165.76	46660165.92	46660166.08	0.0282	0.0053	
Mercury	123039-05-04 03:19 G	46660254.56	46660254.64	46660254.74	0.0282	0.0233	
Moon	123042-06-22 01:09 G	46661399.42	46661399.55	46661399.69	0.0281	0.0234	
Earth	123042-06-22 01:24 G	46661399.42	46661399.56	46661399.71	0.0281	0.0221	*
Moon	123043-07-04 22:02 G	46661777.18	46661777.42	46661777.67	0.0280	0.0013	
Earth	123043-07-05 01:38 G	46661777.33	46661777.57	46661777.81	0.0280	0.0004	*
Moon	123044-07-16 20:07 G	46662155.20	46662155.34	46662155.50	0.0280	0.0215	
Earth	123044-07-16 21:48 G	46662155.28	46662155.41	46662155.56	0.0280	0.0225	*
Venus	123051-10-01 05:14 G	46664787.54	46664787.72	46664787.90	0.0277	0.0124	
Venus	123052-05-17 09:19 G	46665016.75	46665016.89	46665017.04	0.0277	0.0196	
Mercury	123053-06-14 05:14 G	46665409.63	46665409.72	46665409.83	0.0277	0.0203	
Mercury	123053-09-10 19:38 G	46665498.17	46665498.32	46665498.47	0.0277	0.0047	
Mercury	123053-12-08 09:33 G	46665586.77	46665586.90	46665587.04	0.0277	0.0106	
Mercury	123054-03-06 23:29 G	46665675.43	46665675.48	46665675.53	0.0277	0.0255	

Moon	123057-12-24 18:26 G	46667064.04	46667064.27	46667064.51	0.0278	0.0080
Earth	123057-12-24 22:02 G	46667064.19	46667064.42	46667064.66	0.0278	0.0087 *
Earth	123059-01-07 05:00 G	46667442.50	46667442.71	46667442.93	0.0279	0.0138
Moon	123059-01-07 05:14 G	46667442.53	46667442.72	46667442.92	0.0279	0.0153 *
Venus	123066-10-31 17:14 G	46670297.01	46670297.22	46670297.44	0.0283	0.0056
Mercury	123068-03-26 20:07 G	46670809.20	46670809.34	46670809.47	0.0283	0.0147
Mercury	123068-06-23 13:09 G	46670897.89	46670898.05	46670898.21	0.0283	0.0028
Mercury	123068-09-20 06:26 G	46670986.67	46670986.77	46670986.89	0.0283	0.0208
Earth	123072-06-29 02:50 G	46672364.39	46672364.62	46672364.85	0.0281	0.0092
Moon	123072-06-29 05:00 G	46672364.48	46672364.71	46672364.95	0.0281	0.0101 *
Moon	123073-07-11 21:48 G	46672742.20	46672742.41	46672742.64	0.0280	0.0137
Earth	123073-07-12 00:12 G	46672742.31	46672742.51	46672742.74	0.0280	0.0133 *
Mars	123075-03-02 14:50 G	46673340.82	46673341.12	46673341.42	0.0279	0.0024
Venus	123081-04-12 11:29 G	46675573.79	46675573.98	46675574.18	0.0276	0.0075
Venus	123081-11-27 15:19 G	46675803.05	46675803.14	46675803.24	0.0276	0.0244
Mercury	123082-11-01 07:24 G	46676141.74	46676141.81	46676141.88	0.0276	0.0241
Mercury	123083-01-28 21:48 G	46676230.26	46676230.41	46676230.55	0.0276	0.0086
Mercury	123083-04-27 11:43 G	46676318.85	46676318.99	46676319.14	0.0276	0.0066
Mercury	123083-07-25 01:24 G	46676407.48	46676407.56	46676407.66	0.0276	0.0216
Moon	123086-12-19 09:48 G	46677650.71	46677650.91	46677651.12	0.0277	0.0170
Earth	123086-12-19 10:02 G	46677650.75	46677650.92	46677651.12	0.0277	0.0186 *
Moon	123088-01-01 11:00 G	46678028.72	46678028.96	46678029.21	0.0278	0.0044
Earth	123088-01-01 14:50 G	46678028.87	46678029.12	46678029.36	0.0278	0.0036 *
Moon	123089-01-13 20:50 G	46678407.30	46678407.37	46678407.46	0.0279	0.0261
Earth	123089-01-13 22:45 G	46678407.37	46678407.45	46678407.54	0.0279	0.0259 *
Venus	123095-09-25 23:14 G	46680853.42	46680853.47	46680853.55	0.0282	0.0268
Venus	123096-05-12 19:24 G	46681083.11	46681083.31	46681083.52	0.0283	0.0093
Mercury	123097-08-13 19:24 G	46681541.20	46681541.31	46681541.41	0.0283	0.0210
Mercury	123097-11-10 12:12 G	46681629.85	46681630.01	46681630.17	0.0283	0.0036
Mercury	123098-02-07 05:29 G	46681718.59	46681718.73	46681718.87	0.0282	0.0141

Earth	123101-06-24 12:26 G	46682950.85	46682951.02	46682951.20	0.0281	0.0193
Moon	123101-06-24 15:05 G	46682950.95	46682951.13	46682951.31	0.0281	0.0183 *
Earth	123102-07-07 12:12 G	46683328.77	46683329.01	46683329.25	0.0280	0.0032
Moon	123102-07-07 15:05 G	46683328.89	46683329.13	46683329.38	0.0280	0.0047 *
Moon	123103-07-20 05:57 G	46683706.67	46683706.75	46683706.84	0.0280	0.0262
Earth	123103-07-20 07:38 G	46683706.73	46683706.82	46683706.94	0.0280	0.0252 *
Venus	123110-10-24 15:19 G	46686359.94	46686360.14	46686360.35	0.0277	0.0031
Mercury	123112-06-17 23:14 G	46686962.34	46686962.47	46686962.61	0.0277	0.0127
Mercury	123112-09-14 13:24 G	46687050.91	46687051.06	46687051.21	0.0277	0.0027
Mercury	123112-12-12 03:19 G	46687139.53	46687139.64	46687139.75	0.0277	0.0178
Moon	123115-12-15 07:24 G	46688237.77	46688237.81	46688237.85	0.0278	0.0273
Earth	123116-12-27 07:09 G	46688615.56	46688615.80	46688616.05	0.0278	0.0061
Moon	123116-12-27 08:07 G	46688615.60	46688615.84	46688616.10	0.0278	0.0068 *
Moon	123118-01-09 11:29 G	46688993.77	46688993.98	46688994.20	0.0279	0.0150
Earth	123118-01-09 14:36 G	46688993.92	46688994.11	46688994.32	0.0279	0.0165 *
Venus	123125-04-08 11:29 G	46691639.84	46691639.98	46691640.15	0.0282	0.0200
Venus	123125-11-24 07:38 G	46691869.65	46691869.82	46691870.00	0.0283	0.0162
Mercury	123127-01-01 22:17 G	46692273.35	46692273.43	46692273.52	0.0283	0.0234
Mercury	123127-03-31 15:19 G	46692361.98	46692362.14	46692362.30	0.0283	0.0061
Mercury	123127-06-28 08:36 G	46692450.71	46692450.86	46692451.01	0.0283	0.0117
Moon	123130-06-19 09:19 G	46693537.85	46693537.89	46693537.97	0.0282	0.0272
Earth	123131-07-02 14:21 G	46693915.86	46693916.10	46693916.33	0.0281	0.0063
Moon	123131-07-02 15:19 G	46693915.91	46693916.14	46693916.37	0.0281	0.0054 *
Earth	123132-07-14 11:29 G	46694293.78	46694293.98	46694294.18	0.0280	0.0160
Moon	123132-07-14 14:50 G	46694293.93	46694294.12	46694294.33	0.0280	0.0159 *
Venus	123140-05-05 22:17 G	46697146.22	46697146.43	46697146.64	0.0276	0.0021
Mercury	123141-11-05 01:24 G	46697694.44	46697694.56	46697694.68	0.0276	0.0164
Mercury	123142-02-01 15:33 G	46697783.01	46697783.15	46697783.30	0.0276	0.0013
Mercury	123142-05-01 05:29 G	46697871.61	46697871.73	46697871.86	0.0276	0.0141
Earth	123145-12-21 20:07 G	46699202.14	46699202.34	46699202.54	0.0277	0.0158

Moon	123145-12-21 23:14 G	46699202.29	46699202.47	46699202.66	0.0277	0.0174	*
Earth	123147-01-04 00:55 G	46699580.30	46699580.54	46699580.78	0.0278	0.0064	
Moon	123147-01-04 04:02 G	46699580.42	46699580.67	46699580.92	0.0278	0.0049	*
Venus	123154-10-19 14:07 G	46702425.91	46702426.09	46702426.27	0.0283	0.0161	
Venus	123155-06-06 09:33 G	46702655.76	46702655.90	46702656.07	0.0283	0.0200	
Mercury	123156-08-17 14:21 G	46703093.96	46703094.10	46703094.24	0.0283	0.0125	
Mercury	123156-11-14 07:24 G	46703182.66	46703182.81	46703182.97	0.0283	0.0051	
Mercury	123157-02-11 00:55 G	46703271.45	46703271.54	46703271.63	0.0282	0.0230	
Moon	123160-06-25 19:24 G	46704502.13	46704502.31	46704502.51	0.0281	0.0171	
Earth	123160-06-25 23:00 G	46704502.27	46704502.46	46704502.66	0.0281	0.0165	*
Moon	123161-07-08 22:17 G	46704880.19	46704880.43	46704880.66	0.0280	0.0046	
Earth	123161-07-08 22:17 G	46704880.20	46704880.43	46704880.67	0.0280	0.0060	*
Earth	123162-07-21 17:29 G	46705258.21	46705258.23	46705258.26	0.0280	0.0278	
Moon	123162-07-21 21:05 G	46705258.30	46705258.38	46705258.46	0.0280	0.0262	
Mars	123163-07-28 08:36 G	46705629.60	46705629.86	46705630.14	0.0279	0.0129	
Venus	123169-03-31 21:05 G	46707703.31	46707703.38	46707703.46	0.0277	0.0257	
Venus	123169-11-16 00:55 G	46707932.35	46707932.54	46707932.75	0.0277	0.0063	
Mercury	123171-03-25 02:21 G	46708426.51	46708426.60	46708426.71	0.0277	0.0211	
Mercury	123171-06-21 17:00 G	46708515.06	46708515.21	46708515.35	0.0277	0.0055	
Mercury	123171-09-18 06:55 G	46708603.65	46708603.79	46708603.93	0.0277	0.0098	
Mercury	123171-12-15 20:36 G	46708692.30	46708692.36	46708692.43	0.0277	0.0248	
Moon	123174-12-16 09:05 G	46709788.81	46709788.88	46709788.96	0.0278	0.0264	
Earth	123174-12-16 11:29 G	46709788.90	46709788.98	46709789.09	0.0278	0.0255	*
Earth	123175-12-29 15:19 G	46710166.90	46710167.14	46710167.39	0.0278	0.0035	
Moon	123175-12-29 17:00 G	46710166.97	46710167.21	46710167.44	0.0278	0.0035	*
Earth	123177-01-10 23:00 G	46710545.28	46710545.46	46710545.64	0.0279	0.0190	
Moon	123177-01-11 02:36 G	46710545.45	46710545.61	46710545.79	0.0279	0.0199	*
Venus	123184-05-01 01:09 G	46713212.35	46713212.55	46713212.75	0.0283	0.0097	
Venus	123184-12-16 20:50 G	46713442.31	46713442.37	46713442.46	0.0283	0.0264	
Mercury	123186-01-04 17:00 G	46713826.08	46713826.21	46713826.35	0.0283	0.0154	

Mercury	123186-04-03 10:17 G	46713914.77	46713914.93	46713915.09	0.0283	0.0023
Mercury	123186-07-01 03:33 G	46714003.54	46714003.65	46714003.76	0.0283	0.0201
Earth	123189-06-20 22:31 G	46715089.36	46715089.44	46715089.54	0.0282	0.0260
Moon	123189-06-20 23:43 G	46715089.44	46715089.49	46715089.55	0.0282	0.0273 *
Moon	123190-07-03 20:36 G	46715467.12	46715467.36	46715467.60	0.0281	0.0048
Earth	123190-07-03 23:57 G	46715467.26	46715467.50	46715467.75	0.0281	0.0035 *
Moon	123191-07-16 18:26 G	46715845.09	46715845.27	46715845.45	0.0280	0.0182
Earth	123191-07-16 21:05 G	46715845.20	46715845.38	46715845.56	0.0280	0.0188 *
Venus	123198-10-12 04:31 G	46718489.56	46718489.69	46718489.84	0.0276	0.0203
Venus	123199-05-29 08:21 G	46718718.66	46718718.85	46718719.04	0.0276	0.0115
Mercury	123200-08-11 05:00 G	46719158.64	46719158.71	46719158.78	0.0276	0.0244
Mercury	123200-11-07 19:09 G	46719247.16	46719247.30	46719247.45	0.0276	0.0090
Mercury	123201-02-04 09:19 G	46719335.75	46719335.89	46719336.04	0.0276	0.0063
Mercury	123201-05-03 23:14 G	46719424.38	46719424.47	46719424.56	0.0276	0.0212
Moon	123204-12-23 00:41 G	46720753.31	46720753.53	46720753.76	0.0277	0.0117
Earth	123204-12-23 04:31 G	46720753.48	46720753.69	46720753.91	0.0277	0.0132 *
Moon	123206-01-05 08:36 G	46721131.64	46721131.86	46721132.09	0.0278	0.0106
Earth	123206-01-05 09:33 G	46721131.67	46721131.90	46721132.14	0.0278	0.0090 *
Venus	123213-11-11 03:19 G	46723998.43	46723998.64	46723998.86	0.0283	0.0058
Mercury	123215-05-24 16:17 G	46724558.08	46724558.18	46724558.28	0.0283	0.0216
Mercury	123215-08-21 09:05 G	46724646.73	46724646.88	46724647.04	0.0283	0.0044
Mercury	123215-11-18 02:21 G	46724735.46	46724735.60	46724735.74	0.0283	0.0134
Earth	123219-06-28 08:21 G	46726053.64	46726053.85	46726054.07	0.0281	0.0138
Moon	123219-06-28 10:45 G	46726053.73	46726053.95	46726054.17	0.0281	0.0136 *
Moon	123220-07-10 05:29 G	46726431.50	46726431.73	46726431.97	0.0280	0.0099
Earth	123220-07-10 07:38 G	46726431.59	46726431.82	46726432.05	0.0280	0.0087 *
Venus	123228-04-23 06:12 G	46729275.61	46729275.76	46729275.93	0.0276	0.0167
Venus	123228-12-08 10:17 G	46729504.76	46729504.93	46729505.10	0.0276	0.0153
Mercury	123230-03-27 20:07 G	46729979.21	46729979.34	46729979.47	0.0276	0.0139
Mercury	123230-06-24 10:17 G	46730067.78	46730067.93	46730068.08	0.0276	0.0015

Mercury	123230-09-21 00:12 G	46730156.40	46730156.51	46730156.63	0.0277	0.0166
Earth	123233-12-17 17:29 G	46731340.10	46731340.23	46731340.37	0.0278	0.0231
Moon	123233-12-17 17:43 G	46731340.10	46731340.24	46731340.41	0.0278	0.0217 *
Moon	123234-12-30 18:12 G	46731718.01	46731718.26	46731718.51	0.0278	0.0005
Earth	123234-12-30 21:33 G	46731718.15	46731718.40	46731718.65	0.0278	0.0011 *
Moon	123236-01-13 02:36 G	46732096.47	46732096.61	46732096.78	0.0279	0.0210
Earth	123236-01-13 05:14 G	46732096.57	46732096.72	46732096.88	0.0279	0.0214 *
Venus	123243-05-24 13:09 G	46734784.83	46734785.05	46734785.26	0.0283	0.0004
Mercury	123244-10-10 18:26 G	46735290.20	46735290.27	46735290.35	0.0283	0.0249
Mercury	123245-01-07 11:29 G	46735378.82	46735378.98	46735379.13	0.0283	0.0077
Mercury	123245-04-06 04:31 G	46735467.54	46735467.69	46735467.84	0.0283	0.0100
Mercury	123245-07-03 22:02 G	46735556.41	46735556.42	46735556.44	0.0283	0.0281
Earth	123248-06-22 06:41 G	46736640.66	46736640.78	46736640.93	0.0282	0.0234
Moon	123248-06-22 08:50 G	46736640.73	46736640.87	46736641.02	0.0282	0.0220 *
Earth	123249-07-05 08:07 G	46737018.60	46737018.84	46737019.08	0.0281	0.0008
Moon	123249-07-05 11:57 G	46737018.75	46737019.00	46737019.24	0.0281	0.0010 *
Earth	123250-07-18 04:45 G	46737396.56	46737396.70	46737396.87	0.0280	0.0214
Moon	123250-07-18 05:14 G	46737396.58	46737396.72	46737396.88	0.0280	0.0223 *
Venus	123257-11-03 14:07 G	46740061.90	46740062.09	46740062.28	0.0276	0.0112
Venus	123258-06-20 17:43 G	46740291.11	46740291.24	46740291.38	0.0276	0.0205
Mercury	123259-08-14 22:31 G	46740711.33	46740711.44	46740711.56	0.0276	0.0172
Mercury	123259-11-11 12:55 G	46740799.89	46740800.04	46740800.19	0.0276	0.0019
Mercury	123260-02-08 02:50 G	46740888.49	46740888.62	46740888.75	0.0276	0.0132
Earth	123263-12-25 11:43 G	46742304.76	46742304.99	46742305.22	0.0277	0.0106
Moon	123263-12-25 14:21 G	46742304.87	46742305.10	46742305.33	0.0277	0.0113 *
Moon	123265-01-06 14:21 G	46742682.87	46742683.10	46742683.35	0.0278	0.0101
Earth	123265-01-06 16:45 G	46742682.97	46742683.20	46742683.42	0.0278	0.0116 *
Venus	123272-12-03 15:19 G	46745570.93	46745571.14	46745571.36	0.0283	0.0041
Mercury	123274-05-27 10:31 G	46746110.80	46746110.94	46746111.08	0.0283	0.0141
Mercury	123274-08-24 03:33 G	46746199.49	46746199.65	46746199.81	0.0283	0.0034

Mercury	123274-11-20 20:50 G	46746288.27	46746288.37	46746288.48	0.0283	0.0213
Earth	123278-06-29 15:33 G	46747604.94	46747605.15	46747605.38	0.0281	0.0112
Moon	123278-06-29 15:33 G	46747604.94	46747605.15	46747605.38	0.0281	0.0106 *
Earth	123279-07-12 14:36 G	46747982.89	46747983.11	46747983.34	0.0280	0.0113
Moon	123279-07-12 17:57 G	46747983.03	46747983.25	46747983.47	0.0280	0.0109 *
Venus	123287-05-16 14:50 G	46750847.93	46750848.12	46750848.32	0.0276	0.0078
Venus	123287-12-31 18:41 G	46751077.18	46751077.28	46751077.38	0.0276	0.0240
Mercury	123288-12-31 22:45 G	46751443.37	46751443.45	46751443.54	0.0276	0.0227
Mercury	123289-03-30 13:09 G	46751531.91	46751532.05	46751532.20	0.0276	0.0073
Mercury	123289-06-27 03:19 G	46751620.50	46751620.64	46751620.79	0.0276	0.0081
Mercury	123289-09-23 17:00 G	46751709.14	46751709.21	46751709.30	0.0276	0.0231
Earth	123292-12-18 22:02 G	46752891.27	46752891.42	46752891.59	0.0278	0.0208
Moon	123292-12-18 23:57 G	46752891.37	46752891.50	46752891.65	0.0278	0.0224 *
Earth	123294-01-01 01:53 G	46753269.34	46753269.58	46753269.83	0.0278	0.0014
Moon	123294-01-01 05:29 G	46753269.47	46753269.73	46753269.98	0.0278	0.0005 *
Moon	123295-01-14 09:05 G	46753647.77	46753647.88	46753648.03	0.0279	0.0238
Earth	123295-01-14 09:48 G	46753647.78	46753647.91	46753648.04	0.0279	0.0237 *
Mars	123296-01-12 23:14 G	46754011.31	46754011.47	46754011.66	0.0280	0.0220
Venus	123301-10-30 02:50 G	46756127.56	46756127.62	46756127.70	0.0283	0.0266
Venus	123302-06-16 23:14 G	46756357.27	46756357.47	46756357.68	0.0283	0.0096
Mercury	123303-10-15 12:12 G	46756842.89	46756843.01	46756843.13	0.0283	0.0180
Mercury	123304-01-12 05:14 G	46756931.56	46756931.72	46756931.88	0.0283	0.0007
Mercury	123304-04-09 22:31 G	46757020.31	46757020.44	46757020.57	0.0283	0.0173
Moon	123307-06-25 09:05 G	46758191.73	46758191.88	46758192.04	0.0282	0.0218
Earth	123307-06-25 12:41 G	46758191.88	46758192.03	46758192.20	0.0282	0.0208 *
Moon	123308-07-07 11:57 G	46758569.76	46758570.00	46758570.23	0.0281	0.0004
Earth	123308-07-07 14:07 G	46758569.85	46758570.09	46758570.34	0.0281	0.0018 *
Earth	123309-07-20 11:00 G	46758947.84	46758947.96	46758948.09	0.0280	0.0238
Moon	123309-07-20 13:24 G	46758947.93	46758948.06	46758948.21	0.0280	0.0227 *
Venus	123316-11-26 22:45 G	46761634.25	46761634.45	46761634.66	0.0276	0.0024

Mercury 123318-05-22 01:24 G 46762175.52 46762175.56 46762175.61 0.0276 0.0259

Mercury 123318-08-18 15:48 G 46762264.03 46762264.16 46762264.30 0.0276 0.0104

Mercury 123318-11-15 05:57 G 46762352.61 46762352.75 46762352.90 0.0276 0.0049

Mercury 123319-02-11 19:53 G 46762441.23 46762441.33 46762441.43 0.0276 0.0198

Earth 123322-12-27 16:45 G 46763855.97 46763856.20 46763856.44 0.0277 0.0081

Moon 123322-12-27 17:14 G 46763855.99 46763856.22 46763856.45 0.0277 0.0075 *

Earth 123324-01-09 21:33 G 46764234.19 46764234.40 46764234.62 0.0278 0.0140

Moon 123324-01-10 01:24 G 46764234.36 46764234.56 46764234.77 0.0278 0.0156 *

Venus 123331-05-12 05:43 G 46766913.62 46766913.74 46766913.88 0.0283 0.0226

Venus 123331-12-28 02:07 G 46767143.40 46767143.59 46767143.78 0.0283 0.0135

Mercury 123333-03-03 11:29 G 46767574.90 46767574.98 46767575.06 0.0283 0.0242

Mercury 123333-05-31 04:17 G 46767663.53 46767663.68 46767663.84 0.0283 0.0069

Mercury 123333-08-27 21:19 G 46767752.25 46767752.39 46767752.54 0.0283 0.0108

Moon 123337-07-01 18:55 G 46769156.06 46769156.29 46769156.53 0.0281 0.0097

Earth 123337-07-01 21:19 G 46769156.16 46769156.39 46769156.62 0.0281 0.0086 *

Moon 123338-07-14 17:00 G 46769534.02 46769534.21 46769534.43 0.0280 0.0140

Earth 123338-07-14 20:07 G 46769534.13 46769534.34 46769534.55 0.0280 0.0138 *

Venus 123346-06-08 22:45 G 46772420.24 46772420.45 46772420.65 0.0276 0.0009

Mercury 123348-01-05 15:48 G 46772996.04 46772996.16 46772996.29 0.0276 0.0162

Mercury 123348-04-03 06:12 G 46773084.61 46773084.76 46773084.91 0.0276 0.0008

Mercury 123348-06-30 20:07 G 46773173.22 46773173.34 46773173.47 0.0276 0.0143

Moon 123351-12-21 21:48 G 46774442.22 46774442.41 46774442.61 0.0277 0.0169

Earth 123351-12-22 01:24 G 46774442.38 46774442.56 46774442.75 0.0277 0.0185 *

Moon 123353-01-03 03:48 G 46774820.42 46774820.66 46774820.89 0.0278 0.0049

Earth 123353-01-03 05:00 G 46774820.47 46774820.71 46774820.96 0.0278 0.0036 *

Earth 123354-01-16 12:41 G 46775198.95 46775199.03 46775199.13 0.0279 0.0259

Moon 123354-01-16 15:19 G 46775199.07 46775199.14 46775199.21 0.0279 0.0266 *

Venus 123360-11-21 12:12 G 46777699.85 46777700.01 46777700.18 0.0283 0.0176

Venus 123361-07-09 08:21 G 46777929.70 46777929.85 46777930.02 0.0283 0.0185

Mercury 123362-10-18 05:14 G 46778395.58 46778395.72 46778395.87 0.0283 0.0115

Mercury	123363-01-14 22:31 G	46778484.28	46778484.44	46778484.59	0.0283	0.0062
Mercury	123363-04-13 15:48 G	46778573.08	46778573.16	46778573.25	0.0283	0.0241
Earth	123366-06-26 16:02 G	46779743.00	46779743.17	46779743.37	0.0282	0.0184
Moon	123366-06-26 19:38 G	46779743.14	46779743.32	46779743.51	0.0282	0.0182 *
Moon	123367-07-09 17:00 G	46780120.96	46780121.21	46780121.46	0.0281	0.0055
Earth	123367-07-09 17:43 G	46780121.00	46780121.24	46780121.48	0.0281	0.0042 *
Moon	123368-07-21 10:45 G	46780498.94	46780498.95	46780498.99	0.0281	0.0279
Earth	123368-07-21 14:50 G	46780499.04	46780499.12	46780499.21	0.0281	0.0262
Venus	123375-05-05 02:50 G	46782977.55	46782977.62	46782977.71	0.0276	0.0255
Venus	123375-12-20 06:26 G	46783206.57	46783206.77	46783206.98	0.0276	0.0062
Mercury	123377-05-24 18:41 G	46783728.17	46783728.28	46783728.38	0.0275	0.0193
Mercury	123377-08-21 08:50 G	46783816.73	46783816.87	46783817.02	0.0275	0.0040
Mercury	123377-11-17 23:00 G	46783905.32	46783905.46	46783905.59	0.0275	0.0112
Mercury	123378-02-14 12:41 G	46783993.99	46783994.03	46783994.08	0.0275	0.0260
Earth	123380-12-15 19:38 G	46785029.29	46785029.32	46785029.38	0.0276	0.0271
Moon	123380-12-15 21:19 G	46785029.31	46785029.39	46785029.47	0.0276	0.0261 *
Moon	123381-12-28 17:29 G	46785406.99	46785407.23	46785407.48	0.0277	0.0060
Earth	123381-12-28 20:36 G	46785407.12	46785407.36	46785407.61	0.0277	0.0057 *
Moon	123383-01-10 21:48 G	46785785.22	46785785.41	46785785.62	0.0278	0.0155
Earth	123383-01-11 01:09 G	46785785.37	46785785.55	46785785.77	0.0278	0.0165 *
Mars	123384-06-08 12:12 G	46786299.77	46786300.01	46786300.26	0.0279	0.0138
Venus	123390-06-03 15:05 G	46788485.94	46788486.13	46788486.32	0.0283	0.0135
Venus	123391-01-19 11:14 G	46788715.84	46788715.97	46788716.10	0.0283	0.0225
Mercury	123392-03-06 04:31 G	46789127.57	46789127.69	46789127.82	0.0283	0.0177
Mercury	123392-06-02 21:33 G	46789216.24	46789216.40	46789216.56	0.0283	0.0004
Mercury	123392-08-30 14:50 G	46789304.99	46789305.12	46789305.24	0.0283	0.0175
Moon	123395-06-20 22:02 G	46790329.38	46790329.42	46790329.49	0.0282	0.0274
Earth	123396-07-03 00:55 G	46790707.30	46790707.54	46790707.78	0.0281	0.0062
Moon	123396-07-03 04:17 G	46790707.45	46790707.68	46790707.93	0.0281	0.0050 *
Earth	123397-07-15 23:43 G	46791085.30	46791085.49	46791085.69	0.0281	0.0161

Moon	123397-07-16 00:26 G	46791085.33	46791085.52	46791085.73	0.0281	0.0166	*
Venus	123404-11-15 02:36 G	46793763.49	46793763.61	46793763.73	0.0276	0.0225	
Venus	123405-07-02 05:57 G	46793992.56	46793992.75	46793992.95	0.0276	0.0092	
Mercury	123406-10-12 18:12 G	46794460.21	46794460.26	46794460.32	0.0276	0.0254	
Mercury	123407-01-09 08:50 G	46794548.73	46794548.87	46794549.01	0.0276	0.0098	
Mercury	123407-04-07 23:00 G	46794637.31	46794637.46	46794637.60	0.0276	0.0054	
Mercury	123407-07-05 12:41 G	46794725.94	46794726.03	46794726.13	0.0276	0.0204	
Earth	123410-12-24 03:33 G	46795993.46	46795993.65	46795993.86	0.0277	0.0161	
Moon	123410-12-24 06:26 G	46795993.59	46795993.77	46795993.98	0.0277	0.0176	*
Moon	123412-01-06 05:43 G	46796371.49	46796371.74	46796372.00	0.0278	0.0043	
Earth	123412-01-06 06:55 G	46796371.55	46796371.79	46796372.03	0.0278	0.0059	*
Moon	123413-01-18 11:00 G	46796749.90	46796749.96	46796750.01	0.0279	0.0270	
Venus	123419-12-15 20:07 G	46799272.14	46799272.34	46799272.55	0.0283	0.0090	
Venus	123420-08-01 16:02 G	46799502.13	46799502.17	46799502.25	0.0283	0.0271	
Mercury	123421-07-25 05:14 G	46799859.63	46799859.72	46799859.81	0.0283	0.0226	
Mercury	123421-10-21 22:02 G	46799948.27	46799948.42	46799948.58	0.0283	0.0054	
Mercury	123422-01-18 15:05 G	46800036.99	46800037.13	46800037.28	0.0283	0.0124	
Moon	123425-06-28 17:00 G	46801294.02	46801294.21	46801294.41	0.0282	0.0160	
Earth	123425-06-28 17:57 G	46801294.05	46801294.25	46801294.45	0.0282	0.0160	*
Earth	123426-07-11 19:24 G	46801672.08	46801672.31	46801672.55	0.0281	0.0067	
Moon	123426-07-11 22:45 G	46801672.22	46801672.45	46801672.68	0.0281	0.0055	*
Moon	123427-07-24 20:07 G	46802050.27	46802050.34	46802050.41	0.0281	0.0268	
Venus	123434-05-28 10:02 G	46804549.76	46804549.92	46804550.09	0.0276	0.0171	
Venus	123435-01-12 13:24 G	46804778.89	46804779.06	46804779.24	0.0276	0.0146	
Mercury	123436-05-28 11:29 G	46805280.85	46805280.98	46805281.11	0.0275	0.0130	
Mercury	123436-08-25 01:38 G	46805369.42	46805369.57	46805369.72	0.0275	0.0023	
Mercury	123436-11-21 15:33 G	46805458.04	46805458.15	46805458.26	0.0275	0.0172	
Earth	123439-12-18 22:45 G	46806580.35	46806580.45	46806580.56	0.0276	0.0247	
Moon	123439-12-19 00:12 G	46806580.44	46806580.51	46806580.59	0.0276	0.0261	*
Earth	123440-12-30 23:29 G	46806958.23	46806958.48	46806958.73	0.0277	0.0033	

Moon	123440-12-31 03:19 G	46806958.40	46806958.64	46806958.89	0.0277	0.0040	*
Earth	123442-01-13 04:02 G	46807336.50	46807336.67	46807336.86	0.0278	0.0188	
Moon	123442-01-13 05:14 G	46807336.54	46807336.72	46807336.91	0.0278	0.0191	*
Venus	123449-06-26 23:43 G	46810058.28	46810058.49	46810058.70	0.0283	0.0047	
Mercury	123451-03-10 21:33 G	46810680.26	46810680.40	46810680.55	0.0283	0.0113	
Mercury	123451-06-07 14:36 G	46810768.95	46810769.11	46810769.27	0.0283	0.0062	
Mercury	123451-09-04 07:53 G	46810857.75	46810857.83	46810857.92	0.0283	0.0241	
Moon	123454-06-22 20:36 G	46811880.34	46811880.36	46811880.39	0.0282	0.0280	
Earth	123454-06-22 23:57 G	46811880.42	46811880.50	46811880.58	0.0282	0.0265	
Moon	123455-07-06 00:26 G	46812258.29	46812258.52	46812258.76	0.0281	0.0056	
Earth	123455-07-06 03:05 G	46812258.39	46812258.63	46812258.87	0.0281	0.0039	*
Earth	123456-07-18 01:53 G	46812636.40	46812636.58	46812636.77	0.0281	0.0185	
Moon	123456-07-18 03:19 G	46812636.46	46812636.64	46812636.83	0.0281	0.0175	*
Venus	123463-12-08 09:05 G	46815335.71	46815335.88	46815336.07	0.0276	0.0143	
Venus	123464-07-24 12:41 G	46815564.88	46815565.03	46815565.20	0.0276	0.0175	
Mercury	123465-10-15 11:00 G	46816012.86	46816012.96	46816013.07	0.0276	0.0191	
Mercury	123466-01-12 01:24 G	46816101.41	46816101.56	46816101.71	0.0276	0.0037	
Mercury	123466-04-10 15:33 G	46816190.01	46816190.15	46816190.28	0.0276	0.0114	
Mercury	123466-07-08 05:14 G	46816278.68	46816278.72	46816278.76	0.0276	0.0262	
Moon	123469-12-25 04:45 G	46817544.50	46817544.70	46817544.92	0.0277	0.0128	
Earth	123469-12-25 05:43 G	46817544.53	46817544.74	46817544.96	0.0277	0.0138	*
Earth	123471-01-07 08:36 G	46817922.62	46817922.86	46817923.10	0.0278	0.0081	
Moon	123471-01-07 11:43 G	46817922.76	46817922.99	46817923.22	0.0278	0.0097	*
Mars	123472-11-02 13:09 G	46818587.79	46818588.05	46818588.32	0.0279	0.0098	
Venus	123479-01-07 03:19 G	46820844.43	46820844.64	46820844.86	0.0283	0.0007	
Mercury	123480-07-27 21:33 G	46821412.28	46821412.40	46821412.53	0.0283	0.0169	
Mercury	123480-10-24 14:36 G	46821500.95	46821501.11	46821501.27	0.0283	0.0006	
Mercury	123481-01-21 07:53 G	46821589.71	46821589.83	46821589.95	0.0283	0.0183	
Moon	123484-06-29 15:48 G	46822844.96	46822845.16	46822845.39	0.0282	0.0142	
Earth	123484-06-29 17:57 G	46822845.05	46822845.25	46822845.47	0.0282	0.0138	*

Moon	123485-07-12 16:02 G	46823222.95	46823223.17	46823223.40	0.0282	0.0094
Earth	123485-07-12 19:53 G	46823223.10	46823223.33	46823223.56	0.0282	0.0089 *
Venus	123493-06-19 17:00 G	46826122.01	46826122.21	46826122.41	0.0276	0.0088
Venus	123494-02-03 20:21 G	46826351.24	46826351.35	46826351.47	0.0276	0.0228
Mercury	123495-03-04 13:53 G	46826744.99	46826745.08	46826745.16	0.0276	0.0222
Mercury	123495-06-01 04:02 G	46826833.53	46826833.67	46826833.82	0.0275	0.0068
Mercury	123495-08-28 18:12 G	46826922.12	46826922.26	46826922.41	0.0275	0.0084
Mercury	123495-11-25 07:53 G	46827010.76	46827010.83	46827010.92	0.0275	0.0233
Moon	123498-12-19 22:31 G	46828131.28	46828131.44	46828131.61	0.0276	0.0207
Earth	123498-12-20 01:38 G	46828131.44	46828131.57	46828131.73	0.0276	0.0224 *
Moon	123500-01-01 23:57 G	46828509.26	46828509.50	46828509.74	0.0277	0.0003
Earth	123500-01-02 02:21 G	46828509.35	46828509.60	46828509.85	0.0277	0.0009 *
Earth	123501-01-15 06:41 G	46828887.63	46828887.78	46828887.95	0.0277	0.0211
Moon	123501-01-15 08:50 G	46828887.72	46828887.87	46828888.04	0.0277	0.0208 *
Venus	123508-07-20 07:38 G	46831630.61	46831630.82	46831631.03	0.0283	0.0039
Mercury	123509-12-15 21:33 G	46832144.31	46832144.40	46832144.49	0.0283	0.0225
Mercury	123510-03-14 14:21 G	46832232.94	46832233.10	46832233.25	0.0283	0.0052
Mercury	123510-06-11 07:24 G	46832321.67	46832321.81	46832321.96	0.0283	0.0124
Earth	123513-06-25 00:55 G	46833431.43	46833431.54	46833431.67	0.0282	0.0243
Moon	123513-06-25 04:31 G	46833431.56	46833431.69	46833431.84	0.0282	0.0230 *
Earth	123514-07-08 04:17 G	46833809.44	46833809.68	46833809.93	0.0282	0.0016
Moon	123514-07-08 04:45 G	46833809.45	46833809.70	46833809.95	0.0282	0.0003 *
Moon	123515-07-20 23:57 G	46834187.35	46834187.50	46834187.66	0.0281	0.0219
Earth	123515-07-21 03:19 G	46834187.49	46834187.64	46834187.81	0.0281	0.0207 *
Venus	123522-12-31 16:02 G	46836907.97	46836908.17	46836908.37	0.0276	0.0060
Venus	123523-08-17 19:24 G	46837137.25	46837137.31	46837137.39	0.0276	0.0257
Mercury	123524-10-19 03:48 G	46837565.53	46837565.66	46837565.79	0.0276	0.0129
Mercury	123525-01-15 17:57 G	46837654.10	46837654.25	46837654.40	0.0276	0.0024
Mercury	123525-04-14 07:53 G	46837742.72	46837742.83	46837742.95	0.0276	0.0173
Moon	123528-12-27 05:29 G	46839095.50	46839095.73	46839095.96	0.0277	0.0122

Earth	123528-12-27 07:38 G	46839095.60	46839095.82	46839096.05	0.0277	0.0114	*
Moon	123530-01-09 07:09 G	46839473.57	46839473.80	46839474.03	0.0278	0.0089	
Earth	123530-01-09 10:31 G	46839473.71	46839473.94	46839474.17	0.0278	0.0105	*
Venus	123537-06-14 13:53 G	46842187.08	46842187.08	46842187.09	0.0283	0.0283	
Venus	123538-01-30 10:31 G	46842416.74	46842416.94	46842417.15	0.0283	0.0078	
Mercury	123539-05-04 21:19 G	46842876.39	46842876.39	46842876.40	0.0283	0.0282	
Mercury	123539-08-01 14:07 G	46842964.94	46842965.09	46842965.23	0.0283	0.0111	
Mercury	123539-10-29 06:55 G	46843053.64	46843053.79	46843053.95	0.0283	0.0065	
Mercury	123540-01-26 00:26 G	46843142.44	46843142.52	46843142.60	0.0283	0.0243	
Earth	123543-07-02 17:43 G	46844396.02	46844396.24	46844396.47	0.0282	0.0115	
Moon	123543-07-02 21:19 G	46844396.17	46844396.39	46844396.61	0.0282	0.0104	*
Earth	123544-07-14 19:38 G	46844774.10	46844774.32	46844774.55	0.0282	0.0111	
Moon	123544-07-14 21:48 G	46844774.18	46844774.41	46844774.64	0.0282	0.0111	*
Venus	123552-07-12 23:29 G	46847694.28	46847694.48	46847694.69	0.0276	0.0007	
Mercury	123554-03-08 06:26 G	46848297.65	46848297.77	46848297.90	0.0276	0.0160	
Mercury	123554-06-04 20:50 G	46848386.22	46848386.37	46848386.52	0.0276	0.0007	
Mercury	123554-09-01 10:45 G	46848474.83	46848474.95	46848475.08	0.0276	0.0144	
Earth	123557-12-22 04:45 G	46849682.54	46849682.70	46849682.88	0.0276	0.0200	
Moon	123557-12-22 08:07 G	46849682.70	46849682.84	46849683.01	0.0276	0.0215	*
Moon	123559-01-04 04:45 G	46850060.44	46850060.70	46850060.96	0.0277	0.0004	
Earth	123559-01-04 05:29 G	46850060.48	46850060.73	46850060.98	0.0277	0.0016	*
Moon	123560-01-17 05:57 G	46850438.62	46850438.75	46850438.89	0.0277	0.0230	
Earth	123560-01-17 09:48 G	46850438.79	46850438.91	46850439.05	0.0277	0.0234	*
Mars	123561-03-30 06:26 G	46850876.49	46850876.77	46850877.06	0.0278	0.0003	
Venus	123566-12-25 19:24 G	46852973.20	46852973.31	46852973.44	0.0283	0.0234	
Venus	123567-08-12 15:33 G	46853202.96	46853203.15	46853203.35	0.0283	0.0127	
Mercury	123568-12-18 14:07 G	46853696.97	46853697.09	46853697.22	0.0283	0.0164	
Mercury	123569-03-17 07:09 G	46853785.64	46853785.80	46853785.96	0.0283	0.0011	
Mercury	123569-06-14 00:12 G	46853874.40	46853874.51	46853874.63	0.0283	0.0187	
Moon	123572-06-25 23:57 G	46854982.37	46854982.50	46854982.65	0.0282	0.0227	

Earth	123572-06-26 02:07 G	46854982.44	46854982.59	46854982.74	0.0282	0.0220	*
Earth	123573-07-09 05:14 G	46855360.48	46855360.72	46855360.96	0.0282	0.0007	
Moon	123573-07-09 07:38 G	46855360.59	46855360.82	46855361.06	0.0282	0.0008	*
Earth	123574-07-22 04:17 G	46855738.55	46855738.68	46855738.83	0.0281	0.0230	
Moon	123574-07-22 07:24 G	46855738.66	46855738.81	46855738.97	0.0281	0.0214	*
Jupiter	123579-06-03 21:19 G	46857516.11	46857516.39	46857516.69	0.0277	0.0206	
Venus	123582-01-22 23:00 G	46858480.25	46858480.46	46858480.67	0.0276	0.0023	
Mercury	123583-07-26 06:12 G	46859029.67	46859029.76	46859029.85	0.0275	0.0221	
Mercury	123583-10-22 20:36 G	46859118.22	46859118.36	46859118.51	0.0275	0.0067	
Mercury	123584-01-19 10:45 G	46859206.81	46859206.95	46859207.09	0.0275	0.0085	
Mercury	123584-04-17 00:26 G	46859295.45	46859295.52	46859295.60	0.0275	0.0234	
Earth	123587-12-29 10:45 G	46860646.72	46860646.95	46860647.19	0.0277	0.0090	
Moon	123587-12-29 14:36 G	46860646.87	46860647.11	46860647.34	0.0277	0.0085	*
Earth	123589-01-10 13:24 G	46861024.84	46861025.06	46861025.28	0.0277	0.0129	
Moon	123589-01-10 15:05 G	46861024.91	46861025.13	46861025.35	0.0277	0.0141	*
Venus	123596-07-06 21:19 G	46863759.24	46863759.39	46863759.55	0.0283	0.0198	
Venus	123597-02-21 17:43 G	46863989.07	46863989.24	46863989.42	0.0283	0.0163	
Mercury	123598-05-07 13:38 G	46864428.98	46864429.07	46864429.17	0.0283	0.0225	
Mercury	123598-08-04 06:26 G	46864517.62	46864517.77	46864517.93	0.0283	0.0053	
Mercury	123598-10-31 23:29 G	46864606.34	46864606.48	46864606.63	0.0283	0.0124	
Moon	123602-07-03 14:21 G	46865946.89	46865947.10	46865947.33	0.0282	0.0105	
Earth	123602-07-03 17:29 G	46865947.00	46865947.23	46865947.46	0.0282	0.0092	*
Earth	123603-07-16 19:24 G	46866325.10	46866325.31	46866325.53	0.0282	0.0134	
Moon	123603-07-16 20:50 G	46866325.16	46866325.37	46866325.58	0.0282	0.0133	*
Venus	123610-12-19 02:21 G	46869037.51	46869037.60	46869037.71	0.0277	0.0240	
Venus	123611-08-05 06:12 G	46869266.57	46869266.76	46869266.97	0.0276	0.0078	
Mercury	123612-12-12 08:50 G	46869761.81	46869761.87	46869761.93	0.0276	0.0252	
Mercury	123613-03-10 23:14 G	46869850.33	46869850.47	46869850.62	0.0276	0.0097	
Mercury	123613-06-07 13:38 G	46869938.92	46869939.07	46869939.21	0.0276	0.0056	
Mercury	123613-09-04 03:19 G	46870027.55	46870027.64	46870027.74	0.0276	0.0205	

Moon	123616-12-23 07:24 G	46871233.63	46871233.81	46871234.01	0.0276	0.0162
Earth	123616-12-23 08:36 G	46871233.68	46871233.86	46871234.06	0.0276	0.0176 *
Earth	123618-01-05 09:19 G	46871611.64	46871611.89	46871612.14	0.0277	0.0040
Moon	123618-01-05 12:12 G	46871611.77	46871612.01	46871612.25	0.0277	0.0056 *
Earth	123619-01-18 13:38 G	46871989.99	46871990.07	46871990.16	0.0277	0.0258
Moon	123619-01-18 16:45 G	46871990.16	46871990.20	46871990.28	0.0277	0.0269 *
Venus	123626-01-17 04:31 G	46874545.51	46874545.69	46874545.88	0.0283	0.0144
Venus	123626-09-04 00:26 G	46874775.39	46874775.52	46874775.67	0.0283	0.0216
Mercury	123627-09-24 14:21 G	46875161.07	46875161.10	46875161.15	0.0283	0.0272
Mercury	123627-12-22 07:09 G	46875249.66	46875249.80	46875249.95	0.0283	0.0100
Mercury	123628-03-20 00:12 G	46875338.36	46875338.51	46875338.67	0.0283	0.0075
Mercury	123628-06-16 17:29 G	46875427.16	46875427.23	46875427.30	0.0283	0.0254
Moon	123631-06-28 03:05 G	46876533.45	46876533.63	46876533.81	0.0282	0.0193
Earth	123631-06-28 04:02 G	46876533.51	46876533.67	46876533.85	0.0282	0.0197 *
Moon	123632-07-10 03:33 G	46876911.42	46876911.65	46876911.89	0.0282	0.0046
Earth	123632-07-10 07:24 G	46876911.57	46876911.81	46876912.05	0.0282	0.0031 *
Moon	123633-07-23 05:29 G	46877289.67	46877289.73	46877289.80	0.0281	0.0269
Earth	123633-07-23 06:26 G	46877289.67	46877289.77	46877289.88	0.0281	0.0252 *
Venus	123640-06-30 02:36 G	46879823.48	46879823.61	46879823.75	0.0276	0.0208
Venus	123641-02-14 06:12 G	46880052.57	46880052.76	46880052.96	0.0276	0.0108
Mercury	123642-07-28 23:14 G	46880582.35	46880582.47	46880582.59	0.0275	0.0156
Mercury	123642-10-25 13:38 G	46880670.92	46880671.07	46880671.22	0.0275	0.0007
Mercury	123643-01-22 03:33 G	46880759.53	46880759.65	46880759.78	0.0275	0.0147
Moon	123645-12-17 13:09 G	46881819.99	46881820.05	46881820.13	0.0276	0.0265
Earth	123645-12-17 16:31 G	46881820.19	46881820.19	46881820.21	0.0276	0.0276
Moon	123646-12-30 12:12 G	46882197.77	46882198.01	46882198.25	0.0277	0.0062
Earth	123646-12-30 15:05 G	46882197.90	46882198.13	46882198.38	0.0277	0.0065 *
Earth	123648-01-12 17:29 G	46882576.04	46882576.23	46882576.45	0.0277	0.0155
Moon	123648-01-12 18:41 G	46882576.08	46882576.28	46882576.49	0.0277	0.0147 *
Mars	123649-08-23 07:38 G	46883164.55	46883164.82	46883165.11	0.0278	0.0043

Venus	123655-07-30 05:43 G	46885331.55	46885331.74	46885331.95	0.0283	0.0110
Venus	123656-03-16 02:07 G	46885561.50	46885561.59	46885561.69	0.0283	0.0251
Mercury	123657-05-10 06:26 G	46885981.65	46885981.77	46885981.90	0.0283	0.0163
Mercury	123657-08-06 23:14 G	46886070.32	46886070.47	46886070.63	0.0283	0.0013
Mercury	123657-11-03 16:31 G	46886159.07	46886159.19	46886159.31	0.0283	0.0188
Moon	123660-06-21 15:33 G	46887120.13	46887120.15	46887120.18	0.0283	0.0281
Earth	123661-07-04 17:57 G	46887498.02	46887498.25	46887498.49	0.0282	0.0070
Moon	123661-07-04 18:26 G	46887498.02	46887498.27	46887498.52	0.0282	0.0055 *
Moon	123662-07-17 16:45 G	46887876.00	46887876.20	46887876.40	0.0282	0.0164
Earth	123662-07-17 20:07 G	46887876.14	46887876.34	46887876.55	0.0282	0.0157 *
Venus	123670-01-10 09:19 G	46890609.73	46890609.89	46890610.07	0.0277	0.0156
Venus	123670-08-27 13:24 G	46890838.90	46890839.06	46890839.23	0.0276	0.0163
Mercury	123671-12-16 01:53 G	46891314.47	46891314.58	46891314.69	0.0276	0.0186
Mercury	123672-03-13 16:17 G	46891403.03	46891403.18	46891403.33	0.0276	0.0032
Mercury	123672-06-10 06:26 G	46891491.64	46891491.77	46891491.91	0.0276	0.0119
Mercury	123672-09-06 20:07 G	46891580.31	46891580.34	46891580.38	0.0276	0.0267
Moon	123675-12-25 12:12 G	46892784.82	46892785.01	46892785.23	0.0276	0.0164
Earth	123675-12-25 13:53 G	46892784.88	46892785.08	46892785.29	0.0276	0.0151 *
Moon	123677-01-06 11:14 G	46893162.73	46893162.97	46893163.22	0.0277	0.0051
Earth	123677-01-06 15:05 G	46893162.89	46893163.13	46893163.37	0.0277	0.0066 *
Moon	123678-01-19 19:09 G	46893541.27	46893541.30	46893541.34	0.0277	0.0274
Venus	123685-02-08 14:21 G	46896117.89	46896118.10	46896118.32	0.0282	0.0051
Mercury	123686-09-27 07:38 G	46896713.72	46896713.82	46896713.94	0.0283	0.0205
Mercury	123686-12-25 00:26 G	46896802.37	46896802.52	46896802.68	0.0283	0.0034
Mercury	123687-03-23 17:29 G	46896891.10	46896891.23	46896891.37	0.0283	0.0144
Earth	123690-06-29 07:09 G	46898084.61	46898084.80	46898085.00	0.0283	0.0173
Moon	123690-06-29 10:45 G	46898084.77	46898084.95	46898085.15	0.0283	0.0174 *
Earth	123691-07-12 10:17 G	46898462.69	46898462.93	46898463.17	0.0282	0.0055
Moon	123691-07-12 12:26 G	46898462.78	46898463.02	46898463.27	0.0282	0.0046 *
Moon	123692-07-24 06:55 G	46898840.71	46898840.79	46898840.89	0.0281	0.0260

Earth	123692-07-24 09:05 G	46898840.85	46898840.88	46898840.94	0.0281	0.0277	*
Venus	123699-07-23 10:45 G	46901395.76	46901395.95	46901396.13	0.0276	0.0121	
Venus	123700-03-09 14:07 G	46901624.96	46901625.09	46901625.25	0.0276	0.0196	
Mercury	123701-05-05 01:53 G	46902046.52	46902046.58	46902046.66	0.0276	0.0243	
Mercury	123701-08-01 16:31 G	46902135.05	46902135.19	46902135.33	0.0275	0.0088	
Mercury	123701-10-29 06:41 G	46902223.64	46902223.78	46902223.93	0.0275	0.0064	
Mercury	123702-01-25 20:36 G	46902312.27	46902312.36	46902312.46	0.0275	0.0213	
Earth	123704-12-19 22:17 G	46903371.34	46903371.43	46903371.54	0.0276	0.0250	
Moon	123704-12-20 02:07 G	46903371.53	46903371.59	46903371.66	0.0276	0.0265	*
Moon	123706-01-01 21:05 G	46903749.13	46903749.38	46903749.64	0.0277	0.0044	
Earth	123706-01-01 21:05 G	46903749.14	46903749.38	46903749.63	0.0277	0.0039	*
Moon	123707-01-14 20:07 G	46904127.17	46904127.34	46904127.53	0.0277	0.0189	
Earth	123707-01-14 23:57 G	46904127.31	46904127.50	46904127.69	0.0277	0.0180	*
Venus	123714-08-22 15:48 G	46906903.94	46906904.16	46906904.38	0.0282	0.0016	
Mercury	123716-02-15 07:09 G	46907445.75	46907445.80	46907445.85	0.0283	0.0267	
Mercury	123716-05-13 23:43 G	46907534.34	46907534.49	46907534.64	0.0283	0.0097	
Mercury	123716-08-10 16:45 G	46907623.05	46907623.20	46907623.35	0.0283	0.0078	
Mercury	123716-11-07 10:02 G	46907711.86	46907711.92	46907711.99	0.0283	0.0257	
Earth	123719-06-24 15:05 G	46908671.08	46908671.13	46908671.20	0.0283	0.0273	
Earth	123720-07-06 20:50 G	46909049.13	46909049.37	46909049.61	0.0282	0.0046	
Moon	123720-07-06 23:14 G	46909049.24	46909049.47	46909049.71	0.0282	0.0062	*
Earth	123721-07-19 22:45 G	46909427.26	46909427.45	46909427.63	0.0282	0.0180	
Moon	123721-07-20 01:53 G	46909427.38	46909427.58	46909427.78	0.0282	0.0170	*
Venus	123729-02-02 17:14 G	46912182.02	46912182.22	46912182.42	0.0277	0.0069	
Venus	123729-09-19 21:05 G	46912411.30	46912411.38	46912411.48	0.0277	0.0250	
Mercury	123730-09-22 04:17 G	46912778.68	46912778.68	46912778.70	0.0276	0.0276	
Mercury	123730-12-19 19:09 G	46912867.16	46912867.30	46912867.43	0.0276	0.0119	
Mercury	123731-03-18 09:19 G	46912955.75	46912955.89	46912956.04	0.0276	0.0035	
Mercury	123731-06-14 23:29 G	46913044.37	46913044.48	46913044.59	0.0276	0.0184	
Earth	123734-12-27 20:21 G	46914336.13	46914336.35	46914336.57	0.0276	0.0125	

Moon	123734-12-27 23:43 G	46914336.28	46914336.49	46914336.72	0.0276	0.0116	*
Earth	123736-01-09 21:48 G	46914714.18	46914714.41	46914714.65	0.0277	0.0092	
Moon	123736-01-09 23:00 G	46914714.23	46914714.46	46914714.71	0.0277	0.0108	*
Mars	123738-01-18 17:14 G	46915454.02	46915454.22	46915454.44	0.0278	0.0183	
Venus	123744-03-04 01:38 G	46917690.36	46917690.57	46917690.79	0.0282	0.0046	
Mercury	123745-10-01 01:38 G	46918266.43	46918266.57	46918266.71	0.0283	0.0133	
Mercury	123745-12-28 18:26 G	46918355.11	46918355.27	46918355.43	0.0283	0.0041	
Mercury	123746-03-27 11:29 G	46918443.89	46918443.98	46918444.09	0.0283	0.0219	
Moon	123749-07-01 09:19 G	46919635.69	46919635.89	46919636.09	0.0283	0.0151	
Earth	123749-07-01 12:12 G	46919635.81	46919636.01	46919636.22	0.0283	0.0148	*
Earth	123750-07-14 15:05 G	46920013.90	46920014.13	46920014.36	0.0282	0.0080	
Moon	123750-07-14 16:02 G	46920013.96	46920014.17	46920014.40	0.0282	0.0089	*
Mars	123752-04-02 02:50 G	46920641.52	46920641.62	46920641.75	0.0281	0.0261	
Venus	123758-08-15 19:24 G	46922968.10	46922968.31	46922968.52	0.0276	0.0032	
Mercury	123760-05-07 19:38 G	46923599.20	46923599.32	46923599.44	0.0276	0.0172	
Mercury	123760-08-04 10:02 G	46923687.77	46923687.92	46923688.07	0.0276	0.0019	
Mercury	123760-10-31 23:57 G	46923776.38	46923776.50	46923776.64	0.0276	0.0133	
Moon	123763-12-22 05:00 G	46924922.57	46924922.71	46924922.87	0.0276	0.0211	
Earth	123763-12-22 06:12 G	46924922.62	46924922.76	46924922.91	0.0276	0.0224	*
Earth	123765-01-03 05:29 G	46925300.48	46925300.73	46925300.98	0.0277	0.0011	
Moon	123765-01-03 08:50 G	46925300.63	46925300.87	46925301.11	0.0277	0.0006	*
Earth	123766-01-16 08:21 G	46925678.69	46925678.85	46925679.02	0.0277	0.0207	
Moon	123766-01-16 11:14 G	46925678.80	46925678.97	46925679.14	0.0277	0.0202	*
Venus	123773-01-27 06:55 G	46928246.76	46928246.79	46928246.83	0.0282	0.0277	
Venus	123773-09-14 03:05 G	46928476.43	46928476.63	46928476.84	0.0282	0.0081	
Mercury	123775-02-18 00:55 G	46928998.43	46928998.54	46928998.65	0.0283	0.0196	
Mercury	123775-05-17 17:43 G	46929087.08	46929087.24	46929087.39	0.0283	0.0025	
Mercury	123775-08-14 10:45 G	46929175.81	46929175.95	46929176.08	0.0283	0.0152	
Moon	123778-06-25 17:57 G	46930222.12	46930222.25	46930222.40	0.0283	0.0234	
Earth	123778-06-25 19:53 G	46930222.23	46930222.33	46930222.46	0.0283	0.0249	*

Moon	123779-07-08 21:48 G	46930600.17	46930600.41	46930600.65	0.0282	0.0005
Earth	123779-07-09 01:09 G	46930600.31	46930600.55	46930600.80	0.0282	0.0021 *
Earth	123780-07-21 02:50 G	46930978.45	46930978.62	46930978.78	0.0282	0.0204
Moon	123780-07-21 02:50 G	46930978.48	46930978.62	46930978.78	0.0282	0.0213 *
Venus	123788-02-26 01:38 G	46933754.37	46933754.57	46933754.78	0.0277	0.0021
Mercury	123789-09-24 22:02 G	46934331.32	46934331.42	46934331.52	0.0276	0.0204
Mercury	123789-12-22 12:26 G	46934419.88	46934420.02	46934420.17	0.0276	0.0050
Mercury	123790-03-21 02:50 G	46934508.48	46934508.62	46934508.76	0.0276	0.0103
Mercury	123790-06-17 16:45 G	46934597.14	46934597.20	46934597.26	0.0276	0.0252
Moon	123793-12-29 02:07 G	46935887.37	46935887.59	46935887.82	0.0276	0.0110
Earth	123793-12-29 04:31 G	46935887.46	46935887.69	46935887.92	0.0276	0.0099 *
Earth	123795-01-11 06:12 G	46936265.54	46936265.76	46936265.99	0.0277	0.0120
Moon	123795-01-11 08:07 G	46936265.62	46936265.84	46936266.07	0.0277	0.0104 *
Venus	123802-08-10 18:12 G	46939033.13	46939033.26	46939033.41	0.0282	0.0211
Venus	123803-03-28 14:21 G	46939262.91	46939263.10	46939263.28	0.0282	0.0147
Mercury	123804-07-08 03:19 G	46939730.55	46939730.64	46939730.74	0.0283	0.0226
Mercury	123804-10-04 19:53 G	46939819.18	46939819.33	46939819.49	0.0283	0.0056
Mercury	123805-01-01 12:55 G	46939907.90	46939908.04	46939908.19	0.0283	0.0120
Moon	123808-07-03 19:38 G	46941187.09	46941187.32	46941187.55	0.0283	0.0117
Earth	123808-07-03 19:53 G	46941187.11	46941187.33	46941187.55	0.0283	0.0121 *
Moon	123809-07-16 18:26 G	46941565.05	46941565.27	46941565.51	0.0282	0.0097
Earth	123809-07-16 22:02 G	46941565.21	46941565.42	46941565.66	0.0282	0.0107 *
Venus	123817-01-22 00:41 G	46944311.47	46944311.53	46944311.62	0.0276	0.0258
Venus	123817-09-08 05:00 G	46944540.51	46944540.71	46944540.91	0.0276	0.0060
Mercury	123819-02-12 22:45 G	46945063.40	46945063.45	46945063.51	0.0276	0.0254
Mercury	123819-05-12 13:24 G	46945151.92	46945152.06	46945152.20	0.0276	0.0099
Mercury	123819-08-09 03:48 G	46945240.51	46945240.66	46945240.81	0.0276	0.0054
Mercury	123819-11-05 17:43 G	46945329.14	46945329.24	46945329.34	0.0276	0.0203
Moon	123822-12-24 12:26 G	46946473.87	46946474.02	46946474.19	0.0276	0.0211
Earth	123822-12-24 15:05 G	46946473.97	46946474.13	46946474.31	0.0276	0.0197 *

Moon	123824-01-06 11:29 G	46946851.74	46946851.98	46946852.22	0.0277	0.0008
Earth	123824-01-06 15:05 G	46946851.88	46946852.13	46946852.38	0.0277	0.0018 *
Earth	123825-01-18 17:57 G	46947230.13	46947230.25	46947230.39	0.0277	0.0236
Moon	123825-01-18 17:57 G	46947230.14	46947230.25	46947230.39	0.0277	0.0237 *
Mars	123826-06-15 06:41 G	46947742.69	46947742.78	46947742.88	0.0278	0.0260
Venus	123832-02-20 20:07 G	46949819.17	46949819.34	46949819.51	0.0282	0.0175
Venus	123832-10-07 15:48 G	46950049.00	46950049.16	46950049.33	0.0282	0.0183
Mercury	123834-02-21 19:09 G	46950551.16	46950551.30	46950551.45	0.0283	0.0119
Mercury	123834-05-21 11:57 G	46950639.85	46950640.00	46950640.16	0.0283	0.0055
Mercury	123834-08-18 05:14 G	46950728.63	46950728.72	46950728.81	0.0283	0.0232
Earth	123837-06-28 03:19 G	46951773.50	46951773.64	46951773.80	0.0282	0.0222
Moon	123837-06-28 06:55 G	46951773.67	46951773.79	46951773.93	0.0282	0.0235 *
Earth	123838-07-11 08:07 G	46952151.60	46952151.84	46952152.08	0.0282	0.0006
Moon	123838-07-11 09:05 G	46952151.63	46952151.88	46952152.14	0.0282	0.0011 *
Moon	123839-07-24 05:57 G	46952529.60	46952529.75	46952529.91	0.0282	0.0217
Earth	123839-07-24 09:05 G	46952529.75	46952529.88	46952530.02	0.0282	0.0230 *
Mars	123840-08-27 17:43 G	46952930.00	46952930.24	46952930.50	0.0281	0.0160
Venus	123846-08-04 06:26 G	46955097.64	46955097.77	46955097.91	0.0277	0.0209
Venus	123847-03-21 10:45 G	46955326.76	46955326.95	46955327.14	0.0277	0.0111
Mercury	123848-09-28 15:33 G	46955884.03	46955884.15	46955884.29	0.0277	0.0133
Mercury	123848-12-26 06:12 G	46955972.61	46955972.76	46955972.91	0.0276	0.0022
Mercury	123849-03-24 20:21 G	46956061.23	46956061.35	46956061.46	0.0276	0.0173
Moon	123852-12-31 12:55 G	46957438.80	46957439.04	46957439.29	0.0277	0.0065
Earth	123852-12-31 13:24 G	46957438.83	46957439.06	46957439.31	0.0277	0.0073 *
Moon	123854-01-13 12:12 G	46957816.82	46957817.01	46957817.22	0.0277	0.0161
Earth	123854-01-13 15:48 G	46957816.96	46957817.16	46957817.38	0.0277	0.0147 *
Venus	123861-09-02 08:21 G	46960605.65	46960605.85	46960606.05	0.0282	0.0107
Venus	123862-04-20 04:02 G	46960835.58	46960835.67	46960835.77	0.0282	0.0251
Mercury	123863-07-11 22:02 G	46961283.29	46961283.42	46961283.56	0.0283	0.0145
Mercury	123863-10-08 14:50 G	46961371.96	46961372.12	46961372.28	0.0283	0.0028

Mercury	123864-01-05 07:53 G	46961460.72	46961460.83	46961460.94	0.0283	0.0204
Earth	123867-07-06 04:45 G	46962738.48	46962738.70	46962738.94	0.0282	0.0094
Moon	123867-07-06 08:07 G	46962738.62	46962738.84	46962739.07	0.0282	0.0099 *
Earth	123868-07-18 06:41 G	46963116.58	46963116.78	46963117.00	0.0282	0.0134
Moon	123868-07-18 10:02 G	46963116.71	46963116.92	46963117.14	0.0282	0.0136 *
Venus	123876-02-14 11:00 G	46965883.80	46965883.96	46965884.14	0.0276	0.0164
Venus	123876-09-30 15:05 G	46966112.96	46966113.13	46966113.30	0.0276	0.0154
Mercury	123878-02-15 17:00 G	46966616.09	46966616.21	46966616.33	0.0276	0.0177
Mercury	123878-05-15 07:24 G	46966704.66	46966704.81	46966704.96	0.0276	0.0024
Mercury	123878-08-11 21:33 G	46966793.27	46966793.40	46966793.54	0.0276	0.0128
Earth	123881-12-26 01:24 G	46968025.37	46968025.56	46968025.76	0.0276	0.0170
Moon	123881-12-26 05:14 G	46968025.52	46968025.72	46968025.93	0.0276	0.0153 *
Earth	123883-01-08 01:38 G	46968403.33	46968403.57	46968403.82	0.0277	0.0046
Moon	123883-01-08 03:05 G	46968403.38	46968403.63	46968403.89	0.0277	0.0058 *
Moon	123884-01-21 01:53 G	46968781.52	46968781.58	46968781.68	0.0277	0.0264
Earth	123884-01-21 05:14 G	46968781.66	46968781.72	46968781.81	0.0277	0.0263 *
Venus	123891-03-15 10:02 G	46971391.71	46971391.92	46971392.13	0.0282	0.0071
Mercury	123892-11-27 21:19 G	46972015.29	46972015.39	46972015.50	0.0283	0.0207
Mercury	123893-02-24 14:07 G	46972103.93	46972104.09	46972104.24	0.0283	0.0037
Mercury	123893-05-24 06:55 G	46972192.66	46972192.79	46972192.93	0.0283	0.0139
Moon	123896-06-29 10:31 G	46973324.78	46973324.94	46973325.14	0.0282	0.0185
Earth	123896-06-29 13:09 G	46973324.87	46973325.05	46973325.23	0.0282	0.0195 *
Earth	123897-07-12 17:14 G	46973702.98	46973703.22	46973703.46	0.0282	0.0033
Moon	123897-07-12 18:55 G	46973703.06	46973703.29	46973703.52	0.0282	0.0049 *
Earth	123898-07-25 17:29 G	46974081.14	46974081.23	46974081.34	0.0282	0.0255
Moon	123898-07-25 21:05 G	46974081.32	46974081.38	46974081.45	0.0282	0.0271 *
Venus	123905-08-27 16:17 G	46976669.99	46976670.18	46976670.37	0.0277	0.0116
Venus	123906-04-13 20:21 G	46976899.22	46976899.35	46976899.50	0.0277	0.0204
Mercury	123907-07-06 18:55 G	46977348.20	46977348.29	46977348.39	0.0277	0.0214
Mercury	123907-10-03 09:33 G	46977436.75	46977436.90	46977437.05	0.0277	0.0058

Mercury	123907-12-30 23:57 G	46977525.36	46977525.50	46977525.64	0.0277	0.0095
Mercury	123908-03-28 13:53 G	46977614.02	46977614.08	46977614.15	0.0276	0.0244
Moon	123910-12-21 22:31 G	46978612.35	46978612.44	46978612.55	0.0277	0.0252
Earth	123910-12-21 23:43 G	46978612.42	46978612.49	46978612.58	0.0277	0.0260 *
Earth	123912-01-03 23:14 G	46978990.23	46978990.47	46978990.72	0.0277	0.0045
Moon	123912-01-04 02:07 G	46978990.35	46978990.59	46978990.83	0.0277	0.0047 *
Earth	123913-01-16 02:21 G	46979368.40	46979368.60	46979368.79	0.0277	0.0175
Moon	123913-01-16 05:00 G	46979368.50	46979368.71	46979368.92	0.0277	0.0163 *
Venus	123920-09-25 23:00 G	46982178.25	46982178.46	46982178.68	0.0282	0.0004
Mercury	123922-04-18 00:41 G	46982747.44	46982747.53	46982747.62	0.0283	0.0230
Mercury	123922-07-15 17:14 G	46982836.07	46982836.22	46982836.37	0.0283	0.0060
Mercury	123922-10-12 10:02 G	46982924.78	46982924.92	46982925.07	0.0283	0.0115
Moon	123925-06-25 08:21 G	46983911.80	46983911.85	46983911.91	0.0283	0.0275
Moon	123926-07-08 12:26 G	46984289.78	46984290.02	46984290.25	0.0282	0.0053
Earth	123926-07-08 16:02 G	46984289.93	46984290.17	46984290.41	0.0282	0.0064 *
Moon	123927-07-21 17:00 G	46984668.03	46984668.21	46984668.41	0.0282	0.0164
Earth	123927-07-21 17:14 G	46984668.03	46984668.22	46984668.43	0.0282	0.0162 *
Mars	123929-01-23 11:00 G	46985219.65	46985219.96	46985220.26	0.0281	0.0002
Venus	123935-03-09 21:48 G	46987456.21	46987456.41	46987456.61	0.0276	0.0068
Venus	123935-10-25 01:38 G	46987685.49	46987685.57	46987685.67	0.0276	0.0249
Mercury	123936-11-22 20:21 G	46988080.30	46988080.35	46988080.41	0.0276	0.0256
Mercury	123937-02-19 11:14 G	46988168.83	46988168.97	46988169.11	0.0276	0.0100
Mercury	123937-05-19 01:38 G	46988257.42	46988257.57	46988257.71	0.0276	0.0053
Mercury	123937-08-15 15:33 G	46988346.06	46988346.15	46988346.25	0.0276	0.0203
Moon	123940-12-28 09:48 G	46989576.71	46989576.91	46989577.11	0.0276	0.0156
Earth	123940-12-28 12:12 G	46989576.81	46989577.01	46989577.23	0.0276	0.0142 *
Earth	123942-01-10 12:55 G	46989954.81	46989955.04	46989955.28	0.0277	0.0075
Moon	123942-01-10 15:05 G	46989954.90	46989955.13	46989955.37	0.0277	0.0062 *
Venus	123950-04-08 01:09 G	46992964.34	46992964.55	46992964.77	0.0282	0.0038
Mercury	123951-12-02 16:31 G	46993568.05	46993568.19	46993568.33	0.0283	0.0122

Mercury	123952-02-29 09:19 G	46993656.73	46993656.89	46993657.05	0.0283	0.0050
Mercury	123952-05-28 02:21 G	46993745.51	46993745.60	46993745.70	0.0283	0.0227
Moon	123955-07-02 23:43 G	46994876.30	46994876.49	46994876.70	0.0282	0.0172
Earth	123955-07-02 23:57 G	46994876.31	46994876.50	46994876.70	0.0282	0.0166 *
Moon	123956-07-15 00:12 G	46995254.27	46995254.51	46995254.75	0.0282	0.0047
Earth	123956-07-15 03:33 G	46995254.42	46995254.65	46995254.89	0.0282	0.0061 *
Moon	123957-07-28 01:53 G	46995632.53	46995632.58	46995632.66	0.0281	0.0269
Venus	123964-09-19 02:21 G	46998242.39	46998242.60	46998242.80	0.0277	0.0023
Mercury	123966-07-09 12:55 G	46998900.91	46998901.04	46998901.18	0.0277	0.0139
Mercury	123966-10-06 03:33 G	46998989.50	46998989.65	46998989.80	0.0277	0.0016
Mercury	123967-01-02 17:43 G	46999078.12	46999078.24	46999078.36	0.0277	0.0167
Moon	123969-12-23 07:09 G	47000163.69	47000163.80	47000163.93	0.0277	0.0245
Earth	123969-12-23 09:05 G	47000163.76	47000163.88	47000164.02	0.0277	0.0234 *
Moon	123971-01-05 05:43 G	47000541.50	47000541.74	47000541.99	0.0277	0.0019
Earth	123971-01-05 09:05 G	47000541.64	47000541.88	47000542.13	0.0277	0.0019 *
Earth	123972-01-18 12:26 G	47000919.86	47000920.02	47000920.20	0.0277	0.0202
Moon	123972-01-18 12:41 G	47000919.89	47000920.03	47000920.19	0.0277	0.0212 *
Venus	123979-03-03 17:43 G	47003521.16	47003521.24	47003521.35	0.0282	0.0251
Venus	123979-10-19 13:53 G	47003750.88	47003751.08	47003751.28	0.0282	0.0106
Mercury	123981-04-20 19:38 G	47004300.19	47004300.32	47004300.46	0.0283	0.0146
Mercury	123981-07-18 12:26 G	47004388.86	47004389.02	47004389.18	0.0283	0.0027
Mercury	123981-10-15 05:29 G	47004477.62	47004477.73	47004477.84	0.0283	0.0203
Earth	123984-06-26 22:17 G	47005463.36	47005463.43	47005463.54	0.0283	0.0262
Moon	123984-06-27 02:07 G	47005463.57	47005463.59	47005463.64	0.0283	0.0279
Earth	123985-07-10 03:33 G	47005841.42	47005841.65	47005841.90	0.0282	0.0035
Moon	123985-07-10 05:43 G	47005841.49	47005841.74	47005841.98	0.0282	0.0049 *
Moon	123986-07-23 01:38 G	47006219.40	47006219.57	47006219.77	0.0282	0.0189
Earth	123986-07-23 05:00 G	47006219.53	47006219.71	47006219.88	0.0282	0.0190 *
Venus	123994-04-01 09:05 G	47009028.67	47009028.88	47009029.08	0.0276	0.0028
Mercury	123995-11-26 14:50 G	47009633.01	47009633.12	47009633.24	0.0276	0.0177

Mercury	123996-02-23 05:29 G	47009721.58	47009721.73	47009721.88	0.0276	0.0022
Mercury	123996-05-21 19:38 G	47009810.19	47009810.32	47009810.46	0.0276	0.0130
Moon	123999-12-30 22:45 G	47011128.21	47011128.45	47011128.69	0.0276	0.0101
Earth	123999-12-30 23:14 G	47011128.25	47011128.47	47011128.70	0.0276	0.0114 *

125TH MILLENNIUM CE

This is a list of transits visible from Saturn in the 125th millennium CE.

PLANET	MAX- TRANSIT TIME	C	START	MAX	END	SUNRAD	DEPTH	S
Moon	124001-01-11 20:36 G	47011506.13	47011506.36	47011506.58	0.0277	0.0119		
Earth	124001-01-12 00:26 G	47011506.29	47011506.52	47011506.75	0.0277	0.0103 *		
Venus	124008-09-12 20:21 G	47014307.22	47014307.35	47014307.50	0.0282	0.0212		
Venus	124009-04-30 16:17 G	47014537.00	47014537.18	47014537.37	0.0282	0.0145		
Mercury	124010-09-07 19:09 G	47015032.20	47015032.30	47015032.41	0.0283	0.0206		
Mercury	124010-12-05 11:43 G	47015120.84	47015120.99	47015121.15	0.0283	0.0036		
Mercury	124011-03-04 04:31 G	47015209.56	47015209.69	47015209.84	0.0283	0.0139		
Earth	124014-07-04 11:43 G	47016427.78	47016427.99	47016428.20	0.0282	0.0137		
Moon	124014-07-04 14:36 G	47016427.90	47016428.11	47016428.31	0.0282	0.0136 *		
Earth	124015-07-17 14:50 G	47016805.89	47016806.12	47016806.35	0.0282	0.0090		
Moon	124015-07-17 17:29 G	47016806.00	47016806.23	47016806.47	0.0282	0.0102 *		
Mars	124017-06-19 07:24 G	47017508.54	47017508.81	47017509.10	0.0281	0.0111		
Venus	124023-02-25 08:07 G	47019585.76	47019585.84	47019585.93	0.0277	0.0248		
Venus	124023-10-12 12:26 G	47019814.82	47019815.02	47019815.22	0.0277	0.0071		
Mercury	124025-04-14 16:02 G	47020365.09	47020365.17	47020365.27	0.0277	0.0221		

Mercury	124025-07-12 06:55 G	47020453.64	47020453.79	47020453.94	0.0277	0.0064
Mercury	124025-10-08 21:19 G	47020542.25	47020542.39	47020542.53	0.0277	0.0089
Mercury	124026-01-05 11:14 G	47020630.90	47020630.97	47020631.05	0.0277	0.0239
Earth	124028-12-24 17:43 G	47021715.08	47021715.24	47021715.40	0.0277	0.0209
Moon	124028-12-24 21:19 G	47021715.22	47021715.39	47021715.57	0.0277	0.0196 *
Earth	124030-01-06 18:12 G	47022093.01	47022093.26	47022093.51	0.0277	0.0008
Moon	124030-01-06 19:24 G	47022093.06	47022093.31	47022093.57	0.0277	0.0013 *
Moon	124031-01-19 19:24 G	47022471.16	47022471.31	47022471.47	0.0277	0.0222
Earth	124031-01-19 22:02 G	47022471.29	47022471.42	47022471.57	0.0277	0.0228 *
Venus	124038-03-26 08:36 G	47025093.68	47025093.86	47025094.05	0.0282	0.0145
Venus	124038-11-11 04:31 G	47025323.55	47025323.69	47025323.83	0.0282	0.0212
Mercury	124040-01-25 22:31 G	47025764.35	47025764.44	47025764.53	0.0283	0.0230
Mercury	124040-04-23 14:50 G	47025852.97	47025853.12	47025853.28	0.0283	0.0061
Mercury	124040-07-21 07:53 G	47025941.68	47025941.83	47025941.97	0.0283	0.0114
Moon	124043-06-29 07:38 G	47027014.68	47027014.82	47027014.98	0.0283	0.0220
Earth	124043-06-29 10:31 G	47027014.82	47027014.94	47027015.09	0.0283	0.0233 *
Earth	124044-07-11 15:33 G	47027392.90	47027393.15	47027393.39	0.0282	0.0006
Moon	124044-07-11 17:00 G	47027392.98	47027393.21	47027393.45	0.0282	0.0010 *
Earth	124045-07-24 16:02 G	47027771.03	47027771.17	47027771.33	0.0282	0.0219
Moon	124045-07-24 19:53 G	47027771.20	47027771.33	47027771.48	0.0282	0.0228 *
Venus	124052-09-06 15:48 G	47030372.02	47030372.16	47030372.31	0.0277	0.0195
Venus	124053-04-23 19:38 G	47030601.14	47030601.32	47030601.51	0.0276	0.0123
Mercury	124054-09-01 18:26 G	47031097.22	47031097.27	47031097.33	0.0276	0.0255
Mercury	124054-11-29 09:05 G	47031185.74	47031185.88	47031186.03	0.0276	0.0100
Mercury	124055-02-25 23:43 G	47031274.34	47031274.49	47031274.63	0.0276	0.0054
Mercury	124055-05-25 13:38 G	47031362.98	47031363.07	47031363.17	0.0276	0.0203
Earth	124059-01-01 09:19 G	47032679.66	47032679.89	47032680.13	0.0276	0.0086
Moon	124059-01-01 12:26 G	47032679.80	47032680.02	47032680.25	0.0276	0.0099 *
Earth	124060-01-14 10:45 G	47033057.73	47033057.95	47033058.17	0.0277	0.0131
Moon	124060-01-14 13:53 G	47033057.86	47033058.08	47033058.32	0.0277	0.0115 *

Venus	124067-10-06 11:14 G	47035879.77	47035879.97	47035880.17	0.0282	0.0106
Venus	124068-05-23 06:41 G	47036109.69	47036109.78	47036109.89	0.0282	0.0251
Mercury	124069-09-10 14:07 G	47036584.96	47036585.09	47036585.24	0.0283	0.0123
Mercury	124069-12-08 06:55 G	47036673.64	47036673.79	47036673.95	0.0283	0.0050
Mercury	124070-03-06 23:57 G	47036762.41	47036762.50	47036762.60	0.0283	0.0226
Moon	124073-07-05 19:24 G	47037979.10	47037979.31	47037979.54	0.0282	0.0109
Earth	124073-07-05 23:00 G	47037979.23	47037979.46	47037979.68	0.0282	0.0108 *
Moon	124074-07-19 01:24 G	47038357.35	47038357.56	47038357.79	0.0282	0.0110
Earth	124074-07-19 01:38 G	47038357.36	47038357.57	47038357.80	0.0282	0.0119 *
Venus	124082-03-19 18:26 G	47041158.10	47041158.27	47041158.44	0.0277	0.0155
Venus	124082-11-03 22:31 G	47041387.28	47041387.44	47041387.61	0.0277	0.0164
Mercury	124084-04-17 10:17 G	47041917.80	47041917.93	47041918.06	0.0277	0.0145
Mercury	124084-07-15 00:55 G	47042006.39	47042006.54	47042006.69	0.0276	0.0012
Mercury	124084-10-11 15:05 G	47042095.01	47042095.13	47042095.25	0.0276	0.0161
Moon	124087-12-26 23:14 G	47043266.31	47043266.47	47043266.64	0.0277	0.0199
Earth	124087-12-27 01:53 G	47043266.40	47043266.58	47043266.77	0.0277	0.0183 *
Earth	124089-01-08 02:21 G	47043644.36	47043644.60	47043644.85	0.0277	0.0034
Moon	124089-01-08 03:48 G	47043644.42	47043644.66	47043644.90	0.0277	0.0025 *
Earth	124090-01-21 06:26 G	47044022.68	47044022.77	47044022.88	0.0278	0.0253
Moon	124090-01-21 10:02 G	47044022.83	47044022.92	47044023.03	0.0278	0.0255 *
Venus	124097-04-17 22:17 G	47046666.22	47046666.43	47046666.65	0.0282	0.0043
Mercury	124099-01-28 17:00 G	47047317.08	47047317.21	47047317.35	0.0283	0.0150
Mercury	124099-04-27 09:48 G	47047405.75	47047405.91	47047406.07	0.0283	0.0022
Mercury	124099-07-25 02:36 G	47047494.50	47047494.61	47047494.73	0.0283	0.0198
Moon	124102-07-01 21:19 G	47048566.23	47048566.39	47048566.56	0.0283	0.0216
Earth	124102-07-01 21:19 G	47048566.24	47048566.39	47048566.57	0.0283	0.0204 *
Moon	124103-07-14 22:31 G	47048944.20	47048944.44	47048944.69	0.0282	0.0008
Earth	124103-07-15 02:21 G	47048944.35	47048944.60	47048944.84	0.0282	0.0024 *
Moon	124104-07-27 00:26 G	47049322.40	47049322.52	47049322.66	0.0282	0.0235
Earth	124104-07-27 02:36 G	47049322.51	47049322.61	47049322.74	0.0282	0.0247 *

Venus	124111-10-01 02:21 G	47051944.41	47051944.60	47051944.79	0.0277	0.0101
Venus	124112-05-17 06:12 G	47052173.63	47052173.76	47052173.89	0.0276	0.0217
Mercury	124113-09-05 12:41 G	47052649.92	47052650.03	47052650.15	0.0276	0.0179
Mercury	124113-12-03 03:19 G	47052738.49	47052738.64	47052738.79	0.0276	0.0025
Mercury	124114-03-01 17:29 G	47052827.10	47052827.23	47052827.37	0.0276	0.0127
Mercury	124114-05-29 07:24 G	47052915.81	47052915.81	47052915.83	0.0276	0.0275
Moon	124116-12-21 17:43 G	47053853.21	47053853.24	47053853.29	0.0276	0.0272
Earth	124116-12-21 20:07 G	47053853.30	47053853.34	47053853.39	0.0276	0.0270
Moon	124118-01-03 14:21 G	47054230.86	47054231.10	47054231.34	0.0276	0.0053
Earth	124118-01-03 17:57 G	47054231.02	47054231.25	47054231.50	0.0276	0.0060 *
Earth	124119-01-16 19:38 G	47054609.12	47054609.32	47054609.53	0.0277	0.0158
Moon	124119-01-16 19:38 G	47054609.14	47054609.32	47054609.51	0.0277	0.0172 *
Venus	124126-10-30 01:09 G	47057452.33	47057452.55	47057452.77	0.0282	0.0003
Mercury	124128-06-17 16:31 G	47058049.09	47058049.19	47058049.30	0.0283	0.0210
Mercury	124128-09-14 09:05 G	47058137.72	47058137.88	47058138.04	0.0283	0.0040
Mercury	124128-12-12 01:53 G	47058226.44	47058226.58	47058226.72	0.0283	0.0134
Earth	124132-07-08 09:19 G	47059530.66	47059530.89	47059531.13	0.0282	0.0080
Moon	124132-07-08 11:14 G	47059530.73	47059530.97	47059531.21	0.0282	0.0086 *
Moon	124133-07-21 09:19 G	47059908.69	47059908.89	47059909.11	0.0282	0.0151
Earth	124133-07-21 11:43 G	47059908.79	47059908.99	47059909.21	0.0282	0.0147 *
Venus	124141-04-12 04:02 G	47062730.47	47062730.67	47062730.87	0.0277	0.0064
Venus	124141-11-27 07:53 G	47062959.76	47062959.83	47062959.92	0.0277	0.0255
Mercury	124143-01-23 13:09 G	47063381.97	47063382.05	47063382.14	0.0276	0.0230
Mercury	124143-04-22 04:02 G	47063470.52	47063470.67	47063470.81	0.0276	0.0074
Mercury	124143-07-19 18:26 G	47063559.12	47063559.27	47063559.41	0.0276	0.0079
Mercury	124143-10-16 08:36 G	47063647.78	47063647.86	47063647.94	0.0276	0.0229
Moon	124146-12-29 08:36 G	47064817.64	47064817.86	47064818.08	0.0277	0.0142
Earth	124146-12-29 08:36 G	47064817.66	47064817.86	47064818.06	0.0277	0.0158 *
Moon	124148-01-11 05:29 G	47065195.50	47065195.73	47065195.98	0.0277	0.0069
Earth	124148-01-11 09:05 G	47065195.64	47065195.88	47065196.13	0.0277	0.0059 *

Moon	124149-01-23 11:57 G	47065574.00	47065574.00	47065574.01	0.0278	0.0277
Earth	124149-01-23 13:24 G	47065574.05	47065574.06	47065574.08	0.0278	0.0277
Mars	124149-12-09 12:41 G	47065893.83	47065894.03	47065894.26	0.0278	0.0180
Venus	124156-05-11 10:31 G	47068238.73	47068238.94	47068239.16	0.0282	0.0056
Mercury	124157-11-04 18:55 G	47068781.21	47068781.29	47068781.37	0.0283	0.0243
Mercury	124158-02-01 11:29 G	47068869.82	47068869.98	47068870.13	0.0283	0.0074
Mercury	124158-05-01 04:02 G	47068958.53	47068958.67	47068958.83	0.0283	0.0100
Mercury	124158-07-28 21:19 G	47069047.36	47069047.39	47069047.42	0.0283	0.0277
Earth	124161-07-03 06:12 G	47070117.58	47070117.76	47070117.96	0.0283	0.0176
Moon	124161-07-03 09:05 G	47070117.70	47070117.88	47070118.08	0.0283	0.0165 *
Earth	124162-07-16 11:00 G	47070495.72	47070495.96	47070496.20	0.0282	0.0052
Moon	124162-07-16 14:21 G	47070495.86	47070496.10	47070496.34	0.0282	0.0067 *
Earth	124163-07-29 11:29 G	47070873.93	47070873.98	47070874.04	0.0282	0.0273
Venus	124170-10-23 12:12 G	47073516.81	47073517.01	47073517.22	0.0276	0.0011
Mercury	124172-06-11 15:48 G	47074114.12	47074114.16	47074114.21	0.0276	0.0261
Mercury	124172-09-08 06:26 G	47074202.64	47074202.77	47074202.92	0.0276	0.0106
Mercury	124172-12-05 21:05 G	47074291.23	47074291.38	47074291.53	0.0276	0.0047
Mercury	124173-03-04 11:14 G	47074379.87	47074379.97	47074380.07	0.0275	0.0197
Earth	124175-12-24 03:33 G	47075404.55	47075404.65	47075404.77	0.0276	0.0245
Moon	124175-12-24 07:24 G	47075404.68	47075404.81	47075404.93	0.0276	0.0236 *
Earth	124177-01-05 01:38 G	47075782.33	47075782.57	47075782.82	0.0276	0.0033
Moon	124177-01-05 03:05 G	47075782.37	47075782.63	47075782.88	0.0276	0.0037 *
Moon	124178-01-18 00:12 G	47076160.31	47076160.51	47076160.71	0.0277	0.0168
Earth	124178-01-18 03:19 G	47076160.46	47076160.64	47076160.83	0.0277	0.0184 *
Venus	124185-04-05 17:43 G	47078795.16	47078795.24	47078795.32	0.0282	0.0260
Venus	124185-11-21 13:24 G	47079024.86	47079025.06	47079025.27	0.0282	0.0096
Mercury	124187-06-21 10:45 G	47079601.82	47079601.95	47079602.09	0.0283	0.0135
Mercury	124187-09-18 03:33 G	47079690.49	47079690.65	47079690.80	0.0283	0.0038
Mercury	124187-12-15 20:21 G	47079779.25	47079779.35	47079779.46	0.0283	0.0213
Moon	124190-06-27 08:21 G	47080703.78	47080703.85	47080703.94	0.0283	0.0264

Earth	124190-06-27 11:29 G	47080703.94	47080703.98	47080704.01	0.0283	0.0279	*
Earth	124191-07-10 17:43 G	47081082.00	47081082.24	47081082.48	0.0282	0.0052	
Moon	124191-07-10 18:55 G	47081082.06	47081082.29	47081082.52	0.0282	0.0043	*
Earth	124192-07-22 20:07 G	47081460.15	47081460.34	47081460.53	0.0282	0.0173	
Moon	124192-07-22 23:29 G	47081460.30	47081460.48	47081460.68	0.0282	0.0171	*
Venus	124200-05-05 13:09 G	47084302.84	47084303.05	47084303.26	0.0277	0.0026	
Mercury	124202-01-27 06:41 G	47084934.66	47084934.78	47084934.91	0.0276	0.0160	
Mercury	124202-04-25 21:19 G	47085023.24	47085023.39	47085023.55	0.0276	0.0009	
Mercury	124202-07-23 11:43 G	47085111.86	47085111.99	47085112.12	0.0276	0.0146	
Earth	124205-12-31 13:24 G	47086368.86	47086369.06	47086369.29	0.0277	0.0134	
Moon	124205-12-31 16:45 G	47086369.00	47086369.20	47086369.40	0.0277	0.0149	*
Earth	124207-01-13 14:07 G	47086746.86	47086747.09	47086747.33	0.0277	0.0083	
Moon	124207-01-13 17:00 G	47086746.96	47086747.21	47086747.45	0.0277	0.0070	*
Venus	124214-10-18 01:24 G	47089581.42	47089581.56	47089581.71	0.0282	0.0207	
Venus	124215-06-04 21:33 G	47089811.22	47089811.40	47089811.59	0.0282	0.0150	
Mercury	124216-11-08 12:41 G	47090333.91	47090334.03	47090334.15	0.0283	0.0173	
Mercury	124217-02-05 05:14 G	47090422.56	47090422.72	47090422.88	0.0283	0.0002	
Mercury	124217-05-04 22:17 G	47090511.30	47090511.43	47090511.55	0.0283	0.0173	
Moon	124220-07-05 09:48 G	47091668.72	47091668.91	47091669.12	0.0283	0.0155	
Earth	124220-07-05 13:38 G	47091668.86	47091669.07	47091669.28	0.0283	0.0148	*
Moon	124221-07-18 17:57 G	47092047.02	47092047.25	47092047.48	0.0283	0.0066	
Earth	124221-07-18 18:12 G	47092047.03	47092047.26	47092047.50	0.0283	0.0079	*
Venus	124229-03-31 17:43 G	47094860.13	47094860.24	47094860.35	0.0277	0.0236	
Venus	124229-11-15 21:19 G	47095089.20	47095089.39	47095089.59	0.0276	0.0081	
Mercury	124231-06-16 09:19 G	47095666.79	47095666.89	47095667.01	0.0276	0.0191	
Mercury	124231-09-13 00:12 G	47095755.36	47095755.51	47095755.66	0.0275	0.0037	
Mercury	124231-12-10 14:21 G	47095843.97	47095844.10	47095844.24	0.0275	0.0115	
Mercury	124232-03-08 04:17 G	47095932.65	47095932.68	47095932.73	0.0275	0.0263	
Moon	124234-12-26 06:55 G	47096955.67	47096955.79	47096955.93	0.0275	0.0229	
Earth	124234-12-26 09:19 G	47096955.76	47096955.89	47096956.05	0.0275	0.0220	*

Earth	124236-01-08 07:24 G	47097333.56	47097333.81	47097334.06	0.0276	0.0008
Moon	124236-01-08 09:33 G	47097333.66	47097333.90	47097334.14	0.0276	0.0004 *
Earth	124237-01-20 08:50 G	47097711.72	47097711.87	47097712.04	0.0276	0.0208
Moon	124237-01-20 12:41 G	47097711.89	47097712.03	47097712.19	0.0276	0.0220 *
Mars	124238-05-06 06:12 G	47098182.50	47098182.76	47098183.03	0.0277	0.0087
Venus	124244-04-29 04:31 G	47100367.53	47100367.69	47100367.88	0.0282	0.0166
Venus	124244-12-15 00:26 G	47100597.37	47100597.52	47100597.68	0.0282	0.0191
Mercury	124246-03-28 12:12 G	47101065.93	47101066.01	47101066.10	0.0283	0.0232
Mercury	124246-06-25 04:31 G	47101154.54	47101154.69	47101154.85	0.0283	0.0064
Mercury	124246-09-21 21:19 G	47101243.25	47101243.39	47101243.54	0.0283	0.0110
Earth	124249-06-29 17:43 G	47102255.13	47102255.24	47102255.35	0.0283	0.0253
Moon	124249-06-29 17:29 G	47102255.16	47102255.23	47102255.32	0.0283	0.0268 *
Moon	124250-07-12 20:36 G	47102633.11	47102633.36	47102633.60	0.0282	0.0036
Earth	124250-07-12 23:57 G	47102633.26	47102633.50	47102633.75	0.0282	0.0026 *
Moon	124251-07-26 00:26 G	47103011.37	47103011.52	47103011.70	0.0282	0.0199
Earth	124251-07-26 02:07 G	47103011.43	47103011.59	47103011.77	0.0282	0.0199 *
Venus	124258-10-11 17:29 G	47105646.10	47105646.23	47105646.38	0.0277	0.0205
Venus	124259-05-28 21:33 G	47105875.21	47105875.40	47105875.59	0.0276	0.0113
Mercury	124260-11-02 09:19 G	47106398.83	47106398.89	47106398.96	0.0276	0.0248
Mercury	124261-01-30 00:12 G	47106487.37	47106487.51	47106487.65	0.0276	0.0093
Mercury	124261-04-28 14:36 G	47106575.96	47106576.11	47106576.26	0.0276	0.0060
Mercury	124261-07-26 04:45 G	47106664.61	47106664.70	47106664.80	0.0276	0.0210
Moon	124265-01-01 14:07 G	47107919.87	47107920.09	47107920.33	0.0276	0.0094
Earth	124265-01-01 17:43 G	47107920.02	47107920.24	47107920.47	0.0276	0.0110 *
Earth	124266-01-14 17:57 G	47108298.03	47108298.25	47108298.49	0.0277	0.0107
Moon	124266-01-14 18:12 G	47108298.04	47108298.26	47108298.47	0.0277	0.0122 *
Venus	124273-11-09 11:00 G	47111153.76	47111153.96	47111154.15	0.0282	0.0117
Venus	124274-06-27 06:55 G	47111383.68	47111383.79	47111383.91	0.0282	0.0240
Mercury	124275-08-15 13:24 G	47111798.03	47111798.06	47111798.09	0.0283	0.0276
Mercury	124275-11-12 05:43 G	47111886.60	47111886.74	47111886.89	0.0283	0.0108

Mercury	124276-02-08 22:31 G	47111975.28	47111975.44	47111975.59	0.0283	0.0065
Mercury	124276-05-07 15:19 G	47112064.07	47112064.14	47112064.23	0.0283	0.0242
Earth	124279-07-07 17:29 G	47113220.02	47113220.23	47113220.46	0.0283	0.0123
Moon	124279-07-07 18:55 G	47113220.07	47113220.29	47113220.53	0.0283	0.0118 *
Moon	124280-07-19 19:24 G	47113598.10	47113598.31	47113598.55	0.0283	0.0120
Earth	124280-07-19 22:31 G	47113598.22	47113598.44	47113598.67	0.0283	0.0104 *
Venus	124288-04-23 01:53 G	47116432.41	47116432.58	47116432.76	0.0277	0.0149
Venus	124288-12-08 05:29 G	47116661.57	47116661.73	47116661.90	0.0276	0.0168
Mercury	124290-06-19 02:50 G	47117219.49	47117219.62	47117219.76	0.0275	0.0123
Mercury	124290-09-15 17:29 G	47117308.08	47117308.23	47117308.38	0.0275	0.0031
Mercury	124290-12-13 07:38 G	47117396.71	47117396.82	47117396.93	0.0275	0.0180
Moon	124293-12-27 13:09 G	47118506.87	47118507.05	47118507.25	0.0275	0.0184
Earth	124293-12-27 13:53 G	47118506.92	47118507.08	47118507.26	0.0275	0.0195 *
Moon	124295-01-09 08:07 G	47118884.59	47118884.84	47118885.09	0.0276	0.0018
Earth	124295-01-09 11:57 G	47118884.75	47118885.00	47118885.25	0.0276	0.0017 *
Moon	124296-01-22 11:43 G	47119262.86	47119262.99	47119263.13	0.0276	0.0224
Earth	124296-01-22 12:55 G	47119262.92	47119263.04	47119263.19	0.0276	0.0232 *
Venus	124303-05-23 14:21 G	47121939.89	47121940.10	47121940.31	0.0282	0.0075
Venus	124304-01-08 10:17 G	47122169.92	47122169.93	47122169.94	0.0283	0.0282
Mercury	124305-04-01 05:29 G	47122618.60	47122618.73	47122618.86	0.0283	0.0166
Mercury	124305-06-28 22:02 G	47122707.26	47122707.42	47122707.58	0.0283	0.0005
Mercury	124305-09-25 14:50 G	47122796.00	47122796.12	47122796.24	0.0283	0.0179
Earth	124308-07-01 22:02 G	47123806.29	47123806.42	47123806.57	0.0283	0.0229
Moon	124308-07-02 01:24 G	47123806.41	47123806.56	47123806.73	0.0283	0.0213 *
Earth	124309-07-15 04:45 G	47124184.45	47124184.70	47124184.94	0.0283	0.0004
Moon	124309-07-15 07:24 G	47124184.56	47124184.81	47124185.06	0.0283	0.0013 *
Moon	124310-07-28 05:29 G	47124562.59	47124562.73	47124562.89	0.0282	0.0227
Earth	124310-07-28 06:55 G	47124562.65	47124562.79	47124562.94	0.0282	0.0223 *
Venus	124317-11-04 01:24 G	47127218.38	47127218.56	47127218.75	0.0276	0.0119
Venus	124318-06-21 05:00 G	47127447.57	47127447.71	47127447.86	0.0276	0.0198

Mercury	124319-11-07 02:36 G	47127951.49	47127951.61	47127951.72	0.0276	0.0183
Mercury	124320-02-03 17:14 G	47128040.07	47128040.22	47128040.37	0.0276	0.0029
Mercury	124320-05-02 07:24 G	47128128.68	47128128.81	47128128.95	0.0276	0.0123
Mercury	124320-07-29 21:19 G	47128217.37	47128217.39	47128217.42	0.0276	0.0271
Earth	124324-01-04 20:21 G	47129471.12	47129471.35	47129471.59	0.0276	0.0085
Moon	124324-01-04 21:19 G	47129471.16	47129471.39	47129471.64	0.0276	0.0099 *
Moon	124325-01-16 17:14 G	47129848.99	47129849.22	47129849.45	0.0277	0.0116
Earth	124325-01-16 20:21 G	47129849.14	47129849.35	47129849.58	0.0277	0.0131 *
Mars	124326-09-30 12:55 G	47130470.76	47130471.04	47130471.32	0.0278	0.0033
Venus	124332-12-02 19:09 G	47132726.09	47132726.30	47132726.52	0.0282	0.0031
Mercury	124334-08-19 06:12 G	47133350.66	47133350.76	47133350.86	0.0283	0.0216
Mercury	124334-11-15 22:31 G	47133439.29	47133439.44	47133439.60	0.0283	0.0047
Mercury	124335-02-12 15:19 G	47133528.00	47133528.14	47133528.29	0.0283	0.0127
Earth	124338-07-09 19:38 G	47134771.10	47134771.32	47134771.55	0.0283	0.0099
Moon	124338-07-09 21:48 G	47134771.19	47134771.41	47134771.63	0.0283	0.0104 *
Earth	124339-07-23 00:41 G	47135149.32	47135149.53	47135149.75	0.0283	0.0129
Moon	124339-07-23 04:31 G	47135149.46	47135149.69	47135149.91	0.0283	0.0117 *
Venus	124347-05-17 09:19 G	47138004.69	47138004.89	47138005.09	0.0277	0.0064
Venus	124348-01-01 12:41 G	47138233.96	47138234.03	47138234.13	0.0276	0.0253
Mercury	124349-03-26 05:00 G	47138683.62	47138683.71	47138683.81	0.0276	0.0214
Mercury	124349-06-22 19:53 G	47138772.18	47138772.33	47138772.48	0.0275	0.0059
Mercury	124349-09-19 10:17 G	47138860.79	47138860.93	47138861.07	0.0275	0.0093
Mercury	124349-12-17 00:26 G	47138949.45	47138949.52	47138949.59	0.0275	0.0241
Earth	124352-12-29 17:29 G	47140058.05	47140058.23	47140058.43	0.0275	0.0171
Moon	124352-12-29 20:50 G	47140058.20	47140058.37	47140058.56	0.0275	0.0184 *
Earth	124354-01-11 15:19 G	47140435.90	47140436.14	47140436.39	0.0276	0.0041
Moon	124354-01-11 17:29 G	47140435.98	47140436.23	47140436.49	0.0276	0.0039 *
Moon	124355-01-24 13:38 G	47140814.02	47140814.07	47140814.15	0.0276	0.0267
Earth	124355-01-24 16:31 G	47140814.10	47140814.19	47140814.29	0.0276	0.0255 *
Venus	124362-06-14 23:00 G	47143512.25	47143512.46	47143512.68	0.0282	0.0014

Mercury	124364-01-06 05:57 G	47144082.72	47144082.75	47144082.80	0.0283	0.0272
Mercury	124364-04-03 22:17 G	47144171.29	47144171.43	47144171.58	0.0283	0.0104
Mercury	124364-07-01 15:05 G	47144259.97	47144260.13	47144260.28	0.0283	0.0068
Mercury	124364-09-28 07:53 G	47144348.76	47144348.83	47144348.91	0.0283	0.0244
Moon	124367-07-03 21:19 G	47145357.26	47145357.39	47145357.55	0.0283	0.0223
Earth	124367-07-04 00:41 G	47145357.37	47145357.53	47145357.70	0.0283	0.0205 *
Earth	124368-07-16 07:09 G	47145735.56	47145735.80	47145736.04	0.0283	0.0023
Moon	124368-07-16 07:38 G	47145735.59	47145735.82	47145736.06	0.0283	0.0010 *
Earth	124369-07-29 09:33 G	47146113.78	47146113.90	47146114.01	0.0282	0.0247
Moon	124369-07-29 12:55 G	47146113.93	47146114.04	47146114.17	0.0282	0.0243 *
Venus	124376-11-26 08:36 G	47148790.66	47148790.86	47148791.07	0.0276	0.0036
Mercury	124378-11-09 19:24 G	47149504.18	47149504.31	47149504.45	0.0276	0.0120
Mercury	124379-02-06 10:02 G	47149592.77	47149592.92	47149593.07	0.0276	0.0033
Mercury	124379-05-06 00:12 G	47149681.40	47149681.51	47149681.62	0.0275	0.0183
Moon	124381-12-24 00:41 G	47150644.48	47150644.53	47150644.59	0.0276	0.0267
Earth	124381-12-24 02:21 G	47150644.57	47150644.60	47150644.66	0.0276	0.0271 *
Earth	124383-01-05 22:45 G	47151022.21	47151022.45	47151022.69	0.0276	0.0062
Moon	124383-01-06 01:38 G	47151022.33	47151022.57	47151022.80	0.0276	0.0048 *
Earth	124384-01-18 22:17 G	47151400.23	47151400.43	47151400.64	0.0276	0.0153
Moon	124384-01-19 01:09 G	47151400.36	47151400.55	47151400.76	0.0276	0.0168 *
Venus	124391-12-26 02:21 G	47154298.39	47154298.60	47154298.82	0.0282	0.0053
Mercury	124393-08-21 22:31 G	47154903.31	47154903.44	47154903.57	0.0283	0.0159
Mercury	124393-11-18 15:05 G	47154991.97	47154992.13	47154992.29	0.0283	0.0012
Mercury	124394-02-15 07:53 G	47155080.71	47155080.83	47155080.95	0.0283	0.0187
Moon	124397-07-10 16:45 G	47156321.97	47156322.20	47156322.44	0.0283	0.0074
Earth	124397-07-10 20:21 G	47156322.12	47156322.35	47156322.59	0.0283	0.0076 *
Moon	124398-07-24 00:55 G	47156700.36	47156700.54	47156700.74	0.0283	0.0164
Earth	124398-07-24 01:24 G	47156700.37	47156700.56	47156700.78	0.0283	0.0152 *
Venus	124406-06-08 16:17 G	47159576.97	47159577.18	47159577.38	0.0277	0.0019
Mercury	124408-03-28 22:02 G	47160236.30	47160236.42	47160236.55	0.0276	0.0151

Mercury	124408-06-25 12:41 G	47160324.88	47160325.03	47160325.18	0.0275	0.0004
Mercury	124408-09-22 02:50 G	47160413.50	47160413.62	47160413.75	0.0275	0.0154
Moon	124411-12-31 17:43 G	47161609.04	47161609.24	47161609.46	0.0275	0.0136
Earth	124411-12-31 20:36 G	47161609.15	47161609.36	47161609.57	0.0275	0.0147 *
Earth	124413-01-12 17:57 G	47161987.02	47161987.25	47161987.50	0.0275	0.0066
Moon	124413-01-12 19:53 G	47161987.10	47161987.33	47161987.56	0.0275	0.0066 *
Moon	124414-01-25 22:45 G	47162365.42	47162365.45	47162365.51	0.0276	0.0271
Mars	124415-02-24 05:29 G	47162759.45	47162759.73	47162760.00	0.0277	0.0060
Venus	124420-11-19 11:14 G	47164854.89	47164854.97	47164855.06	0.0282	0.0256
Venus	124421-07-07 07:09 G	47165084.60	47165084.80	47165085.00	0.0282	0.0100
Mercury	124423-01-08 22:31 G	47165635.34	47165635.44	47165635.55	0.0283	0.0213
Mercury	124423-04-07 15:05 G	47165723.97	47165724.13	47165724.28	0.0283	0.0043
Mercury	124423-07-05 07:38 G	47165812.68	47165812.82	47165812.97	0.0283	0.0130
Moon	124426-07-05 02:07 G	47166908.40	47166908.59	47166908.80	0.0283	0.0168
Earth	124426-07-05 02:21 G	47166908.41	47166908.60	47166908.78	0.0283	0.0183 *
Moon	124427-07-18 05:00 G	47167286.48	47167286.71	47167286.96	0.0283	0.0059
Earth	124427-07-18 08:36 G	47167286.63	47167286.86	47167287.11	0.0283	0.0047 *
Moon	124428-07-30 09:19 G	47167664.84	47167664.89	47167664.95	0.0282	0.0274
Earth	124428-07-30 10:45 G	47167664.90	47167664.95	47167665.04	0.0282	0.0270 *
Venus	124435-05-04 11:14 G	47170133.94	47170133.97	47170134.03	0.0277	0.0270
Venus	124435-12-19 15:19 G	47170362.94	47170363.14	47170363.34	0.0276	0.0047
Mercury	124437-08-15 21:33 G	47170968.30	47170968.40	47170968.50	0.0276	0.0213
Mercury	124437-11-12 12:12 G	47171056.86	47171057.01	47171057.16	0.0275	0.0058
Mercury	124438-02-09 02:36 G	47171145.47	47171145.61	47171145.76	0.0275	0.0094
Mercury	124438-05-08 16:45 G	47171234.13	47171234.20	47171234.27	0.0275	0.0242
Moon	124440-12-25 02:07 G	47172195.52	47172195.59	47172195.70	0.0275	0.0256
Earth	124440-12-25 05:00 G	47172195.61	47172195.71	47172195.82	0.0275	0.0247 *
Moon	124442-01-06 21:48 G	47172573.18	47172573.41	47172573.65	0.0276	0.0055
Earth	124442-01-07 01:09 G	47172573.30	47172573.55	47172573.80	0.0276	0.0038 *
Earth	124443-01-20 00:12 G	47172951.33	47172951.51	47172951.71	0.0276	0.0177

Moon	124443-01-20 01:09 G	47172951.35	47172951.55	47172951.74	0.0276	0.0162	*
Venus	124450-06-01 13:24 G	47175640.93	47175641.06	47175641.20	0.0282	0.0220	
Venus	124451-01-17 09:33 G	47175870.71	47175870.90	47175871.09	0.0282	0.0137	
Mercury	124452-05-27 22:31 G	47176367.40	47176367.44	47176367.48	0.0283	0.0270	
Mercury	124452-08-24 14:36 G	47176455.97	47176456.11	47176456.26	0.0283	0.0103	
Mercury	124452-11-21 07:24 G	47176544.66	47176544.81	47176544.96	0.0283	0.0069	
Mercury	124453-02-18 00:12 G	47176633.44	47176633.51	47176633.60	0.0283	0.0246	
Earth	124455-06-29 10:31 G	47177494.92	47177494.94	47177494.97	0.0284	0.0282	
Moon	124455-06-29 14:07 G	47177495.04	47177495.09	47177495.15	0.0284	0.0276	
Earth	124456-07-11 19:53 G	47177873.09	47177873.33	47177873.57	0.0283	0.0053	
Moon	124456-07-11 20:07 G	47177873.09	47177873.34	47177873.59	0.0283	0.0061	*
Moon	124457-07-24 21:33 G	47178251.20	47178251.40	47178251.61	0.0283	0.0158	
Earth	124457-07-25 01:09 G	47178251.36	47178251.55	47178251.74	0.0283	0.0174	*
Venus	124464-11-13 18:41 G	47180920.16	47180920.28	47180920.41	0.0277	0.0216	
Venus	124465-06-30 22:31 G	47181149.26	47181149.44	47181149.64	0.0277	0.0102	
Mercury	124467-01-02 23:57 G	47181700.44	47181700.50	47181700.57	0.0276	0.0244	
Mercury	124467-04-01 14:50 G	47181788.98	47181789.12	47181789.27	0.0276	0.0089	
Mercury	124467-06-29 05:29 G	47181877.58	47181877.73	47181877.87	0.0276	0.0064	
Mercury	124467-09-25 19:38 G	47181966.22	47181966.32	47181966.41	0.0275	0.0213	
Moon	124471-01-01 21:19 G	47183160.17	47183160.39	47183160.62	0.0275	0.0131	
Earth	124471-01-01 23:29 G	47183160.26	47183160.48	47183160.70	0.0275	0.0123	*
Moon	124472-01-14 17:14 G	47183537.99	47183538.22	47183538.45	0.0275	0.0090	
Earth	124472-01-14 20:50 G	47183538.14	47183538.37	47183538.61	0.0275	0.0089	*
Venus	124479-12-12 19:09 G	47186427.13	47186427.30	47186427.48	0.0282	0.0170	
Venus	124480-07-29 14:50 G	47186656.97	47186657.12	47186657.29	0.0282	0.0186	
Mercury	124482-01-11 15:05 G	47187188.00	47187188.13	47187188.27	0.0283	0.0154	
Mercury	124482-04-10 07:38 G	47187276.66	47187276.82	47187276.98	0.0283	0.0017	
Mercury	124482-07-08 00:26 G	47187365.41	47187365.52	47187365.64	0.0283	0.0191	
Earth	124485-07-06 03:05 G	47188459.44	47188459.63	47188459.84	0.0283	0.0160	
Moon	124485-07-06 06:55 G	47188459.60	47188459.79	47188459.99	0.0283	0.0175	*

Earth	124486-07-19 09:33 G	47188837.67	47188837.90	47188838.14	0.0283	0.0070
Moon	124486-07-19 11:00 G	47188837.71	47188837.96	47188838.20	0.0283	0.0060 *
Venus	124494-05-26 18:12 G	47191706.12	47191706.26	47191706.42	0.0277	0.0187
Venus	124495-01-10 22:02 G	47191935.24	47191935.42	47191935.61	0.0276	0.0130
Mercury	124496-08-18 14:21 G	47192520.98	47192521.10	47192521.23	0.0275	0.0150
Mercury	124496-11-15 05:00 G	47192609.56	47192609.71	47192609.86	0.0275	0.0006
Mercury	124497-02-11 19:24 G	47192698.19	47192698.31	47192698.43	0.0275	0.0154
Earth	124499-12-27 07:38 G	47193746.68	47193746.82	47193746.97	0.0275	0.0224
Moon	124499-12-27 10:31 G	47193746.79	47193746.94	47193747.11	0.0275	0.0211 *
Moon	124501-01-09 02:21 G	47194124.34	47194124.60	47194124.85	0.0276	0.0002
Earth	124501-01-09 03:33 G	47194124.41	47194124.65	47194124.90	0.0276	0.0015 *
Moon	124502-01-21 23:14 G	47194502.32	47194502.47	47194502.64	0.0276	0.0209
Earth	124502-01-22 02:50 G	47194502.46	47194502.62	47194502.80	0.0276	0.0199 *
Mars	124503-07-21 03:19 G	47195047.39	47195047.64	47195047.91	0.0277	0.0094
Venus	124509-06-24 20:36 G	47197213.18	47197213.36	47197213.55	0.0282	0.0136
Venus	124510-02-09 16:45 G	47197443.07	47197443.20	47197443.34	0.0282	0.0220
Mercury	124511-06-01 14:50 G	47197920.02	47197920.12	47197920.22	0.0283	0.0214
Mercury	124511-08-29 07:09 G	47198008.64	47198008.80	47198008.95	0.0283	0.0045
Mercury	124511-11-25 23:43 G	47198097.35	47198097.49	47198097.64	0.0283	0.0128
Earth	124514-07-01 10:02 G	47199045.84	47199045.92	47199046.03	0.0284	0.0261
Moon	124514-07-01 11:14 G	47199045.88	47199045.97	47199046.07	0.0284	0.0256 *
Earth	124515-07-14 19:24 G	47199424.07	47199424.31	47199424.56	0.0283	0.0032
Moon	124515-07-14 23:14 G	47199424.23	47199424.47	47199424.71	0.0283	0.0019 *
Earth	124516-07-27 00:41 G	47199802.37	47199802.53	47199802.71	0.0283	0.0196
Moon	124516-07-27 02:50 G	47199802.45	47199802.62	47199802.78	0.0283	0.0211 *
Venus	124523-12-08 00:55 G	47202492.37	47202492.54	47202492.73	0.0277	0.0134
Venus	124524-07-24 05:00 G	47202721.56	47202721.71	47202721.87	0.0277	0.0184
Mercury	124526-01-06 16:45 G	47203253.09	47203253.20	47203253.32	0.0276	0.0182
Mercury	124526-04-05 07:38 G	47203341.67	47203341.82	47203341.97	0.0276	0.0028
Mercury	124526-07-02 22:02 G	47203430.29	47203430.42	47203430.55	0.0276	0.0124

Mercury	124526-09-29 11:57 G	47203518.99	47203519.00	47203519.03	0.0276	0.0272
Earth	124530-01-04 02:36 G	47204711.38	47204711.61	47204711.84	0.0275	0.0100
Moon	124530-01-04 05:57 G	47204711.52	47204711.75	47204711.99	0.0275	0.0094 *
Moon	124531-01-16 23:00 G	47205089.23	47205089.46	47205089.70	0.0275	0.0103
Earth	124531-01-17 00:12 G	47205089.29	47205089.51	47205089.74	0.0275	0.0113 *
Venus	124539-01-05 03:48 G	47207999.46	47207999.66	47207999.87	0.0282	0.0082
Venus	124539-08-22 23:29 G	47208229.44	47208229.48	47208229.54	0.0282	0.0273
Mercury	124540-10-18 15:33 G	47208652.10	47208652.15	47208652.22	0.0283	0.0259
Mercury	124541-01-15 07:53 G	47208740.69	47208740.83	47208740.98	0.0283	0.0092
Mercury	124541-04-14 00:26 G	47208829.37	47208829.52	47208829.68	0.0283	0.0080
Mercury	124541-07-11 17:14 G	47208918.16	47208918.22	47208918.30	0.0283	0.0256
Moon	124544-07-08 04:31 G	47210010.48	47210010.69	47210010.91	0.0284	0.0124
Earth	124544-07-08 05:00 G	47210010.50	47210010.71	47210010.92	0.0284	0.0137 *
Earth	124545-07-21 11:00 G	47210388.74	47210388.96	47210389.20	0.0283	0.0093
Moon	124545-07-21 14:21 G	47210388.88	47210389.10	47210389.33	0.0283	0.0096 *
Venus	124553-06-19 01:09 G	47213278.36	47213278.55	47213278.75	0.0277	0.0103
Venus	124554-02-03 05:00 G	47213507.59	47213507.71	47213507.85	0.0276	0.0214
Mercury	124555-05-26 16:31 G	47213985.12	47213985.19	47213985.27	0.0276	0.0242
Mercury	124555-08-23 07:24 G	47214073.67	47214073.81	47214073.96	0.0275	0.0086
Mercury	124555-11-19 22:02 G	47214162.27	47214162.42	47214162.56	0.0275	0.0066
Mercury	124556-02-16 12:12 G	47214250.92	47214251.01	47214251.10	0.0275	0.0215
Earth	124558-12-29 11:14 G	47215297.81	47215297.97	47215298.15	0.0275	0.0199
Moon	124558-12-29 13:24 G	47215297.91	47215298.06	47215298.21	0.0275	0.0213 *
Earth	124560-01-11 07:24 G	47215675.56	47215675.81	47215676.06	0.0275	0.0011
Moon	124560-01-11 10:45 G	47215675.70	47215675.95	47215676.20	0.0275	0.0005 *
Moon	124561-01-23 06:12 G	47216053.61	47216053.76	47216053.92	0.0276	0.0217
Earth	124561-01-23 06:26 G	47216053.64	47216053.77	47216053.93	0.0276	0.0224 *
Venus	124568-07-17 04:45 G	47218785.48	47218785.70	47218785.91	0.0282	0.0050
Mercury	124570-06-04 07:09 G	47219472.67	47219472.80	47219472.93	0.0283	0.0156
Mercury	124570-08-31 23:43 G	47219561.33	47219561.49	47219561.65	0.0283	0.0015

Mercury	124570-11-28 16:31 G	47219650.07	47219650.19	47219650.31	0.0283	0.0189
Moon	124573-07-02 06:55 G	47220596.68	47220596.79	47220596.92	0.0284	0.0247
Earth	124573-07-02 11:00 G	47220596.83	47220596.96	47220597.09	0.0284	0.0238 *
Moon	124574-07-15 19:09 G	47220975.07	47220975.30	47220975.53	0.0283	0.0023
Earth	124574-07-15 19:53 G	47220975.08	47220975.33	47220975.57	0.0283	0.0010 *
Earth	124575-07-29 00:55 G	47221353.40	47221353.54	47221353.70	0.0283	0.0219
Moon	124575-07-29 04:17 G	47221353.53	47221353.68	47221353.85	0.0283	0.0205 *
Venus	124582-12-30 07:53 G	47224064.63	47224064.83	47224065.03	0.0277	0.0050
Venus	124583-08-16 11:57 G	47224293.96	47224294.00	47224294.06	0.0277	0.0267
Mercury	124584-10-12 18:55 G	47224717.28	47224717.29	47224717.31	0.0276	0.0274
Mercury	124585-01-09 09:48 G	47224805.78	47224805.91	47224806.05	0.0276	0.0118
Mercury	124585-04-08 00:26 G	47224894.37	47224894.52	47224894.68	0.0276	0.0037
Mercury	124585-07-05 14:50 G	47224983.01	47224983.12	47224983.23	0.0276	0.0186
Earth	124589-01-05 06:55 G	47226262.55	47226262.79	47226263.03	0.0275	0.0075
Moon	124589-01-05 08:36 G	47226262.63	47226262.86	47226263.10	0.0275	0.0071 *
Earth	124590-01-18 04:45 G	47226640.49	47226640.70	47226640.91	0.0275	0.0138
Moon	124590-01-18 08:36 G	47226640.66	47226640.86	47226641.07	0.0275	0.0151 *
Mars	124591-12-15 05:43 G	47227336.56	47227336.74	47227336.92	0.0276	0.0214
Venus	124598-01-27 13:24 G	47229571.84	47229572.06	47229572.27	0.0282	0.0009
Mercury	124599-10-22 08:36 G	47230204.75	47230204.86	47230204.98	0.0283	0.0196
Mercury	124600-01-19 00:55 G	47230293.39	47230293.54	47230293.70	0.0283	0.0028
Mercury	124600-04-17 17:43 G	47230382.10	47230382.24	47230382.38	0.0283	0.0146
Moon	124603-07-11 04:16 G	47231561.46	47231561.68	47231561.90	0.0284	0.0118
Earth	124603-07-11 07:52 G	47231561.60	47231561.83	47231562.05	0.0284	0.0113 *
Moon	124604-07-23 12:40 G	47231939.82	47231940.03	47231940.24	0.0283	0.0122
Earth	124604-07-23 13:52 G	47231939.86	47231940.08	47231940.30	0.0283	0.0116 *
Mars	124606-02-23 20:21 G	47232520.27	47232520.35	47232520.44	0.0282	0.0271
Venus	124612-07-12 08:50 G	47234850.66	47234850.87	47234851.08	0.0277	0.0017
Mercury	124614-05-30 09:48 G	47235537.79	47235537.91	47235538.03	0.0276	0.0175
Mercury	124614-08-27 00:40 G	47235626.37	47235626.53	47235626.68	0.0275	0.0022

Mercury	124614-11-23 15:04 G	47235714.99	47235715.13	47235715.26	0.0275	0.0130
Moon	124617-12-31 13:24 G	47236848.87	47236849.06	47236849.27	0.0275	0.0159
Earth	124617-12-31 16:45 G	47236849.01	47236849.20	47236849.39	0.0275	0.0175 *
Earth	124619-01-13 12:26 G	47237226.78	47237227.02	47237227.27	0.0275	0.0036
Moon	124619-01-13 13:24 G	47237226.83	47237227.06	47237227.30	0.0275	0.0047 *
Earth	124620-01-26 11:57 G	47237604.90	47237605.00	47237605.11	0.0276	0.0248
Moon	124620-01-26 15:33 G	47237605.05	47237605.15	47237605.26	0.0276	0.0249 *
Venus	124627-08-10 14:07 G	47240357.88	47240358.09	47240358.31	0.0282	0.0041
Mercury	124629-03-11 07:52 G	47240936.78	47240936.83	47240936.90	0.0283	0.0259
Mercury	124629-06-08 00:12 G	47241025.36	47241025.51	47241025.66	0.0283	0.0092
Mercury	124629-09-04 16:45 G	47241114.05	47241114.20	47241114.35	0.0283	0.0080
Mercury	124629-12-02 09:33 G	47241202.84	47241202.90	47241202.98	0.0283	0.0255
Moon	124632-07-04 12:26 G	47242147.85	47242148.02	47242148.21	0.0284	0.0201
Earth	124632-07-04 13:24 G	47242147.90	47242148.06	47242148.22	0.0284	0.0215 *
Moon	124633-07-17 17:57 G	47242526.01	47242526.25	47242526.50	0.0283	0.0032
Earth	124633-07-17 21:48 G	47242526.17	47242526.41	47242526.66	0.0283	0.0015 *
Moon	124634-07-31 00:40 G	47242904.44	47242904.53	47242904.64	0.0283	0.0254
Earth	124634-07-31 02:36 G	47242904.50	47242904.61	47242904.75	0.0283	0.0242 *
Venus	124642-01-22 14:50 G	47245636.92	47245637.12	47245637.33	0.0277	0.0035
Mercury	124643-10-17 12:12 G	47246269.91	47246270.01	47246270.11	0.0276	0.0208
Mercury	124644-01-14 03:04 G	47246358.48	47246358.63	47246358.78	0.0276	0.0053
Mercury	124644-04-11 17:28 G	47246447.09	47246447.23	47246447.37	0.0276	0.0099
Mercury	124644-07-09 07:52 G	47246535.76	47246535.83	47246535.89	0.0276	0.0248
Moon	124646-12-26 14:50 G	47247436.04	47247436.12	47247436.22	0.0275	0.0257
Earth	124646-12-26 17:00 G	47247436.14	47247436.21	47247436.30	0.0275	0.0259 *
Moon	124648-01-08 08:36 G	47247813.63	47247813.86	47247814.11	0.0275	0.0059
Earth	124648-01-08 12:26 G	47247813.78	47247814.02	47247814.26	0.0275	0.0050 *
Earth	124649-01-20 10:31 G	47248191.75	47248191.94	47248192.15	0.0275	0.0164
Moon	124649-01-20 11:00 G	47248191.76	47248191.96	47248192.16	0.0275	0.0150 *
Venus	124656-07-05 04:02 G	47250914.58	47250914.67	47250914.77	0.0281	0.0251

Venus	124657-02-19 23:57 G	47251144.30	47251144.50	47251144.70	0.0282	0.0102
Mercury	124658-10-26 02:07 G	47251757.45	47251757.59	47251757.73	0.0283	0.0128
Mercury	124659-01-22 18:26 G	47251846.12	47251846.27	47251846.43	0.0283	0.0043
Mercury	124659-04-21 11:14 G	47251934.87	47251934.97	47251935.08	0.0283	0.0216
Earth	124662-07-12 12:12 G	47253112.77	47253113.01	47253113.24	0.0284	0.0088
Moon	124662-07-12 12:40 G	47253112.79	47253113.03	47253113.27	0.0284	0.0087 *
Moon	124663-07-25 14:36 G	47253490.90	47253491.11	47253491.34	0.0283	0.0133
Earth	124663-07-25 17:57 G	47253491.04	47253491.25	47253491.46	0.0283	0.0141 *
Venus	124670-12-18 12:55 G	47256193.95	47256194.04	47256194.13	0.0277	0.0246
Venus	124671-08-04 17:14 G	47256423.02	47256423.22	47256423.42	0.0277	0.0071
Mercury	124673-03-05 12:26 G	47257001.98	47257002.02	47257002.06	0.0276	0.0262
Mercury	124673-06-02 03:19 G	47257090.50	47257090.64	47257090.78	0.0276	0.0106
Mercury	124673-08-29 17:57 G	47257179.10	47257179.25	47257179.40	0.0275	0.0047
Mercury	124673-11-26 08:21 G	47257267.75	47257267.85	47257267.95	0.0275	0.0197
Moon	124677-01-01 22:02 G	47258400.22	47258400.42	47258400.63	0.0275	0.0163
Earth	124677-01-01 23:28 G	47258400.27	47258400.48	47258400.68	0.0275	0.0148 *
Moon	124678-01-14 16:02 G	47258777.93	47258778.17	47258778.41	0.0275	0.0057
Earth	124678-01-14 19:38 G	47258778.08	47258778.32	47258778.56	0.0275	0.0063 *
Earth	124679-01-27 18:55 G	47259156.28	47259156.29	47259156.33	0.0276	0.0274
Mars	124680-05-10 11:43 G	47259624.95	47259624.99	47259625.04	0.0277	0.0273
Venus	124686-01-15 05:00 G	47261700.58	47261700.71	47261700.85	0.0281	0.0218
Venus	124686-09-02 00:55 G	47261930.35	47261930.54	47261930.73	0.0282	0.0135
Mercury	124688-03-14 01:09 G	47262489.45	47262489.55	47262489.67	0.0283	0.0192
Mercury	124688-06-10 17:43 G	47262578.08	47262578.24	47262578.40	0.0283	0.0023
Mercury	124688-09-07 10:16 G	47262666.80	47262666.93	47262667.07	0.0283	0.0150
Earth	124691-07-06 17:28 G	47263699.06	47263699.23	47263699.42	0.0283	0.0191
Moon	124691-07-06 21:33 G	47263699.24	47263699.40	47263699.57	0.0283	0.0207 *
Earth	124692-07-19 01:52 G	47264077.34	47264077.58	47264077.82	0.0283	0.0040
Moon	124692-07-19 03:19 G	47264077.39	47264077.64	47264077.90	0.0283	0.0026 *
Moon	124693-08-01 03:19 G	47264455.56	47264455.64	47264455.75	0.0283	0.0261

Earth	124693-08-01 06:40 G	47264455.70	47264455.78	47264455.87	0.0283	0.0264 *
Mars	124694-07-20 02:36 G	47264808.40	47264808.61	47264808.86	0.0283	0.0187
Venus	124700-06-30 18:12 G	47266980.13	47266980.26	47266980.41	0.0278	0.0198
Venus	124701-02-14 23:00 G	47267209.27	47267209.46	47267209.64	0.0278	0.0122
Mercury	124702-10-21 05:28 G	47267822.60	47267822.73	47267822.87	0.0276	0.0140
Mercury	124703-01-17 20:21 G	47267911.20	47267911.35	47267911.50	0.0276	0.0015
Mercury	124703-04-16 10:45 G	47267999.83	47267999.95	47268000.07	0.0276	0.0166
Earth	124705-12-28 23:14 G	47268987.36	47268987.47	47268987.61	0.0275	0.0236
Moon	124705-12-29 02:50 G	47268987.51	47268987.62	47268987.76	0.0275	0.0236 *
Moon	124707-01-10 18:12 G	47269365.01	47269365.26	47269365.52	0.0275	0.0014
Earth	124707-01-10 19:09 G	47269365.05	47269365.30	47269365.54	0.0275	0.0026 *
Moon	124708-01-23 14:07 G	47269742.92	47269743.09	47269743.25	0.0276	0.0205
Earth	124708-01-23 17:43 G	47269743.07	47269743.24	47269743.43	0.0276	0.0189 *
Venus	124715-07-29 16:16 G	47272487.00	47272487.18	47272487.36	0.0281	0.0153
Venus	124716-03-15 11:57 G	47272716.85	47272717.00	47272717.15	0.0282	0.0200
Mercury	124717-08-02 03:48 G	47273221.57	47273221.66	47273221.76	0.0283	0.0221
Mercury	124717-10-29 20:07 G	47273310.19	47273310.34	47273310.49	0.0283	0.0054
Mercury	124718-01-26 12:40 G	47273398.89	47273399.03	47273399.17	0.0283	0.0118
Earth	124721-07-14 18:55 G	47274664.05	47274664.29	47274664.53	0.0284	0.0061
Moon	124721-07-14 22:16 G	47274664.19	47274664.43	47274664.66	0.0284	0.0059 *
Earth	124722-07-28 00:26 G	47275042.33	47275042.52	47275042.72	0.0283	0.0167
Moon	124722-07-28 02:36 G	47275042.41	47275042.61	47275042.80	0.0283	0.0180 *
Venus	124730-01-10 22:02 G	47277766.25	47277766.42	47277766.59	0.0277	0.0156
Venus	124730-08-28 02:07 G	47277995.43	47277995.59	47277995.77	0.0277	0.0162
Mercury	124732-03-09 06:12 G	47278554.65	47278554.76	47278554.88	0.0276	0.0190
Mercury	124732-06-05 21:04 G	47278643.23	47278643.38	47278643.54	0.0276	0.0035
Mercury	124732-09-02 11:43 G	47278731.85	47278731.99	47278732.13	0.0276	0.0117
Mercury	124732-11-30 01:52 G	47278820.55	47278820.58	47278820.62	0.0275	0.0265
Earth	124736-01-05 07:24 G	47279951.59	47279951.81	47279952.03	0.0275	0.0122
Moon	124736-01-05 10:45 G	47279951.73	47279951.95	47279952.18	0.0275	0.0110 *

Moon	124737-01-17 03:48 G	47280329.42	47280329.66	47280329.90	0.0275	0.0090
Earth	124737-01-17 04:02 G	47280329.44	47280329.67	47280329.91	0.0275	0.0090 *
Venus	124745-02-07 17:28 G	47283273.04	47283273.23	47283273.43	0.0281	0.0119
Venus	124745-09-25 12:55 G	47283502.93	47283503.04	47283503.17	0.0282	0.0234
Mercury	124747-03-18 19:24 G	47284042.17	47284042.31	47284042.45	0.0283	0.0118
Mercury	124747-06-15 11:43 G	47284130.84	47284130.99	47284131.15	0.0283	0.0052
Mercury	124747-09-12 04:31 G	47284219.60	47284219.69	47284219.79	0.0283	0.0226
Moon	124750-07-08 23:43 G	47285250.30	47285250.49	47285250.69	0.0283	0.0151
Earth	124750-07-09 00:12 G	47285250.33	47285250.51	47285250.72	0.0283	0.0166 *
Earth	124751-07-22 07:52 G	47285628.60	47285628.83	47285629.07	0.0283	0.0066
Moon	124751-07-22 11:14 G	47285628.75	47285628.97	47285629.21	0.0283	0.0076 *
Venus	124759-07-24 03:04 G	47288552.45	47288552.63	47288552.83	0.0278	0.0108
Venus	124760-03-09 07:38 G	47288781.69	47288781.82	47288781.96	0.0278	0.0212
Mercury	124761-07-27 08:07 G	47289286.76	47289286.84	47289286.94	0.0277	0.0226
Mercury	124761-10-23 23:14 G	47289375.32	47289375.47	47289375.62	0.0277	0.0069
Mercury	124762-01-20 13:52 G	47289463.94	47289464.08	47289464.23	0.0276	0.0085
Mercury	124762-04-19 04:16 G	47289552.60	47289552.68	47289552.76	0.0276	0.0234
Earth	124764-12-30 07:09 G	47290538.65	47290538.80	47290538.97	0.0276	0.0211
Moon	124764-12-30 08:21 G	47290538.72	47290538.85	47290539.00	0.0276	0.0218 *
Earth	124766-01-12 03:19 G	47290916.39	47290916.64	47290916.89	0.0276	0.0001
Moon	124766-01-12 07:09 G	47290916.56	47290916.80	47290917.05	0.0276	0.0015 *
Earth	124767-01-25 02:36 G	47291294.46	47291294.61	47291294.77	0.0276	0.0215
Moon	124767-01-25 03:48 G	47291294.49	47291294.66	47291294.84	0.0276	0.0200 *
Venus	124774-08-21 05:28 G	47294059.52	47294059.73	47294059.95	0.0281	0.0052
Mercury	124776-08-04 22:16 G	47294774.30	47294774.43	47294774.56	0.0283	0.0144
Mercury	124776-11-01 14:36 G	47294862.95	47294863.11	47294863.27	0.0283	0.0025
Mercury	124777-01-29 07:09 G	47294951.69	47294951.80	47294951.92	0.0283	0.0198
Moon	124779-07-03 15:19 G	47295837.05	47295837.14	47295837.24	0.0284	0.0262
Earth	124779-07-03 18:55 G	47295837.20	47295837.29	47295837.38	0.0284	0.0263 *
Moon	124780-07-16 02:21 G	47296215.36	47296215.60	47296215.83	0.0284	0.0044

Earth	124780-07-16 03:33 G	47296215.41	47296215.65	47296215.90	0.0284	0.0034	*
Earth	124781-07-29 08:36 G	47296593.70	47296593.86	47296594.05	0.0283	0.0195	
Moon	124781-07-29 11:28 G	47296593.80	47296593.98	47296594.17	0.0283	0.0178	*
Mars	124782-12-15 10:31 G	47297097.64	47297097.94	47297098.25	0.0283	0.0048	
Venus	124789-02-02 07:52 G	47299338.63	47299338.83	47299339.03	0.0277	0.0064	
Venus	124789-09-19 12:12 G	47299567.94	47299568.01	47299568.09	0.0277	0.0254	
Mercury	124790-12-14 09:19 G	47300018.87	47300018.89	47300018.92	0.0276	0.0271	
Mercury	124791-03-13 00:26 G	47300107.38	47300107.52	47300107.66	0.0276	0.0114	
Mercury	124791-06-09 15:04 G	47300195.98	47300196.13	47300196.28	0.0276	0.0040	
Mercury	124791-09-06 05:28 G	47300284.63	47300284.73	47300284.84	0.0276	0.0190	
Earth	124795-01-06 16:45 G	47301502.97	47301503.20	47301503.44	0.0275	0.0095	
Moon	124795-01-06 17:00 G	47301503.00	47301503.21	47301503.44	0.0275	0.0104	*
Earth	124796-01-19 13:52 G	47301880.86	47301881.08	47301881.31	0.0275	0.0118	
Moon	124796-01-19 17:28 G	47301881.01	47301881.23	47301881.46	0.0275	0.0119	*
Venus	124804-03-02 07:24 G	47304845.59	47304845.81	47304846.02	0.0281	0.0016	
Mercury	124805-12-22 21:33 G	47305506.30	47305506.40	47305506.51	0.0283	0.0206	
Mercury	124806-03-21 13:52 G	47305594.93	47305595.08	47305595.24	0.0283	0.0038	
Mercury	124806-06-18 06:26 G	47305683.63	47305683.77	47305683.91	0.0283	0.0133	
Moon	124809-07-10 05:57 G	47306801.55	47306801.75	47306801.97	0.0283	0.0152	
Earth	124809-07-10 09:48 G	47306801.70	47306801.91	47306802.13	0.0283	0.0137	*
Moon	124810-07-23 14:36 G	47307179.89	47307180.11	47307180.34	0.0283	0.0084	
Earth	124810-07-23 17:00 G	47307179.98	47307180.21	47307180.44	0.0283	0.0093	*
Venus	124818-08-15 12:40 G	47310124.82	47310125.03	47310125.24	0.0278	0.0017	
Mercury	124820-07-30 02:07 G	47310839.47	47310839.59	47310839.72	0.0277	0.0152	
Mercury	124820-10-26 17:00 G	47310928.06	47310928.21	47310928.37	0.0277	0.0009	
Mercury	124821-01-23 07:38 G	47311016.70	47311016.82	47311016.95	0.0276	0.0155	
Moon	124824-01-01 11:43 G	47312089.81	47312089.99	47312090.19	0.0276	0.0175	
Earth	124824-01-01 15:33 G	47312089.98	47312090.15	47312090.35	0.0276	0.0186	*
Moon	124825-01-13 11:43 G	47312467.75	47312467.99	47312468.22	0.0276	0.0042	
Earth	124825-01-13 12:26 G	47312467.77	47312468.02	47312468.26	0.0276	0.0027	*

Earth	124826-01-26 11:57 G	47312845.89	47312846.00	47312846.13	0.0276	0.0241
Moon	124826-01-26 15:19 G	47312846.06	47312846.14	47312846.25	0.0276	0.0253 *
Venus	124833-09-12 19:52 G	47315632.12	47315632.33	47315632.54	0.0281	0.0052
Mercury	124835-05-12 00:55 G	47316238.45	47316238.54	47316238.63	0.0283	0.0229
Mercury	124835-08-08 17:00 G	47316327.06	47316327.21	47316327.37	0.0283	0.0062
Mercury	124835-11-05 09:33 G	47316415.75	47316415.90	47316416.04	0.0283	0.0108
Mercury	124836-02-02 02:21 G	47316504.60	47316504.60	47316504.60	0.0283	0.0283
Earth	124838-07-05 05:43 G	47317388.61	47317388.74	47317388.88	0.0284	0.0235
Moon	124838-07-05 06:40 G	47317388.64	47317388.78	47317388.93	0.0284	0.0231 *
Moon	124839-07-18 11:14 G	47317766.72	47317766.97	47317767.22	0.0284	0.0007
Earth	124839-07-18 14:07 G	47317766.85	47317767.09	47317767.33	0.0284	0.0006 *
Moon	124840-07-30 15:48 G	47318145.05	47318145.16	47318145.30	0.0283	0.0238
Earth	124840-07-30 18:55 G	47318145.15	47318145.29	47318145.45	0.0283	0.0221 *
Venus	124848-02-25 18:26 G	47320911.07	47320911.27	47320911.48	0.0277	0.0032
Mercury	124849-12-17 03:48 G	47321571.55	47321571.66	47321571.77	0.0276	0.0193
Mercury	124850-03-15 18:40 G	47321660.13	47321660.28	47321660.44	0.0276	0.0038
Mercury	124850-06-12 09:19 G	47321748.76	47321748.89	47321749.03	0.0276	0.0115
Mercury	124850-09-08 23:28 G	47321837.45	47321837.48	47321837.53	0.0276	0.0264
Moon	124852-12-26 08:36 G	47322676.79	47322676.86	47322676.95	0.0275	0.0259
Earth	124852-12-26 09:04 G	47322676.87	47322676.88	47322676.90	0.0275	0.0274 *
Moon	124854-01-07 23:57 G	47323054.26	47323054.50	47323054.74	0.0275	0.0062
Earth	124854-01-08 03:33 G	47323054.41	47323054.65	47323054.89	0.0275	0.0067 *
Moon	124855-01-21 00:12 G	47323432.31	47323432.51	47323432.72	0.0275	0.0138
Earth	124855-01-21 01:09 G	47323432.34	47323432.55	47323432.76	0.0275	0.0146 *
Venus	124862-08-08 02:21 G	47326188.54	47326188.60	47326188.69	0.0281	0.0262
Venus	124863-03-25 22:02 G	47326418.21	47326418.42	47326418.62	0.0281	0.0090
Mercury	124864-12-25 16:31 G	47327059.05	47327059.19	47327059.33	0.0283	0.0124
Mercury	124865-03-24 08:50 G	47327147.71	47327147.87	47327148.03	0.0283	0.0045
Mercury	124865-06-21 01:24 G	47327236.47	47327236.56	47327236.67	0.0283	0.0218
Earth	124868-07-11 20:21 G	47328353.13	47328353.35	47328353.58	0.0283	0.0109

Moon	124868-07-11 22:31 G	47328353.21	47328353.44	47328353.68	0.0283	0.0095	*
Moon	124869-07-25 00:40 G	47328731.31	47328731.53	47328731.76	0.0283	0.0122	
Earth	124869-07-25 03:19 G	47328731.42	47328731.64	47328731.86	0.0283	0.0120	*
Mars	124871-05-11 03:48 G	47329386.36	47329386.66	47329386.97	0.0282	0.0061	
Venus	124877-01-20 17:43 G	47331468.15	47331468.24	47331468.34	0.0278	0.0244	
Venus	124877-09-06 22:45 G	47331697.25	47331697.45	47331697.65	0.0278	0.0077	
Mercury	124879-05-06 05:14 G	47332303.64	47332303.72	47332303.81	0.0277	0.0234	
Mercury	124879-08-02 20:21 G	47332392.20	47332392.35	47332392.50	0.0277	0.0077	
Mercury	124879-10-30 11:00 G	47332480.82	47332480.96	47332481.11	0.0277	0.0078	
Mercury	124880-01-27 01:24 G	47332569.48	47332569.56	47332569.65	0.0277	0.0228	
Earth	124883-01-03 00:40 G	47333641.34	47333641.53	47333641.74	0.0276	0.0160	
Moon	124883-01-03 01:09 G	47333641.36	47333641.55	47333641.76	0.0276	0.0171	*
Moon	124884-01-15 18:12 G	47334019.02	47334019.26	47334019.51	0.0276	0.0039	
Earth	124884-01-15 22:02 G	47334019.18	47334019.42	47334019.66	0.0276	0.0054	*
Moon	124885-01-27 19:52 G	47334397.26	47334397.33	47334397.42	0.0276	0.0258	
Earth	124885-01-27 21:48 G	47334397.37	47334397.41	47334397.49	0.0276	0.0268	*
Venus	124892-02-18 15:04 G	47336974.98	47336975.13	47336975.29	0.0281	0.0195	
Venus	124892-10-05 10:31 G	47337204.76	47337204.94	47337205.12	0.0281	0.0157	
Mercury	124894-05-14 19:38 G	47337791.20	47337791.32	47337791.46	0.0283	0.0147	
Mercury	124894-08-11 12:12 G	47337879.85	47337880.01	47337880.16	0.0283	0.0023	
Mercury	124894-11-08 04:31 G	47337968.59	47337968.69	47337968.81	0.0283	0.0195	
Earth	124897-07-06 17:57 G	47338940.08	47338940.25	47338940.42	0.0284	0.0205	
Moon	124897-07-06 20:50 G	47338940.22	47338940.37	47338940.54	0.0284	0.0210	*
Earth	124898-07-20 02:07 G	47339318.35	47339318.59	47339318.83	0.0284	0.0025	
Moon	124898-07-20 04:45 G	47339318.45	47339318.70	47339318.95	0.0284	0.0011	*
Moon	124899-08-02 04:31 G	47339696.56	47339696.69	47339696.84	0.0283	0.0234	
Earth	124899-08-02 06:26 G	47339696.67	47339696.77	47339696.89	0.0283	0.0250	*
Venus	124906-08-04 01:09 G	47342254.40	47342254.55	47342254.70	0.0278	0.0192	
Venus	124907-03-21 05:28 G	47342483.55	47342483.73	47342483.92	0.0277	0.0127	
Mercury	124908-09-23 07:09 G	47343035.78	47343035.80	47343035.83	0.0276	0.0271	

Mercury	124908-12-20 22:16 G	47343124.29	47343124.43	47343124.57	0.0276	0.0114
Mercury	124909-03-19 13:09 G	47343212.90	47343213.05	47343213.20	0.0276	0.0040
Mercury	124909-06-16 03:33 G	47343301.54	47343301.65	47343301.76	0.0276	0.0190
Earth	124911-12-29 19:09 G	47344228.20	47344228.30	47344228.41	0.0275	0.0247
Moon	124911-12-29 22:31 G	47344228.37	47344228.44	47344228.53	0.0275	0.0259 *
Earth	124913-01-10 14:07 G	47344605.84	47344606.09	47344606.33	0.0275	0.0039
Moon	124913-01-10 14:50 G	47344605.86	47344606.12	47344606.37	0.0275	0.0039 *
Moon	124914-01-23 08:36 G	47344983.68	47344983.86	47344984.06	0.0275	0.0184
Earth	124914-01-23 11:57 G	47344983.82	47344984.00	47344984.20	0.0275	0.0173 *
Mars	124915-06-10 20:50 G	47345487.31	47345487.37	47345487.44	0.0276	0.0267
Venus	124921-08-31 17:57 G	47347761.07	47347761.25	47347761.43	0.0281	0.0155
Venus	124922-04-18 12:55 G	47347990.90	47347991.04	47347991.21	0.0282	0.0197
Mercury	124923-10-02 19:24 G	47348523.21	47348523.31	47348523.42	0.0283	0.0205
Mercury	124923-12-30 11:43 G	47348611.83	47348611.99	47348612.14	0.0283	0.0039
Mercury	124924-03-28 04:02 G	47348700.53	47348700.67	47348700.81	0.0283	0.0132
Earth	124927-07-15 08:07 G	47349904.61	47349904.84	47349905.08	0.0283	0.0079
Moon	124927-07-15 11:00 G	47349904.74	47349904.96	47349905.19	0.0283	0.0087 *
Earth	124928-07-27 14:21 G	47350282.90	47350283.10	47350283.32	0.0283	0.0149
Moon	124928-07-27 17:28 G	47350283.03	47350283.23	47350283.45	0.0283	0.0151 *
Venus	124936-02-14 04:16 G	47353040.50	47353040.68	47353040.85	0.0278	0.0151
Venus	124936-09-30 08:50 G	47353269.71	47353269.87	47353270.04	0.0278	0.0170
Mercury	124938-05-09 23:28 G	47353856.36	47353856.48	47353856.61	0.0277	0.0158
Mercury	124938-08-06 14:21 G	47353944.95	47353945.10	47353945.26	0.0277	0.0008
Mercury	124938-11-03 05:00 G	47354033.59	47354033.71	47354033.84	0.0277	0.0150
Earth	124942-01-05 09:33 G	47355192.70	47355192.90	47355193.13	0.0276	0.0134
Moon	124942-01-05 13:38 G	47355192.85	47355193.07	47355193.29	0.0276	0.0117 *
Earth	124943-01-18 07:24 G	47355570.57	47355570.81	47355571.04	0.0276	0.0080
Moon	124943-01-18 09:19 G	47355570.65	47355570.89	47355571.13	0.0276	0.0095 *
Venus	124951-03-14 05:57 G	47358547.54	47358547.75	47358547.95	0.0281	0.0091
Venus	124951-10-30 01:09 G	47358777.48	47358777.55	47358777.63	0.0282	0.0262

Mercury	124953-02-18 22:31 G	47359255.36	47359255.44	47359255.54	0.0283	0.0230
Mercury	124953-05-18 14:50 G	47359343.97	47359344.12	47359344.27	0.0283	0.0063
Mercury	124953-08-15 07:09 G	47359432.66	47359432.80	47359432.95	0.0283	0.0107
Mercury	124953-11-11 23:57 G	47359521.49	47359521.50	47359521.52	0.0283	0.0281
Moon	124956-07-09 04:02 G	47360491.48	47360491.67	47360491.87	0.0284	0.0165
Earth	124956-07-09 05:57 G	47360491.57	47360491.75	47360491.95	0.0284	0.0175 *
Earth	124957-07-22 13:52 G	47360869.84	47360870.08	47360870.32	0.0284	0.0054
Moon	124957-07-22 16:02 G	47360869.94	47360870.17	47360870.40	0.0284	0.0071 *
Earth	124958-08-04 17:43 G	47361248.22	47361248.24	47361248.30	0.0283	0.0279
Mars	124959-10-07 07:38 G	47361676.69	47361676.82	47361676.97	0.0283	0.0251
Venus	124965-08-26 12:26 G	47363826.82	47363827.02	47363827.21	0.0278	0.0096
Venus	124966-04-12 16:45 G	47364056.08	47364056.20	47364056.32	0.0277	0.0222
Mercury	124967-09-27 01:38 G	47364588.47	47364588.57	47364588.69	0.0276	0.0192
Mercury	124967-12-24 16:45 G	47364677.05	47364677.20	47364677.35	0.0276	0.0036
Mercury	124968-03-22 07:24 G	47364765.67	47364765.81	47364765.95	0.0276	0.0116
Mercury	124968-06-18 21:33 G	47364854.37	47364854.40	47364854.45	0.0276	0.0265
Moon	124970-12-31 04:31 G	47365779.56	47365779.69	47365779.85	0.0275	0.0215
Earth	124970-12-31 05:00 G	47365779.58	47365779.71	47365779.87	0.0275	0.0221 *
Earth	124972-01-13 00:26 G	47366157.27	47366157.52	47366157.77	0.0275	0.0012
Moon	124972-01-13 03:48 G	47366157.41	47366157.66	47366157.90	0.0275	0.0015 *
Earth	124973-01-24 22:45 G	47366535.28	47366535.45	47366535.62	0.0275	0.0201
Moon	124973-01-25 00:40 G	47366535.36	47366535.53	47366535.73	0.0275	0.0189 *
Venus	124980-09-23 08:50 G	47369333.66	47369333.87	47369334.09	0.0281	0.0050
Mercury	124982-10-05 14:21 G	47370075.96	47370076.10	47370076.24	0.0283	0.0123
Mercury	124983-01-02 06:40 G	47370164.63	47370164.78	47370164.94	0.0283	0.0046
Mercury	124983-03-31 23:28 G	47370253.38	47370253.48	47370253.58	0.0283	0.0218
Moon	124985-07-03 07:09 G	47371077.73	47371077.80	47371077.89	0.0283	0.0267
Earth	124985-07-03 10:31 G	47371077.91	47371077.94	47371078.00	0.0283	0.0279
Moon	124986-07-16 17:28 G	47371456.00	47371456.23	47371456.47	0.0283	0.0045
Earth	124986-07-16 20:21 G	47371456.11	47371456.35	47371456.59	0.0283	0.0050 *

Earth	124987-07-30 02:07 G	47371834.41	47371834.59	47371834.79	0.0283	0.0178
Moon	124987-07-30 03:33 G	47371834.47	47371834.65	47371834.84	0.0283	0.0173 *
Venus	124995-03-08 14:50 G	47374612.92	47374613.12	47374613.32	0.0278	0.0056
Venus	124995-10-23 19:24 G	47374842.25	47374842.31	47374842.37	0.0278	0.0263
Mercury	124997-02-13 02:36 G	47375320.54	47375320.61	47375320.69	0.0277	0.0240
Mercury	124997-05-12 17:43 G	47375409.09	47375409.24	47375409.39	0.0277	0.0083
Mercury	124997-08-09 08:36 G	47375497.71	47375497.86	47375498.00	0.0277	0.0072
Mercury	124997-11-05 23:00 G	47375586.37	47375586.46	47375586.55	0.0276	0.0222